

# Monthly Energy Review

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Energy Information Administration



# Monthly Energy Review

The *Monthly Energy Review (MER)* is the Energy Information Administration's (EIA) primary report of recent and historical energy statistics. Included are statistics on total energy production, consumption, trade, and energy prices; overviews of petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, and international petroleum; and data unit conversions.

Release of the *MER* is in keeping with responsibilities given to EIA in Public Law 95-91 (Department of Energy Organization Act), which states, in part, in Section 205(a)(2):

*"The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze, and disseminate data and information...."*

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**Data Displayed:** For tables beginning in 1973, some annual data (usually 1974, 1976-1979, 1981-1984, 1986-1989, and 1991-1994) are not shown in the tables in Portable Document Formats (PDF) files; however, all annual data are shown in the Excel and comma-separated values (CSV) files. Also, only two to three years of monthly data are displayed in the PDF files; however, for many series, monthly data beginning with January 1973 are available in the Excel and CSV files.

**Comprehensive Changes:** Each month, most *MER* tables and figures carry a new month of data, which is usually preliminary (and sometimes estimated or even forecast) and likely to be revised in the succeeding month.

**Annual Data From 1949:** The emphasis of the *MER* is on recent monthly and annual data trends. Analysts may wish to use the data in this report in conjunction with EIA's *Annual Energy Review (AER)* that offers annual data beginning in 1949 for many of the data series found in the *MER*. The *AER* is available at <http://www.eia.doe.gov/aer>.

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- Full report and sections: PDF files
- Report tables: PDF files
- Table data (unrounded): Excel and CSV files
- Graphs: PDF files

Note: PDF files display selected annual and monthly data; Excel and CSV files display all available annual and monthly data, often at a greater level of precision than the PDF files.

**Timing of Release:** *MER* updates are usually posted electronically by the third-to-the-last workday of each month.

# **Monthly Energy Review**

## **June 2009**

**Energy Information Administration**  
Office of Energy Markets and End Use  
U.S. Department of Energy  
Washington, DC 20585

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained herein should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy of the Department of Energy or any other organization.

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On August 1, 2009, after nearly 40 years of Federal government service, Katherine E. (Kitty) Seiferlein will retire. Kitty has been the driving force behind the *Monthly Energy Review* for 387 issues. Kitty's determination to provide timely, useful, and accurate data to our customers while working cooperatively with her team and others in EIA is reflected in her receipt of the prestigious 2008 Administrator's Award for Special Achievement. She leaves with our best wishes for a long and happy life in retirement.

# Contents

	Page
Section      1. Energy Overview.....	1
Section      2. Energy Consumption by Sector.....	21
Section      3. Petroleum.....	35
Section      4. Natural Gas.....	65
Section      5. Crude Oil and Natural Gas Resource Development.....	73
Section      6. Coal.....	79
Section      7. Electricity.....	89
Section      8. Nuclear Energy.....	111
Section      9. Energy Prices.....	115
Section      10. Renewable Energy.....	135
Section      11. International Petroleum.....	145
Appendix     A. British Thermal Unit Conversion Factors.....	155
Appendix     B. Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors.....	167
Glossary.....	171

# Tables

	Page
<b>Section 1. Energy Overview</b>	
1.1 Primary Energy Overview.....	3
1.2 Primary Energy Production by Source.....	5
1.3 Primary Energy Consumption by Source.....	7
1.4a Primary Energy Imports by Source.....	10
1.4b Primary Energy Exports by Source and Total Net Imports.....	11
1.5 Merchandise Trade Value.....	13
1.6 Cost of Fuels to End Users in Real (1982-1984) Dollars.....	15
1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product.....	16
1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates.....	17
1.9 Heating Degree-Days by Census Division.....	18
1.10 Cooling Degree-Days by Census Division.....	19
<b>Section 2. Energy Consumption by Sector</b>	
2.1 Energy Consumption by Sector.....	23
2.2 Residential Sector Energy Consumption.....	25
2.3 Commercial Sector Energy Consumption.....	27
2.4 Industrial Sector Energy Consumption.....	29
2.5 Transportation Sector Energy Consumption.....	31
2.6 Electric Power Sector Energy Consumption.....	33
<b>Section 3. Petroleum</b>	
3.1 Petroleum Overview .....	37
3.2 Refinery and Blender Net Inputs and Net Production.....	39
3.3 Petroleum Trade	
3.3a Overview.....	41
3.3b Imports and Exports by Type.....	43
3.3c Imports From OPEC Countries.....	44
3.3d Imports From Non-OPEC Countries.....	45
3.4 Petroleum Stocks.....	47
3.5 Petroleum Products Supplied by Type.....	49
3.6 Heat Content of Petroleum Products Supplied by Type.....	51
3.7 Petroleum Consumption	
3.7a Residential and Commercial Sectors.....	53
3.7b Industrial Sector.....	54
3.7c Transportation and Electric Power Sectors.....	55
3.8 Heat Content of Petroleum Consumption	
3.8a Residential and Commercial Sectors.....	57
3.8b Industrial Sector.....	58
3.8c Transportation and Electric Power Sectors.....	59
<b>Section 4. Natural Gas</b>	
4.1 Natural Gas Overview.....	67
4.2 Natural Gas Trade by Country .....	68
4.3 Natural Gas Consumption by Sector.....	69
4.4 Natural Gas in Underground Storage.....	70
<b>Section 5. Crude Oil and Natural Gas Resource Development</b>	
5.1 Crude Oil and Natural Gas Drilling Activity Measurements.....	75
5.2 Crude Oil and Natural Gas Exploratory and Development Wells.....	76
5.3 Maximum U.S. Active Seismic Crew Counts.....	77

# Tables

	Page
<b>Section 6. Coal</b>	
6.1    Coal Overview.....	81
6.2    Coal Consumption by Sector.....	82
6.3    Coal Stocks by Sector.....	83
<b>Section 7. Electricity</b>	
7.1    Electricity Overview.....	91
7.2    Electricity Net Generation	
7.2a    Total (All Sectors).....	93
7.2b    Electric Power Sector.....	94
7.2c    Commercial and Industrial Sectors.....	95
7.3    Consumption of Combustible Fuels for Electricity Generation	
7.3a    Total (All Sectors).....	97
7.3b    Electric Power Sector.....	98
7.3c    Commercial and Industrial Sectors (Selected Fuels).....	99
7.4    Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output	
7.4a    Total (All Sectors).....	101
7.4b    Electric Power Sector.....	102
7.4c    Commercial and Industrial Sectors (Selected Fuels).....	103
7.5    Stocks of Coal and Petroleum: Electric Power Sector.....	105
7.6    Electricity End Use.....	107
<b>Section 8. Nuclear Energy</b>	
8.1    Nuclear Energy Overview.....	113
<b>Section 9. Energy Prices</b>	
9.1    Crude Oil Price Summary.....	117
9.2    F.O.B. Costs of Crude Oil Imports From Selected Countries.....	118
9.3    Landed Costs of Crude Oil Imports From Selected Countries.....	119
9.4    Motor Gasoline Retail Prices, U.S. City Average.....	120
9.5    Refiner Prices of Residual Fuel Oil.....	121
9.6    Refiner Prices of Petroleum Products for Resale.....	122
9.7    Refiner Prices of Petroleum Products to End Users.....	123
9.8    No. 2 Distillate Prices to Residences	
9.8a    Northeastern States.....	124
9.8b    Selected South Atlantic and Midwestern States.....	125
9.8c    Selected Western States and U.S. Average.....	126
9.9    Average Retail Prices of Electricity.....	128
9.10    Cost of Fossil-Fuel Receipts at Electric Generating Plants.....	129
9.11    Natural Gas Prices.....	131
<b>Section 10. Renewable Energy</b>	
10.1    Renewable Energy Production and Consumption by Source.....	137
10.2    Renewable Energy Consumption	
10.2a    Residential and Commercial Sectors.....	138
10.2b    Industrial and Transportation Sectors.....	139
10.2c    Electric Power Sector.....	140
10.3    Fuel Ethanol Overview.....	141
10.4    Biodiesel Overview.....	142

# Tables

	Page
<b>Section 11. International Petroleum</b>	
11.1 World Crude Oil Production	
11.1a OPEC Members. ....	148
11.1b Persian Gulf Nations, Non-OPEC, and World. ....	149
11.2 Petroleum Consumption in OECD Countries. ....	151
11.3 Petroleum Stocks in OECD Countries. ....	153
<b>Appendix A. British Thermal Unit Conversion Factors</b>	
A1. Approximate Heat Content of Petroleum Products. ....	155
A2. Approximate Heat Content of Petroleum Production, Imports, and Exports. ....	156
A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production. ....	157
A4. Approximate Heat Content of Natural Gas. ....	158
A5. Approximate Heat Content of Coal and Coal Coke. ....	159
A6. Approximate Heat Rates for Electricity, and Heat Content of Electricity. ....	160
<b>Appendix B. Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors</b>	
B1. Metric Conversion Factors. ....	168
B2. Metric Prefixes. ....	169
B3. Other Physical Conversion Factors. ....	169

# Figures

	Page
<b>Section 1. Energy Overview</b>	
1.1 Primary Energy Overview.....	2
1.2 Primary Energy Production.....	4
1.3 Primary Energy Consumption.....	6
1.4a Primary Energy Imports and Exports.....	8
1.4b Primary Energy Net Imports.....	9
1.5 Merchandise Trade Value.....	12
1.6 Cost of Fuels to End Users in Real (1982-1984) Dollars.....	14
1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product.....	16
1.8 Motor Vehicle Fuel Rates.....	17
<b>Section 2. Energy Consumption by Sector</b>	
2.1 Energy Consumption by Sector.....	22
2.2 Residential Sector Energy Consumption.....	24
2.3 Commercial Sector Energy Consumption.....	26
2.4 Industrial Sector Energy Consumption.....	28
2.5 Transportation Sector Energy Consumption.....	30
2.6 Electric Power Sector Energy Consumption.....	32
<b>Section 3. Petroleum</b>	
3.1 Petroleum Overview .....	36
3.2 Refinery and Blender Net Inputs and Net Production.....	38
3.3 Petroleum Trade	
3.3a Overview.....	40
3.3b Imports.....	42
3.4 Petroleum Stocks.....	46
3.5 Petroleum Products Supplied by Type.....	48
3.6 Heat Content of Petroleum Products Supplied by Type.....	50
3.7 Petroleum Consumption by Sector.....	52
3.8 Heat Content of Petroleum Consumption by Sector, Selected Products.....	56
<b>Section 4. Natural Gas</b>	
4.1 Natural Gas.....	66
<b>Section 5. Crude Oil and Natural Gas Resource Development</b>	
5.1 Crude Oil and Natural Gas Resource Development Indicators.....	74
<b>Section 6. Coal</b>	
6.1 Coal.....	80
<b>Section 7. Electricity</b>	
7.1 Electricity Overview.....	90
7.2 Electricity Net Generation.....	92
7.3 Consumption of Selected Combustible Fuels for Electricity Generation.....	96
7.4 Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output.....	100
7.5 Stocks of Coal and Petroleum: Electric Power Sector.....	104
7.6 Electricity End Use.....	106
<b>Section 8. Nuclear Energy</b>	
8.1 Nuclear Energy Overview.....	112

# Figures

	Page
<b>Section 9. Energy Prices</b>	
9.1 Petroleum Prices.....	116
9.2 Average Retail Prices of Electricity.....	127
9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants.....	127
9.4 Natural Gas Prices.....	130
<b>Section 10. Renewable Energy</b>	
10.1 Renewable Energy Consumption.....	136
<b>Section 11. International Petroleum</b>	
11.1 World Crude Oil Production	
11.1a Overview.....	146
11.1b By Selected Country.....	147
11.2 Petroleum Consumption in OECD Countries.....	150
11.3 Petroleum Stocks in OECD Countries.....	150

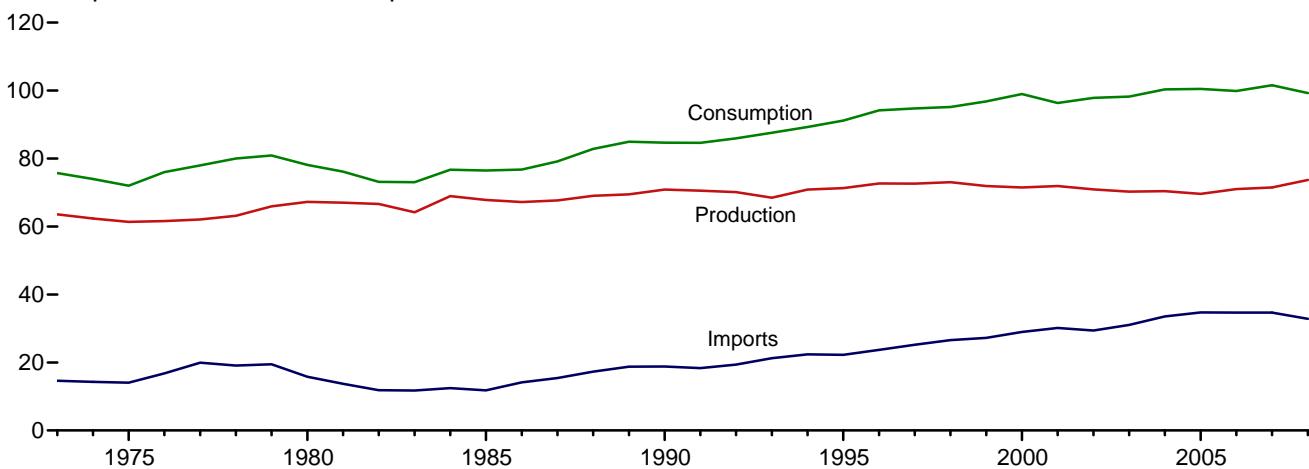
# Energy Overview



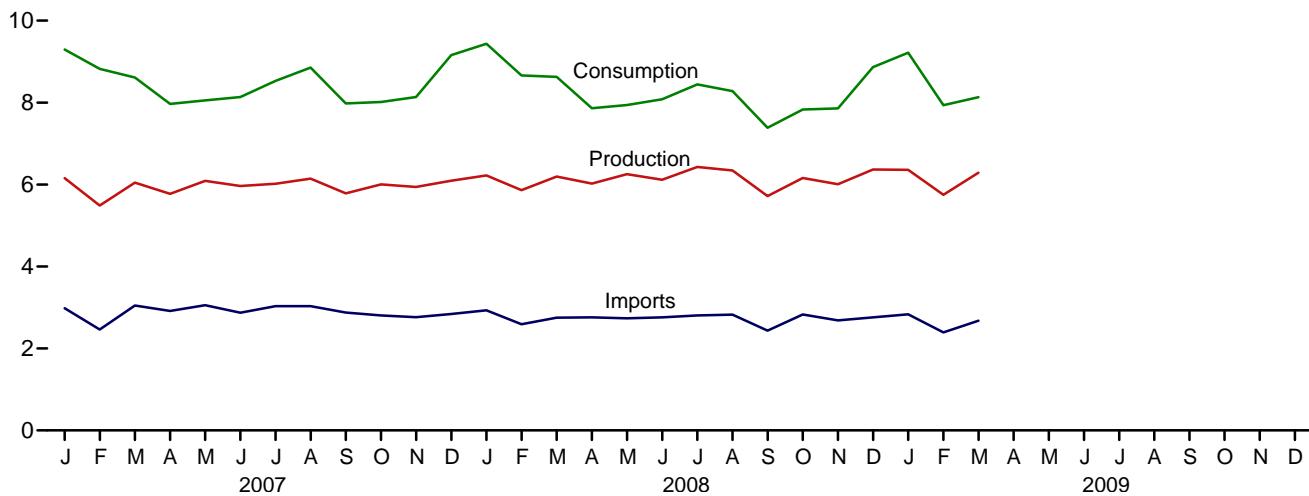
The continental United States at night from orbit. Source: National Oceanic and Atmospheric Administration satellite imagery; mosaic provided by U.S. Geological Survey.

**Figure 1.1 Primary Energy Overview**  
(Quadrillion Btu)

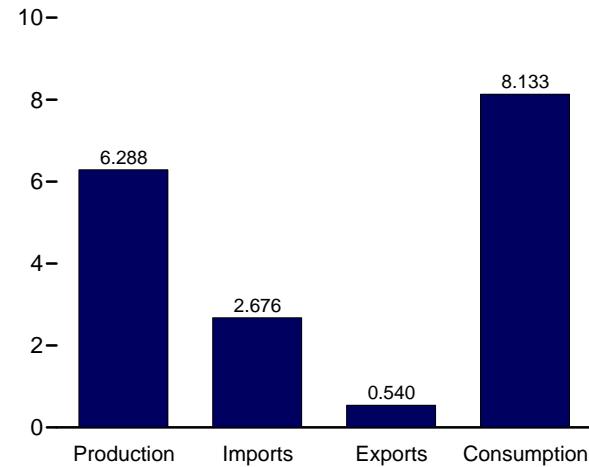
Consumption, Production, and Imports, 1973-2008



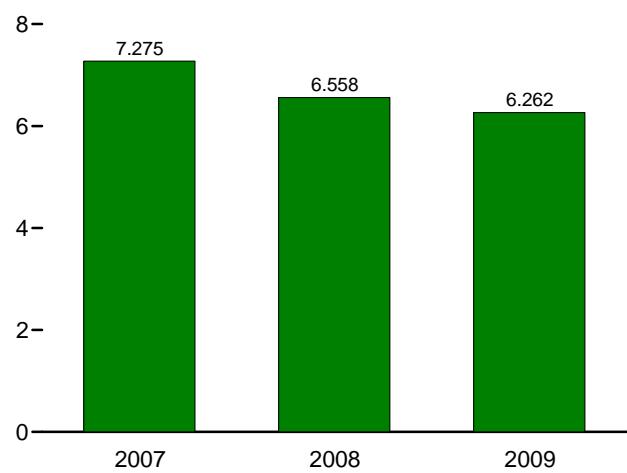
Consumption, Production, and Imports, Monthly



Overview, March 2009



Net Imports, January-March



Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.1.

**Table 1.1 Primary Energy Overview**

(Quadrillion Btu)

	Production				Trade			Stock Change and Other <sup>d</sup>	Consumption			
	Fossil Fuels <sup>a</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total	Imports	Exports	Net Imports <sup>c</sup>		Fossil Fuels <sup>e</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total <sup>f</sup>
1973 Total .....	58.241	0.910	4.433	63.585	14.613	2.033	12.580	-0.456	70.316	0.910	4.433	75.708
1975 Total .....	54.733	1.900	4.723	61.357	14.032	2.323	11.709	-1.067	65.355	1.900	4.723	71.999
1980 Total .....	59.008	2.739	5.485	67.232	15.796	3.695	12.101	-1.212	69.826	2.739	5.485	78.122
1985 Total .....	57.539	4.076	6.187	67.801	11.781	4.196	7.584	1.107	66.091	4.076	6.187	76.493
1990 Total .....	58.560	6.104	6.208	70.872	18.817	4.752	14.065	-.283	72.333	6.104	6.208	84.654
1995 Total .....	57.540	7.075	6.705	71.320	22.260	4.511	17.750	2.104	77.258	7.075	6.707	91.174
1996 Total .....	58.387	7.087	7.168	72.642	23.702	4.633	19.069	2.466	79.783	7.087	7.169	94.176
1997 Total .....	58.857	6.597	7.181	72.635	25.215	4.514	20.701	1.430	80.874	6.597	7.178	94.766
1998 Total .....	59.314	7.068	6.659	73.041	26.581	4.299	22.281	-.139	81.370	7.068	6.658	95.183
1999 Total .....	57.614	7.610	6.683	71.907	27.252	3.715	23.537	1.373	82.428	7.610	6.681	96.817
2000 Total .....	57.366	7.862	6.262	71.490	28.973	4.006	24.967	2.518	84.733	7.862	6.264	98.975
2001 Total .....	58.541	8.033	5.318	71.892	30.157	R 3.770	26.386	-1.952	82.903	8.033	5.316	96.326
2002 Total .....	56.894	8.143	5.899	70.935	R 29.407	R 3.668	25.739	1.184	83.750	8.143	5.894	97.858
2003 Total .....	56.157	7.959	6.148	70.264	31.061	R 4.054	27.007	.938	84.078	7.959	6.150	98.209
2004 Total .....	55.914	8.222	6.248	70.384	R 33.543	R 4.433	29.110	.857	85.830	8.222	6.260	100.351
2005 Total .....	55.056	8.160	6.410	69.626	R 34.710	R 4.561	30.149	.710	85.817	8.160	6.423	100.485
2006 Total .....	55.968	8.214	6.857	71.039	R 34.673	R 4.868	R 29.805	R -.969	84.690	8.214	6.908	99.875
2007 January .....	4.760	.776	.619	6.155	R 2.982	.447	2.536	R .606	7.890	.776	.624	9.297
February .....	4.293	.684	.511	5.488	R 2.463	R .349	R 2.114	1.220	7.613	.684	.514	8.821
March .....	4.774	.674	.599	6.047	R 3.046	R .420	R 2.626	R -.061	7.331	.674	.601	8.613
April .....	4.582	.601	.589	5.772	R 2.914	R .416	R 2.498	R -.303	6.768	.601	.589	7.967
May .....	4.792	.682	.617	6.091	R 3.056	R .448	R 2.608	R -.647	6.742	.682	.616	8.052
June .....	4.665	.723	.579	5.966	R 2.871	R .423	R 2.448	R -.280	6.819	.723	.581	8.134
July .....	4.671	.763	.586	6.020	R 3.030	R .498	R 2.532	R -.023	7.168	.763	.585	8.529
August .....	4.816	.763	.566	6.145	R 3.033	R .475	R 2.558	R .151	7.513	.763	.566	8.854
September .....	4.568	.709	.507	5.784	R 2.877	R .436	R 2.442	R -.244	6.762	.709	.506	7.981
October .....	4.829	.647	.526	6.002	R 2.806	R .439	R 2.367	R -.354	6.833	.647	.529	8.015
November .....	4.732	.681	.528	5.941	R 2.765	R .559	R 2.206	R -.012	6.919	.681	.527	8.135
December .....	4.764	.755	.574	6.093	R 2.841	R .538	R 2.303	R .760	7.818	.755	.576	9.157
Total .....	56.246	8.458	6.800	71.504	R 34.685	R 5.448	R 29.238	R .813	86.176	8.458	6.814	101.554
2008 January .....	4.888	.742	.593	6.223	R 2.932	R .537	R 2.395	R .816	8.089	.742	.591	9.434
February .....	4.631	.683	.547	5.862	R 2.589	R .565	R 2.024	R .775	7.420	.683	.547	8.661
March .....	4.907	.679	.611	6.196	R 2.750	R .611	R 2.140	R .291	7.337	.679	.604	8.627
April .....	4.811	.601	.610	6.021	R 2.760	R .593	R 2.167	R -.325	6.643	.601	.609	7.863
May .....	4.897	.680	.676	6.253	R 2.734	R .623	R 2.110	R -.423	6.580	.680	.673	7.941
June .....	4.691	.738	.690	6.118	R 2.759	R .625	R 2.135	R -.172	6.646	.738	.688	8.081
July .....	4.988	.779	.660	6.428	R 2.804	R .608	R 2.196	R -.178	R 6.994	.779	.657	8.446
August .....	4.968	.762	.614	6.344	R 2.825	R .586	R 2.239	R -.302	6.893	.762	.611	8.281
September .....	4.467	.703	.548	5.718	R 2.433	R .519	R 1.915	R -.247	6.122	.703	.549	7.385
October .....	4.936	.659	.567	6.161	R 2.829	R .590	R 2.239	R -.568	6.599	.659	.569	7.832
November .....	4.774	.665	.567	6.006	R 2.686	R .594	R 2.092	R -.238	6.626	.665	.565	7.860
December .....	4.970	.765	.633	6.367	R 2.758	R .620	R 2.138	R .359	7.457	.765	.636	8.865
Total .....	57.927	8.455	7.316	73.698	R 32.859	R 7.071	R 25.789	R -.212	83.407	8.455	7.300	99.275
2009 January .....	R 4.940	.771	.650	R 6.360	R 2.834	R .595	R 2.239	R .620	R 7.794	.771	.647	R 9.219
February .....	R 4.517	.674	.557	R 5.748	R 2.392	R .505	R 1.887	R .300	R 6.706	.674	.548	R 7.936
March .....	4.945	.702	.641	6.288	2.676	.540	2.136	-.291	6.786	.702	.641	8.133
3-Month Total ....	14.403	2.146	1.848	18.396	7.902	1.640	6.262	.628	21.286	2.146	1.836	25.287
2008 3-Month Total ....	14.426	2.104	1.751	18.281	8.271	1.713	6.558	1.882	22.847	2.104	1.742	26.722
2007 3-Month Total ....	13.827	2.135	1.729	17.690	8.491	1.216	7.275	1.765	22.834	2.135	1.739	26.730

<sup>a</sup> Coal, natural gas (dry), crude oil, and natural gas plant liquids.

<sup>b</sup> Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

<sup>c</sup> Net imports equal imports minus exports.

<sup>d</sup> Includes petroleum stock change and adjustments; natural gas net storage withdrawals and balancing item; coal stock change, losses, and unaccounted for; fuel ethanol stock change; and biodiesel stock change and balancing item.

<sup>e</sup> Coal, coal coke net imports, natural gas, and petroleum.

<sup>f</sup> Also includes electricity net imports.

R=Revised.

Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

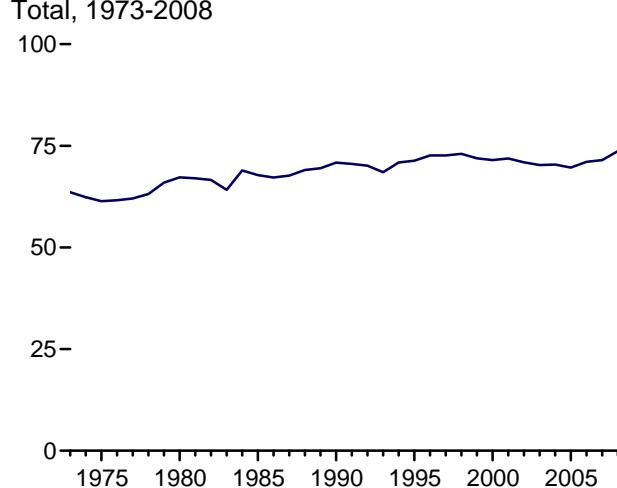
Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Production:** Table 1.2. • **Trade:** Tables 1.4a and 1.4b. • **Stock Change and Other:** Calculated as consumption minus production and net imports.

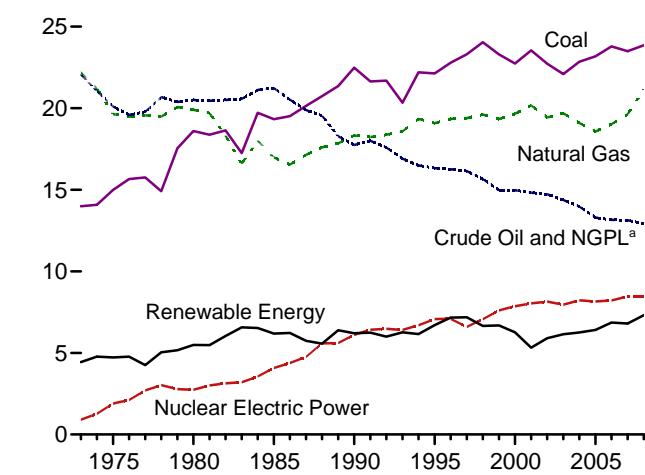
• **Consumption:** Table 1.3.

**Figure 1.2 Primary Energy Production**  
(Quadrillion Btu)

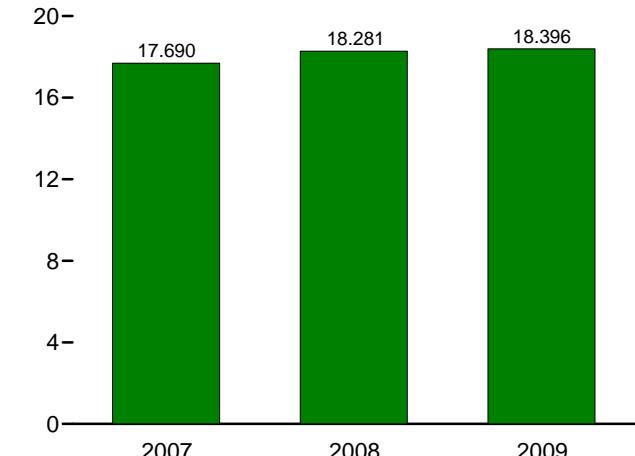
Total, 1973-2008



By Source, 1973-2008



Total, January-March

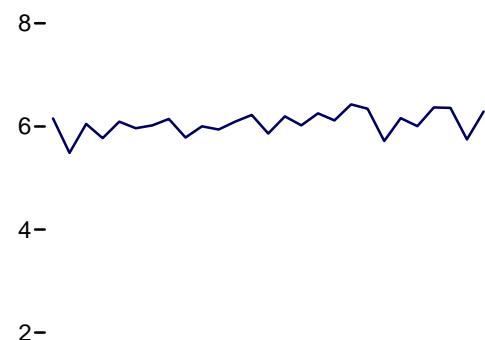


<sup>a</sup> Natural gas plant liquids.

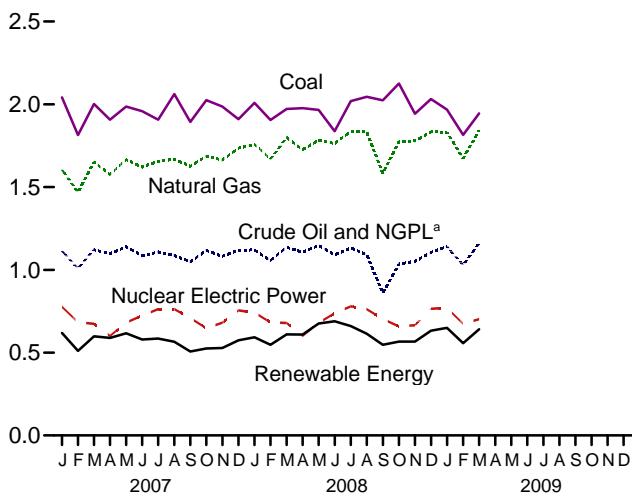
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>

Source: Table 1.2.

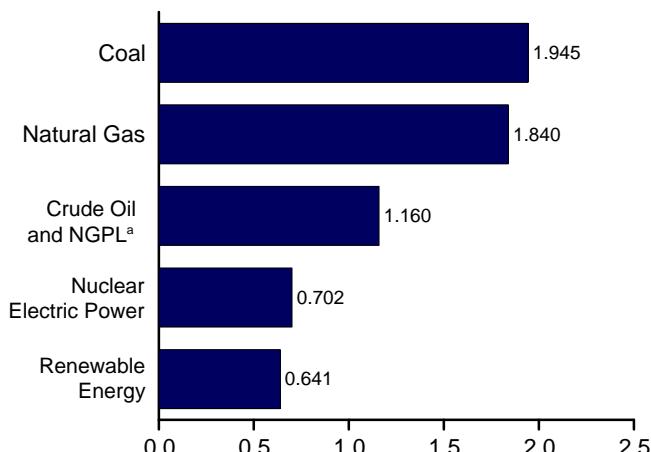
Total, Monthly



By Source, Monthly



By Source, March 2009



**Table 1.2 Primary Energy Production by Source**  
(Quadrillion Btu)

	Fossil Fuels					Nuclear Electric Power	Renewable Energy <sup>a</sup>					Total	
	Coal <sup>b</sup>	Natural Gas (Dry)	Crude Oil <sup>c</sup>	NGPL <sup>d</sup>	Total		Hydro-electric Power <sup>e</sup>	Geo-thermal	Solar/PV	Wind	Bio-mass		
1973 Total .....	13,992	22,187	19,493	2,569	58,241	0.910	2,861	0.043	NA	NA	1.529	4,433	63,585
1975 Total .....	14,989	19,640	17,729	2,374	54,733	1.900	3,155	.070	NA	NA	1.499	4,723	61,357
1980 Total .....	18,598	19,908	18,249	2,254	59,008	2,739	2,900	.110	NA	NA	2,475	5,485	67,232
1985 Total .....	19,325	16,980	18,992	2,241	57,539	4,076	2,970	.198	(s)	(s)	3,018	6,187	67,801
1990 Total .....	22,488	18,326	15,571	2,175	58,560	6,104	3,046	.336	.060	.029	2,737	6,208	70,872
1995 Total .....	22,130	19,082	13,887	2,442	57,540	7,075	3,205	.294	.070	.033	3,103	6,705	71,320
1996 Total .....	22,790	19,344	13,723	2,530	58,387	7,087	3,590	.316	.071	.033	3,158	7,168	72,642
1997 Total .....	23,310	19,394	13,658	2,495	58,857	6,597	3,640	.325	.070	.034	3,112	7,181	72,635
1998 Total .....	24,045	19,613	13,235	2,420	59,314	7,068	3,297	.328	.070	.031	2,933	6,659	73,041
1999 Total .....	23,295	19,341	12,451	2,528	57,614	7,610	3,268	.331	.069	.046	2,969	6,683	71,907
2000 Total .....	22,735	19,662	12,358	2,611	57,366	7,862	2,811	.317	.066	.057	3,010	6,262	71,490
2001 Total .....	23,547	20,166	12,282	2,547	58,541	8,033	2,242	.311	.065	.070	2,629	5,318	71,892
2002 Total .....	22,732	19,439	12,163	2,559	56,894	8,143	2,689	.328	.064	.105	2,712	5,899	70,935
2003 Total .....	22,094	19,691	12,026	2,346	56,157	7,959	2,825	.331	.064	.115	2,815	6,148	70,264
2004 Total .....	22,852	19,093	11,503	2,466	55,914	8,222	2,690	.341	.065	.142	3,011	6,248	70,384
2005 Total .....	23,185	18,574	10,963	2,334	55,056	8,160	2,703	.343	.066	.178	3,120	6,410	69,626
2006 Total .....	23,790	19,022	10,801	2,356	55,968	8,214	2,869	.343	.072	.264	3,309	6,857	71,039
2007 January .....	2,041	1,605	.921	.192	4,760	.776	.257	.031	.006	.024	.300	.619	6,155
February .....	1,814	1,469	.832	.177	4,293	.684	.184	.027	.006	.025	.270	.511	5,488
March .....	2,002	1,651	.918	.204	4,774	.674	.239	.029	.007	.030	.294	.599	6,047
April .....	1,907	1,577	.903	.195	4,582	.601	.236	.028	.007	.031	.287	.589	5,772
May .....	1,986	1,666	.934	.206	4,792	.682	.257	.028	.007	.029	.295	.617	6,091
June .....	1,959	1,621	.887	.198	4,665	.723	.226	.029	.007	.026	.291	.579	5,966
July .....	1,907	1,656	.903	.205	4,671	.763	.222	.030	.007	.021	.305	.586	6,020
August .....	2,062	1,667	.883	.203	4,816	.763	.197	.030	.007	.027	.305	.566	6,145
September .....	1,894	1,626	.850	.199	4,568	.709	.146	.029	.007	.028	.297	.507	5,784
October .....	2,025	1,686	.907	.211	4,829	.647	.146	.030	.007	.033	.309	.526	6,002
November .....	1,986	1,664	.873	.209	4,732	.681	.155	.029	.006	.031	.307	.528	5,941
December .....	1,910	1,735	.909	.210	4,764	.755	.181	.030	.006	.034	.322	.574	6,093
Total .....	23,493	19,623	10,721	2,409	56,246	8,458	2,446	.349	.081	.341	3,583	6,800	71,504
2008 January .....	2,009	E 1,759	E .916	.205	4,888	.742	.201	.029	.007	.041	.315	.593	6,223
February .....	1,905	E 1,669	E .860	.197	4,631	.683	.181	.026	.007	.037	.296	.547	5,862
March .....	1,971	E 1,799	E .924	.212	4,907	.679	.209	.030	.008	.046	.318	.611	6,196
April .....	1,977	E 1,727	E .898	.209	4,811	.601	.211	.029	.008	.050	.312	.610	6,021
May .....	1,966	E 1,783	E .929	.219	4,897	.680	.261	.031	.008	.051	.326	.676	6,253
June .....	1,838	E 1,763	E .889	.201	4,691	.738	.282	.031	.008	.049	.320	.690	6,118
July .....	2,020	E 1,837	E .919	.213	4,988	.779	.245	.031	.008	.038	.338	.660	6,428
August .....	2,046	E 1,831	E .880	.211	4,968	.762	.201	.031	.008	.031	.343	.614	6,344
September .....	2,024	E 1,583	E .689	.171	4,467	.703	.155	.030	.008	.027	.328	.548	5,718
October .....	2,125	E 1,775	E .835	.200	4,936	.659	.149	.031	.008	.043	.337	.567	6,161
November .....	1,943	E 1,779	E .859	.193	4,774	.665	.153	.030	.007	.045	.332	.567	6,006
December .....	2,032	E 1,833	E .921	.184	4,970	.765	.203	.030	.007	.058	.335	.633	6,367
Total .....	23,856	E 21,137	E 10,519	2,415	57,927	8,455	2,452	.358	.091	.514	3,900	7,316	73,698
2009 January .....	R 1,968	E 1,832	E .943	.198	R 4,940	.771	.232	.030	.007	.054	.326	.650	R 6,360
February .....	R 1,815	RE 1,673	E .843	.186	R 4,517	.674	.175	.028	.007	.049	.299	.557	R 5,748
March .....	1,945	E 1,840	E .948	.212	4,945	.702	.211	.030	.008	.064	.327	.641	6,288
3-Month Total ...	5,728	E 5,345	E 2,734	.596	14,403	2,146	.618	.088	.021	.167	.952	1,848	18,396
2008 3-Month Total ...	5,886	E 5,227	E 2,700	.613	14,426	2,104	.591	.085	.022	.124	.929	1,751	18,281
2007 3-Month Total ...	5,858	4,724	2,672	.573	13,827	2,135	.680	.086	.019	.079	.864	1,729	17,690

<sup>a</sup> Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

<sup>b</sup> Beginning in 1989, includes waste coal supplied. Beginning in 2001, also includes a small amount of refuse recovery. See Table 6.1.

<sup>c</sup> Includes lease condensate.

<sup>d</sup> Natural gas plant liquids.

<sup>e</sup> Conventional hydroelectric power.

R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal

sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

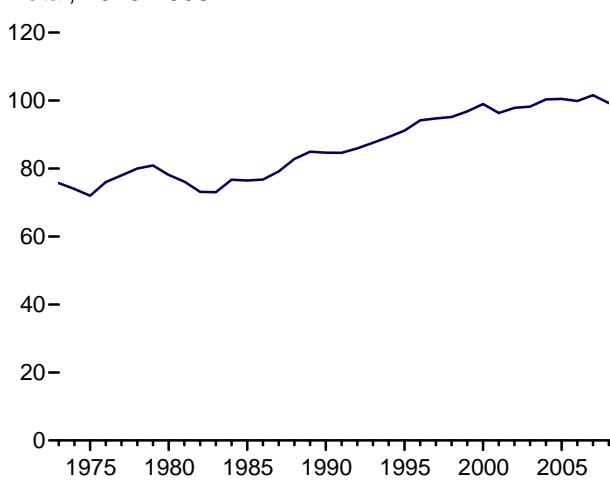
Sources: • Coal: Tables 6.1 and A5. • Natural Gas (Dry): Tables 4.1 and A4. • Crude Oil and Natural Gas Plant Liquids: Tables 3.1 and A2.

• Nuclear Electric Power: Tables 7.2a and A6 ("Nuclear Plants" heat rate).

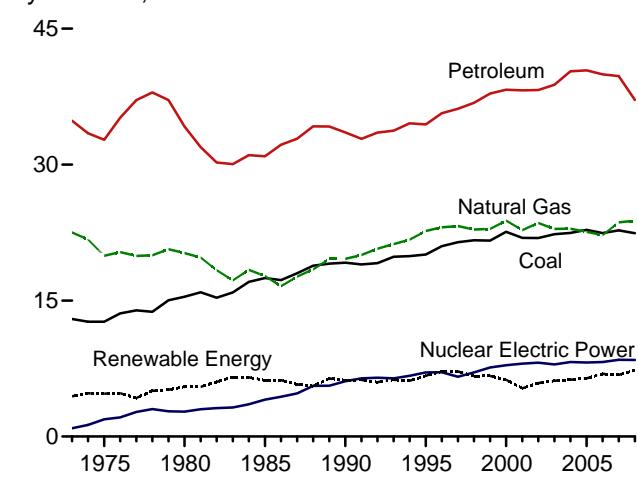
• Renewable Energy: Table 10.1.

**Figure 1.3 Primary Energy Consumption**  
(Quadrillion Btu)

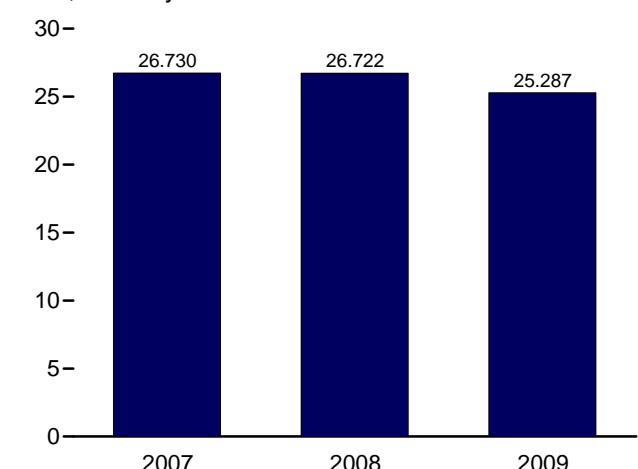
Total, 1973-2008



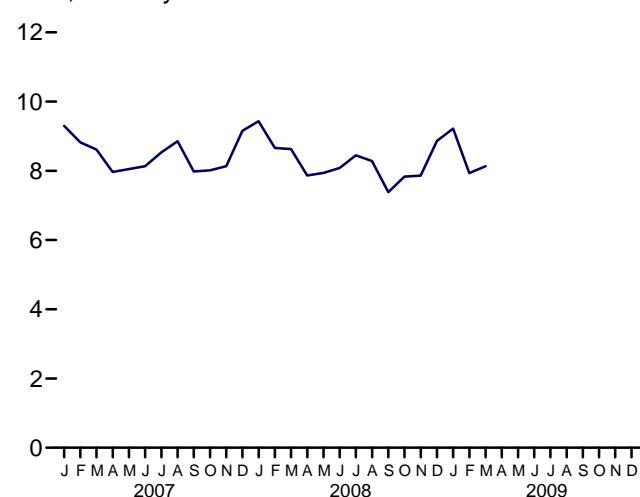
By Source<sup>a</sup>, 1973-2008



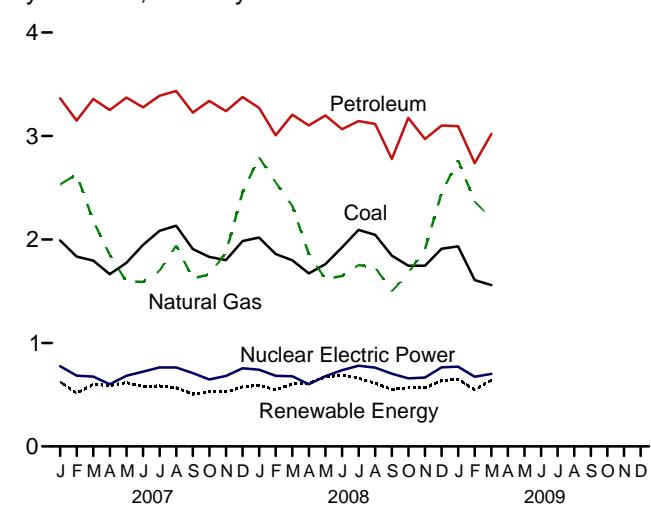
Total, January-March



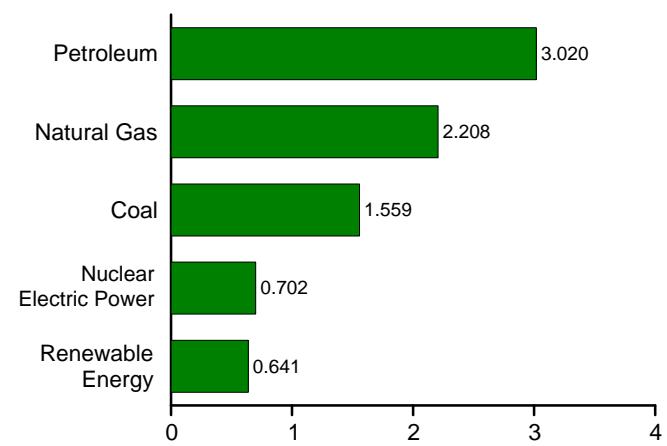
Total, Monthly



By Source<sup>a</sup>, Monthly



By Source<sup>a</sup>, March 2009



<sup>a</sup> Small quantities of net imports of coal coke and electricity are not shown.  
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.3.

**Table 1.3 Primary Energy Consumption by Source**  
(Quadrillion Btu)

	Fossil Fuels				Nuclear Electric Power	Renewable Energy <sup>a</sup>					Total <sup>f</sup>	
	Coal	Natural Gas <sup>b</sup>	Petroleum <sup>c</sup>	Total <sup>d</sup>		Hydro-electric Power <sup>e</sup>	Geo-thermal	Solar/PV	Wind	Bio-mass		
1973 Total .....	12,971	22,512	34,840	70,316	0.910	2,861	0.043	NA	NA	1,529	4,433	75,708
1975 Total .....	12,663	19,948	32,731	65,355	1.900	3,155	.070	NA	NA	1,499	4,723	71,999
1980 Total .....	15,423	20,235	34,202	69,826	2.739	2,900	.110	NA	NA	2,475	5,485	78,122
1985 Total .....	17,478	17,703	30,922	66,091	4,076	2,970	.198	(s)	(s)	3,018	6,187	76,493
1990 Total .....	19,173	19,603	33,553	72,333	6,104	3,046	.336	.060	.029	2,737	6,208	84,654
1995 Total .....	20,089	22,671	34,437	77,258	7,075	3,205	.294	.070	.033	3,105	6,707	91,174
1996 Total .....	21,002	23,085	35,673	79,783	7,087	3,590	.316	.071	.033	3,160	7,169	94,176
1997 Total .....	21,445	23,223	36,160	80,874	6,597	3,640	.325	.070	.034	3,109	7,178	94,766
1998 Total .....	21,656	22,830	36,817	81,370	7,068	3,297	.328	.070	.031	2,932	6,658	95,183
1999 Total .....	21,623	22,909	37,838	82,428	7,610	3,268	.331	.069	.046	2,968	6,681	96,817
2000 Total .....	22,580	23,824	38,264	84,733	7,862	2,811	.317	.066	.057	3,013	6,264	98,975
2001 Total .....	21,914	22,773	38,186	82,903	8,033	2,242	.311	.065	.070	2,627	5,316	96,326
2002 Total .....	21,904	23,558	38,227	83,750	8,143	2,689	.328	.064	.105	2,707	5,894	97,858
2003 Total .....	22,321	22,897	38,809	84,078	7,959	2,825	.331	.064	.115	2,817	6,150	98,209
2004 Total .....	22,466	22,931	40,294	85,830	8,222	2,690	.341	.065	.142	3,023	6,260	100,351
2005 Total .....	22,797	22,583	40,393	85,817	8,160	2,703	.343	.066	.178	3,133	6,423	100,485
2006 Total .....	22,447	22,224	39,958	84,690	8,214	2,869	.343	.072	.264	3,361	6,908	99,875
<b>2007</b>												
January .....	1.991	2,533	3,363	7,890	.776	.257	.031	.006	.024	.305	.624	9,297
February .....	1,835	2,630	3,148	7,613	.684	.184	.027	.006	.025	.273	.514	8,821
March .....	1,795	2,179	3,358	7,331	.674	.239	.029	.007	.030	.297	.601	8,613
April .....	1,665	1,851	3,250	6,768	.601	.236	.028	.007	.031	.287	.589	7,967
May .....	1,775	1,593	3,371	6,742	.682	.257	.028	.007	.029	.295	.616	8,052
June .....	1,947	1,590	3,277	6,819	.723	.226	.029	.007	.026	.293	.581	8,134
July .....	2,083	1,697	3,389	7,168	.763	.222	.030	.007	.021	.305	.585	8,529
August .....	2,134	1,942	3,435	7,513	.763	.197	.030	.007	.027	.305	.566	8,854
September .....	1,908	1,624	3,226	6,762	.709	.146	.029	.007	.028	.296	.506	7,981
October .....	1,832	1,662	3,339	6,833	.647	.146	.030	.007	.033	.312	.529	8,015
November .....	1,801	1,873	3,240	6,919	.681	.155	.029	.006	.031	.306	.527	8,135
December .....	1,984	2,454	3,377	7,818	.755	.181	.030	.006	.034	.324	.576	9,157
<b>Total .....</b>	<b>22,749</b>	<b>23,628</b>	<b>39,773</b>	<b>86,176</b>	<b>8,458</b>	<b>2,446</b>	<b>.349</b>	<b>.081</b>	<b>.341</b>	<b>3,597</b>	<b>6,814</b>	<b>101,554</b>
<b>2008</b>												
January .....	2,018	2,795	3,272	8,089	.742	.201	.029	.007	.041	.313	.591	9,434
February .....	1,859	2,552	3,007	7,420	.683	.181	.026	.007	.037	.296	.547	8,661
March .....	1,799	R 2,324	3,206	7,337	.679	.209	.030	.008	.046	.311	.604	8,627
April .....	1,673	1,861	3,102	6,643	.601	.211	.029	.008	.050	.312	.609	7,863
May .....	1,762	1,617	3,198	6,580	.680	.261	.031	.008	.051	.323	.673	7,941
June .....	1,924	1,648	3,065	6,646	.738	.282	.031	.008	.049	.318	.688	8,081
July .....	2,093	1,752	3,144	R 6,994	.779	.245	.031	.008	.038	.335	.657	8,446
August .....	2,045	1,731	3,117	6,893	.762	.201	.031	.008	.031	.340	.611	8,281
September .....	1,844	1,498	2,778	6,122	.703	.155	.030	.008	.027	.329	.549	7,385
October .....	1,747	1,676	3,175	6,599	.659	.149	.031	.008	.043	.339	.569	7,832
November .....	1,747	1,906	2,972	6,626	.665	.153	.030	.007	.045	.330	.565	7,860
December .....	1,910	2,449	3,100	7,457	.765	.203	.030	.007	.058	.338	.636	8,865
<b>Total .....</b>	<b>22,421</b>	<b>23,809</b>	<b>37,137</b>	<b>83,407</b>	<b>8,455</b>	<b>2,452</b>	<b>.358</b>	<b>.091</b>	<b>.514</b>	<b>3,884</b>	<b>7,300</b>	<b>99,275</b>
<b>2009</b>												
January .....	R 1,933	2,769	3,095	R 7,794	.771	.232	.030	.007	.054	.324	.647	R 9,219
February .....	R 1,607	R 2,363	2,737	R 6,706	.674	.175	.028	.007	.049	.289	.548	R 7,936
March .....	1,559	2,208	3,020	6,786	.702	.211	.030	.008	.064	.327	.641	8,133
3-Month Total ....	<b>5,099</b>	<b>7,340</b>	<b>8,851</b>	<b>21,286</b>	<b>2,146</b>	<b>.618</b>	<b>.088</b>	<b>.021</b>	<b>.167</b>	<b>.940</b>	<b>1,836</b>	<b>25,287</b>
2008 3-Month Total ....	<b>5,677</b>	<b>7,672</b>	<b>9,486</b>	<b>22,847</b>	<b>2,104</b>	<b>.591</b>	<b>.085</b>	<b>.022</b>	<b>.124</b>	<b>.920</b>	<b>1,742</b>	<b>26,722</b>
2007 3-Month Total ....	<b>5,621</b>	<b>7,341</b>	<b>9,869</b>	<b>22,834</b>	<b>2,135</b>	<b>.680</b>	<b>.086</b>	<b>.019</b>	<b>.079</b>	<b>.874</b>	<b>1,739</b>	<b>26,730</b>

<sup>a</sup> Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

<sup>b</sup> Natural gas only; excludes supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>c</sup> Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. Does not include fuel ethanol and biodiesel that have been blended with petroleum—biofuels are included in "Biomass."

<sup>d</sup> Includes coal coke net imports. See Tables 1.4a and 1.4b.

<sup>e</sup> Conventional hydroelectric power.

<sup>f</sup> Includes coal coke net imports and electricity net imports, which are not separately displayed. See Tables 1.4a and 1.4b.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy Consumption" in Glossary.

• Totals may not equal sum of components due to independent rounding.

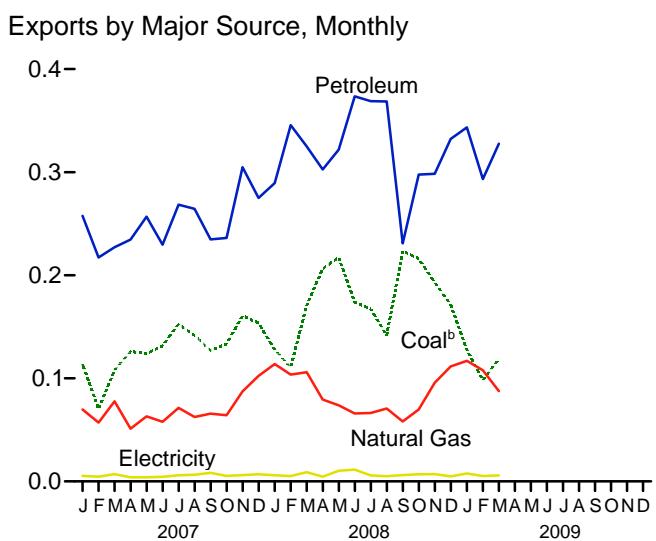
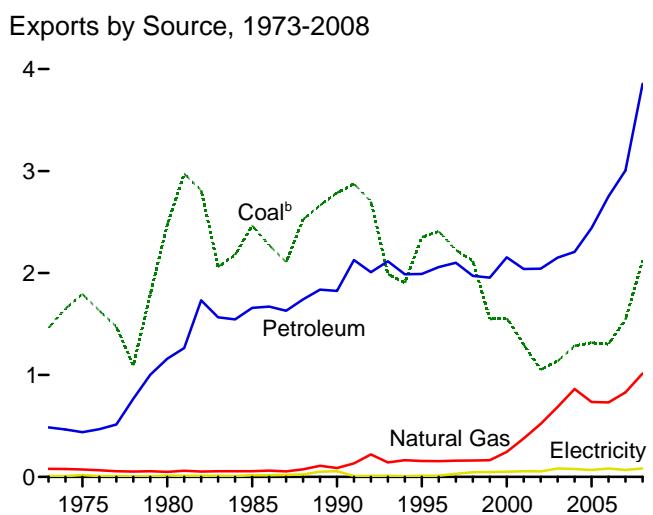
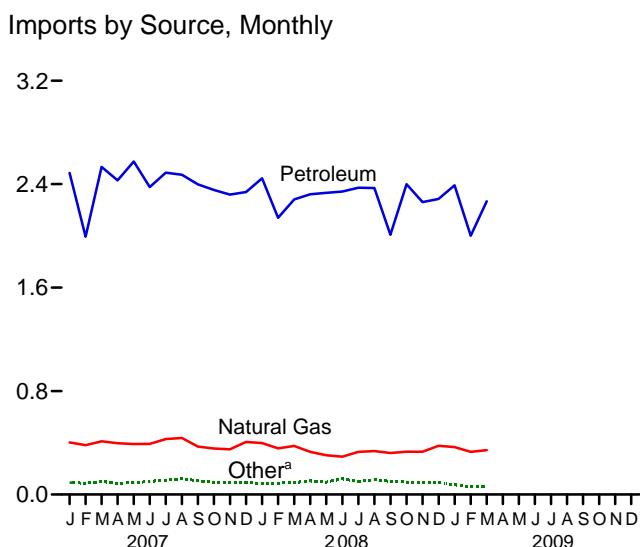
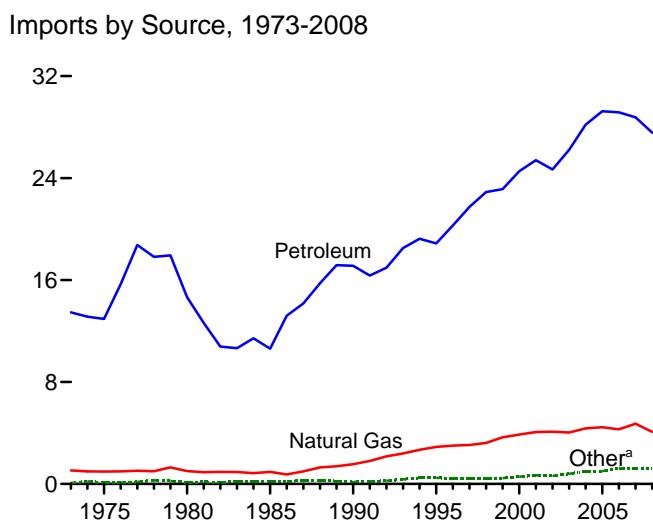
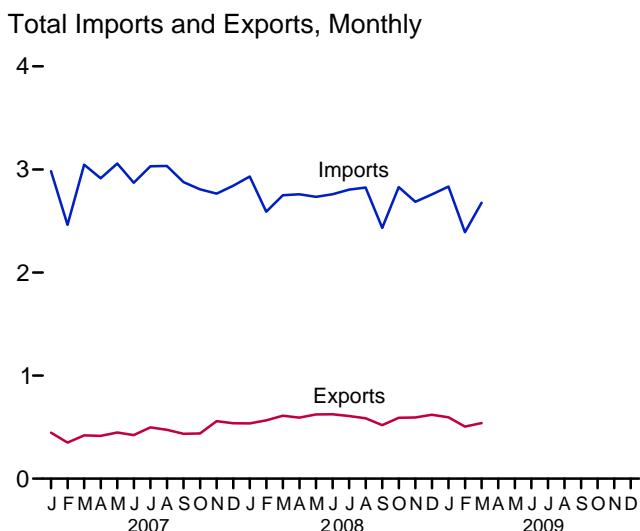
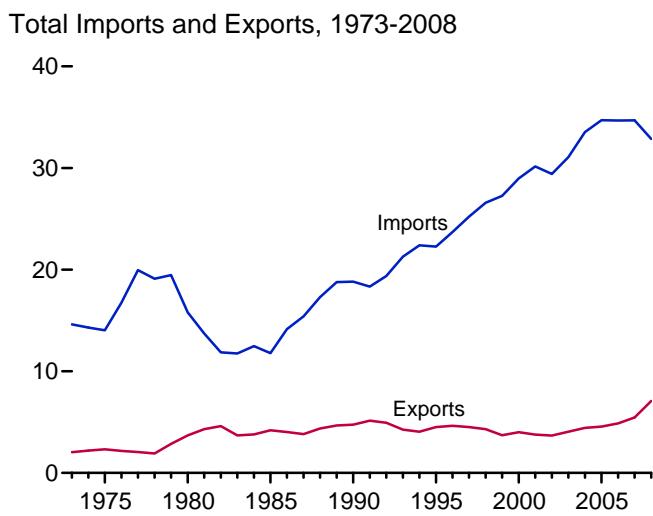
• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • Coal: Tables 6.1 and A5. • Natural Gas: Tables 4.1 and A4.

• Petroleum: Table 3.6. • Nuclear Electric Power: Tables 7.2a and A6 ("Nuclear Plants" heat rate). • Renewable Energy: Table 10.1. • Net Imports of Coal Coke and Electricity: Tables 1.4a and 1.4b.

**Figure 1.4a Primary Energy Imports and Exports  
(Quadrillion Btu)**



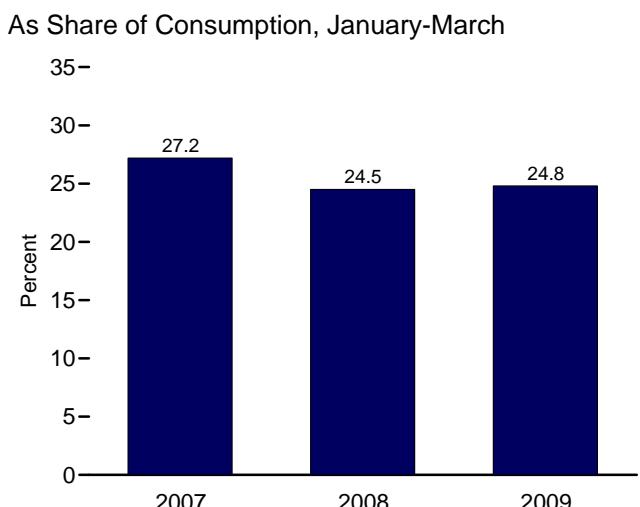
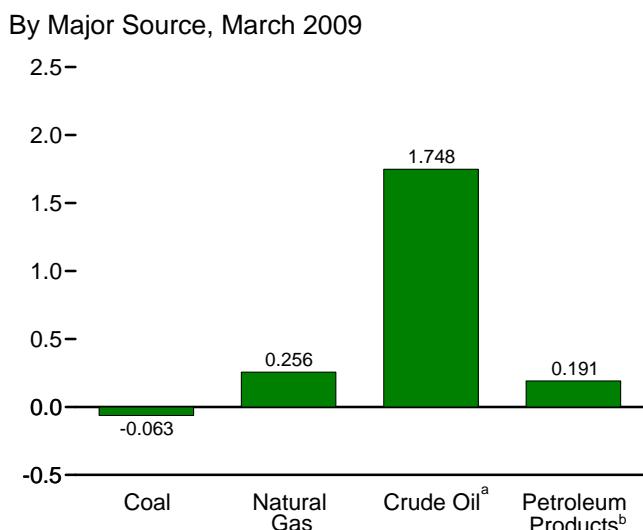
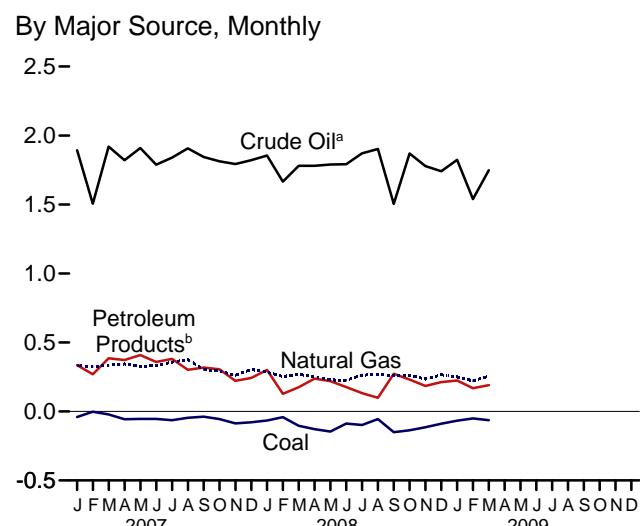
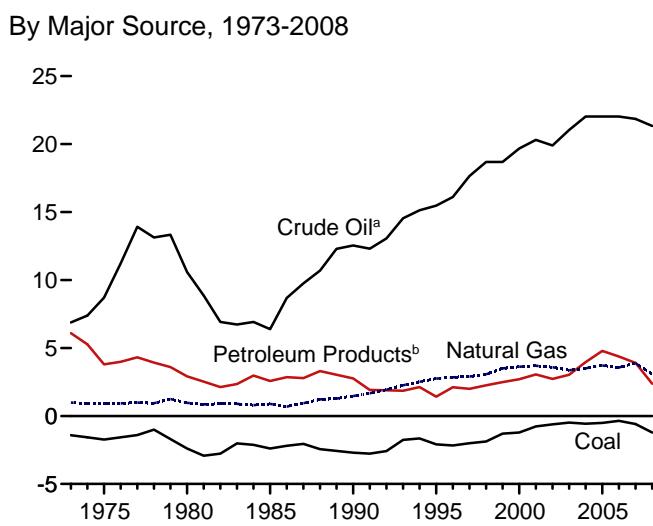
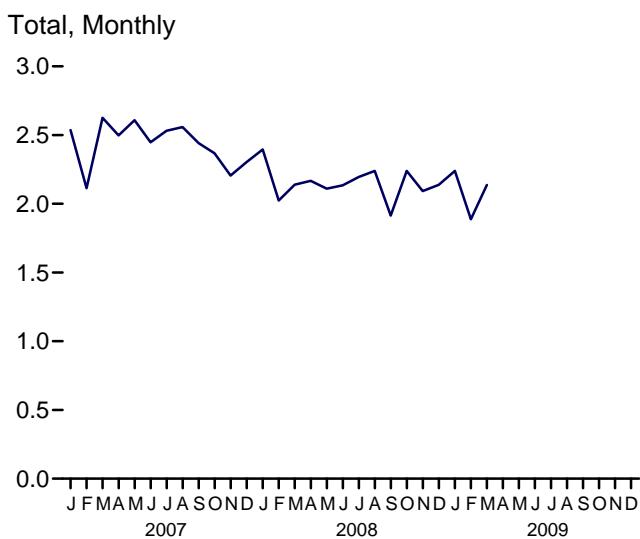
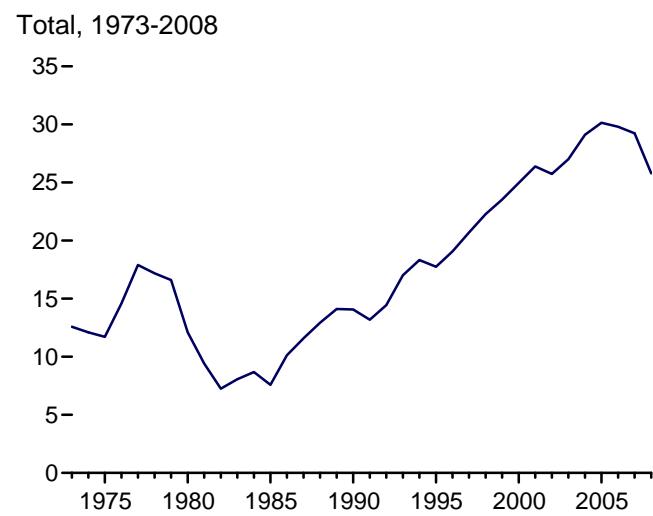
<sup>a</sup>Coal, coal coke, biofuels, and electricity.

<sup>b</sup>Includes coal coke.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>

Sources: Tables 1.4a and 1.4b.

**Figure 1.4b Primary Energy Net Imports**  
(Quadrillion Btu, Except as noted)



<sup>a</sup>Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>b</sup>Petroleum products, unfinished oils, pentanes plus, and gasoline

blending components. Does not include biofuels.  
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.  
Sources: Tables 1.3, 1.4a, and 1.4b.

**Table 1.4a Primary Energy Imports by Source**  
(Quadrillion Btu)

	Imports								
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels <sup>c</sup>	Electricity	Total
				Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total			
1973 Total .....	0.003	0.027	1.060	6.887	6.578	13.466	NA	0.057	14.613
1975 Total .....	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
1980 Total .....	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
1985 Total .....	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
1990 Total .....	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
1995 Total .....	.237	.095	2.901	15.669	3.211	18.881	.001	.146	22.260
1996 Total .....	.203	.063	3.002	16.341	3.943	20.284	.001	.148	23.702
1997 Total .....	.187	.078	3.063	17.876	3.864	21.740	(s)	.147	25.215
1998 Total .....	.218	.095	3.225	18.916	3.992	22.908	(s)	.135	26.581
1999 Total .....	.227	.080	3.664	18.935	4.198	23.133	(s)	.147	27.252
2000 Total .....	.313	.094	3.869	19.783	4.749	24.531	(s)	.166	28.973
2001 Total .....	.495	.063	4.068	20.348	R 5.050	25.398	.002	.131	30.157
2002 Total .....	.422	.080	4.104	19.920	R 4.753	R 24.673	.002	.125	R 29.407
2003 Total .....	.626	.068	4.042	21.060	R 5.158	R 26.218	.002	.104	31.061
2004 Total .....	.682	.170	4.365	22.082	6.114	28.196	.013	.117	R 33.543
2005 Total .....	.762	.088	4.450	22.091	R 7.156	R 29.247	.013	.152	R 34.710
2006 Total .....	.906	.101	4.291	22.085	R 7.077	R 29.162	.067	.146	R 34.673
2007 January .....	.071	.006	.403	1.894	R .591	R 2.486	.005	.012	R 2.982
February .....	.066	.003	.382	1.510	R .483	R 1.993	.004	.014	R 2.463
March .....	.082	.003	.412	1.926	R .607	2.533	.003	.013	R 3.046
April .....	.067	.004	.397	1.824	R .604	2.429	.004	.014	R 2.914
May .....	.067	.006	.390	1.916	R .658	2.575	.003	.016	R 3.056
June .....	.076	.007	.391	1.798	R .579	R 2.377	.005	.015	R 2.871
July .....	.084	.003	.429	1.844	R .644	R 2.488	.007	.019	R 3.030
August .....	.093	.005	.437	1.914	R .558	R 2.472	.008	.018	R 3.033
September .....	.087	.005	.370	1.851	R .548	R 2.398	.004	.013	R 2.877
October .....	.072	.005	.356	1.815	R .539	R 2.355	.006	.012	R 2.806
November .....	.072	.007	.349	1.796	R .523	R 2.319	.003	.015	R 2.765
December .....	.070	.008	.407	1.825	R .514	R 2.339	.004	.014	R 2.841
Total .....	.909	.061	4.723	21.914	R 6.849	R 28.762	.055	.175	R 34.685
2008 January .....	.060	.007	.398	1.857	R .588	R 2.445	.005	.017	R 2.932
February .....	.065	.006	.357	1.669	R .470	R 2.139	.006	.016	R 2.589
March .....	.066	.009	.375	1.786	R .495	R 2.281	.003	.016	R 2.750
April .....	.075	.011	.329	1.783	R .539	R 2.322	.009	.014	R 2.760
May .....	.068	.007	.303	1.793	R .539	R 2.332	.006	.018	R 2.734
June .....	.082	.013	.293	1.796	R .546	R 2.342	.008	.021	R 2.759
July .....	.064	.010	.330	1.876	R .496	R 2.371	.008	.021	R 2.804
August .....	.079	.009	.336	1.910	R .460	R 2.370	.012	.020	R 2.825
September .....	.069	.006	.321	1.511	R .497	R 2.008	.014	.017	R 2.433
October .....	.073	.008	.331	1.878	R .522	R 2.399	.006	.012	R 2.829
November .....	.075	.005	.331	1.783	R .477	R 2.261	.004	.011	R 2.686
December .....	.080	(s)	.377	1.749	R .537	R 2.286	.004	.012	R 2.758
Total .....	.855	.089	4.080	21.389	R 6.167	R 27.556	.084	.195	R 32.859
2009 January .....	.058	.001	.367	1.829	R .561	R 2.391	.003	.015	R 2.834
February .....	.046	(s)	R .330	1.544	R .457	R 2.001	.001	.013	R 2.392
March .....	.054	(s)	E .344	1.753	.513	2.266	.002	.010	2.676
3-Month Total .....	.158	.002	E 1.040	5.126	1.531	6.658	.006	.038	7.902
2008 3-Month Total .....	.191	.021	1.130	5.312	1.554	6.866	.014	.049	8.271
2007 3-Month Total .....	.220	.011	1.197	5.330	1.681	7.011	.013	.039	8.491

<sup>a</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>b</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

<sup>c</sup> Fuel ethanol and biodiesel.

R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke:** 1973-1975—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter. 1976-1980—Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. 1981 forward—EIA, *Quarterly Coal Report*, quarterly reports. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil and Petroleum Products:** Tables 3.1, 10.3, and A2. • **Biofuels:** Tables 10.3 and 10.4. • **Electricity:** Tables 7.1 and A6.

**Table 1.4b Primary Energy Exports by Source and Total Net Imports**  
 (Quadrillion Btu)

	Exports									Net Imports <sup>a</sup>	
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels <sup>d</sup>	Electricity	Total		
				Crude Oil <sup>b</sup>	Petroleum Products <sup>c</sup>	Total					
1973 Total .....	1.425	0.035	0.079	0.004	0.482	0.486	NA	0.009	2.033	12.580	
1975 Total .....	1.761	.032	.074	.012	.427	.439	NA	.017	2.323	11.709	
1980 Total .....	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695	12.101	
1985 Total .....	2.438	.028	.056	.432	1.225	1.657	NA	.017	4.196	7.584	
1990 Total .....	2.772	.014	.087	.230	1.594	1.824	NA	.055	4.752	14.065	
1995 Total .....	2.318	.034	.156	.200	1.791	1.991	NA	.012	4.511	17.750	
1996 Total .....	2.368	.040	.155	.233	1.825	2.059	NA	.011	4.633	19.069	
1997 Total .....	2.193	.031	.159	.228	1.872	2.100	NA	.031	4.514	20.701	
1998 Total .....	2.092	.028	.161	.233	1.740	1.972	NA	.047	4.299	22.281	
1999 Total .....	1.525	.022	.164	.250	1.705	1.955	NA	.049	3.715	23.537	
2000 Total .....	1.528	.028	.245	.106	2.048	2.154	NA	.051	4.006	24.967	
2001 Total .....	1.265	.033	.377	.043	1.996	R 2.038	(s)	.056	R 3.770	26.386	
2002 Total .....	1.032	.020	.520	.019	2.023	2.042	(s)	.054	R 3.668	25.739	
2003 Total .....	1.117	.018	.686	.026	2.124	R 2.150	.001	.082	4.054	27.007	
2004 Total .....	1.253	.033	.862	.057	R 2.150	R 2.207	.001	.078	R 4.433	29.110	
2005 Total .....	1.273	.043	.735	.067	R 2.373	R 2.441	.001	.068	R 4.561	30.149	
2006 Total .....	1.264	.040	.730	.052	R 2.694	R 2.747	.004	.083	R 4.868	R 29.805	
2007 January .....	.111	.003	.070	.002	R .255	R .257	.001	.005	.447	2.536	
February .....	.068	.002	.057	.004	R .212	R .216	.001	.005	R .349	R 2.114	
March .....	.104	.004	.078	.006	R .220	R .226	.002	.007	R .420	R 2.626	
April .....	.123	.003	.051	.003	R .228	R .231	.003	.004	R .416	R 2.498	
May .....	.121	.003	.063	.006	R .247	R .254	.003	.004	R .448	R 2.608	
June .....	.130	.001	.058	.009	R .218	R .227	.002	.004	R .423	R 2.448	
July .....	.148	.005	.071	.005	R .259	R .264	.005	.006	R .498	R 2.532	
August .....	.139	.002	.062	.008	R .253	R .261	.003	.007	R .475	R 2.558	
September .....	.125	.002	.066	.006	R .226	R .232	.003	.008	R .436	R 2.442	
October .....	.128	.006	.064	.002	R .231	R .233	.003	.005	R .439	2.367	
November .....	.159	.002	.087	.003	R .296	R .300	.005	.006	R .559	R 2.206	
December .....	.149	.004	.102	.004	R .267	R .271	.004	.007	R .538	R 2.303	
<b>Total .....</b>	<b>1.507</b>	<b>.036</b>	<b>.830</b>	<b>.058</b>	<b>R 2.914</b>	<b>R 2.972</b>	<b>.035</b>	<b>.069</b>	<b>R 5.448</b>	<b>R 29.238</b>	
2008 January .....	.125	.003	.114	.002	R .281	R .283	.006	.006	R .537	R 2.395	
February .....	.107	.004	.104	.003	R .335	R .338	.007	.005	R .565	R 2.024	
March .....	.170	.001	.106	.005	R .313	R .319	.006	.009	R .611	R 2.140	
April .....	.203	.004	.079	.002	R .292	R .294	.009	.005	R .593	R 2.167	
May .....	.213	.004	.074	.003	R .311	R .315	.007	.010	R .623	R 2.110	
June .....	.170	.004	.066	.004	R .360	R .364	.009	.011	R .625	R 2.135	
July .....	.163	.005	.066	.005	R .356	R .361	.008	.006	R .608	R 2.196	
August .....	.134	.008	.071	.007	R .353	R .360	.009	.005	R .586	R 2.239	
September .....	.220	.004	.058	.007	R .216	R .223	.008	.006	R .519	R 1.915	
October .....	.209	.007	.070	.008	R .283	R .290	.007	.007	R .590	R 2.239	
November .....	.189	.004	.096	.005	R .287	R .292	.006	.007	R .594	R 2.092	
December .....	.169	.003	.111	.008	R .320	R .328	.004	.005	R .620	R 2.138	
<b>Total .....</b>	<b>2.071</b>	<b>.049</b>	<b>1.015</b>	<b>.061</b>	<b>R 3.707</b>	<b>R 3.768</b>	<b>.086</b>	<b>.082</b>	<b>R 7.071</b>	<b>R 25.789</b>	
2009 January .....	.125	.003	.117	.007	R .331	R .337	.006	.008	R .595	R 2.239	
February .....	.097	.001	R .108	.005	R .282	R .287	.006	.005	R .505	R 1.887	
March .....	.117	.002	E .088	.005	.321	.327	.001	.006	.540	2.136	
<b>3-Month Total .....</b>	<b>.339</b>	<b>.006</b>	<b>E .312</b>	<b>.017</b>	<b>.934</b>	<b>.951</b>	<b>.014</b>	<b>.019</b>	<b>1.640</b>	<b>6.262</b>	
2008 3-Month Total .....	.401	.008	.323	.011	.930	.940	.020	.020	1.713	6.558	
2007 3-Month Total .....	.284	.009	.205	.012	.687	.699	.003	.017	1.216	7.275	

<sup>a</sup> Net imports equal imports minus exports.

<sup>b</sup> Crude oil and lease condensate.

<sup>c</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

<sup>d</sup> Biodiesel only.

R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.

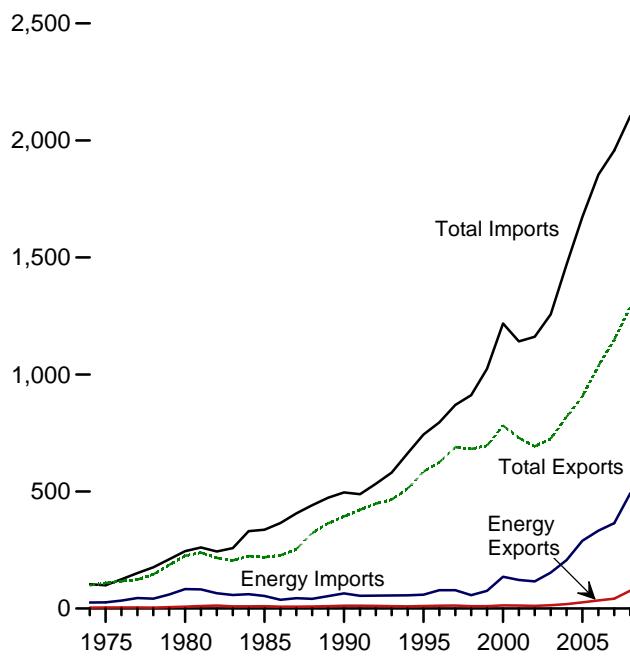
Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

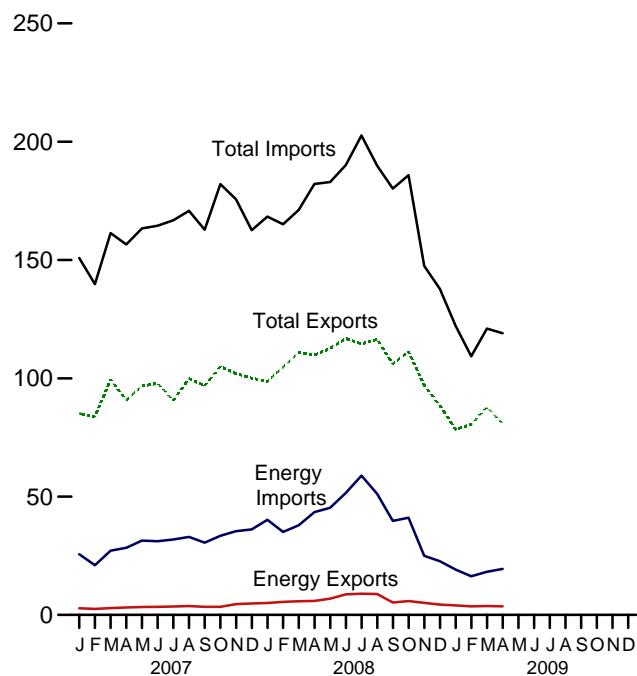
Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke:** 1973-1975—U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, "Coke and Coal Chemicals" chapter. 1976-1980—Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. 1981 forward—EIA, *Quarterly Coal Report*, quarterly reports. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil and Petroleum Products:** Tables 3.1 and A2. • **Biofuels:** Tables 10.3 and 10.4. • **Electricity:** Tables 7.1 and A6.

**Figure 1.5 Merchandise Trade Value**  
(Billion Nominal Dollars<sup>a</sup>)

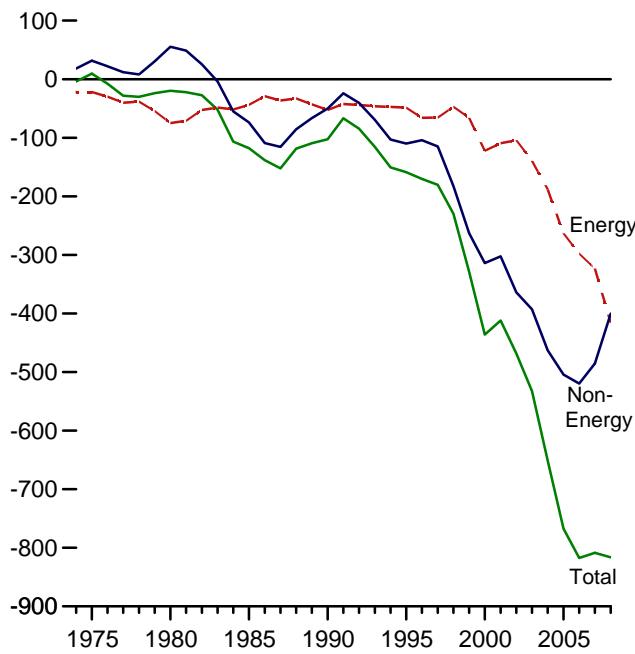
Imports and Exports, 1974-2008



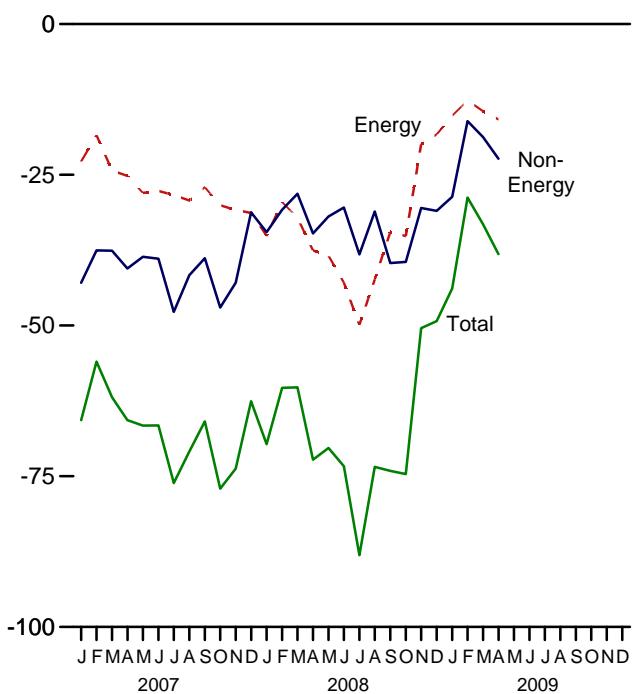
Imports and Exports, Monthly



Trade Balance, 1974-2008



Trade Balance, Monthly



<sup>a</sup>See "Nominal Dollars" in Glossary.  
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.  
Source: Table 1.5.

**Table 1.5 Merchandise Trade Value**

(Million Nominal Dollars<sup>a</sup>)

	Petroleum <sup>b</sup>			Energy <sup>c</sup>			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total .....	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
1975 Total .....	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
1980 Total .....	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1985 Total .....	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1990 Total .....	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1995 Total .....	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
1996 Total .....	7,984	72,022	-64,038	12,181	78,086	-65,905	-104,309	625,075	795,289	-170,214
1997 Total .....	8,592	71,152	-62,560	12,682	78,277	-65,595	-114,927	689,182	869,704	-180,522
1998 Total .....	6,574	50,264	-43,690	10,251	57,323	-47,072	-182,686	682,138	911,896	-229,758
1999 Total .....	7,118	67,173	-60,055	9,880	75,803	-65,923	-262,898	695,797	1,024,618	-328,821
2000 Total .....	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
2001 Total .....	8,868	102,747	-93,879	12,494	121,923	-109,429	-302,470	729,100	1,140,999	-411,899
2002 Total .....	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2003 Total .....	10,209	132,433	-122,224	13,768	153,298	-139,530	-392,820	724,771	1,257,121	-532,350
2004 Total .....	13,130	179,266	-166,136	18,642	206,660	-188,018	-462,912	818,775	1,469,704	-650,930
2005 Total .....	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
2006 Total .....	28,171	299,714	-271,543	34,711	332,500	-297,789	-519,515	1,036,635	1,853,938	-817,304
2007 January .....	2,239	22,693	-20,454	2,833	25,630	-22,797	R -42,908	R 85,128	150,833	R -65,705
February .....	2,006	17,840	-15,834	2,549	20,993	-18,444	R -37,552	R 83,797	139,793	R -55,996
March .....	2,270	23,944	-21,674	2,871	27,170	-24,299	R -37,605	R 99,459	161,363	R -61,904
April .....	2,418	25,189	-22,771	3,167	28,335	-25,168	R -40,538	R 90,877	156,583	R -65,706
May .....	2,566	28,071	-25,505	3,375	31,380	-28,005	R -38,592	R 96,726	163,323	R -66,597
June .....	2,590	27,645	-25,055	3,447	31,110	-27,663	R -38,913	R 97,886	164,462	R -66,576
July .....	2,863	28,578	-25,715	3,517	31,902	-28,385	R -47,730	R 90,650	166,765	R -76,115
August .....	3,003	29,762	-26,759	3,720	32,967	-29,247	R -41,652	R 99,867	170,766	R -70,899
September .....	2,715	28,065	-25,350	3,447	30,514	-27,067	R -38,839	R 96,866	162,772	R -65,906
October .....	2,790	30,728	-27,938	3,384	33,428	-30,044	R -47,025	R 104,976	182,044	R -77,069
November .....	3,882	32,440	-28,558	4,569	35,384	-30,815	R -42,912	R 101,936	175,663	R -73,727
December .....	3,952	32,669	-28,717	4,844	36,173	-31,329	R -31,234	R 100,030	162,594	R -62,563
Total .....	33,293	327,620	-294,327	41,725	364,987	-323,262	R -485,501	R 1,148,199	1,956,962	R -808,763
2008 January .....	R 4,061	R 36,617	R -32,556	R 5,049	R 40,206	R -35,157	R -34,516	R 98,677	R 168,350	R -69,673
February .....	R 4,683	R 31,609	R -26,926	R 5,508	R 35,033	R -29,525	R -30,805	R 104,740	R 165,070	R -60,330
March .....	R 4,477	R 33,769	R -29,292	R 5,755	R 37,875	R -32,120	R -28,142	R 110,932	R 171,194	R -60,262
April .....	R 4,473	R 39,481	R -35,008	R 5,899	R 43,440	R -37,541	R -34,717	R 109,857	R 182,115	R -72,258
May .....	R 5,420	R 41,344	R -35,924	R 6,861	R 45,266	R -38,405	R -31,924	R 112,627	R 182,956	R -70,329
June .....	R 7,365	R 47,392	R -40,027	R 8,694	R 51,594	R -42,900	R -30,430	R 116,787	R 190,117	R -73,330
July .....	R 7,760	R 53,966	R -46,206	R 8,948	R 58,841	R -49,893	R -38,199	R 114,522	R 202,614	R -88,092
August .....	R 7,650	R 47,473	R -39,823	R 8,791	R 51,150	R -42,359	R -31,098	R 116,418	R 189,875	R -73,457
September .....	R 3,916	R 36,768	R -32,852	R 5,217	R 39,701	R -34,484	R -39,633	R 106,072	R 180,189	R -74,117
October .....	R 4,597	R 38,270	R -33,673	R 5,876	R 41,064	R -35,188	R -39,456	R 111,239	R 185,882	R -74,644
November .....	R 3,858	R 22,661	R -18,803	R 5,084	R 25,019	R -19,935	R -30,495	R 97,085	R 147,515	R -50,430
December .....	R 3,439	R 20,494	R -17,055	R 4,394	R 22,697	R -18,303	R -30,974	R 88,486	R 137,763	R -49,277
Total .....	R 61,695	R 449,847	R -388,152	R 76,075	R 491,885	R -415,810	R -400,389	R 1,287,442	R 2,103,641	R -816,199
2009 January .....	3,036	16,863	-13,827	3,994	19,192	-15,198	-28,649	78,379	122,226	-43,847
February .....	2,599	14,042	-11,443	3,636	16,311	-12,675	-16,102	80,503	109,279	-28,777
March .....	2,860	16,617	-13,757	3,730	18,191	-14,461	R -18,747	R 87,796	R 121,004	R -33,208
April .....	2,937	17,937	-15,000	3,623	19,431	-15,808	-22,332	80,937	119,077	-38,140
4-Month Total ....	11,432	65,459	-54,027	14,983	73,125	-58,142	R -85,830	327,614	471,585	-143,971
2008 4-Month Total ....	17,694	141,476	-123,782	22,211	156,554	-134,343	-128,180	424,205	686,729	-262,524
2007 4-Month Total ....	8,933	89,666	-80,733	11,420	102,128	-90,708	R -158,603	359,262	608,573	-249,311

<sup>a</sup> See "Nominal Dollars" in Glossary.

<sup>b</sup> Crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels.

<sup>c</sup> Petroleum, coal, natural gas, and electricity.

R=Revised.

Notes: • Monthly data are not adjusted for seasonal variations. • See Note, "Merchandise Trade Value," at end of section. • Totals may not equal sum of

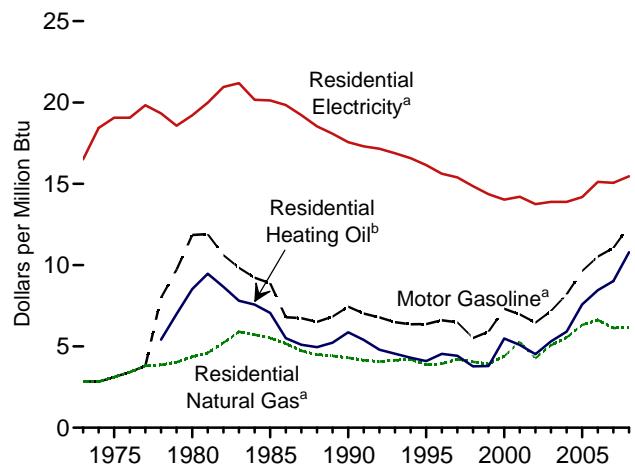
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1974.

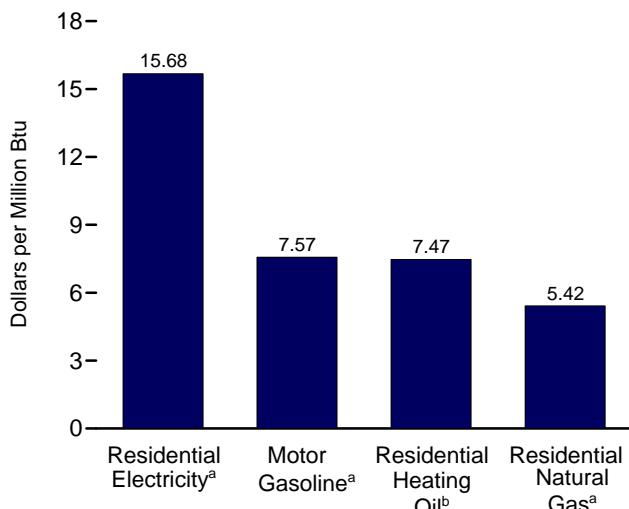
Sources: See end of section.

**Figure 1.6 Cost of Fuels to End Users in Real (1982-1984) Dollars**

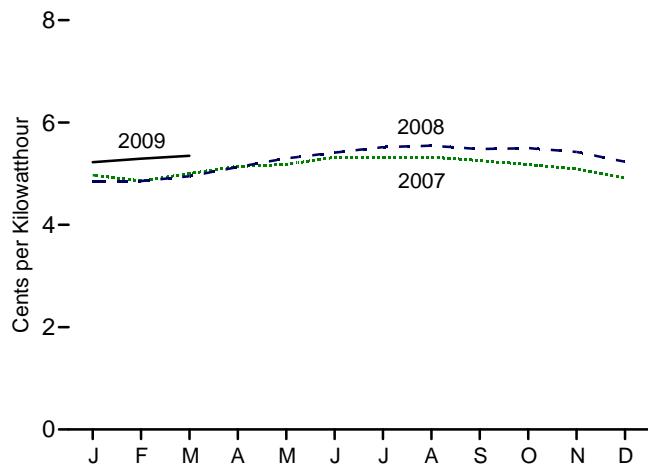
Costs, 1973-2008



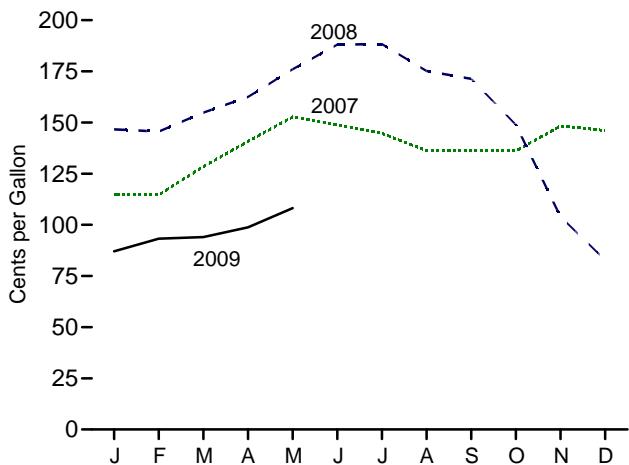
Costs, March 2009



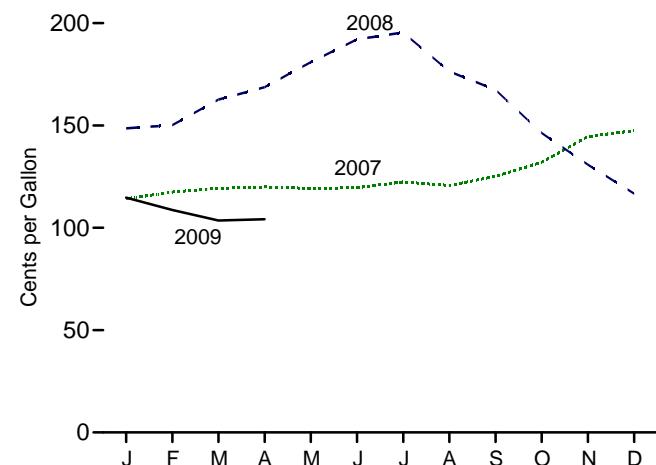
Residential Electricity<sup>a</sup>, Monthly



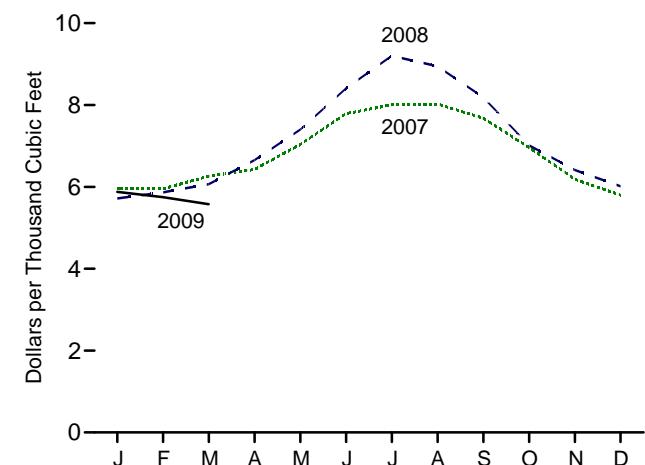
Motor Gasoline<sup>a</sup>, Monthly



Residential Heating Oil<sup>b</sup>, Monthly



Residential Natural Gas<sup>a</sup>, Monthly



<sup>a</sup>Includes taxes.

<sup>b</sup>Excludes taxes.

Note: See "Real Dollars" in Glossary.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.6.

**Table 1.6 Cost of Fuels to End Users in Real (1982-1984) Dollars**

	Consumer Price Index, All Urban Consumers <sup>a</sup>	Motor Gasoline <sup>b</sup>		Residential Heating Oil <sup>c</sup>		Residential Natural Gas <sup>b</sup>		Residential Electricity <sup>b</sup>	
		Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour
1973 Average .....	44.4	NA	NA	NA	NA	290.5	2.85	5.6	16.50
1975 Average .....	53.8	NA	NA	NA	NA	317.8	3.12	6.5	19.07
1980 Average .....	82.4	148.2	11.85	118.2	8.52	446.6	4.36	6.6	19.21
1985 Average .....	107.6	111.2	8.89	97.9	7.06	568.8	5.52	6.87	20.13
1990 Average .....	130.7	93.1	7.44	81.3	5.86	443.8	4.31	5.99	17.56
1995 Average .....	152.4	79.1	6.37	56.9	4.10	397.6	3.87	5.51	16.15
1996 Average .....	156.9	82.1	6.61	63.0	4.54	404.1	3.93	5.33	15.62
1997 Average .....	160.5	80.4	6.48	61.3	4.42	432.4	4.21	5.25	15.39
1998 Average .....	163.0	68.4	5.51	52.3	3.77	418.4	4.05	5.07	14.85
1999 Average .....	166.6	73.3	5.91	52.6	3.79	401.6	3.91	4.90	14.36
2000 Average .....	172.2	90.8	7.32	76.1	5.49	450.6	4.39	4.79	14.02
2001 Average .....	177.1	86.4	6.97	70.6	5.09	543.8	5.28	4.84	14.20
2002 Average .....	179.9	80.1	6.46	62.8	4.52	438.6	4.26	4.69	13.75
2003 Average .....	184.0	89.0	7.18	73.6	5.31	523.4	5.07	4.74	13.89
2004 Average .....	188.9	101.8	8.20	81.9	5.91	569.1	5.54	4.74	13.89
2005 Average .....	195.3	119.7	9.64	105.1	7.58	650.3	6.32	4.84	14.18
2006 Average .....	201.6	130.7	10.52	117.3	8.46	681.1	6.63	5.16	15.12
<b>2007</b>									
January .....	202.416	114.7	9.23	114.2	8.23	597.3	5.80	4.97	14.57
February .....	203.499	114.6	9.23	117.5	8.47	595.1	5.78	4.86	14.24
March .....	205.352	128.5	10.34	119.3	8.60	626.2	6.09	5.00	14.66
April .....	206.686	140.7	11.33	120.0	8.65	642.5	6.24	5.14	15.07
May .....	207.949	152.7	12.29	119.3	8.60	703.5	6.84	5.18	15.18
June .....	208.352	148.8	11.97	119.6	8.62	779.0	7.57	5.32	15.60
July .....	208.299	144.6	11.64	122.4	8.82	800.3	7.78	5.31	15.58
August .....	207.917	136.3	10.97	120.7	8.70	802.2	7.80	5.32	15.60
September .....	208.490	136.2	10.96	125.1	9.02	767.4	7.46	5.26	15.41
October .....	208.936	136.1	10.95	132.1	9.52	696.4	6.77	5.18	15.18
November .....	210.177	148.4	11.94	144.6	10.43	618.5	6.01	5.09	14.92
December .....	210.036	146.1	11.76	147.5	10.64	579.4	5.63	4.92	14.41
Average .....	207.342	137.4	11.06	125.0	9.01	629.9	6.12	5.14	15.05
<b>2008</b>									
January .....	211.080	146.7	11.81	148.6	10.72	571.8	5.56	4.85	14.22
February .....	211.693	145.6	11.72	150.1	10.82	586.7	5.70	4.86	14.23
March .....	213.528	154.9	12.47	162.6	11.73	606.5	5.89	4.95	14.51
April .....	214.823	162.5	13.08	168.7	12.16	665.2	6.46	5.13	15.03
May .....	216.632	176.0	14.17	181.0	13.05	740.0	7.19	5.30	15.53
June .....	218.815	188.1	15.14	192.0	13.85	840.4	8.17	5.41	15.86
July .....	219.964	188.3	15.16	195.4	14.09	920.2	8.94	5.52	16.18
August .....	219.086	175.2	14.10	176.4	12.72	894.6	8.69	5.55	16.25
September .....	218.783	171.4	13.79	167.4	12.07	7.96	5.48	16.06	
October .....	216.573	148.9	11.99	146.3	10.55	701.4	6.82	5.50	16.12
November .....	212.425	103.9	8.37	130.9	9.44	641.2	6.23	5.42	15.89
December .....	210.228	82.9	6.67	116.7	8.41	601.3	5.84	5.23	15.34
Average .....	215.303	154.1	12.40	149.6	10.78	635.4	6.17	5.28	15.46
<b>2009</b>									
January .....	211.143	87.1	7.01	114.7	8.27	587.8	5.71	5.22	15.31
February .....	212.193	93.3	7.51	7.84	5.59	5.29	15.51		
March .....	212.709	94.0	7.57	15.68					
April .....	213.240	98.8	7.95	NA	NA	NA	NA		
May .....	213.856	108.2	8.71	NA	NA	NA	NA	NA	

<sup>a</sup> Data are U.S. city averages for all items, and are not seasonally adjusted.

<sup>b</sup> Includes taxes.

<sup>c</sup> Excludes taxes.

R=Revised. E=Estimate. NA=Not available.

Notes: • See "Real Dollars" in Glossary. • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the

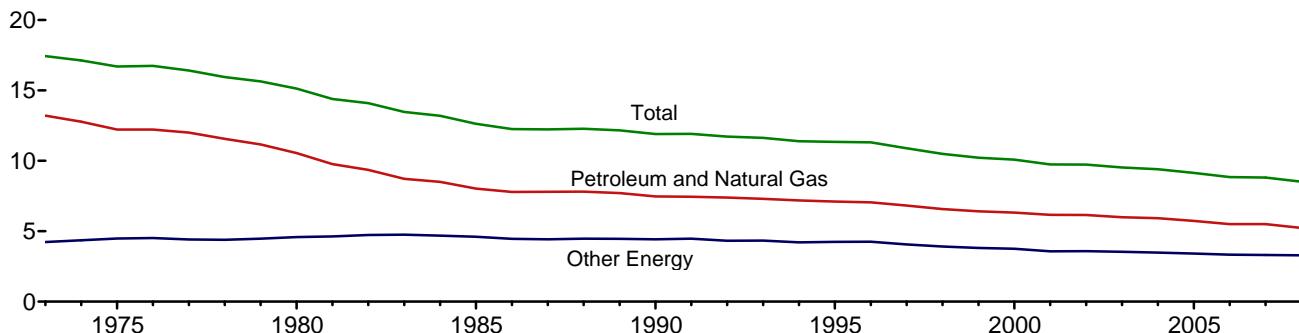
District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.9, and 9.11, adjusted by the CPI. • **Consumer Price Index, All Urban Consumers:** U.S. Department of Labor, Bureau of Labor Statistics, series ID CUUR0000SA0.

• **Conversion Factors:** Tables A1, A3, A4, and A6.

**Figure 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product, 1973-2008**  
 (Thousand Btu per Chained (2000) Dollar)



Note: See "Real Dollars" in Glossary.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.7.

**Table 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product**

	Energy Consumption			Gross Domestic Product (GDP) Billion Chained (2000) Dollars	Energy Consumption per Real Dollar of GDP		
	Petroleum and Natural Gas	Other Energy <sup>a</sup>	Total		Petroleum and Natural Gas	Other Energy <sup>a</sup>	Total
	Quadrillion Btu				Thousand Btu per Chained (2000) Dollar		
1973 Year .....	57.352	18.356	75.708	4,341.5	13.21	4.23	17.44
1974 Year .....	55.187	18.804	73.991	4,319.6	12.78	4.35	17.13
1975 Year .....	52.678	19.321	71.999	4,311.2	12.22	4.48	16.70
1976 Year .....	55.520	20.492	76.012	4,540.9	12.23	4.51	16.74
1977 Year .....	57.053	20.947	78.000	4,750.5	12.01	4.41	16.42
1978 Year .....	57.966	22.021	79.986	5,015.0	11.56	4.39	15.95
1979 Year .....	57.789	23.114	80.903	5,173.4	11.17	4.47	15.64
1980 Year .....	54.438	23.684	78.122	5,161.7	10.55	4.59	15.13
1981 Year .....	51.678	24.490	76.168	5,291.7	9.77	4.63	14.39
1982 Year .....	48.588	24.566	73.153	5,189.3	9.36	4.73	14.10
1983 Year .....	47.275	25.764	73.039	5,423.8	8.72	4.75	13.47
1984 Year .....	49.445	27.271	76.715	5,813.6	8.51	4.69	13.20
1985 Year .....	48.626	27.867	76.493	6,053.7	8.03	4.60	12.64
1986 Year .....	48.787	27.971	76.759	6,263.6	7.79	4.47	12.25
1987 Year .....	50.505	28.670	79.175	6,475.1	7.80	4.43	12.23
1988 Year .....	52.670	30.151	82.822	6,742.7	7.81	4.47	12.28
1989 Year .....	53.813	31.133	84.946	6,981.4	7.71	4.46	12.17
1990 Year .....	53.156	31.498	84.654	7,112.5	7.47	4.43	11.90
1991 Year .....	52.878	31.731	84.609	7,100.5	7.45	4.47	11.92
1992 Year .....	54.240	31.718	85.958	7,336.6	7.39	4.32	11.72
1993 Year .....	54.973	32.632	87.605	7,532.7	7.30	4.33	11.63
1994 Year .....	56.290	32.972	89.261	7,835.5	7.18	4.21	11.39
1995 Year .....	57.108	34.066	91.174	8,031.7	7.11	4.24	11.35
1996 Year .....	58.758	35.418	94.176	8,328.9	7.05	4.25	11.31
1997 Year .....	59.382	35.383	94.766	8,703.5	6.82	4.07	10.89
1998 Year .....	59.647	35.536	95.183	9,066.9	6.58	3.92	10.50
1999 Year .....	60.747	36.070	96.817	9,470.3	6.41	3.81	10.22
2000 Year .....	62.089	36.887	98.975	9,817.0	6.32	3.76	10.08
2001 Year .....	60.959	35.367	96.326	9,890.7	6.16	3.58	9.74
2002 Year .....	61.785	36.073	97.858	10,048.8	6.15	3.59	9.74
2003 Year .....	61.706	36.502	98.209	10,301.0	5.99	3.54	9.53
2004 Year .....	63.226	37.125	100.351	10,675.8	5.92	3.48	9.40
2005 Year .....	62.977	37.508	100.485	10,989.5	5.73	3.41	9.14
2006 Year .....	62.182	37.693	99.875	11,294.8	5.51	3.34	8.84
2007 Year .....	63.401	38.153	101.554	11,523.9	5.50	3.31	8.81
2008 Year .....	60.946	38.329	99.275	11,652.0	5.23	3.29	8.52

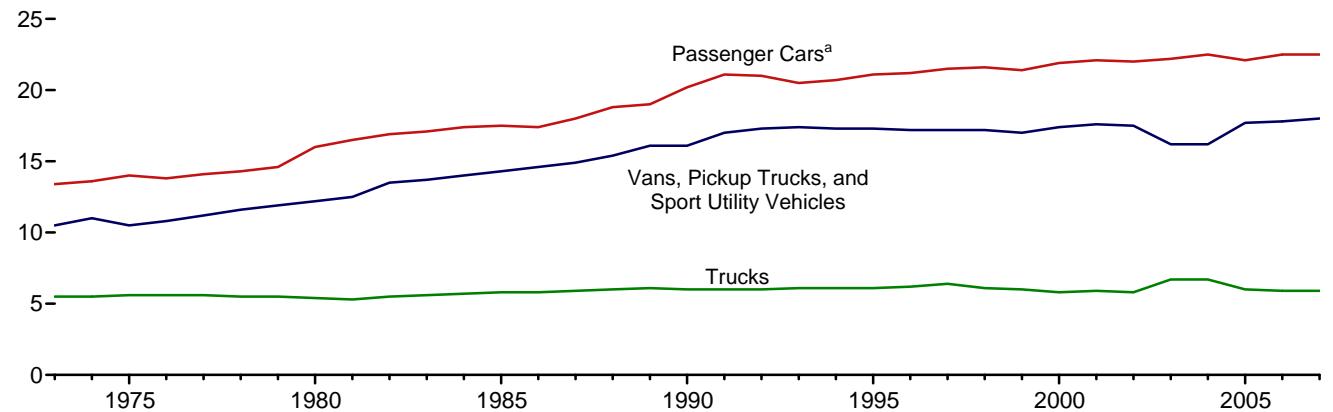
<sup>a</sup> Coal, coal coke net imports, nuclear electric power, renewable energy, and electricity net imports.

Notes: • See "Primary Energy Consumption" and "Real Dollars" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product:** 1973-2004—U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, August 2008, Table 2A. 2005 forward—U.S. Department of Commerce, Bureau of Economic Analysis, BEA News Release, May 29, 2009, Table 3, which is available at website <http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>.

**Figure 1.8 Motor Vehicle Fuel Rates, 1973-2007**  
(Miles per Gallon)



<sup>a</sup>Motorcycles are included through 1989.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.8.

**Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates**

	Passenger Cars <sup>a</sup>			Vans, Pickup Trucks, and Sport Utility Vehicles <sup>b</sup>			Trucks <sup>c</sup>			All Motor Vehicles <sup>d</sup>		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	9,884	737	13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	9,221	677	13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	<sup>a</sup> 10,157	<sup>a</sup> 533	<sup>a</sup> 19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1
2006	12,485	554	22.5	10,920	612	17.8	25,231	4,304	5.9	12,017	698	17.2
2007 <sup>p</sup>	12,293	547	22.5	10,952	609	18.0	25,141	4,270	5.9	11,910	692	17.2

<sup>a</sup> Through 1989, includes motorcycles.

<sup>b</sup> Includes a small number of trucks with 2 axles and 4 tires, such as step vans.

<sup>c</sup> Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.

<sup>d</sup> Includes buses and motorcycles, which are not shown separately.

P=Preliminary.

Note: Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: • **Passenger Cars, 1990-1994:** U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics* 1998, Table 4-13. • **All Other Data:** • 1973-1994—Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995*, Table VM-201A. • 1995 forward—FHWA, *Highway Statistics*, annual reports, Table VM-1.

**Table 1.9 Heating Degree-Days by Census Division**

Census Divisions	May					Cumulative July through May				
	Normal <sup>a</sup>	2008	2009	Percent Change		Normal <sup>a</sup>	2008	2009	Percent Change	
				Normal to 2009	2008 to 2009				Normal to 2009	2008 to 2009
<b>New England</b> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont .....	281	319	266	-5	-17	6,545	6,317	6,645	2	5
<b>Middle Atlantic</b> New Jersey, New York, Pennsylvania .....	217	258	188	-13	-27	5,872	5,395	5,840	-1	8
<b>East North Central</b> Illinois, Indiana, Michigan, Ohio, Wisconsin .....	238	273	204	-14	-25	6,447	6,366	6,566	2	3
<b>West North Central</b> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota .....	208	259	215	3	-17	6,701	6,914	6,839	2	-1
<b>South Atlantic</b> Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia .....	61	61	45	NM	NM	2,846	2,530	2,885	1	14
<b>East South Central</b> Alabama, Kentucky, Mississippi, Tennessee .....	76	58	55	NM	NM	3,597	3,389	3,541	-2	4
<b>West South Central</b> Arkansas, Louisiana, Oklahoma, Texas .....	17	20	21	NM	NM	2,286	2,161	2,099	-8	-3
<b>Mountain</b> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming .....	233	236	163	-30	-31	5,127	5,015	4,678	-9	-7
<b>Pacific<sup>b</sup></b> California, Oregon, Washington .....	182	191	88	-52	-54	3,152	3,249	2,918	-7	-10
<b>U.S. Average<sup>b</sup></b> .....	159	176	126	-21	-28	4,485	4,329	4,431	-1	2

<sup>a</sup> "Normal" is based on calculations of data from 1971 through 2000.

<sup>b</sup> Excludes Alaska and Hawaii.

NM=Not meaningful (because "Normal" is less than 100 or ratio is incalculable).

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree-days).

Web Pages: • See <http://www.eia.doe.gov/emeu/mer/overview.html> for

current data. • See <http://www.eia.doe.gov/emeu/aer/overview.html> for historical data.

Sources: There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Prediction Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for the 2000 Census by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-1 (heating degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

**Table 1.10 Cooling Degree-Days by Census Division**

Census Divisions	May					Cumulative January through May				
	Normal <sup>a</sup>	2008	2009	Percent Change		Normal <sup>a</sup>	2008	2009	Percent Change	
				Normal to 2009	2008 to 2009				Normal to 2009	2008 to 2009
<b>New England</b> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont .....	6	4	6	NM	NM	6	5	13	NM	NM
<b>Middle Atlantic</b> New Jersey, New York, Pennsylvania .....	23	6	16	NM	NM	23	7	34	NM	NM
<b>East North Central</b> Illinois, Indiana, Michigan, Ohio, Wisconsin .....	49	8	22	NM	NM	51	9	31	NM	NM
<b>West North Central</b> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota .....	65	30	43	NM	NM	74	27	50	NM	NM
<b>South Atlantic</b> Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia .....	177	202	219	24	8	360	378	390	8	3
<b>East South Central</b> Alabama, Kentucky, Mississippi, Tennessee .....	136	165	170	25	3	192	175	217	13	24
<b>West South Central</b> Arkansas, Louisiana, Oklahoma, Texas .....	252	303	275	9	-9	426	453	495	16	9
<b>Mountain</b> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming .....	96	81	146	NM	NM	145	110	184	27	67
<b>Pacific<sup>b</sup></b> California, Oregon, Washington .....	36	51	53	NM	NM	56	65	71	NM	NM
<b>U.S. Average<sup>b</sup></b> .....	97	99	109	NM	NM	162	154	178	10	16

<sup>a</sup> "Normal" is based on calculations of data from 1971 through 2000.

<sup>b</sup> Excludes Alaska and Hawaii.

NM=Not meaningful (because "Normal" is less than 100 or ratio is incalculable).

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, if a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree-days). A weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days).

Web Pages: • See <http://www.eia.doe.gov/emeu/mer/overview.html> for

current data. • See <http://www.eia.doe.gov/emeu/aer/overview.html> for historical data.

Sources: There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Prediction Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for the 2000 Census by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-2 (cooling degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

# Energy Overview

**Note. Merchandise Trade Value.** Import data presented are based on the customs value. That value does not include insurance and freight and is consequently lower than the cost, insurance, and freight (CIF) value, which is also reported by the Bureau of the Census. All export data, and import data prior to 1981, are on a free alongside ship (f.a.s.) basis.

“Balance” is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. “Energy” includes mineral fuels, lubricants, and related material. “Non-Energy Balance” and “Total Merchandise” include foreign exports (i.e., re-exports) and nonmonetary gold and Department of Defense Grant-Aid shipments. The “Non-Energy Balance” is calculated by subtracting the “Energy” from the “Total Merchandise Balance.”

“Imports” consist of government and nongovernment shipments of merchandise into the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the U.S. Foreign Trade Zones. They reflect the total arrival from foreign countries of merchandise that immediately entered consumption channels, warehouses, the Foreign Trade Zones, or the Strategic Petroleum Reserve. They exclude shipments between the United States, Puerto Rico, and U.S. possessions, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use, U.S. goods returned to the United States by its Armed Forces, and in-transit shipments.

## Table 1.5 Sources

U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division:

### Petroleum Exports

1974-1987: “U.S. Exports,” FT410, December issues.  
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.  
1990-1992: “U.S. Merchandise Trade,” Final Report.  
1993-2007: “U.S. International Trade in Goods and Services,” Annual Revision.

2008 and 2009: “U.S. International Trade in Goods and Services,” FT-900, monthly.

### Petroleum Imports

1974-1987: “U.S. Merchandise Trade,” FT900, December issues, 1975-1988.  
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.  
1990-1993: “U.S. Merchandise Trade,” Final Report.  
1994-2007: “U.S. International Trade in Goods and Services,” Annual Revision.  
2008 and 2009: “U.S. International Trade in Goods and Services,” FT-900, monthly.

### Energy Exports and Imports

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.  
1988: January-July, monthly FT-900 supplement, 1989 issues. August-December, monthly FT-900, 1989 issues.  
1989: Monthly FT-900, 1990 issues.  
1990-1992: “U.S. Merchandise Trade,” Final Report.  
1993-2007: “U.S. International Trade in Goods and Services,” Annual Revision.  
2008 and 2009: “U.S. International Trade in Goods and Services,” FT-900, monthly.

### Petroleum, Energy, and Non-Energy Balances

Calculated by the Energy Information Administration.

### Total Merchandise

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.  
1988: “Report on U.S. Merchandise Trade, 1988 Final Revisions,” August 18, 1989.  
1989: “Report on U.S. Merchandise Trade, 1989 Revisions,” July 10, 1990. 1990: “U.S. Merchandise Trade, 1990 Final Report,” May 10, 1991, and “U.S. Merchandise Trade, December 1992,” February 18, 1993, page 3.  
1991: “U.S. Merchandise Trade, 1992 Final Report,” May 12, 1993.  
1992-2007: “U.S. International Trade in Goods and Services,” Annual Revision.  
2008 and 2009: “U.S. International Trade in Goods and Services,” FT-900, monthly.

# 2

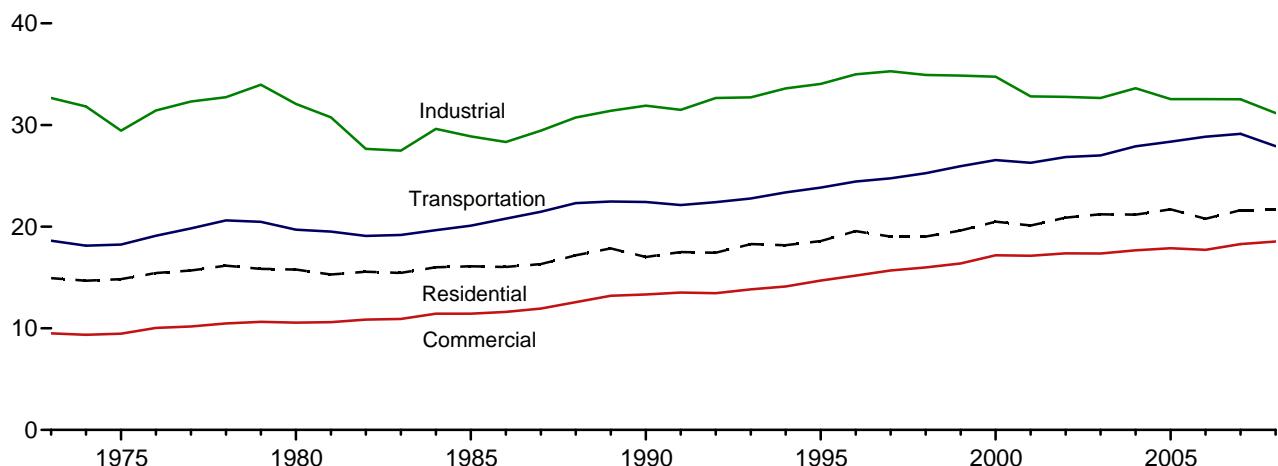
## Energy Consumption by Sector



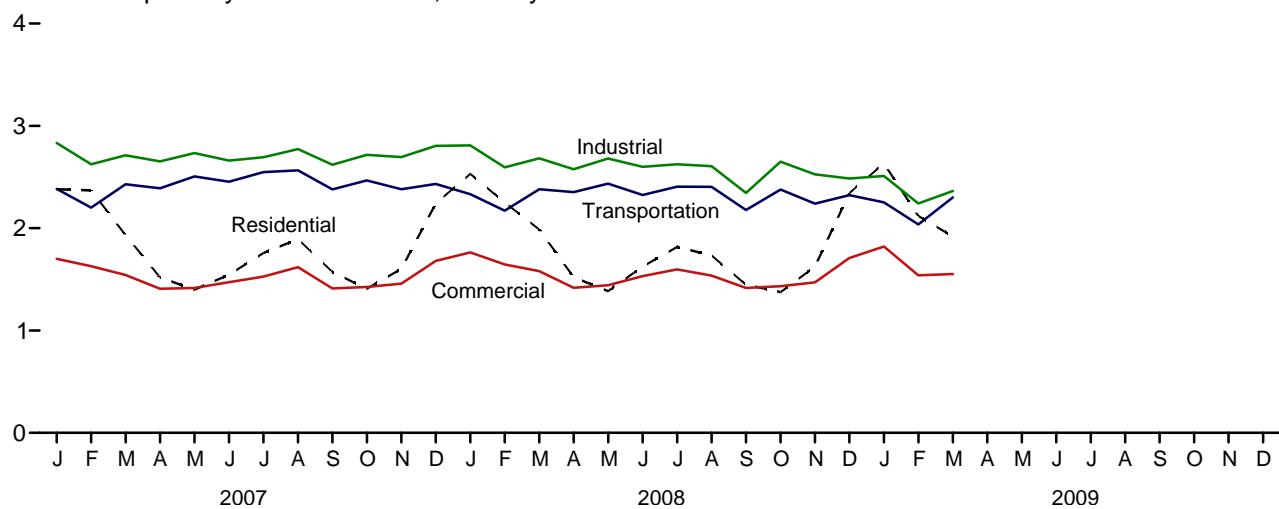
Office buildings, industries, residences, and transport systems, Baltimore, Maryland; east view from the inner harbor.  
Source: U.S. Department of Energy.

**Figure 2.1 Energy Consumption by Sector**  
(Quadrillion Btu)

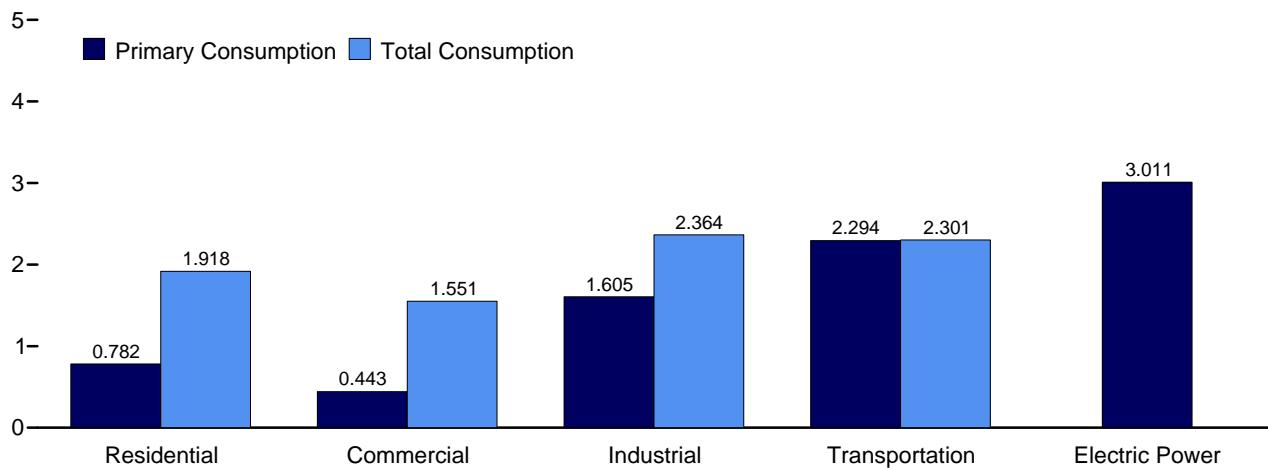
Total Consumption by End-Use Sector, 1973-2008



Total Consumption by End-Use Sector, Monthly



By Sector, March 2009



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.1.

**Table 2.1 Energy Consumption by Sector**  
(Trillion Btu)

	End-Use Sectors								Electric Power Sector <sup>c,d</sup>	Balancing Item <sup>g</sup>	Total <sup>h</sup>			
	Residential		Commercial <sup>a</sup>		Industrial <sup>b</sup>		Transportation							
	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>						
1973 Total .....	8,250	14,930	4,381	9,507	24,741	32,653	18,576	18,612	19,753	7	75,708			
1975 Total .....	8,006	14,842	4,023	9,466	21,454	29,447	18,209	18,244	20,307	1	71,999			
1980 Total .....	7,453	15,787	4,074	10,563	22,610	32,077	19,658	19,696	24,327	-1	78,122			
1985 Total .....	7,161	16,088	3,695	11,444	19,468	28,877	20,041	20,087	26,132	-4	76,493			
1990 Total .....	6,570	17,015	3,858	13,333	21,208	31,895	22,366	22,420	30,660	-9	84,654			
1995 Total .....	6,946	18,578	4,063	14,698	22,748	34,047	23,793	23,849	33,621	3	91,174			
1996 Total .....	7,471	19,562	4,235	15,181	23,444	34,989	24,384	24,439	34,638	4	94,176			
1997 Total .....	7,040	19,026	4,257	15,694	23,722	35,288	24,697	24,752	35,045	6	94,766			
1998 Total .....	6,424	19,021	3,964	15,979	23,211	34,928	25,203	25,258	36,385	-3	95,183			
1999 Total .....	6,784	19,621	4,007	16,384	22,991	34,855	25,894	25,951	37,136	6	96,817			
2000 Total .....	7,169	20,488	4,227	17,176	22,871	34,758	26,491	26,552	38,214	2	98,975			
2001 Total .....	6,879	20,106	4,036	17,141	21,836	32,806	26,216	26,279	37,366	-6	96,326			
2002 Total .....	6,938	20,874	4,099	17,367	21,857	32,764	26,788	26,849	38,171	5	97,858			
2003 Total .....	7,252	21,208	4,239	17,351	21,576	32,650	26,928	27,002	38,218	-3	98,209			
2004 Total .....	7,019	21,178	4,180	17,664	22,455	33,609	27,820	27,899	38,876	(s)	100,351			
2005 Total .....	6,921	21,697	4,014	17,875	21,466	32,545	28,280	28,361	39,799	6	100,485			
2006 Total .....	6,191	20,770	3,703	17,724	21,632	32,541	28,761	28,841	39,589	(s)	99,875			
<b>2007</b>														
January .....	1,000	2,381	524	1,700	1,924	2,833	2,375	2,383	3,474	(s)	9,297			
February .....	1,099	2,370	574	1,628	1,804	2,625	2,193	2,201	3,153	-2	8,821			
March .....	804	1,933	446	1,542	1,829	2,711	2,422	2,430	3,116	-4	8,613			
April .....	549	1,518	323	1,408	1,759	2,653	2,383	2,390	2,956	-4	7,967			
May .....	339	1,399	222	1,416	1,775	2,734	2,498	2,505	3,220	-2	8,052			
June .....	262	1,546	189	1,473	1,703	2,661	2,446	2,454	3,533	(s)	8,134			
July .....	244	1,757	178	1,526	1,725	2,694	2,541	2,549	3,839	3	8,529			
August .....	245	1,893	186	1,618	1,762	2,773	2,558	2,566	4,099	4	8,854			
September .....	249	1,572	186	1,411	1,727	2,620	2,372	2,379	3,448	(s)	7,981			
October .....	320	1,408	224	1,425	1,784	2,717	2,460	2,466	3,229	-2	8,015			
November .....	575	1,602	339	1,459	1,784	2,696	2,373	2,380	3,065	-2	8,135			
December .....	941	2,242	506	1,680	1,877	2,805	2,424	2,432	3,409	-1	9,157			
<b>Total</b> .....	<b>6,626</b>	<b>21,619</b>	<b>3,896</b>	<b>18,287</b>	<b>21,454</b>	<b>32,523</b>	<b>29,046</b>	<b>29,134</b>	<b>40,542</b>	<b>-10</b>	<b>101,554</b>			
<b>2008</b>														
January .....	1,102	2,530	576	1,763	1,935	2,809	2,324	R 2,332	3,498	(s)	9,434			
February .....	1,025	2,251	553	1,646	1,773	2,595	2,164	2,171	3,147	-2	8,661			
March .....	840	1,986	461	1,580	1,811	2,683	2,374	2,381	3,144	-3	8,627			
April .....	540	1,521	321	1,417	1,704	2,576	2,346	2,352	2,956	-4	7,863			
May .....	366	1,385	235	1,442	1,730	2,681	2,429	2,435	3,184	-3	7,941			
June .....	277	1,626	190	1,531	1,654	2,599	2,318	2,325	3,642	1	8,081			
July .....	254	1,816	183	1,597	1,689	2,625	2,398	2,405	3,919	2	8,446			
August .....	242	1,734	179	1,536	1,686	2,606	2,397	2,404	3,776	1	8,281			
September .....	238	1,446	181	1,416	1,490	2,345	2,171	2,178	3,306	(s)	7,385			
October .....	354	1,375	242	1,434	1,777	2,649	2,371	2,378	3,093	-4	7,832			
November .....	578	1,623	R 340	1,471	1,679	2,526	2,234	2,240	3,031	-1	7,860			
December .....	966	2,344	512	1,709	1,675	2,486	2,315	2,323	3,394	3	8,865			
<b>Total</b> .....	<b>6,778</b>	<b>21,637</b>	<b>3,972</b>	<b>18,541</b>	<b>20,602</b>	<b>31,182</b>	<b>R 27,842</b>	<b>27,924</b>	<b>40,090</b>	<b>-9</b>	<b>99,275</b>			
<b>2009</b>														
January .....	1,157	2,632	R 616	1,820	R 1,727	R 2,510	2,245	2,253	3,471	R 3	R 9,219			
February .....	936	2,119	R 508	R 1,539	R 2,241	R 2,031	2,037	R 2,923	R -1	R 7,936				
March .....	782	1,918	443	1,551	1,605	2,364	2,294	2,301	3,011	-2	8,133			
<b>3-Month Total</b> .....	<b>2,876</b>	<b>6,670</b>	<b>1,566</b>	<b>4,911</b>	<b>4,870</b>	<b>7,115</b>	<b>6,570</b>	<b>6,591</b>	<b>9,405</b>	<b>(s)</b>	<b>25,287</b>			
<b>2008 3-Month Total</b> .....	<b>2,966</b>	<b>6,767</b>	<b>1,590</b>	<b>4,989</b>	<b>5,520</b>	<b>8,088</b>	<b>6,862</b>	<b>6,883</b>	<b>9,789</b>	<b>-5</b>	<b>26,722</b>			
<b>2007 3-Month Total</b> .....	<b>2,903</b>	<b>6,684</b>	<b>1,543</b>	<b>4,870</b>	<b>5,558</b>	<b>8,169</b>	<b>6,990</b>	<b>7,014</b>	<b>9,743</b>	<b>-6</b>	<b>26,730</b>			

<sup>a</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

<sup>d</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

<sup>e</sup> See "Primary Energy Consumption" in Glossary.

<sup>f</sup> Total energy consumption in the end-use sectors consists of primary energy consumption, electricity retail sales, and electrical system energy losses. See Note 2, "Electrical System Energy Losses," at end of section.

<sup>g</sup> A balancing item. The sum of primary consumption in the five energy-use sectors equals the sum of total consumption in the four end-use sectors. However, total energy consumption does not equal the sum of the sectoral components due to the use of sector-specific conversion factors for coal and natural gas.

<sup>h</sup> Primary energy consumption total. See Table 1.3.

R=Revised. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

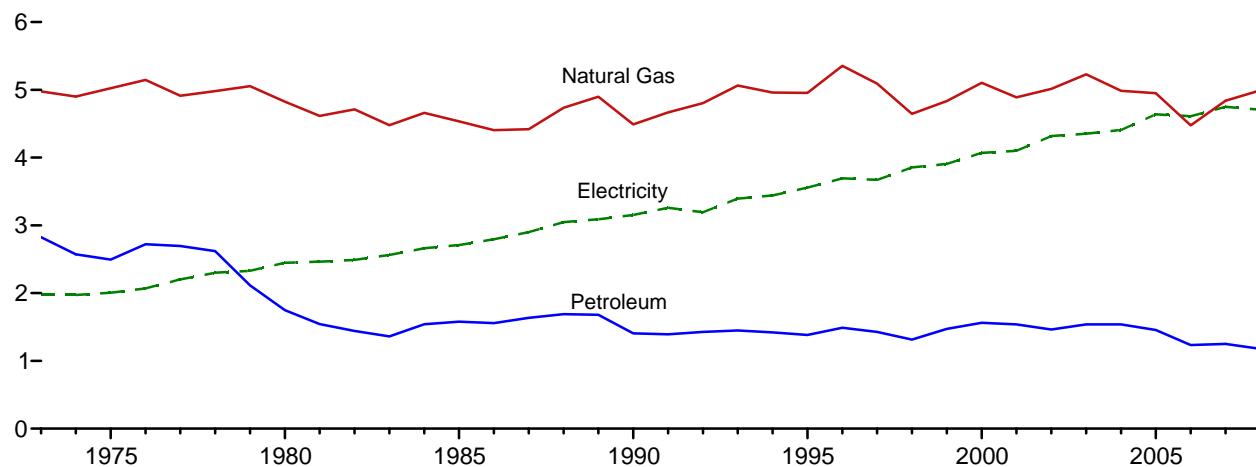
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

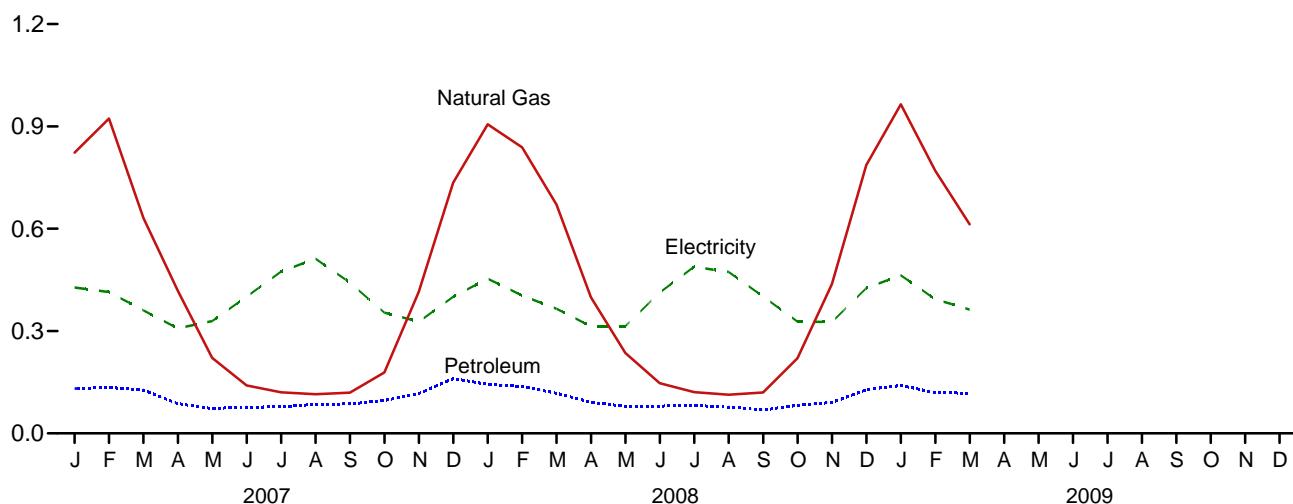
Sources: Tables 1.3 and 2.2-2.6.

**Figure 2.2 Residential Sector Energy Consumption**  
(Quadrillion Btu)

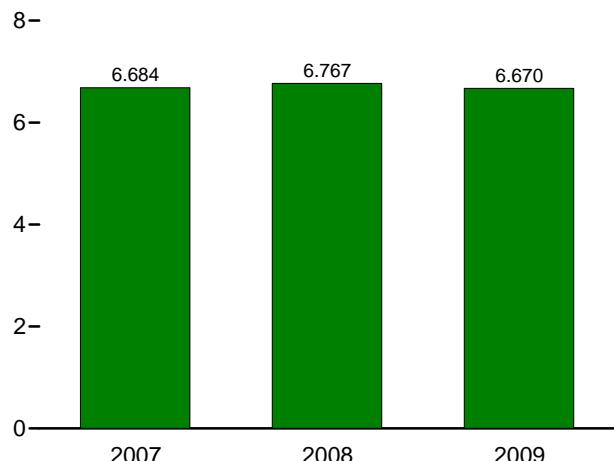
By Major Sources, 1973-2008



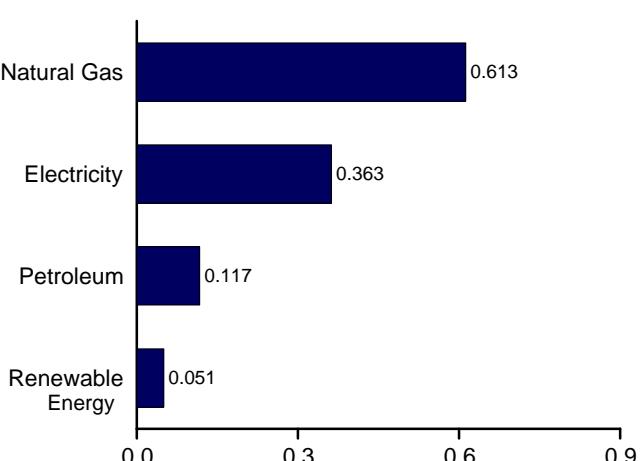
By Major Sources, Monthly



Total, January-March



By Major Sources, March 2009



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.2.

**Table 2.2 Residential Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>								Total Primary	Electricity Retail Sales <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total				
	Fossil Fuels				Renewable Energy <sup>b</sup>											
	Coal	Natural Gas <sup>c</sup>	Petroleum	Total	Geo-thermal	Solar/PV	Bio-mass	Total								
1973 Total .....	94	4,977	2,825	7,896	NA	NA	354	354	8,250	1,976	4,703	14,930				
1975 Total .....	63	5,023	2,495	7,580	NA	NA	425	425	8,006	2,007	4,829	14,842				
1980 Total .....	31	4,825	1,748	6,603	NA	NA	850	850	7,453	2,448	5,885	15,787				
1985 Total .....	39	4,534	1,578	6,151	NA	NA	1,010	1,010	7,161	2,709	6,219	16,088				
1990 Total .....	31	4,491	1,407	5,929	6	56	580	641	6,570	3,153	7,291	17,015				
1995 Total .....	17	4,954	1,383	6,355	7	65	520	591	6,946	3,557	8,075	18,578				
1996 Total .....	17	5,354	1,488	6,859	7	65	540	612	7,471	3,694	8,397	19,562				
1997 Total .....	16	5,093	1,428	6,537	8	65	430	503	7,040	3,671	8,315	19,026				
1998 Total .....	12	4,646	1,314	5,971	8	65	380	452	6,424	3,856	8,741	19,021				
1999 Total .....	14	4,835	1,473	6,322	9	64	390	462	6,784	3,906	8,931	19,621				
2000 Total .....	11	5,105	1,563	6,679	9	61	420	490	7,169	4,069	9,250	20,488				
2001 Total .....	12	4,889	1,539	6,440	9	60	370	439	6,879	4,100	9,127	20,106				
2002 Total .....	12	5,014	1,463	6,489	10	59	380	449	6,938	4,317	9,619	20,874				
2003 Total .....	12	5,230	1,539	6,781	13	58	400	471	7,252	4,353	9,603	21,208				
2004 Total .....	11	4,986	1,539	6,537	14	59	410	483	7,019	4,408	9,750	21,178				
2005 Total .....	8	4,951	1,455	6,414	16	61	430	507	6,921	4,638	10,139	21,697				
2006 Total .....	6	4,476	1,233	5,715	18	67	390	475	6,191	4,611	9,968	20,770				
2007 January .....	1	823	131	955	2	6	37	45	1,000	427	954	2,381				
February .....	1	923	134	1,058	2	6	33	40	1,099	414	857	2,370				
March .....	1	632	127	759	2	6	37	45	804	361	769	1,933				
April .....	1	418	87	506	2	6	35	43	549	308	661	1,518				
May .....	1	221	73	294	2	6	37	45	339	329	731	1,399				
June .....	1	141	77	219	2	6	35	43	262	401	884	1,546				
July .....	1	121	78	199	2	6	37	45	244	474	1,039	1,757				
August .....	1	115	85	200	2	6	37	45	245	512	1,136	1,893				
September .....	(s)	119	86	206	2	6	35	43	249	442	881	1,572				
October .....	1	178	96	275	2	6	37	45	320	354	735	1,408				
November .....	1	415	116	532	2	6	35	43	575	327	700	1,602				
December .....	1	735	160	896	2	6	37	45	941	401	900	2,242				
Total .....	8	4,840	1,251	6,099	22	75	430	527	6,626	4,750	10,243	21,619				
2008 January .....	1	906	144	1,051	2	7	42	51	1,102	453	976	2,530				
February .....	1	838	138	977	2	7	39	47	1,025	404	822	2,251				
March .....	1	671	118	789	2	7	42	51	840	365	781	1,986				
April .....	1	399	91	491	2	7	40	49	540	314	667	1,521				
May .....	1	236	79	315	2	7	42	51	366	314	705	1,385				
June .....	1	147	80	228	2	7	40	49	277	413	936	1,626				
July .....	1	121	82	203	2	7	42	51	254	489	1,073	1,816				
August .....	1	113	77	191	2	7	42	51	242	473	1,019	1,734				
September .....	(s)	120	68	189	2	7	40	49	238	401	807	1,446				
October .....	1	220	82	303	2	7	42	51	354	328	693	1,375				
November .....	1	438	91	529	2	7	40	49	578	326	719	1,623				
December .....	1	787	128	915	2	7	42	51	966	426	952	2,344				
Total .....	7	4,994	1,178	6,179	26	83	490	599	6,778	4,706	10,152	21,637				
2009 January .....	1	965	141	1,106	2	7	42	51	1,157	463	1,012	2,632				
February .....	1	770	R 120	890	2	6	38	46	936	393	R 789	2,119				
March .....	1	613	117	731	2	7	42	51	782	363	773	1,918				
3-Month Total ....	2	2,348	378	2,728	7	20	121	148	2,876	1,220	2,574	6,670				
2008 3-Month Total ....	2	2,415	399	2,817	7	21	122	149	2,966	1,223	2,578	6,767				
2007 3-Month Total ....	2	2,378	393	2,773	5	18	106	130	2,903	1,203	2,579	6,684				

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Data are estimates. See Table 10.2a for notes on series components.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>e</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding.

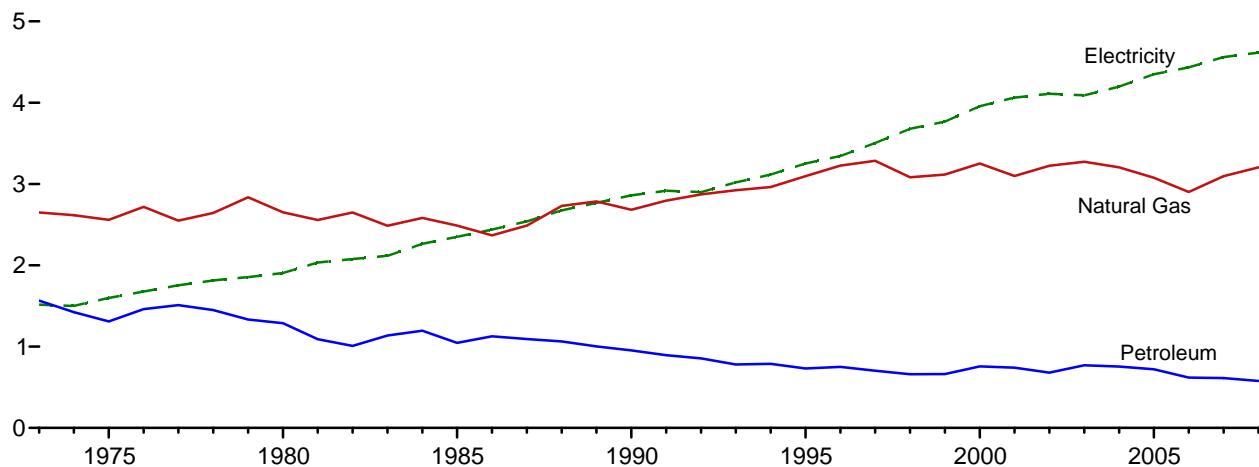
• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

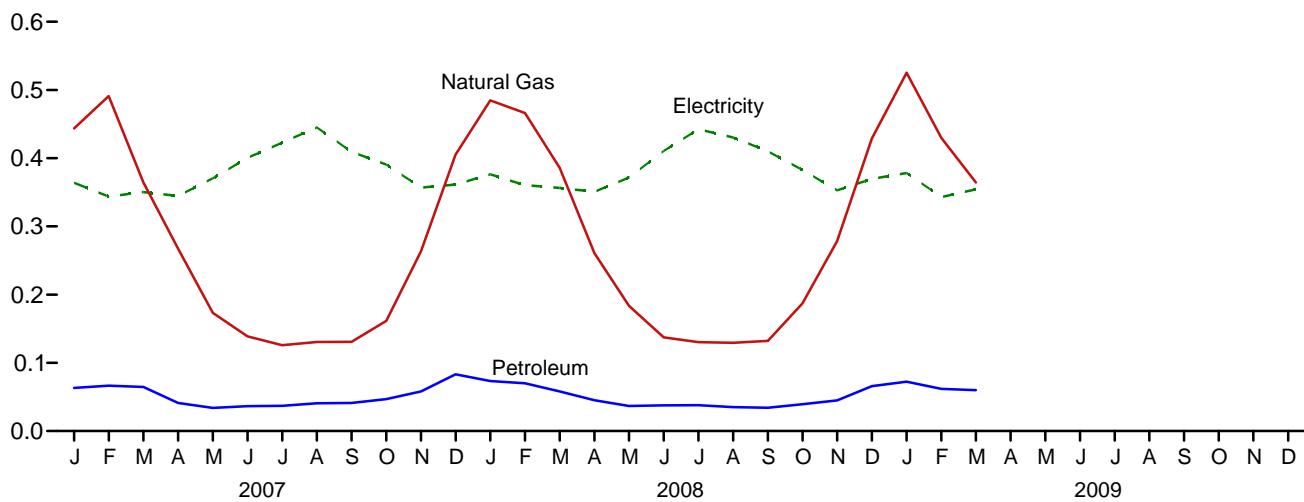
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

**Figure 2.3 Commercial Sector Energy Consumption**  
(Quadrillion Btu)

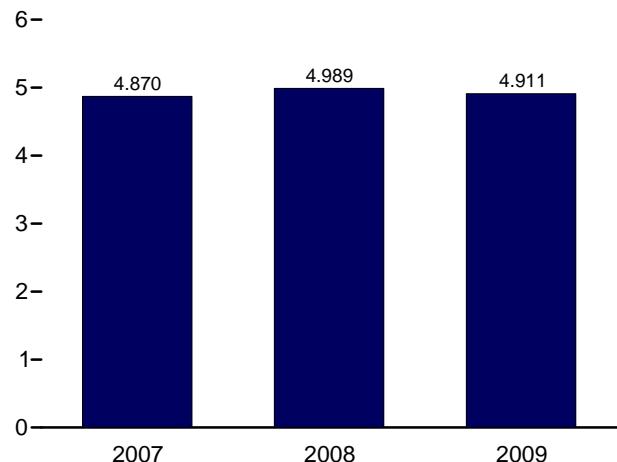
By Major Sources, 1973-2008



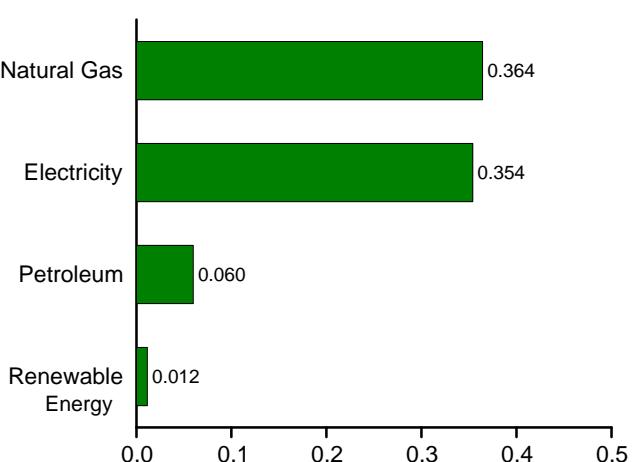
By Major Sources, Monthly



Total, January-March



By Major Sources, March 2009



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.3.

**Table 2.3 Commercial Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>								Total Primary	Electricity Retail Sales <sup>f</sup>	Electrical System Energy Losses <sup>g</sup>	Total				
	Fossil Fuels				Renewable Energy <sup>b</sup>											
	Coal	Natural Gas <sup>c</sup>	Petro-leum <sup>d</sup>	Total	Hydro-electric Power <sup>e</sup>	Geo-thermal	Bio-mass	Total								
1973 Total .....	160	2,649	1,565	4,374	NA	NA	7	7	4,381	1,517	3,609	9,507				
1975 Total .....	147	2,558	1,310	4,015	NA	NA	8	8	4,023	1,598	3,845	9,466				
1980 Total .....	115	2,651	1,287	4,053	NA	NA	21	21	4,074	1,906	4,582	10,563				
1985 Total .....	137	2,488	1,045	3,670	NA	NA	24	24	3,695	2,351	5,398	11,444				
1990 Total .....	124	2,682	953	3,760	1	3	94	98	3,858	2,860	6,615	13,333				
1995 Total .....	117	3,096	732	3,945	1	5	113	118	4,063	3,252	7,382	14,698				
1996 Total .....	122	3,226	751	4,099	1	5	129	135	4,235	3,344	7,603	15,181				
1997 Total .....	129	3,285	704	4,118	1	6	131	138	4,257	3,503	7,935	15,694				
1998 Total .....	93	3,083	661	3,837	1	7	118	127	3,964	3,678	8,338	15,979				
1999 Total .....	103	3,115	661	3,879	1	7	121	129	4,007	3,766	8,610	16,384				
2000 Total .....	92	3,252	756	4,099	1	8	119	128	4,227	3,956	8,993	17,176				
2001 Total .....	97	3,097	741	3,935	1	8	92	101	4,036	4,062	9,043	17,141				
2002 Total .....	90	3,225	680	3,995	(s)	9	95	104	4,099	4,110	9,158	17,367				
2003 Total .....	82	3,274	770	4,126	1	11	101	113	4,239	4,090	9,023	17,351				
2004 Total .....	103	3,204	755	4,062	1	12	105	118	4,180	4,198	9,286	17,664				
2005 Total .....	97	3,076	721	3,894	1	14	105	119	4,014	4,351	9,511	17,875				
2006 Total .....	65	2,902	620	3,586	1	14	102	117	3,703	4,435	9,586	17,724				
<b>2007</b>																
January .....	7	444	63	514	(s)	1	9	10	524	364	812	1,700				
February .....	7	491	67	565	(s)	1	8	9	574	344	711	1,628				
March .....	7	364	65	436	(s)	1	9	10	446	350	746	1,542				
April .....	5	267	41	313	(s)	1	8	10	323	345	740	1,408				
May .....	5	173	34	212	(s)	1	9	10	222	370	824	1,416				
June .....	5	139	37	180	(s)	1	8	10	189	400	883	1,473				
July .....	5	126	37	168	(s)	1	9	10	178	423	926	1,526				
August .....	5	131	41	176	(s)	1	9	10	186	445	987	1,618				
September .....	4	131	41	176	(s)	1	8	10	186	409	816	1,411				
October .....	6	162	47	214	(s)	1	9	10	224	391	810	1,425				
November .....	7	264	58	329	(s)	1	9	10	339	357	763	1,459				
December .....	8	405	83	496	(s)	1	9	10	506	361	812	1,680				
<b>Total</b> .....	<b>70</b>	<b>3,095</b>	<b>613</b>	<b>3,778</b>	<b>1</b>	<b>14</b>	<b>102</b>	<b>118</b>	<b>3,896</b>	<b>4,560</b>	<b>9,832</b>	<b>18,287</b>				
<b>2008</b>																
January .....	7	485	73	566	(s)	1	9	11	576	376	810	1,763				
February .....	7	466	70	543	(s)	1	9	10	553	360	732	1,646				
March .....	7	386	58	451	(s)	1	9	10	461	356	763	1,580				
April .....	5	261	45	310	(s)	1	9	10	321	351	746	1,417				
May .....	5	184	37	225	(s)	1	9	10	235	372	835	1,442				
June .....	5	137	38	180	(s)	1	9	10	190	411	930	1,531				
July .....	5	130	38	173	(s)	1	9	10	183	442	972	1,597				
August .....	5	129	35	169	(s)	1	9	10	179	430	926	1,536				
September .....	4	132	34	171	(s)	1	9	10	181	410	826	1,416				
October .....	5	187	39	232	(s)	1	9	10	242	383	810	1,434				
November .....	6	279	45	329	(s)	1	9	10	353	778	1,471					
December .....	7	429	66	501	(s)	1	9	10	512	370	827	1,709				
<b>Total</b> .....	<b>67</b>	<b>3,204</b>	<b>578</b>	<b>R 3,849</b>	<b>1</b>	<b>15</b>	<b>107</b>	<b>123</b>	<b>3,972</b>	<b>4,615</b>	<b>9,955</b>	<b>18,541</b>				
<b>2009</b>																
January .....	R 8	525	72	605	(s)	1	9	11	R 616	378	826	1,820				
February .....	R 7	430	R 62	R 498	(s)	1	8	10	R 508	343	688	R 1,539				
March .....	6	364	60	431	(s)	1	10	12	443	354	755	1,551				
<b>3-Month Total</b> ....	<b>21</b>	<b>1,320</b>	<b>194</b>	<b>1,534</b>	<b>(s)</b>	<b>4</b>	<b>28</b>	<b>32</b>	<b>1,566</b>	<b>1,076</b>	<b>2,269</b>	<b>4,911</b>				
<b>2008 3-Month Total</b> ....	<b>21</b>	<b>1,337</b>	<b>201</b>	<b>1,559</b>	<b>(s)</b>	<b>4</b>	<b>27</b>	<b>31</b>	<b>1,590</b>	<b>1,093</b>	<b>2,305</b>	<b>4,989</b>				
<b>2007 3-Month Total</b> ....	<b>21</b>	<b>1,299</b>	<b>194</b>	<b>1,514</b>	<b>(s)</b>	<b>4</b>	<b>25</b>	<b>29</b>	<b>1,543</b>	<b>1,058</b>	<b>2,269</b>	<b>4,870</b>				

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Most data are estimates. See Table 10.2a for notes on series components and estimation.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include the fuel ethanol portion of motor gasoline—fuel ethanol is included in "Biomass."

<sup>e</sup> Conventional hydroelectric power.

<sup>f</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>g</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.

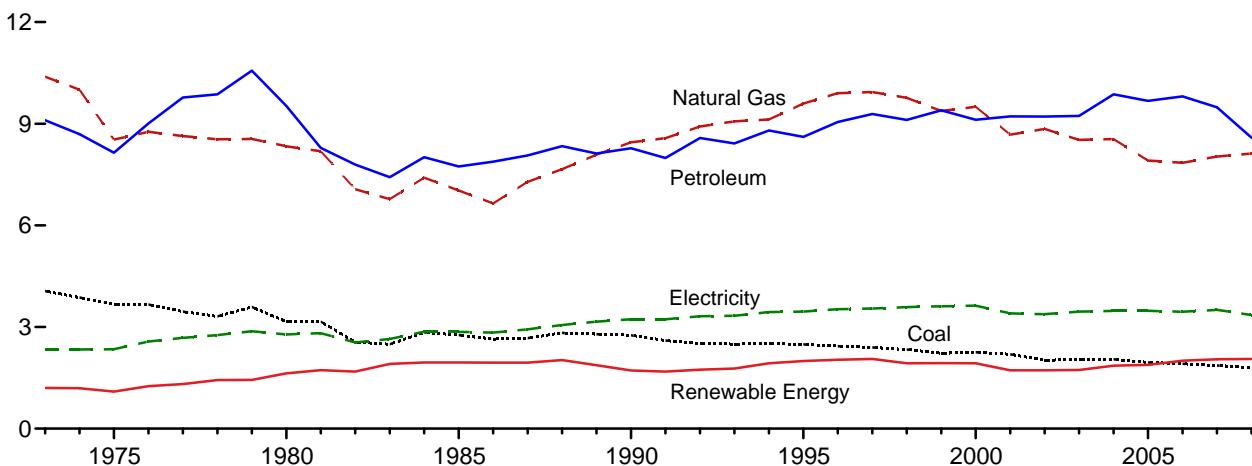
Notes: • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

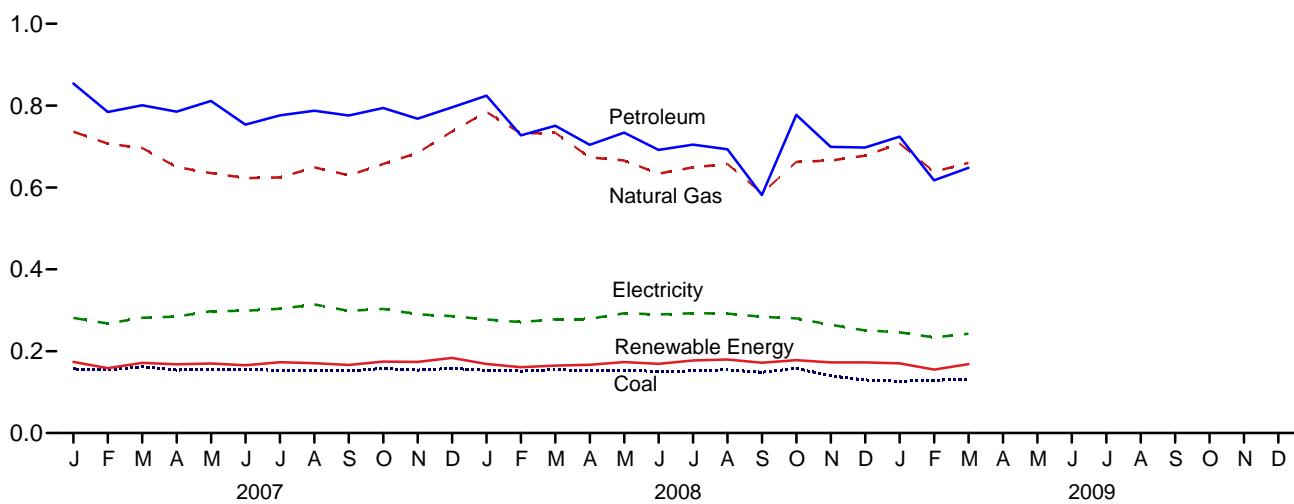
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

**Figure 2.4 Industrial Sector Energy Consumption**  
(Quadrillion Btu)

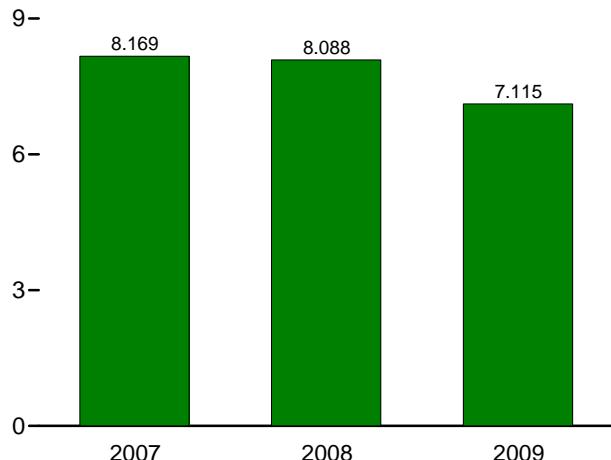
By Major Sources, 1973-2008



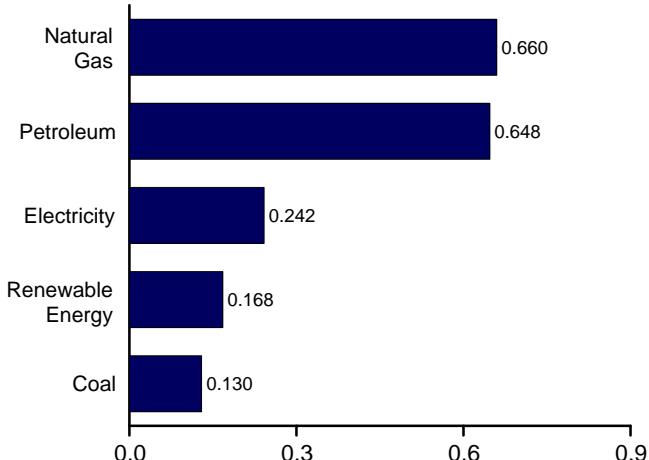
By Major Sources, Monthly



Total, January-March



By Major Sources, March 2009



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.4.

**Table 2.4 Industrial Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>								Total Primary	Electricity Retail Sales <sup>g</sup>	Electrical System Energy Losses <sup>h</sup>	Total <sup>e</sup>				
	Fossil Fuels				Renewable Energy <sup>b</sup>											
	Coal	Natural Gas <sup>c</sup>	Petroleum <sup>d</sup>	Total <sup>e</sup>	Hydro-electric Power <sup>f</sup>	Geo-thermal	Bio-mass	Total								
1973 Total .....	4,057	10,388	9,104	23,541	35	NA	1,165	1,200	24,741	2,341	5,571	32,653				
1975 Total .....	3,667	8,532	8,146	20,359	32	NA	1,063	1,096	21,454	2,346	5,647	29,447				
1980 Total .....	3,155	8,333	9,525	20,977	33	NA	1,600	1,633	22,610	2,781	6,686	32,077				
1985 Total .....	2,760	7,032	7,738	17,516	33	NA	1,919	1,952	19,468	2,855	6,554	28,877				
1990 Total .....	2,756	8,451	8,278	19,490	31	2	1,685	1,718	21,208	3,226	7,461	31,895				
1995 Total .....	2,488	9,592	8,613	20,754	55	3	1,936	1,994	22,748	3,455	7,844	34,047				
1996 Total .....	2,434	9,901	9,052	21,410	61	3	1,970	2,034	23,444	3,527	8,018	34,989				
1997 Total .....	2,395	9,933	9,289	21,663	58	3	1,998	2,059	23,722	3,542	8,024	35,288				
1998 Total .....	2,335	9,763	9,114	21,280	55	3	1,873	1,931	23,211	3,587	8,131	34,928				
1999 Total .....	2,227	9,375	9,395	21,054	49	4	1,883	1,936	22,991	3,611	8,254	34,855				
2000 Total .....	2,256	9,500	9,119	20,941	42	4	1,884	1,930	22,871	3,631	8,256	34,758				
2001 Total .....	2,192	8,676	9,217	20,115	33	5	1,684	1,721	21,836	3,400	7,570	32,806				
2002 Total .....	2,019	8,845	9,209	20,135	39	5	1,679	1,722	21,857	3,379	7,528	32,764				
2003 Total .....	2,041	8,521	9,232	19,845	43	3	1,684	1,730	21,576	3,454	7,620	32,650				
2004 Total .....	2,047	8,544	9,865	20,594	33	4	1,824	1,860	22,455	3,473	7,682	33,609				
2005 Total .....	1,954	7,911	9,673	19,583	32	4	1,847	1,883	21,466	3,477	7,602	32,545				
2006 Total .....	1,914	7,846	9,806	19,627	29	4	1,972	2,005	21,632	3,451	7,459	32,541				
2007 January .....	157	736	854	1,751	2	(s)	172	174	1,924	281	627	2,833				
February .....	154	707	784	1,646	1	(s)	157	158	1,804	267	553	2,625				
March .....	162	696	801	1,658	2	(s)	169	171	1,829	282	600	2,711				
April .....	154	650	785	1,591	2	(s)	166	168	1,759	284	611	2,653				
May .....	156	635	811	1,605	2	(s)	168	170	1,775	298	662	2,734				
June .....	156	623	753	1,538	1	(s)	164	165	1,703	299	659	2,661				
July .....	153	625	776	1,552	1	(s)	172	173	1,725	304	665	2,694				
August .....	152	649	787	1,591	1	(s)	170	171	1,762	314	697	2,773				
September .....	152	629	776	1,560	1	(s)	165	166	1,727	298	595	2,620				
October .....	158	657	794	1,609	1	(s)	173	175	1,784	303	629	2,717				
November .....	154	684	768	1,611	1	(s)	172	174	1,784	290	621	2,696				
December .....	158	737	796	1,694	2	(s)	182	183	1,877	286	642	2,805				
Total .....	1,865	8,030	9,486	19,406	16	5	2,028	2,048	21,454	3,507	7,562	32,523				
2008 January .....	154	785	824	1,766	2	(s)	166	169	1,935	278	597	2,809				
February .....	152	732	727	1,613	2	(s)	158	161	1,773	271	551	2,595				
March .....	155	733	751	1,647	2	(s)	162	165	1,811	278	594	2,683				
April .....	152	673	704	1,538	2	(s)	164	167	1,704	279	593	2,576				
May .....	153	666	734	1,556	2	(s)	171	173	1,730	293	658	2,681				
June .....	151	633	692	1,484	1	(s)	167	169	1,654	290	656	2,599				
July .....	152	649	705	1,512	1	(s)	176	177	1,689	293	643	2,625				
August .....	155	657	693	1,506	1	(s)	178	180	1,686	292	628	2,606				
September .....	148	586	581	1,318	1	(s)	170	172	1,490	284	571	2,345				
October .....	158	662	777	1,598	1	(s)	177	178	1,777	280	593	2,649				
November .....	140	666	699	1,506	1	(s)	171	173	1,679	264	583	2,526				
December .....	130	677	698	1,502	2	(s)	171	173	1,675	251	561	2,486				
Total .....	1,799	8,121	8,586	18,547	19	5	2,032	2,056	20,602	3,351	7,229	31,182				
2009 January .....	R 127	708	724	R 1,556	2	(s)	168	170	R 1,727	246	537	R 2,510				
February .....	R 129	638	R 617	R 1,384	1	(s)	153	155	R 1,539	234	469	R 2,241				
March .....	130	660	648	1,437	2	(s)	166	168	1,605	242	516	2,364				
3-Month Total ....	386	2,006	1,989	4,377	5	1	488	494	4,870	722	1,523	7,115				
2008 3-Month Total ....	460	2,250	2,302	5,025	7	1	486	494	5,520	826	1,742	8,088				
2007 3-Month Total ....	473	2,140	2,439	5,054	5	1	497	503	5,558	830	1,780	8,169				

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Most data are estimates. See Table 10.2b for notes on series components and estimation.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include the fuel ethanol portion of motor gasoline—fuel ethanol is included in "Biomass."

<sup>e</sup> Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.

<sup>f</sup> Conventional hydroelectric power.

<sup>g</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>h</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are

allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

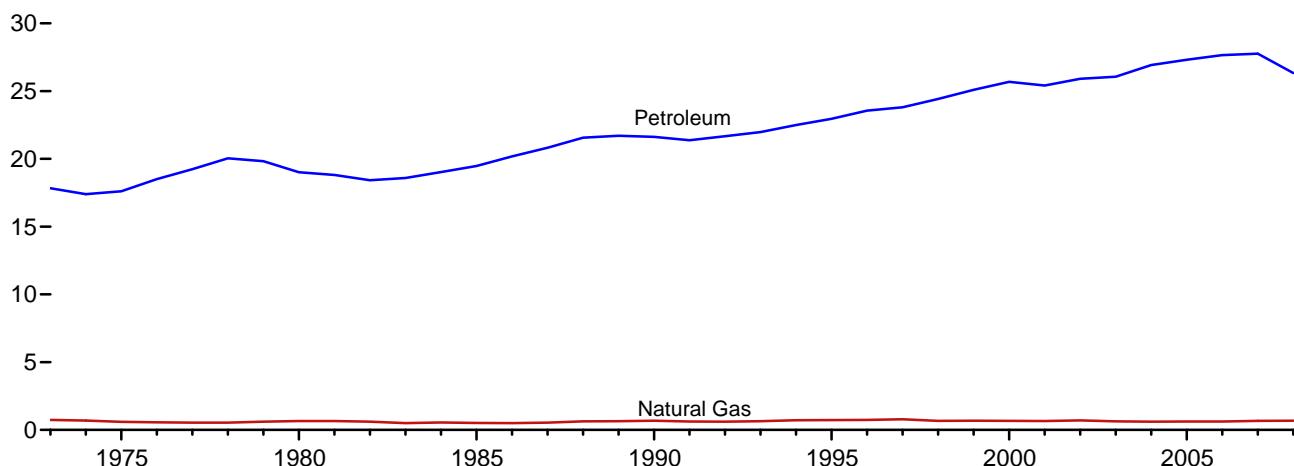
Notes: • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

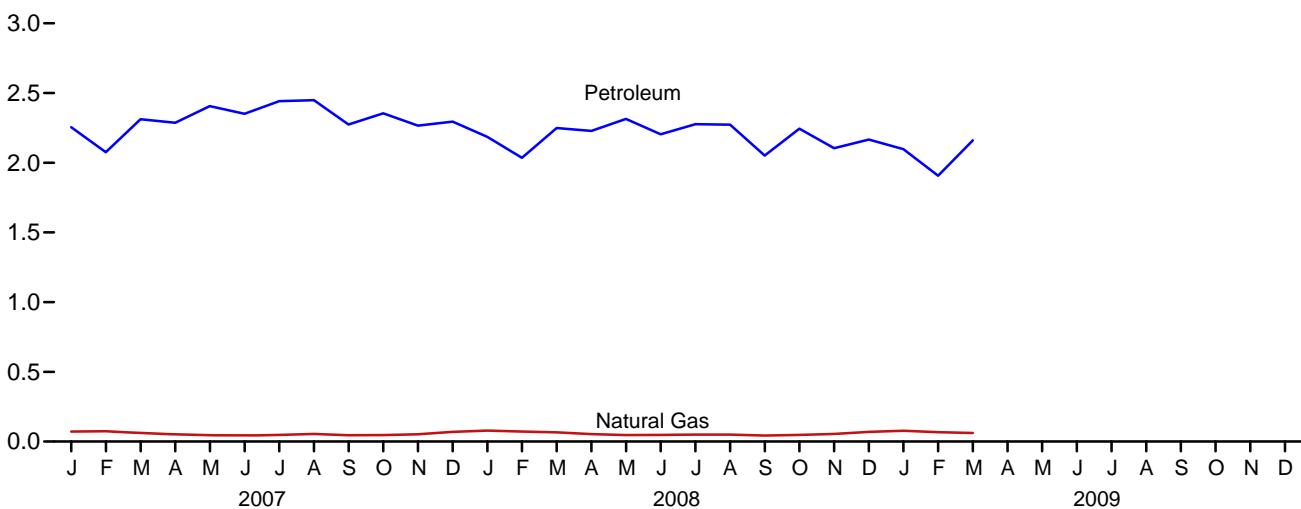
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

**Figure 2.5 Transportation Sector Energy Consumption**  
(Quadrillion Btu)

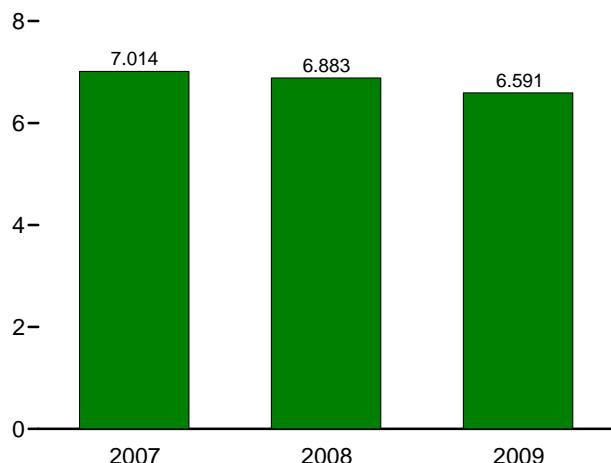
By Major Sources, 1973-2008



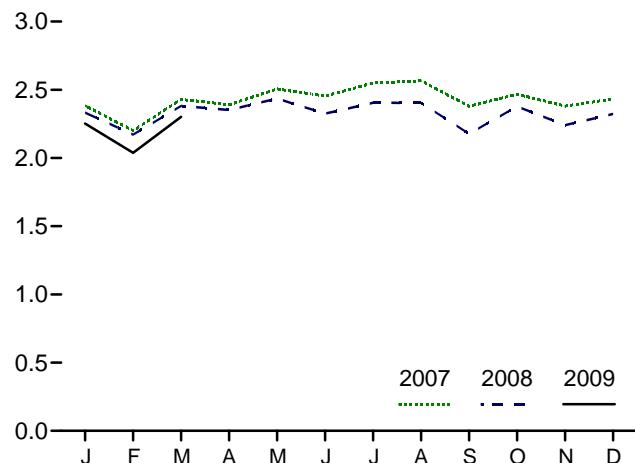
By Major Sources, Monthly



Total, January-March



Total, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.5.

**Table 2.5 Transportation Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>					Total Primary	Electricity Retail Sales <sup>e</sup>	Electrical System Energy Losses <sup>f</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>				
	Coal	Natural Gas <sup>c</sup>	Petroleum <sup>d</sup>	Total	Biomass				
1973 Total .....	3	743	17,831	18,576	NA	18,576	11	25	18,612
1975 Total .....	1	595	17,614	18,209	NA	18,209	10	24	18,244
1980 Total .....	(g)	650	19,009	19,658	NA	19,658	11	27	19,696
1985 Total .....	(g)	519	19,471	19,990	51	20,041	14	32	20,087
1990 Total .....	(g)	680	21,625	22,305	62	22,366	16	37	22,420
1995 Total .....	(g)	724	22,954	23,678	115	23,793	17	39	23,849
1996 Total .....	(g)	737	23,565	24,302	82	24,384	17	38	24,439
1997 Total .....	(g)	780	23,813	24,593	104	24,697	17	38	24,752
1998 Total .....	(g)	666	24,422	25,088	115	25,203	17	38	25,258
1999 Total .....	(g)	675	25,098	25,774	120	25,894	17	40	25,951
2000 Total .....	(g)	672	25,682	26,354	138	26,491	18	42	26,552
2001 Total .....	(g)	658	25,413	26,071	145	26,216	20	43	26,279
2002 Total .....	(g)	702	25,913	26,615	173	26,788	19	42	26,849
2003 Total .....	(g)	630	26,063	26,693	234	26,928	23	51	27,002
2004 Total .....	(g)	603	26,922	27,525	295	27,820	25	55	27,899
2005 Total .....	(g)	625	27,309	27,934	346	28,280	26	56	28,361
2006 Total .....	(g)	625	27,652	28,277	484	28,761	25	54	28,841
2007 January .....	(g)	72	2,254	2,326	49	2,375	3	6	2,383
February .....	(g)	75	2,075	2,150	43	2,193	2	5	2,201
March .....	(g)	62	2,312	2,374	48	2,422	3	5	2,430
April .....	(g)	52	2,287	2,339	44	2,383	2	5	2,390
May .....	(g)	45	2,406	2,450	48	2,498	2	5	2,505
June .....	(g)	45	2,351	2,396	51	2,446	2	5	2,454
July .....	(g)	48	2,442	2,490	52	2,541	2	5	2,549
August .....	(g)	55	2,449	2,504	54	2,558	2	5	2,566
September .....	(g)	46	2,274	2,319	52	2,372	2	5	2,379
October .....	(g)	47	2,354	2,401	59	2,460	2	5	2,466
November .....	(g)	53	2,266	2,319	54	2,373	2	5	2,380
December .....	(g)	69	2,295	2,364	60	2,424	2	5	2,432
Total .....	(g)	667	27,766	28,432	614	29,046	28	60	29,134
2008 January .....	(g)	78	2,186	2,264	60	2,324	2	5	R 2,332
February .....	(g)	72	2,036	2,107	57	2,164	2	5	2,171
March .....	(g)	66	2,249	2,314	60	2,374	2	5	2,381
April .....	(g)	53	2,228	2,281	65	2,346	2	4	2,352
May .....	(g)	46	2,315	2,361	68	2,429	2	5	2,435
June .....	(g)	47	2,204	2,251	67	2,318	2	5	2,325
July .....	(g)	50	2,277	2,327	71	2,398	2	5	2,405
August .....	(g)	50	2,272	2,322	75	2,397	2	5	2,404
September .....	(g)	43	2,052	2,095	76	2,171	2	4	2,178
October .....	(g)	48	2,244	2,292	79	2,371	2	5	2,378
November .....	(g)	54	2,104	2,158	75	2,234	2	5	2,240
December .....	(g)	69	2,167	2,236	80	2,315	2	5	2,323
Total .....	(g)	R 677	26,332	R 27,009	833	R 27,842	26	56	27,924
2009 January .....	(g)	78	R 2,097	2,175	69	2,245	3	5	2,253
February .....	(g)	R 67	R 1,906	R 1,973	58	R 2,031	2	4	2,037
March .....	(g)	61	2,160	2,221	73	2,294	2	5	2,301
3-Month Total ....	(g)	205	6,164	6,370	200	6,570	7	15	6,591
2008 3-Month Total ....	(g)	216	6,470	6,686	177	6,862	7	14	6,883
2007 3-Month Total ....	(g)	208	6,642	6,850	140	6,990	8	16	7,014

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Data are estimates. See Table 10.2b for notes on series components.

<sup>c</sup> Natural gas only; does not include supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include fuel ethanol and biodiesel that have been blended with petroleum—biofuels are included in "Biomass."

<sup>e</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>f</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

9 Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

R=Revised. NA=Not available.

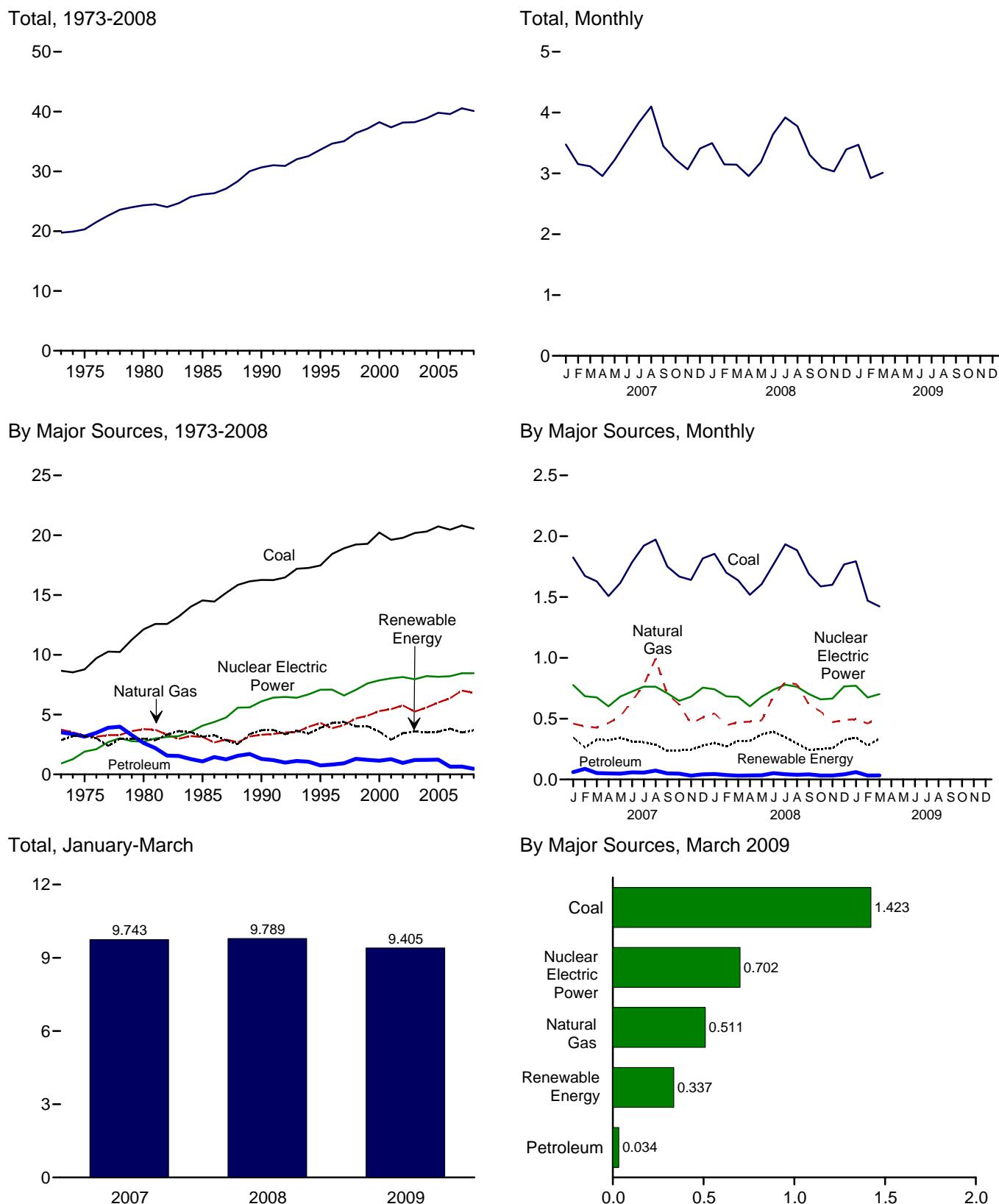
Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

Sources: Tables 2.6, 3.8c, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

**Figure 2.6 Electric Power Sector Energy Consumption**  
(Quadrillion Btu)



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.  
Source: Table 2.6.

**Table 2.6 Electric Power Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>												Elec- tricity Net Imports	Total Primary		
	Fossil Fuels				Nuclear Electric Power	Renewable Energy <sup>b</sup>										
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total		Hydro- electric Power <sup>d</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total					
1973 Total .....	8,658	3,748	3,515	15,921	910	2,827	43	NA	NA	3	2,873	49	19,753			
1975 Total .....	8,786	3,240	3,166	15,191	1,900	3,122	70	NA	NA	2	3,194	21	20,307			
1980 Total .....	12,123	3,778	2,634	18,534	2,739	2,867	110	NA	NA	4	2,982	71	24,327			
1985 Total .....	14,542	3,135	1,090	18,767	4,076	2,937	198	(s)	(s)	14	3,150	140	26,132			
1990 Total <sup>e</sup> .....	16,261	3,309	1,289	20,859	6,104	3,014	326	4	29	317	3,689	8	30,660			
1995 Total .....	17,466	4,302	755	22,523	7,075	3,149	280	5	33	422	3,889	134	33,621			
1996 Total .....	18,429	3,862	817	23,109	7,087	3,528	300	5	33	438	4,305	137	34,638			
1997 Total .....	18,905	4,126	927	23,957	6,597	3,581	309	5	34	446	4,375	116	35,045			
1998 Total .....	19,216	4,675	1,306	25,197	7,068	3,241	311	5	31	444	4,032	88	36,385			
1999 Total .....	19,279	4,902	1,211	25,393	7,610	3,218	312	5	46	453	4,034	99	37,136			
2000 Total .....	20,220	5,293	1,144	26,658	7,862	2,768	296	5	57	453	3,579	115	38,214			
2001 Total .....	19,614	5,458	1,277	26,348	8,033	2,209	289	6	70	337	2,910	75	37,366			
2002 Total .....	19,783	5,767	961	26,511	8,143	2,650	305	6	105	380	3,445	72	38,171			
2003 Total .....	20,185	5,246	1,205	26,636	7,959	2,781	303	5	115	397	3,601	22	38,218			
2004 Total .....	20,305	5,595	1,212	27,112	8,222	2,656	311	6	142	388	3,503	39	38,876			
2005 Total .....	20,737	6,015	1,235	27,986	8,160	2,670	309	6	178	406	3,568	84	39,799			
2006 Total .....	20,462	6,375	648	27,485	8,214	2,839	306	5	264	412	3,827	63	39,589			
2007 January .....	1,825	459	60	2,345	776	256	27	(s)	24	39	346	6	3,474			
February .....	1,673	436	88	2,196	684	182	24	(s)	25	32	263	10	3,153			
March .....	1,629	426	53	2,108	674	237	25	(s)	30	35	328	6	3,116			
April .....	1,508	464	50	2,022	601	234	24	1	31	33	324	10	2,956			
May .....	1,615	519	48	2,183	682	256	24	1	29	34	344	12	3,220			
June .....	1,786	643	58	2,487	723	224	26	1	26	35	312	11	3,533			
July .....	1,922	778	56	2,757	763	221	26	1	21	36	306	13	3,839			
August .....	1,973	993	73	3,038	763	196	26	1	27	36	286	12	4,099			
September .....	1,750	699	50	2,500	709	145	26	1	28	35	235	5	3,448			
October .....	1,669	618	48	2,335	647	145	27	(s)	33	35	241	7	3,229			
November .....	1,640	459	31	2,130	681	154	25	(s)	31	36	246	9	3,065			
December .....	1,817	510	42	2,369	755	180	27	(s)	34	37	278	7	3,409			
Total .....	20,808	7,005	657	28,470	8,458	2,430	308	6	341	423	3,508	107	40,542			
2008 January .....	1,855	543	45	2,443	742	199	25	(s)	41	37	302	11	3,498			
February .....	1,700	445	37	2,182	683	179	23	(s)	37	33	272	10	3,147			
March .....	1,638	470	31	2,139	679	207	26	1	46	39	318	7	3,144			
April .....	1,518	476	33	2,027	601	209	26	1	50	34	319	9	2,956			
May .....	1,605	486	34	2,125	680	260	27	1	51	33	371	8	3,184			
June .....	1,767	683	52	2,502	738	280	27	1	49	35	393	9	3,642			
July .....	1,933	802	43	2,778	779	244	27	1	38	37	347	15	3,919			
August .....	1,884	781	39	2,704	762	200	27	1	31	37	296	15	3,776			
September .....	1,690	617	42	2,350	703	154	26	1	27	34	242	10	3,306			
October .....	1,587	559	32	2,178	659	148	27	1	43	33	251	6	3,093			
November .....	1,600	471	33	2,104	665	152	26	(s)	45	35	258	4	3,031			
December .....	1,768	489	42	2,299	765	202	26	(s)	58	37	322	7	3,394			
Total .....	20,547	6,823	463	27,833	8,455	2,432	312	8	514	423	3,690	112	40,090			
2009 January .....	1,793	495	60	2,348	771	230	26	(s)	54	35	346	7	3,471			
February .....	1,470	460	32	1,962	674	174	24	(s)	49	32	280	8	R 2,923			
March .....	1,423	511	34	1,968	702	210	26	1	64	36	337	4	3,011			
3-Month Total .....	4,686	1,466	126	6,277	2,146	613	77	1	167	104	962	19	9,405			
2008 3-Month Total .....	5,193	1,459	113	6,765	2,104	584	74	1	124	109	892	29	9,789			
2007 3-Month Total .....	5,127	1,321	201	6,649	2,135	675	76	1	79	106	937	22	9,743			

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> See Table 10.2c for notes on series components.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Conventional hydroelectric power.

<sup>e</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity and useful thermal

output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.

Sources: Tables 3.8c, 4.3, 6.2, 7.1, 7.2b, 10.2c, A4, A5, and A6.

## Energy Consumption by Sector

**Note 1. Energy Consumption Data and Surveys.** Most of the data in this section of the *Monthly Energy Review (MER)* are developed from a group of energy-related surveys, typically called "supply surveys," conducted by the Energy Information Administration (EIA). Supply surveys are directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, or the quantities supplied to the market, or both. The data obtained from EIA's supply surveys are integrated to yield the summary consumption statistics published in this section (and in Section 1) of the *MER*.

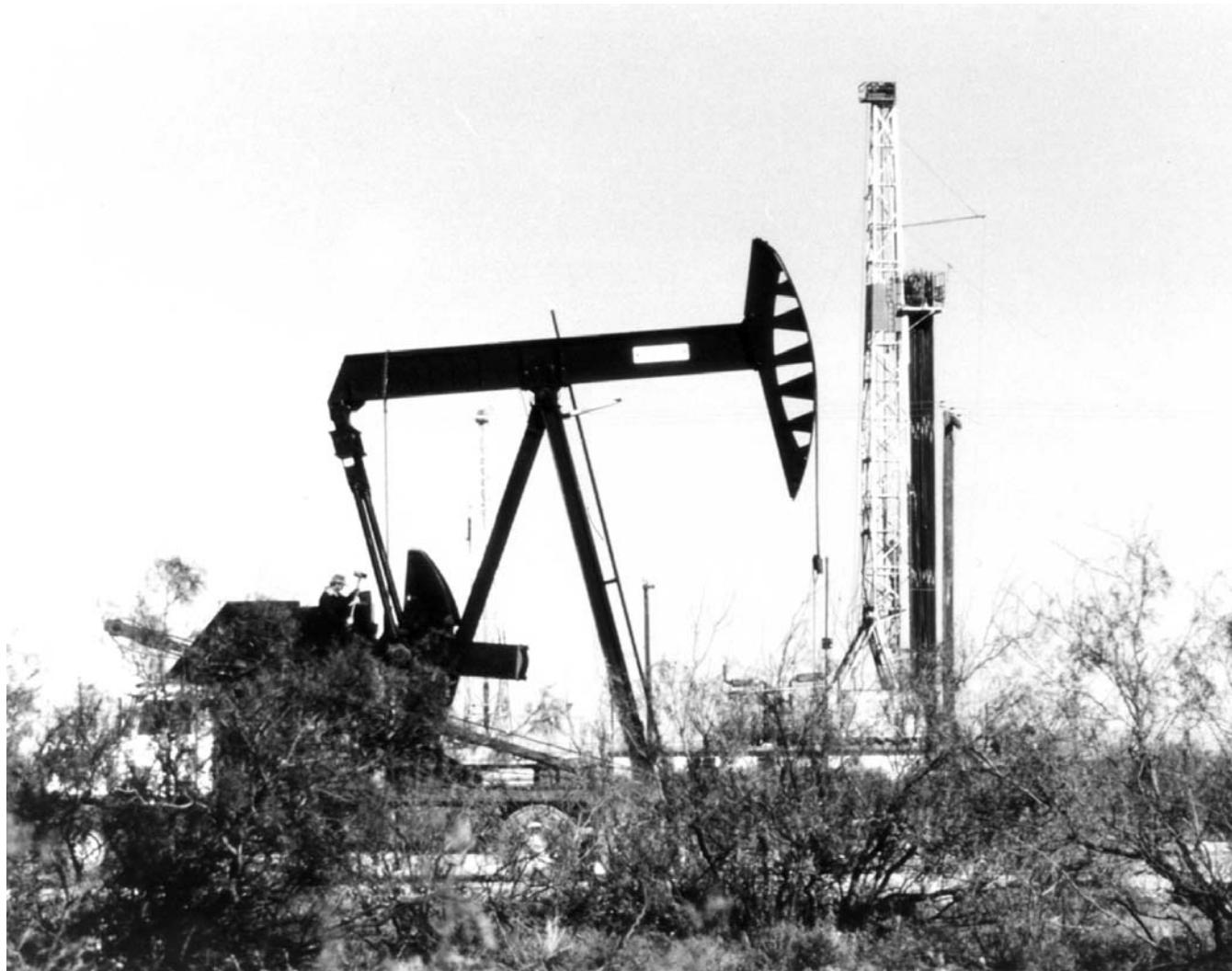
Users of EIA's energy consumption statistics should be aware of a second group of energy-related surveys, typically called "consumption surveys." Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the Manufacturing Energy Consumption Survey belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see *Energy Consumption by End-Use*

*Sector, A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533, Energy Information Administration, Washington, DC, April 6, 1990.

**Note 2. Electrical System Energy Losses.** Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector (see Table 2.6) and the total energy content of electricity retail sales (see Tables 7.6 and A6). Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses is a result of imputing fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring those thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, about two thirds of total energy input is lost in conversion. Currently, of electricity generated, approximately 5 percent is lost in plant use and 7 percent is lost in transmission and distribution.

3

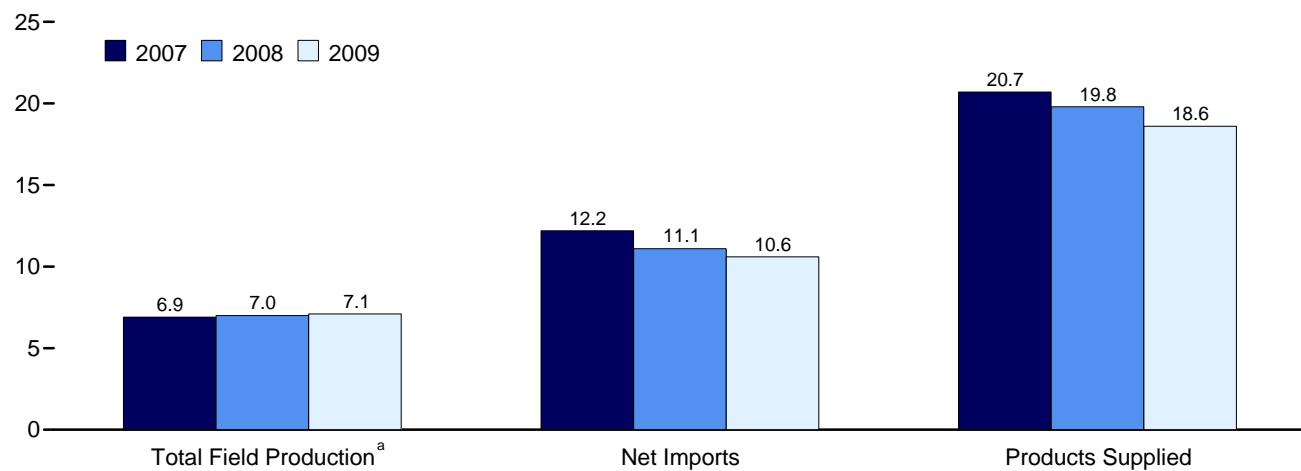
# Petroleum



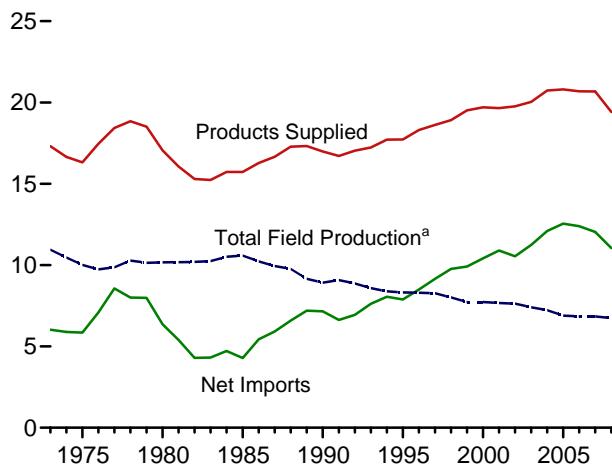
Oil pumping unit and drilling rig, Texas. Source: U.S. Department of Energy.

**Figure 3.1 Petroleum Overview**  
(Million Barrels per Day)

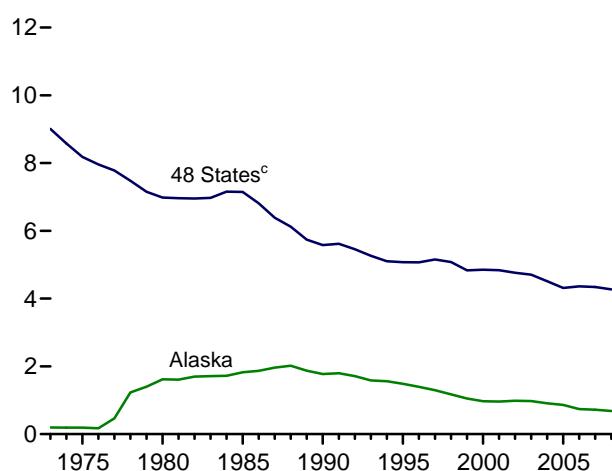
Overview, January-May



Overview, 1973-2008



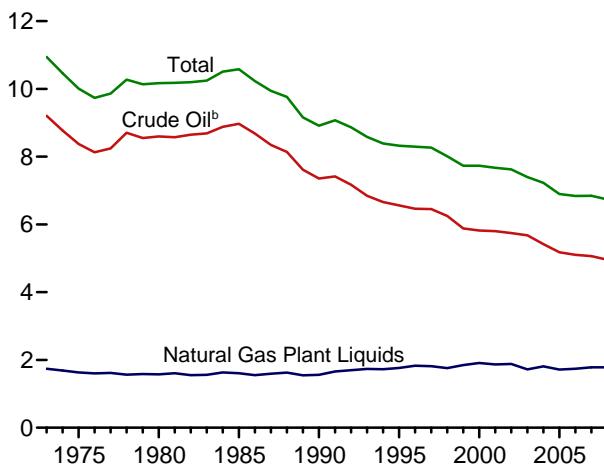
Crude Oil<sup>b</sup> Field Production, 1973-2008



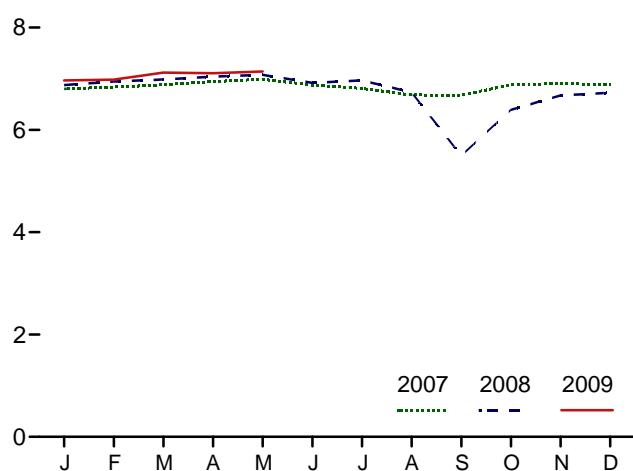
<sup>a</sup>Crude oil, including lease condensate, and natural gas plant liquids field production.

<sup>b</sup>Includes lease condensate.

Total Field Production, 1973-2008



Total Field Production<sup>a</sup>, Monthly



<sup>a</sup>United States excluding Alaska and Hawaii.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.1.

**Table 3.1 Petroleum Overview**  
(Thousand Barrels per Day)

	Field Production <sup>a</sup>					Renewable Fuels and Oxygenates <sup>c</sup>	Processing Gain <sup>d</sup>	Trade			Stock Change <sup>e</sup>	Adjustments <sup>f</sup>	Petroleum Products Supplied		
	Crude Oil <sup>b</sup>			NGPL <sup>g,h</sup>	Total			Imports <sup>i</sup>		Exports <sup>j</sup>	Net Imports <sup>k</sup>				
	48 States <sup>c</sup>	Alaska	Total												
1973 Average .....	9,010	198	9,208	1,738	10,946	NA	453	6,256	231	6,025	135	18	17,308		
1975 Average .....	8,183	191	8,375	1,633	10,007	NA	460	6,056	209	5,846	32	41	16,322		
1980 Average .....	6,980	1,617	8,597	1,573	10,170	NA	597	6,909	544	6,365	140	64	17,056		
1985 Average .....	7,146	1,825	8,971	1,609	10,581	NA	557	5,067	781	4,286	-103	200	15,726		
1990 Average .....	5,582	1,773	7,355	1,559	8,914	NA	683	8,018	857	7,161	107	338	16,988		
1995 Average .....	5,076	1,484	6,560	1,762	8,322	NA	774	8,835	949	7,886	-246	496	17,725		
1996 Average .....	5,071	1,393	6,465	1,830	8,295	NA	837	9,478	981	8,498	-151	528	18,309		
1997 Average .....	5,156	1,296	6,452	1,817	8,269	NA	850	10,162	1,003	9,158	143	487	18,620		
1998 Average .....	5,077	1,175	6,252	1,759	8,011	NA	886	10,708	945	9,764	239	495	18,917		
1999 Average .....	4,832	1,050	5,881	1,850	7,731	NA	886	10,852	940	9,912	-422	567	19,519		
2000 Average .....	4,851	970	5,822	1,911	7,733	NA	948	11,459	1,040	10,419	-69	532	19,701		
2001 Average .....	4,839	963	5,801	1,868	7,670	NA	903	11,871	971	10,900	325	501	19,649		
2002 Average .....	4,761	984	5,746	1,880	7,626	NA	957	11,530	984	10,546	-105	527	19,761		
2003 Average .....	4,706	974	5,681	1,719	7,400	NA	974	12,264	1,027	11,238	56	478	20,034		
2004 Average .....	4,510	908	5,419	1,809	7,228	NA	1,051	13,145	1,048	12,097	209	564	20,731		
2005 Average .....	4,314	864	5,178	1,717	6,895	NA	989	13,714	1,165	12,549	145	513	20,802		
2006 Average .....	4,361	741	5,102	1,739	6,841	NA	994	13,707	1,317	12,390	60	522	20,687		
<b>2007</b>															
January .....	4,348	775	5,123	1,677	6,800	NA	1,035	13,706	1,446	12,260	146	618	20,567		
February .....	4,369	756	5,125	1,710	6,835	NA	961	12,173	1,350	10,823	-2,065	625	21,309		
March .....	4,356	750	5,106	1,776	6,882	NA	944	13,956	1,274	12,682	367	396	20,536		
April .....	4,441	748	5,189	1,755	6,944	NA	948	13,842	1,360	12,482	540	701	20,536		
May .....	4,429	768	5,197	1,793	6,990	NA	939	14,204	1,441	12,764	966	894	20,620		
June .....	4,379	717	5,096	1,780	6,877	NA	1,007	13,553	1,331	12,222	195	813	20,723		
July .....	4,305	719	5,024	1,785	6,809	NA	1,023	13,754	1,506	12,248	125	792	20,747		
August .....	4,304	610	4,914	1,768	6,682	NA	1,010	13,634	1,483	12,151	-574	608	21,025		
September .....	4,241	642	4,884	1,793	6,677	NA	991	13,646	1,361	12,285	29	491	20,415		
October .....	4,342	701	5,043	1,840	6,883	NA	983	12,981	1,325	11,655	-286	668	20,476		
November .....	4,274	743	5,017	1,886	6,902	NA	1,011	13,188	1,767	11,421	-596	604	20,535		
December .....	4,318	738	5,056	1,828	6,885	NA	1,093	12,869	1,542	11,327	-788	627	20,719		
Average .....	4,342	722	5,064	1,783	6,847	NA	996	13,468	1,433	12,036	-148	653	20,680		
<b>2008</b>															
January .....	E 4,383	E 711	E 5,093	1,783	E 6,876	NA	1,056	13,493	1,623	11,869	483	795	20,114		
February .....	E 4,407	E 706	E 5,113	1,830	E 6,943	NA	964	12,604	2,072	10,531	-506	837	19,782		
March .....	E 4,413	E 726	E 5,139	1,847	E 6,986	NA	930	12,550	1,823	10,728	-285	803	19,732		
April .....	E 4,461	E 701	E 5,162	1,880	E 7,042	NA	930	13,252	1,754	11,498	403	702	19,768		
May .....	E 4,482	E 685	E 5,166	1,908	E 7,074	NA	1,011	12,862	1,806	11,056	264	851	19,729		
June .....	E 4,454	E 655	E 5,109	1,810	E 6,919	NA	982	13,367	2,165	11,202	406	856	19,553		
July .....	E 4,470	E 640	E 5,110	1,856	E 6,966	NA	984	13,064	2,069	10,995	434	902	19,412		
August .....	E 4,351	E 544	E 4,895	1,839	E 6,734	NA	1,013	13,060	2,068	10,992	368	895	19,267		
September .....	E 3,279	E 681	E 3,960	1,537	E 5,497	NA	841	11,512	1,338	10,174	-169	1,115	17,796		
October .....	E 3,929	E 716	E 4,645	1,745	E 6,389	NA	979	13,217	1,669	11,548	220	947	19,643		
November .....	E 4,210	E 728	E 4,938	1,734	E 6,673	NA	983	12,853	1,730	11,123	706	929	19,001		
December .....	E 4,421	E 702	E 5,123	1,604	E 6,727	NA	969	12,600	1,864	10,736	60	827	19,199		
Average .....	E 4,273	E 683	E 4,955	1,781	E 6,737	NA	971	12,872	1,831	11,041	201	871	19,419		
<b>2009</b>															
January .....	E 4,567	E 679	E 5,246	1,721	E 6,967	664	954	13,173	1,927	11,246	879	174	19,125		
February .....	E 4,483	E 708	E 5,191	1,792	E 6,983	682	934	12,190	1,822	10,369	288	26	18,706		
March .....	RE 4,561	RE 709	RE 5,270	R 1,850	RE 7,120	R 676	R 906	R 12,474	R 1,838	R 10,636	R 790	R 124	R 18,672		
April .....	E 4,708	E 662	E 5,370	E 1,737	E 7,107	NA	E 950	E 12,476	E 1,777	E 10,699	E 1,338	NA	E 18,255		
May .....	E 4,655	E 691	E 5,346	E 1,796	E 7,142	NA	E 958	E 11,781	E 1,845	E 9,936	E 564	NA	E 18,257		
5-Month Average ...	E 4,596	E 690	E 5,286	E 1,779	E 7,065	NA	E 940	E 12,423	E 1,842	E 10,581	E 778	NA	E 18,603		
2008 5-Month Average ...	E 4,429	E 706	E 5,135	1,850	E 6,985	NA	979	12,955	1,813	11,142	77	798	19,826		
2007 5-Month Average ...	4,389	760	5,148	1,743	6,891	NA	965	13,602	1,375	12,228	28	647	20,703		

<sup>a</sup> Crude oil production on leases, and natural gas liquids (liquefied petroleum gases, pentanes plus, and a small amount of finished petroleum products) production at natural gas processing plants. Excludes what was previously classified as "Field Production" of finished motor gasoline, motor gasoline blending components, and other hydrocarbons and oxygenates; these are now included in "Adjustments."

<sup>b</sup> Includes lease condensate

<sup>c</sup> United States excluding Alaska and Hawaii.

<sup>d</sup> Natural gas plant liquids.

<sup>e</sup> See Note 6, "Petroleum Data Discrepancies," at end of section.

<sup>f</sup> Renewable fuels and oxygenate plant net production.

<sup>g</sup> Refinery and blender net production minus refinery and blender net inputs.

See Table 3.2.

<sup>h</sup> Includes Strategic Petroleum Reserve imports. See Table 3.3b

<sup>i</sup> Net imports equal imports minus exports.

<sup>j</sup> A negative value indicates a decrease in stocks and a positive value indicates an increase. The current month stock change estimate is based on the change from the previous month's estimate, rather than the stocks values shown in Table 3.4. Includes crude oil stocks in the Strategic Petroleum Reserve, but excludes

distillate fuel oil stocks in the Northeast Heating Oil Reserve. See Table 3.4. Also see Note 4, "Petroleum New Stock Basis," at end of section.

<sup>k</sup> An adjustment for crude oil, hydrogen, oxygenates, renewable fuels, other hydrocarbons, motor gasoline blending components, finished motor gasoline, and distillate fuel oil. See EIA, *Petroleum Supply Monthly*, Appendix B, "PSM Explanatory Notes," for further information.

R=Revised. NA=Not available. E=Estimate.

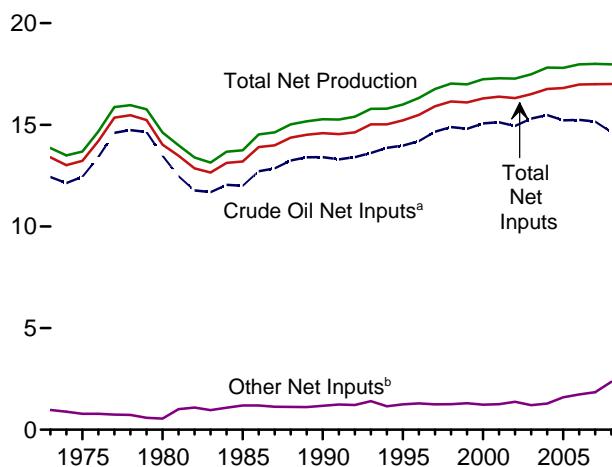
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glace/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glace/petroleum.html).

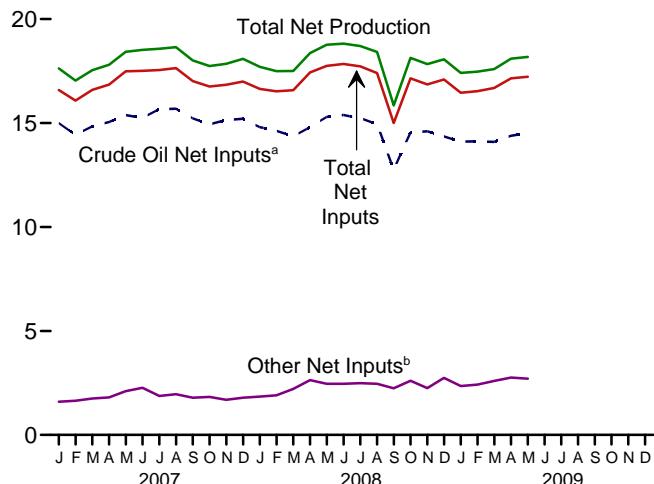
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

**Figure 3.2 Refinery and Blender Net Inputs and Net Production**  
(Million Barrels per Day)

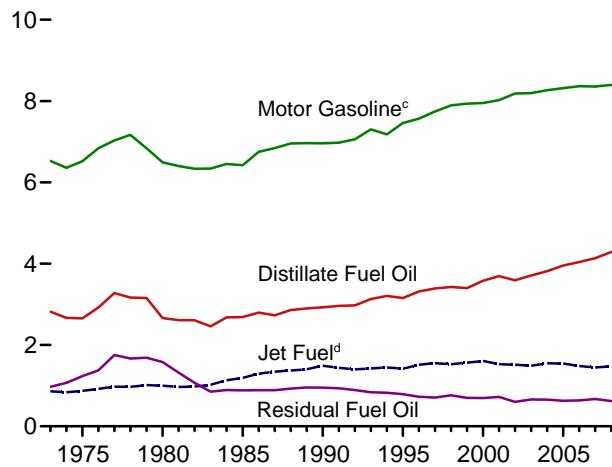
Net Inputs and Net Production, 1973-2008



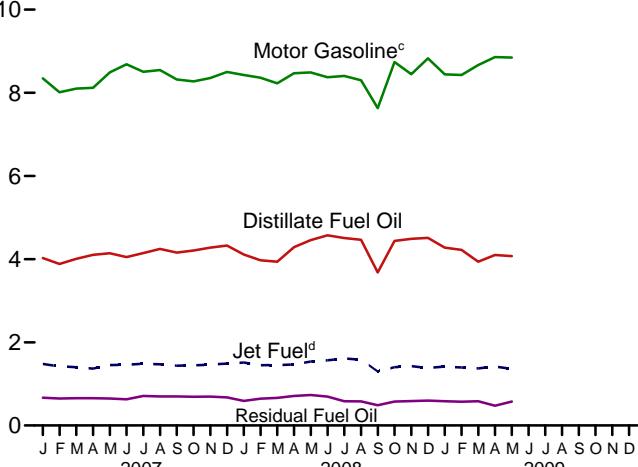
Net Inputs and Net Production, Monthly



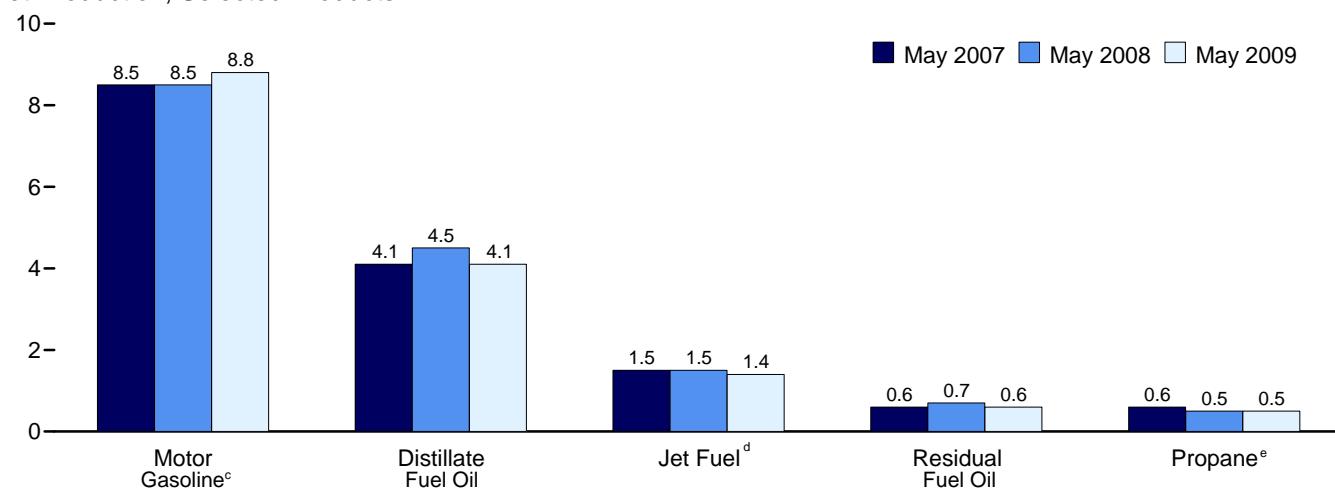
Net Production, Selected Products, 1973-2008



Net Production, Selected Products, Monthly



Net Production, Selected Products



<sup>a</sup>Includes lease condensate.

<sup>b</sup>Natural gas plant liquids and other liquids.

<sup>c</sup>Beginning in 1993, includes ethanol blended into motor gasoline.

<sup>d</sup>Beginning in 2005, includes kerosene-type jet fuel only.

<sup>e</sup>Includes propylene.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.2.

**Table 3.2 Refinery and Blender Net Inputs and Net Production**  
(Thousand Barrels per Day)

	Refinery and Blender Net Inputs <sup>a</sup>				Refinery and Blender Net Production <sup>b</sup>							
	Crude Oil <sup>d</sup>	NGPL <sup>e</sup>	Other Liquids <sup>f</sup>	Total	Distillate Fuel Oil <sup>g</sup>	Jet Fuel <sup>h</sup>	LPG <sup>c</sup>		Motor Gasoline <sup>i</sup>	Residual Fuel Oil	Other Products <sup>k</sup>	Total
							Propane <sup>j</sup>	Total				
1973 Average .....	12,431	815	155	13,401	2,820	859	271	375	6,527	971	2,301	13,854
1975 Average .....	12,442	710	72	13,225	2,653	871	234	311	6,518	1,235	2,097	13,685
1980 Average .....	13,481	462	81	14,025	2,661	999	269	330	6,492	1,580	2,559	14,622
1985 Average .....	12,002	509	681	13,192	2,686	1,189	295	391	6,419	882	2,183	13,750
1990 Average .....	13,409	467	713	14,589	2,925	1,488	404	499	6,959	950	2,452	15,272
1995 Average .....	13,973	471	775	15,220	3,155	1,416	503	654	7,459	788	2,522	15,994
1996 Average .....	14,195	450	843	15,487	3,316	1,515	520	662	7,565	726	2,541	16,324
1997 Average .....	14,662	416	832	15,909	3,392	1,554	565	691	7,743	708	2,671	16,759
1998 Average .....	14,889	403	853	16,144	3,424	1,526	550	674	7,892	762	2,753	17,030
1999 Average .....	14,804	372	927	16,103	3,399	1,565	569	684	7,934	698	2,709	16,989
2000 Average .....	15,067	380	849	16,295	3,580	1,606	583	705	7,951	696	2,705	17,243
2001 Average .....	15,128	429	825	16,382	3,695	1,530	556	667	8,022	721	2,651	17,285
2002 Average .....	14,947	429	941	16,316	3,592	1,514	572	671	8,183	601	2,712	17,273
2003 Average .....	15,304	419	791	16,513	3,707	1,488	570	658	8,194	660	2,780	17,487
2004 Average .....	15,475	422	866	16,762	3,814	1,547	584	645	8,265	655	2,887	17,814
2005 Average .....	15,220	441	1,149	16,811	3,954	1,546	540	573	8,318	628	2,782	17,800
2006 Average .....	15,242	501	1,238	16,981	4,040	1,481	543	627	8,364	635	2,827	17,975
<b>2007</b> January .....	14,992	557	1,039	16,588	4,027	1,480	575	468	8,348	667	2,632	17,622
February .....	14,435	473	1,170	16,078	3,883	1,421	534	502	8,012	650	2,571	17,039
March .....	14,840	463	1,291	16,594	4,009	1,403	563	692	8,101	656	2,678	17,538
April .....	15,045	444	1,362	16,851	4,102	1,368	562	824	8,122	658	2,725	17,800
May .....	15,380	462	1,641	17,484	4,142	1,451	576	882	8,491	647	2,809	18,423
June .....	15,248	457	1,810	17,514	4,050	1,459	568	871	8,686	628	2,828	18,522
July .....	15,671	465	1,410	17,547	4,145	1,484	562	835	8,504	708	2,893	18,569
August .....	15,685	449	1,508	17,642	4,244	1,470	542	810	8,547	698	2,883	18,652
September .....	15,226	496	1,295	17,017	4,158	1,436	560	624	8,320	698	2,771	18,008
October .....	14,933	562	1,263	16,757	4,208	1,446	539	499	8,276	689	2,622	17,740
November .....	15,151	630	1,057	16,838	4,278	1,463	568	393	8,353	694	2,668	17,850
December .....	15,202	600	1,189	16,991	4,326	1,489	595	443	8,501	676	2,649	18,084
Average .....	15,156	505	1,337	16,999	4,133	1,448	562	655	8,358	673	2,728	17,994
<b>2008</b> January .....	14,799	540	1,304	16,644	4,110	1,514	567	460	8,427	591	2,598	17,700
February .....	14,625	506	1,398	16,529	3,973	1,447	535	504	8,364	645	2,560	17,493
March .....	14,361	466	1,749	16,576	3,940	1,451	526	674	8,230	664	2,548	17,506
April .....	14,799	453	2,185	17,437	4,287	1,467	521	809	8,471	710	2,623	18,367
May .....	15,291	448	2,012	17,751	4,459	1,536	546	874	8,492	734	2,666	18,761
June .....	15,384	437	2,018	17,839	4,572	1,567	544	867	8,375	695	2,745	18,821
July .....	15,236	439	2,047	17,722	4,509	1,612	534	847	8,405	584	2,751	18,707
August .....	14,947	413	2,045	17,405	4,466	1,584	526	814	8,301	579	2,674	18,418
September .....	12,759	407	1,838	15,004	3,681	1,297	419	511	7,631	485	2,239	15,845
October .....	14,551	568	2,034	17,153	4,437	1,401	503	460	8,739	575	2,519	18,132
November .....	14,605	576	1,674	16,855	4,490	1,425	515	369	8,449	588	2,516	17,837
December .....	14,353	589	2,156	17,098	4,511	1,383	489	341	8,828	597	2,406	18,067
Average .....	14,645	487	1,873	17,006	4,288	1,474	519	628	8,395	621	2,571	17,977
<b>2009</b> January .....	14,112	554	1,793	16,459	4,276	1,419	479	382	8,445	582	2,309	17,413
February .....	14,116	497	1,922	16,535	4,222	1,395	483	480	8,429	572	2,371	17,469
March .....	R 14,091	R 449	R 2,147	R 16,688	R 3,937	R 1,372	R 519	R 626	R 8,668	R 584	R 2,407	R 17,594
April .....	E 14,390	RF 444	RE 2,314	RF 17,149	E 4,099	E 1,419	RE 467	F 802	E 8,858	E 477	RE 2,443	RE 18,099
May .....	E 14,522	F 441	E 2,263	F 17,226	E 4,073	E 1,360	E 528	F 853	E 8,848	E 575	E 2,475	E 18,184
5-Month Average ....	E 14,248	E 477	E 2,090	E 16,815	E 4,119	E 1,393	E 496	E 631	E 8,653	E 558	E 2,401	E 17,755
2008 5-Month Average ....	14,777	483	1,731	16,990	4,155	1,484	539	665	8,397	669	2,599	17,969
2007 5-Month Average ....	14,948	480	1,303	16,731	4,035	1,425	563	676	8,219	656	2,685	17,696

<sup>a</sup> See "Refinery and Blender Net Inputs," in Glossary.

<sup>b</sup> See "Refinery and Blender Net Production," in Glossary.

<sup>c</sup> Liquefied petroleum gases.

<sup>d</sup> Includes lease condensate.

<sup>e</sup> Natural gas plant liquids (liquefied petroleum gases and pentanes plus).

<sup>f</sup> Unfinished oils (net), other hydrocarbons, and hydrogen. Beginning in 1981, also includes aviation and motor gasoline blending components (net). Beginning in 1993, also includes oxygenates (net), including fuel ethanol. Beginning in 2009, also includes renewable diesel fuel (including biodiesel).

<sup>g</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>h</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Products."

<sup>i</sup> Includes propylene.

<sup>j</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>k</sup> Asphalt and road oil, finished aviation gasoline, kerosene, lubricants, petrochemical feedstocks, petroleum coke, special naphthas, still gas, waxes, and miscellaneous products. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast.

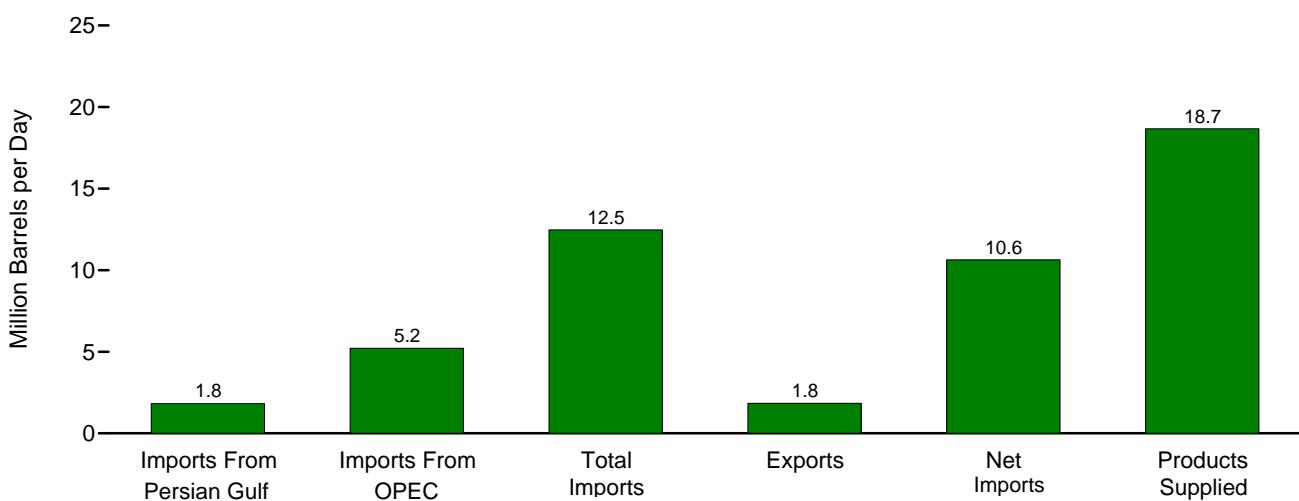
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

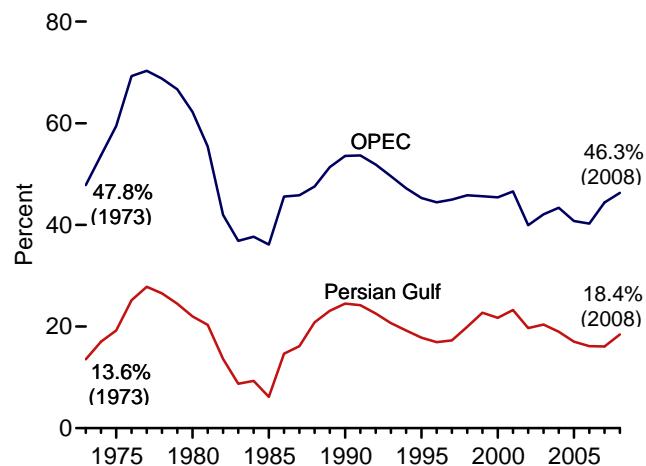
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

### Figure 3.3a Petroleum Trade: Overview

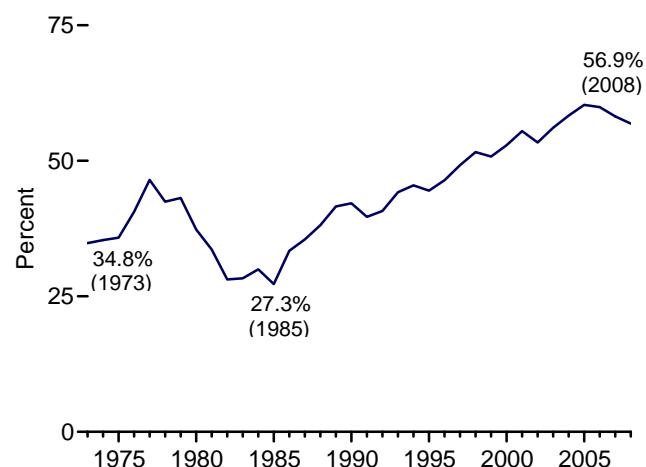
Overview, March 2009



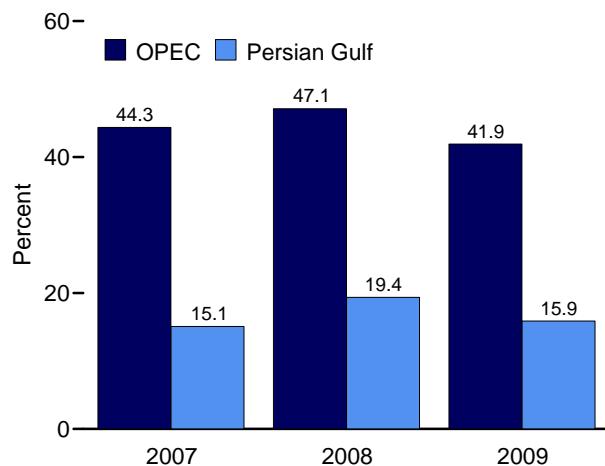
Imports From OPEC and Persian Gulf as Share of Total Imports, 1973-2008



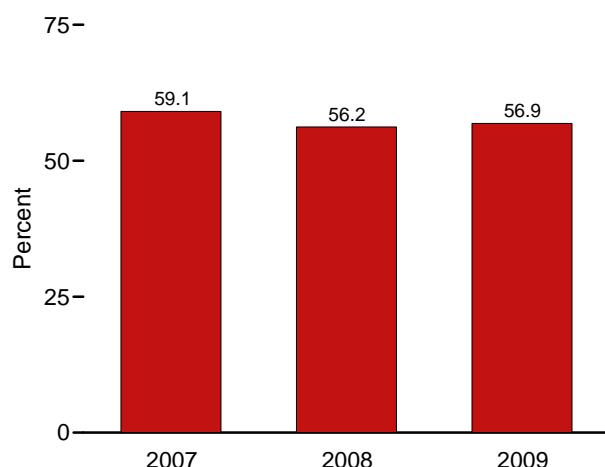
Net Imports as Share of Products Supplied, 1973-2008



Imports From OPEC and Persian Gulf as Share of Total Imports, January-March



Net Imports as Share of Products Supplied, January-May



Note: OPEC=Organization of the Petroleum Exporting Countries.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.3a.

**Table 3.3a Petroleum Trade: Overview**

	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied				As Share of Total Imports	
							Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>	Imports	Net Imports	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>
							Thousand Barrels per Day					
1973 Average .....	848	2,993	6,256	231	6,025	17,308	4.9	17.3	36.1	34.8	13.6	47.8
1975 Average .....	1,165	3,601	6,056	209	5,846	16,322	7.1	22.1	37.1	35.8	19.2	59.5
1980 Average .....	1,519	4,300	6,909	544	6,365	17,056	8.9	25.2	40.5	37.3	22.0	62.2
1985 Average .....	311	1,830	5,067	781	4,286	15,726	2.0	11.6	32.2	27.3	6.1	36.1
1990 Average .....	1,966	4,296	8,018	857	7,161	16,988	11.6	25.3	47.2	42.2	24.5	53.6
1995 Average .....	1,573	4,002	8,835	949	7,886	17,725	8.9	22.6	49.8	44.5	17.8	45.3
1996 Average .....	1,604	4,211	9,478	981	8,498	18,309	8.8	23.0	51.8	46.4	16.9	44.4
1997 Average .....	1,755	4,569	10,162	1,003	9,158	18,620	9.4	24.5	54.6	49.2	17.3	45.0
1998 Average .....	2,136	4,905	10,708	945	9,764	18,917	11.3	25.9	56.6	51.6	19.9	45.8
1999 Average .....	2,464	4,953	10,852	940	9,912	19,519	12.6	25.4	55.6	50.8	22.7	45.6
2000 Average .....	2,488	5,203	11,459	1,040	10,419	19,701	12.6	26.4	58.2	52.9	21.7	45.4
2001 Average .....	2,761	5,528	11,871	971	10,900	19,649	14.1	28.1	60.4	55.5	23.3	46.6
2002 Average .....	2,269	4,605	11,530	984	10,546	19,761	11.5	23.3	58.3	53.4	19.7	39.9
2003 Average .....	2,501	5,162	12,264	1,027	11,238	20,034	12.5	25.8	61.2	56.1	20.4	42.1
2004 Average .....	2,493	5,701	13,145	1,048	12,097	20,731	12.0	27.5	63.4	58.4	19.0	43.4
2005 Average .....	2,334	5,587	13,714	1,165	12,549	20,802	11.2	26.9	65.9	60.3	17.0	40.7
2006 Average .....	2,211	5,517	13,707	1,317	12,390	20,687	10.7	26.7	66.3	59.9	16.1	40.2
2007 January .....	2,273	6,074	13,706	1,446	12,260	20,567	11.1	29.5	66.6	59.6	16.6	44.3
February .....	1,643	5,278	12,173	1,350	10,823	21,309	7.7	24.8	57.1	50.8	13.5	43.4
March .....	2,072	6,302	13,956	1,274	12,682	20,536	10.1	30.7	68.0	61.8	14.8	45.2
April .....	2,192	5,950	13,842	1,360	12,482	20,536	10.7	29.0	67.4	60.8	15.8	43.0
May .....	2,148	6,181	14,204	1,441	12,764	20,620	10.4	30.0	68.9	61.9	15.1	43.5
June .....	2,372	6,121	13,553	1,331	12,222	20,723	11.4	29.5	65.4	59.0	17.5	45.2
July .....	2,099	5,759	13,754	1,506	12,248	20,747	10.1	27.8	66.3	59.0	15.3	41.9
August .....	2,171	6,115	13,634	1,483	12,151	21,025	10.3	29.1	64.8	57.8	15.9	44.8
September .....	2,333	6,231	13,646	1,361	12,285	20,415	11.4	30.5	66.8	60.2	17.1	45.7
October .....	2,088	5,619	12,981	1,325	11,655	20,476	10.2	27.4	63.4	56.9	16.1	43.3
November .....	2,281	5,961	13,188	1,767	11,421	20,535	11.1	29.0	64.2	55.6	17.3	45.2
December .....	2,253	6,111	12,869	1,542	11,327	20,719	10.9	29.5	62.1	54.7	17.5	47.5
Average .....	2,163	5,980	13,468	1,433	12,036	20,680	10.5	28.9	65.1	58.2	16.1	44.4
2008 January .....	2,307	6,413	13,493	1,623	11,869	20,114	11.5	31.9	67.1	59.0	17.1	47.5
February .....	2,676	5,850	12,604	2,072	10,531	19,782	13.5	29.6	63.7	53.2	21.2	46.4
March .....	2,518	5,934	12,550	1,823	10,728	19,732	12.8	30.1	63.6	54.4	20.1	47.3
April .....	2,323	6,262	13,252	1,754	11,498	19,768	11.7	31.7	67.0	58.2	17.5	47.3
May .....	2,450	5,926	12,862	1,806	11,056	19,729	12.4	30.0	65.2	56.0	19.0	46.1
June .....	2,392	6,084	13,367	2,165	11,202	19,553	12.2	31.1	68.4	57.3	17.9	45.5
July .....	2,493	6,121	13,064	2,069	10,995	19,412	12.8	31.5	67.3	56.6	19.1	46.9
August .....	2,438	6,390	13,060	2,068	10,992	19,267	12.7	33.2	67.8	57.1	18.7	48.9
September .....	2,091	5,128	11,512	1,338	10,174	17,796	11.8	28.8	64.7	57.2	18.2	44.5
October .....	2,304	5,888	13,217	1,669	11,548	19,643	11.7	30.0	67.3	58.8	17.4	44.5
November .....	2,283	5,799	12,853	1,730	11,123	19,001	12.0	30.5	67.6	58.5	17.8	45.1
December .....	2,208	5,679	12,600	1,864	10,736	19,199	11.5	29.6	65.6	55.9	17.5	45.1
Average .....	2,373	5,958	12,872	1,831	11,041	19,419	12.2	30.7	66.3	56.9	18.4	46.3
2009 January .....	2,218	5,676	13,173	1,927	11,246	19,125	11.6	29.7	68.9	58.8	16.8	43.1
February .....	1,972	4,956	12,190	1,822	10,369	18,706	10.5	26.5	65.2	55.4	16.2	40.7
March .....	R 1,823	R 5,215	R 12,474	R 1,838	R 10,636	R 18,672	R 9.8	R 27.9	R 66.8	R 57.0	R 14.6	R 41.8
April .....	NA	NA	E 12,476	E 1,777	E 10,699	E 18,255	NA	E 68.3	E 58.6	NA	NA	NA
May .....	NA	NA	E 11,781	E 1,845	E 9,936	E 18,257	NA	E 64.5	E 54.4	NA	NA	NA
5-Month Average ....	NA	NA	E 12,423	E 1,842	E 10,581	E 18,603	NA	E 66.8	E 56.9	NA	NA	NA
2008 5-Month Average ....	2,453	6,079	12,955	1,813	11,142	19,826	12.4	30.7	65.3	56.2	18.9	46.9
2007 5-Month Average ....	2,073	5,970	13,602	1,375	12,228	20,703	10.0	28.8	65.7	59.1	15.2	43.9

<sup>a</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

<sup>b</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. See Table 3.3c for notes on which countries are included in the data.

R=Revised. E=Estimate. NA=Not available.

Notes: • Readers of this table may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review*. See [http://www.eia.doe.gov/emeu/mer/pdf/pages/imported\\_oil.pdf](http://www.eia.doe.gov/emeu/mer/pdf/pages/imported_oil.pdf). • Beginning in October 1977, data include Strategic Petroleum Reserve imports. See Table 3.3b. • Annual averages may not equal average of months due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports

include receipts from U.S. territories.

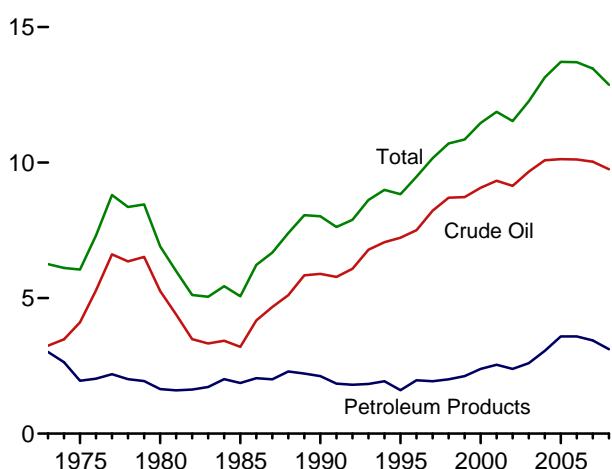
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

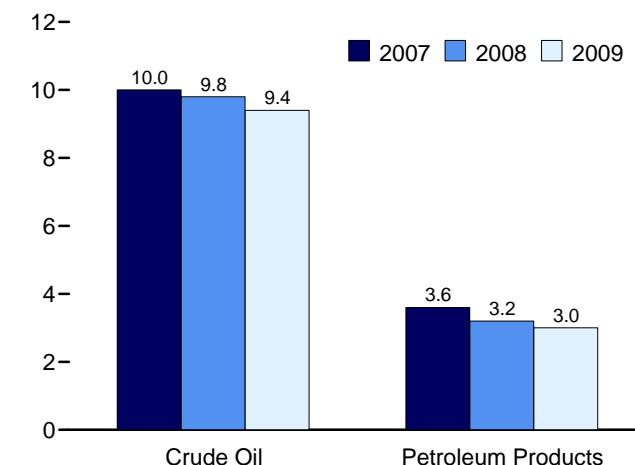
### Figure 3.3b Petroleum Trade: Imports

(Million Barrels per Day)

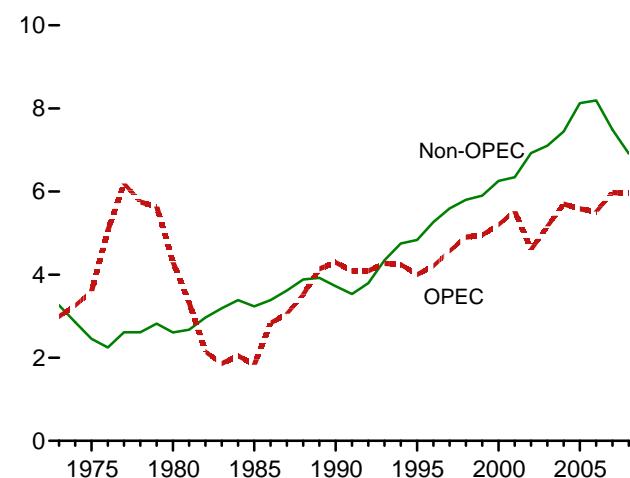
Total, 1973-2008



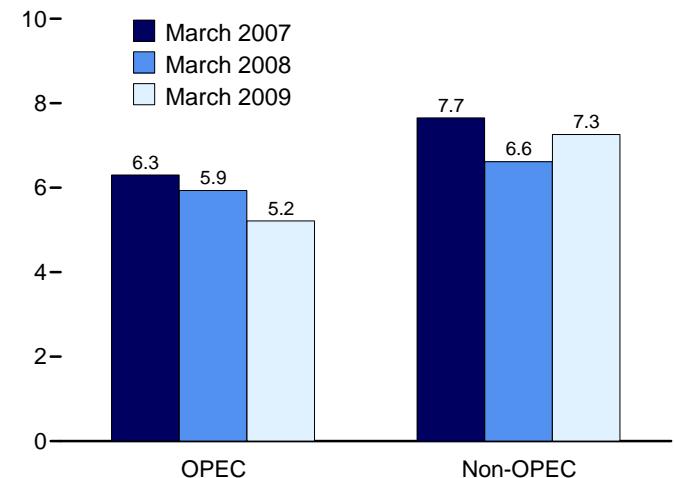
Crude Oil and Petroleum Products,  
January-May



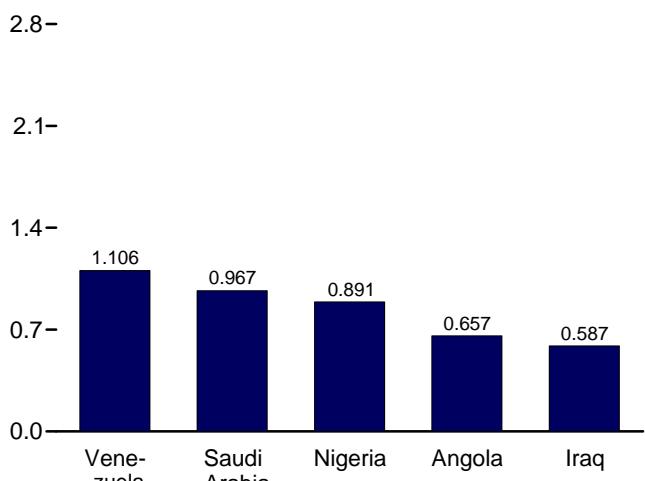
OPEC and Non-OPEC, 1973-2008



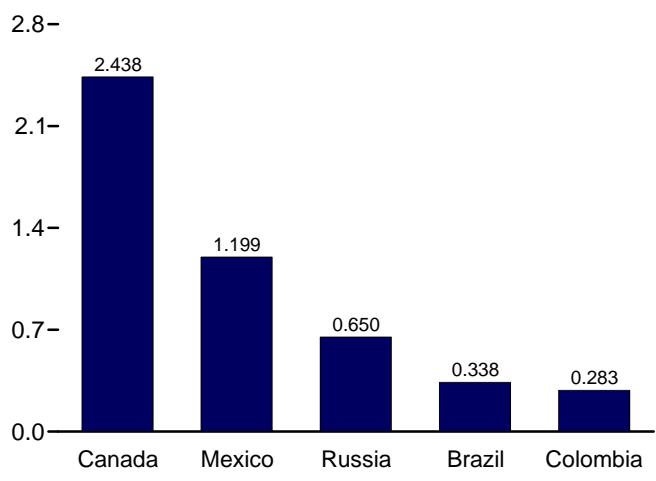
OPEC and Non-OPEC



From Selected OPEC Countries, March 2009



From Selected Non-OPEC Countries,  
March 2009



Note: OPEC=Organization of the Petroleum Exporting Countries.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: Tables 3.3b-3.3d.

**Table 3.3b Petroleum Trade: Imports and Exports by Type**  
(Thousand Barrels per Day)

	Imports										Exports		
	Crude Oil <sup>a</sup>		Distillate Fuel Oil	Jet Fuel <sup>e</sup>	LPG <sup>b</sup>		Motor Gasoline <sup>f</sup>	Residual Fuel Oil	Other <sup>g</sup>	Total	Crude Oil <sup>a</sup>	Petroleum Products	Total
	SPR <sup>c,d</sup>	Total			Propane <sup>h</sup>	Total							
1973 Average .....	--	3,244	392	212	71	132	134	1,853	290	6,256	2	229	231
1975 Average .....	--	4,105	155	133	60	112	184	1,223	144	6,056	6	204	209
1980 Average .....	44	5,263	142	80	69	216	140	939	130	6,909	287	258	544
1985 Average .....	118	3,201	200	39	67	187	381	510	550	5,067	204	577	781
1990 Average .....	27	5,894	278	108	115	188	342	504	705	8,018	109	748	857
1995 Average .....	0	7,230	193	106	102	146	265	187	708	8,835	95	855	949
1996 Average .....	0	7,508	230	111	119	166	336	248	879	9,478	110	871	981
1997 Average .....	0	8,225	228	91	113	169	309	194	945	10,162	108	896	1,003
1998 Average .....	0	8,706	210	124	137	194	311	275	888	10,708	110	835	945
1999 Average .....	8	8,731	250	128	122	182	382	237	943	10,852	118	822	940
2000 Average .....	8	9,071	295	162	161	215	427	352	938	11,459	50	990	1,040
2001 Average .....	11	9,328	344	148	145	206	454	295	1,095	11,871	20	951	971
2002 Average .....	16	9,140	267	107	145	183	498	249	1,085	11,530	9	975	984
2003 Average .....	0	9,665	333	109	168	225	518	327	1,087	12,264	12	1,014	1,027
2004 Average .....	77	10,088	325	127	209	263	496	426	1,419	13,145	27	1,021	1,048
2005 Average .....	52	10,126	329	190	233	328	603	530	1,609	13,714	32	1,133	1,165
2006 Average .....	8	10,118	365	186	228	332	475	350	1,881	13,707	25	1,292	1,317
<b>2007</b>													
January .....	0	10,211	352	175	244	319	408	394	1,846	13,706	9	1,436	1,446
February .....	0	9,009	334	227	213	258	372	314	1,660	12,173	25	1,325	1,350
March .....	18	10,380	360	249	185	241	361	510	1,856	13,956	34	1,241	1,274
April .....	0	10,161	323	316	121	189	498	374	1,981	13,842	19	1,341	1,360
May .....	0	10,328	274	227	146	227	581	360	2,207	14,204	36	1,405	1,441
June .....	0	10,015	273	215	151	273	441	360	1,976	13,553	52	1,279	1,331
July .....	0	9,939	335	263	135	221	434	412	2,150	13,754	27	1,479	1,506
August .....	0	10,316	354	226	164	224	404	344	1,765	13,634	42	1,441	1,483
September .....	0	10,307	270	202	232	282	478	347	1,760	13,646	34	1,327	1,361
October .....	52	9,784	288	184	204	256	319	299	1,850	12,981	11	1,314	1,325
November .....	19	10,004	245	180	200	238	303	397	1,821	13,188	20	1,747	1,767
December .....	0	9,835	241	136	188	240	351	342	1,724	12,869	20	1,522	1,542
<b>Average</b> .....	7	<b>10,031</b>	<b>304</b>	<b>217</b>	<b>182</b>	<b>247</b>	<b>413</b>	<b>372</b>	<b>1,885</b>	<b>13,468</b>	<b>27</b>	<b>1,405</b>	<b>1,433</b>
<b>2008</b>													
January .....	0	10,000	307	159	253	317	412	435	1,863	13,493	12	1,612	1,623
February .....	0	9,606	248	101	205	278	354	308	1,708	12,604	20	2,052	2,072
March .....	35	9,618	241	98	216	250	374	400	1,569	12,550	29	1,793	1,823
April .....	17	9,921	255	180	154	231	386	359	1,919	13,252	14	1,740	1,754
May .....	34	9,657	188	140	159	206	383	350	1,937	12,862	19	1,787	1,806
June .....	0	9,994	179	91	97	173	461	382	2,087	13,367	22	2,143	2,165
July .....	0	10,101	181	72	128	182	323	292	1,913	13,064	29	2,040	2,069
August .....	0	10,284	109	76	185	300	205	332	1,753	13,060	40	2,028	2,068
September .....	0	8,407	195	88	186	258	253	288	2,025	11,512	39	1,299	1,338
October .....	0	10,111	166	98	178	224	239	354	2,024	13,217	43	1,627	1,669
November .....	0	9,923	203	47	196	248	115	285	2,031	12,853	31	1,700	1,730
December .....	0	9,419	262	68	228	280	148	383	2,039	12,600	46	1,818	1,864
<b>Average</b> .....	7	<b>9,756</b>	<b>211</b>	<b>102</b>	<b>182</b>	<b>246</b>	<b>304</b>	<b>348</b>	<b>1,906</b>	<b>12,872</b>	<b>29</b>	<b>1,803</b>	<b>1,831</b>
<b>2009</b>													
January .....	-	9,852	368	89	210	239	236	424	1,965	13,173	36	1,890	1,927
February .....	-	9,205	327	69	195	211	252	372	1,754	12,190	30	1,792	1,822
March .....	R 221	R 9,441	R 268	R 92	R 209	R 233	R 263	R 384	R 1,793	R 12,474	R 30	R 1,807	R 1,838
April .....	NA	E 9,720	E 156	E 88	E 135	NA	E 219	E 397	NA	E 12,476	E 30	E 1,747	E 1,777
May .....	NA	E 8,980	E 194	E 97	E 100	NA	E 287	E 391	NA	E 11,781	E 30	E 1,814	E 1,845
5-Month Average	NA	E 9,442	E 262	E 87	E 170	NA	E 252	E 394	NA	E 12,423	E 31	E 1,811	E 1,842
<b>2008 5-Month Average</b>	17	<b>9,762</b>	<b>248</b>	<b>136</b>	<b>198</b>	<b>256</b>	<b>382</b>	<b>371</b>	<b>1,800</b>	<b>12,955</b>	<b>19</b>	<b>1,794</b>	<b>1,813</b>
<b>2007 5-Month Average</b>	4	<b>10,037</b>	<b>328</b>	<b>238</b>	<b>181</b>	<b>247</b>	<b>445</b>	<b>392</b>	<b>1,914</b>	<b>13,602</b>	<b>25</b>	<b>1,350</b>	<b>1,375</b>

<sup>a</sup> Includes lease condensate.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> "SPR" is the Strategic Petroleum Reserve, which began in October 1977. Through 2003, includes crude oil imports by SPR only; beginning in 2004, includes crude oil imports by SPR, and crude oil imports into SPR by others.

<sup>d</sup> See Note 6, "Petroleum Data Discrepancies," at end of section.

<sup>e</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>f</sup> Finished motor gasoline. Through 1980, also includes motor gasoline blending components.

<sup>g</sup> Asphalt and road oil, finished aviation gasoline, gasoline blending components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, other hydrocarbons and oxygenates, and miscellaneous products. Beginning in 2005, also includes naphtha-type jet fuel.

<sup>h</sup> Includes propylene.

R=Revised. NA=Not available. --=Not applicable. - =No data reported.

E=Estimate.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

**Table 3.3c Petroleum Trade: Imports From OPEC Countries**

(Thousand Barrels per Day)

	Algeria	Angola <sup>a</sup>	Ecuador <sup>b</sup>	Iraq	Kuwait <sup>c</sup>	Libya	Nigeria	Saudi Arabia <sup>c</sup>	Venezuela	Other <sup>d</sup>	Total OPEC
1973 Average .....	136	( <sup>a</sup> )	48	4	47	164	459	486	1,135	514	2,993
1975 Average .....	282	( <sup>a</sup> )	57	2	16	232	762	715	702	832	3,601
1980 Average .....	488	( <sup>a</sup> )	27	28	27	554	857	1,261	481	577	4,300
1985 Average .....	187	( <sup>a</sup> )	67	46	21	4	293	168	605	439	1,830
1990 Average .....	280	( <sup>a</sup> )	49	518	86	0	800	1,339	1,025	199	4,296
1995 Average .....	234	( <sup>a</sup> )	( <sup>b</sup> )	0	218	0	627	1,344	1,480	98	4,002
1996 Average .....	256	( <sup>a</sup> )	( <sup>b</sup> )	1	236	0	617	1,363	1,676	62	4,211
1997 Average .....	285	( <sup>a</sup> )	( <sup>b</sup> )	89	253	0	698	1,407	1,773	64	4,569
1998 Average .....	290	( <sup>a</sup> )	( <sup>b</sup> )	336	301	0	696	1,491	1,719	73	4,905
1999 Average .....	259	( <sup>a</sup> )	( <sup>b</sup> )	725	248	0	657	1,478	1,493	93	4,953
2000 Average .....	225	( <sup>a</sup> )	( <sup>b</sup> )	620	272	0	896	1,572	1,546	72	5,203
2001 Average .....	278	( <sup>a</sup> )	( <sup>b</sup> )	795	250	0	885	1,662	1,553	105	5,528
2002 Average .....	264	( <sup>a</sup> )	( <sup>b</sup> )	459	228	0	621	1,552	1,398	83	4,605
2003 Average .....	382	( <sup>a</sup> )	( <sup>b</sup> )	481	220	0	867	1,774	1,376	61	5,162
2004 Average .....	452	( <sup>a</sup> )	( <sup>b</sup> )	656	250	20	1,140	1,558	1,554	70	5,701
2005 Average .....	478	( <sup>a</sup> )	( <sup>b</sup> )	531	243	56	1,166	1,537	1,529	47	5,587
2006 Average .....	657	( <sup>a</sup> )	( <sup>b</sup> )	553	185	87	1,114	1,463	1,419	38	5,517
<b>2007 January .....</b>	<b>778</b>	<b>574</b>	<b>(<sup>b</sup>)</b>	<b>531</b>	<b>172</b>	<b>59</b>	<b>1,136</b>	<b>1,542</b>	<b>1,195</b>	<b>87</b>	<b>6,074</b>
February .....	555	464	( <sup>b</sup> )	314	150	105	1,109	1,163	1,360	58	5,278
March .....	727	708	( <sup>b</sup> )	523	305	150	1,347	1,244	1,287	11	6,302
April .....	782	514	( <sup>b</sup> )	562	135	82	948	1,488	1,412	28	5,950
May .....	744	692	( <sup>b</sup> )	341	168	69	964	1,614	1,522	67	6,181
June .....	709	514	( <sup>b</sup> )	573	263	172	968	1,534	1,364	24	6,121
July .....	747	404	( <sup>b</sup> )	460	202	187	906	1,436	1,399	18	5,759
August .....	827	412	( <sup>b</sup> )	520	139	129	1,224	1,499	1,320	43	6,115
September .....	702	591	( <sup>b</sup> )	603	170	74	1,181	1,560	1,315	35	6,231
October .....	410	342	( <sup>b</sup> )	490	157	134	1,241	1,411	1,388	46	5,619
November .....	447	435	( <sup>b</sup> )	508	154	103	1,306	1,620	1,381	7	5,961
December .....	600	439	( <sup>b</sup> )	378	158	141	1,271	1,686	1,387	50	6,111
<b>Average .....</b>	<b>670</b>	<b>508</b>	<b>(<sup>b</sup>)</b>	<b>484</b>	<b>181</b>	<b>117</b>	<b>1,134</b>	<b>1,485</b>	<b>1,361</b>	<b>39</b>	<b>5,980</b>
<b>2008 January .....</b>	<b>636</b>	<b>578</b>	<b>260</b>	<b>543</b>	<b>239</b>	<b>105</b>	<b>1,191</b>	<b>1,503</b>	<b>1,290</b>	<b>70</b>	<b>6,413</b>
February .....	384	350	186	780	266	87	1,025	1,627	1,131	14	5,850
March .....	441	388	238	773	203	124	1,174	1,542	1,033	18	5,934
April .....	632	591	170	679	181	133	1,221	1,462	1,189	4	6,262
May .....	620	476	162	583	263	111	918	1,604	1,171	19	5,926
June .....	492	649	184	693	183	115	1,020	1,493	1,215	43	6,084
July .....	456	652	227	696	122	128	822	1,675	1,340	5	6,121
August .....	530	495	298	663	203	113	1,166	1,573	1,305	47	6,390
September .....	657	416	233	543	115	59	591	1,431	1,051	32	5,128
October .....	555	539	200	577	240	132	979	1,487	1,162	16	5,888
November .....	677	450	229	476	292	79	827	1,514	1,236	20	5,799
December .....	484	562	258	519	219	43	939	1,471	1,159	27	5,679
<b>Average .....</b>	<b>547</b>	<b>513</b>	<b>221</b>	<b>627</b>	<b>210</b>	<b>102</b>	<b>990</b>	<b>1,532</b>	<b>1,191</b>	<b>26</b>	<b>5,958</b>
<b>2009 January .....</b>	<b>720</b>	<b>543</b>	<b>278</b>	<b>568</b>	<b>242</b>	<b>64</b>	<b>509</b>	<b>1,362</b>	<b>1,353</b>	<b>38</b>	<b>5,676</b>
February .....	372	671	243	554	251	60	498	1,115	1,139	51	4,956
March .....	463	657	215	587	181	61	891	967	1,106	88	5,215
<b>3-Month Average .....</b>	<b>523</b>	<b>622</b>	<b>245</b>	<b>570</b>	<b>224</b>	<b>62</b>	<b>637</b>	<b>1,149</b>	<b>1,201</b>	<b>59</b>	<b>5,293</b>
<b>2008 3-Month Average .....</b>	<b>489</b>	<b>441</b>	<b>229</b>	<b>697</b>	<b>235</b>	<b>106</b>	<b>1,132</b>	<b>1,556</b>	<b>1,152</b>	<b>34</b>	<b>6,071</b>
<b>2007 3-Month Average .....</b>	<b>691</b>	<b>586</b>	<b>(<sup>b</sup>)</b>	<b>461</b>	<b>211</b>	<b>104</b>	<b>1,200</b>	<b>1,321</b>	<b>1,278</b>	<b>52</b>	<b>5,905</b>

<sup>a</sup> Angola joined OPEC in January 2007. For 1973-2006, Angola is included in "Total Non-OPEC" on Table 3.3d.

<sup>b</sup> Ecuador was a member of OPEC from 1973-1992, and rejoined OPEC in November 2007. For 1993-2007, Ecuador is included in "Total Non-OPEC" on Table 3.3d.

<sup>c</sup> Imports from the Neutral Zone are reported as originating in either Saudi Arabia or Kuwait depending on the country reported to U.S. Customs.

<sup>d</sup> For all years, includes Iran, Qatar, and United Arab Emirates. For 1973-2008, also includes Indonesia; and for 1975-1994, also includes Gabon.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. Petroleum imports not classified as "OPEC" on this table are included on Table 3.3d. • The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example,

refined products imported from West European refining areas may have been produced from Middle East crude oil. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glace/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glace/petroleum.html).

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports.

**Table 3.3d Petroleum Trade: Imports From Non-OPEC Countries**  
(Thousand Barrels per Day)

	Brazil	Canada	Colombia	Mexico	Nether-lands	Norway	Russia <sup>a</sup>	United Kingdom	U.S. Virgin Islands	Other	Total Non-OPEC
1973 Average .....	9	1,325	9	16	53	1	26	15	329	1,480	3,263
1975 Average .....	5	846	9	71	19	17	14	14	406	1,052	2,454
1980 Average .....	3	455	4	533	2	144	1	176	388	903	2,609
1985 Average .....	61	770	23	816	58	32	8	310	247	913	3,237
1990 Average .....	49	934	182	755	55	102	45	189	282	1,128	3,721
1995 Average .....	8	1,332	219	1,068	15	273	25	383	278	1,233	4,833
1996 Average .....	9	1,424	234	1,244	19	313	25	308	313	1,377	5,267
1997 Average .....	5	1,563	271	1,385	25	309	13	226	300	1,495	5,593
1998 Average .....	26	1,598	354	1,351	31	236	24	250	293	1,640	5,803
1999 Average .....	26	1,539	468	1,324	27	304	89	365	280	1,478	5,899
2000 Average .....	51	1,807	342	1,373	30	343	72	366	291	1,581	6,257
2001 Average .....	82	1,828	296	1,440	43	341	90	324	268	1,631	6,343
2002 Average .....	116	1,971	260	1,547	66	393	210	478	236	1,649	6,925
2003 Average .....	108	2,072	195	1,623	87	270	254	440	288	1,766	7,103
2004 Average .....	104	2,138	176	1,665	101	244	298	380	330	2,008	7,444
2005 Average .....	156	2,181	196	1,662	151	233	410	396	328	2,413	8,127
2006 Average .....	193	2,353	155	1,705	174	196	369	272	328	2,446	8,190
 2007 January .....	250	2,529	148	1,566	118	110	347	199	425	1,939	7,632
February .....	153	2,533	85	1,496	63	131	242	261	312	1,620	6,895
March .....	234	2,357	121	1,750	160	164	455	292	349	1,773	7,655
April .....	224	2,498	90	1,572	87	203	556	373	322	1,967	7,892
May .....	203	2,500	122	1,614	150	234	499	390	287	2,025	8,024
June .....	161	2,410	164	1,529	171	193	285	345	218	1,956	7,432
July .....	200	2,386	231	1,611	130	137	534	369	372	2,026	7,995
August .....	280	2,527	181	1,474	127	112	416	174	320	1,910	7,520
September .....	232	2,520	186	1,454	136	105	389	185	384	1,824	7,415
October .....	197	2,429	175	1,417	176	110	452	290	353	1,764	7,362
November .....	82	2,404	219	1,581	58	100	470	210	414	1,689	7,227
December .....	178	2,372	130	1,322	157	110	306	238	387	1,559	6,759
Average .....	200	2,455	155	1,532	128	142	414	277	346	1,839	7,489
 2008 January .....	225	2,586	198	1,307	92	86	392	213	380	1,600	7,079
February .....	172	2,464	240	1,327	141	100	451	155	351	1,352	6,753
March .....	191	2,542	165	1,358	129	80	402	218	290	1,240	6,617
April .....	234	2,534	169	1,364	185	137	402	229	340	1,395	6,990
May .....	335	2,346	278	1,218	192	183	441	237	340	1,366	6,936
June .....	314	2,359	179	1,254	264	122	764	286	314	1,426	7,283
July .....	272	2,390	191	1,290	148	94	556	187	294	1,520	6,943
August .....	208	2,199	257	1,400	143	84	490	222	298	1,370	6,669
September .....	271	2,367	149	1,003	196	74	437	265	345	1,277	6,384
October .....	354	2,587	200	1,433	176	70	394	386	267	1,462	7,329
November .....	285	2,532	176	1,406	137	114	450	224	338	1,394	7,054
December .....	225	2,600	198	1,228	203	80	382	176	289	1,540	6,921
Average .....	258	2,459	200	1,299	167	102	463	233	320	1,413	6,914
 2009 January .....	450	2,544	269	1,430	127	90	516	147	367	1,556	7,496
February .....	381	2,515	241	1,364	186	74	478	285	333	1,379	7,235
March .....	338	2,438	283	1,199	141	192	650	208	264	1,546	7,259
3-Month Average .....	390	2,498	265	1,330	150	120	550	211	321	1,498	7,333
 2008 3-Month Average .....	197	2,532	200	1,331	120	88	414	196	340	1,399	6,818
2007 3-Month Average .....	214	2,471	119	1,608	115	135	352	250	363	1,783	7,410

<sup>a</sup> Through 1992, may include imports from republics other than Russia in the former U.S.S.R. See "Union of Soviet Socialist Republics (U.S.S.R.)" in Glossary.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary for membership. Petroleum imports not classified as "OPEC" on Table 3.3c are included on this table. • The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • Totals may not equal sum of components due to independent rounding. • U.S. geographic

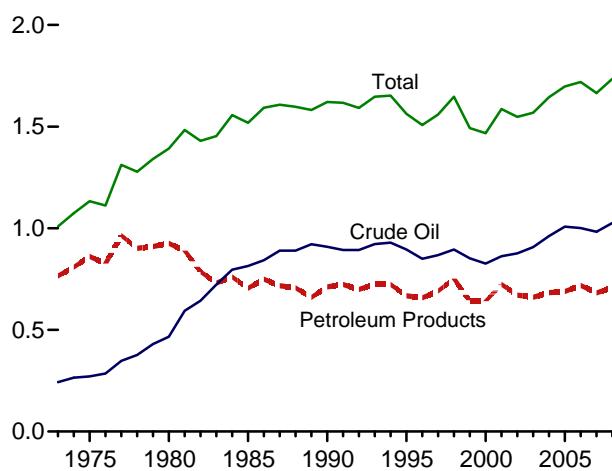
coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

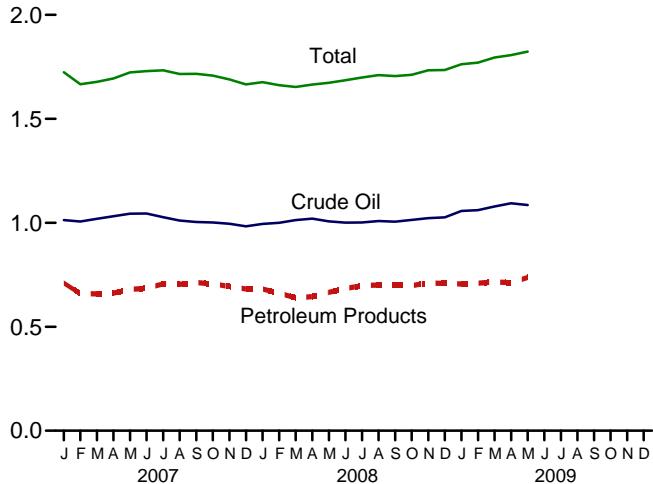
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports.

**Figure 3.4 Petroleum Stocks**  
(Billion Barrels, Except as Noted)

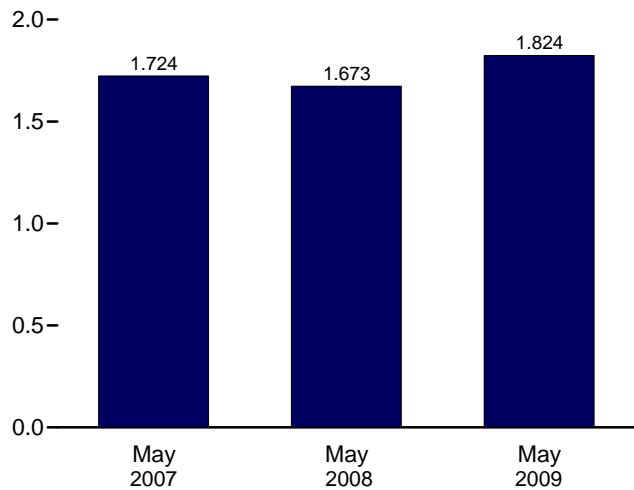
Overview, 1973-2008



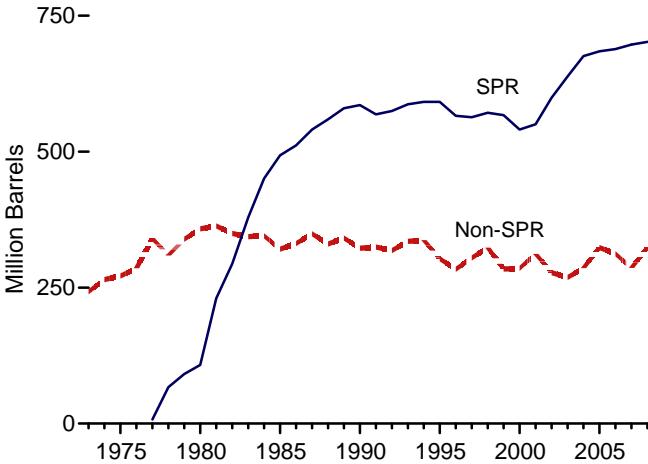
Overview, Monthly



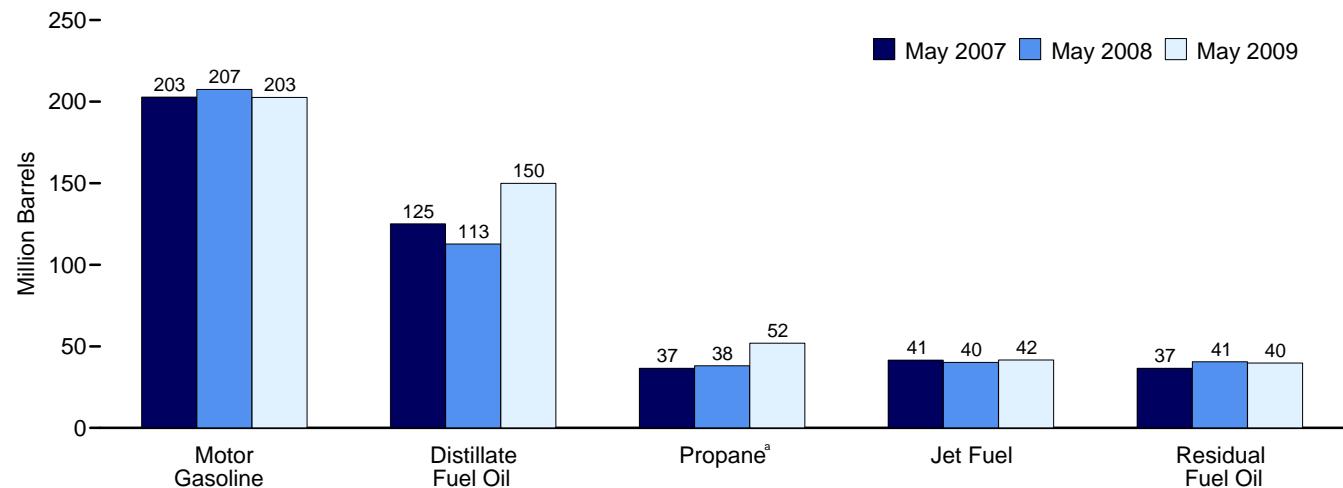
Total Stocks (Crude Oil and Petroleum Products)



SPR and Non-SPR Crude Oil Stocks, 1973-2008



Selected Products



<sup>a</sup> Includes propylene.

Notes: • SPR= Strategic Petroleum Reserve. • Stocks are at end of period.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.4.

**Table 3.4 Petroleum Stocks**

(Million Barrels)

	Crude Oil <sup>a</sup>			Distillate Fuel Oil <sup>f,g</sup>	Jet Fuel <sup>h</sup>	LPG <sup>b</sup>		Motor Gasoline <sup>f,j</sup>	Residual Fuel Oil <sup>f</sup>	Other <sup>k</sup>	Total <sup>f</sup>
	SPR <sup>c</sup>	Non-SPR <sup>d,e,f</sup>	Total <sup>e,f</sup>			Propane <sup>f,i</sup>	Total <sup>f</sup>				
1973 Year .....	--	242	242	196	29	65	99	209	53	179	1,008
1975 Year .....	--	271	271	209	30	82	125	235	74	188	1,133
1980 Year .....	108	358	466	205	42	65	120	261	92	205	1,392
1985 Year .....	493	321	814	144	40	39	74	223	50	174	1,519
1990 Year .....	586	323	908	132	52	49	98	220	49	162	1,621
1995 Year .....	592	303	895	130	40	43	93	202	37	165	1,563
1996 Year .....	566	284	850	127	40	43	86	195	46	164	1,507
1997 Year .....	563	305	868	138	44	44	89	210	40	169	1,560
1998 Year .....	571	324	895	156	45	65	115	216	45	176	1,647
1999 Year .....	567	284	852	125	41	43	89	193	36	157	1,493
2000 Year .....	541	286	826	118	45	41	83	196	36	164	1,468
2001 Year .....	550	312	862	145	42	66	121	210	41	166	1,586
2002 Year .....	599	278	877	134	39	53	106	209	31	152	1,548
2003 Year .....	638	269	907	137	39	50	94	207	38	147	1,568
2004 Year .....	676	286	961	126	40	55	104	218	42	153	1,645
2005 Year .....	685	324	1,008	136	42	57	109	208	37	157	1,698
2006 Year .....	689	312	1,001	144	39	62	113	212	42	169	1,720
<b>2007</b>											
January .....	689	325	1,013	140	39	47	91	227	42	171	1,724
February .....	689	318	1,006	124	39	30	70	215	36	176	1,666
March .....	689	331	1,019	120	40	27	70	202	40	186	1,678
April .....	689	342	1,031	121	40	30	77	197	38	189	1,694
May .....	690	353	1,044	125	41	37	91	203	37	183	1,724
June .....	690	354	1,044	124	41	44	103	206	36	176	1,730
July .....	690	337	1,027	130	42	50	112	205	40	177	1,733
August .....	690	321	1,011	135	41	55	122	194	36	177	1,716
September .....	693	311	1,004	134	43	58	126	200	37	173	1,717
October .....	694	307	1,001	134	42	61	124	199	39	169	1,708
November .....	696	300	995	135	40	60	112	205	39	164	1,690
December .....	697	286	983	134	39	52	96	218	39	156	1,665
<b>2008</b>											
January .....	698	296	995	130	42	39	78	231	39	162	1,677
February .....	699	302	1,000	117	40	29	66	234	39	166	1,662
March .....	700	313	1,013	107	38	26	65	221	39	169	1,653
April .....	701	319	1,020	106	39	31	78	210	40	172	1,665
May .....	704	303	1,007	113	40	38	92	207	41	173	1,673
June .....	706	295	1,001	121	40	43	103	210	42	170	1,686
July .....	707	295	1,002	130	41	47	114	206	37	169	1,699
August .....	707	302	1,009	132	41	54	128	195	39	167	1,710
September .....	702	303	1,006	127	38	59	138	189	39	168	1,705
October .....	702	312	1,014	127	39	59	133	195	40	164	1,712
November .....	702	321	1,023	136	38	61	127	203	39	168	1,733
December .....	702	324	1,026	146	38	55	113	213	36	162	1,735
<b>2009</b>											
January .....	704	353	1,057	143	41	46	96	218	35	173	1,762
February .....	706	355	1,060	146	43	40	89	216	39	177	1,770
March .....	R 713	R 366	R 1,079	R 144	R 42	R 40	R 90	217	R 39	R 185	R 1,795
April .....	E 719	E 375	E 1,094	E 147	E 41	E 45	RF 100	E 212	E 36	RE 177	E 1,806
May .....	E 722	E 364	E 1,086	E 150	E 42	E 52	F 112	E 203	E 40	E 192	E 1,824

<sup>a</sup> Includes lease condensate.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> "SPR" is the Strategic Petroleum Reserve, which began in October 1977. Crude oil stocks in the SPR include non-U.S. stocks held under foreign or commercial storage agreements.

<sup>d</sup> All crude oil stocks other than those in "SPR."

<sup>e</sup> Beginning in 1981, includes stocks of Alaskan crude oil in transit. See Note 5, "Stocks of Alaskan Crude Oil," at end of section.

<sup>f</sup> See Note 4, "Petroleum New Stock Basis," at end of section.

<sup>g</sup> Excludes stocks in the Northeast Heating Oil Reserve. Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>h</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>i</sup> Includes propylene.

<sup>j</sup> Includes finished motor gasoline, motor gasoline blending components, and gasohol; excludes oxygenates.

<sup>k</sup> Asphalt and road oil, aviation gasoline, aviation gasoline blending

components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, miscellaneous products, oxygenates, renewable fuels, and other hydrocarbons. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast. --=Not applicable.

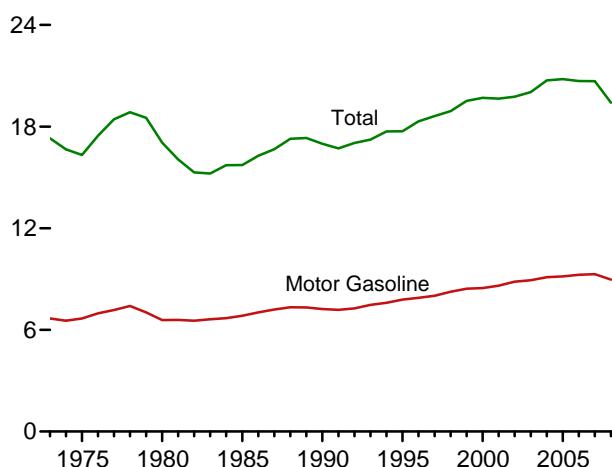
Notes: • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

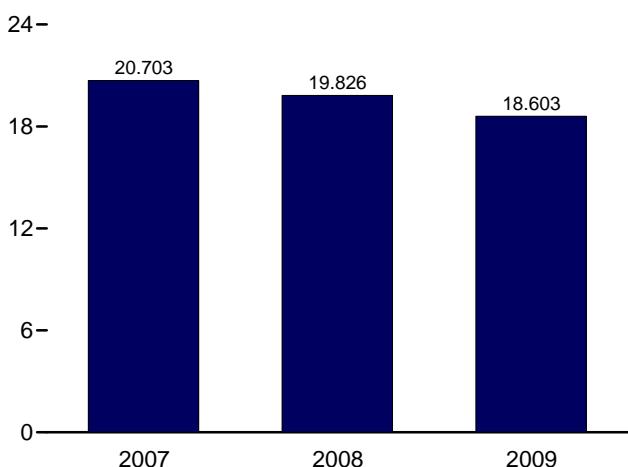
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

**Figure 3.5 Petroleum Products Supplied by Type**  
(Million Barrels per Day)

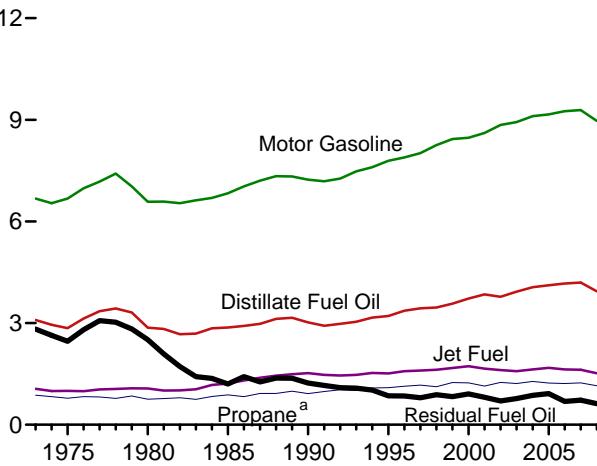
Total and Motor Gasoline, 1973-2008



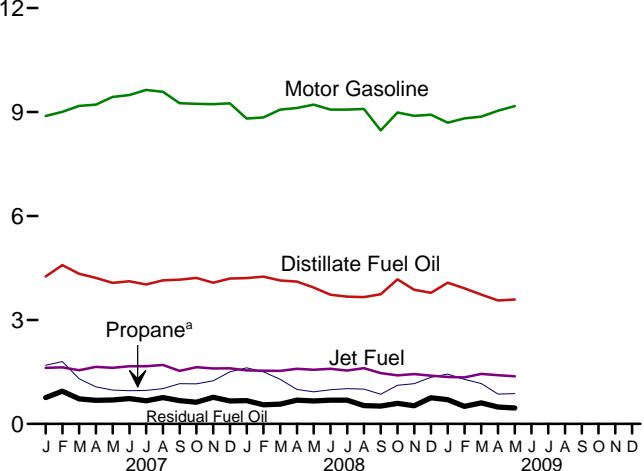
Total, January-May



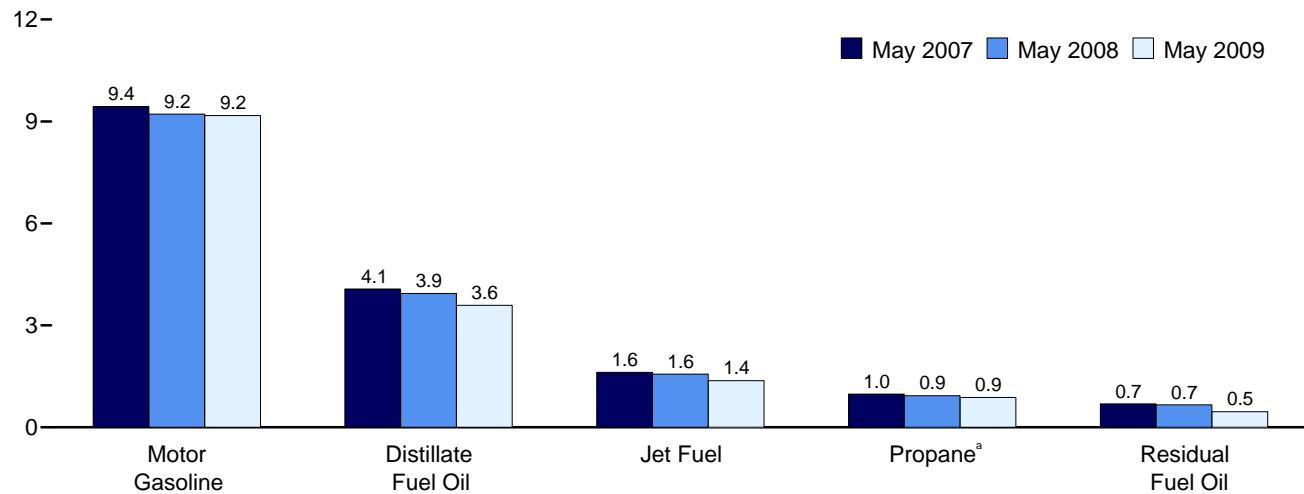
Selected Products, 1973-2008



Selected Products, Monthly



Selected Products



<sup>a</sup> Includes propylene.

Note: SPR= Strategic Petroleum Reserve.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.5.

**Table 3.5 Petroleum Products Supplied by Type**  
(Thousand Barrels per Day)

	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Kerosene	LPG <sup>a</sup>		Lubri-cants	Motor Gasoline <sup>e</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>f</sup>	Total
						Propane <sup>d</sup>	Total						
1973 Average .....	522	45	3,092	1,059	216	872	1,449	162	6,674	261	2,822	1,005	17,308
1975 Average .....	419	39	2,851	1,001	159	783	1,333	137	6,675	247	2,462	1,001	16,322
1980 Average .....	396	35	2,866	1,068	158	754	1,469	159	6,579	237	2,508	1,581	17,056
1985 Average .....	425	27	2,868	1,218	114	883	1,599	145	6,831	264	1,202	1,032	15,726
1990 Average .....	483	24	3,021	1,522	43	917	1,556	164	7,235	339	1,229	1,373	16,988
1995 Average .....	486	21	3,207	1,514	54	1,096	1,899	156	7,789	365	852	1,381	17,725
1996 Average .....	484	20	3,365	1,578	62	1,136	2,012	151	7,891	379	848	1,518	18,309
1997 Average .....	505	22	3,435	1,599	66	1,170	2,038	160	8,017	377	797	1,605	18,620
1998 Average .....	521	19	3,461	1,622	78	1,120	1,952	168	8,253	447	887	1,508	18,917
1999 Average .....	547	21	3,572	1,673	73	1,246	2,195	169	8,431	477	830	1,532	19,519
2000 Average .....	525	20	3,722	1,725	67	1,235	2,231	166	8,472	406	909	1,458	19,701
2001 Average .....	519	19	3,847	1,655	72	1,142	2,044	153	8,610	437	811	1,481	19,649
2002 Average .....	512	18	3,776	1,614	43	1,248	2,163	151	8,848	463	700	1,474	19,761
2003 Average .....	503	16	3,927	1,578	55	1,215	2,074	140	8,935	455	772	1,579	20,034
2004 Average .....	537	17	4,058	1,630	64	1,276	2,132	141	9,105	524	865	1,657	20,731
2005 Average .....	546	19	4,118	1,679	70	1,229	2,030	141	9,159	515	920	1,605	20,802
2006 Average .....	521	18	4,169	1,633	54	1,215	2,052	137	9,253	522	689	1,640	20,687
2007 January .....	353	16	4,256	1,616	52	1,694	2,468	151	8,886	435	759	1,574	20,567
February .....	289	13	4,582	1,634	48	1,798	2,575	128	9,006	430	946	1,658	21,309
March .....	370	14	4,334	1,551	35	1,305	2,113	152	9,178	561	723	1,506	20,536
April .....	455	20	4,214	1,647	27	1,070	1,998	144	9,215	437	682	1,696	20,536
May .....	507	17	4,068	1,618	14	978	1,846	157	9,434	551	690	1,717	20,620
June .....	637	22	4,114	1,663	15	958	1,924	134	9,491	480	733	1,509	20,723
July .....	651	17	4,026	1,664	7	969	1,912	147	9,640	420	669	1,593	20,747
August .....	647	21	4,146	1,703	28	1,018	1,912	139	9,582	539	761	1,548	21,025
September .....	606	17	4,161	1,533	32	1,162	1,925	127	9,254	546	674	1,541	20,415
October .....	595	21	4,213	1,637	28	1,157	1,984	150	9,236	437	626	1,549	20,476
November .....	458	15	4,074	1,600	46	1,243	2,109	138	9,229	464	768	1,633	20,535
December .....	348	11	4,193	1,603	58	1,504	2,287	128	9,251	573	665	1,603	20,719
Average .....	494	17	4,196	1,622	32	1,235	2,085	142	9,286	490	723	1,593	20,680
2008 January .....	302	13	4,209	1,546	31	1,620	2,333	132	8,814	501	672	1,561	20,114
February .....	313	13	4,251	1,537	50	1,504	2,314	131	8,842	203	552	1,576	19,782
March .....	295	13	4,140	1,533	46	1,288	2,120	143	9,069	474	571	1,328	19,732
April .....	360	19	4,108	1,592	25	995	1,855	144	9,117	482	684	1,382	19,768
May .....	444	19	3,936	1,564	28	928	1,864	142	9,216	456	661	1,398	19,729
June .....	581	16	3,728	1,589	28	988	1,872	135	9,071	450	688	1,395	19,553
July .....	556	14	3,672	1,541	29	1,017	1,932	137	9,072	522	687	1,249	19,412
August .....	522	20	3,657	1,611	24	1,002	1,940	157	9,090	471	526	1,247	19,267
September .....	536	16	3,740	1,467	27	856	1,418	96	8,469	358	516	1,153	17,796
October .....	464	12	4,173	1,403	17	1,116	1,860	147	8,986	466	592	1,523	19,643
November .....	308	16	3,870	1,439	21	1,160	1,868	92	8,889	438	526	1,535	19,001
December .....	314	14	3,784	1,394	46	1,346	1,949	102	8,921	503	753	1,420	19,199
Average .....	417	15	3,938	1,518	31	1,151	1,944	130	8,964	445	620	1,397	19,419
2009 January .....	230	17	4,075	1,357	36	1,438	2,166	111	8,690	430	700	1,313	19,125
February .....	271	7	3,915	1,341	39	1,286	2,028	99	8,816	422	506	1,263	18,706
March .....	R 337	R 11	R 3,732	R 1,441	R 19	R 1,165	R 2,019	R 112	R 8,866	R 420	R 605	R 1,110	R 18,672
April .....	RF 389	RF 15	E 3,563	E 1,405	RF 19	E 863	RF 1,836	RF 113	E 9,038	RF 418	E 486	RE 973	E 18,255
May .....	F 467	F 15	E 3,588	E 1,372	F 10	E 877	F 1,752	F 120	E 9,172	F 410	E 459	E 892	E 18,257
5-Month Average ...	E 340	E 13	E 3,773	E 1,384	E 24	E 1,124	E 1,960	E 111	E 8,918	E 420	E 553	E 1,108	E 18,603
2008 5-Month Average ...	343	15	4,127	1,555	36	1,265	2,096	139	9,013	425	629	1,448	19,826
2007 5-Month Average ...	397	16	4,286	1,612	35	1,363	2,194	147	9,146	484	757	1,629	20,703

<sup>a</sup> Liquified petroleum gases.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>d</sup> Includes propylene.

<sup>e</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>f</sup> Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast.

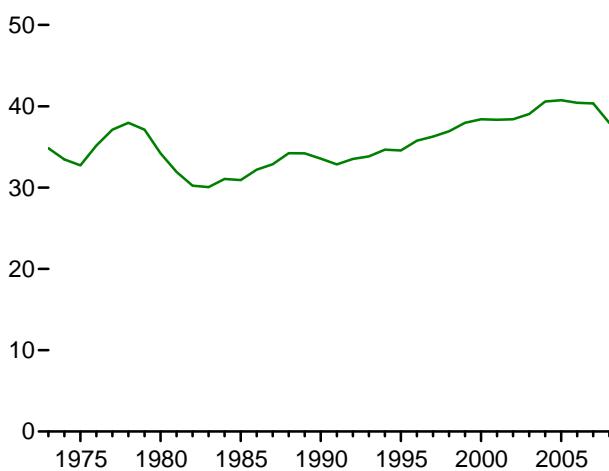
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

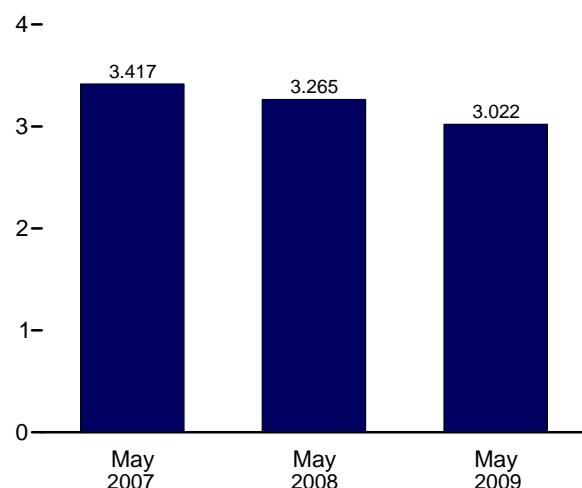
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2007:** EIA, *Petroleum Supply Annual*, annual reports. • **2008 and 2009:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

**Figure 3.6 Heat Content of Petroleum Products Supplied by Type**  
 (Quadrillion Btu)

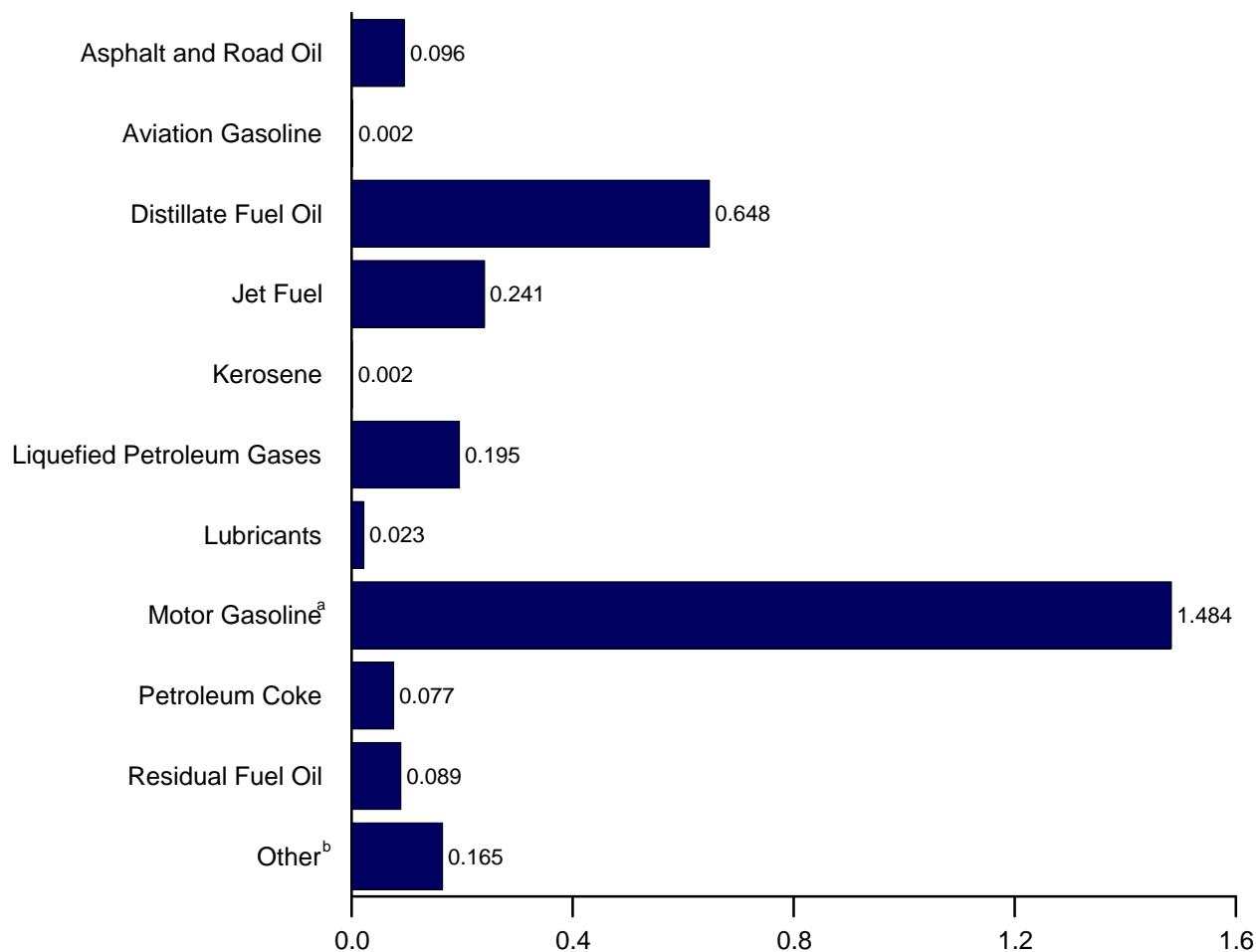
Total, 1973-2008



Total



By Product, May 2009



<sup>a</sup> Includes ethanol blended into motor gasoline.

<sup>b</sup> All petroleum products not shown above.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Source: Table 3.6.

**Table 3.6 Heat Content of Petroleum Products Supplied by Type**  
(Trillion Btu)

	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Kero-sene	LPG <sup>a</sup>		Lubri-cants	Motor Gasoline <sup>e</sup>	Petro- leum Coke	Residual Fuel Oil	Other <sup>f</sup>	Total
						Propane <sup>d</sup>	Total						
1973 Total .....	1,264	83	6,575	2,167	447	1,221	1,981	359	12,797	573	6,477	2,117	34,840
1975 Total .....	1,014	71	6,061	2,047	329	1,097	1,807	304	12,798	542	5,649	2,107	32,731
1980 Total .....	962	64	6,110	2,190	329	1,059	1,976	354	12,648	522	5,772	3,275	34,202
1985 Total .....	1,029	50	6,098	2,497	236	1,236	2,103	322	13,098	582	2,759	2,149	30,922
1990 Total .....	1,170	45	6,422	3,129	88	1,284	2,059	362	13,872	745	2,820	2,840	33,553
1995 Total .....	1,178	40	6,818	3,132	112	1,534	2,512	346	14,825	802	1,955	2,834	34,553
1996 Total .....	1,176	37	7,175	3,274	128	1,594	2,660	335	15,064	837	1,952	3,119	35,757
1997 Total .....	1,224	40	7,304	3,308	136	1,638	2,690	354	15,254	829	1,828	3,298	36,266
1998 Total .....	1,263	35	7,359	3,357	162	1,568	2,575	371	15,701	982	2,036	3,093	36,934
1999 Total .....	1,324	39	7,595	3,462	151	1,745	2,897	375	16,036	1,048	1,905	3,128	37,960
2000 Total .....	1,276	36	7,935	3,580	140	1,734	2,945	369	16,155	895	2,091	2,981	38,404
2001 Total .....	1,257	35	8,179	3,426	150	1,598	2,697	338	16,373	961	1,861	3,056	38,333
2002 Total .....	1,240	34	8,028	3,340	90	1,747	2,852	334	16,819	1,018	1,605	3,041	38,401
2003 Total .....	1,220	30	8,349	3,265	113	1,701	2,747	309	16,981	1,000	1,772	3,260	39,047
2004 Total .....	1,304	31	8,652	3,383	133	1,791	2,824	313	17,379	1,156	1,990	3,429	40,594
2005 Total .....	1,323	35	8,755	3,475	144	1,721	2,682	312	17,444	1,133	2,111	3,320	40,735
2006 Total .....	1,261	33	8,864	3,379	111	1,701	2,701	303	17,622	1,148	1,581	3,416	40,420
2007 January .....	73	3	769	284	9	202	275	28	1,438	81	148	302	3,409
February .....	54	2	747	259	8	193	259	22	1,316	73	167	284	3,190
March .....	76	2	783	273	6	155	235	29	1,485	105	141	270	3,403
April .....	91	3	736	280	5	123	215	26	1,443	79	129	287	3,294
May .....	104	3	735	284	2	116	205	30	1,526	103	135	290	3,417
June .....	127	3	719	283	3	110	207	24	1,486	87	138	246	3,324
July .....	134	3	727	293	1	115	213	28	1,560	78	130	272	3,438
August .....	133	3	749	299	5	121	213	26	1,550	101	148	257	3,484
September .....	121	3	727	261	5	134	207	23	1,449	99	127	253	3,274
October .....	122	3	761	288	5	138	221	28	1,494	82	122	267	3,393
November .....	91	2	712	272	8	143	227	25	1,445	84	145	282	3,293
December .....	72	2	757	282	10	179	255	24	1,497	107	130	299	3,434
<b>Total .....</b>	<b>1,197</b>	<b>32</b>	<b>8,921</b>	<b>3,358</b>	<b>67</b>	<b>1,729</b>	<b>2,733</b>	<b>313</b>	<b>17,689</b>	<b>1,077</b>	<b>1,659</b>	<b>3,308</b>	<b>40,353</b>
2008 January .....	62	2	760	272	5	193	260	25	1,426	93	131	292	3,329
February .....	60	2	718	253	8	167	241	23	1,338	35	101	283	3,063
March .....	61	2	748	269	8	153	236	27	1,467	88	111	248	3,266
April .....	72	3	718	271	4	114	200	26	1,427	87	129	229	3,166
May .....	91	3	711	275	5	110	208	27	1,491	85	129	241	3,265
June .....	116	2	651	270	5	114	202	25	1,420	81	130	230	3,132
July .....	114	2	663	271	5	121	215	26	1,467	97	134	217	3,213
August .....	107	3	660	283	4	119	216	29	1,470	88	103	224	3,189
September .....	107	2	654	250	5	98	153	17	1,326	65	97	175	2,850
October .....	95	2	754	247	3	133	207	28	1,454	87	115	260	3,251
November .....	61	2	676	245	4	134	202	17	1,391	79	99	267	3,043
December .....	65	2	683	245	8	160	217	19	1,443	94	147	254	3,178
<b>Total .....</b>	<b>1,012</b>	<b>28</b>	<b>8,396</b>	<b>3,150</b>	<b>64</b>	<b>1,616</b>	<b>2,559</b>	<b>289</b>	<b>17,120</b>	<b>981</b>	<b>1,426</b>	<b>2,920</b>	<b>37,946</b>
2009 January .....	47	3	736	239	6	171	242	21	1,406	80	136	250	3,165
February .....	50	1	638	213	6	138	204	17	1,288	71	89	218	2,796
March .....	R 69	R 2	R 674	R 253	R 3	R 139	R 225	R 21	R 1,434	R 78	R 118	R 212	R 3,090
April .....	RF 77	RF 2	E 623	E 239	RF 3	E 99	RF 198	RF 21	E 1,415	RF 76	E 92	RE 179	E 2,924
May .....	F 96	F 2	F 648	F 241	F 2	F 104	F 195	F 23	E 1,484	F 77	E 89	E 165	E 3,022
<b>5-Month Total .....</b>	<b>E 340</b>	<b>E 10</b>	<b>E 3,319</b>	<b>E 1,185</b>	<b>E 21</b>	<b>E 651</b>	<b>E 1,064</b>	<b>E 102</b>	<b>E 7,026</b>	<b>E 382</b>	<b>E 525</b>	<b>E 1,024</b>	<b>E 14,998</b>
<b>2008 5-Month Total .....</b>	<b>346</b>	<b>12</b>	<b>3,654</b>	<b>1,340</b>	<b>31</b>	<b>738</b>	<b>1,146</b>	<b>128</b>	<b>7,149</b>	<b>390</b>	<b>601</b>	<b>1,294</b>	<b>16,090</b>
<b>2007 5-Month Total .....</b>	<b>397</b>	<b>12</b>	<b>3,769</b>	<b>1,381</b>	<b>30</b>	<b>789</b>	<b>1,190</b>	<b>134</b>	<b>7,208</b>	<b>440</b>	<b>719</b>	<b>1,432</b>	<b>16,712</b>

<sup>a</sup> Liquefied petroleum gases.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>d</sup> Includes propylene.

<sup>e</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>f</sup> Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as

gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast.

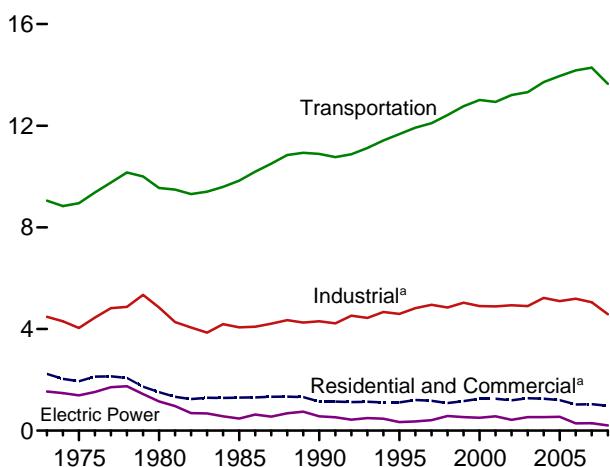
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html).

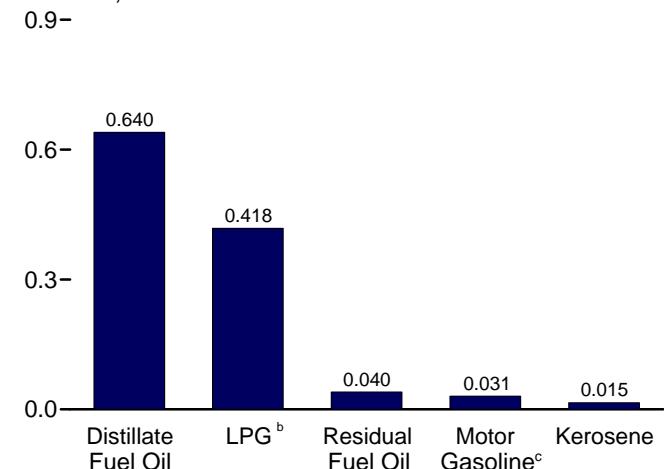
Sources: Tables 3.5, A1, and A3.

**Figure 3.7 Petroleum Consumption by Sector**  
(Million Barrels per Day)

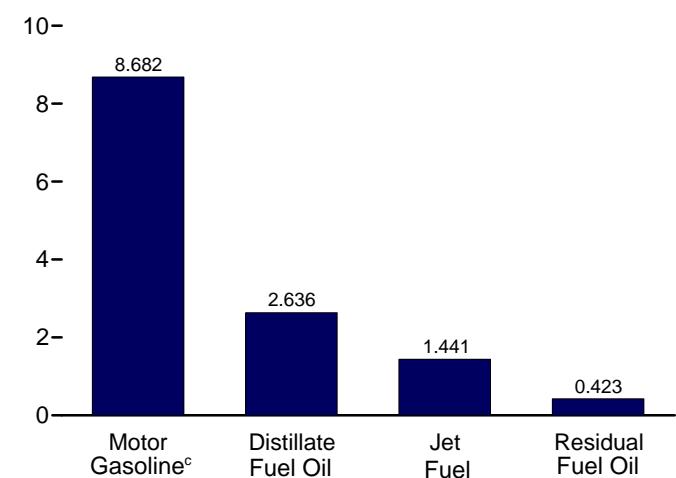
By Sector, 1973-2008



Residential and Commercial Sectors<sup>a</sup>, Selected Products, March 2009



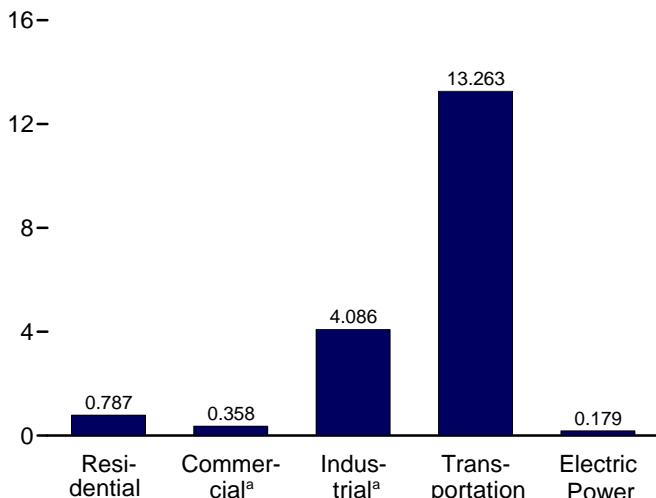
Transportation Sector, Selected Products, March 2009



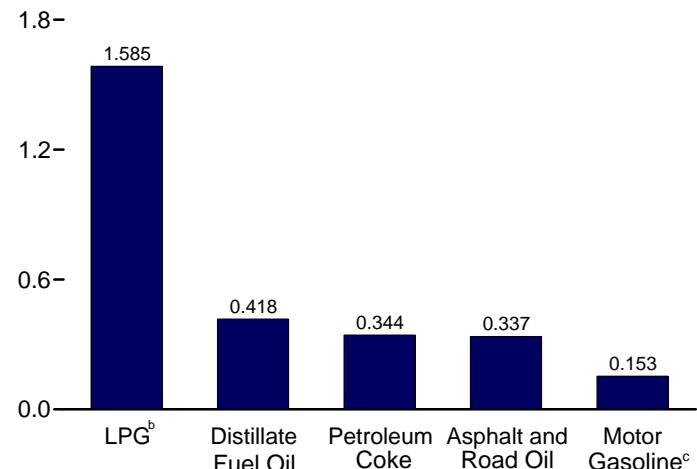
<sup>a</sup> Includes combined-heat-and-power plants and a small number of electricity-only plants.

<sup>b</sup> Liquefied petroleum gases.

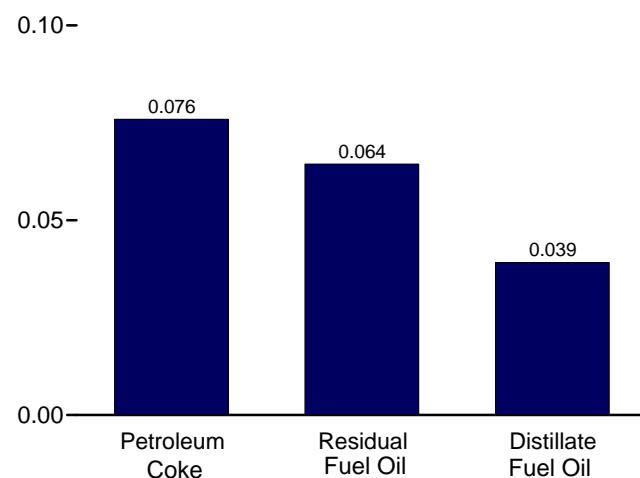
By Sector, March 2009



Industrial Sector<sup>a</sup>, Selected Products, March 2009



Electric Power Sector, March 2009



<sup>c</sup> Includes ethanol blended into motor gasoline.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: Tables 3.7a-3.7c.

**Table 3.7a Petroleum Consumption: Residential and Commercial Sectors**  
(Thousand Barrels per Day)

	Residential Sector				Commercial Sector <sup>a</sup>						
	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Total
1973 Average .....	942	110	435	1,487	303	31	77	45	NA	290	746
1975 Average .....	850	78	389	1,316	276	24	69	46	NA	214	629
1980 Average .....	617	51	242	910	243	20	43	56	NA	245	606
1985 Average .....	514	77	249	839	297	16	44	50	NA	99	506
1990 Average .....	460	31	276	767	252	6	49	58	0	100	465
1995 Average .....	426	36	306	767	225	11	54	10	(s)	62	361
1996 Average .....	434	43	358	835	227	10	63	14	(s)	60	373
1997 Average .....	411	45	349	805	209	12	62	22	(s)	48	353
1998 Average .....	363	52	329	744	202	15	58	20	(s)	37	332
1999 Average .....	389	54	404	847	206	13	71	15	(s)	32	338
2000 Average .....	424	46	427	897	230	14	75	23	(s)	40	383
2001 Average .....	427	46	406	879	239	15	72	20	(s)	30	376
2002 Average .....	404	29	412	845	209	8	73	24	(s)	35	348
2003 Average .....	425	34	426	885	226	9	75	32	(s)	48	391
2004 Average .....	433	41	401	875	221	10	71	25	(s)	53	380
2005 Average .....	402	40	391	833	210	10	69	24	(s)	50	365
2006 Average .....	335	32	345	712	189	7	61	26	(s)	33	315
<b>2007</b>											
January .....	424	34	435	893	224	7	77	31	(s)	41	380
February .....	514	31	454	999	272	7	80	31	(s)	49	439
March .....	451	23	372	847	239	5	66	32	(s)	43	385
April .....	263	18	352	633	139	4	62	32	(s)	25	262
May .....	193	9	325	527	102	2	57	33	0	19	212
June .....	224	10	339	573	119	2	60	33	0	22	235
July .....	219	4	337	560	116	1	59	33	0	21	231
August .....	246	19	337	601	130	4	59	33	(s)	24	250
September .....	262	21	339	622	139	4	60	32	(s)	25	260
October .....	299	18	350	667	158	4	62	32	(s)	29	285
November .....	408	30	372	810	216	6	66	32	(s)	39	359
December .....	603	38	403	1,044	319	8	71	32	(s)	58	488
<b>Average</b> .....	<b>342</b>	<b>21</b>	<b>367</b>	<b>730</b>	<b>181</b>	<b>4</b>	<b>65</b>	<b>32</b>	<b>(s)</b>	<b>33</b>	<b>315</b>
<b>2008</b>											
January .....	523	20	411	954	276	4	73	30	(s)	50	434
February .....	533	33	408	973	282	7	72	31	(s)	51	442
March .....	391	30	374	795	207	6	66	31	(s)	38	348
April .....	303	17	327	647	160	4	58	32	(s)	29	283
May .....	216	19	328	563	114	4	58	32	0	21	229
June .....	236	18	330	584	125	4	58	31	0	23	241
July .....	224	19	340	584	119	4	60	31	0	22	235
August .....	201	16	342	559	106	3	60	31	0	19	221
September .....	220	18	250	488	116	4	44	29	(s)	21	214
October .....	243	11	328	582	128	2	58	31	(s)	23	243
November .....	303	14	329	646	160	3	58	31	(s)	29	281
December .....	466	30	343	840	247	6	61	31	(s)	45	389
<b>Average</b> .....	<b>321</b>	<b>21</b>	<b>342</b>	<b>684</b>	<b>170</b>	<b>4</b>	<b>60</b>	<b>31</b>	<b>(s)</b>	<b>31</b>	<b>296</b>
<b>2009</b>											
January .....	519	24	382	925	275	5	67	30	(s)	50	427
February .....	R 487	26	357	R 871	R 258	5	63	30	(s)	R 47	R 404
March .....	419	13	356	787	221	3	63	31	(s)	40	358
3-Month Average ....	475	21	365	860	251	4	64	30	(s)	46	396
<b>2008 3-Month Average</b> ....	<b>481</b>	<b>28</b>	<b>397</b>	<b>906</b>	<b>254</b>	<b>6</b>	<b>70</b>	<b>31</b>	<b>(s)</b>	<b>46</b>	<b>408</b>
<b>2007 3-Month Average</b> ....	<b>462</b>	<b>29</b>	<b>419</b>	<b>910</b>	<b>244</b>	<b>6</b>	<b>74</b>	<b>31</b>	<b>(s)</b>	<b>44</b>	<b>400</b>

<sup>a</sup> Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

R=Revised. NA=Not available. (s)=Less than 500 barrels per day.

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term

"petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

• Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 3.7b Petroleum Consumption: Industrial Sector**  
(Thousand Barrels per Day)

	Industrial Sector <sup>a</sup>									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>c</sup>	Total
1973 Average .....	522	691	75	902	88	133	254	809	1,005	4,479
1975 Average .....	419	630	58	844	68	116	246	658	1,001	4,038
1980 Average .....	396	621	87	1,172	82	82	234	586	1,581	4,842
1985 Average .....	425	526	21	1,285	75	114	261	326	1,032	4,065
1990 Average .....	483	541	6	1,215	84	97	325	179	1,373	4,304
1995 Average .....	486	532	7	1,527	80	105	328	147	1,381	4,594
1996 Average .....	484	557	9	1,580	78	105	343	146	1,518	4,819
1997 Average .....	505	566	9	1,617	82	111	331	127	1,605	4,953
1998 Average .....	521	570	11	1,553	86	105	390	100	1,508	4,844
1999 Average .....	547	558	6	1,709	87	80	426	90	1,532	5,035
2000 Average .....	525	563	8	1,720	86	79	361	105	1,458	4,903
2001 Average .....	519	611	11	1,557	79	155	390	89	1,481	4,892
2002 Average .....	512	566	7	1,668	78	163	383	83	1,474	4,934
2003 Average .....	503	534	12	1,561	72	171	375	96	1,579	4,903
2004 Average .....	537	570	14	1,647	73	195	423	108	1,657	5,223
2005 Average .....	546	594	19	1,549	72	187	404	123	1,605	5,100
2006 Average .....	521	594	14	1,627	71	198	425	104	1,640	5,193
<b>2007</b>										
January .....	353	777	10	1,938	78	154	345	98	1,574	5,326
February .....	289	790	10	2,022	66	156	351	116	1,658	5,457
March .....	370	663	7	1,659	78	159	489	95	1,506	5,026
April .....	455	675	5	1,569	74	159	364	87	1,696	5,085
May .....	507	607	3	1,449	81	163	475	82	1,717	5,084
June .....	637	538	3	1,511	69	164	389	81	1,509	4,902
July .....	651	469	1	1,501	76	167	342	71	1,593	4,872
August .....	647	496	6	1,501	72	166	457	76	1,548	4,968
September .....	606	597	6	1,511	66	160	467	72	1,541	5,027
October .....	595	602	6	1,558	77	160	369	67	1,549	4,983
November .....	458	509	9	1,656	71	160	397	90	1,633	4,984
December .....	348	434	12	1,796	66	160	493	78	1,603	4,989
Average .....	494	595	6	1,637	73	161	412	84	1,593	5,056
<b>2008</b>										
January .....	302	731	6	1,832	68	153	421	87	1,561	5,162
February .....	313	733	10	1,817	67	153	125	71	1,576	4,865
March .....	295	695	9	1,665	74	157	409	76	1,328	4,708
April .....	360	668	5	1,457	74	158	414	89	1,382	4,607
May .....	444	603	6	1,464	73	159	393	85	1,398	4,626
June .....	581	389	6	1,470	69	157	371	83	1,395	4,522
July .....	556	354	6	1,517	71	157	455	86	1,249	4,450
August .....	522	359	5	1,524	81	157	399	66	1,247	4,360
September .....	536	480	6	1,113	49	147	289	62	1,153	3,833
October .....	464	732	3	1,461	75	156	393	76	1,523	4,884
November .....	308	575	4	1,467	47	154	372	68	1,535	4,529
December .....	314	398	9	1,530	52	154	438	99	1,420	4,416
Average .....	417	559	6	1,526	67	155	375	79	1,397	4,581
<b>2009</b>										
January .....	230	649	7	1,701	57	150	364	87	1,313	4,558
February .....	271	R 526	8	1,592	51	153	355	67	1,263	R 4,285
March .....	337	418	4	1,585	58	153	344	77	1,110	4,086
3-Month Average ....	279	531	6	1,627	55	152	354	77	1,227	4,310
<b>2008 3-Month Average ....</b>	<b>303</b>	<b>719</b>	<b>8</b>	<b>1,770</b>	<b>70</b>	<b>154</b>	<b>323</b>	<b>78</b>	<b>1,487</b>	<b>4,913</b>
<b>2007 3-Month Average ....</b>	<b>339</b>	<b>741</b>	<b>9</b>	<b>1,868</b>	<b>74</b>	<b>156</b>	<b>396</b>	<b>102</b>	<b>1,577</b>	<b>5,263</b>

<sup>a</sup> Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>c</sup> Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised.

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 3.7c Petroleum Consumption: Transportation and Electric Power Sectors**  
 (Thousand Barrels per Day)

	Transportation Sector								Electric Power Sector <sup>a</sup>			
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petroleum Coke	Residual Fuel Oil <sup>f</sup>	Total
1973 Average .....	45	1,045	1,042	35	74	6,496	317	9,054	129	7	1,406	1,542
1975 Average .....	39	998	992	31	70	6,512	310	8,951	107	1	1,280	1,388
1980 Average .....	35	1,311	1,062	13	77	6,441	608	9,546	79	2	1,069	1,151
1985 Average .....	27	1,491	1,218	21	71	6,667	342	9,838	40	3	435	478
1990 Average .....	24	1,722	1,522	16	80	7,080	443	10,888	45	14	507	566
1995 Average .....	21	1,973	1,514	13	76	7,674	397	11,668	51	37	247	334
1996 Average .....	20	2,096	1,578	11	73	7,772	370	11,921	51	36	273	360
1997 Average .....	22	2,198	1,599	10	78	7,883	310	12,099	52	46	311	410
1998 Average .....	19	2,263	1,622	13	81	8,128	294	12,420	64	56	456	576
1999 Average .....	21	2,352	1,673	10	82	8,336	290	12,765	66	51	418	535
2000 Average .....	20	2,422	1,725	8	81	8,370	386	13,012	82	45	378	505
2001 Average .....	19	2,489	1,655	10	74	8,435	255	12,938	80	47	437	564
2002 Average .....	18	2,536	1,614	10	73	8,662	295	13,208	60	80	287	427
2003 Average .....	16	2,665	1,578	12	68	8,733	249	13,321	76	79	379	534
2004 Average .....	17	2,783	1,630	14	69	8,885	321	13,718	52	101	382	535
2005 Average .....	19	2,858	1,679	20	68	8,948	365	13,957	54	111	382	547
2006 Average .....	18	3,017	1,633	20	67	9,029	395	14,178	35	97	157	289
2007 January .....	16	2,785	1,616	19	74	8,701	439	13,650	45	90	182	317
February .....	13	2,917	1,634	19	62	8,819	441	13,906	89	79	339	507
March .....	14	2,941	1,551	16	74	8,987	418	14,000	40	72	167	279
April .....	20	3,105	1,647	15	70	9,024	406	14,286	32	73	165	269
May .....	17	3,134	1,618	14	76	9,238	447	14,546	32	77	143	252
June .....	22	3,193	1,663	14	65	9,294	446	14,698	40	91	184	316
July .....	17	3,184	1,664	14	72	9,439	399	14,789	38	78	179	295
August .....	21	3,220	1,703	14	68	9,383	416	14,826	54	81	244	380
September .....	17	3,131	1,533	14	62	9,062	416	14,234	32	78	161	271
October .....	21	3,118	1,637	15	73	9,044	383	14,291	36	68	147	250
November .....	15	2,910	1,600	16	67	9,038	567	14,212	31	66	72	169
December .....	11	2,800	1,603	17	62	9,059	424	13,975	38	80	105	223
Average .....	17	3,037	1,622	16	69	9,093	433	14,287	42	78	173	293
2008 January .....	13	2,625	1,546	18	64	8,631	430	13,327	54	79	104	237
February .....	13	2,664	1,537	17	64	8,659	341	13,294	41	78	89	207
March .....	13	2,819	1,533	16	70	8,881	385	13,716	27	64	73	165
April .....	19	2,948	1,592	14	70	8,927	479	14,049	28	67	87	182
May .....	19	2,975	1,564	14	69	9,024	465	14,131	27	63	90	180
June .....	16	2,932	1,589	14	66	8,882	424	13,923	46	79	158	283
July .....	14	2,943	1,541	15	67	8,884	456	13,918	32	67	125	224
August .....	20	2,964	1,611	15	76	8,901	336	13,923	26	71	105	203
September .....	16	2,896	1,467	11	47	8,293	302	13,032	29	69	131	229
October .....	12	3,048	1,403	14	71	8,799	417	13,764	22	73	75	170
November .....	16	2,807	1,439	14	45	8,704	343	13,368	25	66	86	177
December .....	14	2,632	1,394	15	50	8,735	491	13,331	40	64	119	223
Average .....	15	2,855	1,518	15	63	8,778	406	13,651	33	70	103	207
2009 January .....	17	2,571	1,357	16	54	8,509	374	12,899	61	66	189	316
February .....	7	1,341	15	48	8,633	310	38	67	83	188		
March .....	11	2,636	1,441	15	55	8,682	423	13,263	39	76	64	179
3-Month Average ....	12	2,604	1,381	16	52	8,607	371	13,043	46	69	113	229
2008 3-Month Average ....	13	2,703	1,539	17	66	8,725	386	13,449	41	74	89	203
2007 3-Month Average ....	15	2,880	1,599	18	70	8,836	432	13,850	57	80	225	363

<sup>a</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial Sector, Other" on Table 3.7b.

<sup>d</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>e</sup> Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>f</sup> Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

R=Revised.

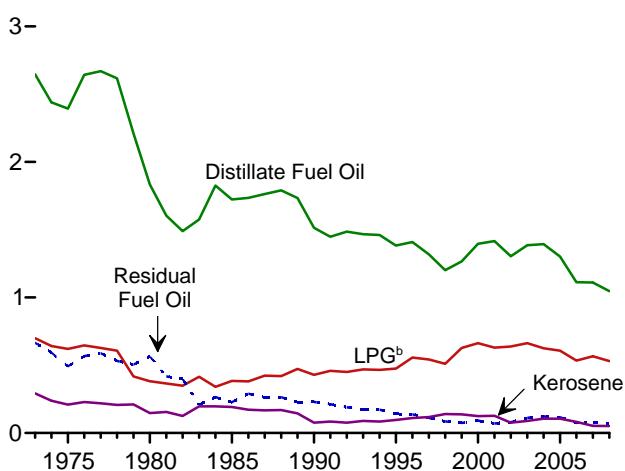
Notes: • Transportation sector data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

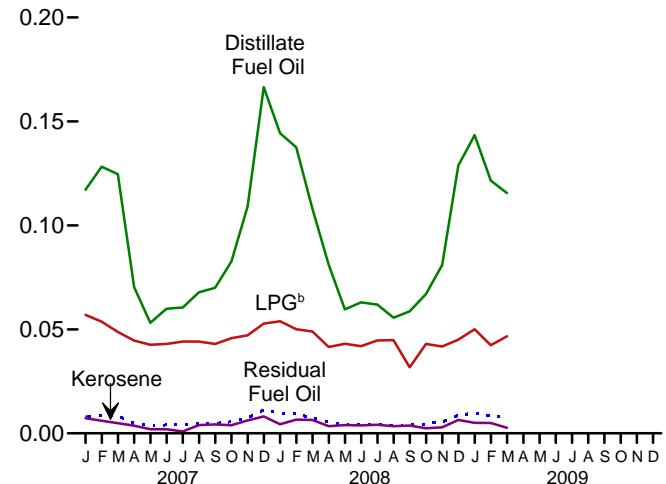
Sources: See end of section.

**Figure 3.8 Heat Content of Petroleum Consumption by Sector, Selected Products**  
 (Quadrillion Btu)

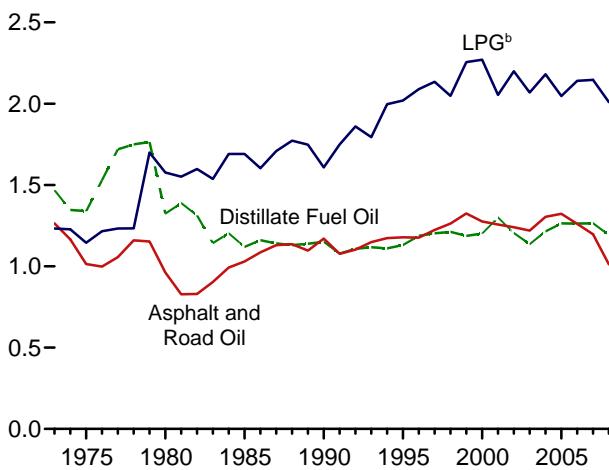
Residential and Commercial Sectors<sup>a</sup>, 1973-2008



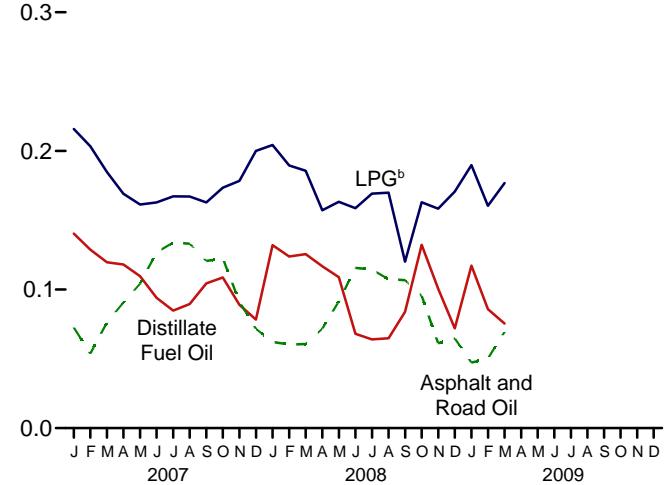
Residential and Commercial Sectors<sup>a</sup>, Monthly



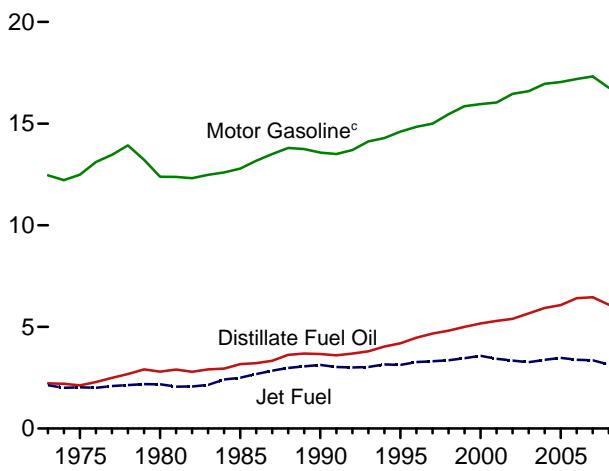
Industrial Sector<sup>a</sup>, 1973-2008



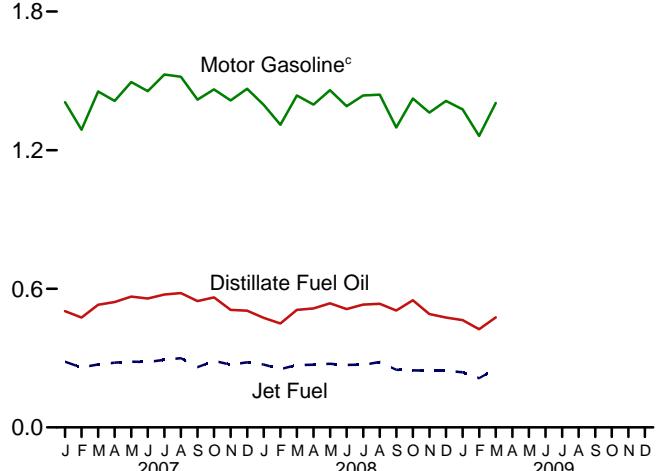
Industrial Sector<sup>a</sup>, Monthly



Transportation Sector, 1973-2008



Transportation Sector, Monthly



<sup>a</sup> Includes combined-heat-and-power plants and a small number of electricity-only plants.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> Beginning in 1993, includes ethanol blended into motor gasoline.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: Tables 3.8a-3.8c.

**Table 3.8a Heat Content of Petroleum Consumption: Residential and Commercial Sectors (Trillion Btu)**

	Residential Sector				Commercial Sector <sup>a</sup>						
	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Total
1973 Total .....	2,003	227	595	2,825	644	65	105	87	NA	665	1,565
1975 Total .....	1,807	161	528	2,495	587	49	93	89	NA	492	1,310
1980 Total .....	1,316	107	325	1,748	518	41	57	107	NA	565	1,287
1985 Total .....	1,092	159	327	1,578	631	33	58	96	NA	228	1,045
1990 Total .....	978	64	365	1,407	536	12	64	111	0	230	953
1995 Total .....	905	74	404	1,383	479	22	71	18	(s)	141	732
1996 Total .....	926	89	473	1,488	483	21	84	27	(s)	137	751
1997 Total .....	874	93	461	1,428	444	25	81	43	(s)	111	704
1998 Total .....	772	108	434	1,314	429	31	77	39	(s)	85	661
1999 Total .....	828	111	534	1,473	438	27	94	28	(s)	73	661
2000 Total .....	905	95	564	1,563	491	30	99	45	(s)	92	756
2001 Total .....	908	95	535	1,539	508	31	94	37	(s)	70	742
2002 Total .....	860	60	543	1,463	444	16	96	45	(s)	80	681
2003 Total .....	905	70	564	1,539	481	19	100	60	(s)	111	771
2004 Total .....	924	85	531	1,539	470	20	94	49	(s)	122	756
2005 Total .....	854	84	517	1,455	447	22	91	46	(s)	116	722
2006 Total .....	712	66	454	1,233	401	15	80	49	(s)	75	621
 2007 January .....	77	6	48	131	41	1	9	5	(s)	8	63
February .....	84	5	46	134	44	1	8	5	(s)	9	67
March .....	82	4	41	127	43	1	7	5	(s)	8	65
April .....	46	3	38	87	24	1	7	5	(s)	5	41
May .....	35	2	36	73	18	(s)	6	5	0	4	34
June .....	39	2	37	77	21	(s)	6	5	0	4	37
July .....	40	1	38	78	21	(s)	7	5	0	4	37
August .....	44	3	37	85	23	1	7	5	(s)	5	41
September .....	46	4	37	86	24	1	6	5	(s)	5	41
October .....	54	3	39	96	29	1	7	5	(s)	6	47
November .....	71	5	40	116	38	1	7	5	(s)	7	58
December .....	109	7	45	160	58	1	8	5	(s)	11	83
<b>Total .....</b>	<b>726</b>	<b>44</b>	<b>481</b>	<b>1,251</b>	<b>384</b>	<b>9</b>	<b>85</b>	<b>61</b>	<b>(s)</b>	<b>75</b>	<b>615</b>
 2008 January .....	94	4	46	144	50	1	8	5	(s)	10	74
February .....	90	5	43	138	48	1	8	5	(s)	9	70
March .....	71	5	42	118	37	1	7	5	(s)	7	58
April .....	53	3	35	91	28	1	6	5	(s)	5	45
May .....	39	3	37	79	21	1	6	5	0	4	37
June .....	41	3	36	80	22	1	6	5	0	4	38
July .....	40	3	38	82	21	1	7	5	0	4	38
August .....	36	3	38	77	19	1	7	5	0	4	35
September .....	38	3	27	68	20	1	5	5	(s)	4	34
October .....	44	2	37	82	23	(s)	6	5	(s)	5	40
November .....	53	2	36	91	28	(s)	6	5	(s)	5	45
December .....	84	5	38	128	45	1	7	5	(s)	9	66
<b>Total .....</b>	<b>684</b>	<b>43</b>	<b>451</b>	<b>1,178</b>	<b>362</b>	<b>9</b>	<b>80</b>	<b>59</b>	<b>(s)</b>	<b>71</b>	<b>581</b>
 2009 January .....	94	4	43	141	50	1	8	5	(s)	10	73
February .....	79	4	36	R 120	42	1	6	4	(s)	8	62
March .....	76	2	40	117	40	(s)	7	5	(s)	8	60
<b>3-Month Total .....</b>	<b>249</b>	<b>11</b>	<b>118</b>	<b>378</b>	<b>132</b>	<b>2</b>	<b>21</b>	<b>14</b>	<b>(s)</b>	<b>26</b>	<b>195</b>
 2008 3-Month Total .....	<b>255</b>	<b>14</b>	<b>130</b>	<b>399</b>	<b>135</b>	<b>3</b>	<b>23</b>	<b>15</b>	<b>(s)</b>	<b>26</b>	<b>202</b>
 2007 3-Month Total .....	<b>242</b>	<b>15</b>	<b>135</b>	<b>393</b>	<b>128</b>	<b>3</b>	<b>24</b>	<b>15</b>	<b>(s)</b>	<b>25</b>	<b>195</b>

<sup>a</sup> Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption

and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7a, A1, and A3.

**Table 3.8b Heat Content of Petroleum Consumption: Industrial Sector**  
(Trillion Btu)

	Industrial Sector <sup>a</sup>									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>c</sup>	Total
1973 Total .....	1,264	1,469	156	1,233	195	255	558	1,858	2,117	9,104
1975 Total .....	1,014	1,339	119	1,144	149	223	540	1,509	2,107	8,146
1980 Total .....	962	1,324	181	1,577	182	158	516	1,349	3,275	9,525
1985 Total .....	1,029	1,119	44	1,690	166	218	575	748	2,149	7,738
1990 Total .....	1,170	1,150	12	1,608	186	185	714	411	2,840	8,278
1995 Total .....	1,178	1,131	15	2,019	178	200	721	337	2,834	8,614
1996 Total .....	1,176	1,187	18	2,089	173	200	757	335	3,119	9,053
1997 Total .....	1,224	1,203	19	2,134	182	212	727	291	3,298	9,290
1998 Total .....	1,263	1,211	22	2,048	191	199	858	230	3,093	9,116
1999 Total .....	1,324	1,187	13	2,256	193	152	936	207	3,128	9,396
2000 Total .....	1,276	1,200	16	2,271	190	150	796	241	2,981	9,120
2001 Total .....	1,257	1,300	23	2,054	174	295	858	203	3,056	9,220
2002 Total .....	1,240	1,204	14	2,200	172	309	842	190	3,041	9,213
2003 Total .....	1,220	1,136	24	2,068	159	324	825	220	3,260	9,237
2004 Total .....	1,304	1,214	28	2,181	161	372	934	249	3,429	9,872
2005 Total .....	1,323	1,264	39	2,047	160	356	889	281	3,320	9,680
2006 Total .....	1,261	1,263	30	2,140	156	376	934	239	3,416	9,815
 2007 January .....	73	140	2	216	15	25	64	19	302	855
February .....	54	129	2	203	11	23	59	20	284	785
March .....	76	120	1	185	15	26	91	19	270	801
April .....	91	118	1	169	13	25	66	16	287	786
May .....	104	110	(s)	161	15	26	89	16	290	812
June .....	127	94	1	163	13	26	70	15	246	754
July .....	134	85	(s)	167	14	27	64	14	272	777
August .....	133	89	1	167	13	27	85	15	257	788
September .....	121	104	1	163	12	25	84	14	253	777
October .....	122	109	1	173	15	26	69	13	267	795
November .....	91	89	2	178	13	25	72	17	282	769
December .....	72	78	2	200	12	26	92	15	299	797
<b>Total .....</b>	<b>1,197</b>	<b>1,265</b>	<b>13</b>	<b>2,146</b>	<b>161</b>	<b>306</b>	<b>906</b>	<b>193</b>	<b>3,308</b>	<b>9,496</b>
 2008 January .....	62	132	1	204	13	25	79	17	292	825
February .....	60	124	2	190	12	23	22	13	283	728
March .....	61	125	2	186	14	25	76	15	248	752
April .....	72	117	1	157	13	25	75	17	229	705
May .....	91	109	1	163	14	26	73	17	241	735
June .....	116	68	1	159	13	25	67	16	230	693
July .....	114	64	1	169	13	25	85	17	217	706
August .....	107	65	1	170	15	25	75	13	224	695
September .....	107	84	1	120	9	23	52	12	175	583
October .....	95	132	1	163	14	25	73	15	260	778
November .....	61	101	1	158	9	24	67	13	267	700
December .....	65	72	2	171	10	25	82	19	254	699
<b>Total .....</b>	<b>1,012</b>	<b>1,192</b>	<b>13</b>	<b>2,009</b>	<b>148</b>	<b>296</b>	<b>826</b>	<b>182</b>	<b>2,920</b>	<b>8,600</b>
 2009 January .....	47	117	1	190	11	24	68	17	250	725
February .....	50	86	1	160	9	22	60	12	218	R 618
March .....	69	75	1	177	11	25	64	15	212	649
<b>3-Month Total .....</b>	<b>167</b>	<b>278</b>	<b>3</b>	<b>527</b>	<b>30</b>	<b>71</b>	<b>192</b>	<b>44</b>	<b>680</b>	<b>1,993</b>
 2008 3-Month Total .....	<b>183</b>	<b>381</b>	<b>4</b>	<b>579</b>	<b>38</b>	<b>73</b>	<b>177</b>	<b>45</b>	<b>824</b>	<b>2,305</b>
2007 3-Month Total .....	<b>202</b>	<b>389</b>	<b>5</b>	<b>604</b>	<b>40</b>	<b>73</b>	<b>215</b>	<b>58</b>	<b>855</b>	<b>2,441</b>

<sup>a</sup> Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>c</sup> Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7b, A1, and A3.

**Table 3.8c Heat Content of Petroleum Consumption: Transportation and Electric Power Sectors (Trillion Btu)**

	Transportation Sector								Electric Power Sector <sup>a</sup>			
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petroleum Coke	Residual Fuel Oil <sup>f</sup>	Total
1973 Total .....	83	2,222	2,131	48	163	12,455	727	17,831	273	15	3,226	3,515
1975 Total .....	71	2,121	2,029	42	155	12,485	711	17,614	226	2	2,937	3,166
1980 Total .....	64	2,795	2,179	17	172	12,383	1,398	19,009	169	5	2,459	2,634
1985 Total .....	50	3,170	2,497	28	156	12,784	786	19,471	85	7	998	1,090
1990 Total .....	45	3,661	3,129	22	176	13,575	1,016	21,625	97	30	1,163	1,289
1995 Total .....	40	4,195	3,132	17	168	14,607	911	23,069	108	81	566	755
1996 Total .....	37	4,469	3,274	15	163	14,837	851	23,647	109	80	628	817
1997 Total .....	40	4,672	3,308	13	172	14,999	712	23,917	111	102	715	927
1998 Total .....	35	4,812	3,357	17	180	15,463	674	24,537	136	124	1,047	1,306
1999 Total .....	39	5,001	3,462	13	182	15,855	665	25,218	140	112	959	1,211
2000 Total .....	36	5,165	3,580	11	179	15,960	888	25,820	175	99	871	1,144
2001 Total .....	35	5,292	3,426	13	164	16,041	586	25,556	171	103	1,003	1,277
2002 Total .....	34	5,392	3,340	13	162	16,465	677	26,084	127	175	659	961
2003 Total .....	30	5,666	3,265	16	150	16,597	571	26,296	161	175	869	1,205
2004 Total .....	31	5,932	3,383	18	152	16,959	740	27,214	111	222	879	1,212
2005 Total .....	35	6,076	3,475	27	151	17,043	837	27,644	115	243	876	1,235
2006 Total .....	33	6,414	3,379	26	147	17,197	906	28,103	74	214	361	648
2007 January .....	3	503	284	2	14	1,408	86	2,299	8	17	35	60
February .....	2	476	259	2	11	1,289	78	2,116	15	13	60	88
March .....	2	531	273	2	14	1,454	81	2,357	7	13	32	53
April .....	3	543	280	2	13	1,413	76	2,329	6	13	31	50
May .....	3	566	284	2	14	1,495	87	2,451	6	14	28	48
June .....	3	558	283	2	12	1,455	84	2,397	7	16	35	58
July .....	3	575	293	2	13	1,527	78	2,490	7	15	35	56
August .....	3	581	299	2	13	1,518	81	2,498	10	15	48	73
September .....	3	547	261	2	11	1,419	78	2,320	6	14	30	50
October .....	3	563	288	2	14	1,463	75	2,407	6	13	29	48
November .....	2	509	272	2	12	1,415	107	2,319	5	12	14	31
December .....	2	506	282	2	12	1,466	83	2,351	7	15	20	42
Total .....	32	6,457	3,358	21	152	17,321	994	28,334	89	171	397	657
2008 January .....	2	474	272	2	12	1,396	84	2,242	10	15	20	45
February .....	2	450	253	2	11	1,310	62	2,090	7	14	16	37
March .....	2	509	269	2	13	1,437	75	2,307	5	12	14	31
April .....	3	515	271	2	13	1,397	90	2,291	5	12	16	33
May .....	3	537	275	2	13	1,460	91	2,380	5	12	18	34
June .....	2	512	270	2	12	1,390	80	2,269	8	14	30	52
July .....	2	531	271	2	13	1,437	89	2,344	6	13	24	43
August .....	3	535	283	2	14	1,440	65	2,343	5	13	20	39
September .....	2	506	250	1	8	1,298	57	2,123	5	12	25	42
October .....	2	550	247	2	13	1,423	81	2,318	4	14	15	32
November .....	2	491	245	2	8	1,363	65	2,175	4	12	16	33
December .....	2	475	245	2	9	1,413	96	2,242	7	12	23	42
Total .....	28	6,087	3,150	19	140	16,765	935	27,124	70	155	238	463
2009 January .....	3	464	239	2	10	1,376	73	2,167	11	12	37	60
February .....	1	425	213	2	8	1,261	55	R 1,964	6	11	15	32
March .....	2	476	253	2	10	1,404	82	2,230	7	14	13	34
3-Month Total .....	5	1,365	705	5	29	4,042	210	6,361	24	38	64	126
2008 3-Month Total .....	6	1,433	794	6	36	4,143	221	6,639	22	40	51	113
2007 3-Month Total .....	7	1,510	816	6	38	4,151	245	6,772	30	44	128	201

<sup>a</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial Sector Other" on Table 3.8b.

<sup>d</sup> Finished motor gasoline. Beginning in 1993, also includes ethanol blended into motor gasoline.

<sup>e</sup> Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>f</sup> Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

R=Revised.

Notes: • Transportation sector data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7c, A1, and A3.

## Petroleum

**Note 1. Petroleum Survey Respondents.** The Energy Information Administration (EIA) uses a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review such industry publications as the *Oil & Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. Those sources are augmented by articles in newspapers, communications from respondents indicating changes in status, and information received from survey systems.

To supplement routine frames maintenance and to provide more thorough coverage, a comprehensive frames investigation is conducted every 3 years. This investigation results in the reassessment and recompilation of the complete frame for each survey. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

In 1991, EIA conducted a frame identifier survey of companies that produce, blend, store, or import oxygenates. A summary of the results from the identification survey was published in the *Weekly Petroleum Status Report* dated February 12, 1992, and in the February 1992 issue of the *Petroleum Supply Monthly*. In order to continue to provide relevant information about U.S. and regional gasoline supply, EIA conducted a second frame identifier survey of those companies during 1992. As a result, numerous respondents were added to the monthly surveys effective in January 1993. See *Petroleum Supply Monthly (PSM)*, Appendix B, "Frame."

**Note 2. Motor Gasoline.** Beginning in January 1981, EIA expanded its universe to include non-refinery blenders and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately.

Beginning with the reporting of January 1993 data, EIA made adjustments to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by EIA through 1992 were underreported because the reporting system was (1) not collecting all fuel ethanol blending, and (2) there was a misreporting of motor gasoline blending components that were blended into finished gasoline. The adjustments are incorporated into EIA's data beginning in January 1993. To facilitate data analysis across the 1992–1993 period, EIA prepared a table of 1992 data adjusted according to the 1993 basis. See *Petroleum Supply Monthly*, March 1993, Table H3.

**Note 3. Distillate and Residual Fuel Oils.** The requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil was eliminated. Prior to

January 1981, the refinery input of unfinished oils typically exceeded the available supply of unfinished oils.

That discrepancy was assumed to be due to the redesignation of distillate and residual fuel oils received as such but used as unfinished oil inputs by the receiving refinery. The imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, EIA modified its survey forms to account for redesigned product and discontinued the above-mentioned adjustment.

Prior to 1983, crude oil burned on leases and used at pipeline pump stations was reported as either distillate or residual fuel oil and was included as product supplied for these products.

**Note 4. Petroleum New Stock Basis.** In January 1975, 1979, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

Crude Oil: 1982—645 (Total) and 351 (Non-SPR).

Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.

Jet Fuel (Total): 1974—30; 1980—42; and 1982—39.

Liquefied Petroleum Gases: 1974—113; 1978—136; 1980—128; and 1982—102.

Propane and Propylene: 1978—86; 1980—69; and 1982—57.

Motor Gasoline (Total): 1974—225; 1980—263; 1982—244.

Residual Fuel Oil: 1974—75; 1980—91; and 1982—69.

Total Petroleum: 1974—1,121; 1980—1,425; and 1982—1,461.

Stock change calculations beginning in 1975, 1979, 1981, and 1983 were made by using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). This change affects stocks reported and stock change calculations. Under the new basis, 1983 end-of-year stocks, in million barrels, would have been 108 for liquefied petroleum gases, and 55 for propane and propylene.

In January 1993, changes were made in the monthly surveys to begin collecting bulk terminal and pipeline stocks of oxygenates. This change affected stocks reported and stock change calculations. However, a new basis stock level was not calculated for 1992 end-of-year stocks.

**Note 5. Stocks of Alaskan Crude Oil.** Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded

coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Non-SPR).

**Note 6. Petroleum Data Discrepancies.** Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review (MER)* and the *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables. The corresponding *PSA/PSM* values, in thousand barrels per day, are: Natural Gas Plant Liquids Production, 1976: 1,603; Total Exports, 1979: 472; Petroleum Products Exports, 1979: 237; and SPR Crude Oil Imports, 1978: 162.

**Note 7. Petroleum Products Supplied and Petroleum Consumption.** Total petroleum products supplied is the sum of the products supplied for each petroleum product, crude oil, unfinished oils, and gasoline blending components. For each of these, except crude oil, product supplied is calculated by adding refinery production, natural gas plant liquids production, new supply of other liquids, imports, and stock withdrawals, and subtracting stock additions, refinery inputs, and exports. Crude oil product supplied is the sum of crude oil burned on leases and at pipeline pump stations as reported on Form EIA-813, "Monthly Crude Oil Report." Prior to 1983, crude oil burned on leases and used at pipeline pump stations was reported as either distillate or residual fuel oil and was included as product supplied for these products. Petroleum product supplied (see Tables 3.5 and 3.6) is an approximation of petroleum consumption and is synonymous with the term "Petroleum Consumption" in Tables 3.7a-c and 3.8a-c.

### Tables 3.7a–3.7c Sources

Petroleum consumption data in these tables are derived from data for "petroleum products supplied" from the following sources:

1973–1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual."

1976–1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."

1981–2007: EIA, *Petroleum Supply Annual*.

2008 and 2009: EIA, *Petroleum Supply Monthly*.

Energy-use allocation procedures by individual product are as follows:

**Asphalt and Road Oil**—All consumption of asphalt and road oil is assigned to the industrial sector.

**Aviation Gasoline**—All consumption of aviation gasoline is assigned to the transportation sector.

**Distillate Fuel Oil**—Distillate fuel oil consumption is assigned to the sectors as follows:

**Distillate Fuel Oil Consumed by the Electric Power Sector**—See Table 7.4b. For 1973–1979, electric utility consumption of distillate fuel oil is assumed to be the amount of petroleum (minus small amounts of kerosene and kerosene-type jet fuel deliveries) consumed in gas turbine and internal combustion plants. For 1980–2000, electric utility consumption of distillate fuel is assumed to be the amount of light oil (fuel oil nos. 1 and 2, plus small amounts of kerosene and jet fuel) consumed.

**Distillate Fuel Oil Consumed by the End-Use Sectors, Annually**—The aggregate end-use amount is total distillate fuel oil supplied minus the amount consumed by the electric power sector. The end-use total consumed annually is allocated into the individual end-use sectors (residential, commercial, industrial, and transportation) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report" (previously Form EIA-172). Shares for the current year are based on the most recent *Sales* report.

Following are notes on the individual sector groupings:

Since 1979, the residential sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

Since 1979, the commercial sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

Since 1979, the industrial sector sales total is the sum of the sales for industrial, farm, oil company, off-highway diesel, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses.

The transportation sector sales total is the sum of the sales for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

**Distillate Fuel Oil Consumed by the End-Use Sectors, Monthly**—Residential sector and commercial sector monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. (For each month of the current year, the residential and commercial consumption increase from the same month in the previous year is based on the percent increase in that month's No. 2 heating oil sales from the same month in the previous

year.) The years' No. 2 heating oil sales totals are from the following sources: for 1973–1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales*; and for 1983 forward, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." After 1993, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into months.

A distillate fuel oil "balance" is calculated as total distillate fuel oil supplied minus the amount consumed by the electric power sector, residential sector, commercial sector, and for highway use.

Industrial sector monthly consumption is estimated by multiplying each month's distillate fuel oil "balance" by the annual industrial consumption share of the annual distillate fuel oil "balance."

Total transportation sector monthly consumption is estimated as total distillate fuel oil supplied minus the amount consumed by the residential, commercial, industrial, and electric power sectors.

**Jet Fuel**—Through 1982, small amounts of kerosene-type jet fuel were consumed by the electric power sector. Kerosene-type jet fuel deliveries to the electric power sector as reported on the Form FERC-423 (formerly Form FPC-423) were used as estimates of this consumption. Through 2004, all remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector. Beginning in 2005, kerosene-type jet fuel is consumed by the transportation sector; while naphtha-type jet fuel is classified under "Other Petroleum Products," which is assigned to the industrial sector.

**Kerosene**—Kerosene product supplied is allocated into the individual end-use sectors (residential, commercial, and industrial) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report" (previously Form EIA-172).

Since 1979, the residential sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Since 1979, the commercial sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Since 1979, the industrial sector sales total is the sum of the sales for industrial, farm, and all other uses. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

**Liquefied Petroleum Gases (LPG)**—The annual shares of LPG's total consumption that are estimated to be used by each sector are applied to each month's total LPG consumption to create monthly sector consumption estimates. The annual sector shares are calculated as described below.

Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the sector.

The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 20 percent (in 2001) to a high of 73 percent (in 1994).

LPG consumed annually by the industrial sector is estimated as the difference between LPG total supplied and the estimated consumption of LPG by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and used in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

Sources of the annual sales data for creating annual energy shares are:

1973–1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174, "Sales of Liquefied Petroleum Gases."

1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption because the collection of data under Form EIA-174 was discontinued after data year 1982.

1984 forward: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases," which is based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association. EIA adjusts the data to remove quantities of pentanes plus and to estimate withheld values.

**Lubricants**—The consumption of lubricants is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to the two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 forward.

**Motor Gasoline**—The total monthly consumption of motor gasoline is allocated to the sectors in proportion to aggregations of annual sales categories created on the basis of the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:

Commercial sales are the sum of sales for public non-highway use and miscellaneous and unclassified uses.

Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*.

Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.

**Petroleum Coke**—Portions of petroleum coke are consumed by the electric power sector (see Table 7.4b) and the commercial sector (see sources for Table 7.4c). The remaining petroleum coke is assigned to the industrial sector.

**Residual Fuel Oil**—Residual fuel oil consumption is assigned to the sectors as follows:

**Residual Fuel Oil Consumed by the Electric Power Sector**—See Table 7.4b. For 1973–1979, electric utility consumption of residual fuel oil is assumed to be the amount of petroleum consumed in steam-electric power plants. For 1980–2000, electric utility consumption of residual fuel oil is assumed to be the amount of heavy oil (fuel oil nos. 4, 5, and 6) consumed.

**Residual Fuel Oil Consumed by the End-Use Sectors, Annually**—The aggregate end-use amount is total residual fuel oil supplied minus the amount consumed by the electric power sector. The end-use total consumed annually is allocated into the individual end-use sectors (commercial, industrial, and transportation) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report" (previously Form EIA-172). Shares for the current year are based on the most recent *Sales* report.

Following are notes on the individual sector groupings:

Since 1979, commercial sales data are directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares.

Since 1979, industrial sales data are the sum of sales for industrial, oil company, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares, and this estimated industrial portion is added to oil company and all other uses.

Transportation sales are the sum of sales for railroad, vessel bunkering, and military uses for all years.

**Residual Fuel Oil Consumed by the End-Use Sectors, Monthly**—Commercial sector monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. (For each month of the current year, the consumption increase from the same month in the previous year is based on the percent increase in that month's No. 2 heating oil sales from the same month in the previous year.) The years' No. 2 heating oil sales totals are from the following sources: for 1973–1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales*; and for 1983–1996, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

A residual fuel oil "balance" is calculated as total residual fuel oil supplied minus the amount consumed by the electric power sector, commercial sector, and by industrial combined-heat-and-power plants (see sources for Table 7.4c).

Transportation sector monthly consumption is estimated by multiplying each month's residual fuel oil "balance" by the annual transportation consumption share of the annual residual fuel oil "balance."

Total industrial sector monthly consumption is estimated as total residual fuel oil supplied minus the amount consumed by the commercial, transportation, and electric power sectors.

**Other Petroleum Products**—Consumption of all remaining petroleum products is assigned to the industrial sector. Other petroleum products include pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.



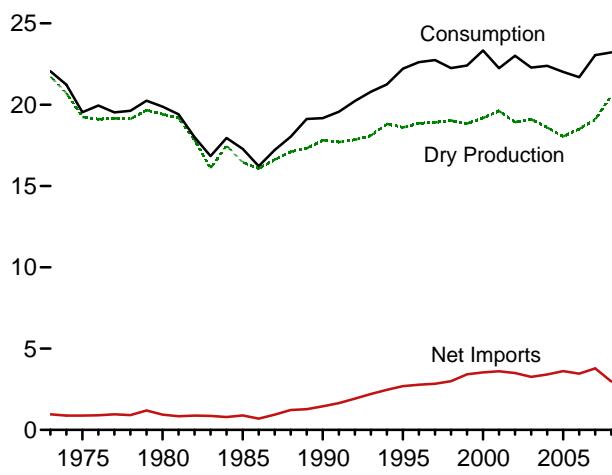
# Natural Gas



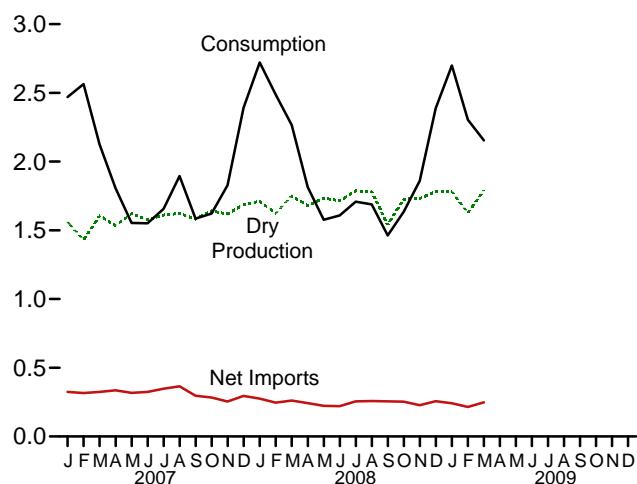
Natural gas pipeline, El Paso County, Texas. Source: U.S. Department of Energy.

**Figure 4.1 Natural Gas**  
(Trillion Cubic Feet)

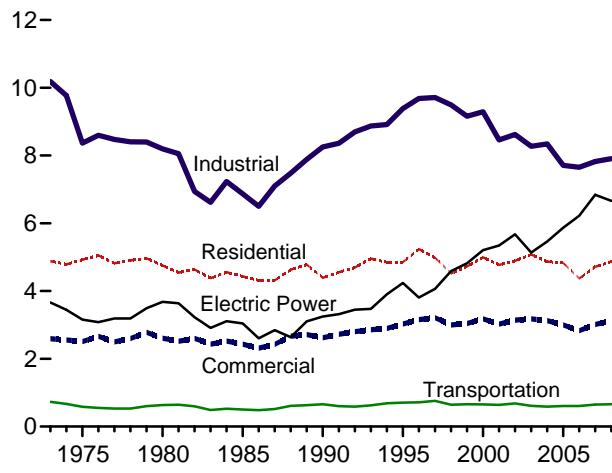
Overview, 1973-2008



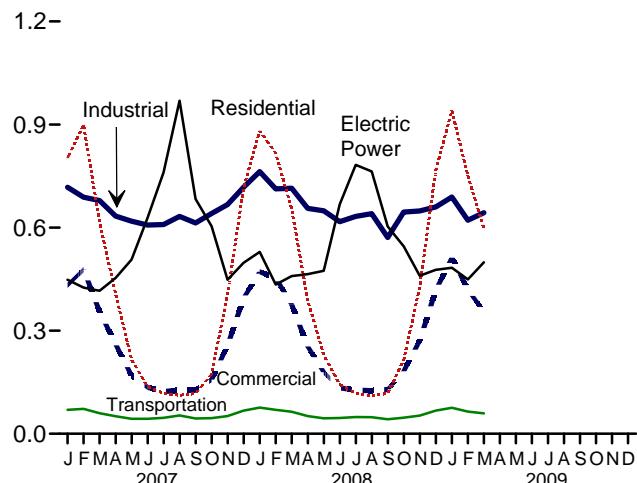
Overview, Monthly



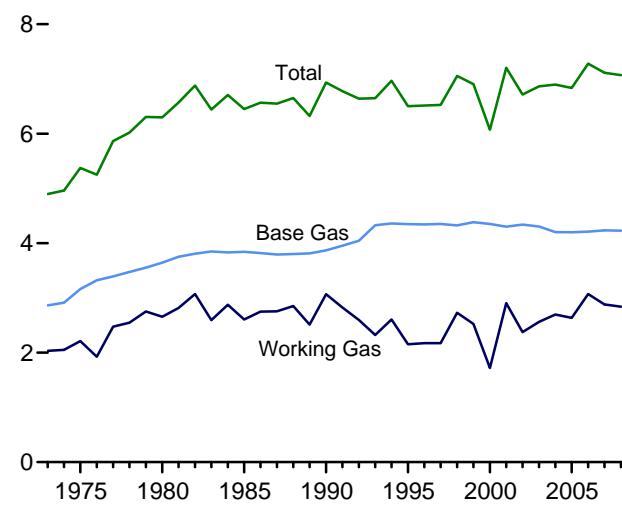
Consumption by Sector, 1973-2008



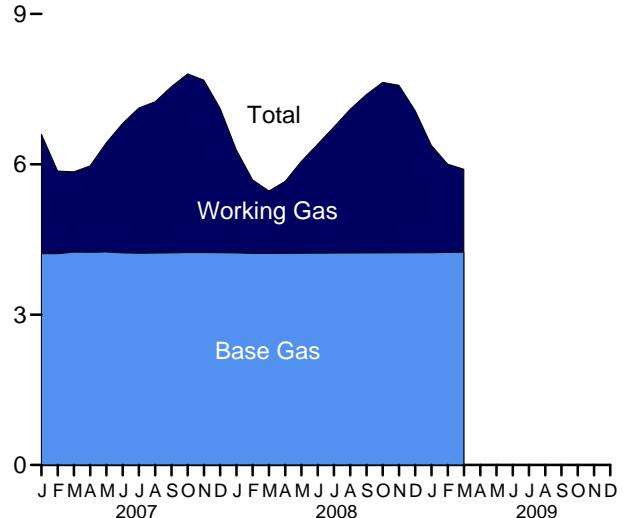
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2008



Underground Storage, End of Month



Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.  
Sources: Tables 4.1, 4.3, and 4.4.

**Table 4.1 Natural Gas Overview**  
(Billion Cubic Feet)

	Gross Withdrawals <sup>a</sup>	Marketed Production (Wet) <sup>b</sup>	Extraction Loss <sup>c</sup>	Dry Gas Production <sup>d</sup>	Supplemental Gaseous Fuels <sup>e</sup>	Trade			Net Storage Withdrawals <sup>f</sup>	Balancing Item <sup>g</sup>	Consumption <sup>h</sup>
						Imports	Exports	Net Imports			
1973 Total .....	24,067	i 22,648	917	j 21,731	NA	1,033	77	956	-442	-196	22,049
1975 Total .....	21,104	j 20,109	872	i 19,236	NA	953	73	880	-344	-235	19,538
1980 Total .....	21,870	20,180	777	19,403	155	985	49	936	23	-640	19,877
1985 Total .....	19,607	17,270	816	16,454	126	950	55	894	235	-428	17,281
1990 Total .....	21,523	18,594	784	17,810	123	1,532	86	1,447	-513	307	j 19,174
1995 Total .....	23,744	19,506	908	18,599	110	2,841	154	2,687	415	396	22,207
1996 Total .....	24,114	19,812	958	18,854	109	2,937	153	2,784	2	860	22,610
1997 Total .....	24,213	19,866	964	18,902	103	2,994	157	2,837	24	871	22,737
1998 Total .....	24,108	19,961	938	19,024	102	3,152	159	2,993	-530	657	22,246
1999 Total .....	23,823	19,805	973	18,832	98	3,586	163	3,422	172	-119	22,405
2000 Total .....	24,174	20,198	1,016	19,182	90	3,782	244	3,538	829	-305	23,333
2001 Total .....	24,501	20,570	954	19,616	86	3,977	373	3,604	-1,166	99	22,239
2002 Total .....	23,941	19,885	957	18,928	68	4,015	516	3,499	468	44	23,007
2003 Total .....	24,119	19,974	876	19,099	68	3,944	680	3,264	-197	44	22,277
2004 Total .....	23,970	19,517	927	18,591	60	4,259	854	3,404	-114	448	22,389
2005 Total .....	23,457	18,927	876	18,051	64	4,341	729	3,612	52	232	22,011
2006 Total .....	23,535	19,410	906	18,504	66	4,186	724	3,462	-436	89	21,685
2007 January .....	2,034	1,637	76	1,561	6	393	69	324	698	-120	2,470
February .....	1,870	1,498	70	1,429	5	373	57	316	748	65	2,564
March .....	2,084	1,684	78	1,606	6	402	77	325	56	133	2,125
April .....	1,984	1,609	75	1,534	5	387	51	336	-125	56	1,806
May .....	2,053	1,700	79	1,621	4	380	62	318	-470	81	1,554
June .....	2,017	1,654	77	1,577	5	381	57	324	-399	44	1,552
July .....	2,050	1,690	79	1,611	5	419	71	348	-322	14	1,656
August .....	2,074	1,701	79	1,622	5	427	62	365	-133	35	1,894
September .....	2,034	1,659	77	1,582	5	361	65	296	-306	8	1,585
October .....	2,118	1,720	80	1,640	5	347	64	284	-263	-44	1,622
November .....	2,094	1,697	79	1,619	6	341	86	254	127	-177	1,828
December .....	2,179	1,770	82	1,688	4	397	101	295	582	-178	2,392
Total .....	24,591	20,019	930	19,089	63	4,608	822	3,785	193	-83	23,047
2008 January .....	2,198	E 1,785	75	E 1,711	2	388	113	275	824	-91	2,721
February .....	2,079	E 1,696	72	E 1,624	4	349	103	246	593	20	2,487
March .....	2,243	E 1,828	78	E 1,750	5	366	105	261	219	31	2,266
April .....	2,133	E 1,756	76	E 1,679	5	321	79	243	-190	78	R 1,815
May .....	2,188	E 1,814	80	E 1,734	4	296	73	223	-402	R 18	1,576
June .....	2,145	E 1,788	73	E 1,715	5	286	65	220	-339	7	1,608
July .....	2,218	E 1,864	77	E 1,787	4	322	66	256	-342	3	1,709
August .....	2,187	E 1,859	77	E 1,781	5	328	70	258	-350	-6	1,689
September .....	1,966	E 1,601	62	E 1,540	5	313	58	255	-300	-37	1,463
October .....	2,202	E 1,801	74	E 1,727	5	323	69	253	-242	-107	1,635
November .....	2,212	E 1,802	72	E 1,730	5	322	95	228	57	-161	1,859
December .....	2,261	E 1,849	66	E 1,783	6	368	110	257	505	-163	2,388
Total .....	26,032	E 21,442	881	E 20,561	55	3,981	1,006	2,975	32	-408	23,215
2009 January .....	2,251	E 1,856	74	E 1,782	6	358	116	242	698	-29	2,700
February .....	R 2,073	RE 1,696	68	RE 1,627	5	R 322	R 107	R 215	371	R 85	R 2,304
March .....	2,282	E 1,868	78	E 1,790	6	E 335	E 87	E 248	98	12	2,154
3-Month Total ....	6,606	E 5,419	220	E 5,199	18	E 1,015	E 310	E 705	1,167	68	7,158
2008 3-Month Total ....	6,521	E 5,309	224	E 5,085	11	1,103	321	782	1,636	-40	7,474
2007 3-Month Total ....	5,988	4,820	224	4,596	18	1,168	203	965	1,502	78	7,159

<sup>a</sup> Gas withdrawn from natural gas and crude oil wells; excludes lease condensate.

<sup>b</sup> Gross withdrawals minus repressuring, nonhydrocarbon gases removed, and vented and flared. See Note 1, "Natural Gas Production," at end of section.

<sup>c</sup> See Note 2, "Natural Gas Extraction Loss," at end of section.

<sup>d</sup> Marketed production (wet) minus extraction loss.

<sup>e</sup> See Note 3, "Supplemental Gaseous Fuels," at end of section.

<sup>f</sup> Net withdrawals from underground storage. For 1980-2007, also includes net withdrawals of liquefied natural gas in above-ground tanks. See Note 4, "Natural Gas Storage," at end of section.

<sup>g</sup> See Note 5, "Natural Gas Balancing Item," at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).

<sup>h</sup> See Note 6, "Natural Gas Consumption," at end of section.

<sup>i</sup> May include unknown quantities of nonhydrocarbon gases.

<sup>j</sup> For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector" on Table 4.3. See Note 7, "Natural Gas Consumption, 1989-1992," at end of section.

R=Revised. E=Estimate. NA=Not available.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **Imports and Exports:** Table 4.2. • **Consumption:** Table 4.3.

• **Balancing Item:** Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net storage withdrawals. • **All Other Data:** 1973-2003—Energy Information Administration (EIA), *Natural Gas Annual*, annual reports. 2004 forward—EIA, *Natural Gas Monthly*, May 2009, Table 1.

**Table 4.2 Natural Gas Trade by Country**  
(Billion Cubic Feet)

	Imports										Exports			
	Algeria <sup>a</sup>	Canada <sup>b</sup>	Egypt <sup>a</sup>	Mexico <sup>b</sup>	Nigeria <sup>a</sup>	Oman <sup>a</sup>	Qatar <sup>a</sup>	Trinidad and Tobago <sup>a</sup>	Other <sup>a,c</sup>	Total	Canada <sup>b</sup>	Japan <sup>a</sup>	Mexico <sup>b</sup>	Total
1973 Total .....	3	1,028	0	2	0	0	0	0	0	1,033	15	48	14	77
1975 Total .....	5	948	0	0	0	0	0	0	0	953	10	53	9	73
1980 Total .....	86	797	0	102	0	0	0	0	0	985	(s)	45	4	49
1985 Total .....	24	926	0	0	0	0	0	0	0	950	(s)	53	2	55
1990 Total .....	84	1,448	0	0	0	0	0	0	0	1,532	17	53	16	86
1995 Total .....	18	2,816	0	7	0	0	0	0	0	2,841	28	65	61	154
1996 Total .....	35	2,883	0	14	0	0	0	0	5	2,937	52	68	34	153
1997 Total .....	66	2,899	0	17	0	0	0	0	12	2,994	56	62	38	157
1998 Total .....	69	3,052	0	15	0	0	0	0	17	3,152	40	66	53	159
1999 Total .....	76	3,368	0	55	0	0	20	51	17	3,586	39	64	61	163
2000 Total .....	47	3,544	0	12	13	10	46	99	11	3,782	73	66	106	244
2001 Total .....	65	3,729	0	10	38	12	23	98	2	3,977	167	66	141	373
2002 Total .....	27	3,785	0	2	8	3	35	151	5	4,015	189	63	263	516
2003 Total .....	53	3,437	0	0	50	9	14	378	3	3,944	271	66	343	680
2004 Total .....	120	3,607	0	0	12	9	12	462	36	4,259	395	62	397	854
2005 Total .....	97	3,700	73	9	8	2	3	439	9	4,341	358	65	305	729
2006 Total .....	17	3,590	120	13	57	0	0	389	0	4,186	341	61	322	724
<b>2007</b>														
January .....	3	336	9	4	5	0	0	37	0	393	41	5	24	69
February .....	0	321	6	8	6	0	0	33	0	373	34	5	17	57
March .....	9	309	15	6	9	0	0	54	0	402	53	5	19	77
April .....	24	279	14	9	9	0	0	51	0	387	32	4	15	51
May .....	24	283	15	3	15	0	3	38	0	380	35	4	24	62
June .....	12	291	15	4	20	0	6	30	3	381	28	3	26	57
July .....	0	315	12	5	12	0	3	62	9	419	38	4	29	71
August .....	3	335	12	4	15	0	6	46	6	427	28	4	30	62
September .....	3	318	12	2	3	0	0	24	0	361	33	4	28	65
October .....	0	314	3	2	0	0	0	29	0	347	31	2	29	64
November .....	0	311	3	3	0	0	0	24	0	341	58	3	26	86
December .....	0	372	0	4	0	0	0	21	0	397	72	4	25	101
<b>Total</b> .....	<b>77</b>	<b>3,783</b>	<b>115</b>	<b>54</b>	<b>95</b>	<b>0</b>	<b>18</b>	<b>448</b>	<b>18</b>	<b>4,608</b>	<b>482</b>	<b>47</b>	<b>292</b>	<b>d822</b>
<b>2008</b>														
January .....	0	359	3	1	0	0	0	25	0	388	70	3	40	113
February .....	0	325	0	0	0	0	0	21	3	349	63	3	37	103
March .....	0	341	0	1	0	0	0	21	3	366	70	4	31	105
April .....	0	289	3	(s)	3	0	0	26	0	321	47	4	28	79
May .....	0	260	3	4	0	0	0	25	3	296	43	5	25	73
June .....	0	250	6	3	3	0	3	21	0	286	30	5	30	65
July .....	0	287	6	4	0	0	0	25	0	322	31	5	30	66
August .....	0	288	3	4	3	0	0	24	5	328	29	6	35	70
September .....	0	274	9	7	3	0	0	20	0	313	27	4	27	58
October .....	0	289	3	6	0	0	0	24	0	323	37	4	28	69
November .....	0	294	9	6	0	0	0	14	0	322	65	4	26	95
December .....	0	330	9	7	0	0	0	19	3	368	79	4	28	110
<b>Total</b> .....	<b>0</b>	<b>3,586</b>	<b>55</b>	<b>43</b>	<b>12</b>	<b>0</b>	<b>3</b>	<b>264</b>	<b>17</b>	<b>3,981</b>	<b>590</b>	<b>50</b>	<b>365</b>	<b>1,006</b>
<b>2009</b>														
January .....	0	325	5	6	0	0	0	19	3	358	86	3	28	116
February .....	0	R 294	6	(s)	0	0	0	16	6	R 322	R 78	3	R 25	R 107
March .....	0	E 304	12	E (s)	0	0	0	17	3	E 335	E 58	4	E 25	E 87
<b>3-Month Total</b> ....	<b>0</b>	<b>E 923</b>	<b>23</b>	<b>E 6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>12</b>	<b>E 1,015</b>	<b>E 222</b>	<b>10</b>	<b>E 78</b>	<b>E 310</b>
<b>2008 3-Month Total</b> ....	<b>0</b>	<b>1,024</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>6</b>	<b>1,103</b>	<b>203</b>	<b>10</b>	<b>108</b>	<b>321</b>
<b>2007 3-Month Total</b> ....	<b>11</b>	<b>965</b>	<b>29</b>	<b>18</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>124</b>	<b>0</b>	<b>1,168</b>	<b>128</b>	<b>15</b>	<b>60</b>	<b>203</b>

<sup>a</sup> As liquefied natural gas.

<sup>b</sup> By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981 and exported to Mexico beginning in 1998. See Note 8, "Natural Gas Imports and Exports," at end of section.

<sup>c</sup> Australia in 1997-2001 and 2004; Brunei in 2002; Equatorial Guinea in 2007; Indonesia in 1986 and 2000; Malaysia in 1999 and 2002-2005; Norway in 2008 and 2009; United Arab Emirates in 1996-2000; and Other (unassigned) in 2004.

<sup>d</sup> Includes 2 billion cubic feet to Russia.

R=Revised. E=Estimate. (s)=Less than 500 million cubic feet.

Notes: • See Note 8, "Natural Gas Imports and Exports," at end of section. •

Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **1973-1987:** Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas."

• **1988-2006:** EIA, *Natural Gas Annual*, annual reports. • **2007 forward:** EIA, *Natural Gas Monthly*, May 2009, Table 4; and Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."

**Table 4.3 Natural Gas Consumption by Sector**  
(Billion Cubic Feet)

	End-Use Sectors										Electric Power Sector <sup>f,g</sup>	Total		
	Residential	Commercial <sup>a</sup>	Lease and Plant Fuel	Industrial			Transportation							
				CHP <sup>b</sup>	Non-CHP <sup>c</sup>	Total	Total	Pipelines <sup>d</sup> and Distribution <sup>e</sup>	Vehicle Fuel	Total				
1973 Total .....	4,879	2,597	1,496	( <sup>h</sup> )	8,689	8,689	10,185	728	NA	728	3,660	22,049		
1975 Total .....	4,924	2,508	1,396	( <sup>h</sup> )	6,968	8,365	583	NA	583	3,158	19,538			
1980 Total .....	4,752	2,611	1,026	( <sup>h</sup> )	7,172	7,172	8,198	635	NA	635	3,682	19,877		
1985 Total .....	4,433	2,432	966	( <sup>h</sup> )	5,901	5,901	6,867	504	NA	504	3,044	17,281		
1990 Total .....	4,391	2,623	1,236	1,055	5,963	i 7,018	8,255	660	(s)	660	i 3,245	i 19,174		
1995 Total .....	4,850	3,031	1,220	1,258	6,906	8,164	9,384	700	5	705	4,237	22,207		
1996 Total .....	5,241	3,158	1,250	1,289	7,146	8,435	9,685	711	6	718	3,807	22,610		
1997 Total .....	4,984	3,215	1,203	1,282	7,229	8,511	9,714	751	8	760	4,065	22,737		
1998 Total .....	4,520	2,999	1,173	1,355	6,965	8,320	9,493	635	9	645	4,588	22,246		
1999 Total .....	4,726	3,045	1,079	1,401	6,678	8,079	9,158	645	12	657	4,820	22,405		
2000 Total .....	4,996	3,182	1,151	1,386	6,757	8,142	9,293	642	13	655	5,206	23,333		
2001 Total .....	4,771	3,023	1,119	1,310	6,035	7,344	8,463	625	15	640	5,342	22,239		
2002 Total .....	4,889	3,144	1,113	1,240	6,267	7,507	8,620	667	15	682	5,672	23,007		
2003 Total .....	5,079	3,179	1,122	1,144	6,007	7,150	8,273	591	18	610	5,135	22,277		
2004 Total .....	4,869	3,129	1,098	1,191	6,052	7,243	8,341	566	21	587	5,464	22,389		
2005 Total .....	4,827	2,999	1,112	1,084	5,514	6,597	7,709	584	23	607	5,869	22,011		
2006 Total .....	4,368	2,832	1,142	1,115	5,398	6,512	7,654	584	24	608	6,222	21,685		
<b>2007</b>	January .....	802	432	99	96	523	619	717	68	E 2	70	448	2,470	
	February .....	899	478	91	79	518	598	688	70	E 2	72	425	2,564	
	March .....	616	355	101	81	496	577	679	58	E 2	60	416	2,125	
	April .....	408	261	97	80	457	537	633	49	E 2	51	453	1,806	
	May .....	216	169	101	84	434	518	619	41	E 2	44	507	1,554	
	June .....	137	135	99	85	424	509	607	41	E 2	43	628	1,552	
	July .....	118	123	100	90	418	508	609	44	E 2	46	761	1,656	
	August .....	112	127	101	101	431	531	633	51	E 2	53	969	1,894	
	September .....	116	128	99	89	425	514	614	42	E 2	44	683	1,585	
	October .....	174	158	103	89	448	538	641	43	E 2	45	604	1,622	
	November .....	404	257	102	85	480	565	667	49	E 2	51	448	1,828	
	December .....	715	395	106	90	521	611	717	65	E 2	67	498	2,392	
	<b>Total .....</b>	<b>4,717</b>	<b>3,017</b>	<b>1,199</b>	<b>1,050</b>	<b>5,574</b>	<b>6,625</b>	<b>7,823</b>	<b>623</b>	<b>E 25</b>	<b>648</b>	<b>6,841</b>	<b>23,047</b>	
<b>2008</b>	January .....	881	471	E 107	88	568	656	763	RE 74	E 3	E 76	529	2,721	
	February .....	816	454	E 102	79	532	611	713	E 67	E 2	E 70	434	2,487	
	March .....	653	376	E 109	81	524	605	714	E 61	E 3	E 64	459	2,266	
	April .....	389	254	E 105	74	476	551	656	E 49	E 2	RE 52	464	R 1,815	
	May .....	229	179	E 109	79	461	540	649	E 43	E 3	E 45	474	1,576	
	June .....	143	134	E 107	76	434	510	617	E 43	E 2	E 46	668	1,608	
	July .....	118	127	E 112	84	437	521	633	E 46	E 3	E 49	783	1,709	
	August .....	110	126	E 111	85	445	529	641	E 46	E 3	E 48	763	1,689	
	September .....	117	129	E 96	68	408	475	571	RE 40	E 2	E 42	603	1,463	
	October .....	215	182	E 108	80	457	537	645	E 44	E 3	E 47	546	1,635	
	November .....	427	272	E 108	75	466	541	648	E 50	E 2	E 53	460	1,859	
	December .....	766	418	E 111	77	473	549	660	E 65	E 3	E 67	477	2,388	
	<b>Total .....</b>	<b>4,866</b>	<b>3,122</b>	<b>E 1,284</b>	<b>946</b>	<b>5,680</b>	<b>6,626</b>	<b>7,909</b>	<b>E 627</b>	<b>E 30</b>	<b>RE 658</b>	<b>6,661</b>	<b>23,215</b>	
<b>2009</b>	January .....	940	512	E 111	80	498	578	689	E 73	E 3	E 76	483	2,700	
	February .....	750	419	E 102	72	448	520	621	RE 62	E 2	RE 65	449	R 2,304	
	March .....	598	355	E 112	80	451	531	643	E 56	E 3	E 59	499	2,154	
	<b>3-Month Total ....</b>	<b>2,288</b>	<b>1,286</b>	<b>E 324</b>	<b>233</b>	<b>1,396</b>	<b>1,629</b>	<b>1,953</b>	<b>E 192</b>	<b>E 8</b>	<b>E 200</b>	<b>1,431</b>	<b>7,158</b>	
<b>2008 3-Month Total ....</b>	<b>2,351</b>	<b>1,301</b>	<b>E 318</b>	<b>248</b>	<b>1,624</b>	<b>1,872</b>	<b>2,190</b>	<b>E 202</b>	<b>E 7</b>	<b>E 209</b>	<b>1,423</b>	<b>7,474</b>		
<b>2007 3-Month Total ....</b>	<b>2,317</b>	<b>1,266</b>	<b>291</b>	<b>256</b>	<b>1,537</b>	<b>1,793</b>	<b>2,084</b>	<b>196</b>	<b>E 6</b>	<b>202</b>	<b>1,290</b>	<b>7,159</b>		

<sup>a</sup> All commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Table 7.4c for CHP fuel use.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants.

<sup>c</sup> All industrial sector fuel use other than that in "Lease and Plant Fuel" and "CHP."

<sup>d</sup> Natural gas consumed in the operation of pipelines, primarily in compressors.

<sup>e</sup> Natural gas used as fuel in the delivery of natural gas to consumers.

<sup>f</sup> The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

<sup>g</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

<sup>h</sup> Included in "Non-CHP."

<sup>i</sup> For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector." See Note 7, "Natural Gas Consumption, 1989-1992," at end of section.

R=Revised. E=Estimate. NA=Not available. (s)=Less than 500 million cubic feet.

Notes: • Data are for natural gas, plus a small amount of supplemental gaseous fuels.  
• See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • Totals may not equal sum of components due to independent rounding.  
• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **Residential, Commercial, Lease and Plant Fuel, Other Industrial Total and Pipelines and Distribution:** 1973-2003—Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. **2004 forward**—EIA, *Natural Gas Monthly (NGM)*, May 2009, Table 2.

• **Industrial CHP:** Table 7.4c. • **Vehicle Fuel:** **1990 and 1991**—EIA, *NGA 2000*, (November 2001), Table 95. **1992-1998**—"Alternatives to Traditional Transportation Fuels 1999" (October 1999), Table 10, and "Alternatives to Traditional Transportation Fuels 2003" (February 2004), Table 10. Data for compressed natural gas and liquefied natural gas in gasoline-equivalent gallons were converted to cubic feet by multiplying by the motor gasoline conversion factor (see Table A3) and dividing by the natural gas end-use sectors conversion factor (see Table A4). **1999-2003**—EIA, *NGA*, annual reports. **2004 forward**—EIA, *NGM*, May 2009, Table 2. • **Electric Power Sector:** Table 7.4b.

**Table 4.4 Natural Gas in Underground Storage**

(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period			Change in Working Gas From Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total <sup>a</sup>	Volume	Percent	Withdrawals	Injections	Net <sup>b,c</sup>
1973 Total .....	2,864	2,034	4,898	305	17.6	1,533	1,974	-442
1975 Total .....	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
1980 Total .....	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
1985 Total .....	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
1990 Total .....	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
1995 Total .....	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
1996 Total .....	4,341	2,173	6,513	19	.9	2,911	2,906	6
1997 Total .....	4,350	2,175	6,525	2	.1	2,824	2,800	24
1998 Total .....	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
1999 Total .....	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
2000 Total .....	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
2001 Total .....	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
2002 Total .....	4,340	2,375	6,715	-528	-18.2	3,138	2,670	468
2003 Total .....	4,303	2,563	6,866	187	7.9	3,099	3,292	-193
2004 Total .....	4,201	2,696	6,897	133	5.2	3,037	3,150	-113
2005 Total .....	4,200	2,635	6,835	-61	-2.3	3,057	3,002	55
2006 Total .....	4,211	3,070	7,281	435	16.5	2,493	2,924	-431
<b>2007</b>								
January .....	4,216	2,383	6,599	12	.5	740	57	683
February .....	4,216	1,652	5,867	-235	-12.4	782	51	732
March .....	4,247	1,603	5,850	-89	-5.3	270	219	50
April .....	4,246	1,723	5,969	-223	-11.4	154	273	-120
May .....	4,250	2,181	6,432	-129	-5.6	38	498	-460
June .....	4,231	2,583	6,814	-34	-1.3	47	437	-389
July .....	4,227	2,896	7,123	117	4.2	84	397	-314
August .....	4,229	3,021	7,250	52	1.7	167	294	-127
September .....	4,233	3,315	7,549	-8	-.2	73	371	-298
October .....	4,238	3,565	7,804	113	3.3	75	332	-257
November .....	4,238	3,442	7,680	35	1.0	262	141	121
December .....	4,234	2,879	7,113	-191	-6.2	632	63	569
<b>Total</b> .....	<b>4,234</b>	<b>2,879</b>	<b>7,113</b>	<b>-191</b>	<b>-6.2</b>	<b>3,325</b>	<b>3,133</b>	<b>192</b>
<b>2008</b>								
January .....	4,232	2,055	6,287	-324	-13.6	892	68	824
February .....	4,222	1,465	5,687	-184	-11.1	649	56	593
March .....	4,221	1,247	5,468	-356	-22.2	350	131	219
April .....	4,223	1,436	5,659	-284	-16.5	106	295	-190
May .....	4,226	1,836	6,062	-342	-15.7	56	458	-402
June .....	4,230	2,171	6,401	-409	-15.8	80	420	-339
July .....	4,228	2,516	6,745	-377	-13.0	88	430	-342
August .....	4,228	2,867	7,094	-151	-5.0	91	442	-350
September .....	4,231	3,163	7,394	-153	-4.6	98	398	-300
October .....	4,235	3,399	7,634	-168	-4.7	91	334	-242
November .....	4,231	3,346	7,578	-96	-2.8	251	194	57
December .....	4,229	2,840	7,069	-39	-1.4	615	110	505
<b>Total</b> .....	<b>4,229</b>	<b>2,840</b>	<b>7,069</b>	<b>-39</b>	<b>-1.4</b>	<b>3,367</b>	<b>3,335</b>	<b>32</b>
<b>2009</b>								
January .....	4,236	2,141	6,377	86	4.2	778	79	698
February .....	4,242	1,761	6,003	296	20.2	472	100	371
March .....	4,246	1,656	5,902	408	32.7	296	199	98
<b>3-Month Total</b> ....	--	--	--	--	--	<b>1,546</b>	<b>378</b>	<b>1,167</b>
<b>2008 3-Month Total</b> ....	--	--	--	--	--	<b>1,890</b>	<b>255</b>	<b>1,636</b>
<b>2007 3-Month Total</b> ....	--	--	--	--	--	<b>1,792</b>	<b>327</b>	<b>1,466</b>

<sup>a</sup> For total underground storage capacity at the end of each calendar year, see Note 4, "Natural Gas Storage," at end of section.

<sup>b</sup> For 1980-2007, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

<sup>c</sup> Positive numbers indicate that withdrawals are greater than injections. Negative numbers indicate that injections are greater than withdrawals. Net withdrawals or injections may not equal the difference between applicable ending stocks. See Note 4, "Natural Gas Storage," at end of section.

-- =Not applicable.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **Storage Activity:** 1973-1975—Energy Information Administration (EIA), *Natural Gas Annual 1994*, Volume 2, Table 9. 1976-1979—EIA, *Natural Gas*

*Production and Consumption 1979*, Table 1. 1980-1995—EIA, *Historical Natural Gas Annual 1930 Through 2000*, Table 11. 1996-2003—EIA, *Natural Gas Monthly (NGM)*, monthly issues.

2004 forward—EIA, NGM, May 2009, Table 6.

• **All Other Data:** 1973 and 1974—American Gas Association (AGA), *Gas Facts, 1972 Data*, Table 57, *Gas Facts, 1973 Data*, Table 57, and *Gas Facts, 1974 Data*, Table 40. 1975 and 1976—Federal Energy Administration (FEA), Form FEA-G318-M-0, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report." 1977 and 1978—EIA, Form FEA-G318-M-0, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report." 1979-1995—EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report." 1996-2006—EIA, NGM, monthly issues. 2007 forward—EIA, NGM, May 2009, Table 6.

## Natural Gas

### Note 1. Natural Gas Production.

Annual data—Final annual data are from the Energy Information Administration (EIA) *Natural Gas Annual (NGA)*.

Estimated monthly data—Data for the two most recent months presented are estimated. Some of the data for earlier months are also estimated or computed. For a discussion of computation and estimation procedures, see the EIA *Natural Gas Monthly (NGM)*.

Preliminary monthly data—Monthly data are considered preliminary until after publication of the EIA *NGA*. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard 14.73 psi pressure base. Unless there are major changes, data are not revised until after publication of the EIA *NGA*.

Final monthly data—Differences between annual data in the EIA *NGA* and the sum of preliminary monthly data (January–December) are allocated proportionally to the months to create final monthly data.

**Note 2. Natural Gas Extraction Loss.** Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Annual data are from the EIA *NGA*, where they are estimated on the basis of the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated extraction losses, see the EIA *NGA*.

Preliminary monthly data are estimated on the basis of extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Monthly data are revised and considered final after the publication of the EIA *NGA*. Final monthly data are estimated by allocating annual extraction loss data to the months on the basis of total natural gas marketed production data from the EIA *NGA*.

**Note 3. Supplemental Gaseous Fuels.** Supplemental gaseous fuels are any substances that, introduced into or commingled with natural gas, increase the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Annual data beginning with 1980 are from the EIA, *NGA*.

Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

Monthly data are considered preliminary until after the publication of the EIA *NGA*. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

Although the total amount of supplemental gaseous fuels consumed is known for 1980 forward, EIA estimates the amount consumed by each energy-use sector. It is assumed that supplemental gaseous fuels are commingled with natural gas consumed by the residential, commercial, other industrial, and electric power sectors, but are not commingled with natural gas used for lease and plant fuel, pipelines and distribution, or vehicle fuel. The estimated consumption of supplemental gaseous fuels by each sector (residential, commercial, other industrial, and electric power) is calculated as that sector's natural gas consumption (see Table 4.3) divided by the sum of natural gas consumption by the residential, commercial, other industrial, and electric power sectors (see Table 4.3), and then multiplied by total supplemental gaseous fuels consumption (see Table 4.1). For estimated sectoral consumption of supplemental gaseous fuels in Btu, the residential, commercial, and other industrial values in cubic feet are multiplied by the "End-Use Sectors" conversion factors (see Table A4), and the electric power values in cubic feet are multiplied by the "Electric Power Sector" conversion factors (see Table A4). Total supplemental gaseous fuels consumption in Btu is calculated as the sum of the Btu values for the sectors.

**Note 4. Natural Gas Storage.** Natural gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. The difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

Total underground storage capacity at the end of each calendar year since 1975 (first year data were available), in billion cubic feet, was:

<b>1975</b>	...	6,280	<b>1987</b>	...	8,124	<b>1999</b>	...	8,229
<b>1976</b>	...	6,544	<b>1988</b>	...	8,124	<b>2000</b>	...	8,241
<b>1977</b>	...	6,678	<b>1989</b>	...	8,120	<b>2001</b>	...	8,415
<b>1978</b>	...	6,890	<b>1990</b>	...	7,794	<b>2002</b>	...	8,207
<b>1979</b>	...	6,929	<b>1991</b>	...	7,993	<b>2003</b>	...	8,206
<b>1980</b>	...	7,434	<b>1992</b>	...	7,932	<b>2004</b>	...	8,255
<b>1981</b>	...	7,805	<b>1993</b>	...	7,989	<b>2005</b>	...	8,268
<b>1982</b>	...	7,915	<b>1994</b>	...	8,043	<b>2006</b>	...	8,330
<b>1983</b>	...	7,985	<b>1995</b>	...	7,953	<b>2007</b>	...	8,402
<b>1984</b>	...	8,043	<b>1996</b>	...	7,980	<b>2008</b>	...	8,447*
<b>1985</b>	...	8,087	<b>1997</b>	...	8,332			
<b>1986</b>	...	8,145	<b>1998</b>	...	8,179			

\* Preliminary

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Form

FERC-8 (interstate data) and EIA Form EIA-191 (intrastate data). Beginning in January 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the FERC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA *NGA*.

The final monthly and annual storage and withdrawal data for 1980–2006 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

**Note 5. Natural Gas Balancing Item.** The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems that vary in scope, format, definitions, and type of respondents.

The increase of 0.2 trillion cubic feet (Tcf) in the “Balancing Item” category in 1983, followed by a decline of 0.5 Tcf in 1984, reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15 through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 EIA *NGM*, which was published in July 1985.

**Note 6. Natural Gas Consumption.** Consumption includes use for lease and plant fuel, pipelines and distribution, vehicle fuel, and electric power plants, as well as deliveries to residential, commercial, and other industrial customers.

Final data for series other than “Other Industrial CHP” and “Electric Power Sector” are from the EIA *NGA*. Monthly data are considered preliminary until after publication of the EIA *NGA*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *NGM*.

**Note 7. Natural Gas Consumption, 1989-1992.** Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.” As a result, for 1989 through 1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

**Note 8. Natural Gas Imports and Exports.** The United States imports natural gas via pipeline from Canada and Mexico and imports liquefied natural gas (LNG) via tanker from Algeria, Australia, Brunei, Egypt, Equatorial Guinea, Indonesia, Malaysia, Nigeria, Norway, Oman, Qatar, Trinidad and Tobago, and the United Arab Emirates. In addition, very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and exports LNG via tanker to Japan. Also, small amounts of LNG have gone to Mexico since 1998.

Annual and final monthly data are from the annual EIA Form FPC-14, “Annual Report for Importers and Exporters of Natural Gas,” which requires data to be reported by month for the calendar year.

Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see the EIA *NGM*. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas*.

# 5

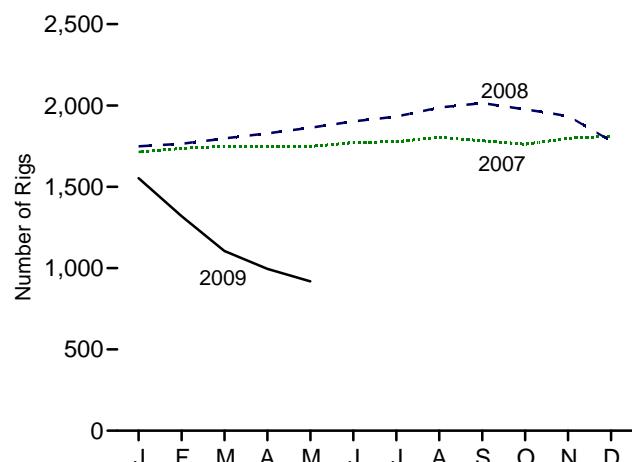
## Crude Oil and Natural Gas Resource Development



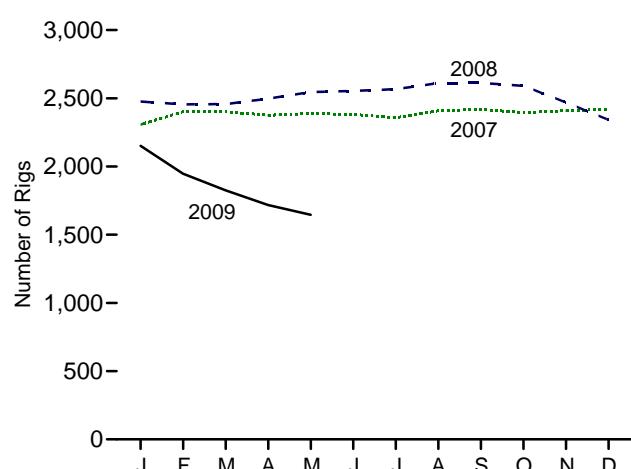
Semisubmersible drilling rig in the Gulf of Mexico. Source: U.S. Department of Energy.

**Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators**

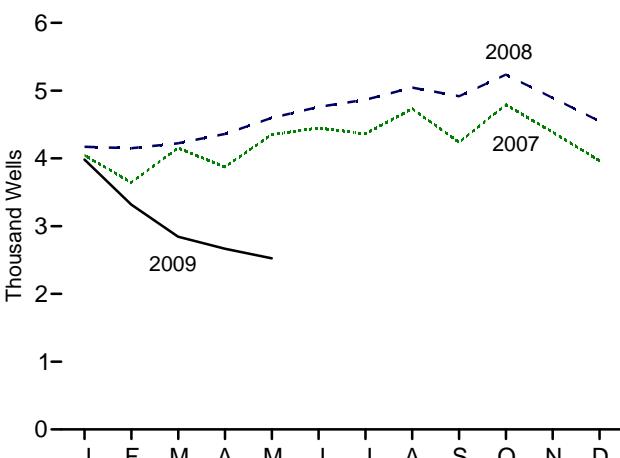
Rotary Rigs in Operation, Monthly



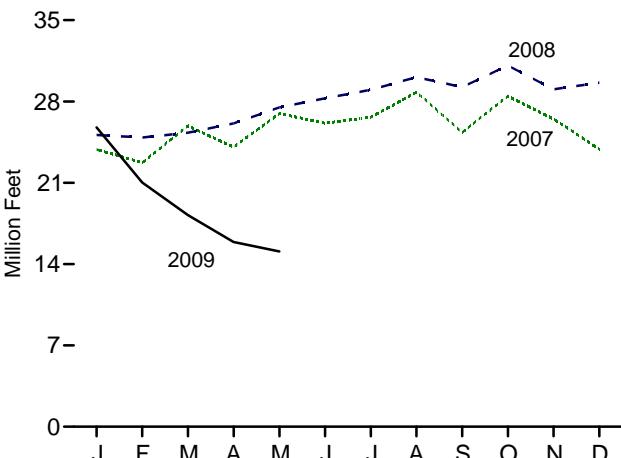
Active Well Service Rig Count, Monthly



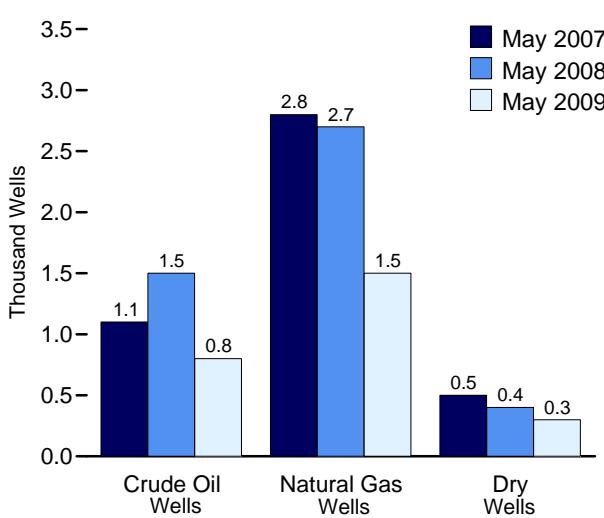
Wells Drilled, Monthly



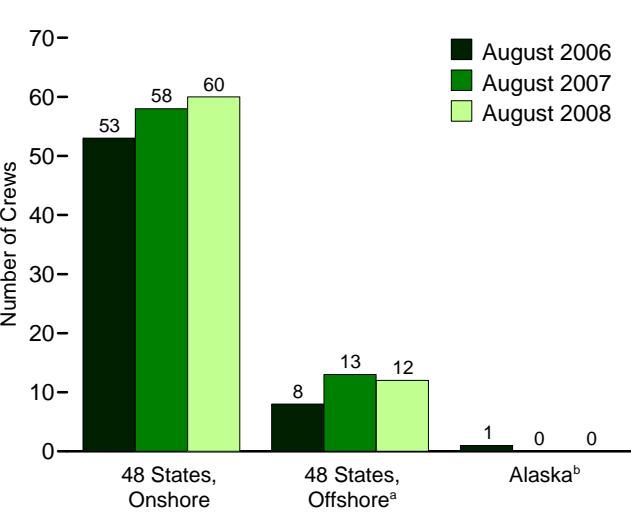
Footage Drilled, Monthly



Wells Drilled by Type



Maximum U.S. Active Seismic Crew Counts



<sup>a</sup>Federal and State Jurisdiction waters of the Gulf of Mexico.

<sup>b</sup>All onshore.

**Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements**  
 (Number of Rigs)

	Rotary Rigs in Operation <sup>a</sup>					Active Well Service Rig Count <sup>c</sup>	
	By Site		By Type		Total <sup>b</sup>		
	Onshore	Offshore	Crude Oil	Natural Gas			
1973 Average .....	1,110	84	NA	NA	1,194	2,008	
1975 Average .....	1,554	106	NA	NA	1,660	2,486	
1980 Average .....	2,678	231	NA	NA	2,909	4,089	
1985 Average .....	1,774	206	NA	NA	1,980	4,716	
1990 Average .....	902	108	532	464	1,010	3,658	
1995 Average .....	622	101	323	385	723	3,041	
1996 Average .....	671	108	306	464	779	3,445	
1997 Average .....	821	122	376	564	943	3,499	
1998 Average .....	703	123	264	560	827	3,014	
1999 Average .....	519	106	128	496	625	2,232	
2000 Average .....	778	140	197	720	918	2,692	
2001 Average .....	1,003	153	217	939	1,156	2,267	
2002 Average .....	717	113	137	691	830	1,830	
2003 Average .....	924	108	157	872	1,032	1,967	
2004 Average .....	1,095	97	165	1,025	1,192	2,064	
2005 Average .....	1,287	94	194	1,184	1,381	2,222	
2006 Average .....	1,559	90	274	1,372	1,649	2,364	
<b>2007</b>							
January .....	1,630	84	270	1,440	1,714	2,307	
February .....	1,651	85	266	1,466	1,736	2,401	
March .....	1,667	81	282	1,461	1,749	2,401	
April .....	1,675	75	285	1,461	1,750	2,375	
May .....	1,671	77	282	1,464	1,748	2,387	
June .....	1,692	79	283	1,483	1,771	2,381	
July .....	1,698	79	285	1,486	1,777	2,358	
August .....	1,731	73	306	1,492	1,804	2,408	
September .....	1,718	65	302	1,475	1,783	2,418	
October .....	1,713	49	321	1,435	1,762	2,395	
November .....	1,737	61	341	1,451	1,798	2,408	
December .....	1,749	62	338	1,468	1,811	2,420	
<b>Average</b> .....	<b>1,695</b>	<b>72</b>	<b>297</b>	<b>1,466</b>	<b>1,768</b>	<b>2,388</b>	
<b>2008</b>							
January .....	1,690	60	321	1,421	1,749	2,476	
February .....	1,709	56	331	1,426	1,765	2,455	
March .....	1,737	60	343	1,444	1,797	2,457	
April .....	1,765	64	358	1,461	1,829	2,498	
May .....	1,794	68	375	1,478	1,863	2,546	
June .....	1,834	67	383	1,510	1,902	2,554	
July .....	1,865	67	380	1,543	1,932	2,567	
August .....	1,920	67	397	1,581	1,987	2,611	
September .....	1,942	72	417	1,585	2,014	2,612	
October .....	1,903	73	422	1,542	1,976	2,591	
November .....	1,872	63	426	1,498	1,935	2,469	
December .....	1,716	66	391	1,380	1,782	2,342	
<b>Average</b> .....	<b>1,814</b>	<b>65</b>	<b>379</b>	<b>1,491</b>	<b>1,879</b>	<b>2,515</b>	
<b>2009</b>							
January .....	1,487	66	328	1,215	1,553	2,152	
February .....	1,263	57	271	1,037	1,320	1,947	
March .....	1,059	46	225	867	1,105	1,825	
April .....	947	48	209	775	995	1,718	
May .....	864	54	187	723	918	1,646	
<b>5-Month Average</b> .....	<b>1,129</b>	<b>55</b>	<b>245</b>	<b>927</b>	<b>1,183</b>	<b>1,858</b>	
<b>2008 5-Month Average</b> .....	<b>1,740</b>	<b>62</b>	<b>346</b>	<b>1,447</b>	<b>1,802</b>	<b>2,486</b>	
<b>2007 5-Month Average</b> .....	<b>1,659</b>	<b>80</b>	<b>277</b>	<b>1,459</b>	<b>1,740</b>	<b>2,374</b>	

<sup>a</sup> Rotary rigs in operation are reported weekly. Monthly data are averages of 4- or 5-week reporting periods, not calendar months. Multi-month data are averages of the reported data over the covered months, not averages of the weekly data. Annual data are averages over 52 or 53 weeks, not calendar years. Published data are rounded to the nearest whole number.

<sup>b</sup> Sum of rigs drilling for crude oil, rigs drilling for natural gas, and other rigs (not shown) drilling for miscellaneous purposes, such as service wells, injection wells, and stratigraphic tests.

<sup>c</sup> The number of rigs doing true workovers (where tubing is pulled from the well), or doing rod string and pump repair operations, and that are, on average, crewed

and working every day of the month.

NA=Not available.

Note: Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in 1973.

Sources: • **Rotary Rigs in Operation:** By Site—Baker Hughes, Inc., Houston, Texas, *Rotary Rigs Running*—by State. By Type—Baker Hughes, Inc., Houston, Texas, weekly phone recording. • **Active Well Service Rig Count:** Cameron International Corporation, Houston, Texas.

**Table 5.2 Crude Oil and Natural Gas Exploratory and Development Wells**

	Wells Drilled												Total Footage Drilled	
	Exploratory				Development				Total					
	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total		
	Number												Thousand Feet	
1973 Total .....	642	1,067	5,952	7,661	9,525	5,866	4,368	19,759	10,167	6,933	10,320	27,420	138,223	
1975 Total .....	982	1,248	7,129	9,359	15,966	6,879	6,517	29,362	16,948	8,127	13,646	38,721	180,494	
1980 Total .....	1,777	2,099	9,081	12,957	31,182	15,362	11,704	58,248	32,959	17,461	20,785	71,205	316,943	
1985 Total .....	1,680	1,200	8,954	11,834	33,581	13,124	12,257	58,962	35,261	14,324	21,211	70,796	314,409	
1990 Total .....	778	812	3,650	5,240	11,702	10,299	4,578	26,579	12,480	11,111	8,228	31,819	155,279	
1995 Total .....	570	557	2,023	3,150	7,349	7,418	2,784	17,551	7,919	7,975	4,807	20,701	R 116,664	
1996 Total .....	489	576	1,955	3,020	8,125	8,368	2,922	19,415	8,614	8,944	4,877	22,435	R 125,995	
1997 Total .....	491	561	2,112	3,164	10,557	10,879	3,745	25,181	11,048	11,440	5,857	28,345	R 161,292	
1998 Total .....	327	566	1,588	2,481	7,232	10,946	3,166	21,344	7,559	11,512	4,754	23,825	R 137,100	
1999 Total .....	196	566	1,155	1,917	4,543	11,339	2,362	18,244	4,739	11,905	3,517	20,161	R 102,615	
2000 Total .....	288	658	1,339	2,285	7,705	16,282	2,792	26,779	7,993	16,940	4,131	29,064	R 144,168	
2001 Total .....	356	1,051	1,715	3,122	8,456	20,924	2,832	32,212	8,812	21,975	4,547	35,334	R 179,724	
2002 Total .....	257	844	1,276	2,377	6,475	16,394	2,447	25,316	6,732	17,238	3,723	27,693	R 144,867	
2003 Total .....	353	997	1,288	2,638	7,701	19,633	2,640	29,974	8,054	20,630	3,928	32,612	R 176,921	
2004 Total .....	386	1,682	1,342	3,410	8,321	22,311	2,686	33,318	8,707	23,993	4,028	36,728	R 203,716	
2005 Total .....	534	2,139	1,473	4,146	10,111	26,084	3,228	39,423	10,645	28,223	4,701	43,569	R 239,829	
2006 Total .....	R 668	R 2,550	R 1,534	R 4,752	R 12,450	R 30,100	R 3,710	R 46,260	R 13,118	R 32,650	R 5,244	R 51,012	R 286,420	
<b>2007</b>	<b>January .....</b>	59	R 234	R 120	R 413	R 978	R 2,353	R 302	R 3,633	R 1,037	R 2,587	R 422	R 4,046	R 23,862
	February .....	R 60	200	99	R 359	R 896	R 2,138	R 251	R 3,285	R 956	R 2,338	R 350	R 3,644	R 22,732
	March .....	R 64	269	119	R 452	R 1,000	R 2,401	R 299	R 3,700	R 1,064	R 2,670	R 418	R 4,152	R 25,882
	April .....	R 61	R 255	R 124	R 440	R 946	R 2,223	R 264	R 3,433	R 1,007	R 2,478	R 388	R 3,873	R 24,067
	May .....	R 57	R 287	R 152	R 496	R 1,043	R 2,497	R 314	R 3,854	R 1,100	R 2,784	R 466	R 4,350	R 26,969
	June .....	R 86	R 255	R 124	R 465	R 1,067	R 2,637	R 281	R 3,985	R 1,153	R 2,892	R 405	R 4,450	R 26,127
	July .....	R 87	R 290	139	R 516	R 1,052	R 2,481	R 314	R 3,847	R 1,139	R 2,771	R 453	R 4,363	R 26,647
	August .....	R 71	R 288	R 128	R 487	R 1,127	R 2,763	R 297	R 3,445	R 1,198	R 3,051	R 483	R 4,732	R 28,792
	September .....	R 79	R 270	R 139	R 488	R 1,019	R 2,434	R 297	R 3,750	R 1,098	R 2,704	R 436	R 4,238	R 25,333
	October .....	R 88	R 324	R 168	R 580	R 1,148	R 2,731	R 334	R 4,213	R 1,236	R 3,055	502	R 4,793	R 24,459
	November .....	R 65	R 310	R 187	R 562	R 1,009	R 2,517	R 298	R 3,824	1,074	R 2,827	R 485	R 4,386	R 26,500
	December .....	64	R 250	R 129	R 443	992	R 2,249	R 281	R 3,522	1,056	R 2,499	R 410	R 3,965	R 23,890
	<b>Total .....</b>	R 841	R 3,232	R 1,628	R 5,701	R 12,277	R 29,424	R 3,590	R 45,291	R 13,118	R 32,656	R 5,218	R 50,992	R 309,260
<b>2008</b>	<b>January .....</b>	R 92	R 252	R 158	R 502	R 1,081	R 2,300	R 288	R 3,669	R 1,173	R 2,552	R 446	R 4,171	R 25,111
	February .....	R 87	R 284	111	R 482	R 1,122	R 2,264	R 282	R 3,668	R 1,209	R 2,548	R 393	R 4,150	R 24,903
	March .....	R 73	R 266	R 141	R 480	R 1,131	R 2,302	R 309	R 3,742	R 1,204	R 2,568	R 450	R 4,222	R 25,310
	April .....	72	R 259	R 132	R 463	R 1,213	R 2,386	R 299	R 3,898	R 1,285	R 2,645	R 431	R 4,361	R 26,108
	May .....	R 99	R 249	R 144	R 492	R 1,363	R 2,463	R 281	R 4,107	R 1,462	R 2,712	R 425	R 4,599	R 27,486
	June .....	R 63	R 234	R 151	R 448	R 1,457	R 2,524	R 329	R 4,310	R 1,520	R 2,758	R 480	R 4,758	R 28,276
	July .....	R 73	R 208	R 174	R 455	R 1,440	R 2,622	R 349	R 4,411	R 1,513	R 2,830	R 523	R 4,866	R 29,006
	August .....	76	209	R 162	R 447	R 1,468	R 2,746	R 383	R 4,597	1,544	R 2,955	R 545	R 5,044	R 30,090
	September .....	R 60	R 200	R 172	R 432	R 1,508	R 2,637	R 341	R 4,486	R 1,568	R 2,837	R 513	R 4,918	R 29,238
	October .....	R 83	R 271	R 177	R 531	R 1,604	R 2,725	R 375	R 4,704	R 1,687	R 2,996	R 552	R 5,235	R 31,096
	November .....	R 91	R 218	R 161	R 470	R 1,550	R 2,538	R 335	R 4,423	R 1,641	R 2,756	R 496	R 4,893	R 29,044
	December .....	82	R 206	R 144	R 432	R 1,422	R 2,381	R 312	R 4,115	R 1,504	R 2,587	R 456	R 4,547	R 29,627
	<b>Total .....</b>	R 951	R 2,856	R 1,827	R 5,634	R 16,359	R 29,888	R 3,883	R 50,130	R 17,310	R 32,744	R 5,710	R 55,764	R 335,295
<b>2009</b>	<b>January .....</b>	R 62	R 182	R 372	R 1,199	R 2,128	R 283	R 3,610	R 1,261	R 2,310	R 411	R 3,982	R 25,763	
	February .....	53	153	107	313	989	R 1,786	230	R 3,005	1,042	R 1,939	337	R 3,318	R 21,024
	March .....	48	131	R 90	R 269	825	R 1,550	199	R 2,574	873	R 1,681	R 289	R 2,843	R 18,216
	April .....	44	R 123	83	R 250	R 816	R 1,429	173	R 2,418	R 860	R 1,552	256	R 2,668	R 15,903
	May .....	37	120	77	234	736	1,379	176	2,291	773	1,499	253	2,525	15,092
	<b>5-Month Total ....</b>	244	709	485	1,438	4,565	8,272	1,061	13,898	4,809	8,981	1,546	15,336	95,998
<b>2008 5-Month Total ....</b>	423	1,310	686	2,419	5,910	11,715	1,459	19,084	6,333	13,025	2,145	21,503	128,918	
<b>2007 5-Month Total ....</b>	301	1,245	614	2,160	4,863	11,612	1,430	17,905	5,164	12,857	2,044	20,065	123,512	

R=Revised.

Notes: • Prior to 1990, these well counts include only the original drilling of a hole intended to discover or further develop already discovered crude oil or natural gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than crude oil or natural gas are excluded. After 1990, a new well is defined as the first hole in the ground whether it is lateral or not. Due to the methodology used to estimate ultimate well counts from the available partially reported data, the counts shown on this page are frequently revised. See Note,

"Crude Oil and Natural Gas Exploratory and Development Wells," at end of section.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in 1973.

Sources: • **1973-1989:** Energy Information Administration (EIA) computations based on well reports submitted to the American Petroleum Institute. • **1990 forward:** EIA computations based on well reports submitted to IHS, Inc., Denver, CO.

**Table 5.3 Maximum U.S. Active Seismic Crew Counts**  
(Number of Crews)

	48 States, Onshore				48 States, Offshore <sup>a</sup>				Alaska <sup>b</sup>					
	Dimensions <sup>c</sup>			Total <sup>d</sup>	Dimensions <sup>c</sup>			Total <sup>d</sup>	Dimensions <sup>c</sup>			Total <sup>d</sup>		
	2	3	4		2	3	4		2	3	4			
<b>2000</b> August .....	4	40	1	45	7	7	0	15	0	1	0	1	61	
<b>2001</b> August .....	8	32	1	41	7	8	0	15	0	0	0	0	56	
<b>2002</b> August .....	7	26	0	33	8	7	0	15	1	1	0	2	50	
<b>2003</b> August .....	8	22	0	30	7	4	0	11	1	1	0	2	43	
<b>2004</b> January .....	8	25	0	33	5	5	0	10	0	0	0	0	43	
February .....	8	27	0	35	5	5	0	10	0	0	0	0	45	
March .....	8	27	0	35	5	5	0	10	0	0	0	0	45	
April .....	9	27	0	36	5	4	0	9	0	0	0	0	45	
May .....	9	26	0	35	5	4	0	9	0	0	0	0	44	
June .....	9	30	0	39	4	4	0	8	0	2	0	2	49	
July .....	8	30	0	38	4	4	0	8	0	2	0	2	48	
August .....	8	31	0	39	4	4	0	8	0	2	0	2	49	
September .....	8	32	0	40	4	2	0	6	0	2	0	2	48	
October .....	8	34	0	42	2	2	0	4	0	2	0	2	48	
November .....	9	33	0	42	1	4	0	5	0	2	0	2	49	
December .....	9	32	0	41	3	4	0	7	0	2	0	2	50	
<b>2005</b> January .....	8	33	0	41	5	4	0	9	0	2	0	2	52	
February .....	8	34	0	42	5	4	0	9	0	2	0	2	53	
March .....	6	33	0	39	6	6	0	12	0	0	0	0	51	
April .....	8	30	0	38	6	6	0	12	0	0	0	0	50	
May .....	8	34	0	42	7	6	0	13	0	0	0	0	55	
June .....	9	35	0	44	7	5	0	12	0	1	0	1	57	
July .....	8	34	0	42	6	5	0	11	0	1	0	1	54	
August .....	8	35	0	43	6	5	0	11	0	1	0	1	55	
September .....	7	37	0	44	6	5	0	11	0	1	0	1	56	
October .....	6	39	0	45	6	5	0	11	0	1	0	1	57	
November .....	5	40	0	45	6	5	0	11	0	1	0	1	57	
December .....	6	40	0	46	6	5	0	11	0	1	0	1	58	
<b>2006</b> January .....	5	38	0	43	6	5	0	11	0	1	0	1	55	
February .....	5	39	0	44	6	6	0	12	0	1	0	1	57	
March .....	4	42	0	46	6	6	0	12	0	1	0	1	59	
April .....	4	42	0	46	5	6	0	11	0	1	0	1	58	
May .....	4	42	0	46	5	6	0	11	0	1	0	1	58	
June .....	9	35	0	44	7	5	0	12	0	1	0	1	57	
July .....	5	51	0	56	4	5	0	9	0	1	0	1	66	
August .....	4	49	0	53	3	5	0	8	0	1	0	1	62	
September .....	4	51	0	55	2	5	0	7	0	1	0	1	63	
October .....	5	51	0	56	2	5	0	7	0	1	0	1	64	
November .....	5	51	0	56	3	5	0	8	0	1	0	1	65	
December .....	5	50	0	55	3	5	0	8	0	1	0	1	64	
<b>2007</b> January .....	3	51	0	54	3	5	0	8	0	1	0	1	63	
February .....	3	51	0	54	3	5	0	8	0	1	0	1	63	
March .....	4	55	0	59	3	5	0	8	0	1	0	1	68	
April .....	4	55	0	59	4	6	1	11	0	1	0	1	71	
May .....	3	55	0	58	4	6	1	11	0	1	0	1	70	
June .....	3	55	0	58	3	6	1	10	0	1	0	1	69	
July .....	2	57	0	59	3	6	1	10	0	0	0	0	69	
August .....	2	56	0	58	4	8	1	13	0	0	0	0	71	
September .....	3	58	0	61	3	8	1	12	0	0	0	0	73	
October .....	4	60	0	65	3	8	1	12	0	0	0	0	77	
November .....	4	60	0	65	3	10	1	14	0	0	0	0	79	
December .....	5	54	0	60	4	10	1	15	0	0	0	0	75	
<b>2008</b> January .....	6	55	0	61	4	10	1	15	0	0	0	0	76	
February .....	6	55	0	61	4	11	1	16	0	0	0	0	77	
March .....	6	54	0	60	3	11	1	15	0	0	0	0	75	
April .....	4	53	0	57	3	11	1	15	0	0	0	0	72	
May .....	4	54	0	58	3	11	1	15	0	0	0	0	73	
June .....	2	56	0	58	3	11	1	15	0	0	0	0	73	
July .....	2	58	0	60	3	8	1	12	0	0	0	0	72	
August .....	2	58	0	60	3	8	1	12	0	0	0	0	72	

<sup>a</sup> Federal and State Jurisdiction waters of the Gulf of Mexico.

<sup>b</sup> All onshore.

<sup>c</sup> In two-dimensional (2D) reflection seismic surveying both the sound source and the sound detectors (numbering up to a hundred or more per shot) are moved along a straight line. The resultant product can be thought of as a vertical sonic cross-section of the subsurface beneath the survey line. It is constructed by summing many compressional (pressure) wave reflections from the various sound source and sound detector locations at the halfway sound path points beneath each location (common depth point stacking). In three-dimensional (3D) reflection seismic surveying the sound detectors (numbering up to a thousand or more) are spread out over an area and the sound source is moved from location to location through the area. The resultant product can be thought of as a cube of common depth point stacked reflections. Advantages over 2D include the additional dimension, the fact that many more reflections are available for stacking at each point, which provides greatly improved resolution of subsurface features, and elimination of the "ghost" or "side swipe" reflections from nearby offline features that 2D surveys

are prone to (except, of course, along the outer faces of the cube). Four dimensional (4D) reflection seismic surveying is the exact repetition of a 3D survey at two or more time intervals. The primary application of 4D is mapping the movement of fluid interfaces in producing oil and gas reservoirs.

<sup>d</sup> Includes crews with unknown survey dimension.

Notes: • A "seismic crew" is a group of people, of varying number, engaged in a seismic surveying job. • "48 States" is the United States excluding Alaska and Hawaii. • Data are reported on the first and fifteenth of each month, except January when they are reported only on the fifteenth. When semi-monthly values differ for the month, the larger of the two values is shown here. Consequently, this table reflects the maximum number of crews at work at any time during the month.

Web Page: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in March 2000.

Source: *World Geophysical News*, IHS, Inc., Denver, CO, used with permission.

Table 5.3 is not updated this month.

## **Crude Oil and Natural Gas Resource Development**

**Note. Crude Oil and Natural Gas Exploratory and Development Wells.** Three well types are considered in the *Monthly Energy Review (MER)* drilling statistics: “completed for crude oil,” “completed for natural gas,” and “dry hole.” Wells that productively encounter both crude oil and natural gas are categorized as “completed for crude oil.” Both development wells and exploratory wells (new field wildcats, new pool tests, and extension tests) are included in the statistics. All other classes of wells drilled in connection with the search for producible hydrocarbons are excluded. If a lateral is drilled at the same time as the original hole it is not counted separately, but its footage is included.

Prior to the March 1985 *MER*, drilling statistics consisted of

completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API. These estimates are subject to continuous revision as new data, some of which pertain to earlier months and years, become available. Additional information about the EIA estimation methodology may be found in “Estimating Well Completions,” a feature article published in the March 1985 *MER*.

# 6

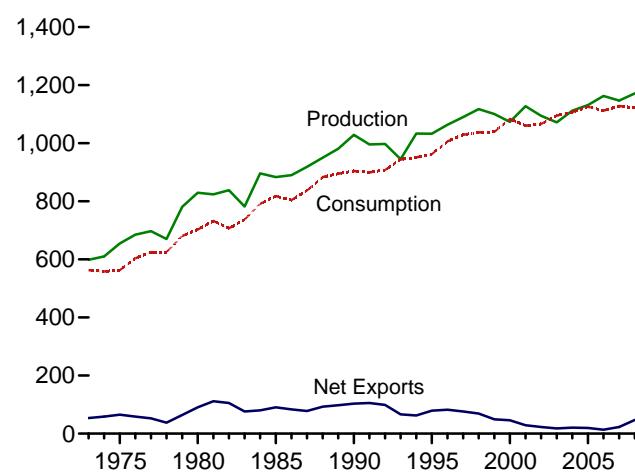
# Coal



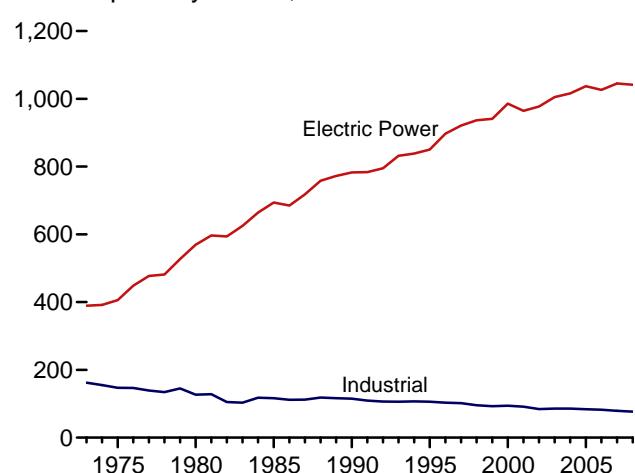
Coal yard, Curtis Bay, Maryland. Source: U.S. Department of Energy.

**Figure 6.1 Coal**  
(Million Short Tons)

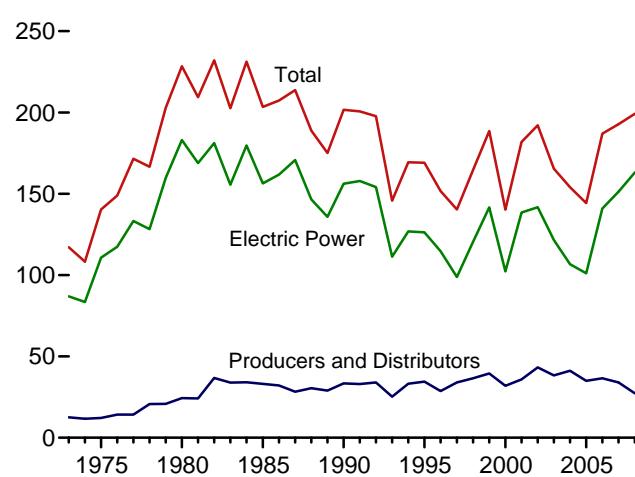
Overview, 1973-2008



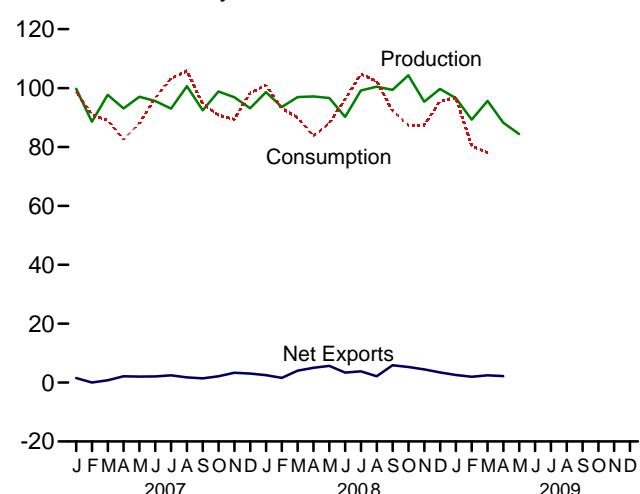
Consumption by Sector, 1973-2008



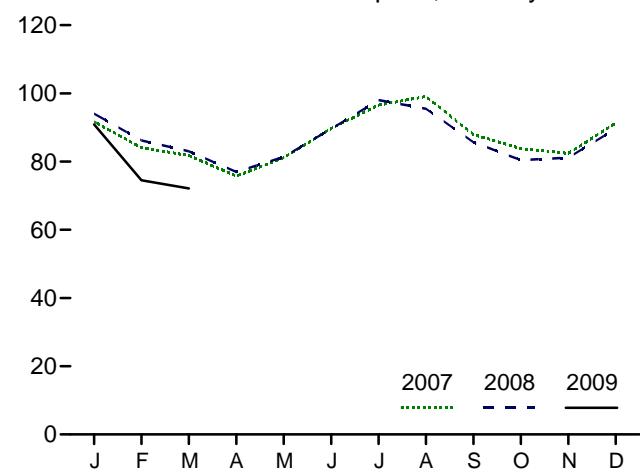
Stocks, End of Year, 1973-2008



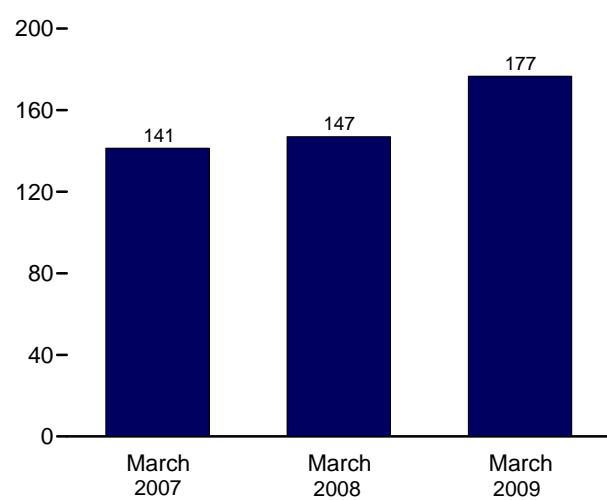
Overview, Monthly



Electric Power Sector Consumption, Monthly



Electric Power Sector Stocks, End of Month



Web Page: <http://www.eia.doe.gov/emeu/mer/coal.html>  
Sources: Tables 6.1, 6.2, and 6.3.

**Table 6.1 Coal Overview**  
(Thousand Short Tons)

	Production <sup>a</sup>	Waste Coal Supplied <sup>b</sup>	Trade			Stock Changed <sup>d</sup>	Losses and Unaccounted for <sup>e</sup>	Consumption
			Imports	Exports	Net Imports <sup>c</sup>			
1973 Total .....	598,568	NA	127	53,587	-53,460	(f)	-17,476	562,584
1975 Total .....	654,641	NA	940	66,309	-65,369	32,154	-5,522	562,640
1980 Total .....	829,700	NA	1,194	91,742	-90,548	25,595	10,827	702,730
1985 Total .....	883,638	NA	1,952	92,680	-90,727	-27,934	2,796	818,049
1990 Total .....	1,029,076	3,339	2,699	105,804	-103,104	26,542	-1,730	904,498
1995 Total .....	1,032,974	8,561	9,473	88,547	-79,074	-275	632	962,104
1996 Total .....	1,063,856	8,778	8,115	90,473	-82,357	-17,456	1,411	1,006,321
1997 Total .....	1,089,932	8,096	7,487	83,545	-76,058	-11,253	3,678	1,029,544
1998 Total .....	1,117,535	8,690	8,724	78,048	-69,324	24,228	-4,430	1,037,103
1999 Total .....	1,100,431	8,683	9,089	58,476	-49,387	23,988	-2,906	1,038,647
2000 Total .....	1,073,612	9,089	12,513	58,489	-45,976	-48,309	938	1,084,095
2001 Total .....	1,127,689	10,085	19,787	48,666	-28,879	41,630	7,120	1,060,146
2002 Total .....	1,094,283	9,052	16,875	39,601	-22,726	10,215	4,040	1,066,355
2003 Total .....	1,071,753	10,016	25,044	43,014	-17,970	-26,659	-4,403	1,094,861
2004 Total .....	1,112,099	11,299	27,280	47,998	-20,718	-11,462	6,887	1,107,255
2005 Total .....	1,131,498	13,352	30,460	49,942	-19,482	-9,702	9,092	1,125,978
2006 Total .....	1,162,750	14,409	36,246	49,647	-13,401	42,642	8,824	1,112,292
<b>2007</b>								
January .....	99,784	976	2,844	4,368	-1,524	-5,583	6,081	98,738
February .....	88,580	1,038	2,656	2,685	-28	-4,877	3,497	90,970
March .....	97,677	1,250	3,285	4,086	-801	7,109	1,997	89,019
April .....	93,084	1,115	2,687	4,841	-2,154	7,902	1,602	82,540
May .....	97,038	1,039	2,691	4,747	-2,056	4,435	3,575	88,010
June .....	95,566	1,233	3,027	5,114	-2,087	-600	-1,243	96,555
July .....	93,003	1,250	3,373	5,812	-2,438	-9,987	-1,481	103,282
August .....	100,627	1,278	3,716	5,471	-1,756	-5,938	301	105,787
September .....	92,404	1,170	3,470	4,914	-1,445	1,129	-3,597	94,596
October .....	98,825	1,226	2,896	5,019	-2,123	8,357	-1,249	90,820
November .....	96,910	1,222	2,889	6,245	-3,355	5,100	366	89,311
December .....	93,138	1,279	2,812	5,861	-3,050	-1,237	-5,765	98,370
Total .....	1,146,635	14,076	36,347	59,163	-22,816	5,812	4,085	1,127,998
<b>2008</b>								
January .....	98,619	1,210	2,381	4,915	-2,535	-9,938	6,250	100,982
February .....	93,555	1,121	2,619	4,205	-1,586	-2,340	2,407	93,023
March .....	96,933	939	2,640	6,682	-4,041	5,714	-1,876	89,993
April .....	97,149	1,028	2,985	7,979	-4,994	8,675	819	83,689
May .....	96,585	1,089	2,702	8,394	-5,692	4,158	-332	88,156
June .....	90,199	1,134	3,295	6,695	-3,401	-6,499	-1,820	96,251
July .....	99,162	1,193	2,569	6,404	-3,835	-11,176	2,977	104,720
August .....	100,458	1,165	3,144	5,264	-2,120	-4,393	1,591	102,306
September .....	99,381	1,176	2,772	8,653	-5,881	6,804	-4,372	92,243
October .....	104,350	1,240	2,921	8,233	-5,312	11,122	1,750	87,406
November .....	95,372	1,206	2,988	7,460	-4,472	7,429	-2,730	87,407
December .....	99,721	1,241	3,192	6,636	-3,444	-3,113	5,093	95,538
Total .....	1,171,483	13,743	34,208	81,519	-47,311	6,445	9,756	1,121,714
<b>2009</b>								
January .....	R 96,568	R 1,219	2,329	4,907	-2,578	R -5,897	R 4,408	R 96,697
February .....	R 89,266	R 852	1,855	3,822	-1,968	R 3,111	R 4,656	R 80,383
March .....	R 95,610	R 959	2,141	4,605	-2,464	R 17,056	R -970	R 78,019
April .....	88,256	NA	R 1,303	R 3,513	R -2,210	NA	NA	NA
May .....	84,395	NA	NA	NA	NA	NA	NA	NA
5-Month Total ....	454,096	NA	NA	NA	NA	NA	NA	NA
2008 5-Month Total ....	482,840	5,388	13,328	32,175	-18,847	6,269	7,267	455,844
2007 5-Month Total ....	476,162	5,418	14,164	20,727	-6,563	8,987	16,753	449,277

<sup>a</sup> Beginning in 2001, includes a small amount of refuse recovery (coal recaptured from a refuse mine, and cleaned to reduce the concentration of noncombustible materials).

<sup>b</sup> Waste coal (including fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste) consumed by the electric power and industrial sectors. Beginning in 1989, waste coal supplied is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."

<sup>c</sup> Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.

<sup>d</sup> A negative value indicates a decrease in stocks; a positive value indicates an increase.

<sup>e</sup> "Losses and Unaccounted for" is calculated as the sum of production, imports,

and waste coal supplied, minus exports, stock change, and consumption.

<sup>f</sup> In 1973, stock change is included in "Losses and Unaccounted for."

R=Revised. NA=Not available.

Notes: • For methodology used to calculate production, consumption, and stocks, see Note 1, "Coal Production," Note 2, "Coal Consumption," and Note 3, "Coal Stocks," at end of section. • Data values preceded by "F" are derived from the Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 6.2 Coal Consumption by Sector**

(Thousand Short Tons)

	End-Use Sectors											Electric Power Sector <sup>e,f</sup>	Total		
	Residential	Commercial			Industrial					Transportation					
		CHP <sup>a</sup>	Other <sup>b</sup>	Total	Coke Plants	CHP <sup>c</sup>	Non-CHP <sup>d</sup>	Total	Total						
1973 Total .....	4,113	( <sup>g</sup> )	7,004	7,004	94,101	( <sup>h</sup> )	68,038	68,038	162,139	116	389,212	562,584			
1975 Total .....	2,823	( <sup>g</sup> )	6,587	6,587	83,598	( <sup>h</sup> )	63,646	63,646	147,244	24	405,962	562,640			
1980 Total .....	1,355	( <sup>g</sup> )	5,097	5,097	66,657	( <sup>h</sup> )	60,347	60,347	127,004	( <sup>h</sup> )	569,274	702,730			
1985 Total .....	1,711	( <sup>g</sup> )	6,068	6,068	41,056	( <sup>h</sup> )	75,372	75,372	116,429	( <sup>h</sup> )	693,841	818,049			
1990 Total .....	1,345	1,191	4,189	5,379	38,877	27,781	48,549	76,330	115,207	( <sup>h</sup> )	782,567	904,498			
1995 Total .....	755	1,419	3,633	5,052	33,011	29,363	43,693	73,055	106,067	( <sup>h</sup> )	850,230	962,104			
1996 Total .....	721	1,660	3,625	5,285	31,706	29,434	42,254	71,689	103,395	( <sup>h</sup> )	896,921	1,006,321			
1997 Total .....	711	1,738	4,015	5,752	30,203	29,853	41,661	71,515	101,718	( <sup>h</sup> )	921,364	1,029,544			
1998 Total .....	534	1,443	2,879	4,322	28,189	28,553	38,887	67,439	95,628	( <sup>h</sup> )	936,619	1,037,103			
1999 Total .....	585	1,490	2,803	4,293	28,108	27,763	36,975	64,738	92,846	( <sup>h</sup> )	940,922	1,038,647			
2000 Total .....	454	1,547	2,126	3,673	28,939	28,031	37,177	65,208	94,147	( <sup>h</sup> )	985,821	1,084,095			
2001 Total .....	481	1,448	2,441	3,888	26,075	25,755	39,514	65,268	91,344	( <sup>h</sup> )	964,433	1,060,146			
2002 Total .....	533	1,405	2,506	3,912	23,656	26,232	34,515	60,747	84,403	( <sup>h</sup> )	977,507	1,066,355			
2003 Total .....	551	1,816	1,869	3,685	24,248	24,846	36,415	61,261	85,509	( <sup>h</sup> )	1,005,116	1,094,861			
2004 Total .....	512	1,917	2,693	4,610	23,670	26,613	35,582	62,195	85,865	( <sup>h</sup> )	1,016,268	1,107,255			
2005 Total .....	378	1,922	2,420	4,342	23,434	25,875	34,465	60,340	83,774	( <sup>h</sup> )	1,037,485	1,125,978			
2006 Total .....	290	1,886	1,050	2,936	22,957	25,262	34,210	59,472	82,429	( <sup>h</sup> )	1,026,636	1,112,292			
2007 January .....	37	191	141	332	1,818	2,003	2,861	4,864	6,682	( <sup>h</sup> )	91,686	98,738			
February .....	36	186	137	323	1,730	1,876	2,978	4,855	6,585	( <sup>h</sup> )	84,026	90,970			
March .....	33	171	126	297	2,027	1,956	2,904	4,859	6,887	( <sup>h</sup> )	81,803	89,019			
April .....	24	146	71	217	1,865	1,850	2,832	4,682	6,547	( <sup>h</sup> )	75,751	82,540			
May .....	24	143	70	213	1,950	1,857	2,827	4,684	6,634	( <sup>h</sup> )	81,140	88,010			
June .....	23	137	67	205	1,921	1,845	2,862	4,707	6,629	( <sup>h</sup> )	89,699	96,555			
July .....	23	151	58	209	1,913	1,868	2,721	4,589	6,501	( <sup>h</sup> )	96,548	103,282			
August .....	25	162	62	224	1,883	1,912	2,657	4,569	6,452	( <sup>h</sup> )	99,086	105,787			
September .....	22	145	56	201	1,882	1,765	2,803	4,568	6,450	( <sup>h</sup> )	87,922	94,596			
October .....	30	142	131	274	1,957	1,830	2,919	4,749	6,706	( <sup>h</sup> )	83,810	90,820			
November .....	36	169	156	326	1,810	1,830	2,915	4,746	6,556	( <sup>h</sup> )	82,393	89,311			
December .....	39	183	169	353	1,958	1,945	2,799	4,744	6,702	( <sup>h</sup> )	91,276	98,370			
Total .....	353	1,927	1,247	3,173	22,715	22,537	34,078	56,615	79,331	( <sup>h</sup> )	1,045,141	1,127,998			
2008 January .....	38	196	150	346	1,834	2,009	2,703	4,712	6,546	( <sup>h</sup> )	94,052	100,982			
February .....	36	184	140	324	1,792	1,966	2,706	4,672	6,464	( <sup>h</sup> )	86,199	93,023			
March .....	37	188	143	331	1,910	2,000	2,688	4,688	6,598	( <sup>h</sup> )	83,027	89,993			
April .....	24	156	58	214	1,864	1,924	2,703	4,627	6,490	( <sup>h</sup> )	76,962	83,689			
May .....	24	156	58	214	1,911	1,978	2,643	4,621	6,532	( <sup>h</sup> )	81,386	88,156			
June .....	27	176	66	242	1,805	1,915	2,697	4,612	6,417	( <sup>h</sup> )	89,565	96,251			
July .....	25	178	44	223	1,915	2,041	2,501	4,542	6,457	( <sup>h</sup> )	98,015	104,720			
August .....	24	174	43	217	2,034	1,982	2,551	4,533	6,567	( <sup>h</sup> )	95,498	102,306			
September .....	23	166	41	207	1,818	1,965	2,536	4,501	6,319	( <sup>h</sup> )	85,694	92,243			
October .....	28	162	92	253	2,208	1,950	2,525	4,475	6,683	( <sup>h</sup> )	80,442	87,406			
November .....	31	176	100	275	1,626	1,882	2,467	4,349	5,974	( <sup>h</sup> )	81,127	87,407			
December .....	35	198	112	311	1,353	1,955	2,251	4,205	5,558	( <sup>h</sup> )	89,635	95,538			
Total .....	351	2,109	1,047	3,155	22,070	23,566	30,970	54,536	76,606	( <sup>h</sup> )	1,041,603	1,121,714			
2009 January .....	R 39	202	R 152	R 354	R 1,390	1,909	R 2,117	R 4,027	R 5,417	( <sup>h</sup> )	90,887	R 96,697			
February .....	R 34	176	R 133	R 309	R 1,449	1,769	R 2,314	R 4,084	R 5,532	( <sup>h</sup> )	74,507	R 80,383			
March .....	33	170	128	298	1,559	1,849	2,140	3,989	5,548	( <sup>h</sup> )	72,140	78,019			
3-Month Total .....	107	548	413	962	4,398	5,528	6,572	12,100	16,498	( <sup>h</sup> )	237,533	255,099			
2008 3-Month Total .....	111	567	433	1,000	5,536	5,975	8,097	14,072	19,608	( <sup>h</sup> )	263,278	283,998			
2007 3-Month Total .....	106	547	405	952	5,576	5,834	8,743	14,578	20,153	( <sup>h</sup> )	257,516	278,727			

<sup>a</sup> Commercial combined-heat-and-power (CHP) and a small number of commercial electricity-only plants, such as those at hospitals and universities. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

<sup>b</sup> All commercial sector fuel use other than that in "Commercial CHP."

<sup>c</sup> Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

<sup>d</sup> All industrial sector fuel use other than that in "Coke Plants" and "Industrial CHP."

<sup>e</sup> The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

<sup>f</sup> Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.

<sup>g</sup> Included in "Commercial Other."

<sup>h</sup> Included in "Industrial Non-CHP."

R=Revised.

Notes: • CHP monthly values are from Table 7.4c; electric power sector monthly values are from Table 7.4b; all other monthly values are estimates derived from collected quarterly and annual data. See Note 2, "Coal Consumption," at end of section. • Data values preceded by "F" are derived from the Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 6.3 Coal Stocks by Sector**

(Thousand Short Tons)

	Producers and Distributors	End-Use Sectors					Electric Power Sector <sup>b,c</sup>	Total		
		Residential and Commercial	Industrial			Total				
			Coke Plants	Other <sup>a</sup>	Total					
1973 Year .....	12,530	290	6,998	10,370	17,368	17,658	86,967	117,155		
1975 Year .....	12,108	233	8,797	8,529	17,326	17,559	110,724	140,391		
1980 Year .....	24,379	NA	9,067	11,951	21,018	21,018	183,010	228,407		
1985 Year .....	33,133	NA	3,420	10,438	13,857	13,857	156,376	203,367		
1990 Year .....	33,418	NA	3,329	8,716	12,044	12,044	156,166	201,629		
1995 Year .....	34,444	NA	2,632	5,702	8,334	8,334	126,304	169,083		
1996 Year .....	28,648	NA	2,667	5,688	8,355	8,355	114,623	151,627		
1997 Year .....	33,973	NA	1,978	5,597	7,576	7,576	98,826	140,374		
1998 Year .....	36,530	NA	2,026	5,545	7,571	7,571	120,501	164,602		
1999 Year .....	39,475	NA	1,943	5,569	7,511	7,511	<sup>c</sup> 141,604	188,590		
2000 Year .....	31,905	NA	1,494	4,587	6,081	6,081	102,296	140,282		
2001 Year .....	35,900	NA	1,510	6,006	7,516	7,516	138,496	181,912		
2002 Year .....	43,257	NA	1,364	5,792	7,156	7,156	141,714	192,127		
2003 Year .....	38,277	NA	905	4,718	5,623	5,623	121,567	165,468		
2004 Year .....	41,151	NA	1,344	4,842	6,186	6,186	106,669	154,006		
2005 Year .....	34,971	NA	2,615	5,582	8,196	8,196	101,137	144,304		
2006 Year .....	36,548	NA	2,928	6,506	9,434	9,434	140,964	186,946		
<b>2007</b>										
January .....	35,986	NA	2,745	6,256	9,001	9,001	136,377	181,363		
February .....	34,450	NA	2,561	6,006	8,568	8,568	133,468	176,486		
March .....	34,007	NA	2,444	5,756	8,200	8,200	141,389	183,595		
April .....	33,695	NA	2,417	5,728	8,145	8,145	149,657	191,498		
May .....	33,107	NA	2,391	5,700	8,091	8,091	154,735	195,933		
June .....	32,484	NA	2,364	5,672	8,037	8,037	154,812	195,333		
July .....	31,967	NA	2,211	5,719	7,929	7,929	145,450	185,346		
August .....	30,885	NA	2,091	5,765	7,856	7,856	140,668	179,409		
September .....	30,090	NA	1,972	5,811	7,783	7,783	142,666	180,538		
October .....	31,112	NA	1,960	5,748	7,708	7,708	150,075	188,895		
November .....	32,069	NA	1,948	5,686	7,634	7,634	154,292	193,995		
December .....	<b>33,977</b>	<b>NA</b>	<b>1,936</b>	<b>5,624</b>	<b>7,560</b>	<b>7,560</b>	<b>151,221</b>	<b>192,758</b>		
<b>2008</b>										
January .....	28,258	F 463	1,778	5,355	7,133	7,596	146,966	182,820		
February .....	30,009	F 456	1,620	5,087	6,707	7,162	143,309	180,480		
March .....	32,464	448	1,462	4,818	6,280	6,728	147,002	186,194		
April .....	33,569	458	1,560	4,873	6,433	6,891	154,409	194,869		
May .....	32,047	468	1,658	4,928	6,586	7,055	159,926	199,027		
June .....	31,395	478	1,756	4,983	6,740	7,218	153,915	192,528		
July .....	29,744	490	1,828	5,058	6,886	7,376	144,231	181,352		
August .....	28,019	502	1,899	5,133	7,033	7,535	141,405	176,959		
September .....	30,235	514	1,971	5,208	7,179	7,693	145,835	183,763		
October .....	29,478	508	2,091	5,475	7,565	8,074	157,334	194,886		
November .....	28,206	503	2,211	5,741	7,952	8,455	165,654	202,315		
December .....	<b>27,311</b>	<b>498</b>	<b>2,331</b>	<b>6,007</b>	<b>8,338</b>	<b>8,836</b>	<b>163,056</b>	<b>199,202</b>		
<b>2009</b>										
January .....	26,404	R 491	R 2,260	R 5,792	R 8,052	R 8,544	158,358	R 193,305		
February .....	25,366	R 485	R 2,190	R 5,577	R 7,767	R 8,252	162,799	R 196,417		
March .....	28,875	478	2,119	5,362	7,482	7,960	176,639	213,473		

<sup>a</sup> Through 1977, data are for stocks held by the manufacturing and transportation sectors. Beginning in 1978, data are for stocks held at manufacturing plants only.

<sup>b</sup> The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

<sup>c</sup> Through 1998, data are for stocks at electric utilities only. Beginning in 1999, data also include stocks at independent power producers.

R=Revised. NA=Not available. F=Forecast.

Notes: • Stocks are at end of period. • Electric power sector monthly values

are from Table 7.5; producers and distributors monthly values are estimates derived from collected annual data; all other monthly values are estimates derived from collected quarterly values.

• Data values preceded by "F" are derived from the Energy Information Administration's Short-Term Integrated Forecasting System.

See Note 4, "Coal Forecast Values," at end of section.

• Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

## Coal

**Note 1. Coal Production.** Preliminary monthly estimates of national coal production are the sum of weekly estimates developed by the Energy Information Administration (EIA) and published in the *Weekly Coal Production* report. When a week extends into a new month, production is allocated on a daily basis and added to the appropriate month. Weekly estimates are based on Association of American Railroads (AAR) data showing the number of railcars loaded with coal during the week by Class I and certain other railroads.

Prior to 2002, the weekly coal production model converted AAR data into short tons of coal by using the average number of short tons of coal per railcar loaded reported in the "Quarterly Freight Commodity Statistics" from the Surface Transportation Board. If an average coal tonnage per railcar loaded was not available for a specific railroad, the national average was used. To derive the estimate of total weekly production, the total rail tonnage for the week was divided by the ratio of quarterly production shipped by rail and total quarterly production. Data for the corresponding quarter of previous years were used to derive this ratio. This method ensured that the seasonal variations were preserved in the production estimates.

Beginning in 2002, the weekly coal production model uses statistical autoregressive methods to estimate national coal production as a function of railcar loadings of coal, and heating degree-days and cooling degree-days. On Thursday of each week, EIA receives from the AAR data for the previous week. The latest weekly national data for heating degree-days and cooling degree-days are obtained from the National Oceanic and Atmospheric Administration's Climate Prediction Center. The weekly coal model is run and a national level coal production estimate is obtained. The weekly coal model is refit every quarter after preliminary coal data are available.

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figures. The adjustment procedure uses State-level production data and is explained in EIA's *Quarterly Coal Report*. Initial estimates of annual production published in January of the following year are based on preliminary production data covering the first nine months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the *Monthly Energy Review* in the fall of the following year.

**Note 2. Coal Consumption.** Coal consumption data are reported by major end-use sector. Forecast data (designated by an "F") are derived from forecasted values shown

in the Energy Information Administration (EIA) *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "U.S. Coal Supply and Demand: Base Case." The monthly estimates are based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows:

**Residential and Commercial**—Coal consumption by the residential and commercial sectors is reported to EIA for the two sectors combined; EIA estimates the amount consumed by the sectors individually. To create the estimates, it is first assumed that an occupied coal-heated housing unit consumes fuel at the same Btu rate as an oil-heated housing unit. Then, for the years in which data are available on the number of occupied housing units by heating source (1973–1981 and subsequent odd-numbered years), residential consumption of coal is estimated by the following steps: a ratio is created of the number of occupied housing units heated by coal to the number of occupied housing units heated by oil; that ratio is then multiplied by the Btu quantity of oil consumed by the residential sector to derive an estimate of the Btu quantity of coal consumed by the residential sector; and, finally, the amount estimated as the residential sector consumption is subtracted from the residential and commercial sectors' combined consumption to derive the commercial sector's estimated consumption. The 2007 share is applied to 2008 and 2009, and the other missing years' shares are interpolated.

**Industrial Coke Plants**—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. For 1980–1987, coke plant consumption estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported. Beginning in January 1988, monthly coke plant consumption estimates are derived from the reported quarterly data by using monthly ratios of raw steel production data from the American Iron and Steel Institute. The ratios are the monthly raw steel production from open hearth and basic oxygen process furnaces as a proportion of the quarterly production from those kinds of furnaces.

**Industrial Other**—Prior to 1978, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. For 1980–1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Beginning in January 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of Governors of the Federal Reserve System. Indices for six major industry

groups are used as the basis for calculating the ratios: food manufacturing, which is North American Industry Classification System (NAICS) code 333; paper manufacturing, NAICS 322; chemical manufacturing, NAICS 325; petroleum and coal products, NAICS 324; non-metallic mineral products manufacturing, NAICS 327; and primary metal manufacturing, NAICS 331. The monthly ratios are computed as the monthly sum of the weighted indices as a proportion of the quarterly sum of the weighted indices by using the 1977 proportion as the weights. Prior to 2008, quarterly consumption data for the other industrial sector were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, and construction consumption data were included where appropriate. Beginning in 2008, quarterly consumption totals for other industrial coal include data for manufacturing and mining only. Over time, surveyed coal consumption data for agriculture, forestry, fishing, and construction dwindled to about 20,000 to 30,000 tons annually. Therefore, in 2008, EIA consolidated its programs by eliminating agriculture, forestry, fishing, and construction as surveyed sectors.

Electric Power Sector—Monthly consumption data for electric power plants are taken directly from reported data.

**Note 3. Coal Stocks.** Coal stocks data are reported by major end-use sector. Forecast data for the most recent months (designated by an “F”) are derived from forecasted values shown in the Energy Information Administration (EIA) *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply and Demand: Base Case.” The monthly estimates are based on the quarterly values (released in March, June, September, and December) or annual values. The estimates are revised as collected data become available from the data sources. Sector-specific information follows.

Producers and Distributors—Prior to 1998, quarterly stocks at producers and distributors were taken directly from reported data. Monthly data were estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Beginning in 1998, end-of-year stocks are taken from reported data. Monthly stocks are estimated by a model.

Residential and Commercial—Prior to 1980, stock estimates for the residential and commercial sector were taken directly from reported data. For 1980-2007, stock estimates were not collected. Beginning in 2008, quarterly stocks data are collected on Form EIA-3 (data for “Commercial and Institutional Coal Users”).

Industrial Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. Beginning in 1980, coke plant stocks are estimated by using

one-third of the current quarterly change to indicate the monthly change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.

Industrial Other—Prior to 1978, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. For 1978–1982, monthly estimates were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. Beginning in 1983, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.

Electric Power Sector—Monthly stocks data at electric power plants are taken directly from reported data.

**Note 4. Coal Forecast Values.** Data values preceded by “F” in this section are forecast values. They are derived from EIA’s Short-Term Integrated Forecasting System (STIFS). The model is driven primarily by data and assumptions about key macroeconomic variables, the world oil price, and weather. The coal forecast relies on other variables as well, such as alternative fuel prices (natural gas and oil) and power generation by sources other than fossil fuels, including nuclear and hydroelectric power. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the coal industry.

The STIFS model results are published monthly in EIA’s *Short-Term Energy Outlook*, which is accessible on the Web at <http://www.eia.doe.gov/emeu/steo/pub/contents.html>.

**Note 5. Additional Coal Information.** EIA’s *Quarterly Coal Report* provides additional information about coal data and estimation procedures.

## Table 6.1 Sources

### Production

1973–September 1977: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977 forward: Energy Information Administration (EIA), *Weekly Coal Production*.

### Waste Coal Supplied

1989–1997: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”

1998–2000: EIA, Form EIA-860B, “Annual Electric Generator Report—Nonutility.”

2001–2003: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” Form EIA-920, “Combined Heat and Power Plant Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”  
2008 and 2009: EIA, Form EIA-923, “Power Plant Operations Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### Imports and Exports

U.S. Department of Commerce, Bureau of the Census, Monthly Reports IM 145 (Imports) and EM 545 (Exports).

### Stock Change

Calculated from data in Table 6.3.

### Losses and Unaccounted for

Calculated as the sum of production, imports, and waste coal supplied, minus exports, stock change, and consumption.

### Consumption

Table 6.2.

## Table 6.2 Sources

### Residential and Commercial Total

Coal consumption by the residential and commercial sectors combined is reported to the Energy Information Administration (EIA). EIA estimates the sectors individually using the method described in Note 2, “Consumption,” at the end of Section 6. Data for the residential and commercial sectors combined are from:

1973–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*.  
January–September 1977: DOI, BOM, Form 6-1400, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”  
October 1977–1979: EIA, Form EIA-2, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”  
1980–1997: EIA, Form EIA-6, “Coal Distribution Report,” quarterly.  
1998–2007: DOI, Mine Safety and Health Administration, Form 7000-2, “Quarterly Mine Employment and Coal Production.”  
2008 and 2009: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users” (data for “Commercial and Institutional Coal Users”); and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### Commercial CHP

Table 7.4c.

### Commercial Other

Calculated as “Commercial Total” minus “Commercial CHP.”

### Industrial Coke Plants

1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.  
October 1977–1980: EIA, Form EIA-5/5A, “Coke and Coal Chemicals—Monthly/Annual Supplement.”  
1981–1984: EIA, Form EIA-5/5A, “Coke Plant Report—Quarterly/Annual Supplement.”  
1985 forward: EIA, Form EIA-5, “Coke Plant Report—Quarterly”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### Other Industrial Total

1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977–1979: EIA, Form EIA-3, “Monthly Coal Consumption Report—Manufacturing Plants.”

1980–1997: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants,” and Form EIA-6, “Coal Distribution Report,” quarterly.

1998–2007: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants,” Form EIA-6A, “Coal Distribution Report,” annual, and Form EIA-7A, “Coal Production Report,” annual.

2008 and 2009: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users,” and Form EIA-7A, “Coal Production Report,” annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### Other Industrial CHP

Table 7.4c.

### Other Industrial Non-CHP

Calculated as “Other Industrial Total” minus “Other Industrial CHP.”

### Transportation

1973–1976: DOI, BOM, *Minerals Yearbook*.

January–September 1977: DOI, BOM, Form 6-1400, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”

October–December 1977: EIA, Form EIA-6, “Coal Distribution Report,” quarterly.

### Electric Power

Table 7.4b.

## Table 6.3 Sources

### Producers and Distributors

1973–1979: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), Form 6-1419Q, “Distribution of Bituminous Coal and Lignite Shipments.”

1980–1997: Energy Information Administration (EIA), Form EIA-6, “Coal Distribution Report,” quarterly.

1998–2007: EIA, Form EIA-6A, “Coal Distribution Report,” annual.

2008 and 2009: EIA, Form EIA-7A, “Coal Production Report,” annual, and Form EIA-8A, “Coal Stocks Report,” annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### **Residential and Commercial**

1973–1976: DOI, BOM, *Minerals Yearbook*.

January–September 1977: DOI, BOM, Form 6-1400, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.” October 1977–1979: EIA, Form EIA-2, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”

2008 and 2009: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users” (data for “Commercial and Institutional Coal Users”); and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### **Industrial Coke Plants**

1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977–1980: EIA, Form EIA-5/5A, “Coke and Coal Chemicals—Monthly/Annual.”

1981–1984: EIA, Form EIA 5/5A, “Coke Plant Report—Quarterly/Annual Supplement.”

1985 forward: EIA, Form EIA-5, “Coke Plant Report—Quarterly”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### **Industrial Other**

1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977–1979: EIA, Form EIA-3, “Monthly Coal Consumption Report—Manufacturing Plants.”

1998–2007: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants.”

2008 and 2009: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

### **Electric Power**

Table 7.5.

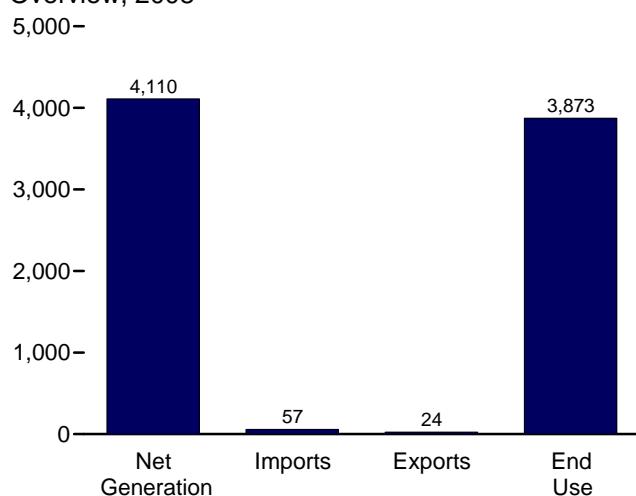
# Electricity



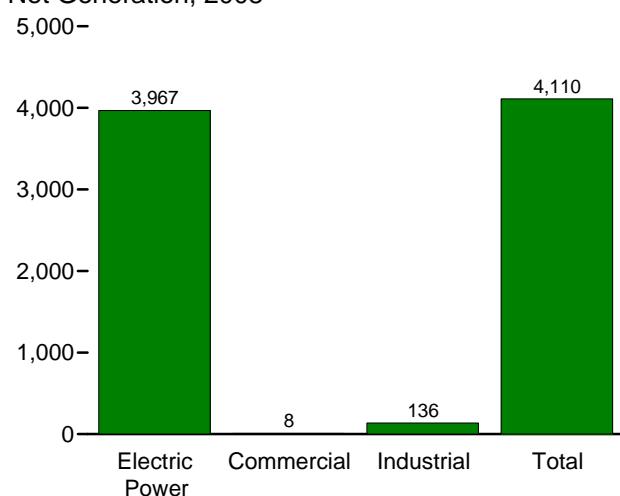
High-tension power lines and towers. Source: U.S. Department of Energy.

**Figure 7.1 Electricity Overview**  
(Billion Kilowatthours)

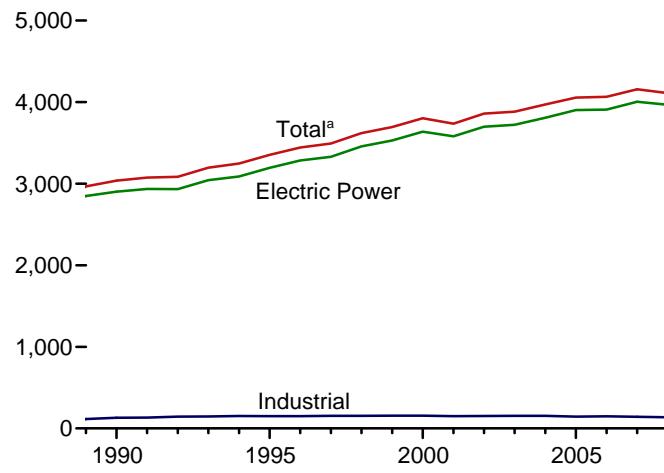
Overview, 2008



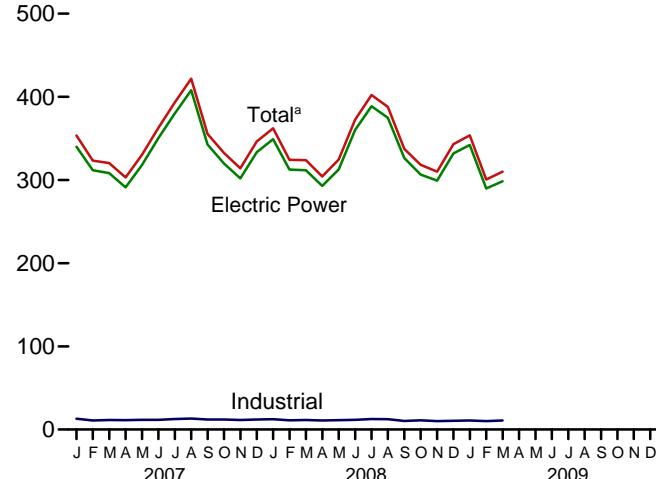
Net Generation, 2008



Net Generation by Sector, 1989-2008



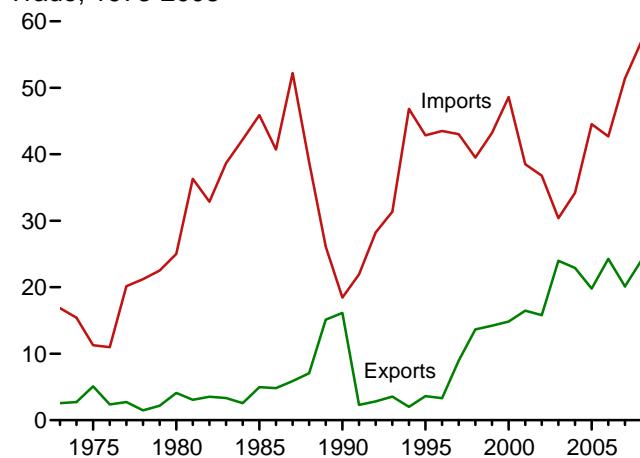
Net Generation by Sector, Monthly



End Use, 2008



Trade, 1973-2008



<sup>a</sup>Includes commercial sector.

<sup>b</sup>Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

<sup>c</sup>See "Direct Use" in Glossary.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Source: Table 7.1.

**Table 7.1 Electricity Overview**  
(Billion Kilowatthours)

	Net Generation				Trade			T&D Losses <sup>e</sup> and Unaccounted for <sup>f</sup>	End Use		
	Electric Power Sector <sup>a</sup>	Commercial Sector <sup>b</sup>	Industrial Sector <sup>c</sup>	Total	Imports <sup>d</sup>	Exports <sup>d</sup>	Net Imports <sup>d</sup>		Retail Sales <sup>g</sup>	Direct Use <sup>h</sup>	Total
1973 Total .....	1,861	NA	3	1,864	17	3	14	165	1,713	NA	1,713
1975 Total .....	1,918	NA	3	1,921	11	5	6	180	1,747	NA	1,747
1980 Total .....	2,286	NA	3	2,290	25	4	21	216	2,094	NA	2,094
1985 Total .....	2,470	NA	3	2,473	46	5	41	190	2,324	NA	2,324
1990 Total .....	2,901	6	131	3,038	18	16	2	203	2,713	125	2,837
1995 Total .....	3,194	8	151	3,353	43	4	39	229	3,013	151	3,164
1996 Total .....	3,284	9	151	3,444	43	3	40	231	3,101	153	3,254
1997 Total .....	3,329	9	154	3,492	43	9	34	224	3,146	156	3,302
1998 Total .....	3,457	9	154	3,620	40	14	26	221	3,264	161	3,425
1999 Total .....	3,530	9	156	3,695	43	14	29	240	3,312	172	3,484
2000 Total .....	3,638	8	157	3,802	49	15	34	244	3,421	171	3,592
2001 Total .....	3,580	7	149	3,737	39	16	22	202	3,394	163	3,557
2002 Total .....	3,698	7	153	3,858	37	16	21	248	3,465	166	3,632
2003 Total .....	3,721	7	155	3,883	30	24	6	228	3,494	168	3,662
2004 Total .....	3,808	8	154	3,971	34	23	11	266	3,547	168	3,716
2005 Total .....	3,902	8	145	4,055	45	20	25	269	3,661	150	3,811
2006 Total .....	3,908	8	148	4,065	43	24	18	266	3,670	147	3,817
<b>2007</b>											
January .....	340	1	13	354	3	2	2	26	315	E 14	329
February .....	312	1	11	323	4	1	3	13	301	E 12	313
March .....	308	1	11	320	4	2	2	18	292	E 13	304
April .....	291	1	11	303	4	1	3	18	275	E 12	288
May .....	318	1	12	330	5	1	3	28	293	E 13	306
June .....	350	1	12	363	4	1	3	30	323	E 13	336
July .....	380	1	13	393	6	2	4	30	353	E 14	367
August .....	408	1	13	422	5	2	3	37	373	E 15	388
September .....	343	1	12	355	4	2	1	6	338	E 13	351
October .....	320	1	12	333	4	2	2	13	308	E 13	321
November .....	302	1	12	314	4	2	3	18	286	E 13	299
December .....	334	1	12	346	4	2	2	27	308	E 13	321
<b>Total</b> .....	<b>4,005</b>	<b>8</b>	<b>143</b>	<b>4,157</b>	<b>51</b>	<b>20</b>	<b>31</b>	<b>264</b>	<b>3,765</b>	<b>159</b>	<b>3,924</b>
<b>2008</b>											
January .....	349	1	12	362	5	2	3	26	325	E 14	339
February .....	313	1	11	324	5	2	3	11	304	E 12	317
March .....	312	1	12	324	5	3	2	20	293	E 13	306
April .....	293	1	11	304	4	1	3	18	277	E 12	289
May .....	313	1	11	325	5	3	2	27	287	E 13	300
June .....	360	1	12	372	6	3	3	35	327	E 13	340
July .....	389	1	13	402	6	2	4	33	359	E 14	373
August .....	375	1	12	388	6	1	4	28	351	E 14	365
September .....	326	1	10	337	5	2	3	7	322	E 11	333
October .....	307	1	11	318	4	2	2	17	291	E 12	303
November .....	299	1	10	310	3	2	1	23	277	E 11	288
December .....	332	1	10	343	3	1	2	26	307	E 12	319
<b>Total</b> .....	<b>3,967</b>	<b>8</b>	<b>136</b>	<b>4,110</b>	<b>57</b>	<b>24</b>	<b>33</b>	<b>271</b>	<b>3,722</b>	<b>E 151</b>	<b>3,873</b>
<b>2009</b>											
January .....	342	1	11	354	4	2	2	24	320	E 12	332
February .....	290	1	10	301	4	R 2	2	7	285	E 11	296
March .....	298	1	11	310	3	2	1	17	282	E 12	294
<b>3-Month Total</b> ....	<b>930</b>	<b>2</b>	<b>32</b>	<b>964</b>	<b>11</b>	<b>5</b>	<b>6</b>	<b>48</b>	<b>886</b>	<b>E 36</b>	<b>922</b>
<b>2008 3-Month Total</b> ....	<b>973</b>	<b>2</b>	<b>35</b>	<b>1,010</b>	<b>14</b>	<b>6</b>	<b>8</b>	<b>57</b>	<b>923</b>	<b>E 39</b>	<b>962</b>
<b>2007 3-Month Total</b> ....	<b>960</b>	<b>2</b>	<b>35</b>	<b>997</b>	<b>12</b>	<b>5</b>	<b>7</b>	<b>57</b>	<b>908</b>	<b>E 39</b>	<b>947</b>

<sup>a</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>b</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>c</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, data are for industrial hydroelectric power only.

<sup>d</sup> Electricity transmitted across U.S. borders. Net imports equal imports minus exports.

<sup>e</sup> Transmission and distribution losses (electricity losses that occur between the point of generation and delivery to the customer). See Note 2, "Electrical System Energy Losses," at end of Section 2.

<sup>f</sup> Data collection frame differences and nonsampling error.

<sup>g</sup> Electricity retail sales to ultimate customers by electric utilities and, beginning in 1996, other energy service providers.

<sup>h</sup> Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

R=Revised. E=Estimate. NA=Not available.

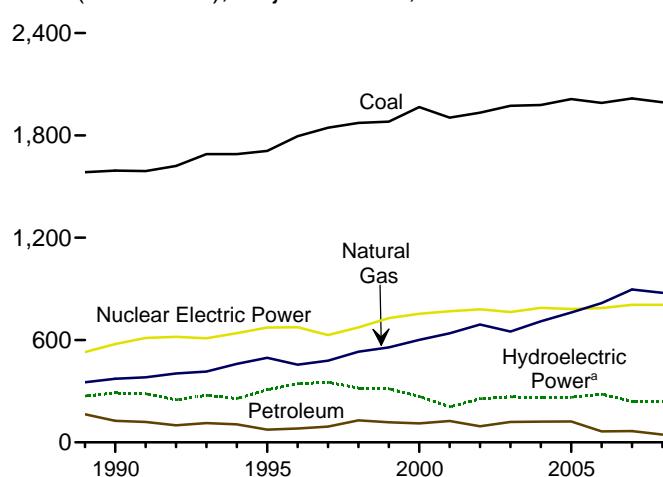
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

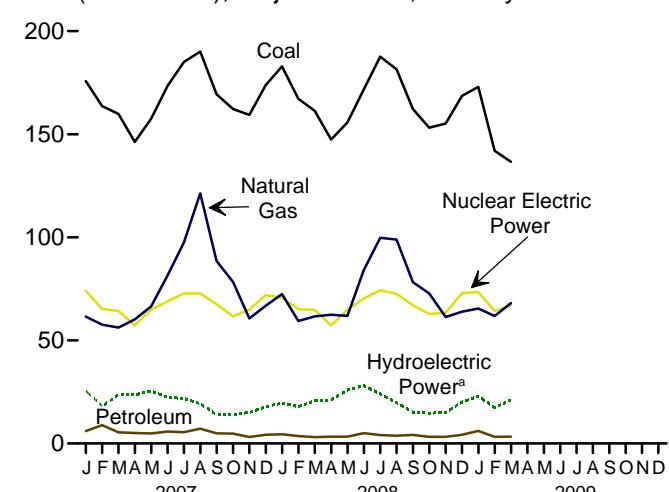
Sources: See end of section.

**Figure 7.2 Electricity Net Generation**  
(Billion Kilowatthours)

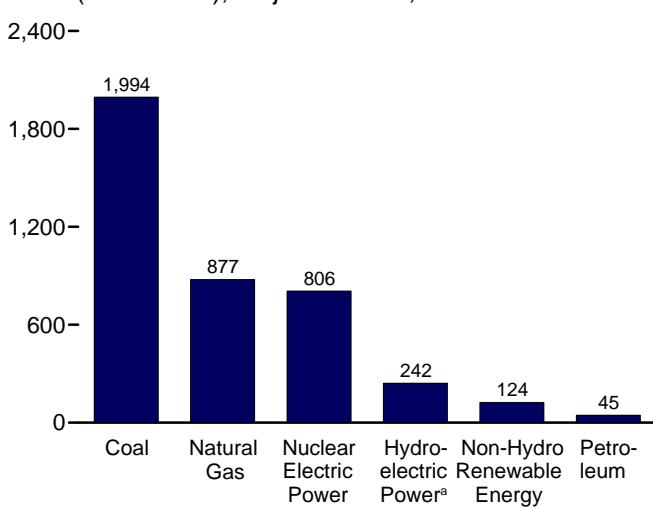
Total (All Sectors), Major Sources, 1989-2008



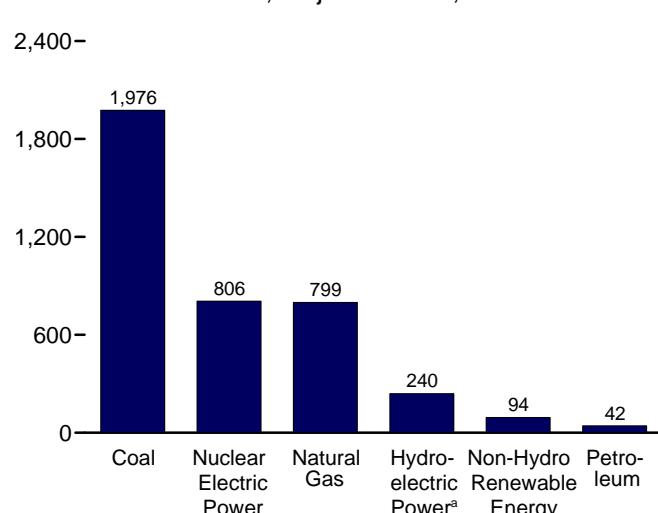
Total (All Sectors), Major Sources, Monthly



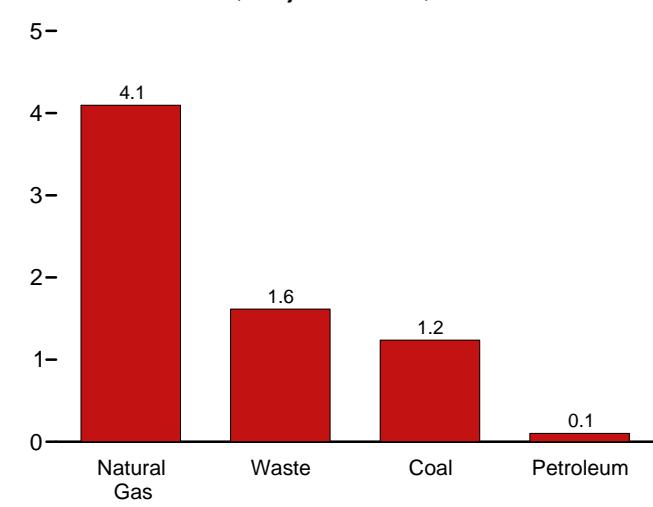
Total (All Sectors), Major Sources, 2008



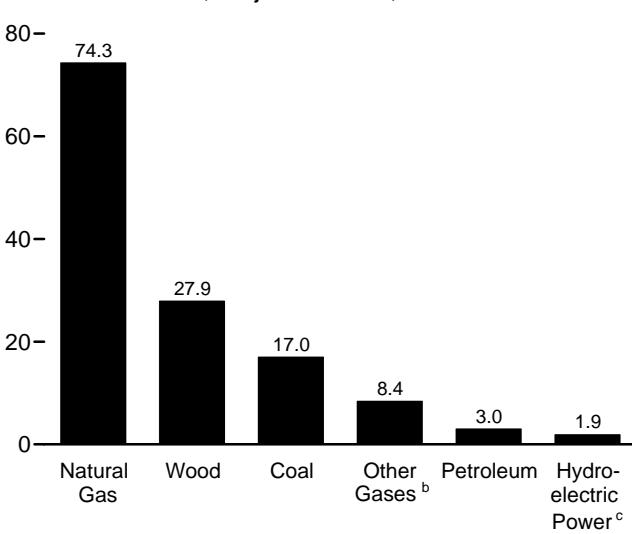
Electric Power Sector, Major Sources, 2008



Commercial Sector, Major Sources, 2008



Industrial Sector, Major Sources, 2008



<sup>a</sup>Conventional and pumped storage hydroelectric power.

<sup>b</sup>Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>c</sup>Conventional hydroelectric power.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Tables 7.2a, 7.2b, and 7.2c.

**Table 7.2a Electricity Net Generation: Total (All Sectors)**

(Sum of Tables 7.2b and 7.2c; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage <sup>e</sup>	Conventional Hydro-electric Power <sup>f</sup>	Renewable Energy									
	Coal <sup>a</sup>	Petro-leum <sup>b</sup>	Natural Gas <sup>c</sup>	Other Gases <sup>d</sup>				Biomass		Geo-thermal	Solar/-PV <sup>i</sup>	Wind					
								Wood <sup>g</sup>	Waste <sup>h</sup>								
1973 Total .....	847,651	314,343	340,858	NA	83,479	(f)	275,431	130	198	1,966	NA	NA	1,864,057				
1975 Total .....	852,786	289,095	299,778	NA	172,505	(f)	303,153	18	174	3,246	NA	NA	1,920,755				
1980 Total .....	1,161,562	245,994	346,240	NA	251,116	(f)	279,182	275	158	5,073	NA	NA	2,289,600				
1985 Total .....	1,402,128	100,202	291,946	NA	383,691	(f)	284,311	743	640	9,325	11	6	2,473,002				
1990 Total <sup>k</sup> .....	1,594,011	R 126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	R 3,037,827				
1995 Total .....	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487				
1996 Total .....	1,795,196	81,411	455,056	14,356	674,729	-3,088	347,162	36,800	20,911	14,329	521	3,234	3,444,188				
1997 Total .....	1,845,016	92,555	479,399	13,351	628,644	-4,040	356,453	36,948	21,709	14,726	511	3,288	3,492,172				
1998 Total .....	1,873,516	128,800	531,257	13,492	673,702	-4,467	323,336	36,338	22,448	14,774	502	3,026	3,620,295				
1999 Total .....	1,881,087	118,061	556,396	14,126	728,254	-6,097	319,536	37,041	22,572	14,827	495	4,488	3,694,810				
2000 Total .....	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105				
2001 Total .....	1,903,956	124,880	639,129	9,039	768,826	-8,823	216,961	35,200	14,548	13,741	543	6,737	3,736,644				
2002 Total .....	1,933,130	94,567	691,006	11,463	780,064	-8,743	264,329	38,665	15,044	14,491	555	10,354	3,858,452				
2003 Total .....	1,973,737	119,406	649,908	15,600	763,733	-8,535	275,806	37,529	15,812	14,424	534	11,187	3,883,185				
2004 Total .....	1,978,301	121,145	710,100	15,252	788,528	-8,488	268,417	38,117	15,421	14,811	575	14,144	3,970,555				
2005 Total .....	2,012,873	122,225	760,960	13,464	781,986	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423				
2006 Total .....	1,990,511	64,166	816,441	14,177	787,219	-6,558	289,246	38,762	16,099	14,568	508	26,589	4,064,702				
2007 January .....	175,739	5,994	61,475	1,154	74,006	-572	26,045	3,536	1,371	1,296	13	2,452	353,531				
February .....	163,603	8,884	57,622	981	65,225	-447	18,567	3,015	1,200	1,122	19	2,520	323,230				
March .....	159,811	5,416	56,204	1,234	64,305	-458	24,163	3,106	1,373	1,204	48	3,047	320,471				
April .....	146,250	5,080	60,153	1,163	57,301	-374	23,891	3,055	1,254	1,158	54	3,172	303,129				
May .....	157,513	4,873	66,470	1,175	65,025	-547	26,047	3,081	1,349	1,155	84	2,952	330,203				
June .....	173,513	5,777	81,511	1,154	68,923	-523	22,817	3,213	1,392	1,238	84	2,620	362,755				
July .....	185,054	5,494	97,483	1,154	72,739	-595	22,478	3,434	1,443	1,250	86	2,158	393,226				
August .....	190,135	7,187	121,338	1,132	72,751	-651	19,941	3,426	1,440	1,255	75	2,699	421,797				
September .....	169,391	4,936	88,532	1,120	67,579	-743	14,743	3,290	1,400	1,218	68	2,867	355,394				
October .....	162,234	4,747	78,358	1,134	61,690	-760	14,796	3,246	1,426	1,265	49	3,377	332,615				
November .....	159,382	3,136	60,637	1,031	64,899	-662	15,682	3,273	1,425	1,211	24	3,095	314,103				
December .....	173,830	4,215	66,808	1,022	71,983	-565	18,342	3,339	1,452	1,266	5	3,490	346,290				
Total .....	2,016,456	65,739	896,590	13,453	806,425	-6,896	247,510	39,014	16,525	14,637	612	34,450	4,156,745				
2008 January .....	182,899	4,437	72,415	1,064	70,736	-746	20,340	3,410	1,415	1,200	15	4,127	362,142				
February .....	167,178	3,637	59,443	943	65,130	-403	18,323	3,139	1,275	1,071	34	3,730	324,275				
March .....	161,281	3,058	61,654	1,112	64,716	-553	21,160	3,223	1,427	1,233	70	4,697	323,932				
April .....	147,391	3,286	62,407	986	57,333	-132	21,306	3,041	1,505	1,217	86	5,013	304,334				
May .....	155,703	3,310	61,888	1,010	64,826	-587	26,437	3,077	1,520	1,273	94	5,113	324,589				
June .....	171,683	4,983	84,122	1,120	70,319	-372	28,493	3,262	1,503	1,280	129	4,977	372,443				
July .....	187,613	4,095	99,781	1,165	74,318	-799	24,811	3,457	1,475	1,304	114	3,813	402,088				
August .....	181,469	3,763	98,880	1,148	72,617	-648	20,385	3,493	1,464	1,285	107	3,092	387,975				
September .....	162,248	4,149	78,305	817	67,054	-513	15,662	3,224	1,349	1,243	94	2,781	337,259				
October .....	153,143	3,204	72,767	777	62,793	-497	15,120	3,127	1,332	1,278	58	4,309	318,232				
November .....	155,146	3,203	61,386	690	63,408	-492	15,479	3,188	1,341	1,238	27	4,538	309,930				
December .....	168,632	4,229	63,901	739	72,931	-498	20,567	3,145	1,480	1,237	15	5,837	343,061				
Total .....	1,994,385	45,354	876,948	11,573	806,182	-6,238	248,085	38,789	17,086	14,859	843	52,026	4,110,259				
2009 January .....	172,924	6,102	65,474	767	73,479	-522	23,476	3,150	1,347	1,256	5	5,431	353,690				
February .....	142,007	3,213	61,826	751	64,227	-243	17,705	2,902	1,263	1,147	27	4,997	300,613				
March .....	136,625	3,324	68,084	793	66,920	-315	21,394	2,985	1,445	1,254	69	6,507	310,024				
3-Month Total ....	451,557	12,639	195,383	2,311	204,626	-1,080	62,575	9,037	4,055	3,657	100	16,936	964,327				
2008 3-Month Total ....	511,359	11,131	193,511	3,120	200,582	-1,701	59,824	9,773	4,118	3,504	119	12,554	1,010,349				
2007 3-Month Total ....	499,153	20,293	175,300	3,369	203,536	-1,477	68,775	9,657	3,944	3,622	81	8,019	997,233				

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

<sup>c</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>d</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>e</sup> Pumped storage facility production minus energy used for pumping.

<sup>f</sup> Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

<sup>g</sup> Wood and wood-derived fuels.

<sup>h</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>i</sup> Solar thermal and photovoltaic energy.

<sup>j</sup> Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, all data except hydroelectric are for electric utilities only; hydroelectric data through 1988 include industrial plants as well as electric utilities. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. NA=Not available.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See sources for Tables 7.2b and 7.2c.

**Table 7.2b Electricity Net Generation: Electric Power Sector**  
 (Subset of Table 7.2a; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydro- electric Pumped Storage <sup>e</sup>	Renewable Energy								
	Coal <sup>a</sup>	Petro- leum <sup>b</sup>	Natural Gas <sup>c</sup>	Other Gases <sup>d</sup>			Conven- tional Hydro- electric Power <sup>f</sup>		Biomass		Geo- thermal	Solar/- PV <sup>i</sup>			
							Wood <sup>g</sup>	Waste <sup>h</sup>							
1973 Total .....	847,651	314,343	340,858	NA	83,479	{ f }	272,083	130	198	1,966	NA	NA	1,860,710		
1975 Total .....	852,786	289,095	299,778	NA	172,505	{ f }	300,047	18	174	3,246	NA	NA	1,917,649		
1980 Total .....	1,161,562	245,994	346,240	NA	251,116	{ f }	276,021	275	158	5,073	NA	NA	2,286,439		
1985 Total .....	1,402,128	100,202	291,946	NA	383,691	{ f }	281,149	743	640	9,325	11	6	2,469,841		
1990 Total <sup>k</sup> .....	1,572,109	118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322		
1995 Total .....	1,686,056	68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230		
1996 Total .....	1,771,973	74,783	378,757	1,341	674,729	-3,088	341,159	8,386	17,816	14,329	521	3,234	3,284,141		
1997 Total .....	1,820,762	86,479	399,596	1,533	628,644	-4,040	350,648	8,680	18,485	14,726	511	3,288	3,329,375		
1998 Total .....	1,850,193	122,211	449,293	2,315	673,702	-4,467	317,867	8,608	19,233	14,774	502	3,026	3,457,416		
1999 Total .....	1,858,618	111,539	472,996	1,607	728,254	-6,097	314,663	8,961	19,493	14,827	495	4,488	3,529,982		
2000 Total .....	1,943,111	105,192	517,978	2,028	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593	3,637,529		
2001 Total .....	1,882,826	119,149	554,940	586	768,826	-8,823	213,749	8,294	12,944	13,741	543	6,737	3,580,053		
2002 Total .....	1,910,613	89,733	607,683	1,970	780,064	-8,743	260,491	9,009	13,145	14,491	555	10,354	3,698,458		
2003 Total .....	1,952,714	113,697	567,303	2,647	763,733	-8,535	271,512	9,528	13,808	14,424	534	11,187	3,721,159		
2004 Total .....	1,957,188	114,678	627,172	3,568	788,528	-8,488	265,064	9,736	13,062	14,811	575	14,144	3,808,360		
2005 Total .....	1,992,054	116,482	683,829	3,777	781,986	-6,558	267,040	10,570	13,031	14,692	550	17,811	3,902,192		
2006 Total .....	1,969,737	59,708	734,417	4,254	787,219	-6,558	286,254	10,341	13,927	14,568	508	26,589	3,908,077		
<b>2007</b>															
January .....	174,253	5,574	53,809	375	74,006	-572	25,853	1,145	1,184	1,296	13	2,452	339,968		
February .....	162,199	8,427	51,626	312	65,225	-447	18,420	845	1,037	1,122	19	2,520	311,810		
March .....	158,273	4,988	50,026	345	64,305	-458	23,969	839	1,182	1,204	48	3,047	308,331		
April .....	144,799	4,673	54,126	315	57,301	-374	23,694	727	1,081	1,158	54	3,172	291,254		
May .....	155,991	4,475	59,991	316	65,025	-547	25,867	793	1,165	1,155	84	2,952	317,826		
June .....	171,994	5,417	74,888	331	68,923	-523	22,690	888	1,209	1,238	84	2,620	350,339		
July .....	183,483	5,142	90,157	339	72,739	-595	22,387	939	1,248	1,250	86	2,158	379,914		
August .....	188,516	6,815	113,395	341	72,751	-651	19,865	962	1,253	1,255	75	2,699	407,865		
September .....	167,888	4,650	81,511	322	67,579	-743	14,666	906	1,220	1,218	68	2,867	342,713		
October .....	160,696	4,446	71,321	379	61,690	-760	14,696	868	1,228	1,265	49	3,377	319,830		
November .....	157,936	2,835	54,031	332	64,899	-662	15,554	882	1,225	1,211	24	3,095	301,907		
December .....	172,361	3,864	59,872	337	71,983	-565	18,180	918	1,262	1,266	5	3,490	333,586		
Total .....	1,998,390	61,306	814,752	4,042	806,425	-6,896	245,843	10,711	14,294	14,637	612	34,450	4,005,343		
<b>2008</b>															
January .....	181,400	4,123	65,021	285	70,736	-746	20,118	965	1,241	1,200	15	4,127	349,063		
February .....	165,797	3,384	52,969	239	65,130	-403	18,079	904	1,095	1,071	34	3,730	312,548		
March .....	159,723	2,803	55,088	346	64,716	-553	20,898	930	1,250	1,233	70	4,697	311,759		
April .....	145,918	3,065	56,286	273	57,333	-132	21,123	796	1,303	1,217	86	5,013	292,870		
May .....	154,175	3,108	55,437	301	64,826	-587	26,255	765	1,309	1,273	94	5,113	312,659		
June .....	170,110	4,719	77,447	320	70,319	-372	28,348	887	1,291	1,280	129	4,977	360,064		
July .....	185,889	3,846	92,425	335	74,318	-799	24,673	983	1,268	1,304	114	3,813	388,761		
August .....	179,840	3,520	91,605	309	72,617	-648	20,256	1,006	1,275	1,285	107	3,092	374,864		
September .....	160,634	3,874	72,779	189	67,054	-513	15,558	943	1,175	1,243	94	2,781	326,365		
October .....	151,617	2,965	66,326	215	62,793	-497	15,022	804	1,181	1,278	58	4,309	306,623		
November .....	153,820	2,990	55,446	166	63,408	-492	15,365	940	1,176	1,238	27	4,538	299,165		
December .....	167,249	3,904	57,744	218	72,931	-498	20,406	979	1,307	1,237	15	5,837	331,928		
Total .....	1,976,173	42,301	798,574	3,196	806,182	-6,238	246,100	10,902	14,872	14,859	843	52,026	3,966,670		
<b>2009</b>															
January .....	171,533	5,728	59,038	218	73,479	-522	23,301	955	1,167	1,256	5	5,431	342,150		
February .....	140,761	2,931	55,687	209	64,227	-243	17,557	911	1,117	1,147	27	4,997	289,839		
March .....	135,303	3,072	61,526	236	66,920	-315	21,205	812	1,262	1,254	69	6,507	298,431		
3-Month Total ....	447,598	11,731	176,251	663	204,626	-1,080	62,063	2,678	3,546	3,657	100	16,936	930,420		
2008 3-Month Total ....	506,920	10,311	173,078	870	200,582	-1,701	59,095	2,799	3,586	3,504	119	12,554	973,370		
2007 3-Month Total ....	494,725	18,989	155,461	1,032	203,536	-1,477	68,243	2,829	3,403	3,622	81	8,019	960,109		

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

<sup>c</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>d</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>e</sup> Pumped storage facility production minus energy used for pumping.

<sup>f</sup> Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

<sup>g</sup> Wood and wood-derived fuels.

<sup>h</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>i</sup> Solar thermal and photovoltaic energy.

<sup>j</sup> Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors**

(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector <sup>a</sup>					Industrial Sector <sup>b</sup>								Total <sup>k</sup>
	Coal <sup>c</sup>	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass	Total <sup>g</sup>	Coal <sup>c</sup>	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>h</sup>	Hydro- electric Power <sup>i</sup>	Biomass			
			Waste <sup>f</sup>								Wood <sup>j</sup>	Waste <sup>f</sup>		
1973 Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,347	NA	NA	3,347	
1975 Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,106	NA	NA	3,106	
1980 Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161	
1985 Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161	
1990 Total .....	796	589	3,272	812	5,837	21,107	R 7,008	60,007	9,641	2,975	25,379	949	R 130,669	
1995 Total .....	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025	
1996 Total .....	1,051	369	5,249	2,176	9,030	22,172	6,260	71,049	13,015	5,878	28,354	919	151,017	
1997 Total .....	1,040	427	4,725	2,342	8,701	23,214	5,649	75,078	11,814	5,685	28,225	882	154,097	
1998 Total .....	985	383	4,879	2,335	8,748	22,337	6,206	77,085	11,170	5,349	27,693	880	154,132	
1999 Total .....	995	434	4,607	2,393	8,563	21,474	6,088	78,793	12,519	4,758	28,060	686	156,264	
2000 Total .....	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673	
2001 Total .....	995	438	4,434	1,007	7,416	20,135	5,293	79,755	8,454	3,145	26,888	596	149,175	
2002 Total .....	992	431	4,310	1,053	7,415	21,525	4,403	79,013	9,493	3,825	29,643	846	152,580	
2003 Total .....	1,206	423	3,899	1,289	7,496	19,817	5,285	78,705	12,953	4,222	27,988	715	154,530	
2004 Total .....	1,340	499	3,969	1,562	8,270	19,773	5,967	78,959	11,684	3,248	28,367	797	153,925	
2005 Total .....	1,353	375	4,249	1,657	8,492	19,466	5,368	72,882	9,687	3,195	28,271	733	144,739	
2006 Total .....	1,310	235	4,355	1,599	8,371	19,464	4,223	77,669	9,923	2,899	28,400	572	148,254	
2007 January .....	120	27	318	131	669	1,367	394	7,348	779	180	2,390	56	12,894	
February .....	120	44	309	109	641	1,283	412	5,686	669	138	2,169	53	10,779	
March .....	115	24	323	128	659	1,423	404	5,855	889	183	2,266	63	11,481	
April .....	100	16	319	127	639	1,350	391	5,708	848	185	2,327	45	11,236	
May .....	108	9	341	138	680	1,414	390	6,137	859	168	2,287	46	11,697	
June .....	112	11	374	136	707	1,407	349	6,249	823	121	2,325	47	11,709	
July .....	116	8	419	146	763	1,455	344	6,907	815	89	2,494	49	12,550	
August .....	127	13	434	136	774	1,492	358	7,510	791	76	2,463	50	13,157	
September .....	113	7	364	134	684	1,389	278	6,657	798	76	2,383	46	11,997	
October .....	107	7	374	142	706	1,431	294	6,663	755	97	2,376	56	12,080	
November .....	115	6	335	139	667	1,332	295	6,270	699	123	2,390	61	11,528	
December .....	119	17	347	133	686	1,350	334	6,590	686	154	2,419	57	12,018	
Total .....	1,371	189	4,257	1,599	8,273	16,694	4,243	77,580	9,411	1,590	28,287	631	143,128	
2008 January .....	110	14	382	126	699	1,390	299	7,011	780	216	2,443	49	12,381	
February .....	98	10	344	113	622	1,283	244	6,129	704	238	2,234	67	11,104	
March .....	77	6	353	125	634	1,482	249	6,213	766	251	2,290	52	11,538	
April .....	95	5	310	149	642	1,378	216	5,811	713	171	2,244	53	10,821	
May .....	96	4	304	153	640	1,431	199	6,147	710	175	2,311	58	11,290	
June .....	114	9	315	155	677	1,459	256	6,360	800	139	2,373	56	11,702	
July .....	122	10	354	145	709	1,603	238	7,001	830	131	2,472	61	12,618	
August .....	112	7	372	143	709	1,517	237	6,903	839	125	2,485	46	12,402	
September .....	106	7	353	136	678	1,508	268	5,173	628	102	2,279	38	10,216	
October .....	99	7	334	116	624	1,426	232	6,107	562	95	2,321	35	10,984	
November .....	97	9	314	126	608	1,229	203	5,626	524	110	2,245	39	10,157	
December .....	112	14	359	128	677	1,270	310	5,799	521	155	2,165	44	10,456	
Total .....	1,237	102	4,095	1,616	7,920	16,975	2,950	74,279	8,377	1,910	27,862	598	135,668	
2009 January .....	106	28	352	125	671	1,286	345	6,084	549	165	2,194	55	10,870	
February .....	87	10	328	101	582	1,159	272	5,811	542	141	1,989	45	10,191	
March .....	91	9	343	133	654	1,231	243	6,215	557	177	2,170	51	10,938	
3-Month Total ....	284	47	1,023	359	1,908	3,675	860	18,110	1,647	484	6,353	151	31,999	
2008 3-Month Total ....	284	29	1,080	364	1,956	4,155	792	19,353	2,250	706	6,967	168	35,023	
2007 3-Month Total ....	355	95	951	368	1,969	4,074	1,210	18,889	2,338	502	6,825	173	35,154	

<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>f</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>g</sup> Includes a small amount of conventional hydroelectric power, other gases, wood, and other, which are not separately displayed.

<sup>h</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>i</sup> Conventional hydroelectric power.

<sup>j</sup> Wood and wood-derived fuels.

<sup>k</sup> Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. NA=Not available.

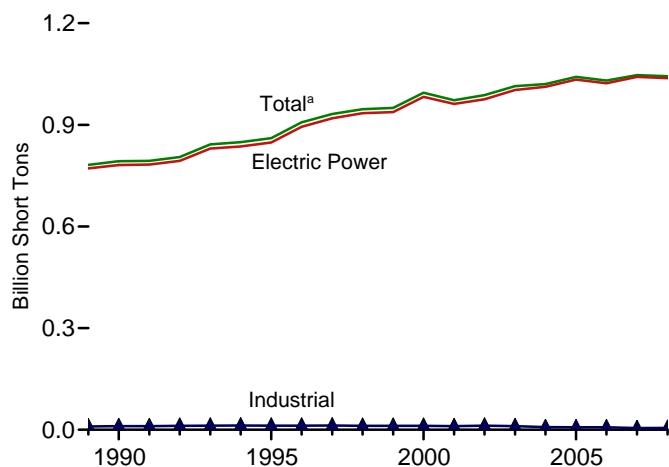
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

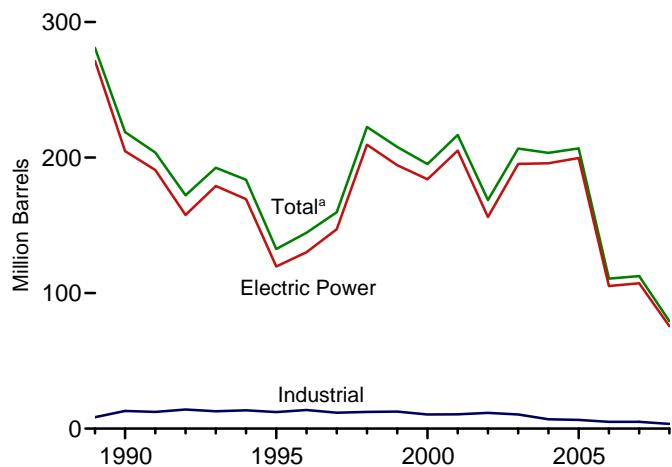
Sources: See end of section.

**Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation**

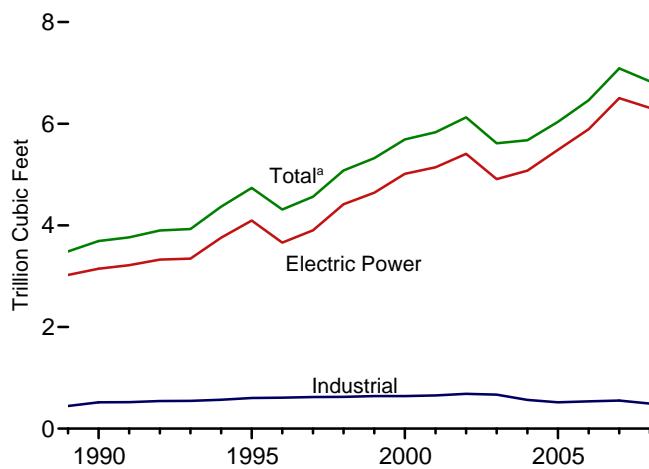
Coal by Sector, 1989-2008



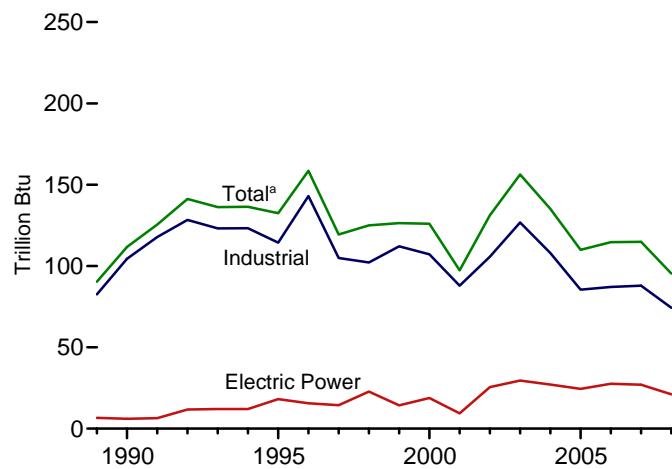
Petroleum by Sector, 1989-2008



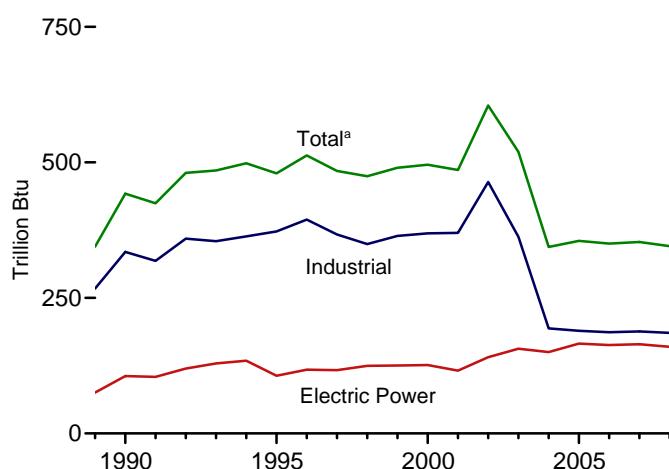
Natural Gas by Sector, 1989-2008



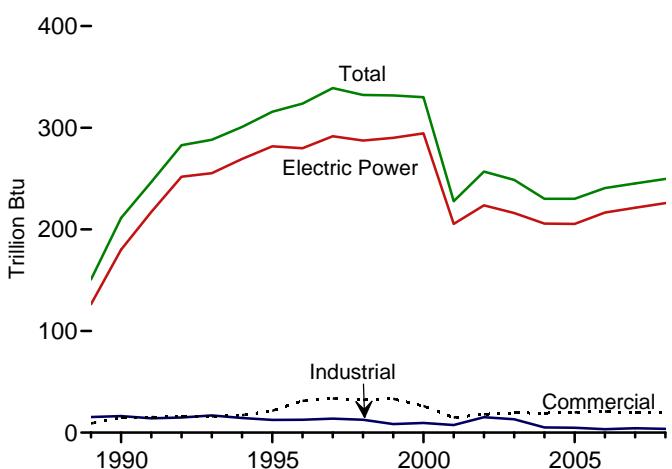
Other Gases<sup>b</sup> by Sector, 1989-2008



Wood by Sector, 1989-2008



Waste by Sector, 1989-2008



<sup>a</sup>Includes commercial sector.

<sup>b</sup>Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Tables 7.3a, 7.3b, and 7.3c.

**Table 7.3a Consumption of Combustible Fuels for Electricity Generation:  
Total (All Sectors) (Sum of Tables 7.3b and 7.3c)**

	Coal <sup>a</sup>	Petroleum					Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>i</sup>	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu		
1973 Total .....	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total .....	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total .....	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total .....	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total <sup>k</sup> .....	792,457	18,143	R 190,652	437	1,914	R 218,800	3,692	112	442	211	36
1995 Total .....	860,594	19,615	95,507	680	3,355	132,578	4,738	133	480	316	42
1996 Total .....	907,209	20,252	106,055	1,712	3,322	144,626	4,312	159	513	324	37
1997 Total .....	931,949	20,309	118,741	237	4,086	159,715	4,565	119	484	339	36
1998 Total .....	946,295	25,062	172,728	549	4,860	222,640	5,081	125	475	332	36
1999 Total .....	949,802	25,951	158,187	974	4,552	207,871	5,322	126	490	332	41
2000 Total .....	994,933	31,675	143,381	1,450	3,744	195,228	5,691	126	496	330	46
2001 Total .....	972,691	31,150	165,312	855	3,871	216,672	5,832	97	486	228	160
2002 Total .....	987,583	23,286	109,235	1,894	6,836	168,597	6,126	131	605	257	191
2003 Total .....	1,014,058	29,672	142,518	2,947	6,303	206,653	5,616	156	519	249	193
2004 Total .....	1,020,523	20,163	142,088	2,856	7,677	203,494	5,675	135	344	230	183
2005 Total .....	1,041,448	20,651	141,518	2,968	8,330	206,785	6,036	110	355	230	173
2006 Total .....	1,030,556	13,174	58,473	2,174	7,363	110,634	6,462	115	350	241	172
2007 January .....	91,776	1,445	5,770	207	585	10,349	476	10	33	20	14
February .....	84,100	2,502	9,671	412	470	14,934	442	8	28	18	13
March .....	81,932	1,262	5,333	299	475	9,270	433	10	29	20	14
April .....	75,918	973	5,028	255	466	8,584	471	10	27	19	13
May .....	81,309	1,036	4,462	261	506	8,288	528	10	28	20	14
June .....	89,846	1,243	5,561	219	579	9,916	648	10	29	21	14
July .....	96,727	1,202	5,559	201	519	9,556	782	10	31	21	14
August .....	99,245	1,720	7,585	268	540	12,271	992	10	30	21	15
September .....	88,089	985	4,830	206	493	8,484	705	10	30	21	14
October .....	83,995	1,147	4,555	211	446	8,143	626	10	29	21	14
November .....	82,495	955	2,172	175	431	5,456	469	9	29	21	13
December .....	91,363	1,213	3,307	204	528	7,362	517	9	31	22	15
Total .....	1,046,795	15,683	63,833	2,917	6,036	112,615	7,089	115	353	245	168
2008 January .....	94,173	1,705	3,250	274	515	7,805	548	9	30	21	12
February .....	86,290	1,192	2,618	203	473	6,377	450	8	28	18	11
March .....	83,185	864	2,266	193	418	5,415	474	9	30	23	14
April .....	77,139	857	2,566	160	425	5,707	479	8	27	21	13
May .....	81,572	863	2,736	160	409	5,802	489	8	27	21	13
June .....	89,785	1,388	4,735	218	499	8,836	678	9	29	22	14
July .....	98,234	1,041	3,832	149	439	7,215	798	10	31	21	14
August .....	95,726	852	3,196	150	475	6,574	781	10	31	21	14
September .....	85,895	935	3,889	199	438	7,213	614	7	28	20	12
October .....	80,624	702	2,273	134	474	5,481	561	7	27	19	12
November .....	81,245	763	2,535	148	415	5,518	472	6	28	20	12
December .....	89,721	1,269	3,682	271	416	7,303	489	6	28	22	13
Total .....	1,043,589	12,431	37,578	2,259	5,396	79,246	6,833	95	345	250	154
2009 January .....	90,986	1,899	5,907	357	428	10,304	497	6	29	20	12
February .....	74,574	1,153	2,337	223	392	5,673	466	6	25	18	11
March .....	72,268	1,221	1,995	250	495	5,941	517	7	26	21	13
3-Month Total ....	237,828	4,272	10,239	829	1,315	21,918	1,480	19	80	59	37
2008 3-Month Total ....	263,648	3,761	8,134	670	1,406	19,597	1,472	26	88	62	37
2007 3-Month Total ....	257,808	5,209	20,774	919	1,530	34,553	1,351	29	90	58	41

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>c</sup> Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, and waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

<sup>j</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See sources for Tables 7.3b and 7.3c.

**Table 7.3b Consumption of Combustible Fuels for Electricity Generation:  
Electric Power Sector (Subset of Table 7.3a)**

	Coal <sup>a</sup>	Petroleum					Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>i</sup>	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu		
1973 Total .....	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total .....	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total .....	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total .....	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total <sup>k</sup> .....	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1995 Total .....	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
1996 Total .....	894,400	18,472	98,795	567	2,467	130,168	3,660	16	117	280	2
1997 Total .....	919,009	18,646	112,423	130	3,201	147,202	3,903	14	117	292	1
1998 Total .....	934,126	23,166	165,875	411	3,999	209,447	4,416	23	125	287	2
1999 Total .....	937,888	23,875	151,921	514	3,607	194,345	4,644	14	125	290	1
2000 Total .....	982,713	29,722	138,047	403	3,155	183,946	5,014	19	126	294	1
2001 Total .....	961,523	29,056	159,150	374	3,308	205,119	5,142	9	116	205	109
2002 Total .....	975,251	21,810	104,577	1,243	5,705	156,154	5,408	25	141	224	137
2003 Total .....	1,003,036	27,441	137,361	1,937	5,719	195,336	4,909	30	156	216	136
2004 Total .....	1,012,459	18,793	138,831	2,511	7,135	195,809	5,075	27	150	206	131
2005 Total .....	1,033,567	19,450	138,337	2,591	7,877	199,760	5,485	24	166	205	116
2006 Total .....	1,022,802	12,578	56,347	1,783	6,905	105,235	5,891	28	163	216	117
2007 January .....	91,344	1,391	5,545	189	546	9,853	421	2	18	18	10
February .....	83,698	2,431	9,420	398	431	14,405	399	2	13	16	9
March .....	81,459	1,212	5,111	271	435	8,769	389	2	13	18	10
April .....	75,471	934	4,847	185	424	8,087	427	2	12	17	9
May .....	80,840	993	4,329	179	461	7,804	481	2	12	18	10
June .....	89,381	1,203	5,444	170	532	9,475	600	2	14	19	10
July .....	96,243	1,170	5,450	158	473	9,142	729	2	14	19	10
August .....	98,751	1,678	7,475	218	493	11,835	935	2	14	19	10
September .....	87,625	950	4,737	189	453	8,138	654	2	14	19	10
October .....	83,515	1,099	4,460	191	407	7,783	576	2	13	19	10
November .....	82,082	919	2,078	161	385	5,081	422	2	14	19	9
December .....	90,937	1,155	3,175	189	485	6,942	468	2	14	20	10
Total .....	1,041,346	15,135	62,072	2,496	5,523	107,316	6,502	27	165	221	117
2008 January .....	93,718	1,647	3,127	260	481	7,437	499	2	14	19	10
February .....	85,872	1,160	2,523	190	439	6,069	406	2	13	16	8
March .....	82,683	838	2,180	167	387	5,120	430	2	14	21	11
April .....	76,655	838	2,496	145	393	5,447	438	2	12	19	10
May .....	81,064	840	2,677	146	380	5,564	446	2	12	19	10
June .....	89,268	1,354	4,651	200	463	8,522	633	2	13	19	10
July .....	97,673	986	3,758	135	408	6,917	750	2	14	19	10
August .....	95,189	810	3,134	137	440	6,279	732	2	15	20	10
September .....	85,367	854	3,823	171	406	6,882	576	1	13	18	10
October .....	80,120	684	2,212	114	438	5,201	518	1	12	18	9
November .....	80,835	740	2,466	138	385	5,270	432	1	13	18	9
December .....	89,294	1,229	3,558	210	385	6,920	448	1	14	20	10
Total .....	1,037,738	11,981	36,606	2,013	5,005	75,626	6,309	21	160	226	118
2009 January .....	90,551	1,809	5,746	331	394	9,859	453	1	14	17	9
February .....	74,182	1,049	2,255	199	362	5,312	424	1	12	16	8
March .....	71,830	1,183	1,932	205	461	5,625	473	2	12	19	10
3-Month Total ....	236,564	4,041	9,933	736	1,217	20,796	1,350	4	38	52	27
2008 3-Month Total ....	262,273	3,646	7,830	617	1,307	18,626	1,335	6	42	56	29
2007 3-Month Total ....	256,501	5,035	20,076	858	1,412	33,028	1,209	7	44	52	28

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>c</sup> Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, and waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

<sup>j</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 7.3c Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors** (Subset of Table 7.3a)

	Commercial Sector <sup>a</sup>				Industrial Sector <sup>b</sup>						
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>g</sup>	Biomass		
				Waste <sup>f</sup>					Wood <sup>h</sup>	Waste <sup>f</sup>	
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillion Btu		
1989 Total .....	414	1,165	18	9	9,707	R 8,482	444	83	267	15	37
1990 Total .....	417	953	28	15	10,740	R 13,103	517	104	335	16	36
1995 Total .....	569	649	43	21	12,171	12,265	601	114	373	13	40
1996 Total .....	656	645	42	31	12,153	13,813	610	143	394	13	35
1997 Total .....	630	790	39	34	12,311	11,723	623	105	367	14	36
1998 Total .....	440	802	41	32	11,728	12,392	625	102	349	13	35
1999 Total .....	481	931	39	33	11,432	12,595	639	112	364	8	39
2000 Total .....	514	823	37	26	11,706	10,459	640	107	369	10	45
2001 Total .....	532	1,023	36	15	10,636	10,530	654	88	370	7	44
2002 Total .....	477	834	33	18	11,855	11,608	685	106	464	15	43
2003 Total .....	582	894	38	19	10,440	10,424	668	127	362	13	46
2004 Total .....	377	766	33	19	7,687	6,919	566	108	194	5	41
2005 Total .....	377	585	34	20	7,504	6,440	518	85	189	5	46
2006 Total .....	347	333	35	21	7,408	5,066	536	87	187	3	45
2007 January .....	32	38	3	2	400	458	53	7	16	(s)	3
February .....	32	51	2	1	371	477	41	6	14	(s)	3
March .....	31	34	3	2	442	467	42	8	15	(s)	4
April .....	27	22	3	2	420	475	41	8	15	(s)	3
May .....	28	15	3	2	441	469	44	8	15	(s)	3
June .....	29	16	3	2	436	425	45	8	15	(s)	4
July .....	30	12	3	2	454	402	49	8	16	(s)	3
August .....	33	20	3	2	462	417	54	7	16	(s)	4
September .....	30	11	3	2	433	335	48	7	16	(s)	3
October .....	28	10	3	2	452	349	47	7	16	(s)	4
November .....	30	9	3	2	383	366	44	7	16	(s)	3
December .....	31	20	3	2	395	400	47	7	16	(s)	4
Total .....	361	258	34	19	5,089	5,041	554	88	188	4	41
2008 January .....	32	22	3	2	424	347	47	7	16	(s)	2
February .....	28	14	3	2	389	294	41	6	15	(s)	2
March .....	24	10	3	2	478	285	41	7	15	(s)	2
April .....	27	8	2	2	458	252	39	6	15	(s)	2
May .....	28	9	2	2	480	230	41	6	15	(s)	2
June .....	33	15	2	2	483	299	42	7	16	(s)	2
July .....	35	15	3	2	525	283	46	8	16	(s)	3
August .....	32	10	3	2	505	285	46	8	16	(s)	2
September .....	31	10	3	2	497	321	34	6	15	(s)	2
October .....	28	9	2	1	476	271	41	5	15	(s)	2
November .....	28	12	2	2	382	237	37	5	15	(s)	2
December .....	32	18	3	2	395	364	38	5	15	(s)	2
Total .....	359	152	32	20	5,493	3,469	493	74	185	4	25
2009 January .....	31	38	3	2	403	408	41	5	14	(s)	2
February .....	28	13	3	2	363	348	39	5	13	(s)	2
March .....	26	12	3	2	411	304	42	5	14	(s)	3
3-Month Total ....	86	63	8	5	1,178	1,059	122	15	42	1	7
2008 3-Month Total ....	84	45	8	5	1,291	926	129	20	46	1	6
2007 3-Month Total ....	94	123	8	5	1,212	1,403	135	22	46	1	10

<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>f</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous

technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. (s)=Less than 0.5 trillion Btu.

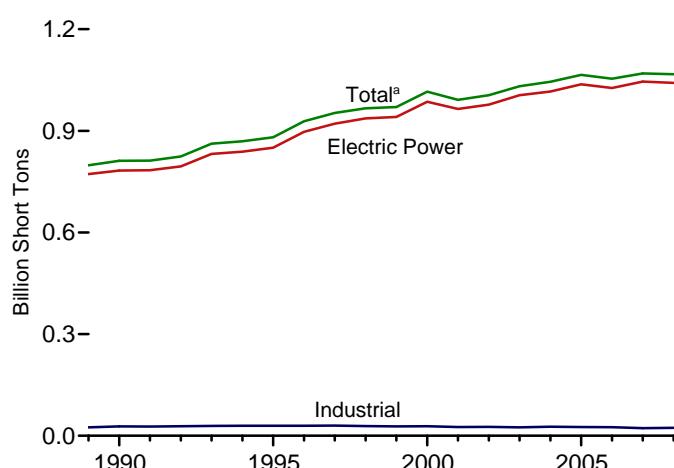
Notes: • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1989.

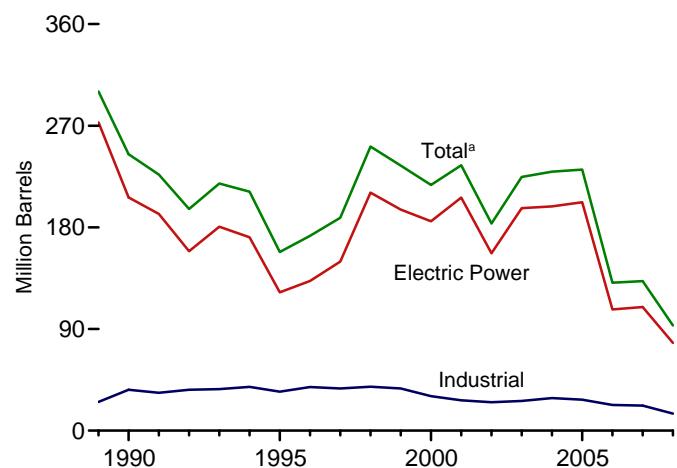
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 and 2009:** EIA, Form EIA-923, "Power Plant Operations Report."

**Figure 7.4 Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output**

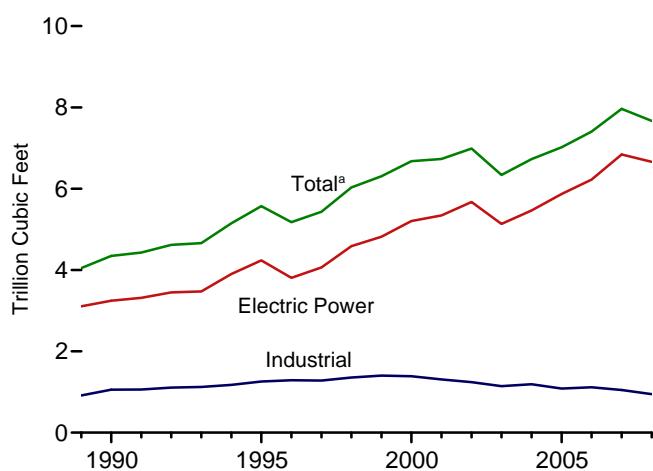
Coal by Sector, 1989-2008



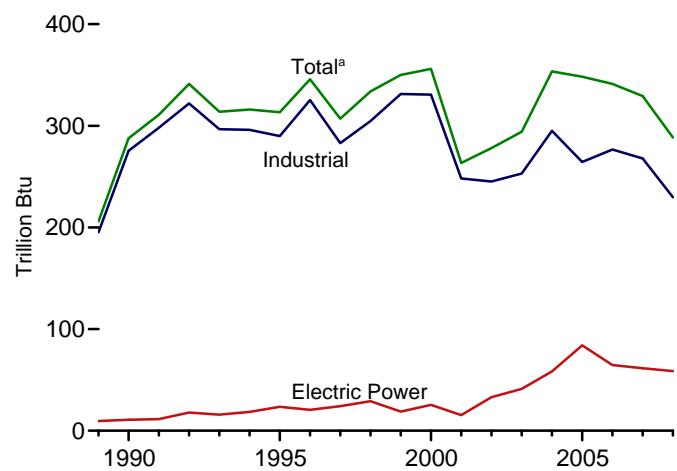
Petroleum by Sector, 1989-2008



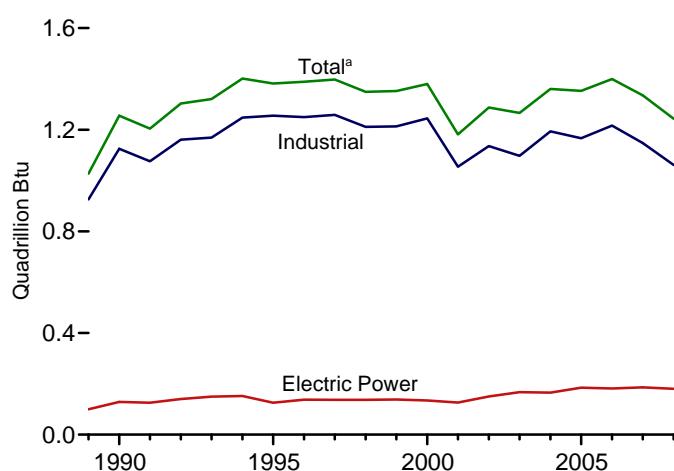
Natural Gas by Sector, 1989-2008



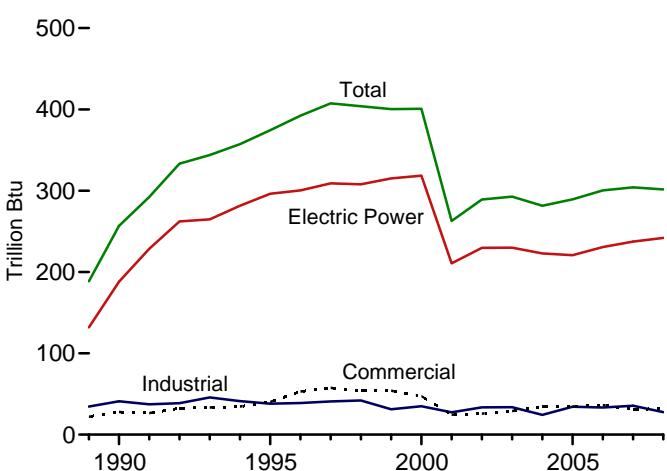
Other Gases<sup>b</sup> by Sector, 1989-2008



Wood by Sector, 1989-2008



Waste by Sector, 1989-2008



<sup>a</sup>Includes commercial sector.

<sup>b</sup>Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Tables 7.4a, 7.4b, and 7.4c.

**Table 7.4a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors) (Sum of Tables 7.4b and 7.4c)**

	Coal <sup>a</sup>	Petroleum					Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>i</sup>	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu		
1973 Total .....	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total .....	405,962	38,907	467,221	NA	70	506,479	3,158	NA	0	2	NA
1980 Total .....	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total .....	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total <sup>k</sup> .....	811,538	20,194	R 209,081	1,332	2,832	R 244,765	4,346	288	1,256	257	86
1995 Total .....	881,012	21,697	112,168	1,322	4,590	158,140	5,572	313	1,382	374	97
1996 Total .....	928,015	22,444	124,607	2,468	4,596	172,499	5,178	346	1,389	392	91
1997 Total .....	952,955	22,893	134,623	526	6,095	188,517	5,433	307	1,397	407	103
1998 Total .....	966,615	30,006	189,267	1,230	6,196	251,486	6,030	334	1,349	404	95
1999 Total .....	970,175	30,616	172,319	1,812	5,989	234,694	6,305	350	1,352	400	101
2000 Total .....	1,015,398	34,572	156,673	2,904	4,669	217,494	6,677	356	1,380	401	109
2001 Total .....	991,635	33,724	177,137	1,418	4,532	234,940	6,731	263	1,182	263	229
2002 Total .....	1,005,144	24,749	118,637	3,257	7,353	183,409	6,986	278	1,287	289	252
2003 Total .....	1,031,778	31,825	152,859	4,576	7,067	224,593	6,337	294	1,266	293	262
2004 Total .....	1,044,798	23,520	157,478	4,764	8,721	229,364	6,727	353	1,360	282	254
2005 Total .....	1,065,281	24,446	156,915	4,270	9,113	231,193	7,021	348	1,353	289	237
2006 Total .....	1,053,783	14,655	69,846	3,396	8,622	131,005	7,404	341	1,399	300	247
2007 January .....	93,880	1,580	7,045	334	686	12,390	550	30	118	27	21
February .....	86,088	2,727	11,358	517	571	17,455	510	25	105	24	18
March .....	83,929	1,385	6,575	404	577	11,250	502	28	111	28	20
April .....	77,747	1,088	6,066	394	564	10,371	538	28	112	23	20
May .....	83,140	1,198	5,254	424	607	9,911	596	28	110	25	20
June .....	91,682	1,334	6,330	322	686	11,416	719	27	108	24	20
July .....	98,568	1,272	6,194	304	636	10,953	857	27	114	25	20
August .....	101,160	1,814	8,347	391	666	13,881	1,077	28	111	25	21
September .....	89,833	1,049	5,443	279	604	9,789	779	27	108	24	19
October .....	85,782	1,244	5,162	306	541	9,416	700	28	111	26	20
November .....	84,392	1,041	2,765	257	529	6,706	539	25	111	26	19
December .....	93,404	1,308	4,078	304	632	8,852	594	27	118	26	21
Total .....	1,069,606	17,042	74,616	4,237	7,299	132,389	7,962	329	1,336	304	239
2008 January .....	96,257	1,841	3,897	381	632	9,278	623	25	108	26	15
February .....	88,349	1,255	3,129	295	566	7,512	519	24	102	24	14
March .....	85,215	934	2,774	303	505	6,537	546	27	99	28	16
April .....	79,041	923	3,041	231	534	6,864	544	25	102	25	15
May .....	83,520	928	3,178	223	520	6,930	558	26	103	25	15
June .....	91,656	1,463	5,275	282	595	9,996	748	26	104	26	16
July .....	100,235	1,109	4,335	208	544	8,370	872	28	109	26	16
August .....	97,654	928	3,702	204	547	7,572	853	28	109	25	16
September .....	87,825	1,002	4,389	266	524	8,275	676	22	103	24	15
October .....	82,553	785	2,675	186	581	6,550	631	22	105	23	15
November .....	83,184	842	3,022	190	498	6,542	539	18	101	25	14
December .....	91,788	1,390	4,406	383	520	8,778	559	19	100	26	15
Total .....	1,067,277	13,400	43,823	3,151	6,566	93,204	7,668	288	1,243	302	181
2009 January .....	92,998	2,099	6,799	477	535	12,048	569	20	100	25	14
February .....	76,452	1,304	2,855	301	491	6,913	526	20	91	22	13
March .....	74,159	1,322	2,365	341	579	6,921	584	21	94	29	16
3-Month Total ....	243,609	4,725	12,019	1,119	1,604	25,883	1,679	61	285	76	43
2008 3-Month Total ....	269,821	4,031	9,800	979	1,703	23,327	1,688	76	308	78	45
2007 3-Month Total ....	263,898	5,692	24,978	1,255	1,834	41,095	1,562	83	334	79	59

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>c</sup> Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, and waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

<sup>j</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. NA=Not available.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See sources for Tables 7.4b and 7.4c.

**Table 7.4b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector** (Subset of Table 7.4a)

	Coal <sup>a</sup>	Petroleum					Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>i</sup>	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu		
1973 Total .....	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total .....	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total .....	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total .....	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total <sup>k</sup> .....	782,567	16,567	184,915	26	1,008	206,550	3,245	11	129	188	(s)
1995 Total .....	850,230	18,553	90,023	499	2,674	122,447	4,237	24	125	296	2
1996 Total .....	896,921	18,780	99,951	653	2,642	132,593	3,807	20	138	300	2
1997 Total .....	921,364	18,989	113,669	152	3,372	149,668	4,065	24	137	309	1
1998 Total .....	936,619	23,300	166,528	431	4,102	210,769	4,588	29	137	308	2
1999 Total .....	940,922	24,058	152,493	544	3,735	195,769	4,820	19	138	315	1
2000 Total .....	985,821	30,016	138,513	454	3,275	185,358	5,206	25	134	318	1
2001 Total .....	964,433	29,274	159,504	377	3,427	206,291	5,342	15	126	211	113
2002 Total .....	977,507	21,876	104,773	1,267	5,816	156,996	5,672	33	150	230	143
2003 Total .....	1,005,116	27,632	138,279	2,026	5,799	196,932	5,135	41	167	230	140
2004 Total .....	1,016,268	19,107	139,816	2,713	7,372	198,498	5,464	58	165	223	138
2005 Total .....	1,037,485	19,675	139,409	2,685	8,083	202,184	5,869	84	185	221	123
2006 Total .....	1,026,636	12,646	57,345	1,870	7,101	107,365	6,222	65	182	231	125
<b>2007</b>											
January .....	91,686	1,408	5,633	199	559	10,035	448	6	19	20	11
February .....	84,026	2,499	9,495	426	442	14,630	425	5	15	17	9
March .....	81,803	1,235	5,164	277	448	8,914	416	5	15	20	10
April .....	75,751	962	4,936	190	437	8,274	453	5	15	18	10
May .....	81,140	1,000	4,425	187	474	7,984	507	5	14	20	10
June .....	89,699	1,211	5,531	175	547	9,652	628	5	15	20	10
July .....	96,548	1,176	5,534	161	486	9,303	761	5	16	21	11
August .....	99,086	1,684	7,570	230	505	12,009	969	5	16	21	11
September .....	87,922	955	4,822	194	471	8,325	683	5	15	20	10
October .....	83,810	1,105	4,554	196	421	7,960	604	6	15	20	10
November .....	82,393	928	2,163	166	398	5,246	448	5	15	21	10
December .....	91,276	1,164	3,259	192	496	7,098	498	6	16	21	11
<b>Total</b> .....	<b>1,045,141</b>	<b>15,327</b>	<b>63,086</b>	<b>2,594</b>	<b>5,685</b>	<b>109,431</b>	<b>6,841</b>	<b>61</b>	<b>186</b>	<b>237</b>	<b>124</b>
<b>2008</b>											
January .....	94,052	1,666	3,232	267	490	7,615	529	5	16	21	11
February .....	86,199	1,180	2,576	198	451	6,209	434	5	15	18	10
March .....	83,027	850	2,273	187	399	5,307	459	6	16	23	11
April .....	76,962	843	2,605	153	404	5,621	464	5	14	20	10
May .....	81,386	847	2,786	153	390	5,734	474	5	13	20	10
June .....	89,565	1,369	4,750	203	474	8,692	668	5	14	21	11
July .....	98,015	992	3,863	137	418	7,084	783	6	17	21	11
August .....	95,498	817	3,256	139	443	6,427	763	6	16	21	11
September .....	85,694	860	3,931	174	415	7,040	603	4	15	19	10
October .....	80,442	688	2,317	116	450	5,371	546	5	14	19	10
November .....	81,127	749	2,585	142	397	5,459	460	3	15	19	10
December .....	89,635	1,242	3,685	213	399	7,137	477	4	16	21	11
<b>Total</b> .....	<b>1,041,603</b>	<b>12,101</b>	<b>37,860</b>	<b>2,081</b>	<b>5,131</b>	<b>77,695</b>	<b>6,661</b>	<b>59</b>	<b>181</b>	<b>242</b>	<b>126</b>
<b>2009</b>											
January .....	90,887	1,898	5,871	356	407	10,157	483	4	16	19	10
February .....	74,507	1,068	2,327	218	373	5,477	449	4	14	18	9
March .....	72,140	1,213	1,996	218	471	5,781	499	4	14	22	10
<b>3-Month Total</b> ....	<b>237,533</b>	<b>4,178</b>	<b>10,194</b>	<b>792</b>	<b>1,250</b>	<b>21,415</b>	<b>1,431</b>	<b>12</b>	<b>44</b>	<b>60</b>	<b>29</b>
<b>2008 3-Month Total</b> ....	<b>263,278</b>	<b>3,695</b>	<b>8,082</b>	<b>652</b>	<b>1,340</b>	<b>19,131</b>	<b>1,423</b>	<b>15</b>	<b>47</b>	<b>61</b>	<b>32</b>
<b>2007 3-Month Total</b> ....	<b>257,516</b>	<b>5,141</b>	<b>20,291</b>	<b>902</b>	<b>1,449</b>	<b>33,580</b>	<b>1,290</b>	<b>16</b>	<b>49</b>	<b>57</b>	<b>30</b>

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>b</sup> Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>c</sup> Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, and waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>j</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 7.4c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors** (Subset of Table 7.4a)

	Commercial Sector <sup>a</sup>				Industrial Sector <sup>b</sup>						
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>g</sup>	Biomass		
				Waste <sup>f</sup>					Wood <sup>h</sup>	Waste <sup>f</sup>	
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillion Btu		
1989 Total .....	1,125	1,967	30	22	24,867	R 25,444	914	195	926	35	85
1990 Total .....	1,191	2,056	46	28	27,781	R 36,159	1,055	275	1,125	41	86
1995 Total .....	1,419	1,245	78	40	29,363	34,448	1,258	290	1,255	38	95
1996 Total .....	1,660	1,246	82	53	29,434	38,661	1,289	325	1,249	39	89
1997 Total .....	1,738	1,584	87	58	29,853	37,265	1,282	283	1,259	41	102
1998 Total .....	1,443	1,807	87	54	28,553	38,910	1,355	305	1,211	42	93
1999 Total .....	1,490	1,613	84	54	27,763	37,312	1,401	331	1,213	31	99
2000 Total .....	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
2001 Total .....	1,448	1,832	79	25	25,755	26,817	1,310	248	1,054	27	101
2002 Total .....	1,405	1,250	74	26	26,232	25,163	1,240	245	1,136	34	92
2003 Total .....	1,816	1,449	58	29	24,846	26,212	1,144	253	1,097	34	103
2004 Total .....	1,917	2,009	72	34	26,613	28,857	1,191	295	1,193	24	94
2005 Total .....	1,922	1,630	68	34	25,875	27,380	1,084	264	1,166	34	94
2006 Total .....	1,886	935	68	36	25,262	22,706	1,115	277	1,216	33	102
2007 January .....	191	113	6	3	2,003	2,242	96	24	99	5	9
February .....	186	198	5	2	1,876	2,627	79	20	90	5	8
March .....	171	103	5	3	1,956	2,233	81	23	95	5	8
April .....	146	58	5	3	1,850	2,039	80	23	96	3	8
May .....	143	26	5	3	1,857	1,901	84	23	96	2	8
June .....	137	37	6	3	1,845	1,726	85	22	93	2	8
July .....	151	23	7	3	1,868	1,627	90	22	98	2	8
August .....	162	41	7	3	1,912	1,832	101	23	95	2	9
September .....	145	28	6	3	1,765	1,436	89	23	92	2	8
October .....	142	25	6	3	1,830	1,431	89	22	96	3	9
November .....	169	24	6	3	1,830	1,435	85	20	95	3	8
December .....	183	75	6	3	1,945	1,679	90	22	102	3	8
Total .....	1,927	752	70	31	22,537	22,207	1,050	268	1,148	36	98
2008 January .....	196	56	6	3	2,009	1,607	88	20	91	2	3
February .....	184	41	6	3	1,966	1,262	79	19	87	3	3
March .....	188	30	6	3	2,000	1,200	81	21	83	2	3
April .....	156	24	5	3	1,924	1,219	74	19	88	2	3
May .....	156	18	4	3	1,978	1,178	79	20	89	2	3
June .....	176	33	4	3	1,915	1,272	76	20	89	2	3
July .....	178	33	5	3	2,041	1,253	84	22	92	2	4
August .....	174	21	5	3	1,982	1,124	85	22	92	2	4
September .....	166	21	5	2	1,965	1,215	68	18	88	2	3
October .....	162	29	5	2	1,950	1,149	80	17	91	2	3
November .....	176	33	5	3	1,882	1,050	75	15	86	2	2
December .....	198	57	5	3	1,955	1,584	77	15	84	2	3
Total .....	2,109	396	61	32	23,566	15,113	946	230	1,062	28	38
2009 January .....	202	96	6	3	1,909	1,795	80	16	84	2	3
February .....	176	34	5	3	1,769	1,402	72	16	76	2	3
March .....	170	31	5	4	1,849	1,109	80	17	81	3	4
3-Month Total ....	548	160	16	9	5,528	4,307	233	49	241	7	10
2008 3-Month Total ....	567	127	17	8	5,975	4,069	248	60	261	8	9
2007 3-Month Total ....	547	414	16	7	5,834	7,102	256	67	284	15	25

<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>f</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>g</sup> Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous

technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised.

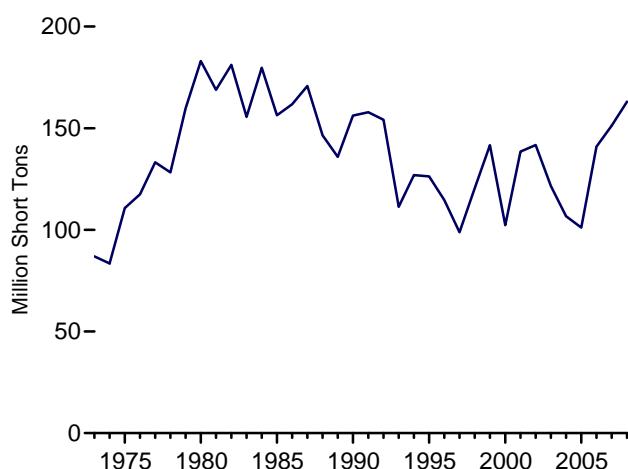
Notes: • Data are for fuels consumed to produce electricity and useful thermal output. Through 1988, data are not available. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1989.

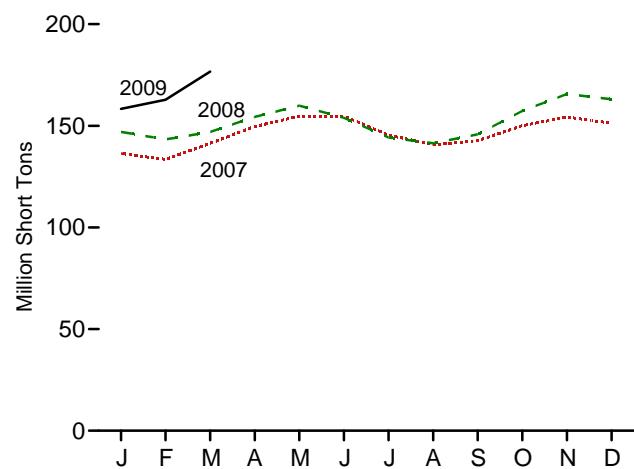
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 and 2009:** EIA, Form EIA-923, "Power Plant Operations Report."

**Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector**

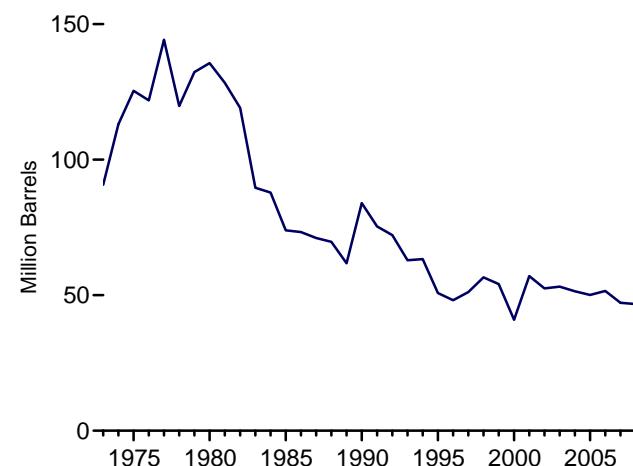
Coal, 1973-2008



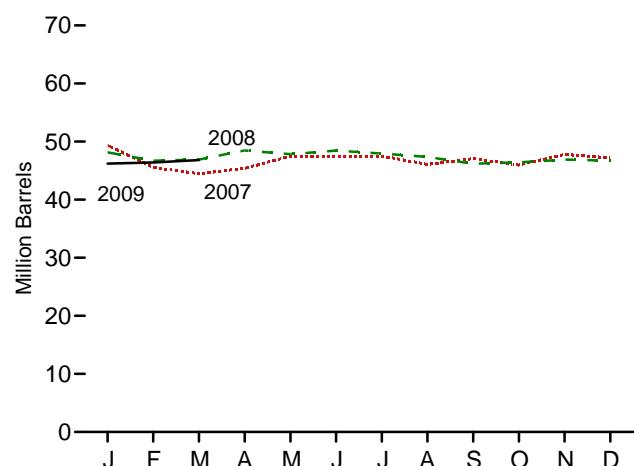
Coal, Monthly



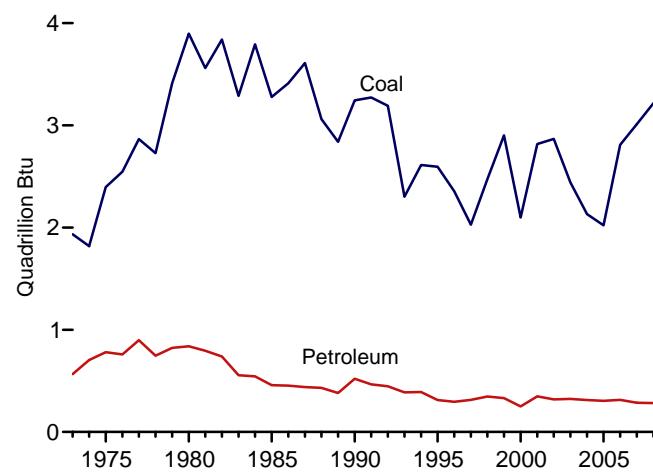
Total Petroleum, 1973-2008



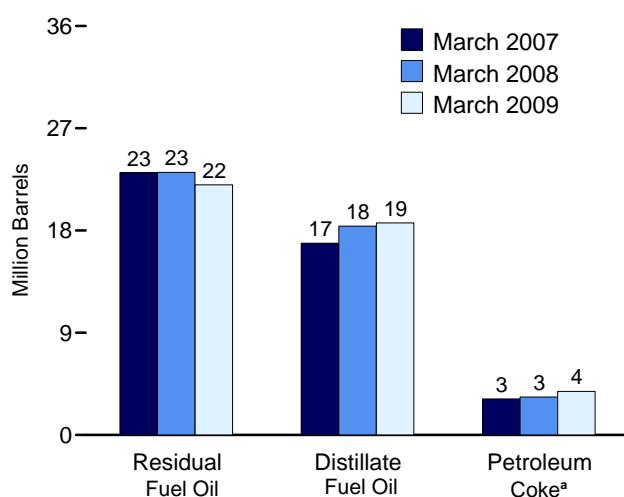
Total Petroleum, Monthly



Coal and Petroleum Stocks, 1973-2008



Petroleum by Major Type, End of Month



<sup>a</sup>Converted from short tons to barrels by multiplying by five.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Tables 7.5, A1, and A5 (column 6).

**Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector**

	Coal <sup>a</sup>	Petroleum				
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons
1973 Year .....	86,967	10,095	79,121	NA	312	90,776
1975 Year .....	110,724	16,432	108,825	NA	31	125,413
1980 Year .....	183,010	30,023	105,351	NA	52	135,635
1985 Year .....	156,376	16,386	57,304	NA	49	73,933
1990 Year .....	156,166	16,471	67,030	NA	94	83,970
1995 Year .....	126,304	15,392	35,102	NA	65	50,821
1996 Year .....	114,623	15,216	32,473	NA	91	48,146
1997 Year .....	98,826	15,456	33,336	NA	469	51,138
1998 Year .....	120,501	16,343	37,451	NA	559	56,591
1999 Year <sup>f</sup> .....	141,604	17,995	34,256	NA	372	54,109
2000 Year .....	102,296	15,127	24,748	NA	211	40,932
2001 Year .....	138,496	20,486	34,594	NA	390	57,031
2002 Year .....	141,714	17,413	25,723	800	1,711	52,490
2003 Year .....	121,567	19,153	25,820	779	1,484	53,170
2004 Year .....	106,669	19,275	26,596	879	937	51,434
2005 Year .....	101,137	18,778	27,624	1,012	530	50,062
2006 Year .....	140,964	18,013	28,823	1,380	674	51,583
<b>2007</b>						
January .....	136,377	17,306	27,138	1,406	699	49,346
February .....	133,468	17,036	23,516	1,379	723	45,546
March .....	141,389	16,876	23,089	1,336	636	44,480
April .....	149,657	16,789	23,918	1,338	669	45,389
May .....	154,735	16,782	26,022	1,379	660	47,481
June .....	154,812	17,109	26,240	1,384	543	47,445
July .....	145,450	17,264	25,650	1,433	631	47,504
August .....	140,668	17,276	24,513	1,488	562	46,087
September .....	142,666	17,590	25,272	1,484	543	47,059
October .....	150,075	17,920	23,809	1,521	545	45,973
November .....	154,292	18,261	24,941	1,515	612	47,777
December .....	<b>151,221</b>	<b>18,395</b>	<b>24,136</b>	<b>1,902</b>	<b>554</b>	<b>47,203</b>
<b>2008</b>						
January .....	146,966	18,722	24,136	2,008	654	48,139
February .....	143,309	18,464	23,542	1,858	571	46,719
March .....	147,002	18,381	23,115	2,065	668	46,901
April .....	154,409	18,256	24,470	2,077	731	48,459
May .....	159,926	18,337	23,564	2,088	767	47,825
June .....	153,915	18,431	24,254	2,093	730	48,430
July .....	144,231	18,452	23,471	2,083	789	47,950
August .....	141,405	18,261	23,354	2,074	732	47,351
September .....	145,835	18,264	22,324	2,053	710	46,191
October .....	157,334	18,380	22,450	2,105	698	46,425
November .....	165,654	18,817	21,958	2,116	803	46,904
December .....	<b>163,056</b>	<b>18,876</b>	<b>21,725</b>	<b>2,135</b>	<b>794</b>	<b>46,708</b>
<b>2009</b>						
January .....	158,358	18,612	21,449	2,142	805	46,225
February .....	162,799	18,544	21,682	2,256	787	46,419
March .....	176,639	18,667	22,020	2,297	766	46,816

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, and lignite.

<sup>b</sup> Fuel oil nos. 1, 2 and 4. For 1973-1979, data are for gas turbine and internal combustion plant stocks of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

<sup>c</sup> Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant stocks of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

<sup>d</sup> Jet fuel and kerosene. Through 2003, data also include a small amount of waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Through 1998, data are for electric utilities only. Beginning in 1999, data are for electric utilities and independent power producers.

NA=Not available.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Stocks

are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

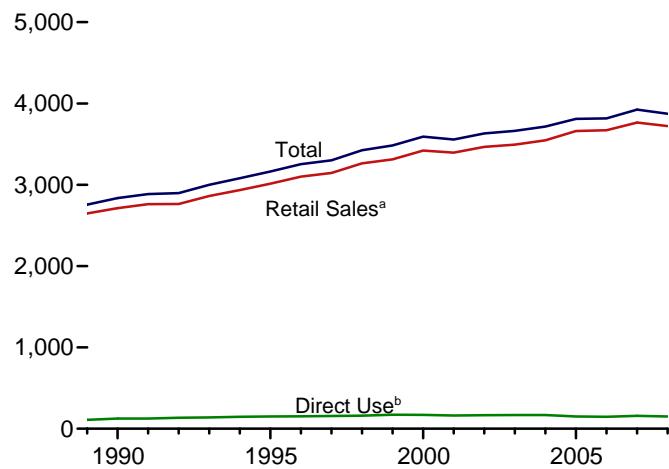
Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

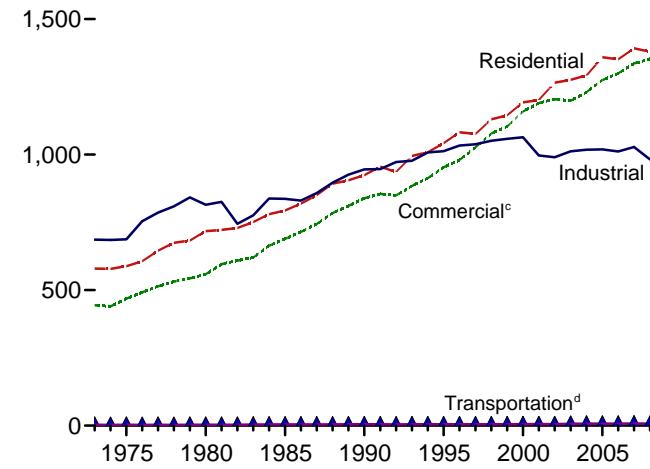
• **1989-1997:** EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** Form EIA-906, "Power Plant Report"; • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 and 2009:** EIA, Form EIA-923, "Power Plant Operations Report."

**Figure 7.6 Electricity End Use**  
(Billion Kilowatthours)

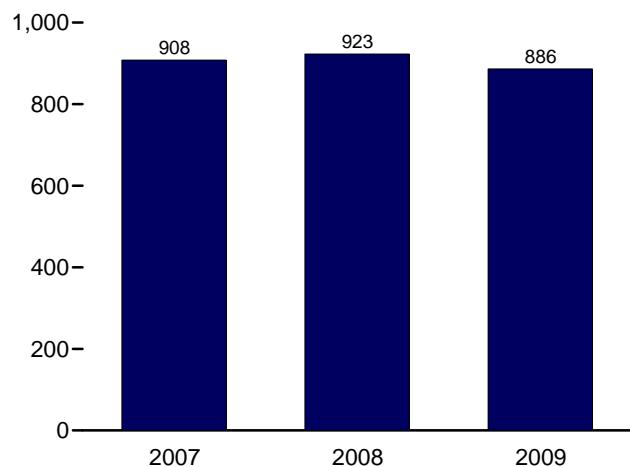
Electricity End Use Overview, 1989-2008



Retail Sales<sup>a</sup> by Sector, 1973-2008



Retail Sales<sup>a</sup> Total, January-March

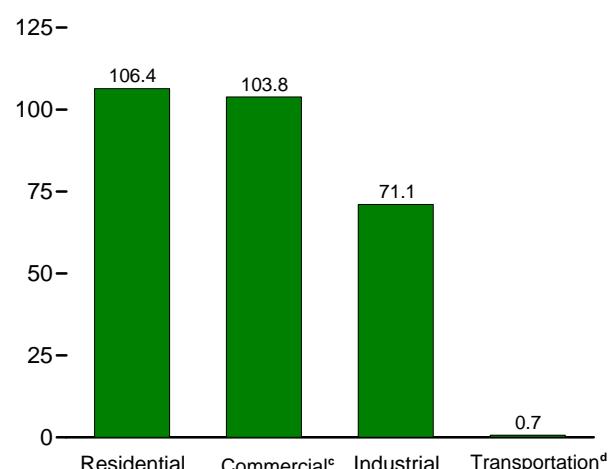


<sup>a</sup>Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

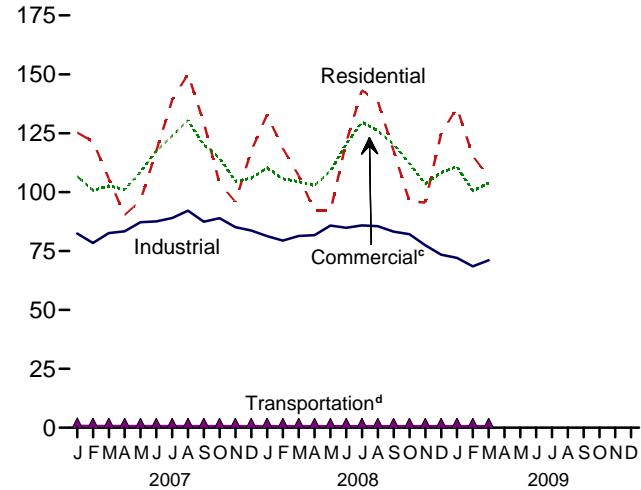
<sup>b</sup>See "Direct Use" in Glossary.

<sup>c</sup>Commercial sector, including public street and highway lighting, interde-

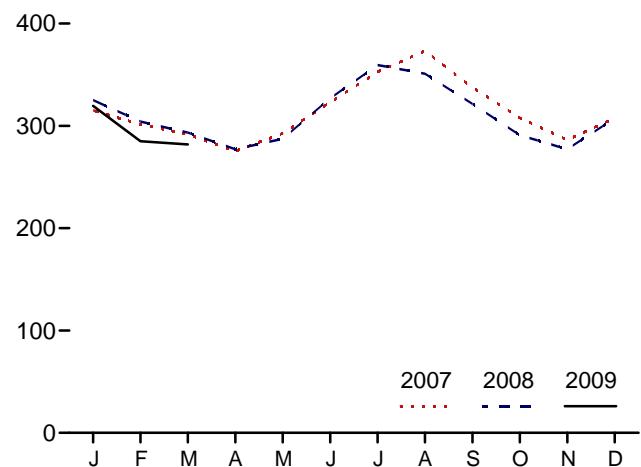
Retail Sales<sup>a</sup> by Sector, March 2009



Retail Sales<sup>a</sup> by Sector, Monthly



Retail Sales<sup>a</sup> Total, Monthly



partmental sales, and other sales to public authorities.

<sup>d</sup>Transportation sector, including sales to railroads and railways.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Source: Table 7.6.

**Table 7.6 Electricity End Use**  
(Million Kilowatthours)

	Retail Sales <sup>a</sup>					Direct Use <sup>f</sup>	Total End Use <sup>g</sup>	Discontinued Retail Sales Series	
	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportation <sup>d</sup>	Total Retail Sales <sup>e</sup>			Commercial (Old) <sup>h</sup>	Other (Old) <sup>i</sup>
1973 Total .....	579,231	E 444,505	686,085	E 3,087	1,712,909	NA	1,712,909	388,266	59,326
1975 Total .....	588,140	E 468,296	687,680	E 2,974	1,747,091	NA	1,747,091	403,049	68,222
1980 Total .....	717,495	558,643	815,067	3,244	2,094,449	NA	2,094,449	488,155	73,732
1985 Total .....	793,934	689,121	836,772	4,147	2,323,974	NA	2,323,974	605,989	87,279
1990 Total .....	924,019	838,263	945,522	4,751	2,712,555	124,529	2,837,084	751,027	91,988
1995 Total .....	1,042,501	953,117	1,012,693	4,975	3,013,287	150,677	3,163,963	862,685	95,407
1996 Total .....	1,082,512	980,061	1,033,631	4,923	3,101,127	152,638	3,253,765	887,445	97,539
1997 Total .....	1,075,880	1,026,626	1,038,197	4,907	3,145,610	156,239	3,301,849	928,633	102,901
1998 Total .....	1,130,109	1,077,957	1,051,203	4,962	3,264,231	160,866	3,425,097	979,401	103,518
1999 Total .....	1,144,923	1,103,821	1,058,217	5,126	3,312,087	171,629	3,483,716	1,001,996	106,952
2000 Total .....	1,192,446	1,159,347	1,064,239	5,382	3,421,414	170,943	3,592,357	1,055,232	109,496
2001 Total .....	1,201,607	1,190,518	996,609	5,724	3,394,458	162,649	3,557,107	1,083,069	113,174
2002 Total .....	1,265,180	1,204,531	990,238	5,517	3,465,466	166,184	3,631,650	1,104,497	105,552
2003 Total .....	1,275,824	1,198,728	1,012,373	6,810	3,493,734	168,295	3,662,029	--	--
2004 Total .....	1,291,982	1,230,425	1,017,850	7,224	3,547,479	168,470	3,715,949	--	--
2005 Total .....	1,359,227	1,275,079	1,019,156	7,506	3,660,969	150,016	3,810,984	--	--
2006 Total .....	1,351,520	1,299,744	1,011,298	7,358	3,669,919	146,927	3,816,845	--	--
<b>2007</b>									
January .....	125,286	106,667	82,384	766	315,104	E 14,266	329,370	--	--
February .....	121,464	100,756	78,392	719	301,331	E 12,012	313,344	--	--
March .....	105,695	102,640	82,582	743	291,660	E 12,770	304,431	--	--
April .....	90,282	101,051	83,361	646	275,341	E 12,491	287,831	--	--
May .....	96,389	108,559	87,241	611	292,800	E 13,019	305,819	--	--
June .....	117,418	117,352	87,572	665	323,007	E 13,060	336,067	--	--
July .....	139,027	123,923	89,017	675	352,642	E 14,003	366,645	--	--
August .....	150,101	130,475	92,115	673	373,365	E 14,654	388,019	--	--
September .....	129,512	119,898	87,428	687	337,525	E 13,339	350,864	--	--
October .....	103,754	114,481	88,896	652	307,783	E 13,449	321,231	--	--
November .....	95,905	104,603	85,118	673	286,299	E 12,828	299,127	--	--
December .....	117,408	105,909	83,725	663	307,704	E 13,363	321,067	--	--
<b>Total .....</b>	<b>1,392,241</b>	<b>1,336,315</b>	<b>1,027,832</b>	<b>8,173</b>	<b>3,764,561</b>	<b>159,254</b>	<b>3,923,814</b>	--	--
<b>2008</b>									
January .....	132,860	110,332	81,331	710	325,234	E 13,758	338,992	--	--
February .....	118,503	105,615	79,428	656	304,202	E 12,335	316,536	--	--
March .....	107,007	104,469	81,372	635	293,483	E 12,804	306,286	--	--
April .....	91,979	102,796	81,711	614	277,100	E 12,058	289,158	--	--
May .....	91,995	108,926	85,817	595	287,332	E 12,548	299,880	--	--
June .....	121,093	120,349	84,855	622	326,919	E 13,021	339,940	--	--
July .....	143,203	129,661	85,846	644	359,355	E 14,018	373,373	--	--
August .....	138,699	126,088	85,535	639	350,961	E 13,791	364,752	--	--
September .....	117,581	120,231	83,200	622	321,634	E 11,459	333,093	--	--
October .....	96,051	112,147	82,117	629	290,943	E 12,210	303,153	--	--
November .....	95,574	103,461	77,472	616	277,123	E 11,323	288,446	--	--
December .....	124,764	108,379	73,464	669	307,276	E 11,711	318,987	--	--
<b>Total .....</b>	<b>1,379,307</b>	<b>1,352,453</b>	<b>982,150</b>	<b>7,652</b>	<b>3,721,562</b>	<b>E 151,035</b>	<b>3,872,598</b>	--	--
<b>2009</b>									
January .....	135,787	110,869	72,116	735	319,507	E 12,139	331,646	--	--
February .....	115,318	100,540	68,499	636	284,993	E 11,332	296,325	--	--
March .....	106,368	103,818	71,062	652	281,900	E 12,194	294,094	--	--
<b>3-Month Total ....</b>	<b>357,473</b>	<b>315,228</b>	<b>211,677</b>	<b>2,023</b>	<b>886,400</b>	<b>E 35,666</b>	<b>922,065</b>	--	--
<b>2008 3-Month Total ....</b>	<b>358,369</b>	<b>320,416</b>	<b>242,131</b>	<b>2,001</b>	<b>922,918</b>	<b>E 38,896</b>	<b>961,814</b>	--	--
<b>2007 3-Month Total ....</b>	<b>352,445</b>	<b>310,064</b>	<b>243,359</b>	<b>2,227</b>	<b>908,095</b>	<b>E 39,049</b>	<b>947,144</b>	--	--

<sup>a</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>b</sup> Commercial sector, including public street and highway lighting, interdepartmental sales, and other sales to public authorities.

<sup>c</sup> Industrial sector. Through 2002, excludes agriculture and irrigation; beginning in 2003, includes agriculture and irrigation.

<sup>d</sup> Transportation sector, including sales to railroads and railways.

<sup>e</sup> The sum of "Residential," "Commercial," "Industrial," and "Transportation."

<sup>f</sup> Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

<sup>g</sup> The sum of "Total Retail Sales" and "Direct Use."

<sup>h</sup> "Commercial (Old)" is a discontinued series—data are for the commercial sector, excluding public street and highway lighting, interdepartmental sales, and other sales to public authorities.

<sup>i</sup> "Other (Old)" is a discontinued series—data are for public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

E=Estimate. NA=Not available. --=Not applicable.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

# Electricity

## Note. Classification of Power Plants Into Energy-Use Sectors.

The Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31–33 (manufacturing); 2212 (natural gas distribution); and 22131 (water supply and irrigation systems) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, “Annual Electric Generator Report,” asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the list at:

<http://www.eia.doe.gov/cneaf/electricity/forms/eia860/eia860.doc>.

## Table 7.1 Sources

### Net Generation, Electric Power Sector

Table 7.2b.

### Net Generation, Commercial and Industrial Sectors

Table 7.2c.

## Imports and Exports, Electricity Trade With Canada and Mexico, 1973–1989

1973–September 1977: Unpublished Federal Power Commission data.

October 1977–1980: Unpublished Economic Regulatory Administration (ERA) data.

1981: Department of Energy (DOE), Office of Energy Emergency Operations, “Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981,” April 1982 (revised June 1982).

1982 and 1983: DOE, ERA, *Electricity Exchanges Across International Borders*.

1984–1986: DOE, ERA, *Electricity Transactions Across International Borders*.

1987 and 1988: DOE, ERA, Form ERA-781R, “Annual Report of International Electrical Export/Import Data.”

1989: DOE, Fossil Energy, Form FE-781R, “Annual Report of International Electrical Export/Import Data.”

## Imports and Exports, Electricity Trade with Canada, 1990 Forward

National Energy Board of Canada, data for total sales (firm and interruptible; which exclude non-revenue, inadvertent, and service) from Canada to the United States, and data for total purchases (which exclude non-revenue, inadvertent,

and service) by Canada from the United States.

## Imports and Exports, Electricity Trade with Mexico, 1990 Forward

DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, “Annual Report of International Electrical Export/Import Data.” For 2001 forward, data from the California Independent System Operator were used in combination with the Form FE-781R values to estimate electricity trade with Mexico.

## T&D Losses and Unaccounted for

Calculated as the sum of total net generation and imports minus end use and exports.

## End Use

Table 7.6.

## Table 7.2b Sources

1973–September 1977: Federal Power Commission, Form FPC-4, “Monthly Power Plant Report.”

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, “Monthly Power Plant Report.”

1982–1988: Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”

1989–1997: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-867, “Annual Nonutility Power Producer Report.”

1998–2000: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-860B, “Annual Electric Generator Report—Nonutility.”

2001–2003: EIA, Form EIA-906, “Power Plant Report.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

2008 and 2009: EIA, Form EIA-923, “Power Plant Operations Report.”

## Table 7.2c Sources

### Industrial Sector, Hydroelectric Power, 1973–1988

1973–September 1977: Federal Power Commission (FPC), Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, “Industrial Electric Generating Capacity,” for all other plants.

October 1977–1978: Federal Energy Regulatory Commission (FERC), Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and FERC, Form FPC-12C, “Industrial Electric Generating Capacity,” for all other plants.

1979: FERC, Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and Energy Information Administration (EIA) estimates for all other plants.

1980–1988: Estimated by EIA as the average generation over the 6-year period of 1974–1979.

#### All Data, 1989 Forward

1989–1997: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”  
1998–2000: EIA, Form EIA-860B, “Annual Electric Generator Report—Nonutility.”  
2001–2003: EIA, Form EIA-906, “Power Plant Report.”  
2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”  
2008 and 2009: EIA, Form EIA-923, “Power Plant Operations Report.”

2008 and 2009: EIA, Form EIA-923, “Power Plant Operations Report.”

#### Table 7.3b Sources

1973–September 1977: Federal Power Commission, Form FPC-4, “Monthly Power Plant Report.”  
October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, “Monthly Power Plant Report.”  
1982–1988: Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”  
1989–1997: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-867, “Annual Nonutility Power Producer Report.”  
1998–2000: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-860B, “Annual Electric Generator Report—Nonutility.”  
2001–2003: EIA, Form EIA-906, “Power Plant Report.”  
2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”  
2008 and 2009: EIA, Form EIA-923, “Power Plant Operations Report.”

#### Table 7.4b Sources

1973–September 1977: Federal Power Commission, Form FPC-4, “Monthly Power Plant Report.”  
October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, “Monthly Power Plant Report.”  
1982–1988: Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”  
1989–1997: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-867, “Annual Nonutility Power Producer Report.”  
1998–2000: EIA, Form EIA-759, “Monthly Power Plant Report,” and Form EIA-860B, “Annual Electric Generator Report—Nonutility.”  
2001–2003: EIA, Form EIA-906, “Power Plant Report.”  
2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

#### Table 7.6 Sources

##### Retail Sales, Residential and Industrial

1973–September 1977: Federal Power Commission, Form FPC-5, “Monthly Statement of Electric Operating Revenue and Income.”  
October 1977–February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, “Monthly Statement of Electric Operating Revenue and Income.”  
March 1980–1982: FERC, Form FPC-5, “Electric Utility Company Monthly Statement.”  
1983: Energy Information Administration (EIA), Form EIA-826, “Electric Utility Company Monthly Statement.”  
1984–1993: EIA, Form EIA-861, “Annual Electric Utility Report.”  
1994 forward: EIA, *Electric Power Monthly*, June 2009, Table 5.1.

##### Retail Sales, Commercial

1973–2002: Estimated by EIA as the sum of “Commercial (Old)” and the non-transportation portion of “Other (Old).” See estimation methodology at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_elec.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf).  
2003 forward: EIA, *Electric Power Monthly*, June 2009, Table 5.1.

##### Retail Sales, Transportation

1973–2002: Estimated by EIA as the transportation portion of “Other (Old).” See estimation methodology at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_elec.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf).  
2003 forward: EIA, *Electric Power Monthly*, June 2009, Table 5.1.

##### Direct Use, Annual

1989–1994: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”  
1995–2007: EIA, *Electric Power Annual 2007*, January 2009, Table 7.2.  
2008: Sum of monthly estimates.

##### Direct Use, Monthly

Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2008 and 2009, the 2007 annual share is used.

##### Discontinued Retail Sales Series Commercial (Old) and Other (Old)

1973–2002: See sources for “Residential” and “Industrial.”



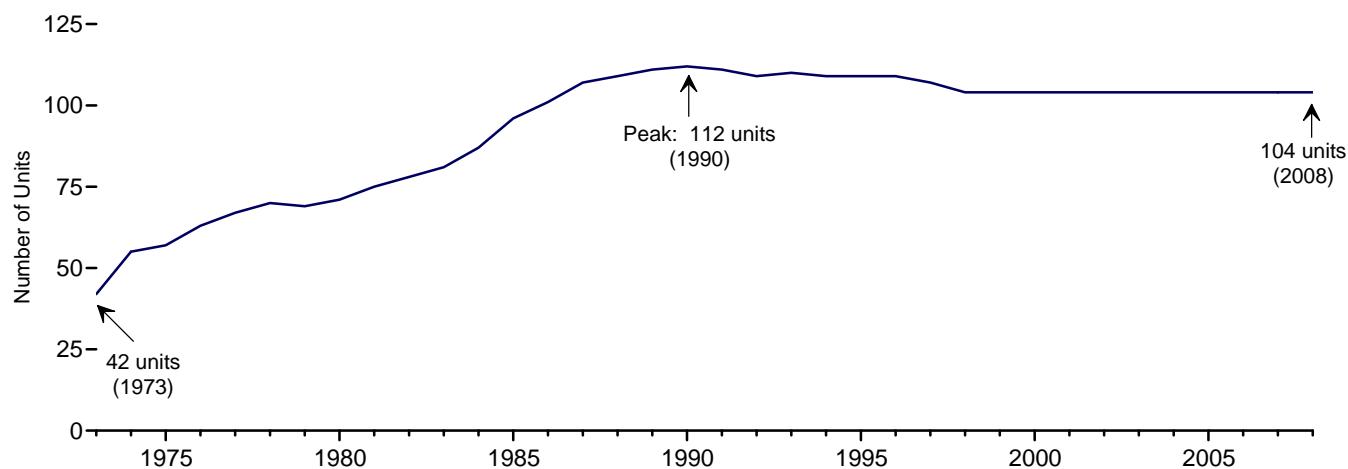
# Nuclear Energy



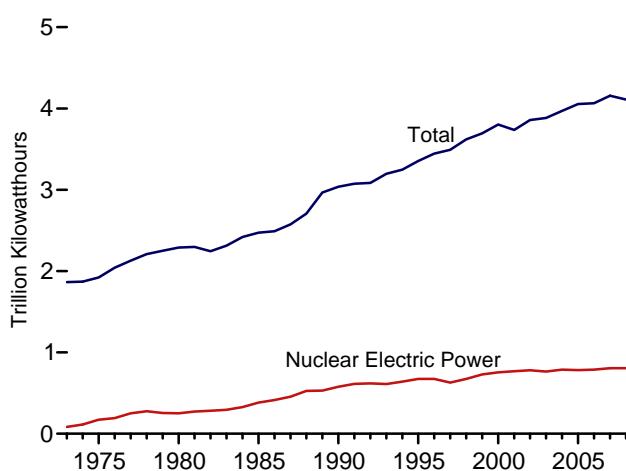
Site of Shippingport atomic power station, the first commercial nuclear power plant in the United States (rectangular reactor building and foreground); background, Beaver Valley 1 and 2 nuclear power plants and Bruce Mansfield coal-fired power plant (southwestern Pennsylvania). Source: U.S. Department of Energy.

**Figure 8.1 Nuclear Energy Overview**

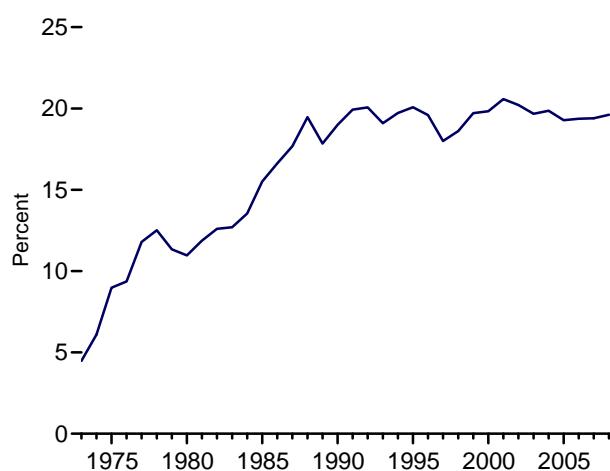
Operable Units, End of Year, 1973-2008



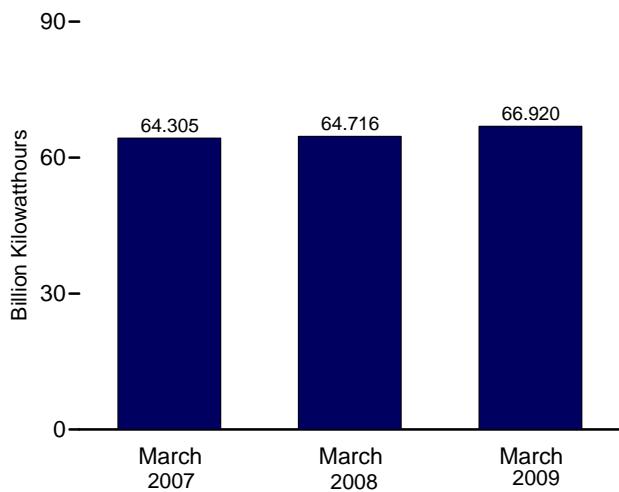
Electricity Net Generation, 1973-2008



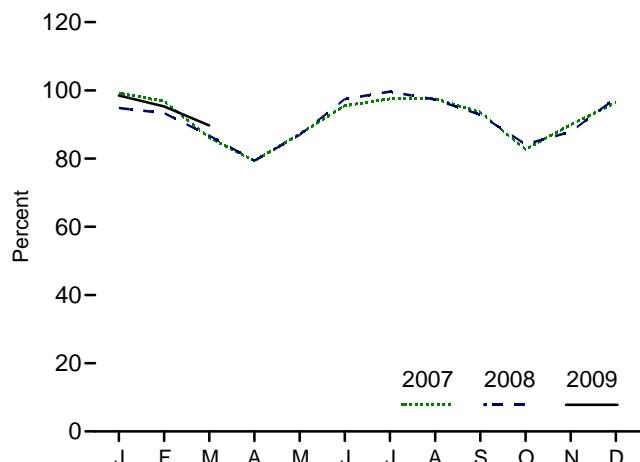
Nuclear Share of Electricity Net Generation, 1973-2008



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/nuclear.html>.  
Sources: Tables 7.1 and 8.1.

**Table 8.1 Nuclear Energy Overview**

	Total Operable Units <sup>a,b</sup>	Net Summer Capacity of Operable Units <sup>b,c</sup>	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor <sup>d</sup>
	Number	Million Kilowatts	Million Kilowatthours	Percent	
1973 Total .....	42	22,683	83,479	4.5	53.5
1975 Total .....	57	37,267	172,505	9.0	55.9
1980 Total .....	71	51,810	251,116	11.0	56.3
1985 Total .....	96	79,397	383,691	15.5	58.0
1990 Total .....	112	99,624	576,862	19.0	66.0
1995 Total .....	109	99,515	673,402	20.1	77.4
1996 Total .....	109	100,784	674,729	19.6	76.2
1997 Total .....	107	99,716	628,644	18.0	71.1
1998 Total .....	104	97,070	673,702	18.6	78.2
1999 Total .....	104	97,411	728,254	19.7	85.3
2000 Total .....	104	97,860	753,893	19.8	88.1
2001 Total .....	104	98,159	768,826	20.6	89.4
2002 Total .....	104	98,657	780,064	20.2	90.3
2003 Total .....	104	99,209	763,733	19.7	87.9
2004 Total .....	104	99,628	788,528	19.9	90.1
2005 Total .....	104	99,988	781,986	19.3	89.3
2006 Total .....	104	100,334	787,219	19.4	89.6
<b>2007</b> January .....	104	100,266	74,006	20.9	99.2
February .....	104	100,266	65,225	20.2	96.8
March .....	104	100,266	64,305	20.1	86.2
April .....	104	100,266	57,301	18.9	79.4
May .....	104	100,266	65,025	19.7	87.2
June .....	104	100,266	68,923	19.0	95.5
July .....	104	100,266	72,739	18.5	97.5
August .....	104	100,266	72,751	17.2	97.5
September .....	104	100,266	67,579	19.0	93.6
October .....	104	100,266	61,690	18.5	82.7
November .....	104	100,266	64,899	20.7	89.9
December .....	104	100,266	71,983	20.8	96.5
<b>Total</b> .....	<b>104</b>	<b>100,266</b>	<b>806,425</b>	<b>19.4</b>	<b>91.8</b>
<b>2008</b> January .....	104	100,266	70,736	19.5	94.8
February .....	104	100,266	65,130	20.1	93.3
March .....	104	100,266	64,716	20.0	86.8
April .....	104	100,266	57,333	18.8	79.4
May .....	104	100,266	64,826	20.0	86.9
June .....	104	100,266	70,319	18.9	97.4
July .....	104	100,266	74,318	18.5	99.6
August .....	104	100,266	72,617	18.7	97.3
September .....	104	100,266	67,054	19.9	92.9
October .....	104	100,266	62,793	19.7	84.2
November .....	104	100,266	63,408	20.5	87.8
December .....	104	100,266	72,931	21.3	97.8
<b>Total</b> .....	<b>104</b>	<b>100,266</b>	<b>806,182</b>	<b>19.6</b>	<b>91.5</b>
<b>2009</b> January .....	104	100,266	73,479	20.8	98.5
February .....	104	100,266	64,227	21.4	95.3
March .....	104	100,266	66,920	21.6	89.7
<b>3-Month Total</b> .....	<b>104</b>	<b>100,266</b>	<b>204,626</b>	<b>21.2</b>	<b>94.5</b>
<b>2008 3-Month Total</b> .....	<b>104</b>	<b>100,266</b>	<b>200,582</b>	<b>19.9</b>	<b>91.6</b>
<b>2007 3-Month Total</b> .....	<b>104</b>	<b>100,266</b>	<b>203,536</b>	<b>20.4</b>	<b>94.0</b>

<sup>a</sup> Total of nuclear generating units holding full-power licenses, or equivalent permission to operate, at end of period. See Note 1, "Operable Nuclear Reactors," at end of section. For additional information on nuclear generating units, see *Annual Energy Review 2007*, June 2008, Table 9.1, <http://www.eia.doe.gov/emeu/aer/nuclear.html>.

<sup>b</sup> At end of period.

<sup>c</sup> For the definition of "Net Summer Capacity," see Note 2, "Nuclear Capacity," at end of section.

<sup>d</sup> For an explanation of the method of calculating the capacity factor, see Note

2, "Nuclear Capacity," at end of section.

Notes: • For a discussion of nuclear reactor unit coverage, see Note 1, "Operable Nuclear Reactors," at end of section. • Nuclear electricity net generation totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/nuclear.html> for all available data beginning in 1973.

Sources: See end of section.

## Nuclear Energy

**Note 1. Operable Nuclear Reactors.** A reactor is generally defined as operable while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to operate, at the end of the year or month shown. The definition is liberal in that it does not exclude units retaining full-power licenses during long, non-routine shutdowns that for a time rendered them unable to generate electricity. Examples are:

- (a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3, and Sequoyah 1 and 2) were shut down under a regulatory forced outage. All five units were idle for several years, restarting in 2007, 1991, 1995, 1988, and 1988, respectively and were counted as operable during the shutdowns.
- (b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.
- (c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

Exceptions to the definition are Shoreham and Three Mile Island 2. Shoreham was granted a full-power license in April 1989, but was shut down two months later and never restarted. In 1991, the license was changed to Possession Only. Although not operable at the end of the year, Shoreham is counted as operable during 1989. A major accident closed Three Mile Island 2 in 1979, and although the unit retained its full-power license for several years, it is considered permanently shut down since that year.

**Note 2. Nuclear Capacity.** Nuclear generating units may have more than one type of net capacity rating, including the following:

- (a) Net Summer Capacity—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the

time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.

(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a unit, specified by the utility and used for plant design.

The monthly capacity factors are calculated as the monthly nuclear electricity net generation divided by the maximum possible nuclear electricity net generation for that month. The maximum possible nuclear electricity net generation is the number of hours in the month (assuming 24-hour days, with no adjustment for changes to or from Daylight Savings Time) multiplied by the net summer capacity of operable nuclear generating units at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are calculated as the annual nuclear electricity net generation divided by the annual maximum possible nuclear electricity net generation (the sum of the monthly values for maximum possible nuclear electricity net generation).

### Table 8.1 Sources

#### Total Operable Units and Net Summer Capacity of Operable Units

1973-1982: Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

1983 forward: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate. For a list of currently operable units, see:

[http://www.eia.doe.gov/cneaf/nuclear/page/nuc\\_reactors/operational.xls](http://www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/operational.xls).

#### Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation

See Table 7.2a.

#### Capacity Factor

Calculated by EIA using the method described above in Note 2.

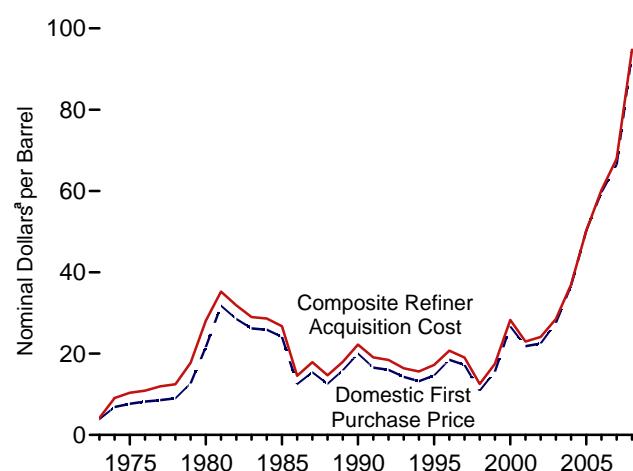
9

# Energy Prices

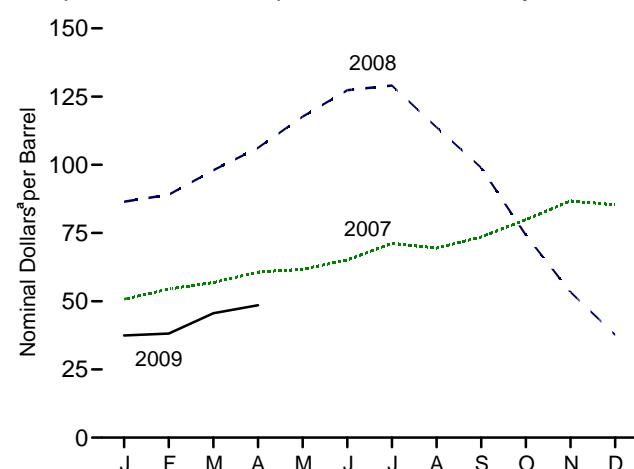


**Figure 9.1 Petroleum Prices**

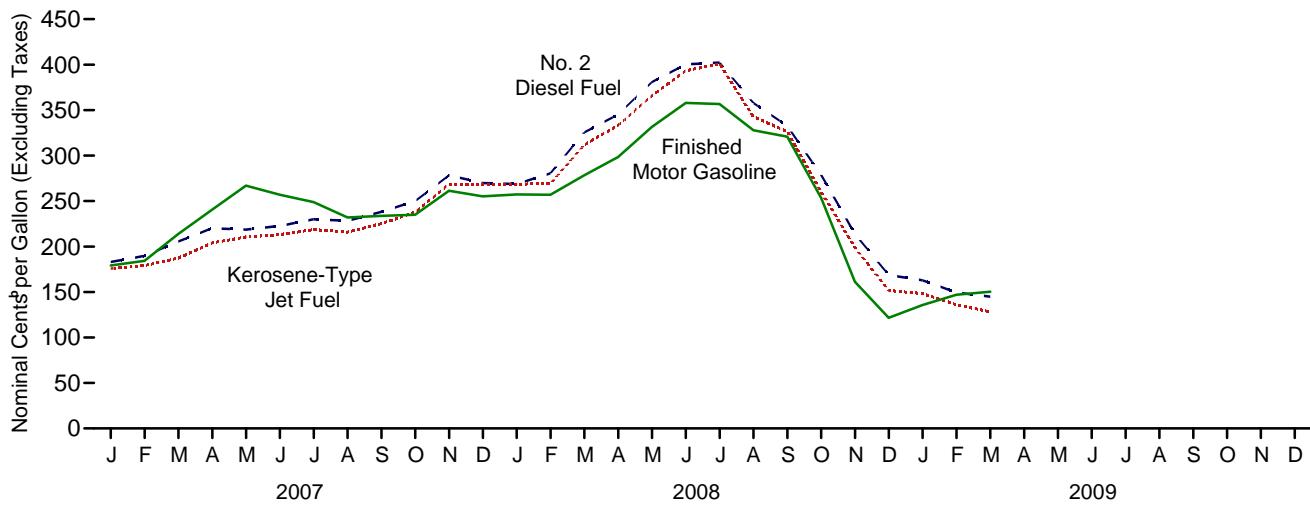
Crude Oil Prices, 1973-2008



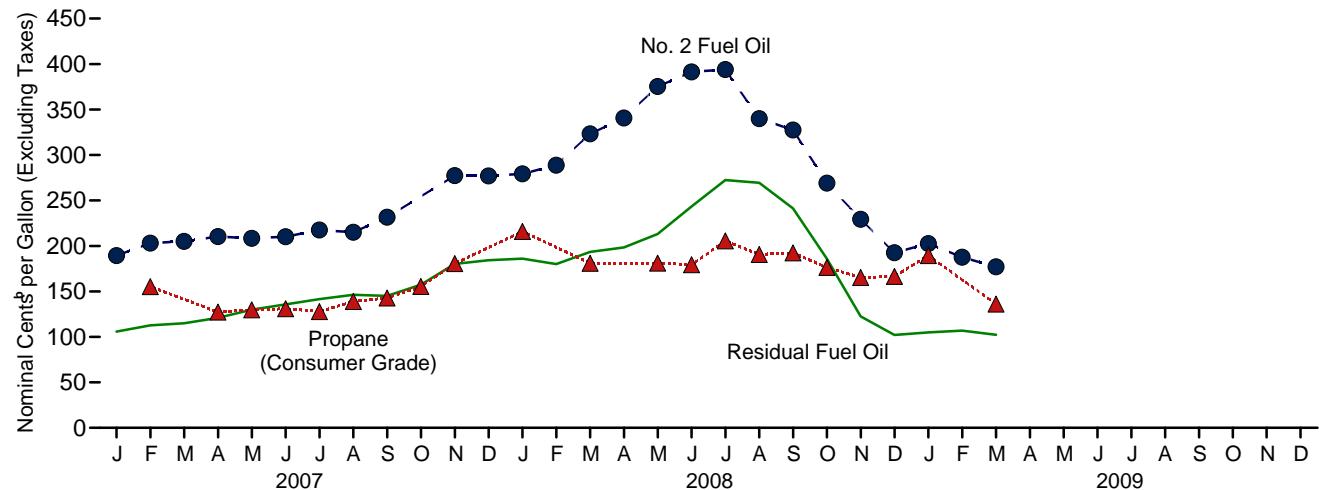
Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel, Monthly



Refiner Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel, Monthly



<sup>a</sup>See "Nominal Dollars" in Glossary.

<sup>b</sup>See "Nominal Price" in Glossary.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Sources: Tables 9.1, 9.5, and 9.7.

**Table 9.1 Crude Oil Price Summary**(Nominal Dollars<sup>a</sup> per Barrel)

	Domestic First Purchase Price <sup>c</sup>	F.O.B. Cost of Imports <sup>d</sup>	Landed Cost of Imports <sup>e</sup>	Refiner Acquisition Cost <sup>b</sup>		
				Domestic	Imported	Composite
1973 Average .....	3.89	f 5.21	f 6.41	E 4.17	E 4.08	E 4.15
1975 Average .....	7.67	11.18	12.70	8.39	13.93	10.38
1980 Average .....	21.59	32.37	33.67	24.23	33.89	28.07
1985 Average .....	24.09	25.84	26.67	26.66	26.99	26.75
1990 Average .....	20.03	20.37	21.13	22.59	21.76	22.22
1995 Average .....	14.62	15.69	16.78	17.33	17.14	17.23
1996 Average .....	18.46	19.32	20.31	20.77	20.64	20.71
1997 Average .....	17.23	16.94	18.11	19.61	18.53	19.04
1998 Average .....	10.87	10.76	11.84	13.18	12.04	12.52
1999 Average .....	15.56	16.47	17.23	17.90	17.26	17.51
2000 Average .....	26.72	26.27	27.53	29.11	27.70	28.26
2001 Average .....	21.84	20.46	21.82	24.33	22.00	22.95
2002 Average .....	22.51	22.63	23.91	24.65	23.71	24.10
2003 Average .....	27.56	25.86	27.69	29.82	27.71	28.53
2004 Average .....	36.77	33.75	36.07	38.97	35.90	36.98
2005 Average .....	50.28	47.60	49.29	52.94	48.86	50.24
2006 Average .....	59.69	57.03	59.11	62.62	59.02	60.24
<b>2007</b>						
January .....	49.32	48.11	50.53	53.10	49.57	50.77
February .....	52.94	51.97	54.04	55.72	53.77	54.45
March .....	54.95	55.46	57.42	57.86	56.31	56.84
April .....	58.20	59.53	60.99	61.13	60.45	60.68
May .....	58.90	60.72	62.92	62.04	61.55	61.71
June .....	62.35	64.38	66.26	64.95	65.24	65.14
July .....	69.23	69.30	70.51	72.08	70.75	71.24
August .....	67.77	66.69	69.07	71.57	68.28	69.46
September .....	73.27	72.21	73.92	75.84	72.34	73.54
October .....	79.32	78.51	79.45	82.20	78.61	79.87
November .....	87.16	83.75	84.89	89.25	85.53	86.78
December .....	85.28	82.85	84.28	88.98	83.21	85.29
<b>Average</b> .....	<b>66.52</b>	<b>66.36</b>	<b>67.97</b>	<b>69.65</b>	<b>67.04</b>	<b>67.94</b>
<b>2008</b>						
January .....	87.06	83.43	86.61	89.57	84.82	86.48
February .....	89.41	87.81	90.67	92.25	87.41	89.07
March .....	98.44	96.42	100.03	99.87	97.03	98.01
April .....	106.64	104.20	108.47	108.46	104.94	106.21
May .....	118.55	115.02	119.55	119.75	116.55	117.64
June .....	127.47	123.62	125.93	129.45	126.22	127.32
July .....	128.08	122.12	124.30	131.47	127.77	129.03
August .....	112.83	108.10	109.64	118.32	111.21	113.71
September .....	98.50	91.65	92.31	103.73	96.38	98.91
October .....	73.22	63.15	65.50	81.03	70.84	74.22
November .....	53.67	44.95	46.97	61.65	49.10	53.33
December .....	36.80	34.23	36.83	41.42	35.59	37.67
<b>Average</b> .....	<b>94.04</b>	<b>90.37</b>	<b>93.39</b>	<b>98.44</b>	<b>92.78</b>	<b>94.73</b>
<b>2009</b>						
January .....	35.00	R 36.86	R 38.51	38.67	36.84	37.45
February .....	34.14	R 38.09	R 39.95	37.51	38.56	38.15
March .....	R 42.46	R 43.79	R 45.42	R 44.92	R 45.96	R 45.57
April .....	NA	NA	NA	E 47.07	E 49.97	E 48.54

<sup>a</sup> See "Nominal Dollars" in Glossary.<sup>b</sup> See Note 4, "Crude Oil Refinery Acquisition Costs," at end of section.<sup>c</sup> See Note 1, "Crude Oil Domestic First Purchase Prices," at end of section.<sup>d</sup> See Note 2, "Crude Oil F.O.B. Costs," at end of section.<sup>e</sup> See Note 3, "Crude Oil Landed Costs," at end of section.<sup>f</sup> Based on October, November, and December data only.

R=Revised. NA=Not available. E=Estimate.

Notes: • Values for Domestic First Purchase Price and Refiner Acquisition Cost for the current two months and for F.O.B. and Landed Costs of Imports for the

current three months are preliminary. • F.O.B. and landed costs through 1980 reflect the period of reporting; prices since then reflect the period of loading.

• Annual averages are the averages of the monthly prices, weighted by volume.

• Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries**  
(Nominal Dollars<sup>a</sup> per Barrel)

	Selected Countries							Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average <sup>d</sup> .....	W	W	—	7.81	3.25	—	5.39	3.68	5.43	4.80
1975 Average .....	10.97	—	11.44	11.82	10.87	—	11.04	10.88	11.34	10.62
1980 Average .....	33.45	W	31.06	35.93	28.17	34.36	24.81	28.92	32.21	32.85
1985 Average .....	26.30	—	25.33	28.04	22.04	27.64	23.64	23.31	25.67	25.96
1990 Average .....	20.23	20.75	19.26	22.46	20.36	23.43	19.55	18.54	20.40	20.32
1995 Average .....	16.58	16.73	15.64	17.40	W	16.94	13.86	W	15.36	16.02
1996 Average .....	20.71	21.33	19.14	21.27	19.28	19.43	17.73	19.22	18.94	19.65
1997 Average .....	18.81	18.85	16.72	19.43	15.16	18.59	15.33	15.24	16.26	17.51
1998 Average .....	12.11	12.56	10.49	12.97	8.87	12.52	9.31	9.09	10.20	11.21
1999 Average .....	17.46	17.20	15.89	17.32	17.65	19.14	14.33	17.15	15.90	16.84
2000 Average .....	27.90	29.04	25.39	28.70	24.62	27.21	24.45	24.72	25.56	26.77
2001 Average .....	23.25	24.25	18.89	24.85	18.98	23.30	18.01	18.89	19.73	21.04
2002 Average .....	24.09	24.64	21.60	25.38	23.92	24.50	20.13	23.38	22.18	22.93
2003 Average .....	28.22	28.89	24.83	29.40	25.03	28.76	23.81	25.17	25.36	26.21
2004 Average .....	37.26	37.73	31.55	38.71	34.08	37.30	31.78	33.08	33.95	33.58
2005 Average .....	52.48	51.89	43.00	55.95	47.96	54.48	46.39	47.21	49.60	45.79
2006 Average .....	62.23	59.77	52.91	65.69	56.09	66.03	55.80	56.02	59.18	55.35
2007 January .....	52.04	48.98	43.27	56.03	W	53.57	44.79	50.06	50.92	45.31
February .....	55.18	57.10	47.47	58.32	W	—	49.80	52.43	53.84	49.98
March .....	60.34	58.44	50.21	64.88	W	62.04	52.01	56.22	57.79	52.91
April .....	65.45	58.26	54.36	69.72	W	W	56.48	58.82	62.32	56.42
May .....	65.85	62.06	55.60	71.40	W	W	57.47	63.71	63.77	57.78
June .....	69.63	67.21	59.91	75.55	W	W	61.01	65.45	67.05	61.12
July .....	74.18	70.77	64.61	79.08	W	76.35	66.02	70.75	72.04	66.48
August .....	68.38	70.46	61.80	74.08	W	W	63.79	70.97	68.86	64.18
September .....	75.62	70.66	65.95	80.10	W	W	68.99	77.63	75.30	68.38
October .....	80.20	79.10	72.04	88.88	W	W	74.87	85.03	82.10	73.38
November .....	90.85	W	79.13	94.71	86.74	W	83.61	84.11	87.15	80.07
December .....	88.27	90.11	80.49	96.18	81.45	W	80.57	81.14	86.61	77.78
Average .....	67.80	67.93	61.35	76.64	W	69.96	64.10	69.93	69.58	62.69
2008 January .....	88.77	80.54	80.10	93.26	88.52	—	80.49	83.79	85.41	80.72
February .....	93.84	83.63	80.49	98.72	W	W	83.93	94.10	91.81	83.19
March .....	101.34	99.67	87.52	107.04	W	—	90.35	101.74	100.22	92.14
April .....	110.80	106.06	94.12	114.87	W	—	97.26	113.04	108.47	98.94
May .....	119.61	117.49	103.53	127.35	123.98	—	107.89	121.13	118.23	111.30
June .....	130.72	125.58	116.15	140.01	125.58	W	119.60	124.37	126.49	120.48
July .....	127.19	122.27	123.19	134.58	110.61	W	123.18	110.34	121.93	122.37
August .....	107.58	108.36	108.45	117.21	107.54	W	110.20	105.06	108.99	107.17
September .....	92.42	95.87	92.26	95.68	82.23	W	92.76	82.02	91.11	92.25
October .....	62.08	61.83	64.06	67.28	66.18	W	60.35	61.78	62.77	63.55
November .....	48.16	42.14	42.37	51.45	47.97	—	42.22	45.14	45.61	44.30
December .....	W	W	32.86	44.02	W	—	32.98	35.69	35.79	32.89
Average .....	95.66	91.17	84.64	102.04	93.67	96.33	88.06	91.78	93.25	87.15
2009 January .....	R 39.88	26.24	36.96	46.12	W	W	R 36.68	R 35.24	37.60	36.15
February .....	R 40.60	32.55	37.59	R 45.02	W	—	R 38.03	36.52	R 39.77	R 36.79
March .....	44.36	46.69	40.91	48.40	W	W	41.74	47.65	45.21	42.39

<sup>a</sup> See "Nominal Dollars" in Glossary.

<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

<sup>c</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On this table, "Total OPEC" for all years includes Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela; for 1973-2008, also includes Indonesia; for 1973-1992 and again beginning in 2008, also includes Ecuador (although Ecuador rejoined OPEC in November 2007, on this table Ecuador is included in "Total Non-OPEC" for 2007); for 1974-1995, also includes Gabon (although Gabon was a member of OPEC for only 1975-1994); and beginning in 2007, also includes Angola. Data for all countries not included in "Total OPEC" are included in "Total Non-OPEC."

<sup>d</sup> Based on October, November, and December data only.

R=Revised. — =No data reported. W=Value withheld to avoid disclosure of individual company data.

Notes: • The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See "F.O.B." in Glossary, and Note 2, "Crude Oil F.O.B. Costs," at end of section. • Values for the current two months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries**  
(Nominal Dollars<sup>a</sup> per Barrel)

	Selected Countries								Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average <sup>d</sup>	W	5.33	W	—	9.08	5.37	—	5.99	5.91	6.85	5.64
1975 Average	11.81	12.84	—	12.61	12.70	12.50	—	12.36	12.64	12.70	12.70
1980 Average	34.76	30.11	W	31.77	37.15	29.80	35.68	25.92	30.59	33.56	33.99
1985 Average	27.39	25.71	—	25.63	28.96	24.72	28.36	24.43	25.50	26.86	26.53
1990 Average	21.51	20.48	22.34	19.64	23.33	21.82	22.65	20.31	20.55	21.23	20.98
1995 Average	17.66	16.65	17.45	16.19	18.25	16.84	17.91	14.81	16.78	16.61	16.95
1996 Average	21.86	19.94	22.02	19.64	21.95	20.49	20.88	18.59	20.45	20.14	20.47
1997 Average	20.24	17.63	19.71	17.30	20.64	17.52	20.64	16.35	17.44	17.73	18.45
1998 Average	13.37	11.62	13.26	11.04	14.14	11.16	13.55	10.16	11.18	11.46	12.22
1999 Average	18.37	17.54	18.09	16.12	17.63	17.48	18.26	15.58	17.37	16.94	17.51
2000 Average	29.57	26.69	29.68	26.03	30.04	26.58	29.26	26.05	26.77	27.29	27.80
2001 Average	25.13	20.72	25.88	19.37	26.55	20.98	25.32	19.81	20.73	21.52	22.17
2002 Average	25.43	22.98	25.28	22.09	26.45	24.77	26.35	21.93	24.13	23.83	23.97
2003 Average	30.14	26.76	30.55	25.48	31.07	27.50	30.62	25.70	27.54	27.70	27.68
2004 Average	39.62	34.51	39.03	32.25	40.95	37.11	39.28	33.79	36.53	36.84	35.29
2005 Average	54.31	44.73	53.42	43.47	57.55	50.31	55.28	47.87	49.68	51.36	47.31
2006 Average	64.85	53.90	62.13	53.76	68.26	59.19	67.44	57.37	58.92	61.21	57.14
<b>2007</b>											
January	53.12	46.86	52.22	44.32	58.55	51.21	56.59	47.20	50.65	52.81	47.56
February	57.78	50.25	59.08	48.45	61.16	54.94	59.30	51.97	54.18	56.06	51.69
March	61.91	52.58	59.37	51.07	66.47	58.22	65.96	54.34	57.49	59.60	54.71
April	67.78	54.60	61.77	55.16	71.15	61.53	65.92	58.67	60.98	63.73	57.43
May	67.51	56.46	63.70	56.40	72.99	66.15	W	60.17	65.02	66.38	58.91
June	72.40	57.54	67.87	60.68	77.15	69.53	W	63.24	68.18	69.58	61.65
July	76.73	62.66	73.15	65.46	80.84	72.37	77.73	67.95	71.29	73.63	66.95
August	70.28	64.10	72.72	62.52	76.67	74.11	W	65.64	72.79	71.73	65.76
September	77.76	66.76	77.32	66.55	81.96	80.60	79.48	70.64	78.56	77.37	69.42
October	81.92	67.36	79.74	72.68	90.13	84.73	81.77	76.74	84.29	83.58	73.62
November	92.56	76.60	80.74	79.70	95.54	86.92	W	85.23	86.17	88.53	80.39
December	90.96	69.62	94.68	81.53	97.88	83.72	94.58	82.55	84.00	88.30	79.02
<b>Average</b>	<b>71.27</b>	<b>60.38</b>	<b>70.91</b>	<b>62.31</b>	<b>78.01</b>	<b>70.78</b>	<b>72.47</b>	<b>66.13</b>	<b>69.83</b>	<b>71.14</b>	<b>63.96</b>
<b>2008</b>											
January	93.21	77.83	85.22	81.28	96.81	92.42	W	83.23	89.70	89.61	82.10
February	97.58	81.37	85.20	81.33	101.23	97.64	W	86.22	96.02	94.64	85.13
March	106.19	93.33	102.88	88.54	109.73	108.26	W	93.59	105.39	103.94	94.65
April	117.34	103.08	105.95	95.31	118.07	118.50	W	100.57	115.52	112.31	103.20
May	127.06	111.83	118.42	104.42	130.93	127.77	128.95	111.77	125.36	123.28	114.83
June	133.08	119.80	127.35	117.29	142.39	125.91	W	122.65	125.61	128.45	122.78
July	129.91	122.83	126.22	124.28	137.22	116.22	W	124.91	116.43	124.27	124.33
August	110.00	110.63	113.17	109.61	123.02	104.42	104.13	111.78	103.92	109.56	109.74
September	94.05	96.38	97.72	93.58	98.82	80.75	88.13	95.67	80.80	90.45	94.43
October	63.33	69.52	62.09	65.96	72.38	62.89	69.17	62.47	60.56	64.45	66.76
November	49.22	49.00	44.28	43.05	55.13	47.85	60.68	44.08	46.33	47.36	46.52
December	39.95	33.39	35.28	33.94	47.15	38.24	—	34.95	37.79	38.32	35.16
<b>Average</b>	<b>98.42</b>	<b>89.95</b>	<b>93.43</b>	<b>86.00</b>	<b>104.87</b>	<b>94.90</b>	<b>96.95</b>	<b>90.75</b>	<b>93.75</b>	<b>95.59</b>	<b>90.59</b>
<b>2009</b>											
January	R 43.88	34.17	R 32.08	38.08	47.68	R 39.78	W	R 39.14	R 39.01	R 39.93	R 36.89
February	R 42.83	R 35.84	R 34.49	38.16	R 46.57	R 44.06	W	R 39.58	R 42.06	R 42.26	R 37.91
March	47.45	43.64	46.72	41.72	50.56	50.67	47.44	43.92	49.20	47.25	43.82

<sup>a</sup> See "Nominal Dollars" in Glossary.

<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

<sup>c</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On this table, "Total OPEC" for all years includes Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela; for 1973-2008, also includes Indonesia; for 1973-1992 and again beginning in 2008, also includes Ecuador (although Ecuador rejoined OPEC in November 2007, on this table Ecuador is included in "Total Non-OPEC" for 2007); for 1974-1995, also includes Gabon (although Gabon was a member of OPEC for only 1975-1994); and beginning in 2007, also includes Angola. Data for all countries not included in "Total OPEC" are included in "Total Non-OPEC."

<sup>d</sup> Based on October, November, and December data only.

R=Revised. —=No data reported. W=Value withheld to avoid disclosure of individual company data.

Notes: • See "Landed Costs" in Glossary, and Note 3, "Crude Oil Landed

Costs," at end of section. • Values for the current two months are preliminary.

• Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: • **October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • **October 1977-December 1977:**

Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978-2007:** EIA, *Petroleum Marketing Annual* 2007, Table 22. • **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 22.

**Table 9.4 Motor Gasoline Retail Prices, U.S. City Average**(Nominal Cents<sup>a</sup> per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium <sup>b</sup>	All Types <sup>c</sup>
1973 Average .....	38.8	NA	NA	NA
1975 Average .....	56.7	NA	NA	NA
1980 Average .....	119.1	124.5	NA	122.1
1985 Average .....	111.5	120.2	134.0	119.6
1990 Average .....	114.9	116.4	134.9	121.7
1995 Average .....	NA	114.7	133.6	120.5
1996 Average .....	NA	123.1	141.3	128.8
1997 Average .....	NA	123.4	141.6	129.1
1998 Average .....	NA	105.9	125.0	111.5
1999 Average .....	NA	116.5	135.7	122.1
2000 Average .....	NA	151.0	169.3	156.3
2001 Average .....	NA	146.1	165.7	153.1
2002 Average .....	NA	135.8	155.6	144.1
2003 Average .....	NA	159.1	177.7	163.8
2004 Average .....	NA	188.0	206.8	192.3
2005 Average .....	NA	229.5	249.1	233.8
2006 Average .....	NA	258.9	280.5	263.5
2007 January .....	NA	227.4	250.1	232.1
February .....	NA	228.5	250.9	233.3
March .....	NA	259.2	281.8	263.9
April .....	NA	286.0	309.3	290.9
May .....	NA	313.0	334.8	317.6
June .....	NA	305.2	328.1	310.0
July .....	NA	296.1	320.0	301.3
August .....	NA	278.2	301.8	283.3
September .....	NA	278.9	302.1	283.9
October .....	NA	279.3	303.7	284.3
November .....	NA	306.9	330.7	311.8
December .....	NA	302.0	326.4	306.9
Average .....	NA	<b>280.1</b>	<b>303.3</b>	<b>284.9</b>
2008 January .....	NA	304.7	329.1	309.6
February .....	NA	303.3	327.2	308.3
March .....	NA	325.8	350.2	330.7
April .....	NA	344.1	369.0	349.1
May .....	NA	376.4	400.3	381.3
June .....	NA	406.5	431.9	411.5
July .....	NA	409.0	435.0	414.2
August .....	NA	378.6	404.5	383.8
September .....	NA	369.8	394.0	374.9
October .....	NA	317.3	343.2	322.5
November .....	NA	215.1	243.3	220.8
December .....	NA	168.9	195.1	174.2
Average .....	NA	<b>326.6</b>	<b>351.9</b>	<b>331.7</b>
2009 January .....	NA	178.7	203.6	183.8
February .....	NA	192.8	218.2	197.9
March .....	NA	194.9	219.7	200.0
April .....	NA	205.6	230.9	210.7
May .....	NA	226.5	251.1	231.4

<sup>a</sup> See "Nominal Price" in Glossary.<sup>b</sup> The 1981 average (available in Web file) is based on September through December data only.<sup>c</sup> Also includes types of motor gasoline not shown separately.

NA=Not available.

Notes: • See Note 5, "Motor Gasoline Prices," at end of section. • In September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, gasohol is included in the average for all types, and unleaded premium is weighted

more heavily. • Geographic coverage for 1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.Sources: • **Monthly Data:** U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Prices: Energy*. • **Annual Data: 1973—Platt's Oil Price Handbook and Oilmanac, 1974, 51st Edition. **1974 forward**—calculated by the Energy Information Administration as the simple averages of monthly data.**

**Table 9.5 Refiner Prices of Residual Fuel Oil**(Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average .....	29.3	31.4	24.5	27.5	26.3	29.8
1980 Average .....	60.8	67.5	47.9	52.3	52.8	60.7
1985 Average .....	61.0	64.4	56.0	58.2	57.7	61.0
1990 Average .....	47.2	50.5	37.2	40.0	41.3	44.4
1995 Average .....	38.3	43.6	33.8	37.7	36.3	39.2
1996 Average .....	45.6	52.6	38.9	43.3	42.0	45.5
1997 Average .....	41.5	48.8	36.6	40.3	38.7	42.3
1998 Average .....	29.9	35.4	26.9	28.7	28.0	30.5
1999 Average .....	38.2	40.5	32.9	36.2	35.4	37.4
2000 Average .....	62.7	70.8	51.2	56.6	56.6	60.2
2001 Average .....	52.3	64.2	42.8	49.2	47.6	53.1
2002 Average .....	54.6	64.0	50.8	54.4	53.0	56.9
2003 Average .....	72.8	80.4	58.8	65.1	66.1	69.8
2004 Average .....	76.4	83.5	60.1	69.2	68.1	73.9
2005 Average .....	111.5	116.8	84.2	97.4	97.1	104.8
2006 Average .....	120.2	134.2	108.5	117.3	113.6	121.8
2007 January .....	101.5	117.2	93.0	100.6	97.6	105.8
February .....	117.2	121.4	100.0	108.2	107.3	112.6
March .....	117.1	122.1	100.8	111.4	107.6	115.0
April .....	124.4	125.8	108.4	118.2	115.0	120.9
May .....	131.1	135.9	120.0	128.1	123.8	130.0
June .....	135.7	142.1	124.3	132.5	128.0	135.7
July .....	146.1	153.9	132.1	138.3	137.8	141.5
August .....	143.6	158.4	132.6	141.9	136.7	146.2
September .....	147.4	161.0	133.7	141.0	139.3	145.0
October .....	164.7	166.1	147.5	154.2	153.6	157.3
November .....	183.9	183.2	169.2	179.6	174.2	180.3
December .....	194.8	194.8	169.0	179.7	176.5	184.2
Average .....	140.6	143.6	131.4	135.0	135.0	137.4
2008 January .....	195.8	203.9	166.2	178.2	178.0	186.0
February .....	187.0	200.3	162.5	171.9	171.4	180.1
March .....	195.6	204.7	171.7	188.1	176.9	193.4
April .....	213.9	221.9	182.3	190.4	188.0	198.3
May .....	232.2	234.8	197.4	206.9	203.0	213.2
June .....	257.8	265.7	218.2	233.3	227.4	243.3
July .....	283.3	294.5	254.2	265.7	263.6	272.4
August .....	254.6	NA	244.5	255.4	248.6	269.4
September .....	217.5	266.6	218.0	230.0	217.9	241.2
October .....	157.4	216.6	160.3	175.9	159.2	185.9
November .....	103.6	165.4	97.1	105.5	100.4	122.5
December .....	101.0	121.1	80.1	87.7	89.0	102.1
Average .....	191.7	214.3	184.7	188.9	186.9	196.4
2009 January .....	103.5	116.4	89.0	95.3	94.7	104.9
February .....	101.1	120.4	91.8	97.4	95.4	106.8
March .....	101.8	113.9	91.7	95.3	95.2	102.3

<sup>a</sup> See "Nominal Price" in Glossary.

NA=Not available.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6,

"Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2007:** EIA, *Petroleum Marketing Annual 2007*, Table 16. • **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 16.

**Table 9.6 Refiner Prices of Petroleum Products for Resale**(Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>b</sup>	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average .....	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1980 Average .....	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1985 Average .....	83.5	113.0	79.4	87.4	77.6	77.2	39.8
1990 Average .....	78.6	106.3	77.3	83.9	69.7	69.4	38.6
1995 Average .....	62.6	97.5	53.9	58.0	51.1	53.8	34.4
1996 Average .....	71.3	105.5	64.6	71.4	63.9	65.9	46.1
1997 Average .....	70.0	106.5	61.3	65.3	59.0	60.6	41.6
1998 Average .....	52.6	91.2	45.0	46.5	42.2	44.4	28.8
1999 Average .....	64.5	100.7	53.3	55.0	49.3	54.6	34.2
2000 Average .....	96.3	133.0	88.0	96.9	88.6	89.8	59.5
2001 Average .....	88.6	125.6	76.3	82.1	75.6	78.4	54.0
2002 Average .....	82.8	114.6	71.6	75.2	69.4	72.4	43.1
2003 Average .....	100.2	128.8	87.1	95.5	88.1	88.3	60.7
2004 Average .....	128.8	162.7	120.8	127.1	112.5	118.7	75.1
2005 Average .....	167.0	207.6	172.3	175.7	162.3	173.7	93.3
2006 Average .....	196.9	249.0	196.1	200.7	183.4	201.2	103.1
2007 January .....	157.0	204.3	172.7	180.6	161.2	169.5	99.5
February .....	171.7	218.7	176.6	194.2	172.9	182.4	103.3
March .....	199.5	246.1	184.6	194.3	178.1	197.9	104.9
April .....	226.4	277.9	202.1	204.8	191.0	211.6	106.7
May .....	249.5	304.7	207.9	207.8	194.9	210.1	111.2
June .....	236.1	292.4	211.4	215.7	201.4	214.7	109.4
July .....	230.7	299.8	216.7	226.1	207.1	222.0	115.9
August .....	215.2	282.8	215.1	222.2	202.1	219.3	116.7
September .....	219.5	283.0	225.6	245.0	213.3	232.2	124.8
October .....	221.8	276.9	235.3	252.5	226.0	242.6	135.2
November .....	245.8	302.0	265.6	285.4	256.9	269.8	147.1
December .....	235.8	292.7	265.5	282.5	257.0	259.9	146.1
Average .....	218.2	275.8	217.1	224.9	207.2	220.3	119.4
2008 January .....	239.5	295.5	266.3	283.2	256.6	258.1	148.3
February .....	243.6	297.8	267.3	284.2	260.9	273.8	143.1
March .....	264.0	324.9	310.5	328.0	297.6	315.9	146.0
April .....	285.8	346.8	332.0	354.3	319.4	335.8	152.7
May .....	317.2	375.1	364.2	376.8	353.8	371.2	163.7
June .....	341.7	401.8	391.2	397.3	376.0	385.9	177.1
July .....	334.8	394.6	397.8	398.0	380.2	387.6	183.3
August .....	307.9	373.7	339.3	345.6	328.7	333.9	166.5
September .....	300.0	370.4	327.8	336.5	300.0	316.0	156.4
October .....	214.9	279.0	256.9	268.1	240.0	251.6	124.2
November .....	139.3	214.0	197.4	234.0	194.7	195.5	100.5
December .....	106.1	179.8	147.0	171.5	157.9	147.0	91.8
Average .....	258.5	333.5	302.1	286.2	274.6	299.6	141.6
2009 January .....	124.5	185.1	147.1	181.0	155.0	147.9	97.4
February .....	133.2	203.8	134.6	160.7	142.1	132.6	80.6
March .....	139.7	203.1	126.5	145.3	135.8	131.3	

<sup>a</sup> See "Nominal Price" in Glossary.<sup>b</sup> See Note 5, "Motor Gasoline Prices," at end of section.

R=Revised.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy

Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2007:** EIA, *Petroleum Marketing Annual* 2007, Table 4. • **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 4.

**Table 9.7 Refiner Prices of Petroleum Products to End Users**(Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>b</sup>	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average .....	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1980 Average .....	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1985 Average .....	91.2	120.1	79.6	103.0	84.9	78.9	71.7
1990 Average .....	88.3	112.0	76.6	92.3	73.4	72.5	74.5
1995 Average .....	76.5	100.5	54.0	58.9	56.2	56.0	49.2
1996 Average .....	84.7	111.6	65.1	74.0	67.3	68.1	60.5
1997 Average .....	83.9	112.8	61.3	74.5	63.6	64.2	55.2
1998 Average .....	67.3	97.5	45.2	50.1	48.2	49.4	40.5
1999 Average .....	78.1	105.9	54.3	60.5	55.8	58.4	45.8
2000 Average .....	110.6	130.6	89.9	112.3	92.7	93.5	60.3
2001 Average .....	103.2	132.3	77.5	104.5	82.9	84.2	50.6
2002 Average .....	94.7	128.8	72.1	99.0	73.7	76.2	41.9
2003 Average .....	115.6	149.3	87.2	122.4	93.3	94.4	57.7
2004 Average .....	143.5	181.9	120.7	116.0	117.3	124.3	83.9
2005 Average .....	182.9	223.1	173.5	195.7	170.5	178.6	108.9
2006 Average .....	212.8	268.2	199.8	224.4	198.2	209.6	135.8
2007 January .....	179.1	217.9	175.8	194.4	189.4	183.0	NA
February .....	184.2	228.5	179.0	NA	203.1	189.8	155.3
March .....	213.8	262.7	187.2	232.5	205.0	205.6	NA
April .....	240.5	296.9	203.9	236.1	210.3	220.2	127.2
May .....	266.9	309.6	210.5	W	208.3	218.5	129.8
June .....	256.9	297.8	213.2	W	210.2	222.6	130.9
July .....	248.8	305.3	218.5	236.2	217.6	230.1	127.8
August .....	232.0	282.3	216.0	246.7	215.0	228.2	138.9
September .....	233.7	290.0	225.0	267.3	231.6	238.1	142.8
October .....	235.0	285.5	237.7	280.1	NA	249.9	155.5
November .....	261.4	306.7	268.4	319.7	277.3	278.2	180.6
December .....	255.2	297.5	268.5	330.3	277.0	269.7	NA
Average .....	234.5	284.9	216.5	226.3	224.1	226.7	148.9
2008 January .....	257.3	304.5	268.6	331.3	279.2	268.8	216.0
February .....	256.9	307.0	269.4	334.6	288.8	280.5	NA
March .....	278.4	337.0	311.9	358.2	323.2	325.5	180.9
April .....	298.4	359.7	333.3	376.5	340.6	345.3	NA
May .....	331.6	382.7	365.9	393.4	375.4	380.8	181.1
June .....	357.9	396.5	393.3	416.2	391.4	400.3	179.3
July .....	356.7	395.5	400.9	438.5	393.9	402.2	205.5
August .....	327.8	379.2	342.6	404.8	339.9	357.7	190.6
September .....	320.7	383.6	326.5	402.8	327.5	332.6	192.4
October .....	253.4	297.5	260.3	NA	269.0	278.7	176.3
November .....	161.3	223.0	198.8	308.8	229.3	213.9	165.2
December .....	121.6	181.4	151.8	282.4	192.6	168.8	166.5
Average .....	277.7	331.1	305.3	326.5	298.7	315.0	184.4
2009 January .....	135.7	185.7	148.2	261.3	202.6	162.9	189.4
February .....	R 146.9	196.1	136.0	R 263.1	R 187.7	R 149.5	R NA
March .....	150.3	196.4	128.1	256.5	177.1	144.9	136.0

<sup>a</sup> See "Nominal Price" in Glossary.<sup>b</sup> See Note 5, "Motor Gasoline Prices," at end of section.

R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Sales for resale are shown in Table 9.6; they are sales made to purchasers other than ultimate consumers. • Values for

the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.Sources: • **1978-2007:** EIA, *Petroleum Marketing Annual* 2007, Table 2. • **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 2.

**Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States**(Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average .....	48.6	50.3	50.8	48.8	50.7	50.1	50.1	49.6	48.8
1980 Average .....	96.3	100.4	101.5	97.8	101.1	98.3	98.2	97.9	96.4
1985 Average .....	99.7	102.4	107.7	107.0	106.7	108.0	111.3	105.9	102.3
1990 Average .....	98.9	102.8	107.0	108.4	108.6	109.8	112.5	108.7	102.6
1995 Average .....	78.7	77.9	85.3	84.4	87.4	86.4	95.5	88.8	82.6
1996 Average .....	97.2	94.0	96.9	97.6	98.6	98.6	106.3	102.4	95.3
1997 Average .....	94.2	94.2	98.7	96.0	98.9	96.3	106.5	103.3	95.0
1998 Average .....	78.8	78.8	87.3	81.8	86.8	83.1	94.8	89.2	81.4
1999 Average .....	81.3	77.0	85.4	83.6	85.8	85.2	96.9	91.3	81.5
2000 Average .....	129.7	128.1	125.5	127.3	125.9	129.1	144.2	140.4	122.4
2001 Average .....	121.7	125.6	126.1	122.1	123.6	123.9	136.3	131.4	115.9
2002 Average .....	112.9	111.9	117.2	114.1	112.4	111.8	121.8	122.0	106.4
2003 Average .....	131.4	131.2	130.9	138.6	134.4	135.5	143.6	148.9	130.4
2004 Average .....	151.1	149.7	150.5	155.9	151.1	151.8	162.7	166.2	148.9
2005 Average .....	198.6	197.2	198.7	206.4	200.0	201.2	210.5	216.6	197.4
2006 Average .....	229.4	228.3	240.8	235.5	236.0	235.7	245.8	246.7	228.6
 2007 January .....	229.5	234.5	252.6	227.7	226.9	238.4	238.6	236.2	224.7
February .....	234.7	232.6	257.5	237.0	236.7	242.4	249.7	247.2	234.7
March .....	239.7	242.3	259.3	242.5	242.5	246.3	251.6	253.2	237.0
April .....	243.7	244.4	260.6	245.6	247.6	249.8	254.8	256.1	239.0
May .....	241.7	242.5	257.1	245.8	247.2	250.5	257.1	256.6	241.7
June .....	241.3	239.7	253.1	246.2	247.6	251.8	263.1	253.8	241.5
July .....	247.6	239.2	258.9	256.9	255.1	256.2	269.1	258.6	242.8
August .....	250.9	239.0	255.7	251.6	252.3	250.9	260.5	258.2	238.1
September .....	258.2	249.4	262.6	259.8	263.7	261.3	269.6	267.8	249.4
October .....	272.1	264.8	269.8	272.6	276.0	276.9	282.8	281.2	261.6
November .....	293.1	289.3	293.7	303.2	308.1	301.3	309.1	316.8	294.6
December .....	299.9	301.4	302.4	311.1	313.5	305.5	315.5	326.1	300.9
Average .....	254.0	253.5	267.9	257.6	260.2	261.5	267.4	266.4	250.8
 2008 January .....	303.5	302.6	309.5	314.3	317.3	309.1	321.8	332.7	305.7
February .....	304.1	302.9	310.5	320.3	320.2	312.4	324.4	335.3	309.7
March .....	330.2	329.2	337.1	353.4	349.5	336.2	351.2	369.3	340.4
April .....	346.9	345.5	357.5	370.8	368.7	349.4	363.4	385.8	355.3
May .....	NA	381.2	391.3	397.9	394.9	380.6	393.8	414.0	385.1
June .....	419.2	421.2	425.2	429.4	419.5	411.2	416.1	447.7	416.4
July .....	429.0	437.7	448.4	437.8	428.0	419.4	428.9	455.9	432.6
August .....	395.8	399.7	417.6	389.2	384.2	NA	388.9	403.2	NA
September .....	374.5	370.2	393.3	362.7	357.5	367.5	371.2	377.7	356.9
October .....	320.6	325.9	347.5	307.0	300.9	322.2	329.4	321.0	310.1
November .....	277.6	280.5	312.2	264.7	273.5	293.2	295.8	275.9	275.4
December .....	250.1	251.9	278.8	237.0	240.8	260.6	258.7	238.2	246.1
Average .....	319.4	317.3	331.9	321.0	321.3	320.1	328.8	327.4	316.3
 2009 January .....	250.4	248.6	273.8	236.9	235.7	256.7	253.3	239.4	242.4
February .....	237.9	238.0	265.4	R 224.7	222.6	242.4	R 244.0	R 229.1	R 226.7
March .....	224.0	223.9	251.7	216.3	214.0	235.3	231.5	217.3	220.2

<sup>a</sup> See "Nominal Price" in Glossary.

R=Revised. NA=Not available.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6,

"Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2007:** EIA, *Petroleum Marketing Annual 2007*, Table 15.  
• **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 15.

**Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States** (Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average .....	47.8	50.7	49.2	49.1	46.2	47.4	47.9	48.5	46.5	44.7	47.8
1980 Average .....	95.4	102.6	97.9	98.5	92.2	91.9	97.8	99.6	95.8	91.5	99.9
1985 Average .....	104.6	114.3	108.8	106.3	98.0	99.7	102.1	99.1	97.5	98.3	101.9
1990 Average .....	105.8	107.8	111.9	110.6	99.1	98.1	100.9	99.3	96.1	94.2	101.4
1995 Average .....	87.0	101.0	93.6	84.4	81.5	80.8	86.0	81.6	78.5	81.2	80.1
1996 Average .....	98.4	117.8	106.3	95.2	96.0	92.1	97.7	91.2	89.3	89.9	90.9
1997 Average .....	98.4	117.4	105.7	94.8	96.2	91.3	94.2	86.5	87.0	93.3	89.9
1998 Average .....	85.8	102.2	90.2	85.6	81.8	76.7	80.4	74.8	73.5	80.1	73.8
1999 Average .....	88.4	101.1	90.7	87.0	78.9	82.0	88.3	79.3	71.6	84.7	77.4
2000 Average .....	127.0	W	135.1	126.9	125.1	122.0	NA	120.7	109.5	117.1	115.6
2001 Average .....	123.4	143.1	134.2	120.2	113.9	116.0	NA	113.3	112.1	118.0	112.2
2002 Average .....	116.4	W	120.1	105.7	105.4	105.8	110.9	102.5	97.5	107.3	105.1
2003 Average .....	143.3	W	145.5	131.1	130.4	128.4	132.1	120.2	119.8	126.9	121.8
2004 Average .....	157.0	W	163.2	146.2	149.3	147.5	153.9	153.7	140.5	146.5	143.3
2005 Average .....	207.5	W	212.7	204.4	204.3	200.9	205.3	201.7	202.1	199.3	198.7
2006 Average .....	238.1	W	239.8	226.8	226.1	224.4	232.9	231.7	231.2	229.7	226.8
2007 January .....	234.6	W	240.3	211.4	212.9	209.2	221.1	218.2	221.7	219.9	216.9
February .....	247.7	W	246.9	214.1	223.3	221.6	227.2	228.4	222.3	224.0	224.8
March .....	249.6	W	251.3	226.8	229.9	231.8	247.3	242.6	236.4	239.1	241.5
April .....	246.6	W	251.7	224.4	229.2	236.4	258.4	255.5	246.8	254.2	251.7
May .....	245.6	W	256.2	223.8	228.3	230.0	247.6	246.0	239.7	249.5	251.9
June .....	NA	W	255.4	232.7	236.2	238.2	245.6	246.7	243.3	251.7	249.9
July .....	246.4	W	258.7	236.6	241.2	244.1	254.2	255.2	252.0	254.8	258.6
August .....	245.1	W	258.8	236.2	240.9	247.7	257.3	258.5	256.2	261.7	262.6
September .....	252.6	W	266.1	245.6	253.5	257.3	266.8	263.7	258.9	271.8	273.4
October .....	270.7	W	283.0	266.3	266.7	273.5	280.1	280.8	275.0	281.4	282.6
November .....	302.8	W	312.4	295.5	300.3	308.7	310.3	313.3	307.5	310.3	305.0
December .....	320.0	W	322.1	300.2	306.2	307.0	304.0	309.6	303.9	306.9	296.4
Average .....	258.4	W	266.8	240.7	247.8	249.4	258.8	255.7	252.8	257.1	258.7
2008 January .....	321.5	W	326.1	306.4	311.1	304.9	304.6	306.3	300.5	303.7	297.1
February .....	325.9	W	330.4	314.8	316.1	318.4	317.1	312.4	310.0	311.0	311.1
March .....	354.8	W	355.1	340.6	347.8	355.2	359.1	345.2	357.4	350.7	352.8
April .....	362.7	W	367.1	352.7	363.7	372.8	370.8	364.5	368.5	365.3	370.8
May .....	390.3	W	402.7	384.8	391.5	407.4	399.7	408.7	405.0	395.2	399.7
June .....	423.1	W	424.5	412.5	424.9	418.4	421.7	427.4	NA	NA	417.2
July .....	434.5	W	441.4	412.3	430.2	415.5	417.8	426.3	401.1	398.6	416.1
August .....	389.8	W	408.7	376.4	385.6	379.8	373.9	379.7	NA	366.3	379.5
September .....	362.1	W	382.7	355.7	363.6	367.7	365.8	368.8	360.0	359.7	365.8
October .....	314.7	W	329.0	315.4	310.8	303.1	308.0	309.8	303.9	312.2	312.3
November .....	267.6	W	287.7	266.6	267.3	251.4	248.5	252.6	251.4	251.9	258.5
December .....	244.0	W	254.0	234.9	231.8	208.9	207.9	211.8	212.8	210.9	207.2
Average .....	318.4	W	326.8	312.3	322.6	315.5	306.9	310.6	315.3	308.9	306.9
2009 January .....	241.0	W	245.6	222.3	230.0	204.6	200.1	206.1	206.9	200.2	197.6
February .....	229.3	W	239.2	R 215.3	220.2	189.3	R 187.6	190.9	R 186.9	R 185.4	181.8
March .....	223.4	W	226.2	200.5	204.2	181.4	180.2	181.5	183.5	178.2	173.4

<sup>a</sup> See "Nominal Price" in Glossary.

R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6,

"Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2007:** EIA, *Petroleum Marketing Annual 2007*, Table 15. • **2008 and 2009:** EIA, *Petroleum Marketing Monthly*, June 2009, Table 15.

**Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average (Nominal Cents<sup>a</sup> per Gallon, Excluding Taxes)**

	<b>Idaho</b>	<b>Washington</b>	<b>Oregon</b>	<b>Alaska</b>	<b>U.S. Average</b>
1978 Average .....	43.6	48.6	45.8	53.2	49.0
1980 Average .....	91.6	100.8	97.3	97.8	97.4
1985 Average .....	97.2	101.1	97.1	108.3	105.3
1990 Average .....	97.4	102.9	97.0	110.1	106.3
1995 Average .....	83.9	96.2	89.4	83.4	86.7
1996 Average .....	93.3	108.0	98.9	90.9	98.9
1997 Average .....	95.3	113.9	103.1	97.3	98.4
1998 Average .....	78.4	97.8	86.1	85.2	85.2
1999 Average .....	76.2	106.5	93.8	96.6	87.6
2000 Average .....	117.0	144.5	136.8	133.7	131.1
2001 Average .....	103.8	133.6	121.1	137.7	125.0
2002 Average .....	91.9	120.4	106.0	108.7	112.9
2003 Average .....	118.8	148.7	130.3	124.3	135.5
2004 Average .....	149.5	174.9	159.4	152.4	154.8
2005 Average .....	212.3	238.5	214.6	206.1	205.2
2006 Average .....	239.1	268.1	241.1	239.5	236.5
<b>2007</b> January .....	228.4	262.7	230.9	226.0	231.1
February .....	224.9	262.7	224.3	220.9	239.1
March .....	241.7	270.0	228.2	224.0	244.9
April .....	254.1	281.2	231.5	238.1	248.0
May .....	NA	282.4	237.4	244.9	248.0
June .....	253.0	274.4	NA	247.7	249.2
July .....	257.9	275.3	NA	252.7	254.9
August .....	257.3	276.2	NA	256.3	250.9
September .....	263.6	284.6	250.7	255.8	260.9
October .....	287.0	321.5	298.0	276.3	275.9
November .....	321.3	345.9	319.5	303.2	304.0
December .....	302.5	335.7	304.5	301.1	309.8
<b>Average</b> .....	<b>259.8</b>	<b>290.9</b>	<b>250.0</b>	<b>251.8</b>	<b>259.2</b>
<b>2008</b> January .....	296.0	329.1	301.2	301.3	313.7
February .....	305.7	339.8	312.9	308.4	317.8
March .....	348.7	382.3	351.4	337.7	347.3
April .....	375.5	404.2	374.7	365.8	362.3
May .....	399.8	432.0	398.9	399.9	392.0
June .....	417.8	454.5	423.5	430.9	420.2
July .....	421.6	452.5	429.5	446.5	429.8
August .....	384.4	412.4	383.7	422.1	386.5
September .....	358.3	382.3	355.2	389.7	366.2
October .....	312.7	327.9	300.7	NA	316.9
November .....	244.2	284.2	241.8	262.3	278.0
December .....	187.8	228.4	190.2	222.6	245.3
<b>Average</b> .....	<b>307.4</b>	<b>340.1</b>	<b>306.7</b>	<b>348.5</b>	<b>322.0</b>
<b>2009</b> January .....	187.9	238.9	193.9	216.0	242.2
February .....	R 176.2	R 225.4	182.8	NA	R 230.7
March .....	R 167.4	R 212.4	R 173.8	R 191.7	R 220.3
April .....	NA	NA	NA	NA	E 222.1

<sup>a</sup> See "Nominal Price" in Glossary.

R=Revised. NA=Not available. E=Estimate.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6,

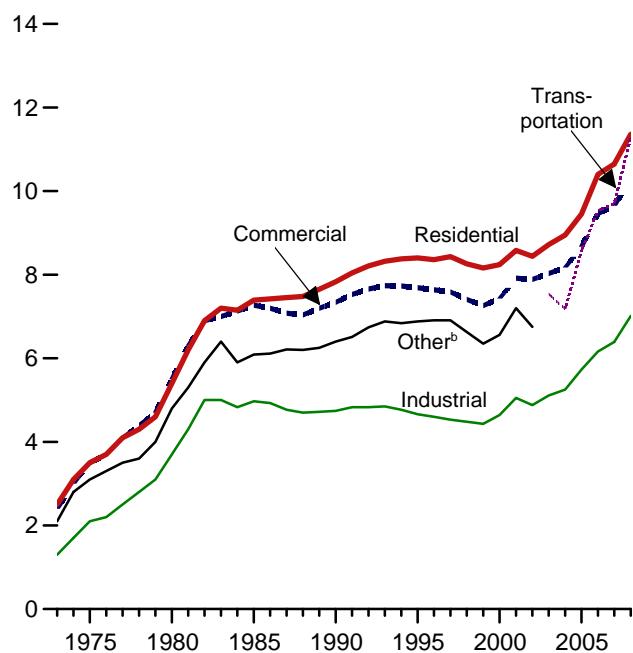
"Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • 1978-2007: EIA, *Petroleum Marketing Annual 2007*, Table 15. • 2008 and 2009: EIA, *Petroleum Marketing Monthly*, June 2009, Table 15.

**Figure 9.2 Average Retail Prices of Electricity**  
(Nominal Cents<sup>a</sup> per Kilowatthour)

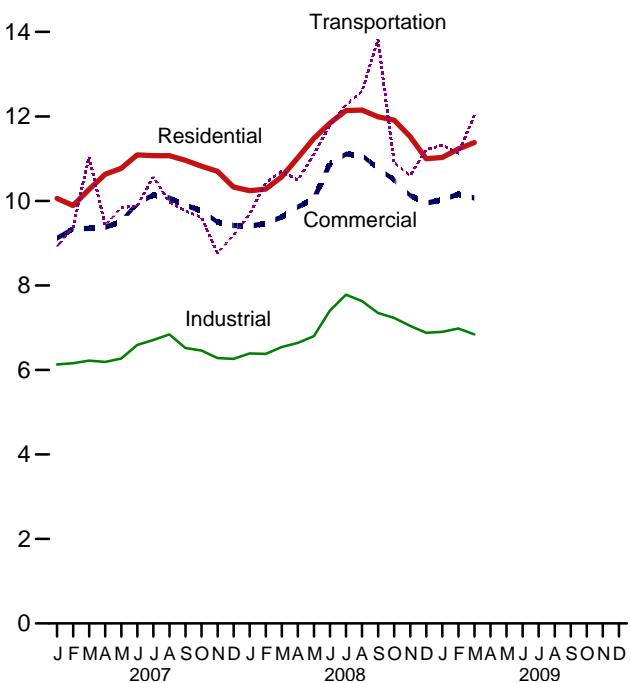
By Sector, 1973-2008



<sup>a</sup>See "Nominal Price" in Glossary.

<sup>b</sup>Public street and highway lighting, interdepartmental sales, other sales to public authorities, agricultural and irrigation, and transportation including railroads and railways.

By Sector, Monthly



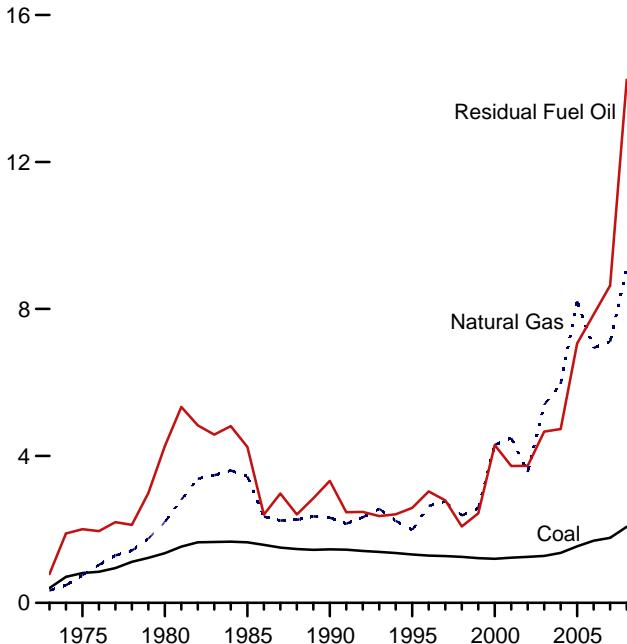
Note: Includes taxes.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: Table 9.9.

**Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants**  
(Nominal Dollars<sup>a</sup> per Million Btu, Including Taxes )

Costs, 1973-2008

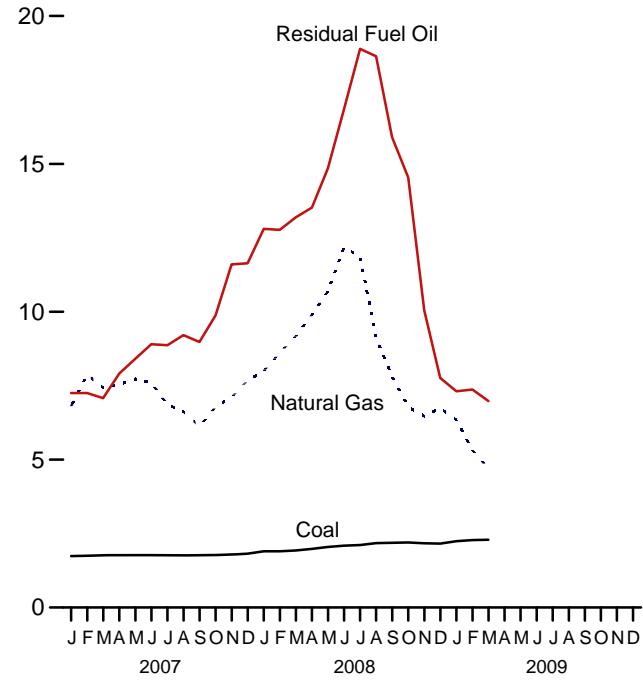


<sup>a</sup>See "Nominal Dollars" in Glossary.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: Table 9.10.

Costs, Monthly



**Table 9.9 Average Retail Prices of Electricity**  
(Nominal Cents<sup>a</sup> per Kilowatthour, Including Taxes)

	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportation <sup>d</sup>	Other <sup>e</sup>	Total
1973 Average .....	2.5	2.4	1.3	NA	2.1	2.0
1975 Average .....	3.5	3.5	2.1	NA	3.1	2.9
1980 Average .....	5.4	5.5	3.7	NA	4.8	4.7
1985 Average .....	7.39	7.27	4.97	NA	6.09	6.44
1990 Average .....	7.83	7.34	4.74	NA	6.40	6.57
1995 Average .....	8.40	7.69	4.66	NA	6.88	6.89
1996 Average .....	8.36	7.64	4.60	NA	6.91	6.86
1997 Average .....	8.43	7.59	4.53	NA	6.91	6.85
1998 Average .....	8.26	7.41	4.48	NA	6.63	6.74
1999 Average .....	8.16	7.26	4.43	NA	6.35	6.64
2000 Average .....	8.24	7.43	4.64	NA	6.56	6.81
2001 Average .....	8.58	7.92	5.05	NA	7.20	7.29
2002 Average .....	8.44	7.89	4.88	NA	6.75	7.20
2003 Average .....	8.72	8.03	5.11	7.54	--	7.44
2004 Average .....	8.95	8.17	5.25	7.18	--	7.61
2005 Average .....	9.45	8.67	5.73	8.57	--	8.14
2006 Average .....	10.40	9.46	6.16	9.54	--	8.90
<b>2007</b> January .....	10.06	9.12	6.13	8.92	--	8.71
February .....	9.89	9.34	6.16	9.38	--	8.74
March .....	10.27	9.35	6.22	11.04	--	8.80
April .....	10.63	9.38	6.19	9.42	--	8.82
May .....	10.77	9.51	6.27	9.84	--	8.96
June .....	11.09	9.95	6.59	9.88	--	9.45
July .....	11.07	10.14	6.71	10.57	--	9.64
August .....	11.07	10.07	6.84	9.98	--	9.68
September .....	10.96	9.90	6.52	9.76	--	9.43
October .....	10.82	9.77	6.46	9.61	--	9.17
November .....	10.70	9.50	6.28	8.76	--	8.94
December .....	10.33	9.42	6.26	9.19	--	8.91
<b>Average</b> .....	<b>10.65</b>	<b>9.65</b>	<b>6.39</b>	<b>9.70</b>	--	<b>9.13</b>
<b>2008</b> January .....	10.24	9.40	6.39	9.69	--	8.99
February .....	10.28	9.47	6.38	10.43	--	8.98
March .....	10.57	9.62	6.54	10.70	--	9.11
April .....	11.02	9.86	6.64	10.49	--	9.30
May .....	11.48	10.05	6.80	11.10	--	9.54
June .....	11.84	10.88	7.40	11.79	--	10.34
July .....	12.14	11.11	7.78	12.28	--	10.73
August .....	12.15	11.08	7.63	12.59	--	10.66
September .....	11.99	10.77	7.35	13.82	--	10.34
October .....	11.91	10.50	7.23	10.90	--	10.04
November .....	11.52	10.13	7.04	10.60	--	9.75
December .....	11.00	9.95	6.88	11.21	--	9.64
<b>Average</b> .....	<b>11.36</b>	<b>10.28</b>	<b>7.01</b>	<b>11.28</b>	--	<b>9.82</b>
<b>2009</b> January .....	11.03	10.03	6.90	11.32	--	9.75
February .....	11.23	10.16	6.98	11.13	--	9.83
March .....	11.38	10.07	6.84	12.02	--	9.75
<b>3-Month Average</b> .....	<b>11.20</b>	<b>10.09</b>	<b>6.91</b>	<b>11.48</b>	--	<b>9.78</b>
<b>2008 3-Month Average</b> .....	<b>10.35</b>	<b>9.49</b>	<b>6.44</b>	<b>10.25</b>	--	<b>9.03</b>
<b>2007 3-Month Average</b> .....	<b>10.06</b>	<b>9.27</b>	<b>6.17</b>	<b>9.77</b>	--	<b>8.75</b>

<sup>a</sup> See "Nominal Price" in Glossary.

<sup>b</sup> Commercial sector. For 1973-2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

<sup>c</sup> Industrial sector. For 1973-2002, prices exclude agriculture and irrigation.

<sup>d</sup> Transportation sector, including railroads and railways.

<sup>e</sup> Public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

NA=Not available. --=Not applicable.

Notes: • Beginning in 2003, the category "Other" has been replaced by "Transportation," and the categories "Commercial" and "Industrial" have been redefined. • 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. • Prices include State and local taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments, and other

miscellaneous charges applied to end-use customers during normal billing operations. Prices do not include deferred charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods.

• See Note 7, "Electricity Retail Prices," at end of section for plant coverage, and for information on preliminary and final values. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **March 1980-1982:** FERC, Form FERC-5, "Electric Utility Company Monthly Statement."

• **1983:** Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • **1984-1992:** EIA, Form EIA-861, "Annual Electric Utility Report." • **1993 forward:** EIA, *Electric Power Monthly*, June 2009, Table 5.3.

**Table 9.10 Cost of Fossil-Fuel Receipts at Electric Generating Plants**  
 (Nominal Dollars<sup>a</sup> per Million Btu, Including Taxes)

	Coal	Petroleum				Natural Gas <sup>e</sup>	All Fossil Fuels <sup>f</sup>
		Residual Fuel Oil <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Petroleum Coke	Total <sup>d</sup>		
1973 Average .....	0.41	0.79	NA	NA	0.80	0.34	0.48
1975 Average .....	.81	2.01	NA	NA	2.02	.75	1.04
1980 Average .....	1.35	4.27	NA	NA	4.35	2.20	1.93
1985 Average .....	1.65	4.24	NA	NA	4.32	3.44	2.09
1990 Average .....	1.45	3.32	5.38	.80	3.35	2.32	1.69
1995 Average .....	1.32	2.59	3.99	.65	2.57	1.98	1.45
1996 Average .....	1.29	3.03	4.87	.78	3.03	2.64	1.52
1997 Average .....	1.27	2.79	4.49	.91	2.73	2.76	1.52
1998 Average .....	1.25	2.08	3.30	.71	2.02	2.38	1.44
1999 Average .....	1.22	2.44	4.03	.65	2.36	2.57	1.44
2000 Average .....	1.20	4.29	6.65	.58	4.18	4.30	1.74
2001 Average .....	1.23	3.73	6.30	.78	3.69	4.49	1.73
2002 Average <sup>g</sup> .....	1.25	3.73	5.34	.78	3.34	3.56	1.86
2003 Average .....	1.28	4.66	6.82	.72	4.33	5.39	2.28
2004 Average .....	1.36	4.73	8.02	.83	4.29	5.96	2.48
2005 Average .....	1.54	7.06	11.72	1.11	6.44	8.21	3.25
2006 Average .....	1.69	7.85	13.28	1.33	6.23	6.94	3.02
2007 January .....	1.74	7.25	11.87	1.54	5.78	6.81	2.94
February .....	1.75	7.25	11.95	1.64	6.63	7.87	3.23
March .....	1.76	7.08	12.85	1.50	6.21	7.44	3.00
April .....	1.77	7.91	14.04	1.53	6.64	7.54	3.18
May .....	1.77	8.41	14.65	1.51	7.16	7.73	3.30
June .....	1.77	8.90	14.79	1.57	7.75	7.60	3.44
July .....	1.76	8.87	15.24	1.43	6.83	6.87	3.41
August .....	1.77	9.21	15.25	1.54	8.05	6.62	3.50
September .....	1.77	8.98	15.68	1.55	7.37	6.12	3.11
October .....	1.77	9.88	16.61	1.37	7.39	6.78	3.13
November .....	1.78	11.60	18.86	1.47	8.48	7.11	3.07
December .....	1.82	11.64	18.65	1.45	8.14	7.68	3.28
Average .....	1.77	8.64	14.85	1.51	7.17	7.11	3.23
2008 January .....	1.90	12.80	18.12	1.53	9.86	8.00	3.70
February .....	1.90	12.77	18.73	1.65	10.31	8.61	3.67
March .....	1.93	13.19	19.72	1.58	9.08	9.18	3.82
April .....	1.98	13.52	21.06	1.65	10.67	9.90	4.12
May .....	2.05	14.85	24.36	1.82	12.03	10.69	4.34
June .....	2.09	16.84	24.70	1.85	14.01	12.17	5.46
July .....	2.11	18.89	26.13	1.81	14.00	11.87	5.56
August .....	2.18	18.64	23.87	2.56	14.06	9.12	4.56
September .....	2.19	15.90	21.90	2.22	12.32	7.81	3.94
October .....	2.20	14.54	18.42	2.19	10.17	6.78	3.52
November .....	2.17	10.05	14.69	2.07	7.55	6.47	3.28
December .....	2.16	7.76	11.52	2.12	6.82	6.74	3.40
Average .....	2.07	14.24	20.08	1.92	10.96	9.11	4.14
2009 January .....	2.24	7.31	11.37	2.05	6.77	6.34	3.40
February .....	2.28	7.37	12.08	1.80	6.54	5.32	3.12
March .....	2.29	6.98	10.82	1.65	5.90	4.69	2.98
3-Month Average ....	2.27	7.25	11.40	1.84	6.47	5.44	3.17
2008 3-Month Average ....	1.91	12.91	18.72	1.58	9.73	8.57	3.73
2007 3-Month Average ....	1.75	7.20	12.14	1.57	6.25	7.36	3.05

<sup>a</sup> See "Nominal Dollars" in Glossary.

<sup>b</sup> For 1973-2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

<sup>c</sup> For 1973-2001, electric utility data are for light oil (fuel oil nos. 1 and 2).

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil. For 1973-1982, data do not include refined motor oil, bunker oil, and liquefied petroleum gases. For 1973-1989, data do not include petroleum coke.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels. For 1973-2000, data also include a small amount of blast furnace gas and other gases derived from fossil fuels.

<sup>f</sup> Weighted average of costs shown under "Coal," "Petroleum," and "Natural

Gas."

<sup>g</sup> Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the commercial and industrial sectors. See Note 8, "Costs of Fossil-Fuel Receipts at Electric Generating Plants," at end of section for plant coverage.

NA=Not available.

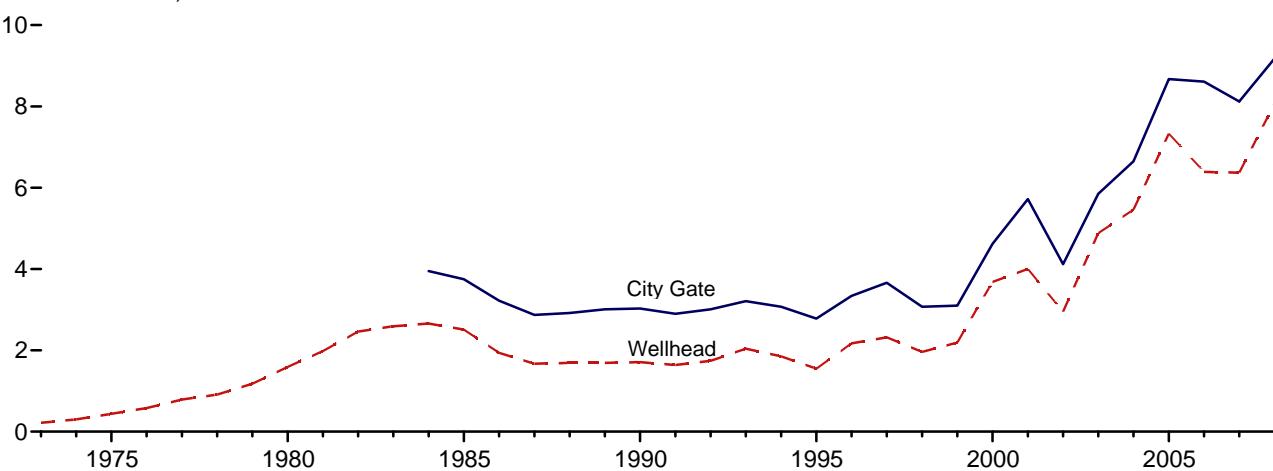
Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

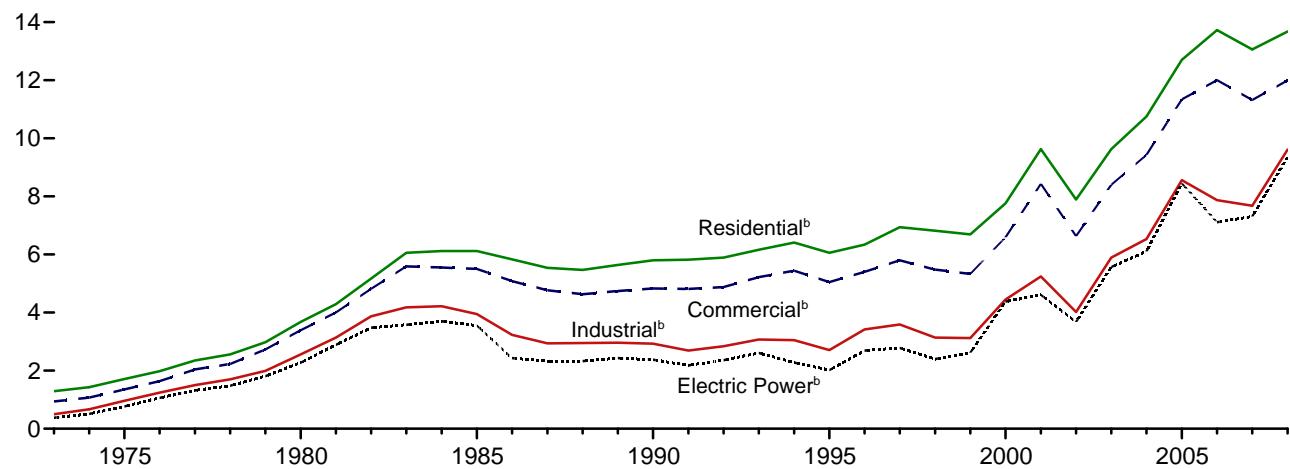
Sources: See end of section.

**Figure 9.4 Natural Gas Prices**  
 (Nominal Dollars<sup>a</sup> per Thousand Cubic Feet)

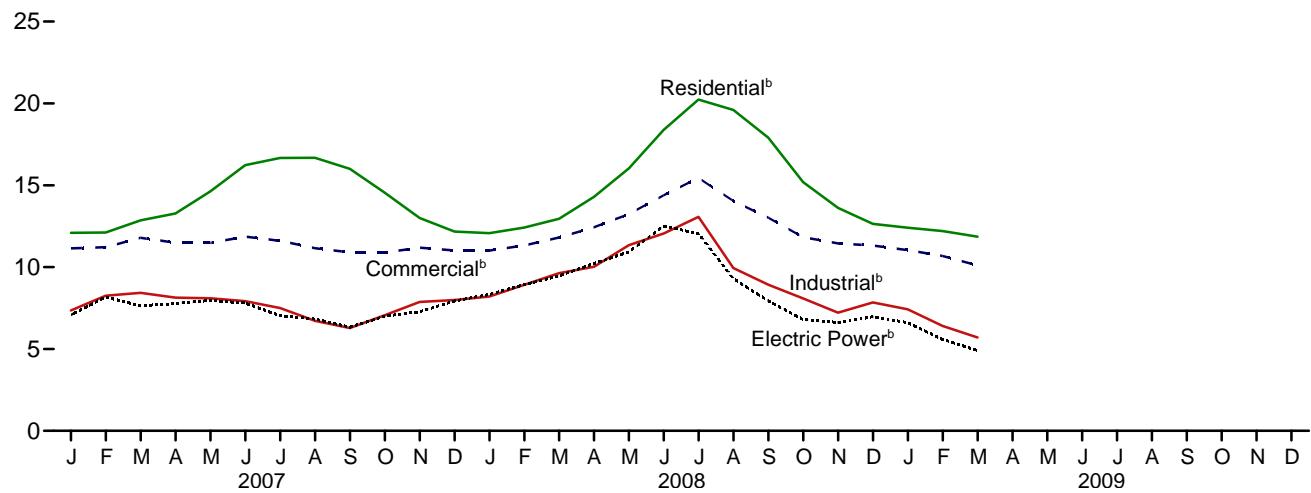
Selected Prices, 1973-2008



Consuming Sectors, 1973-2008



Consuming Sectors, Monthly



<sup>a</sup> See "Nominal Dollars" in Glossary.

<sup>b</sup> Includes taxes.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: Table 9.11.

**Table 9.11 Natural Gas Prices**(Nominal Dollars<sup>a</sup> per Thousand Cubic Feet)

	Wellhead Price	City Gate Price	Consuming Sectors <sup>b</sup>							
			Residential		Commercial <sup>c</sup>		Industrial <sup>d</sup>		Electric Power <sup>e</sup>	
			Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g,h</sup>
1973 Average .....	0.22	NA	1.29	NA	0.94	NA	0.50	NA	0.38	92.1
1975 Average .....	.44	NA	1.71	NA	1.35	NA	.96	NA	.77	96.1
1980 Average .....	1.59	NA	3.68	NA	3.39	NA	2.56	NA	2.27	96.9
1985 Average .....	2.51	3.75	6.12	NA	5.50	NA	3.95	68.8	3.55	94.0
1990 Average .....	1.71	3.03	5.80	99.2	4.83	86.6	2.93	35.2	2.38	76.8
1995 Average .....	1.55	2.78	6.06	99.0	5.05	76.7	2.71	24.5	2.02	71.4
1996 Average .....	2.17	3.34	6.34	99.0	5.40	77.6	3.42	19.4	2.69	68.4
1997 Average .....	2.32	3.66	6.94	98.8	5.80	70.8	3.59	18.1	2.78	68.0
1998 Average .....	1.96	3.07	6.82	97.7	5.48	67.0	3.14	16.1	2.40	63.7
1999 Average .....	2.19	3.10	6.69	95.2	5.33	66.1	3.12	18.8	2.62	58.3
2000 Average .....	3.68	4.62	7.76	92.6	6.59	63.9	4.45	19.8	4.38	50.5
2001 Average .....	4.00	5.72	9.63	92.4	8.43	66.0	5.24	20.8	4.61	40.2
2002 Average .....	2.95	4.12	7.89	97.9	6.63	77.4	4.02	22.7	<sup>e</sup> 3.68	83.9
2003 Average .....	4.88	5.85	9.63	97.5	8.40	78.2	5.89	22.1	5.57	91.2
2004 Average .....	5.46	6.65	10.75	97.7	9.43	78.0	6.53	23.7	6.11	89.8
2005 Average .....	7.33	8.67	12.70	98.2	11.34	82.1	8.56	24.1	8.45	89.1
2006 Average .....	6.39	8.61	13.73	98.1	12.00	80.8	7.87	23.4	7.11	93.4
2007 January .....	5.83	7.89	12.09	NA	11.15	83.2	7.35	22.8	7.08	93.0
February .....	6.91	8.59	12.11	NA	11.21	83.9	8.25	23.0	8.18	92.3
March .....	6.78	8.81	12.86	NA	11.79	83.5	8.43	22.4	7.64	93.8
April .....	6.37	8.20	13.28	NA	11.49	81.2	8.14	22.4	7.77	94.2
May .....	6.85	8.37	14.63	NA	11.48	77.9	8.10	23.3	7.96	93.2
June .....	6.72	8.42	16.23	NA	11.86	76.2	7.92	23.9	7.80	93.0
July .....	6.32	7.98	16.67	NA	11.61	74.3	7.50	22.2	7.03	91.7
August .....	5.87	7.47	16.68	NA	11.16	72.5	6.72	22.3	6.83	89.0
September .....	5.42	6.97	16.00	NA	10.90	72.5	6.28	21.3	6.33	92.0
October .....	5.90	7.39	14.55	NA	10.90	74.7	7.06	21.4	7.00	91.8
November .....	6.58	8.07	13.00	NA	11.19	79.7	7.87	20.9	7.28	93.1
December .....	6.97	8.13	12.17	NA	11.02	82.5	7.99	21.5	7.93	92.9
Average .....	6.37	8.12	13.06	98.0	11.32	80.5	7.68	22.3	7.31	92.2
2008 January .....	E 6.99	8.37	12.07	NA	11.01	79.0	8.20	20.4	8.33	100.4
February .....	E 7.55	8.91	12.42	NA	11.32	78.6	8.92	20.4	8.93	100.7
March .....	E 8.29	9.49	12.95	NA	11.81	78.4	9.63	21.4	9.47	101.0
April .....	E 8.94	9.84	14.29	NA	12.44	75.3	10.02	21.8	10.22	101.4
May .....	E 9.81	11.05	16.03	NA	13.24	71.4	11.34	21.3	10.93	101.0
June .....	E 10.82	11.85	18.39	NA	14.39	70.6	12.06	20.9	12.50	100.1
July .....	E 10.62	12.48	20.24	NA	15.45	66.8	13.07	20.8	12.05	99.8
August .....	E 8.32	10.20	19.60	NA	14.04	65.3	9.94	20.5	9.30	100.4
September .....	E 7.27	8.99	R 17.91	NA	R 13.02	65.3	8.93	18.7	7.94	100.3
October .....	E 6.36	7.80	15.19	NA	R 11.83	R 68.9	8.09	18.8	6.80	101.0
November .....	E 5.97	7.93	13.62	NA	R 11.45	R 74.1	7.22	19.3	6.62	100.8
December .....	E 5.87	8.16	12.64	NA	R 11.32	77.9	7.84	19.4	6.96	100.7
Average .....	E 8.07	9.18	13.68	E 98.1	R 11.99	75.1	9.61	20.3	9.35	100.6
2009 January .....	E 5.15	7.95	12.41	NA	11.04	79.1	7.42	18.9	6.60	100.6
February .....	E 4.19	R 7.30	R 12.20	NA	R 10.68	78.4	R 6.41	18.7	5.59	101.2
March .....	E 3.72	6.86	11.86	NA	10.10	76.6	5.70	18.3	4.90	101.9
3-Month Average .....	E 4.35	7.45	12.20	NA	10.67	78.2	6.54	18.6	5.68	101.2
2008 3-Month Average .....	E 7.61	8.86	12.44	NA	11.35	78.7	8.91	20.7	8.88	100.7
2007 3-Month Average .....	6.51	8.38	12.30	NA	11.35	83.6	8.00	22.7	7.62	93.0

<sup>a</sup> See "Nominal Dollars" in Glossary.<sup>b</sup> See Note 9, "Natural Gas Prices," at end of section.<sup>c</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.<sup>d</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.<sup>e</sup> The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 2001, data are for electric utilities only; beginning in 2002, data also include independent power producers. See Note 8, "Costs of Fossil-Fuel Receipts at Electric Generating Plants," at end of section for plant coverage.<sup>f</sup> Includes taxes.<sup>g</sup> The percentage of the sector's consumption in Table 4.3 for which price data

are available. For details on how the percentages are derived, see Table 9.11 Sources at end of section.

<sup>h</sup> Percentages exceed 100 percent when reported natural gas receipts are greater than reported natural gas consumption—this can occur when combined-heat-and-power plants report fuel receipts related to non-electric generating activities.

R=Revised. NA=Not available. E=Estimate.

Notes: • Prices are for natural gas, plus a small amount of supplemental gaseous fuels. • Prices are intended to include all taxes. See Note 9, "Natural Gas Prices," at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

## Energy Prices

**Note 1. Crude Oil Domestic First Purchase Prices.** The average domestic first purchase price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the price represented an estimate of the average of posted prices; beginning with February 1976, the price represents an average of actual first purchase prices. The data series was previously called "Actual Domestic Wellhead Price."

**Note 2. Crude Oil F.O.B. Costs.** F.O.B. literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

**Note 3. Crude Oil Landed Costs.** The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in April 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

**Note 4. Crude Oil Refinery Acquisition Costs.** Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on Energy Information Administration (EIA) Form EIA-14, "Refiners' Monthly Cost Report." Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

The refiner acquisition cost of crude oil is the average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1331. Imported crude oil is either that oil reported on Form ERA-51, "Transfer Pricing Report," or any crude oil that is not domestic oil. The composite cost is the weighted average of domestic and imported crude oil costs.

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported

on Federal Energy Administration (FEA) Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report," included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-14 include either unfinished oils or SPR.

**Note 5. Motor Gasoline Prices.** Several different series of motor gasoline prices are published in this section. U.S. city average retail prices of motor gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. From 1974-1977, prices were collected in 56 urban areas. From 1978 forward, prices are collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers-about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

Refiner prices of finished motor gasoline for resale and to end users are determined by the EIA in a monthly survey of refiners and gas plant operators (Form EIA-782A). The prices do not include any Federal, State, or local taxes paid at the time of sale. Estimates of prices prior to January 1983 are based on Form FEA-P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices," and also exclude all Federal, State, or local taxes paid at the time of sale. Sales for resale are those made to purchasers who are other-than-ultimate consumers. Sales to end users are sales made directly to the consumer of the product, including bulk consumers (such as agriculture, industry, and utilities) and residential and commercial consumers.

**Note 6. Historical Petroleum Prices.** Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous series were generated for annual data 1978-1982 and for monthly data 1981 and 1982 by estimating the prices that would have been published had Form EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment was made for product and sales type matching and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale and between retail and end user. The resale category continues to include sales among resellers. However, sales to bulk consumers, such as utility, industrial, and commercial accounts previously included in

the wholesale category, are now counted as made to end users. The end-user category continues to include retail sales through company-owned and operated outlets but also includes sales to the bulk consumers such as agriculture, industry, and electric utilities. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article by Paula Weir, printed in the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

**Note 7. Electricity Retail Prices.** Average annual retail prices of electricity have the following plant coverage: Through 1979, annual data are for Classes A and B privately owned electric utilities only. For 1980–1982, annual data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, annual data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, annual data also include energy service providers selling to retail customers.

Average monthly retail prices of electricity have the following plant coverage: Through 1985, monthly data are derived from selected privately owned electric utilities and, therefore, are not national averages. Beginning in 1986, monthly data are based on a sample of publicly and privately owned electric utilities. Beginning in 1996, monthly data also include energy service providers selling to retail customers.

Preliminary monthly data are from Form EIA-826, "Monthly Electric Sales and Revenue Report With State Distributions Report," which is a monthly collection of data from approximately 450 of the largest publicly and privately owned electric utilities 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. Preliminary annual data are the sum of the monthly revenues divided by the sum of the monthly sales. When final annual data become available each year from Form EIA-861, "Annual Electric Power Industry Report," their ratios to the preliminary Form EIA-826 values are used to derive adjusted final monthly values.

**Note 8. Costs of Fossil-Fuel Receipts at Electric Generating Plants.** Data for 1973–1982 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974–1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983–1990 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991–2001 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50

megawatts or greater. Data for 2002 forward cover the aforementioned regulated generating plants plus unregulated generating plants (independent power producers, as well as combined-heat-and-power generating plants and electricity-only plants in the commercial and industrial sector) whose total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.

**Note 9. Natural Gas Prices.** Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, and electric power consumers. They do not include the price of natural gas delivered to industrial and commercial consumers on behalf of third parties. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.3. Additional information is available in the EIA *Natural Gas Monthly*, Appendix C.

## Table 9.1 Sources

### Domestic First Purchase Price

1973–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: Federal Energy Administration, based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."

1978–2007: Energy Information Administration (EIA), *Petroleum Marketing Annual 2007*, Table 1.

2008 and 2009: EIA, *Petroleum Marketing Monthly*, June 2009, Table 1.

### F.O.B. and Landed Cost of Imports

October 1973–September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

October–December 1977: EIA, Form FEA-F701-M-0, "Transfer Pricing Report."

1978–2007: EIA, *Petroleum Marketing Annual 2007*, Table 1.

2008 and 2009: EIA, *Petroleum Marketing Monthly*, June 2009, Table 1.

### Refiner Acquisition Cost

1973: EIA estimates. The domestic price was derived by adding estimated transportation costs to the reported domestic first purchase price. The imported price was derived by adding an estimated ocean transport cost to the average "Free Alongside Ship" value published by the U.S. Bureau of the Census.

1974–1976: DOI, BOM, *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: January–September, FEA, based on Form FEA-P110-M-1, “Refiners’ Monthly Cost Allocation Report.” October–December, EIA, based on Form FEA-P110-M-1, “Refiners’ Monthly Cost Allocation Report.”  
1978–2007: EIA, *Petroleum Marketing Annual 2007*, Table 1.  
2008 and 2009: EIA, *Petroleum Marketing Monthly*, June 2009, Table 1.

## Table 9.2 Sources

October 1973–September 1977: Federal Energy Administration, Form FEA-F701-M-0, “Transfer Pricing Report.” October 1977–December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, “Transfer Pricing Report.”  
1978–2007: EIA, *Petroleum Marketing Annual 2007*, Table 21.  
2008 and 2009: EIA, *Petroleum Marketing Monthly*, June 2009, Table 21.

## Table 9.10 Sources

1973–September 1977: Federal Power Commission, Form FPC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”  
October 1977–December 1977: Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”  
1978 and 1979: Energy Information Administration (EIA), Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”  
1980–1989: EIA, *Electric Power Monthly*, May issues.  
1990–2000: EIA, *Electric Power Monthly*, March 2003, Table 26.  
2001–2007: EIA, *Electric Power Monthly*, October 2008, Table 4.1; Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants”; and EIA, Form EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report.”  
2008 and 2009: EIA, *Electric Power Monthly*, June 2009, Table 4.1; and Form EIA-923, “Power Plant Operations Report.”

## Table 9.11 Sources

### All Prices Except Electric Power

1973–2002: Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports.  
2003 forward: EIA, *Natural Gas Monthly (NGM)*, May 2009, Table 3.

### Electric Power Sector Price

1973–1998: EIA, *NGA 2000*, Table 96.  
1999–2002: EIA, *NGM*, October 2004, Table 4.  
2003–2007: Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants,” and EIA, Form EIA-423 “Monthly Cost and Quality of Fuels for Electric Plants Report.”  
2008 and 2009: Form EIA-923, “Power Plant Operations Report.”

### Percentage of Residential Sector

1989–2007: EIA, Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.”  
2008 and 2009: Estimated by EIA as the average of the three previous annual values.

### Percentage of Commercial Sector

1987–2002: EIA, *NGA*, annual reports. Calculated as the total amount of natural gas delivered to commercial consumers minus the amount delivered for the account of others, and then divided by the total amount delivered to commercial consumers.  
2003 forward: EIA, *NGM*, May 2009, Table 3.

### Percentage of Industrial Sector

1982–2002: EIA, *NGA*, annual reports. Calculated as the total amount of natural gas delivered to industrial consumers minus the amount delivered for the account of others, and then divided by the total amount delivered to industrial consumers.  
2003 forward: EIA, *NGM*, May 2009, Table 3.

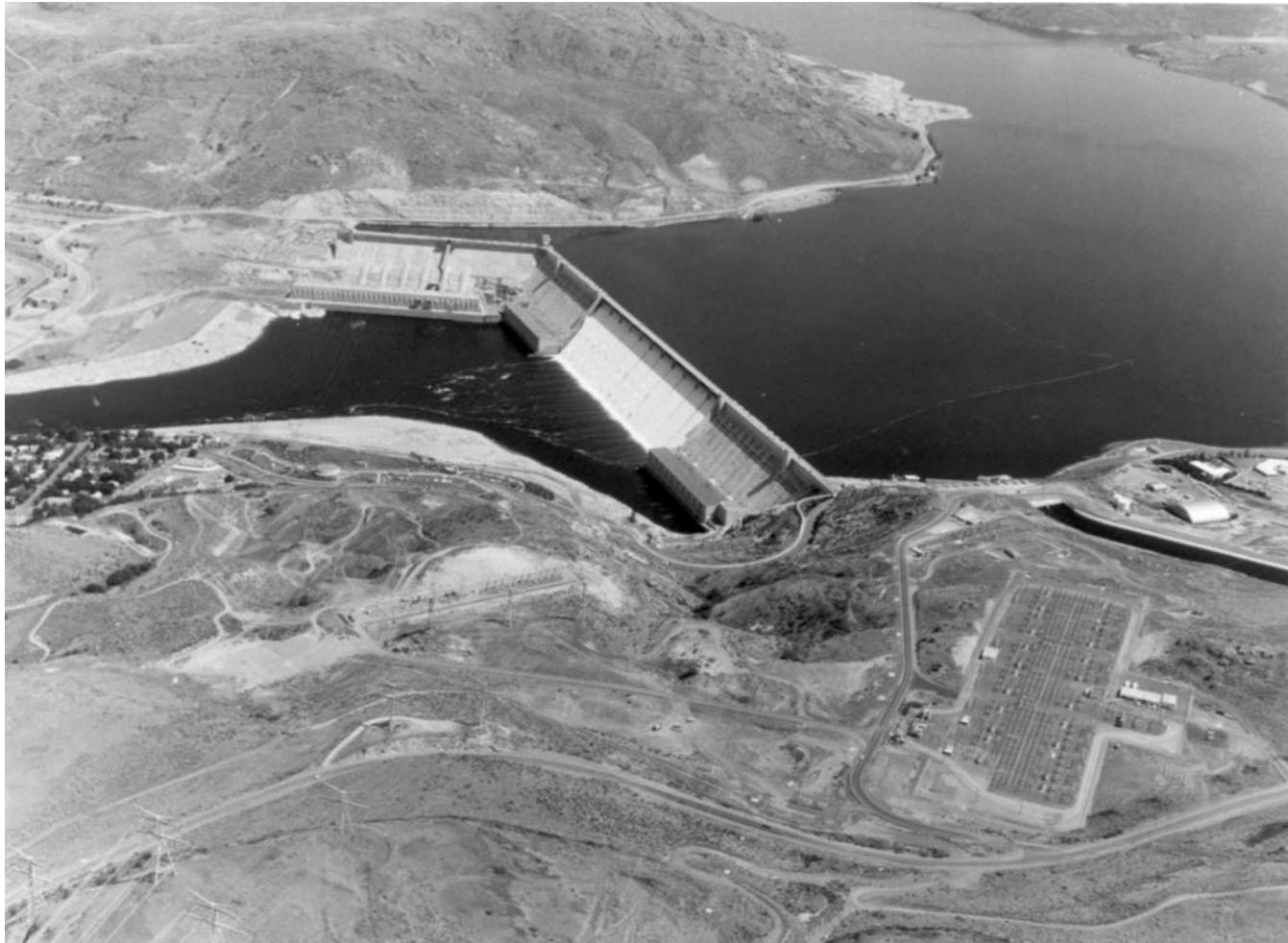
### Percentage of Electric Power Sector

1973–2001: Calculated by EIA as the quantity of natural gas receipts by electric utilities reported on Form FERC-423, “Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants” (and predecessor forms) divided by the quantity of natural gas consumed by the electric power sector (for 1973–1988, see *Monthly Energy Review*, Table 7.3b; for 1989–2001, see *Monthly Energy Review*, Table 7.4b).

2002–2007: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form FERC-423, “Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants,” and EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report,” divided by the quantity of natural gas consumed by the electric power sector (see *Monthly Energy Review*, Table 7.4b).

2008 and 2009: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form EIA-923, “Power Plant Operations Report,” divided by the quantity of natural gas consumed by the electric power sector (see *Monthly Energy Review*, Table 7.4b).

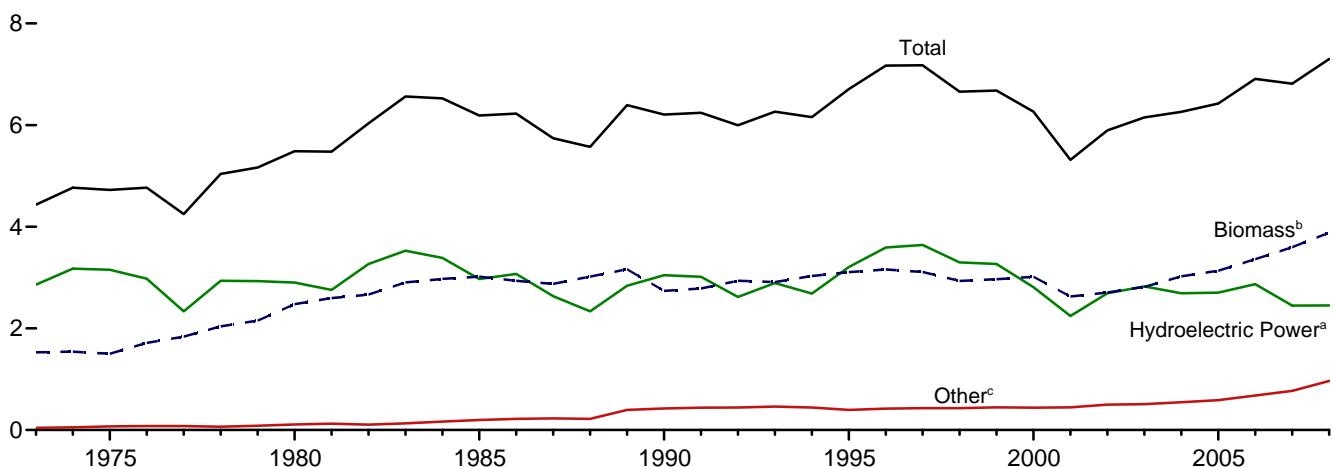
# Renewable Energy



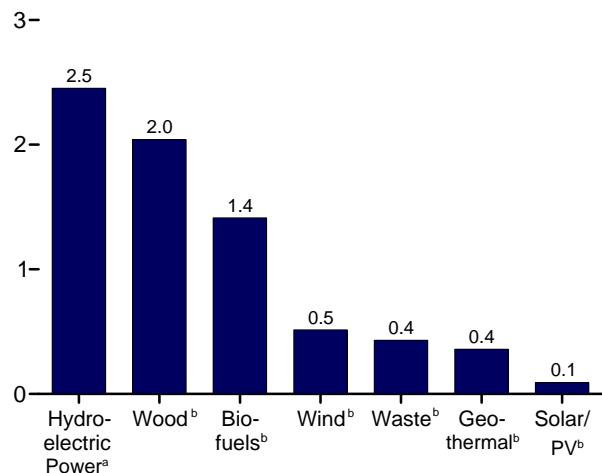
Grand Coulee Dam, Washington State. Source: U.S. Bureau of Reclamation.

**Figure 10.1 Renewable Energy Consumption**  
(Quadrillion Btu)

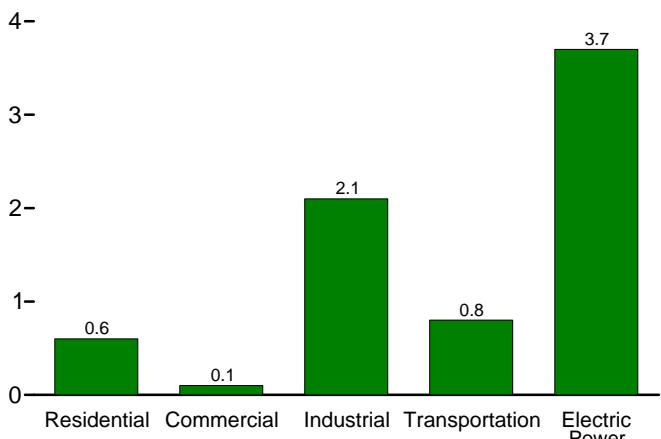
Total and Major Sources, 1973-2008



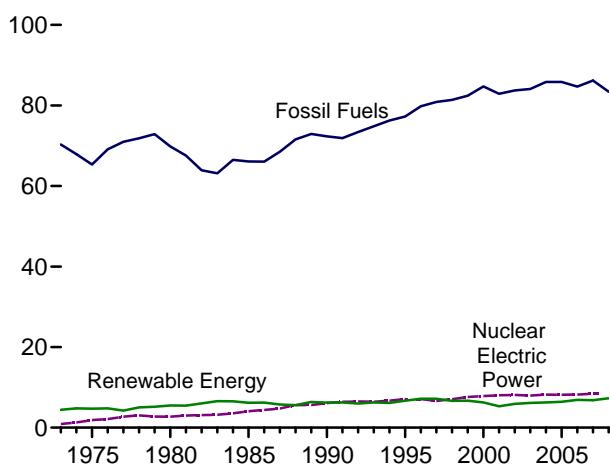
By Source, 2008



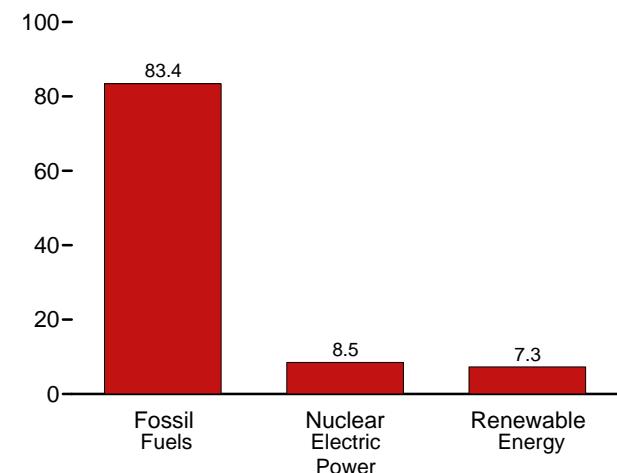
By Sector, 2008



Compared With Other Resources, 1973-2008



Compared With Other Resources, 2008



<sup>a</sup>Conventional hydroelectric power.

<sup>b</sup>See Table 10.1 for definition.

<sup>c</sup>Geothermal, solar/PV, and wind.

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Sources: Tables 1.3, 10.1, and 10.2a-c.

**Table 10.1 Renewable Energy Production and Consumption by Source**  
(Trillion Btu)

	Production <sup>a</sup>			Consumption									Total Renewable Energy	
	Biomass		Total Renewable Energy <sup>d</sup>	Hydro-electric Power <sup>e</sup>	Geo-thermal <sup>f</sup>	Solar/PV <sup>g</sup>	Wind <sup>h</sup>	Biomass				Total		
	Bio-fuels <sup>b</sup>	Total <sup>c</sup>	Wood <sup>i</sup>					Wood <sup>i</sup>	Waste <sup>j</sup>	Bio-fuels <sup>k</sup>	Total			
1973 Total .....	NA	1,529	4,433	2,861	43	NA	NA	1,527	2	NA	1,529	4,433		
1975 Total .....	NA	1,499	4,723	3,155	70	NA	NA	1,497	2	NA	1,499	4,723		
1980 Total .....	NA	2,475	5,485	2,900	110	NA	NA	2,474	2	NA	2,475	5,485		
1985 Total .....	95	3,018	6,187	2,970	198	(s)	(s)	2,687	236	95	3,018	6,187		
1990 Total .....	113	2,737	6,208	3,046	336	60	29	2,216	408	113	2,737	6,208		
1995 Total .....	202	3,103	6,705	3,205	294	70	33	2,370	531	204	3,105	6,707		
1996 Total .....	144	3,158	7,168	3,590	316	71	33	2,437	577	146	3,160	7,169		
1997 Total .....	190	3,112	7,181	3,640	325	70	34	2,371	551	187	3,109	7,178		
1998 Total .....	207	2,933	6,659	3,297	328	70	31	2,184	542	205	2,932	6,658		
1999 Total .....	215	2,969	6,683	3,268	331	69	46	2,214	540	213	2,968	6,681		
2000 Total .....	238	3,010	6,262	2,811	317	66	57	2,262	511	241	3,013	6,264		
2001 Total .....	260	2,629	5,318	2,242	311	65	70	2,006	364	258	2,627	5,316		
2002 Total .....	314	2,712	5,899	2,689	328	64	105	1,995	402	309	2,707	5,894		
2003 Total .....	411	2,815	6,148	2,825	331	64	115	2,002	401	413	2,817	6,150		
2004 Total .....	500	3,011	6,248	2,690	341	65	142	2,121	389	513	3,023	6,260		
2005 Total .....	581	3,120	6,410	2,703	343	66	178	2,136	403	594	3,133	6,423		
2006 Total .....	743	3,309	6,857	2,869	343	72	264	2,152	414	795	3,361	6,908		
<b>2007</b>														
January .....	75	300	619	257	31	6	24	187	38	80	305	624		
February .....	69	270	511	184	27	6	25	167	34	72	273	514		
March .....	77	294	599	239	29	7	30	179	38	79	297	601		
April .....	76	287	589	236	28	7	31	178	34	75	287	589		
May .....	82	295	617	257	28	7	29	178	35	81	295	616		
June .....	82	291	579	226	29	7	26	175	35	84	293	581		
July .....	87	305	586	222	30	7	21	183	36	86	305	585		
August .....	90	305	566	197	30	7	27	179	36	90	305	566		
September .....	88	297	507	146	29	7	28	174	35	88	296	506		
October .....	93	309	526	146	30	7	33	180	36	96	312	529		
November .....	94	307	528	155	29	6	31	177	36	93	306	527		
December .....	99	322	574	181	30	6	34	186	37	101	324	576		
<b>Total</b> .....	<b>1,011</b>	<b>3,583</b>	<b>6,800</b>	<b>2,446</b>	<b>349</b>	<b>81</b>	<b>341</b>	<b>2,142</b>	<b>430</b>	<b>1,025</b>	<b>3,597</b>	<b>6,814</b>		
<b>2008</b>														
January .....	103	315	593	201	29	7	41	175	37	101	313	591		
February .....	97	296	547	181	26	7	37	165	34	97	296	547		
March .....	112	318	611	209	30	8	46	167	39	106	311	604		
April .....	110	312	610	211	29	8	50	167	36	109	312	609		
May .....	120	326	676	261	31	8	51	170	36	117	323	673		
June .....	115	320	690	282	31	8	49	169	36	113	318	688		
July .....	125	338	660	245	31	8	38	177	37	122	335	657		
August .....	131	343	614	201	31	8	31	176	36	128	340	611		
September .....	125	328	548	155	30	8	27	168	34	127	329	549		
October .....	130	337	567	149	31	8	43	173	34	132	339	569		
November .....	130	332	567	153	30	7	45	167	35	128	330	565		
December .....	130	335	633	203	30	7	58	167	37	134	338	636		
<b>Total</b> .....	<b>1,429</b>	<b>3,900</b>	<b>7,316</b>	<b>2,452</b>	<b>358</b>	<b>91</b>	<b>514</b>	<b>2,041</b>	<b>431</b>	<b>1,413</b>	<b>3,884</b>	<b>7,300</b>		
<b>2009</b>														
January .....	123	326	650	232	30	7	54	168	36	121	324	647		
February .....	115	299	557	175	28	7	49	152	32	105	289	548		
March .....	125	327	641	211	30	8	64	162	40	125	327	641		
<b>3-Month Total</b> .....	<b>363</b>	<b>952</b>	<b>1,848</b>	<b>618</b>	<b>88</b>	<b>21</b>	<b>167</b>	<b>482</b>	<b>108</b>	<b>351</b>	<b>940</b>	<b>1,836</b>		
<b>2008 3-Month Total</b> .....	<b>312</b>	<b>929</b>	<b>1,751</b>	<b>591</b>	<b>85</b>	<b>22</b>	<b>124</b>	<b>507</b>	<b>110</b>	<b>304</b>	<b>920</b>	<b>1,742</b>		
<b>2007 3-Month Total</b> .....	<b>220</b>	<b>864</b>	<b>1,729</b>	<b>680</b>	<b>86</b>	<b>19</b>	<b>79</b>	<b>533</b>	<b>110</b>	<b>231</b>	<b>874</b>	<b>1,739</b>		

<sup>a</sup> Production equals consumption for all renewable energy sources except biofuels.

<sup>b</sup> Total biomass inputs to the production of fuel ethanol and biodiesel.

<sup>c</sup> Wood and wood-derived fuels, biomass waste, fuel ethanol, and biodiesel.

<sup>d</sup> Hydroelectric power, geothermal, solar/photovoltaic, wind, and biomass.

<sup>e</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>f</sup> Geothermal electricity net generation (converted to Btu using the geothermal energy plants heat rate), and geothermal heat pump and direct use energy.

<sup>g</sup> Solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy.

<sup>h</sup> Wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>i</sup> Wood and wood-derived fuels.

<sup>j</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste,

agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>k</sup> Fuel ethanol and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Most data for the residential, commercial, industrial, and transportation sectors are estimates. See notes and sources for Tables 10.2a and 10.2b. • See Note, "Renewable Energy Production and Consumption," at end of section.

• Totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: Tables 10.2a-c, 10.3, and 10.4.

**Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors**  
(Trillion Btu)

	Residential Sector				Commercial Sector <sup>a</sup>							Total	
	Geo- thermal <sup>b</sup>	Solar/ PV <sup>c</sup>	Biomass	Total	Hydro- electric Power <sup>e</sup>	Geo- thermal <sup>b</sup>	Biomass			Total			
			Wood <sup>d</sup>				Wood <sup>d</sup>	Waste <sup>f</sup>	Fuel Ethanol <sup>g</sup>	Total			
1973 Total .....	NA	NA	354	354	NA	NA	7	NA	NA	7	7	7	
1975 Total .....	NA	NA	425	425	NA	NA	8	NA	NA	8	8	8	
1980 Total .....	NA	NA	850	850	NA	NA	21	NA	NA	21	21	21	
1985 Total .....	NA	NA	1,010	1,010	NA	NA	24	NA	(s)	24	24	24	
1990 Total .....	6	56	580	641	1	3	66	28	1	94	98	98	
1995 Total .....	7	65	520	591	1	5	72	40	(s)	113	118	118	
1996 Total .....	7	65	540	612	1	5	76	53	(s)	129	135	135	
1997 Total .....	8	65	430	503	1	6	73	58	(s)	131	138	138	
1998 Total .....	8	65	380	452	1	7	64	54	(s)	118	127	127	
1999 Total .....	9	64	390	462	1	7	67	54	(s)	121	129	129	
2000 Total .....	9	61	420	490	1	8	71	47	(s)	119	128	128	
2001 Total .....	9	60	370	439	1	8	67	25	(s)	92	101	101	
2002 Total .....	10	59	380	449	(s)	9	69	26	(s)	95	104	104	
2003 Total .....	13	58	400	471	1	11	71	29	1	101	113	113	
2004 Total .....	14	59	410	483	1	12	70	34	1	105	118	118	
2005 Total .....	16	61	430	507	1	14	70	34	1	105	119	119	
2006 Total .....	18	67	390	475	1	14	65	36	1	102	117	117	
2007 January .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
February .....	2	6	33	40	(s)	1	5	2	(s)	8	9	9	
March .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
April .....	2	6	35	43	(s)	1	6	3	(s)	8	10	10	
May .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
June .....	2	6	35	43	(s)	1	6	3	(s)	8	10	10	
July .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
August .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
September .....	2	6	35	43	(s)	1	6	3	(s)	8	10	10	
October .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
November .....	2	6	35	43	(s)	1	6	3	(s)	9	10	10	
December .....	2	6	37	45	(s)	1	6	3	(s)	9	10	10	
Total .....	22	75	430	527	1	14	69	31	2	102	118	118	
2008 January .....	2	7	42	51	(s)	1	6	3	(s)	9	11	11	
February .....	2	7	39	47	(s)	1	6	3	(s)	9	10	10	
March .....	2	7	42	51	(s)	1	6	3	(s)	9	10	10	
April .....	2	7	40	49	(s)	1	6	3	(s)	9	10	10	
May .....	2	7	42	51	(s)	1	6	3	(s)	9	10	10	
June .....	2	7	40	49	(s)	1	6	3	(s)	9	10	10	
July .....	2	7	42	51	(s)	1	6	3	(s)	9	10	10	
August .....	2	7	42	51	(s)	1	6	3	(s)	9	10	10	
September .....	2	7	40	49	(s)	1	6	2	(s)	9	10	10	
October .....	2	7	42	51	(s)	1	6	2	(s)	9	10	10	
November .....	2	7	40	49	(s)	1	6	3	(s)	9	10	10	
December .....	2	7	42	51	(s)	1	6	3	(s)	9	10	10	
Total .....	26	83	490	599	1	15	72	32	3	107	123	123	
2009 January .....	2	7	42	51	(s)	1	6	3	(s)	9	11	11	
February .....	2	6	38	46	(s)	1	6	3	(s)	8	10	10	
March .....	2	7	42	51	(s)	1	6	4	(s)	10	12	12	
3-Month Total ....	7	20	121	148	(s)	4	18	9	1	28	32	32	
2008 3-Month Total ....	7	21	122	149	(s)	4	18	8	1	27	31	31	
2007 3-Month Total ....	5	18	106	130	(s)	4	17	7	(s)	25	29	29	

<sup>a</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

<sup>b</sup> Geothermal heat pump and direct use energy.

<sup>c</sup> Solar thermal direct use energy, and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate). Includes a small amount of commercial sector use.

<sup>d</sup> Wood and wood-derived fuels.

<sup>e</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>f</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes

non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>g</sup> The ethanol portion of motor fuels (such as E10) consumed by the commercial sector.

NA=Not available. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • Data are estimates, except for commercial sector hydroelectric power and waste. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 10.2b Renewable Energy Consumption: Industrial and Transportation Sectors**  
(Trillion Btu)

	Industrial Sector <sup>a</sup>								Transportation Sector		
	Hydro-electric Power <sup>b</sup>	Geo-thermal <sup>c</sup>	Biomass					Total	Biomass		
			Wood <sup>d</sup>	Waste <sup>e</sup>	Fuel Ethanol <sup>f</sup>	Losses and Co-products <sup>g</sup>	Total		Fuel Ethanol <sup>h</sup>	Bio-diesel <sup>i</sup>	
1973 Total .....	35	NA	1,165	NA	NA	NA	1,165	1,200	NA	NA	NA
1975 Total .....	32	NA	1,063	NA	NA	NA	1,063	1,096	NA	NA	NA
1980 Total .....	33	NA	1,600	NA	NA	NA	1,600	1,633	NA	NA	NA
1985 Total .....	33	NA	1,645	230	1	43	1,919	1,952	51	NA	51
1990 Total .....	31	2	1,442	192	1	50	1,685	1,718	62	NA	62
1995 Total .....	55	3	1,652	195	2	87	1,936	1,994	115	NA	115
1996 Total .....	61	3	1,683	224	1	62	1,970	2,034	82	NA	82
1997 Total .....	58	3	1,731	184	1	82	1,998	2,059	104	NA	104
1998 Total .....	55	3	1,603	180	1	88	1,873	1,931	115	NA	115
1999 Total .....	49	4	1,620	171	1	92	1,883	1,936	120	NA	120
2000 Total .....	42	4	1,636	145	1	101	1,884	1,930	138	NA	138
2001 Total .....	33	5	1,443	129	3	110	1,684	1,721	144	1	145
2002 Total .....	39	5	1,396	146	3	133	1,679	1,722	171	2	173
2003 Total .....	43	3	1,363	142	5	173	1,684	1,730	233	2	234
2004 Total .....	33	4	1,476	132	6	210	1,824	1,860	292	3	295
2005 Total .....	32	4	1,452	148	7	240	1,847	1,883	334	12	346
2006 Total .....	29	4	1,515	147	10	300	1,972	2,005	451	33	484
2007 January .....	2	(s)	125	16	1	30	172	174	44	4	49
February .....	1	(s)	114	14	1	28	157	158	41	3	43
March .....	2	(s)	122	16	1	31	169	171	44	3	48
April .....	2	(s)	122	13	1	30	166	168	42	2	44
May .....	2	(s)	122	13	1	32	168	170	45	3	48
June .....	1	(s)	118	12	1	32	164	165	46	5	51
July .....	1	(s)	125	13	1	34	172	173	48	3	52
August .....	1	(s)	121	13	1	35	170	171	49	6	54
September .....	1	(s)	118	12	1	34	165	166	47	5	52
October .....	1	(s)	122	13	1	37	173	175	53	6	59
November .....	1	(s)	121	13	1	37	172	174	53	1	54
December .....	2	(s)	128	14	1	39	182	183	56	4	60
Total .....	16	5	1,457	162	10	399	2,028	2,048	568	46	614
2008 January .....	2	(s)	111	13	1	41	166	169	56	4	60
February .....	2	(s)	105	13	1	38	158	161	54	3	57
March .....	2	(s)	103	13	1	45	162	165	58	1	60
April .....	2	(s)	107	13	1	43	164	167	63	2	65
May .....	2	(s)	110	13	1	47	171	173	66	2	68
June .....	1	(s)	109	13	1	45	167	169	65	1	67
July .....	1	(s)	112	13	1	49	176	177	68	4	71
August .....	1	(s)	112	13	1	51	178	180	70	5	75
September .....	1	(s)	107	13	1	49	170	172	71	5	76
October .....	1	(s)	111	13	1	51	177	178	74	5	79
November .....	1	(s)	106	13	1	51	171	173	70	5	75
December .....	2	(s)	104	13	1	52	171	173	76	4	80
Total .....	19	5	1,298	157	14	563	2,032	2,056	792	41	833
2009 January .....	2	(s)	104	13	1	50	168	170	69	(s)	69
February .....	1	(s)	94	11	1	46	153	155	58	(s)	58
March .....	2	(s)	101	14	1	51	166	168	69	4	73
3-Month Total ....	5	1	299	39	3	147	488	494	196	4	200
2008 3-Month Total ....	7	1	320	40	3	124	486	494	169	8	177
2007 3-Month Total ....	5	1	361	46	2	88	497	503	129	11	140

<sup>a</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

<sup>b</sup> Conventional hydroelectric net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>c</sup> Geothermal heat pump and direct use energy.

<sup>d</sup> Wood and wood-derived fuels.

<sup>e</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

<sup>f</sup> The ethanol portion of motor fuels (such as E10) consumed by the industrial sector.

<sup>g</sup> Losses and co-products from the production of fuel ethanol and biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the

production of fuel ethanol and biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.

<sup>h</sup> The ethanol portion of motor fuels (such as E10 and E85) consumed by the transportation sector.

<sup>i</sup> "Biodiesel" is any liquid biofuel suitable as a diesel fuel substitute, additive, or extender. See "Biodiesel" in Glossary.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1973-1978 and 1989 forward. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 10.2c Renewable Energy Consumption: Electric Power Sector**  
(Trillion Btu)

	Hydro-electric Power <sup>a</sup>	Geo-thermal <sup>b</sup>	Solar/PV <sup>c</sup>	Wind <sup>d</sup>	Biomass			Total
					Wood <sup>e</sup>	Waste <sup>f</sup>	Total	
1973 Total .....	2,827	43	NA	NA	1	2	3	2,873
1975 Total .....	3,122	70	NA	NA	(s)	2	2	3,194
1980 Total .....	2,867	110	NA	NA	3	2	4	2,982
1985 Total .....	2,937	198	(s)	(s)	8	7	14	3,150
1990 Total <sup>g</sup> .....	3,014	326	4	29	129	188	317	3,689
1995 Total .....	3,149	280	5	33	125	296	422	3,889
1996 Total .....	3,528	300	5	33	138	300	438	4,305
1997 Total .....	3,581	309	5	34	137	309	446	4,375
1998 Total .....	3,241	311	5	31	137	308	444	4,032
1999 Total .....	3,218	312	5	46	138	315	453	4,034
2000 Total .....	2,768	296	5	57	134	318	453	3,579
2001 Total .....	2,209	289	6	70	126	211	337	2,910
2002 Total .....	2,650	305	6	105	150	230	380	3,445
2003 Total .....	2,781	303	5	115	167	230	397	3,601
2004 Total .....	2,656	311	6	142	165	223	388	3,503
2005 Total .....	2,670	309	6	178	185	221	406	3,568
2006 Total .....	2,839	306	5	264	182	231	412	3,827
<b>2007</b>								
January .....	256	27	(s)	24	19	20	39	346
February .....	182	24	(s)	25	15	17	32	263
March .....	237	25	(s)	30	15	20	35	328
April .....	234	24	1	31	15	18	33	324
May .....	256	24	1	29	14	20	34	344
June .....	224	26	1	26	15	20	35	312
July .....	221	26	1	21	16	21	36	306
August .....	196	26	1	27	16	21	36	286
September .....	145	26	1	28	15	20	35	235
October .....	145	27	(s)	33	15	20	35	241
November .....	154	25	(s)	31	15	21	36	246
December .....	180	27	(s)	34	16	21	37	278
<b>Total</b> .....	<b>2,430</b>	<b>308</b>	<b>6</b>	<b>341</b>	<b>186</b>	<b>237</b>	<b>423</b>	<b>3,508</b>
<b>2008</b>								
January .....	199	25	(s)	41	16	21	37	302
February .....	179	23	(s)	37	15	18	33	272
March .....	207	26	1	46	16	23	39	318
April .....	209	26	1	50	14	20	34	319
May .....	260	27	1	51	13	20	33	371
June .....	280	27	1	49	14	21	35	393
July .....	244	27	1	38	17	21	37	347
August .....	200	27	1	31	16	21	37	296
September .....	154	26	1	27	15	19	34	242
October .....	148	27	1	43	14	19	33	251
November .....	152	26	(s)	45	15	19	35	258
December .....	202	26	(s)	58	16	21	37	322
<b>Total</b> .....	<b>2,432</b>	<b>312</b>	<b>8</b>	<b>514</b>	<b>181</b>	<b>242</b>	<b>423</b>	<b>3,690</b>
<b>2009</b>								
January .....	230	26	(s)	54	16	19	35	346
February .....	174	24	(s)	49	14	18	32	280
March .....	210	26	1	64	14	22	36	337
<b>3-Month Total</b> .....	<b>613</b>	<b>77</b>	<b>1</b>	<b>167</b>	<b>44</b>	<b>60</b>	<b>104</b>	<b>962</b>
<b>2008 3-Month Total</b> .....	<b>584</b>	<b>74</b>	<b>1</b>	<b>124</b>	<b>47</b>	<b>61</b>	<b>109</b>	<b>892</b>
<b>2007 3-Month Total</b> .....	<b>675</b>	<b>76</b>	<b>1</b>	<b>79</b>	<b>49</b>	<b>57</b>	<b>106</b>	<b>937</b>

<sup>a</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>b</sup> Geothermal electricity net generation (converted to Btu using the geothermal energy plants heat rate).

<sup>c</sup> Solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>d</sup> Wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate).

<sup>e</sup> Wood and wood-derived fuels.

<sup>f</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

<sup>g</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: • **Biomass:** Table 7.4b. • **All Other Data:** Tables 7.2b and A6.

**Table 10.3 Fuel Ethanol Overview**

	Feed-stock <sup>a</sup>	Losses and Co-products <sup>b</sup>	Production			Trade			Stocks <sup>d</sup>	Stock Change <sup>e</sup>	Consumption		
						Imports	Exports	Net Imports <sup>c</sup>					
			TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	MMgal
1981 Total .....	13	6	1,978	83	7	NA	NA	NA	NA	NA	1,978	83	7
1985 Total .....	95	43	14,693	617	52	NA	NA	NA	NA	NA	14,693	617	52
1990 Total .....	113	50	17,802	748	63	NA	NA	NA	NA	NA	17,802	748	63
1995 Total .....	202	87	32,325	1,358	114	387	NA	387	2,186	-207	32,919	1,383	117
1996 Total .....	144	62	23,178	973	82	313	NA	313	2,065	-121	23,612	992	84
1997 Total .....	190	82	30,674	1,288	109	85	NA	85	2,925	860	29,899	1,256	106
1998 Total .....	207	88	33,453	1,405	118	66	NA	66	3,406	481	33,038	1,388	117
1999 Total .....	215	92	34,881	1,465	123	87	NA	87	4,024	618	34,350	1,443	122
2000 Total .....	238	101	38,627	1,622	137	116	NA	116	3,400	-624	39,367	1,653	139
2001 Total .....	259	110	42,028	1,765	149	315	NA	315	4,298	898	41,445	1,741	147
2002 Total .....	313	133	50,956	2,140	180	306	NA	306	6,200	1,902	49,360	2,073	175
2003 Total .....	410	173	66,772	2,804	236	292	NA	292	5,978	-222	67,286	2,826	238
2004 Total .....	497	210	81,058	3,404	287	3,542	NA	3,542	6,002	24	84,576	3,552	299
2005 Total .....	569	240	92,961	3,904	329	3,234	NA	3,234	5,563	-439	96,634	4,059	342
2006 Total .....	711	299	116,294	4,884	412	17,408	NA	17,408	8,760	3,197	130,505	5,481	462
2007 January .....	71	30	11,621	488	41	1,077	NA	1,077	8,656	-104	12,802	538	45
February .....	66	28	10,795	453	38	1,010	NA	1,010	8,765	109	11,696	491	41
March .....	73	30	11,892	499	42	720	NA	720	8,539	-226	12,838	539	45
April .....	72	30	11,716	492	41	733	NA	733	8,807	268	12,181	512	43
May .....	77	32	12,573	528	44	663	NA	663	8,966	159	13,077	549	46
June .....	77	32	12,553	527	44	922	NA	922	9,171	205	13,270	557	47
July .....	80	34	13,083	549	46	1,533	NA	1,533	9,866	695	13,921	585	49
August .....	83	35	13,581	570	48	1,586	NA	1,586	11,011	1,145	14,022	589	50
September .....	82	34	13,402	563	47	610	NA	610	11,555	544	13,468	566	48
October .....	87	36	14,221	597	50	998	NA	998	11,449	-106	15,325	644	54
November .....	89	37	14,568	612	52	393	NA	393	11,218	-231	15,192	638	54
December .....	93	39	15,258	641	54	212	NA	212	10,535	-683	16,153	678	57
Total .....	948	398	155,263	6,521	549	10,457	NA	10,457	10,535	1,775	163,945	6,886	580
2008 January .....	96	40	15,818	664	56	495	NA	495	10,674	f165	16,148	678	57
February .....	92	38	15,025	631	53	483	NA	483	10,465	-209	15,717	660	56
March .....	106	44	17,387	730	62	368	NA	368	11,391	926	16,829	707	60
April .....	103	43	16,868	708	60	1,451	NA	1,451	11,539	148	18,171	763	64
May .....	113	47	18,543	779	66	866	NA	866	12,044	505	18,904	794	67
June .....	107	45	17,544	737	62	1,571	NA	1,571	12,304	260	18,855	792	67
July .....	116	49	19,042	800	67	1,360	NA	1,360	13,186	882	19,520	820	69
August .....	122	51	20,059	842	71	1,931	NA	1,931	14,882	1,696	20,294	852	72
September .....	117	49	19,197	806	68	2,466	NA	2,466	15,994	1,112	20,551	863	73
October .....	122	51	20,048	842	71	615	NA	615	15,192	-802	21,465	902	76
November .....	122	51	20,054	842	71	278	NA	278	15,227	35	20,297	852	72
December .....	124	52	20,342	854	72	463	NA	463	14,219	-1,008	21,813	916	77
Total .....	1,340	562	219,927	9,237	778	12,347	NA	12,347	14,219	f3,710	228,564	9,600	809
2009 January .....	119	50	19,545	821	69	371	—	371	14,186	-33	19,949	838	71
February .....	110	46	18,120	761	64	51	—	51	15,688	1,502	16,669	700	59
March .....	121	51	19,837	833	70	78	—	78	15,652	-36	19,951	838	71
3-Month Total .....	350	147	57,502	2,415	203	500	—	500	15,652	1,433	56,569	2,376	200
2008 3-Month Total .....	294	123	48,230	2,026	171	1,346	NA	1,346	11,391	882	48,694	2,045	172
2007 3-Month Total .....	209	88	34,308	1,441	121	2,807	NA	2,807	8,539	-221	37,336	1,568	132

a Total corn and other biomass inputs to the production of fuel ethanol.

b Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol—these are included in the industrial sector consumption statistics for the appropriate energy source.

c Net imports equal imports minus exports.

d Stocks are at end of period.

e A negative value indicates a decrease in stocks and a positive value indicates an increase.

f Derived from the preliminary December 2007 stocks value, not the final December 2007 value that is shown under "Stocks."

NA=Not available. —=No data reported.

Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Fuel ethanol data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to trillion Btu by multiplying by 0.003539 (the approximate heat content of fuel ethanol—see Table A3). • Through 1980, data are not available. For 1981-1992, data are estimates. Beginning in 1993, only data for feedstock and losses and co-products are estimates. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1981.

Sources: • **Feedstock:** Calculated as fuel ethanol production in thousand barrels multiplied by the fuel ethanol feedstock factor—see Table A3. • **Losses and Co-products:** Calculated as fuel ethanol feedstock minus fuel ethanol

production. • **Production:** 1981-1992—Fuel ethanol production is assumed to equal fuel ethanol consumption—see sources for "Consumption."

1993-2004—Calculated as fuel ethanol consumption plus fuel ethanol stock change minus fuel ethanol net imports. These data differ slightly from the original production data from Energy Information Administration (EIA), Form EIA-819, "Monthly Oxygenate Report," and predecessor form, which were not reconciled and updated to be consistent with the final balance. 2005-2008—EIA, Form EIA-819, "Monthly Oxygenate Report." 2009—EIA, *Petroleum Supply Monthly (PSM)*, monthly reports.

• **Trade, Stocks, and Stock Change:** 1992-2007—EIA, *Petroleum Supply Annual (PSA)*, annual reports. 2008 and 2009—EIA, *PSM*, monthly reports.

• **Consumption:** 1981-1989—EIA, *Estimates of U.S. Biofuels Consumption* 1990, Table 10; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates. 1990-1992—EIA, *Estimates of U.S. Biomass Energy Consumption* 1992, Table D2; and EIA, CNEAF, estimates.

1993-2004—EIA, *PSA*, annual reports, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16). 2005-2007—EIA, *PSA*, annual reports, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15). 2008—EIA, *PSM*, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27).

2009—EIA, *PSM*, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

**Table 10.4 Biodiesel Overview**

	Feed-stock <sup>a</sup>	Losses and Co-products <sup>b</sup>	Production			Trade			Stocks <sup>d</sup>	Stock Change <sup>e</sup>	Balancing Item <sup>f</sup>	Consumption		
						Imports	Exports	Net Imports <sup>c</sup>						
			TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl				Mbbl	Mbbl	MMgal
2001 Total .....	1	(s)	204	9	1	78	39	39	NA	NA	NA	243	10	1
2002 Total .....	1	(s)	250	10	1	191	56	135	NA	NA	NA	385	16	2
2003 Total .....	2	(s)	338	14	2	94	110	-16	NA	NA	NA	322	14	2
2004 Total .....	4	(s)	666	28	4	97	124	-26	NA	NA	NA	640	27	3
2005 Total .....	12	(s)	2,162	91	12	207	206	1	NA	NA	NA	2,163	91	12
2006 Total .....	32	(s)	5,963	250	32	1,069	828	242	NA	NA	NA	6,204	261	33
2007 January .....	4	(s)	692	29	4	237	103	135	NA	NA	NA	827	35	4
February .....	3	(s)	564	24	3	148	173	-25	NA	NA	NA	539	23	3
March .....	4	(s)	775	33	4	114	293	-179	NA	NA	NA	596	25	3
April .....	4	(s)	765	32	4	179	605	-426	NA	NA	NA	339	14	2
May .....	5	(s)	958	40	5	110	543	-432	NA	NA	NA	526	22	3
June .....	5	(s)	943	40	5	364	418	-54	NA	NA	NA	889	37	5
July .....	7	(s)	1,237	52	7	269	895	-626	NA	NA	NA	611	26	3
August .....	7	(s)	1,298	55	7	409	644	-236	NA	NA	NA	1,062	45	6
September .....	7	(s)	1,224	51	7	299	515	-215	NA	NA	NA	1,008	42	5
October .....	6	(s)	1,188	50	6	428	583	-155	NA	NA	NA	1,033	43	6
November .....	5	(s)	993	42	5	245	965	-720	NA	NA	NA	273	11	1
December .....	6	(s)	1,026	43	5	539	741	-202	NA	NA	NA	824	35	4
Total .....	63	1	11,662	490	62	3,342	6,477	-3,135	NA	NA	NA	8,528	358	46
2008 January .....	7	(s)	1,208	51	6	598	1,100	-501	NA	NA	NA	707	30	4
February .....	6	(s)	1,030	43	6	838	1,384	-546	NA	NA	NA	484	20	3
March .....	6	(s)	1,168	49	6	274	1,172	-898	NA	NA	NA	270	11	1
April .....	7	(s)	1,258	53	7	688	1,592	-904	NA	NA	NA	354	15	2
May .....	7	(s)	1,250	52	7	513	1,364	-850	NA	NA	NA	400	17	2
June .....	8	(s)	1,509	63	8	512	1,758	-1,246	NA	NA	NA	263	11	1
July .....	9	(s)	1,605	67	9	526	1,421	-894	NA	NA	NA	711	30	4
August .....	9	(s)	1,588	67	9	907	1,606	-699	NA	NA	NA	889	37	5
September .....	8	(s)	1,527	64	8	908	1,452	-544	NA	NA	NA	983	41	5
October .....	8	(s)	1,469	62	8	721	1,333	-612	NA	NA	NA	858	36	5
November .....	8	(s)	1,481	62	8	612	1,181	-569	NA	NA	NA	912	38	5
December .....	6	(s)	1,157	49	6	404	766	-362	NA	NA	NA	794	33	4
Total .....	88	1	16,251	683	87	7,502	16,128	-8,626	NA	NA	NA	7,624	320	41
2009 January .....	4	(s)	795	33	4	304	1,150	-846	57	57	137	29	1	(s)
February .....	5	(s)	846	36	5	158	1,166	-1,009	119	62	254	29	1	(s)
March .....	4	(s)	767	32	4	383	203	-180	357	238	0	709	30	4
3-Month Total ....	13	(s)	2,408	101	13	845	2,520	-1,675	357	357	391	767	32	4
2008 3-Month Total ....	19	(s)	3,406	143	18	1,710	3,655	-1,945	NA	NA	NA	1,461	61	8
2007 3-Month Total ....	11	(s)	2,032	85	11	499	569	-70	NA	NA	NA	1,962	82	11

<sup>a</sup> Total vegetable oil and other biomass inputs to the production of biodiesel.

<sup>b</sup> Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.

<sup>c</sup> Net imports equal imports minus exports.

<sup>d</sup> Stocks are at end of period.

<sup>e</sup> A negative value indicates a decrease in stocks and a positive value indicates an increase.

<sup>f</sup> Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Biodiesel data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to trillion Btu by multiplying by 0.005359 (the approximate heat content of biodiesel—see Table A3). For other conversion factors related to biodiesel, see Table A3 (columns 11 and 12, and footnote "h").

• Through 2000, data are not available. Beginning in 2001, data are estimates. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 2001.

Sources: • **Feedstock:** Calculated as biodiesel production in thousand barrels multiplied by 0.005433 (the biodiesel feedstock factor—see Table A3). • **Losses and Co-products:** Calculated as biodiesel feedstock minus biodiesel production. • **Production:** 2001-2005—U.S. Department of Agriculture,

Commodity Credit Corporation, Bioenergy Program records. Annual data are derived from quarterly data. Monthly data are estimated by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month. 2006—U.S. Department of Commerce, Bureau of the Census, "M311K - Fats and Oils: Production, Consumption, and Stocks," data for soybean oil consumed in methyl esters (biodiesel). In addition, the Energy Information Administration (EIA), Office of Integrated Analysis and Forecasting, estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel).

2007 forward—U.S. Department of Commerce, Bureau of the Census, "M311K - Fats and Oils: Production, Consumption, and Stocks," data for all fats and oils consumed in methyl esters (biodiesel). • **Trade:** U.S. Department of Agriculture, imports data for Harmonized Tariff Schedule code 3824.90.40.20 (Fatty Esters Animal/Vegetable/Mixture), and exports data for Schedule B code 3824.90.40.00 (Fatty Substances Animal/Vegetable/Mixture). Although these categories include products other than biodiesel (such as those destined for soaps, cosmetics, and other items), biodiesel is the largest component. In the absence of other reliable data for biodiesel trade, EIA sees these data as good estimates. • **Stocks and Stock Change:** EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1, data for renewable fuels except fuel ethanol. • **Balancing Item:** Calculated as biodiesel consumption and biodiesel stock change minus biodiesel production and biodiesel net imports. • **Consumption:** 2001-2008—Calculated as biodiesel production plus biodiesel net imports. January and February 2009—EIA, PSM, monthly reports, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol. March 2009—Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.

## Renewable Energy

**Note. Renewable Energy Production and Consumption.** In Table 10.1, renewable energy consumption consists of: conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate); geothermal electricity net generation (converted to Btu using the geothermal plants heat rate), and geothermal heat pump and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate); wood and wood-derived fuels consumption; biomass waste (municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass) consumption; fuel ethanol and biodiesel consumption; and losses and co-products from the production of fuel ethanol and biodiesel. Production is assumed to equal consumption for all renewable energy sources except biofuels (biofuels production comprises biomass inputs to the production of fuel ethanol and biodiesel).

### Table 10.2a Sources

#### Residential Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Residential Sector, Solar/PV

Energy Information Administration (EIA), Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates based on Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey," and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Residential Sector, Wood

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980 forward: EIA, Form EIA-457, "Residential Energy Consumption Survey"; and EIA, CNEAF, estimates based on Form EIA-457 and regional heating degree-day data. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Commercial Sector, Hydroelectric Power

EIA, *Monthly Energy Review (MER)*, Tables 7.2a–7.2c and A6. Calculated as total conventional hydroelectric power minus conventional hydroelectric power in the electric power and industrial sectors, multiplied by the fossil-fueled plants heat rate.

#### Commercial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Commercial Sector, Wood

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980–1983: EIA, *Estimates of U.S. Wood Energy Consumption 1980–1983*, Table ES1.

1984: EIA, CNEAF, estimate.

1985–1988: Values interpolated.

1989 forward: EIA, *MER*, Tables 7.4a–c; and EIA, CNEAF, estimates based on Form EIA-871, "Commercial Buildings Energy Consumption Survey." Data for wood consumption at commercial combined-heat-and-power (CHP) plants are calculated as total wood consumption at electricity-only and CHP plants (*MER*, Table 7.4a) minus wood consumption in the electric power sector (*MER*, Table 7.4b) and at industrial CHP plants (*MER*, Table 7.4c). Annual estimates for wood consumption at other commercial plants are based on Form EIA-871 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

#### Commercial Sector, Biomass Waste

EIA, *MER*, Table 7.4c.

#### Commercial Sector, Fuel Ethanol

EIA, *MER*, Tables 3.5, 3.7a, and 10.3. Calculated as commercial sector motor gasoline consumption (Table 3.7a) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol consumption (Table 10.3).

### Table 10.2b Sources

#### Industrial Sector, Hydroelectric Power

Energy Information Administration (EIA), *MER* Tables 7.2c and A6.

#### Industrial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the

number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

### **Industrial Sector, Wood**

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980–1983: EIA, *Estimates of U.S. Wood Energy Consumption 1980–1983*, Table ES1.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.

1988: Value interpolated.

1989 forward: EIA, *MER*, Table 7.4c; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates based on Form EIA-846, "Manufacturing Energy Consumption Survey." Data for wood consumption at industrial combined-heat-and-power (CHP) plants are from *MER*, Table 7.4c. Annual estimates for wood consumption at other industrial plants are based on Form-EIA-846 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

### **Industrial Sector, Biomass Waste**

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, *MER*, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1982 and 1983: EIA, CNEAF, estimates for total waste consumption; and EIA, *MER*, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, *MER*, Table 10.2c. Estimates are

calculated as total waste consumption minus electric power sector waste consumption.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, *MER*, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1988: Value interpolated.

1989 forward: EIA, *MER*, Table 7.4c; and EIA, CNEAF, estimates based on information presented in Government Advisory Associates, *Resource Recovery Yearbook* and *Methane Recovery Yearbook*, and information provided by the U.S. Environmental Protection Agency, Landfill Methane Outreach Program. Data for waste consumption at industrial CHP plants are from *MER*, Table 7.4c. Annual estimates for waste consumption at other industrial plants are based on the non-EIA sources listed above (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

### **Industrial Sector, Fuel Ethanol**

EIA, *MER*, Tables 3.5, 3.7b, and 10.3. Calculated as industrial sector motor gasoline consumption (Table 3.7b) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol consumption (Table 10.3).

### **Industrial Sector, Losses and Co-products**

EIA, *MER*, Tables 10.3 and 10.4.

### **Transportation Sector, Fuel Ethanol**

EIA, *MER*, Tables 3.5, 3.7c, and 10.3. Calculated as transportation sector motor gasoline consumption (Table 3.7c) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol consumption (Table 10.3).

### **Transportation Sector, Biodiesel**

EIA, *MER*, Table 10.4. Transportation sector biodiesel consumption is assumed to equal total biodiesel consumption.

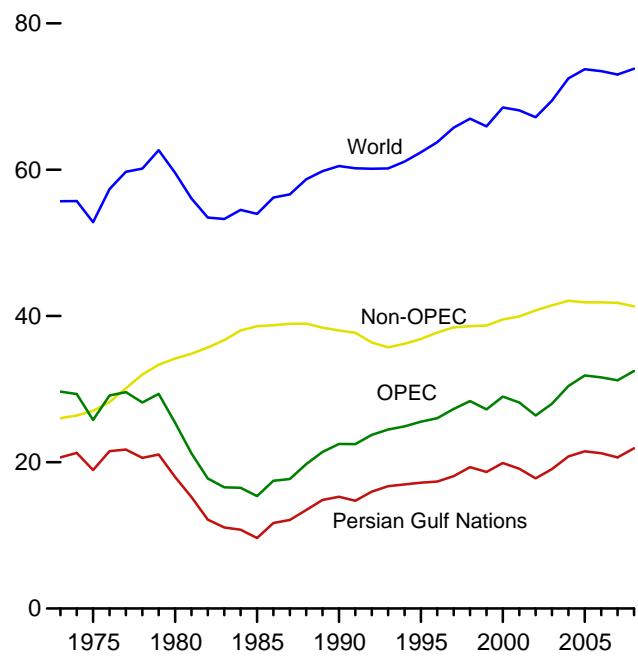
# International Petroleum



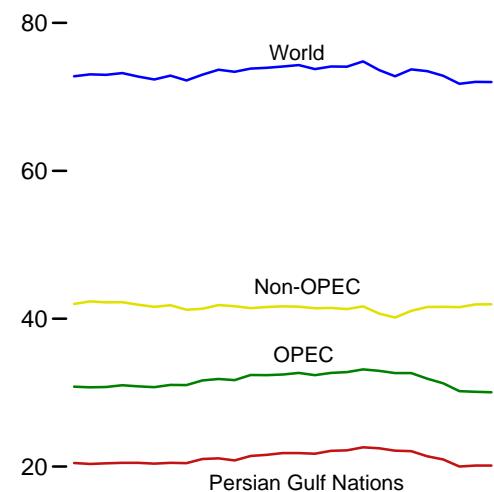
Drilling rig, Gansu Province, People's Republic of China. Source: U.S. Department of Energy.

**Figure 11.1a World Crude Oil Production Overview**  
(Million Barrels per Day)

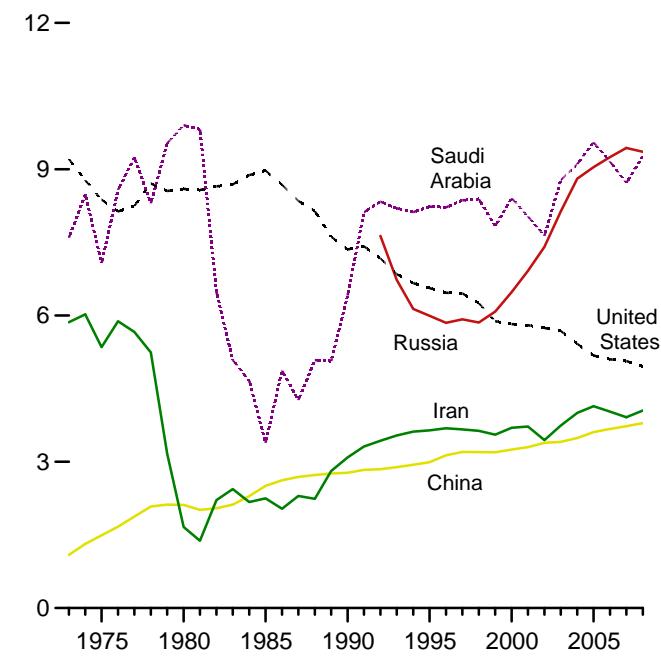
World Production, 1973-2008



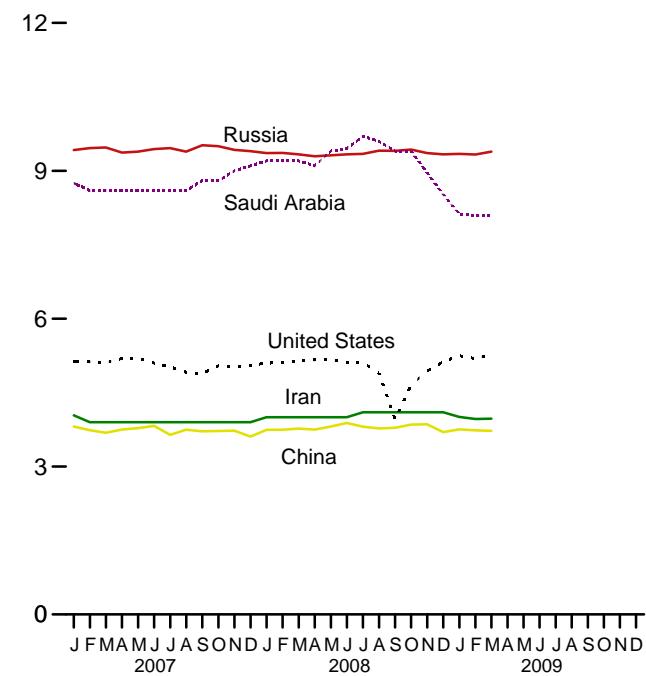
World Production, Monthly



Selected Producers, 1973-2008



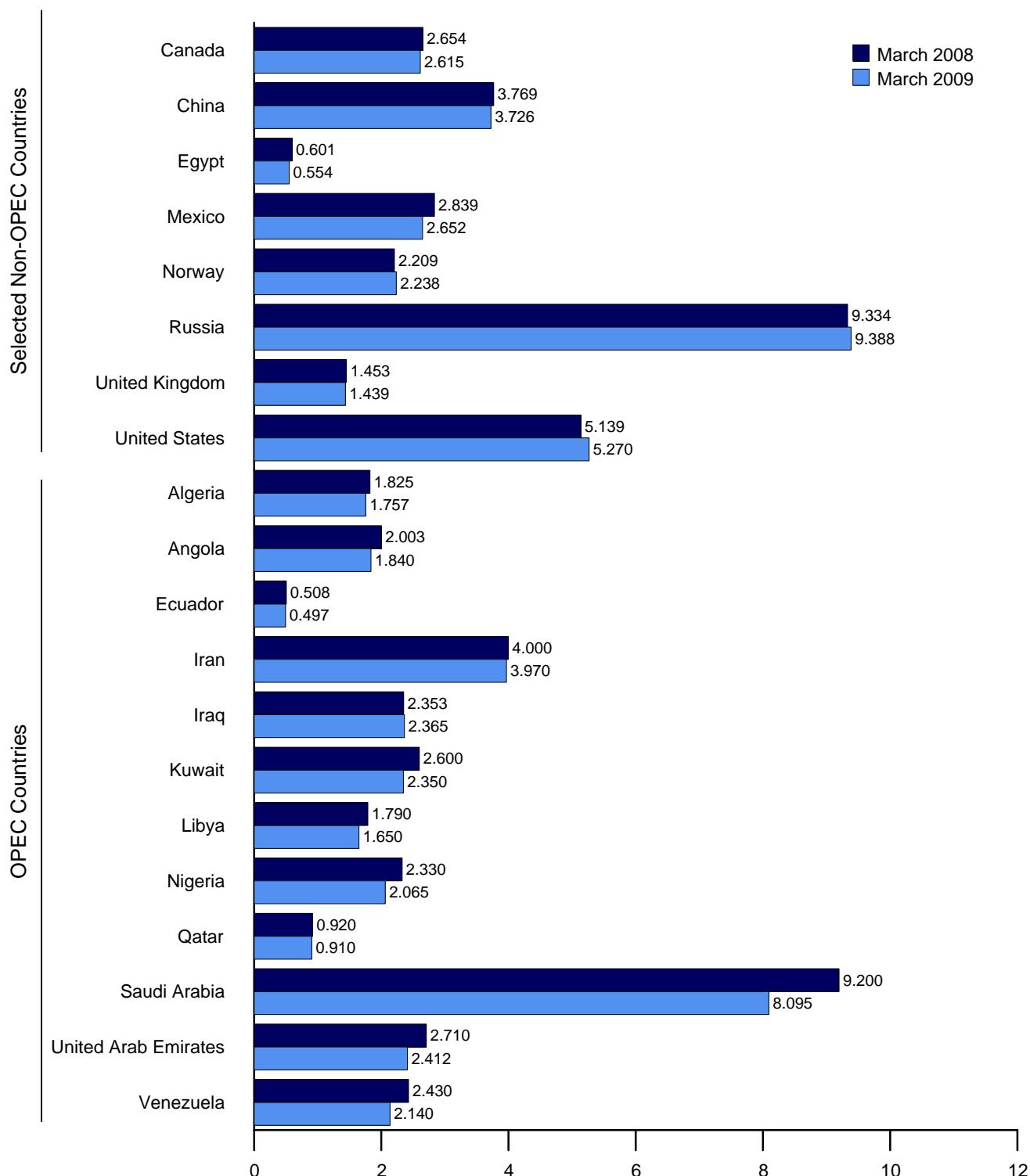
Selected Producers, Monthly



Notes: • OPEC is the Organization of the Petroleum Exporting Countries.  
• The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Persian Gulf Nations."

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.  
Sources: Tables 11.1a and 11.1b.

**Figure 11.1b World Crude Oil Production by Selected Country**  
 (Million Barrels per Day)



Note: OPEC is the Organization of Petroleum Exporting Countries.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.

Sources: Tables 11.1a and 11.1b.

**Table 11.1a World Crude Oil Production: OPEC Members**  
 (Thousand Barrels per Day)

	Algeria	Angola	Ecuador	Iran	Iraq	Kuwait <sup>a</sup>	Libya	Nigeria	Qatar	Saudi Arabia <sup>a</sup>	United Arab Emirates	Venezuela	Total OPEC <sup>b</sup>
1973 Average .....	1,097	162	209	5,861	2,018	3,020	2,175	2,054	570	7,596	1,533	3,366	29,661
1975 Average .....	983	165	161	5,350	2,262	2,084	1,480	1,783	438	7,075	1,664	2,346	25,790
1980 Average .....	1,106	150	204	1,662	2,514	1,656	1,787	2,055	472	9,900	1,709	2,168	25,383
1985 Average .....	1,037	231	281	2,250	1,433	1,023	1,059	1,495	301	3,388	1,193	1,677	15,368
1990 Average .....	1,175	475	285	3,088	2,040	1,175	1,375	1,810	406	6,410	2,117	2,137	22,493
1995 Average .....	1,202	646	392	3,643	560	2,057	1,390	1,993	442	8,231	2,233	2,750	25,540
1996 Average .....	1,242	709	396	3,686	579	2,062	1,401	2,001	510	8,218	2,278	2,938	26,018
1997 Average .....	1,277	714	388	3,664	1,155	2,007	1,446	2,132	550	8,362	2,316	3,280	27,292
1998 Average .....	1,246	735	375	3,634	2,150	2,085	1,390	2,153	696	8,389	2,345	3,167	28,366
1999 Average .....	1,202	745	373	3,557	2,508	1,898	1,319	2,130	665	7,833	2,169	2,826	27,224
2000 Average .....	1,254	746	395	3,696	2,571	2,079	1,410	2,165	737	8,404	2,368	3,155	28,980
2001 Average .....	1,310	742	412	3,724	2,390	1,998	1,367	2,256	714	8,031	2,205	3,010	28,159
2002 Average .....	1,306	896	393	3,444	2,023	1,894	1,319	2,118	679	7,634	2,082	2,604	26,392
2003 Average .....	1,611	903	411	3,743	1,308	2,136	1,421	2,275	715	8,775	2,348	2,335	27,980
2004 Average .....	1,677	1,052	528	4,001	2,011	2,376	1,515	2,329	783	9,101	2,478	2,557	30,408
2005 Average .....	1,797	1,250	532	4,139	1,878	2,529	1,633	2,627	835	9,550	2,535	2,565	31,871
2006 Average .....	1,814	1,413	536	4,028	1,996	2,535	1,681	2,440	850	9,152	2,636	2,511	31,591
2007 January .....	1,838	1,584	517	4,040	1,753	2,450	1,680	2,365	835	8,750	2,613	2,380	30,805
February .....	1,833	1,600	507	3,900	2,003	2,420	1,680	2,390	825	8,600	2,573	2,383	30,714
March .....	1,829	1,640	482	3,900	2,053	2,420	1,680	2,275	825	8,600	2,612	2,445	30,760
April .....	1,825	1,679	502	3,900	2,103	2,420	1,680	2,400	825	8,600	2,611	2,445	30,990
May .....	1,821	1,695	512	3,900	2,103	2,420	1,680	2,240	825	8,600	2,611	2,444	30,851
June .....	1,828	1,680	515	3,900	2,003	2,420	1,680	2,230	835	8,600	2,610	2,444	30,745
July .....	1,828	1,710	510	3,900	2,053	2,445	1,700	2,380	865	8,600	2,610	2,444	31,044
August .....	1,824	1,730	508	3,900	1,903	2,500	1,700	2,380	865	8,600	2,659	2,444	31,013
September .....	1,831	1,791	517	3,900	2,203	2,500	1,720	2,380	865	8,800	2,709	2,440	31,655
October .....	1,842	1,889	514	3,900	2,303	2,500	1,740	2,330	869	8,800	2,711	2,440	31,838
November .....	1,852	1,940	518	3,900	2,253	2,520	1,740	2,400	883	9,000	2,242	2,440	31,688
December .....	1,852	1,986	532	3,900	2,303	2,550	1,740	2,430	888	9,100	2,659	2,440	32,379
Average .....	1,834	1,744	511	3,912	2,086	2,464	1,702	2,350	851	8,722	2,603	2,433	31,210
2008 January .....	R 1,826	1,992	520	4,000	R 2,203	2,550	R 1,790	2,230	892	9,200	2,709	2,440	R 32,352
February .....	R 1,826	1,997	519	4,000	R 2,353	2,600	R 1,790	2,100	916	9,200	2,709	2,440	R 32,449
March .....	R 1,825	2,003	508	4,000	R 2,353	2,600	R 1,790	2,330	920	9,200	2,710	2,430	R 32,669
April .....	R 1,825	2,009	510	4,000	R 2,353	2,600	R 1,769	2,130	934	9,100	2,710	2,420	R 32,361
May .....	R 1,825	2,015	499	4,000	2,453	2,600	R 1,745	2,060	938	9,400	2,710	2,410	R 32,655
June .....	R 1,824	2,013	495	4,000	2,453	2,607	R 1,745	2,140	942	9,450	2,710	2,400	R 32,780
July .....	R 1,824	2,009	498	4,100	2,505	2,614	R 1,720	2,120	947	9,700	2,710	2,390	R 33,138
August .....	R 1,824	1,937	503	4,100	2,456	2,622	R 1,645	2,216	951	9,600	2,711	2,380	R 32,945
September .....	R 1,824	1,871	498	4,100	2,328	2,629	R 1,745	2,210	955	9,400	2,711	2,370	R 32,640
October .....	R 1,824	1,990	497	4,100	2,328	2,629	R 1,745	2,185	925	9,400	2,661	2,360	R 32,643
November .....	R 1,824	1,990	502	R 4,100	2,359	2,486	1,700	2,180	885	8,959	2,561	2,350	R 31,895
December .....	R 1,824	1,940	508	R 4,100	2,360	2,493	R 1,650	2,080	885	8,518	2,561	2,340	R 31,259
Average .....	R 1,825	1,981	505	R 4,050	R 2,375	2,586	R 1,736	2,165	924	9,261	2,681	2,394	R 32,483
2009 January .....	R 1,758	R 1,915	504	R 4,007	2,212	2,350	R 1,650	2,172	R 860	8,127	2,411	2,240	R 30,206
February .....	R 1,757	R 1,840	498	R 3,963	2,363	2,350	R 1,650	2,117	935	8,086	2,412	2,140	R 30,111
March .....	1,757	1,840	497	3,970	2,365	2,350	1,650	2,065	910	8,095	2,412	2,140	30,051
3-Month Average ....	1,757	1,866	500	3,981	2,312	2,350	1,650	2,118	900	8,103	2,412	2,174	30,123
2008 3-Month Average ....	1,826	1,997	516	4,000	2,302	2,583	1,790	2,223	909	9,200	2,709	2,437	32,491
2007 3-Month Average ....	1,833	1,608	502	3,948	1,934	2,430	1,680	2,342	828	8,652	2,600	2,403	30,762

<sup>a</sup> Except for the period from August 1990 through May 1991, includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In March 2009, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 504 thousand barrels per day.

<sup>b</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC"

for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

R=Revised.

Notes: • Data are for crude oil and lease condensate; they exclude natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

Sources: See end of section.

**Table 11.1b World Crude Oil Production: Persian Gulf Nations, Non-OPEC, and World** (Thousand Barrels per Day)

	Persian Gulf Nations <sup>b</sup>	Selected Non-OPEC <sup>a</sup> Producers									Total Non- OPEC <sup>a</sup>	World
		Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States		
1973 Average .....	20,668	1,798	1,090	165	465	32	8,324	NA	2	9,208	26,018	55,679
1975 Average .....	18,934	1,430	1,490	235	705	189	9,523	NA	12	8,375	27,039	52,828
1980 Average .....	17,961	1,435	2,114	595	1,936	486	11,706	NA	1,622	8,597	34,175	59,558
1985 Average .....	9,630	1,471	2,505	887	2,745	773	11,585	NA	2,530	8,971	38,598	53,966
1990 Average .....	15,278	1,553	2,774	873	2,553	1,630	10,975	NA	1,820	7,355	37,999	60,492
1995 Average .....	17,208	1,805	2,990	920	2,618	2,766	--	5,995	2,489	6,560	36,845	62,385
1996 Average .....	17,367	1,837	3,131	922	2,855	3,091	--	5,850	2,568	6,465	37,733	63,752
1997 Average .....	18,095	1,922	3,200	856	3,023	3,142	--	5,920	2,518	6,452	38,452	65,744
1998 Average .....	19,337	1,981	3,198	834	3,070	3,011	--	5,854	2,616	6,252	38,599	66,966
1999 Average .....	18,667	1,907	3,195	852	2,906	3,019	--	6,079	2,684	5,881	38,698	65,922
2000 Average .....	19,892	1,977	3,249	768	3,012	3,222	--	6,479	2,275	5,822	39,515	68,495
2001 Average .....	19,098	2,029	3,300	720	3,127	3,226	--	6,917	2,282	5,801	39,942	68,101
2002 Average .....	17,794	2,171	3,390	715	3,177	3,131	--	7,408	2,292	5,746	40,769	67,162
2003 Average .....	19,063	2,306	3,409	713	3,371	3,042	--	8,132	2,093	5,681	41,454	69,434
2004 Average .....	20,787	2,398	3,485	673	3,383	2,954	--	8,805	1,845	5,419	42,085	72,493
2005 Average .....	21,501	2,369	3,609	658	3,334	2,698	--	9,043	1,649	5,178	41,866	73,737
2006 Average .....	21,232	2,525	3,673	639	3,256	2,491	--	9,247	1,490	5,102	41,870	73,461
2007 January .....	20,476	2,549	3,811	616	3,143	2,431	--	9,420	1,513	5,123	41,986	72,791
February .....	20,356	2,586	3,739	614	3,148	2,454	--	9,460	1,654	5,125	42,332	73,047
March .....	20,445	2,701	3,685	612	3,182	2,391	--	9,473	1,565	5,106	42,210	72,971
April .....	20,494	2,605	3,749	609	3,182	2,427	--	9,369	1,572	5,189	42,227	73,217
May .....	20,494	2,582	3,781	649	3,110	2,181	--	9,390	1,580	5,197	41,890	72,741
June .....	20,403	2,485	3,826	679	3,206	1,921	--	9,440	1,495	5,096	41,600	72,345
July .....	20,508	2,599	3,643	679	3,166	2,327	--	9,460	1,484	5,024	41,822	72,866
August .....	20,462	2,795	3,746	679	2,843	2,135	--	9,390	1,228	4,914	41,208	72,221
September .....	21,012	2,689	3,716	679	3,137	2,190	--	9,520	1,389	4,884	41,346	73,001
October .....	21,118	2,657	3,722	609	2,983	2,273	--	9,500	1,556	5,043	41,839	73,677
November .....	20,833	2,675	3,727	609	2,888	2,287	--	9,425	1,456	5,017	41,697	73,385
December .....	21,434	2,469	3,607	609	2,931	2,235	--	9,400	1,493	5,056	41,433	73,812
Average .....	20,672	2,616	3,729	637	3,076	2,270	--	9,437	1,498	5,064	41,796	73,006
2008 January .....	R 21,588	2,528	3,744	609	2,928	2,209	--	9,359	1,463	E 5,093	41,573	R 73,924
February .....	R 21,813	2,561	3,747	605	2,909	2,176	--	9,362	1,489	E 5,113	41,659	R 74,109
March .....	R 21,818	R 2,654	3,769	601	2,839	2,209	--	9,334	1,453	E 5,139	R 41,624	R 74,293
April .....	R 21,732	R 2,529	3,751	597	2,757	2,111	--	9,296	1,499	E 5,162	41,405	R 73,766
May .....	22,136	2,453	3,811	593	2,791	2,247	--	9,315	1,486	E 5,166	41,454	R 74,109
June .....	22,197	R 2,488	3,884	589	2,833	2,002	--	9,334	1,364	E 5,109	R 41,306	R 74,086
July .....	22,610	R 2,677	3,808	606	2,778	2,302	--	9,344	1,303	E 5,110	R 41,660	R 74,798
August .....	22,474	R 2,696	3,774	622	2,759	2,057	--	9,409	1,096	E 4,895	R 40,686	R 73,631
September .....	22,157	R 2,591	3,788	638	2,722	2,057	--	9,406	1,394	E 3,960	R 40,149	R 72,789
October .....	22,077	R 2,607	3,850	634	2,757	2,241	--	9,430	1,337	E 4,645	R 41,069	R 73,712
November .....	R 21,384	R 2,711	3,859	570	2,711	2,276	--	9,359	1,398	E 4,938	R 41,580	R 73,475
December .....	R 20,952	R 2,654	3,699	566	2,717	2,287	--	9,333	1,413	E 5,123	R 41,592	R 72,851
Average .....	R 21,913	R 2,596	3,790	603	2,792	2,182	--	9,357	1,390	E 4,955	R 41,313	R 73,796
2009 January .....	R 20,002	R 2,615	3,755	562	2,685	2,195	--	9,343	1,418	E 5,246	R 41,560	R 71,766
February .....	R 20,144	R 2,702	3,733	558	2,663	2,260	--	9,331	1,453	E 5,191	R 41,921	R 72,032
March .....	20,136	2,615	3,726	554	2,652	2,238	--	9,388	1,439	E 5,270	41,948	71,998
3-Month Average ....	20,093	2,642	3,738	558	2,667	2,230	--	9,355	1,436	E 5,237	41,806	71,929
2008 3-Month Average ....	21,738	2,582	3,753	605	2,892	2,198	--	9,351	1,468	E 5,115	41,618	74,109
2007 3-Month Average ....	20,428	2,613	3,745	614	3,158	2,424	--	9,451	1,575	5,118	42,171	72,933

<sup>a</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC" for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

R=Revised. NA=Not available. --=Not applicable. E=Estimate.

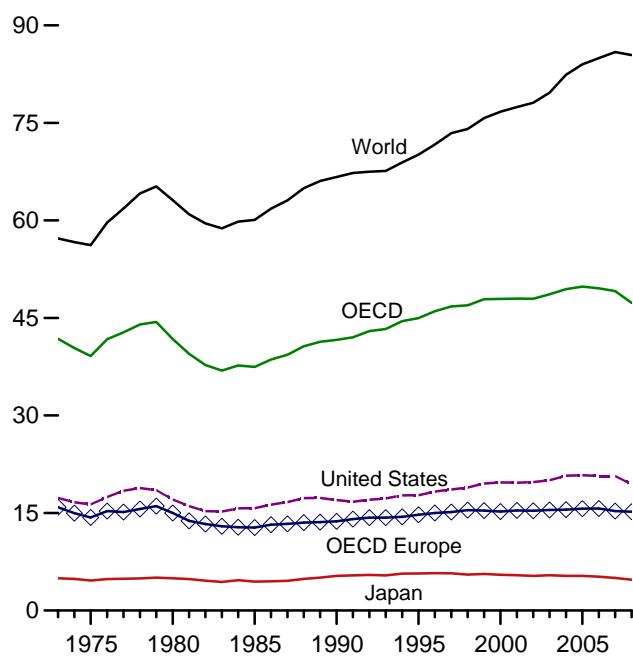
Notes: • Data are for crude oil and lease condensate; they exclude natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum to World totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

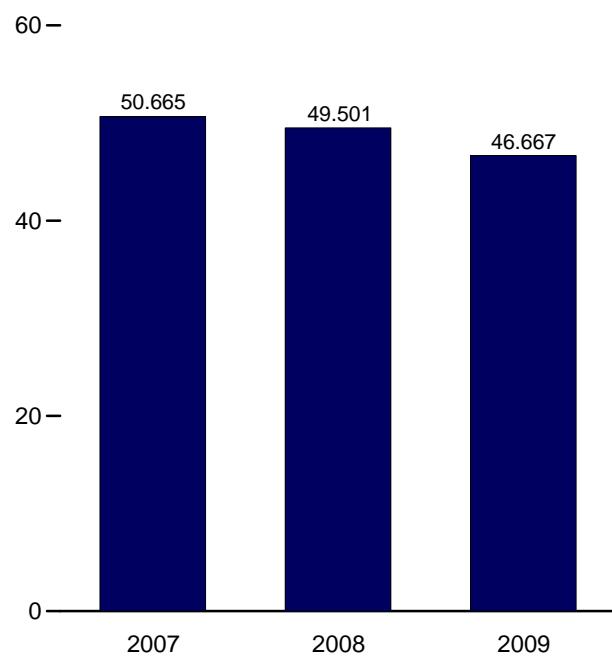
Sources: See end of section.

**Figure 11.2 Petroleum Consumption in OECD Countries**  
(Million Barrels per Day)

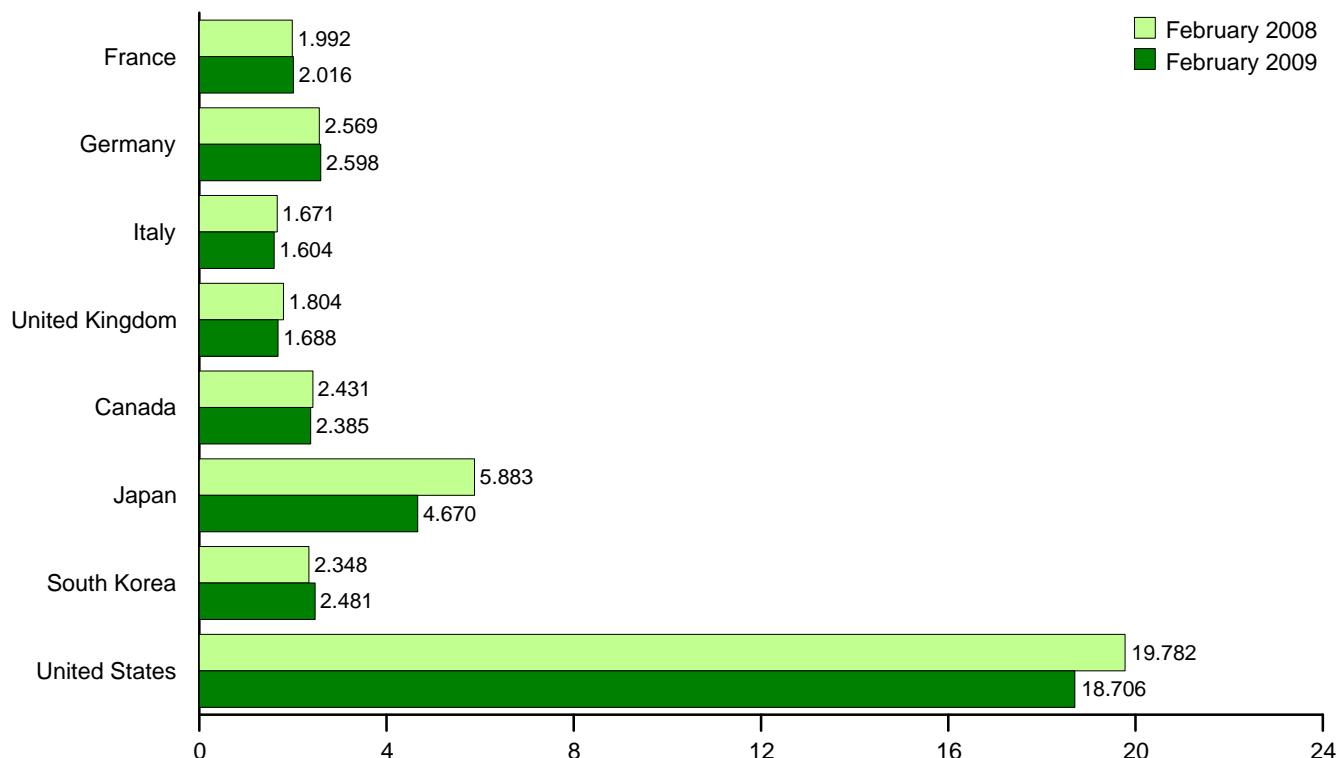
Overview, 1973-2008



OECD Total, February



By Selected OECD Country



Note: OECD is the Organization for Economic Cooperation and Development.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.  
Source: Table 11.2.

**Table 11.2 Petroleum Consumption in OECD Countries**

(Thousand Barrels per Day)

	France	Germany <sup>a</sup>	Italy	United Kingdom	OECD Europe <sup>b</sup>	Canada	Japan	South Korea	United States	Other OECD <sup>c</sup>	OECD <sup>d</sup>	World
1973 Average .....	2,601	3,324	2,068	2,341	15,879	1,729	4,949	281	17,308	1,658	41,804	57,237
1975 Average .....	2,252	2,957	1,855	1,911	14,314	1,779	4,621	311	16,322	1,794	39,141	56,198
1980 Average .....	2,256	3,082	1,934	1,725	14,995	1,873	4,960	537	17,056	2,342	41,763	63,114
1985 Average .....	1,753	2,651	1,705	1,617	12,772	1,526	4,436	552	15,726	2,469	37,481	60,085
1990 Average .....	1,826	2,682	1,868	1,776	13,730	1,737	5,316	1,048	16,988	2,804	41,623	66,689
1995 Average .....	1,920	2,882	1,942	1,816	14,718	1,817	5,700	2,008	17,725	3,001	44,968	70,133
1996 Average .....	1,949	2,922	1,920	1,852	14,999	1,871	5,746	2,101	18,309	2,996	46,022	71,671
1997 Average .....	1,969	2,917	1,934	1,810	15,140	1,959	5,711	2,255	18,620	3,091	46,776	73,427
1998 Average .....	2,040	2,923	1,943	1,792	15,444	1,949	5,515	1,917	18,917	3,192	46,935	74,053
1999 Average .....	2,029	2,838	1,891	1,811	15,363	2,036	5,632	2,084	19,519	3,236	47,870	75,727
2000 Average .....	1,999	2,772	1,854	1,765	15,217	2,035	5,512	2,135	19,701	3,326	47,926	76,712
2001 Average .....	2,052	2,815	1,832	1,747	15,385	2,066	5,415	2,132	19,649	3,341	47,988	77,444
2002 Average .....	1,983	2,722	1,870	1,739	15,333	2,087	5,317	2,149	19,761	3,296	47,944	78,089
2003 Average .....	1,999	2,679	1,873	1,759	15,471	2,217	5,428	2,175	20,034	3,329	48,653	79,660
2004 Average .....	2,007	2,665	1,794	1,785	15,522	2,310	5,318	2,155	20,731	3,398	49,435	82,408
2005 Average .....	1,989	2,647	1,755	1,834	15,669	2,342	5,324	2,191	20,802	3,496	49,824	84,005
2006 Average .....	1,981	2,692	1,743	1,812	15,679	2,297	5,198	2,180	20,687	3,520	49,562	84,978
2007 January .....	2,046	2,293	1,641	1,739	14,932	2,310	5,259	2,397	20,567	3,469	48,935	NA
February .....	1,968	2,356	1,781	1,788	15,340	2,478	5,612	2,395	21,309	3,532	50,665	NA
March .....	1,936	2,460	1,734	1,777	15,293	2,361	5,449	2,289	20,536	3,645	49,572	NA
April .....	1,868	2,287	1,655	1,783	14,765	2,191	4,907	2,222	20,536	3,404	48,026	NA
May .....	1,800	2,377	1,727	1,679	14,800	2,350	4,435	2,078	20,620	3,596	47,880	NA
June .....	1,913	2,440	1,694	1,738	15,214	2,331	4,599	2,070	20,723	3,693	48,630	NA
July .....	1,953	2,489	1,710	1,702	15,301	2,389	4,595	2,054	20,747	3,632	48,718	NA
August .....	1,921	2,567	1,575	1,754	15,385	2,448	4,627	2,098	21,025	3,488	49,072	NA
September .....	1,942	2,588	1,675	1,731	15,582	2,374	4,891	2,035	20,415	3,402	48,699	NA
October .....	2,141	2,652	1,771	1,742	16,105	2,382	4,823	2,215	20,476	3,679	49,681	NA
November .....	2,076	2,536	1,748	1,785	15,874	2,426	5,237	2,357	20,535	3,585	50,014	NA
December .....	1,837	2,417	1,717	1,675	14,971	2,339	5,692	2,369	20,719	3,625	49,716	NA
Average .....	1,950	2,456	1,702	1,740	15,296	2,364	5,007	2,214	20,680	3,563	49,125	85,897
2008 January .....	2,060	R 2,479	1,626	1,695	R 15,432	2,356	5,369	2,372	20,114	3,484	R 49,127	NA
February .....	1,992	R 2,569	1,671	1,804	R 15,491	2,431	5,883	2,348	19,782	3,566	R 49,501	NA
March .....	1,882	R 2,398	1,569	1,674	R 14,749	2,313	5,022	2,266	19,732	3,425	R 47,507	NA
April .....	2,005	R 2,511	1,621	1,821	R 15,435	2,195	4,992	2,098	19,768	3,687	R 48,176	NA
May .....	1,851	R 2,307	1,609	1,620	R 14,496	2,259	4,448	2,181	19,729	3,601	R 46,714	NA
June .....	1,897	R 2,420	1,588	1,708	R 14,763	2,295	4,340	1,993	19,553	3,462	R 46,406	NA
July .....	1,924	R 2,633	1,751	1,623	R 15,337	2,407	4,437	2,028	19,412	3,673	R 47,294	NA
August .....	1,855	R 2,619	1,534	1,576	R 14,822	2,297	4,174	2,028	19,267	3,505	R 46,092	NA
September .....	1,994	R 2,827	1,680	1,721	R 15,963	2,326	4,290	2,167	17,796	3,399	R 45,941	NA
October .....	2,048	R 2,843	1,679	1,726	R 15,799	2,360	4,337	2,023	19,643	3,371	R 47,533	NA
November .....	1,881	R 2,606	1,578	1,709	R 14,892	2,339	4,565	2,059	19,001	3,301	R 46,158	NA
December .....	2,086	R 2,457	1,653	1,709	R 15,151	R 2,217	R 5,108	2,271	19,199	R 3,566	R 47,512	NA
Average .....	1,956	R 2,555	1,630	1,698	R 15,192	R 2,316	R 4,743	2,153	19,419	3,503	R 47,325	R 85,434
2009 January .....	2,007	2,375	1,544	1,734	R 14,692	R 2,368	4,804	2,306	19,125	R 3,291	R 46,586	NA
February .....	2,016	2,598	1,604	1,688	15,011	2,385	4,670	2,481	18,706	3,414	46,667	NA
2-Month Average ....	2,012	2,481	1,572	1,712	14,844	2,376	4,740	2,389	18,926	3,349	46,624	NA
2008 2-Month Average ....	2,027	2,523	1,648	1,747	15,461	2,392	5,618	2,360	19,954	3,524	49,308	NA
2007 2-Month Average ....	2,009	2,323	1,707	1,762	15,125	2,390	5,427	2,396	20,919	3,499	49,756	NA

<sup>a</sup> Data are for unified Germany, i.e., the former East Germany and West Germany.

<sup>b</sup> "OECD Europe" consists of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

<sup>c</sup> "Other OECD" consists of Australia, Mexico, New Zealand, and the U.S. Territories.

<sup>d</sup> The Organization for Economic Cooperation and Development (OECD) consists of "OECD Europe," Canada, Japan, South Korea, the United States, and "Other OECD."

R=Revised. NA=Not available.

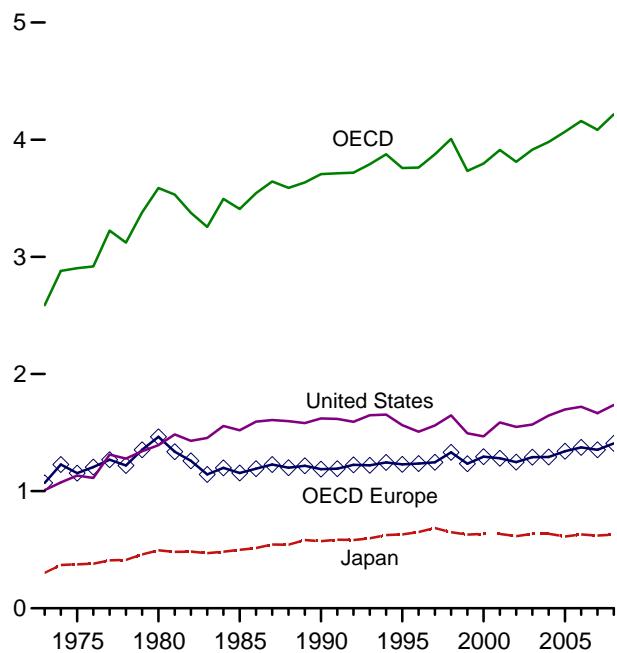
Notes: • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

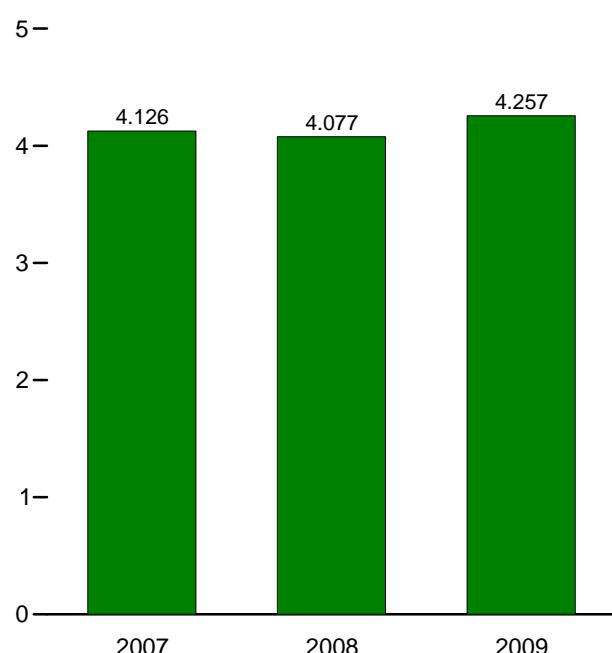
Sources: • **United States:** Table 3.1. • **U.S. Territories:** 1983 forward—Energy Information Administration (EIA), International Energy Database. • **East Germany, Former Czechoslovakia, Hungary, Mexico, Poland, South Korea, Non-OECD Countries, and World:** 1973-1979—EIA, International Energy Database. 1980-1983—EIA, International Energy Annual 2005, August 2007, Table 1.2. • **Non-OECD Countries:** 1984-2005—EIA, International Energy Annual 2005, August 2007, Table 1.2. 2006 and 2007—EIA, Short Term Energy Outlook, May 2008. • **World:** 1984-2007—Sum of OECD and Non-OECD Countries. • **All Other Data:** 1973-1981—International Energy Agency (IEA), Quarterly Oil Statistics and Energy Balances in OECD Countries, various issues. 1982-1983—IEA, Monthly Oil and Gas Statistics Database. 1984 forward—IEA, Monthly Oil Data Service, May 14, 2009.

**Figure 11.3 Petroleum Stocks in OECD Countries**  
(Billion Barrels)

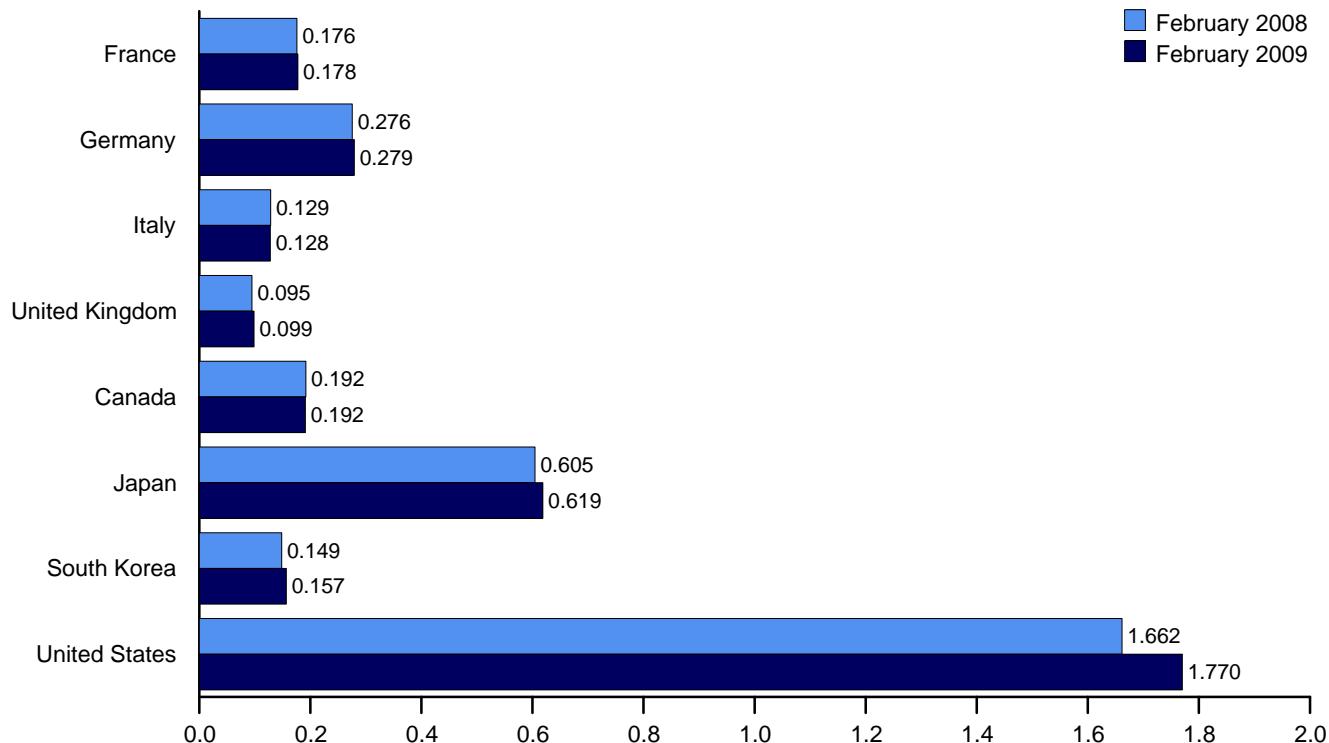
Overview, End of Year, 1973-2008



OECD Stocks, End of Month, February



By Selected OECD Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development.  
Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.  
Source: Table 11.3.

**Table 11.3 Petroleum Stocks in OECD Countries**  
(Million Barrels)

	France	Germany <sup>a</sup>	Italy	United Kingdom	OECD Europe <sup>b</sup>	Canada	Japan	South Korea	United States	Other OECD <sup>c</sup>	OECD <sup>d</sup>
1973 Year .....	201	181	152	156	1,070	140	303	NA	1,008	67	2,588
1975 Year .....	225	187	143	165	1,154	174	375	NA	1,133	67	2,903
1980 Year .....	243	319	170	168	1,464	164	495	NA	1,392	72	3,587
1985 Year .....	139	277	156	131	1,154	112	500	13	1,519	110	3,408
1990 Year .....	143	280	143	103	1,188	143	572	64	1,621	117	3,706
1995 Year .....	155	302	141	101	1,228	132	631	92	1,563	113	3,758
1996 Year .....	154	303	135	103	1,235	127	651	123	1,507	118	3,762
1997 Year .....	161	299	129	100	1,246	144	685	124	1,560	115	3,875
1998 Year .....	169	323	135	104	1,331	139	649	129	1,647	111	4,006
1999 Year .....	160	290	130	101	1,233	142	629	132	1,493	105	3,733
2000 Year .....	170	272	140	100	1,294	144	634	140	1,468	117	3,796
2001 Year .....	165	273	134	113	1,281	156	634	143	1,586	112	3,912
2002 Year .....	170	253	138	104	1,247	157	615	140	1,548	103	3,811
2003 Year .....	179	273	135	100	1,290	170	636	155	1,568	96	3,914
2004 Year .....	177	267	136	101	1,292	160	635	149	1,645	99	3,980
2005 Year .....	185	283	132	95	1,340	178	612	135	1,698	104	4,067
2006 Year .....	182	283	133	103	1,373	181	631	152	1,720	103	4,159
2007 January .....	176	285	128	101	1,366	187	643	153	1,724	107	4,181
February .....	178	292	135	103	1,384	183	636	147	1,666	110	4,126
March .....	166	289	134	103	1,356	186	620	156	1,678	103	4,099
April .....	179	290	135	102	1,372	185	619	149	1,694	109	4,129
May .....	178	287	132	103	1,371	189	616	159	1,724	112	4,170
June .....	174	283	133	97	1,348	188	622	158	1,730	113	4,161
July .....	175	280	132	98	1,361	192	632	165	1,733	110	4,194
August .....	176	278	134	98	1,358	196	641	157	1,716	107	4,175
September .....	175	276	134	90	1,355	196	630	157	1,717	110	4,164
October .....	165	273	132	96	1,328	194	629	159	1,708	114	4,131
November .....	166	270	130	91	1,326	R 194	622	149	1,690	107	R 4,088
December .....	180	275	133	90	1,353	194	621	143	1,665	108	R 4,084
2008 January .....	182	281	136	95	R 1,383	196	621	155	1,677	109	R 4,140
February .....	176	R 276	129	95	R 1,356	192	605	149	1,662	113	R 4,077
March .....	177	R 281	131	100	1,384	194	610	143	1,653	110	4,094
April .....	173	R 279	134	98	1,363	195	610	141	1,665	105	4,079
May .....	177	277	136	99	1,373	193	617	146	1,673	106	R 4,108
June .....	177	273	137	99	R 1,373	194	619	147	1,686	108	R 4,126
July .....	179	R 274	135	95	1,387	200	627	153	1,699	104	R 4,168
August .....	176	R 276	131	96	R 1,381	197	643	150	1,710	105	R 4,186
September .....	177	R 274	130	95	R 1,364	198	646	141	1,705	116	R 4,171
October .....	179	R 270	129	93	R 1,361	202	648	138	1,712	120	R 4,182
November .....	179	R 275	127	96	R 1,378	R 200	641	139	1,733	116	4,207
December .....	179	277	128	99	1,407	R 196	630	135	1,735	113	R 4,217
2009 January .....	179	280	136	R 100	R 1,411	R 196	618	149	1,762	114	R 4,250
February .....	178	279	128	99	1,411	192	619	157	1,770	107	4,257

<sup>a</sup> Through December 1983, the data for Germany are for the former West Germany only. Beginning with January 1984, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

<sup>b</sup> "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom, and, for 1984 forward, Czech Republic, Hungary, Poland, and Slovakia.

<sup>c</sup> "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1984 forward, Mexico.

<sup>d</sup> The Organization for Economic Cooperation and Development (OECD) consists of "OECD Europe," Canada, Japan, South Korea, the United States, and "Other OECD."

R=Revised. NA=Not available.

Notes: • Stocks are at end of period. • Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined

products. • In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, thereby affecting subsequent stocks reported. New-basis end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,425 in 1980, and 1,461 in 1982. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

Sources: • **United States:** Table 3.4. • **U.S. Territories: 1983 forward**—Energy Information Administration, International Energy Database. • **All Other Data: 1973-1982**—International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances*, various issues. **1983**—IEA, Monthly Oil and Gas Statistics Database. **1984 forward**—IEA, Monthly Oil Data Service, May 14, 2009.

# International Petroleum

## Tables 11.1a and 11.1b Sources

### United States

Table 3.1.

### All Other Countries and World, Annual Data

1973–1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.  
1980 forward: EIA, Office of Energy Markets and End Use (EMEU), International Energy Database, June 2009.

### All Other Countries and World, Monthly Data

1973-1980: *Petroleum Intelligence Weekly (PIW)*, *Oil & Gas Journal (OGJ)*, and EIA adjustments.  
1981-1993: *PIW*, *OGJ*, and other industry sources.  
1994 forward: EIA, *International Petroleum Monthly*, and EMEU, International Energy Database, June 2009.

# Appendix

## British Thermal Unit Conversion Factors

The thermal conversion factors presented in the following tables can be used to estimate the heat content in British thermal units (Btu) of a given amount of energy measured in physical units, such as barrels or cubic feet. For example, 10 barrels of asphalt has a heat content of approximately 66.36 million Btu (10 barrels x 6.636 million Btu per barrel = 66.36 million Btu).

The heat content rates (i.e., thermal conversion factors) provided in this section represent the gross (or higher or upper) energy content of the fuels. Gross heat content rates are applied in all Btu calculations for the *Monthly Energy Review* and are commonly used in energy calculations in the United States; net (or lower) heat content rates are typically used in European energy calculations. The difference between the two rates is the amount of energy that is consumed to vaporize water that is created during the combustion process. Generally, the difference ranges from 2 percent to 10 percent, depending on the specific fuel and its hydrogen content. Some fuels, such as unseasoned wood, can be more than 40 percent different in their gross

and net heat content rates. See "Heat Content" and "British Thermal Unit (Btu)" in the Glossary for more information.

Thermal conversion factors for hydrocarbon mixes (Table A1) are weighted averages of the thermal conversion factors for each hydrocarbon included in the mix. For example, in calculating the thermal conversion factor for a 60-40 butane-propane mixture, the thermal conversion factor for butane is weighted 1.5 times the thermal conversion factor for propane.

In general, the annual thermal conversion factors presented in Tables A2 through A6 are computed from final annual data or from the best available data and labeled "preliminary." Often, the previous year's factor is used as a preliminary value until data become available to calculate the factor appropriate to the year. The source of each factor is described in the section entitled "Thermal Conversion Factor Source Documentation," which follows Table A6 in this appendix.

**Table A1. Approximate Heat Content of Petroleum Products  
(Million Btu per Barrel)**

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Natural Gasoline and Isopentane	4.620
Aviation Gasoline	5.048	Pentanes Plus	4.620
Butane	4.326	Petrochemical Feedstocks	
Butane-Propane Mixture <sup>a</sup>	4.130	Naphtha Less Than 401°F	5.248
Distillate Fuel Oil	5.825	Other Oils Equal to or Greater Than 401°F	5.825
Ethane	3.082	Still Gas	6.000
Ethane-Propane Mixture <sup>b</sup>	3.308	Petroleum Coke	6.024
Isobutane	3.974	Plant Condensate	5.418
Jet Fuel, Kerosene Type	5.670	Propane	3.836
Jet Fuel, Naphtha Type	5.355	Residual Fuel Oil	6.287
Kerosene	5.670	Road Oil	6.636
Lubricants	6.065	Special Naphthas	5.248
Motor Gasoline		Still Gas	6.000
Conventional <sup>c</sup>	5.253	Unfinished Oils	5.825
Reformulated <sup>c</sup>	5.150	Unfractionated Stream	5.418
Oxygenated <sup>c</sup>	5.150	Waxes	5.537
Fuel Ethanol <sup>d</sup>	3.539	Miscellaneous	5.796

<sup>a</sup> 60 percent butane and 40 percent propane.

<sup>b</sup> 70 percent ethane and 30 percent propane.

<sup>c</sup> See Table A3 for motor gasoline annual weighted averages beginning in 1994.

<sup>d</sup> Fuel ethanol, which is derived from agricultural feedstocks (primarily corn), is not a petroleum product but is blended into motor gasoline.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

**Table A2. Approximate Heat Content of Petroleum Production, Imports, and Exports**  
 (Million Btu per Barrel)

	Production		Imports			Exports		
	Crude Oil <sup>a</sup>	Natural Gas Plant Liquids	Crude Oil <sup>a</sup>	Petroleum Products	Total	Crude Oil <sup>a</sup>	Petroleum Products	Total
1973 .....	5.800	4.049	5.817	5.983	5.897	5.800	5.752	5.752
1974 .....	5.800	4.011	5.827	5.959	5.884	5.800	5.773	5.774
1975 .....	5.800	3.984	5.821	5.935	5.858	5.800	5.747	5.748
1976 .....	5.800	3.964	5.808	5.980	5.856	5.800	5.743	5.745
1977 .....	5.800	3.941	5.810	5.908	5.834	5.800	5.796	5.797
1978 .....	5.800	3.925	5.802	5.955	5.839	5.800	5.814	5.808
1979 .....	5.800	3.955	5.810	5.811	5.810	5.800	5.864	5.832
1980 .....	5.800	3.914	5.812	5.748	5.796	5.800	5.841	5.820
1981 .....	5.800	3.930	5.818	5.659	5.775	5.800	5.837	5.821
1982 .....	5.800	3.872	5.826	5.664	5.775	5.800	5.829	5.820
1983 .....	5.800	3.839	5.825	5.677	5.774	5.800	5.800	5.800
1984 .....	5.800	3.812	5.823	5.613	5.745	5.800	5.867	5.850
1985 .....	5.800	3.815	5.832	5.572	5.736	5.800	5.819	5.814
1986 .....	5.800	3.797	5.903	5.624	5.808	5.800	5.839	5.832
1987 .....	5.800	3.804	5.901	5.599	5.820	5.800	5.860	5.858
1988 .....	5.800	3.800	5.900	5.618	5.820	5.800	5.842	5.840
1989 .....	5.800	3.826	5.906	5.641	5.833	5.800	5.869	5.857
1990 .....	5.800	3.822	5.934	5.614	5.849	5.800	5.838	5.833
1991 .....	5.800	3.807	5.948	5.636	5.873	5.800	5.827	5.823
1992 .....	5.800	3.804	5.953	5.623	5.877	5.800	5.774	5.777
1993 .....	5.800	3.801	5.954	5.620	5.883	5.800	5.777	5.779
1994 .....	5.800	3.794	5.950	5.534	5.861	5.800	5.777	5.779
1995 .....	5.800	3.796	5.938	5.483	5.855	5.800	5.740	5.746
1996 .....	5.800	3.777	5.947	5.468	5.847	5.800	5.728	5.736
1997 .....	5.800	3.762	5.954	5.469	5.862	5.800	5.726	5.734
1998 .....	5.800	3.769	5.953	5.462	5.861	5.800	5.710	5.720
1999 .....	5.800	3.744	5.942	5.421	5.840	5.800	5.684	5.699
2000 .....	5.800	3.733	5.959	5.432	5.849	5.800	5.651	5.658
2001 .....	5.800	3.735	5.976	5.443	5.862	5.800	5.751	5.752
2002 .....	5.800	3.729	5.971	5.451	5.863	5.800	5.687	5.688
2003 .....	5.800	3.739	5.970	5.438	5.857	5.800	5.739	5.740
2004 .....	5.800	3.724	5.981	5.475	5.863	5.800	5.753	5.754
2005 .....	5.800	3.724	5.977	5.474	5.845	5.800	5.741	5.743
2006 .....	5.800	3.712	5.980	5.454	5.842	5.800	5.723	5.724
2007 .....	5.800	3.701	5.985	5.503	5.862	5.800	5.749	5.750
2008 <sup>P</sup> .....	5.800	3.704	5.990	5.481	5.867	5.800	5.750	5.751
2009 <sup>E</sup> .....	5.800	3.704	5.990	5.481	5.867	5.800	5.750	5.751

<sup>a</sup> Includes lease condensate.

P=Preliminary. E=Estimate.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

**Table A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production**  
 (Million Btu per Barrel)

	Total Petroleum <sup>a</sup> Consumption by Sector						Liquefied Petroleum Gases Consumption <sup>e</sup>	Motor Gasoline Consumption <sup>f</sup>	Fuel Ethanol	Fuel Ethanol Feed-stock Factor <sup>g</sup>	Biodiesel	Biodiesel Feed-stock Factor <sup>h</sup>
	Residential	Commercial <sup>b</sup>	Industrial <sup>b</sup>	Transportation	Electric Power <sup>c,d</sup>	Total <sup>b</sup>						
1973 .....	5.205	5.749	5.569	5.395	6.245	5.515	3.746	5.253	3.539	NA	NA	NA
1974 .....	5.196	5.740	5.538	5.394	6.238	5.504	3.730	5.253	3.539	NA	NA	NA
1975 .....	5.192	5.704	5.527	5.392	6.250	5.494	3.715	5.253	3.539	NA	NA	NA
1976 .....	5.215	5.726	5.536	5.395	6.251	5.504	3.711	5.253	3.539	NA	NA	NA
1977 .....	5.213	5.733	5.554	5.400	6.249	5.518	3.677	5.253	3.539	NA	NA	NA
1978 .....	5.213	5.716	5.554	5.404	6.251	5.519	3.669	5.253	3.539	NA	NA	NA
1979 .....	5.298	5.769	5.419	5.428	6.258	5.494	3.680	5.253	3.539	NA	NA	NA
1980 .....	5.245	5.803	5.374	5.440	6.254	5.479	3.674	5.253	3.539	6.586	NA	NA
1981 .....	5.191	5.751	5.312	5.432	6.258	5.448	3.643	5.253	3.539	6.562	NA	NA
1982 .....	5.167	5.751	5.263	5.422	6.258	5.415	3.615	5.253	3.539	6.539	NA	NA
1983 .....	5.022	5.642	5.275	5.415	6.255	5.406	3.614	5.253	3.539	6.515	NA	NA
1984 .....	5.205	5.707	5.222	5.418	6.251	5.395	3.599	5.253	3.539	6.492	NA	NA
1985 .....	5.153	5.661	5.215	5.422	6.247	5.387	3.603	5.253	3.539	6.469	NA	NA
1986 .....	5.169	5.694	5.283	5.425	6.257	5.418	3.640	5.253	3.539	6.446	NA	NA
1987 .....	5.144	5.661	5.248	5.429	6.249	5.403	3.659	5.253	3.539	6.423	NA	NA
1988 .....	5.165	5.661	5.241	5.433	6.250	5.410	3.652	5.253	3.539	6.400	NA	NA
1989 .....	5.105	5.621	5.234	5.437	<sup>c</sup> 6.240	5.410	3.683	5.253	3.539	6.377	NA	NA
1990 .....	5.027	5.621	5.270	5.442	6.244	5.411	3.625	5.253	3.539	6.355	NA	NA
1991 .....	4.968	5.599	5.186	5.440	6.246	5.384	3.614	5.253	3.539	6.332	NA	NA
1992 .....	5.004	5.589	5.185	5.442	6.238	5.378	3.624	5.253	3.539	6.309	NA	NA
1993 .....	4.975	<sup>b</sup> 5.580	<sup>b</sup> 5.196	<sup>b</sup> 5.436	6.230	<sup>b</sup> 5.379	3.606	5.253	3.539	6.287	NA	NA
1994 .....	4.983	5.592	5.166	5.424	6.213	5.361	3.635	<sup>f</sup> 5.230	3.539	6.264	NA	NA
1995 .....	4.940	5.554	5.137	5.417	6.188	5.341	3.623	5.215	3.539	6.242	NA	NA
1996 .....	4.869	5.498	5.133	5.420	6.195	5.336	3.613	5.216	3.539	6.220	NA	NA
1997 .....	4.859	5.459	5.138	5.416	6.199	5.336	3.616	5.213	3.539	6.198	NA	NA
1998 .....	4.837	5.446	5.155	5.413	6.210	5.349	3.614	5.212	3.539	6.176	NA	NA
1999 .....	4.761	5.369	5.113	5.413	6.205	5.328	3.616	5.211	3.539	6.167	NA	NA
2000 .....	4.761	5.394	5.082	5.421	6.189	5.326	3.607	5.210	3.539	6.159	NA	NA
2001 .....	4.796	5.403	5.164	5.412	6.199	5.345	3.614	5.210	3.539	6.151	5.359	5.433
2002 .....	4.742	5.364	5.116	5.410	6.173	5.324	3.613	5.208	3.539	6.143	5.359	5.433
2003 .....	4.763	5.407	5.161	5.408	6.182	5.340	3.629	5.207	3.539	6.135	5.359	5.433
2004 .....	4.807	5.434	5.164	5.420	6.192	5.350	3.618	5.215	3.539	6.127	5.359	5.433
2005 .....	4.783	5.427	5.200	5.426	6.188	5.365	3.620	5.218	3.539	6.119	5.359	5.433
2006 .....	4.742	5.392	5.179	5.431	6.143	5.353	3.605	5.218	3.539	6.111	5.359	5.433
2007 .....	4.696	5.350	5.146	5.433	6.151	5.346	3.591	5.219	3.539	6.103	5.359	5.433
2008 .....	E4.705	E5.353	E5.129	E5.429	P6.124	P5.339	P3.597	P5.218	3.539	6.095	5.359	5.433
2009 .....	E4.705	E5.353	E5.129	E5.429	E6.124	E5.339	E3.597	E5.218	3.539	6.087	5.359	5.433

<sup>a</sup> Petroleum products supplied, including natural gas plant liquids and crude oil burned directly as fuel. Quantity-weighted averages of the petroleum products included in each category are calculated by using heat content values shown in Table A1.

<sup>b</sup> Beginning in 1993, includes ethanol blended into motor gasoline.

<sup>c</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>d</sup> Electric power sector factors are weighted average heat contents for distillate fuel oil, petroleum coke, and residual fuel oil; they exclude other liquids.

<sup>e</sup> Quantity-weighted averages of the major components of liquefied petroleum gases are calculated by using heat content values shown in Table A1.

<sup>f</sup> There is a discontinuity in this time series between 1993 and 1994; beginning in 1994, the single constant factor is replaced by a quantity-weighted factor—quantity-weighted averages of the major components of motor gasoline, including fuel ethanol, are calculated by using heat content values shown in Table A1.

<sup>g</sup> Corn input to the production of fuel ethanol (million Btu corn per barrel denatured ethanol), used as the factor to estimate total biomass inputs to the production of ethanol. Observed fuel ethanol yields (gallons denatured ethanol per bushel of corn) were 2.5 in 1980, 2.666 in 1998, and 2.68 in 2002; yields in other years are estimated. Corn is assumed to have a gross heat content of 0.392 million Btu per bushel. Fuel ethanol is assumed to have a gross heat content of 3.539 million Btu per barrel.

<sup>h</sup> Soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel), used as the factor to estimate total biomass inputs to the production of biodiesel. It is assumed that 7.65 pounds of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. Soybean oil is assumed to have a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel. Biodiesel is assumed to have a gross heat content of 17,253 Btu per pound, or 5.359 million Btu per barrel.

P=Preliminary. E=Estimate. NA=Not available.

Note: The heat content values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

**Table A4. Approximate Heat Content of Natural Gas**  
(Btu per Cubic Foot)

	Production		Consumption <sup>a</sup>			Imports	Exports
	Marketed	Dry	End-Use Sectors <sup>b</sup>	Electric Power Sector <sup>c</sup>	Total		
1973 .....	1,093	1,021	1,020	1,024	1,021	1,026	1,023
1974 .....	1,097	1,024	1,024	1,022	1,024	1,027	1,016
1975 .....	1,095	1,021	1,020	1,026	1,021	1,026	1,014
1976 .....	1,093	1,020	1,019	1,023	1,020	1,025	1,013
1977 .....	1,093	1,021	1,019	1,029	1,021	1,026	1,013
1978 .....	1,088	1,019	1,016	1,034	1,019	1,030	1,013
1979 .....	1,092	1,021	1,018	1,035	1,021	1,037	1,013
1980 .....	1,098	1,026	1,024	1,035	1,026	1,022	1,013
1981 .....	1,103	1,027	1,025	1,035	1,027	1,014	1,011
1982 .....	1,107	1,028	1,026	1,036	1,028	1,018	1,011
1983 .....	1,115	1,031	1,031	1,030	1,031	1,024	1,010
1984 .....	1,109	1,031	1,030	1,035	1,031	1,005	1,010
1985 .....	1,112	1,032	1,031	1,038	1,032	1,002	1,011
1986 .....	1,110	1,030	1,029	1,034	1,030	997	1,008
1987 .....	1,112	1,031	1,031	1,032	1,031	999	1,011
1988 .....	1,109	1,029	1,029	1,028	1,029	1,002	1,018
1989 .....	1,107	1,031	1,031	1,028	1,031	1,004	1,019
1990 .....	1,105	1,029	1,030	1,027	1,029	1,012	1,018
1991 .....	1,108	1,030	1,031	1,025	1,030	1,014	1,022
1992 .....	1,110	1,030	1,031	1,025	1,030	1,011	1,018
1993 .....	1,106	1,027	1,028	1,025	1,027	1,020	1,016
1994 .....	1,105	1,028	1,029	1,025	1,028	1,022	1,011
1995 .....	1,106	1,026	1,027	1,021	1,026	1,021	1,011
1996 .....	1,109	1,026	1,027	1,020	1,026	1,022	1,011
1997 .....	1,107	1,026	1,027	1,020	1,026	1,023	1,011
1998 .....	1,109	1,031	1,033	1,024	1,031	1,023	1,011
1999 .....	1,107	1,027	1,028	1,022	1,027	1,022	1,006
2000 .....	1,107	1,025	1,026	1,021	1,025	1,023	1,006
2001 .....	1,105	1,028	1,029	1,026	1,028	1,023	1,010
2002 .....	1,106	1,027	1,029	1,020	1,027	1,022	1,008
2003 .....	1,106	1,031	1,033	1,025	1,031	1,025	1,009
2004 .....	1,105	1,027	1,027	1,027	1,027	1,025	1,009
2005 .....	1,105	1,029	1,029	1,028	1,029	1,025	1,009
2006 .....	1,103	1,028	1,028	1,028	1,028	1,025	1,009
2007 .....	1,104	1,028	1,029	1,027	1,028	1,025	1,009
2008 .....	E1,104	E1,028	E1,029	P1,027	E1,028	E1,025	E1,009
2009 .....	E1,104	E1,028	E1,029	E1,027	E1,028	E1,025	E1,009

<sup>a</sup> Consumption factors are for natural gas, plus a small amount of supplemental gaseous fuels.

<sup>b</sup> Residential, commercial, industrial, and transportation sectors.

<sup>c</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

P=Preliminary. E=Estimate.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

**Table A5. Approximate Heat Content of Coal and Coal Coke**  
 (Million Btu per Short Ton)

	Coal								Coal Coke	
	Production <sup>a</sup>	Waste Coal Supplied <sup>b</sup>	Residential and Commercial Sectors	Consumption			Total	Imports	Exports	Imports and Exports
				Coke Plants	Other <sup>c</sup>	Electric Power Sector <sup>d,e</sup>				
1973 .....	23.376	NA	22.831	26.780	22.586	22.246	23.057	25.000	26.596	24.800
1974 .....	23.072	NA	22.479	26.778	22.419	21.781	22.677	25.000	26.700	24.800
1975 .....	22.897	NA	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800
1976 .....	22.855	NA	22.774	26.781	22.530	21.679	22.498	25.000	26.601	24.800
1977 .....	22.597	NA	22.919	26.787	22.322	21.508	22.265	25.000	26.548	24.800
1978 .....	22.248	NA	22.466	26.789	22.207	21.275	22.017	25.000	26.478	24.800
1979 .....	22.454	NA	22.242	26.788	22.452	21.364	22.100	25.000	26.548	24.800
1980 .....	22.415	NA	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800
1981 .....	22.308	NA	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800
1982 .....	22.239	NA	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800
1983 .....	22.052	NA	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800
1984 .....	22.010	NA	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800
1985 .....	21.870	NA	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800
1986 .....	21.913	NA	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800
1987 .....	21.922	NA	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800
1988 .....	21.823	NA	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800
1989 .....	21.765	<sup>b</sup> 10.391	23.650	26.800	22.347	<sup>d</sup> 20.898	21.307	25.000	26.160	24.800
1990 .....	21.822	9.303	23.137	26.799	22.457	20.779	21.197	25.000	26.202	24.800
1991 .....	21.681	10.758	23.114	26.799	22.460	20.730	21.120	25.000	26.188	24.800
1992 .....	21.682	10.396	23.105	26.799	22.250	20.709	21.068	25.000	26.161	24.800
1993 .....	21.418	10.638	22.994	26.800	22.123	20.677	21.010	25.000	26.335	24.800
1994 .....	21.394	11.097	23.112	26.800	22.068	20.589	20.929	25.000	26.329	24.800
1995 .....	21.326	11.722	23.118	26.800	21.950	20.543	20.880	25.000	26.180	24.800
1996 .....	21.322	12.147	23.011	26.800	22.105	20.547	20.870	25.000	26.174	24.800
1997 .....	21.296	12.158	22.494	26.800	22.172	20.518	20.830	25.000	26.251	24.800
1998 .....	21.418	12.639	21.620	27.426	23.164	20.516	20.881	25.000	26.800	24.800
1999 .....	21.070	12.552	23.880	27.426	22.489	20.490	20.818	25.000	26.081	24.800
2000 .....	21.072	12.360	25.020	27.426	22.433	20.511	20.828	25.000	26.117	24.800
2001 .....	<sup>a</sup> 20.772	12.169	24.909	27.426	22.622	20.337	20.671	25.000	25.998	24.800
2002 .....	20.673	12.165	22.962	27.426	22.562	20.238	20.541	25.000	26.062	24.800
2003 .....	20.499	12.360	22.242	27.425	22.468	20.082	20.387	25.000	25.972	24.800
2004 .....	20.424	12.266	22.324	27.426	22.473	19.980	20.290	25.000	26.108	24.800
2005 .....	20.348	12.093	22.342	26.279	22.178	19.988	20.246	25.000	25.494	24.800
2006 .....	20.310	12.080	22.066	26.271	22.050	19.931	20.181	25.000	25.453	24.800
2007 .....	20.340	12.090	22.069	26.329	22.371	19.909	20.168	25.000	25.466	24.800
2008 <sup>P</sup> .....	20.219	12.348	21.386	26.281	22.348	19.726	19.988	25.000	25.399	24.800
2009 <sup>E</sup> .....	20.219	12.348	21.386	26.281	22.348	19.726	19.988	25.000	25.399	24.800

<sup>a</sup> Beginning in 2001, includes a small amount of refuse recovery (coal recaptured from a refuse mine, and cleaned to reduce the concentration of noncombustible materials).

<sup>b</sup> Waste coal (including fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste) consumed by the electric power and industrial sectors. Beginning in 1989, waste coal supplied is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."

<sup>c</sup> Includes transportation. Excludes coal synfuel plants.

<sup>d</sup> Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>e</sup> Electric power sector factors are for anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and, beginning in 1998, coal synfuel.

P=Preliminary. E=Estimate. NA=Not available.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

**Table A6. Approximate Heat Rates for Electricity, and Heat Content of Electricity**  
(Btu per Kilowatthour)

	Approximate Heat Rates <sup>a</sup> for Electricity Net Generation			Heat Content <sup>f</sup> of Electricity <sup>g</sup>
	Fossil-Fueled Plants <sup>b,c</sup>	Nuclear Plants <sup>d</sup>	Geothermal Energy Plants <sup>e</sup>	
1973 .....	10,389	10,903	21,674	3,412
1974 .....	10,442	11,161	21,674	3,412
1975 .....	10,406	11,013	21,611	3,412
1976 .....	10,373	11,047	21,611	3,412
1977 .....	10,435	10,769	21,611	3,412
1978 .....	10,361	10,941	21,611	3,412
1979 .....	10,353	10,879	21,545	3,412
1980 .....	10,388	10,908	21,639	3,412
1981 .....	10,453	11,030	21,639	3,412
1982 .....	10,454	11,073	21,629	3,412
1983 .....	10,520	10,905	21,290	3,412
1984 .....	10,440	10,843	21,303	3,412
1985 .....	10,447	10,622	21,263	3,412
1986 .....	10,446	10,579	21,263	3,412
1987 .....	10,419	10,442	21,263	3,412
1988 .....	10,324	10,602	21,096	3,412
1989 .....	10,432	10,583	21,096	3,412
1990 .....	10,402	10,582	21,096	3,412
1991 .....	10,436	10,484	20,997	3,412
1992 .....	10,342	10,471	20,914	3,412
1993 .....	10,309	10,504	20,914	3,412
1994 .....	10,316	10,452	20,914	3,412
1995 .....	10,312	10,507	20,914	3,412
1996 .....	10,340	10,503	20,960	3,412
1997 .....	10,213	10,494	20,960	3,412
1998 .....	10,197	10,491	21,017	3,412
1999 .....	10,226	10,450	21,017	3,412
2000 .....	10,201	10,429	21,017	3,412
2001 .....	€10,333	10,448	21,017	3,412
2002 .....	10,173	10,439	21,017	3,412
2003 .....	10,241	10,421	21,017	3,412
2004 .....	10,022	10,427	21,017	3,412
2005 .....	9,999	10,435	21,017	3,412
2006 .....	9,919	10,434	21,017	3,412
2007 .....	9,884	10,488	21,017	3,412
2008 .....	€ 9,884	€ 10,488	€ 21,017	3,412
2009 .....	€ 9,884	€ 10,488	€ 21,017	3,412

<sup>a</sup> The values in columns 1-3 of this table are for net heat rates. See "Heat Rate" in Glossary.

<sup>b</sup> Used as the thermal conversion factor for hydro, solar/photovoltaic, and wind electricity net generation to approximate the quantity of fossil fuels replaced by these sources. Through 2000, also used as the thermal conversion factor for wood and waste electricity net generation at electric utilities; beginning in 2001, Btu data for wood and waste at electric utilities are available from surveys.

<sup>c</sup> Through 2000, heat rates are for fossil-fueled steam-electric plants at electric utilities. Beginning in 2001, heat rates are for all fossil-fueled plants at electric utilities and electricity-only independent power producers.

<sup>d</sup> Used as the thermal conversion factor for nuclear electricity net generation.

<sup>e</sup> Used as the thermal conversion factor for geothermal electricity net generation.

<sup>f</sup> See "Heat Content" in Glossary.

<sup>g</sup> The value of 3,412 Btu per kilowatthour is a constant. It is used as the thermal conversion factor for electricity retail sales, and electricity imports and exports. E=Estimate.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html).

Sources: See "Thermal Conversion Factor Source Documentation," which follows this table.

# Thermal Conversion Factor Source Documentation

## Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

**Asphalt.** The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

**Aviation Gasoline.** EIA adopted the thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

**Butane.** EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Butane-Propane Mixture.** EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See **Butane** and **Propane**.

**Crude Oil Exports.** Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See **Crude Oil Production**.

**Crude Oil Imports.** Calculated annually by EIA as the average of the thermal conversion factors for each type of crude oil imported weighted by the quantities imported. Thermal conversion factors for each type were calculated on a foreign country basis, by determining the average American Petroleum Institute (API) gravity of crude oil imported from each foreign country from Form ERA-60 in 1977 and converting average API gravity to average Btu content by using National Bureau of Standards, Miscellaneous Publication No. 97, *Thermal Properties of Petroleum Products*, 1933.

**Crude Oil Production.** EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Distillate Fuel Oil.** EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Ethane.** EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Ethane-Propane Mixture.** EIA calculation of 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

**Isobutane.** EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Jet Fuel, Kerosene-Type.** EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

**Jet Fuel, Naphtha-Type.** EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

**Kerosene.** EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Liquefied Petroleum Gases Consumption.** Calculated annually by EIA as the average of the thermal conversion factors for all liquefied petroleum gases consumed (see Table A1) weighted by the quantities consumed. The component products of liquefied petroleum gases are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. For 1973-1980, quantities consumed are from EIA, Energy Data Reports, "Petroleum Statement, Annual," Table 1. For 1981 forward, quantities consumed are from EIA, *Petroleum Supply Annual*, Table 2.

**Lubricants.** EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

**Miscellaneous Products.** EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

**Motor Gasoline Consumption.** 1973-1993: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics. 1994 forward: EIA calculated national annual quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (see Table A3). The factor for conventional motor gasoline is 5.253 million Btu per barrel, as used for

previous years. The factors for reformulated and oxygenated gasolines, both currently 5.150 million Btu per barrel, are based on data published in Environmental Protection Agency, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory report EPA 420-F-95-003, "Fuel Economy Impact Analysis of Reformulated Gasoline." See **Fuel Ethanol (Blended Into Motor Gasoline)**.

**Natural Gas Plant Liquids Production.** Calculated annually by EIA as the average of the thermal conversion factors for each natural gas plant liquid produced weighted by the quantities produced.

**Natural Gasoline.** EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

**Pentanes Plus.** EIA assumed the thermal conversion factor to be 4.620 million Btu or equal to that for natural gasoline. See **Natural Gasoline**.

**Petrochemical Feedstocks, Naphtha less than 401° F.** Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphthas. See **Special Naphthas**.

**Petrochemical Feedstocks, Other Oils equal to or greater than 401° F.** Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

**Petrochemical Feedstocks, Still Gas.** Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See **Still Gas**.

**Petroleum Coke.** EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30.120 million Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

**Petroleum Consumption, Commercial Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the commercial sector weighted by the estimated quantities consumed by the commercial sector. The quantities of petroleum products consumed by the commercial sector are estimated in the State Energy Data System—see documentation at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_petrol.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf).

**Petroleum Consumption, Electric Power Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the electric power sector weighted by the quantities consumed by the electric power sector. Data are from Form

EIA-923, "Power Plant Operations Report"; and predecessor forms.

**Petroleum Consumption, Industrial Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the industrial sector weighted by the estimated quantities consumed by the industrial sector. The quantities of petroleum products consumed by the industrial sector are estimated in the State Energy Data System—see documentation at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_petrol.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf).

**Petroleum Consumption, Residential Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential sector weighted by the estimated quantities consumed by the residential sector. The quantities of petroleum products consumed by the residential sector are estimated in the State Energy Data System—see documentation at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_petrol.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf).

**Petroleum Consumption, Total.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed weighted by the quantities consumed.

**Petroleum Consumption, Transportation Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the transportation sector weighted by the estimated quantities consumed by the transportation sector. The quantities of petroleum products consumed by the transportation sector are estimated in the State Energy Data System—see documentation at [http://www.eia.doe.gov/emeu/states/sep\\_use/notes/use\\_petrol.pdf](http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf).

**Petroleum Products Exports.** Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported weighted by the quantities exported.

**Petroleum Products Imports.** Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported weighted by the quantities imported.

**Plant Condensate.** Estimated to be 5.418 million Btu per barrel by EIA from data provided by McClanahan Consultants, Inc., Houston, Texas.

**Propane.** EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Residual Fuel Oil.** EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Road Oil.** EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel, which was assumed to be equal to that of asphalt (see **Asphalt**)

and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970*.

**Special Naphthas.** EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel, which was assumed to be equal to that of the total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement, Annual, 1970*.

**Still Gas.** EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel, first published in the *Petroleum Statement, Annual, 1970*.

**Total Petroleum Exports.** Calculated annually by EIA as the average of the thermal conversion factors for crude oil and each petroleum product exported weighted by the quantities exported. See **Crude Oil Exports** and **Petroleum Products Exports**.

**Total Petroleum Imports.** Calculated annually by EIA as the average of the thermal conversion factors for each type of crude oil and petroleum product imported weighted by the quantities imported. See **Crude Oil Imports** and **Petroleum Products Imports**.

**Unfinished Oils.** EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see **Distillate Fuel Oil**) and first published it in EIA's *Annual Report to Congress, Volume 3, 1977*.

**Unfractionated Stream.** EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see **Plant Condensate**) and first published it in EIA's *Annual Report to Congress, Volume 2, 1981*.

**Waxes.** EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

## Approximate Heat Content of Biofuels

**Biodiesel.** EIA estimated the thermal conversion factor for biodiesel to be 5.359 million Btu per barrel, or 17,253 Btu per pound.

**Biodiesel Feedstock.** EIA used soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel) as the factor to estimate total biomass inputs to the production of biodiesel. EIA assumed that 7.65 pounds of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. EIA also assumed that soybean oil has a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel.

**Fuel Ethanol.** EIA adopted the thermal conversion factor of 3.539 million Btu per barrel published in "Oxygenate Flexibility for Future Fuels," a paper presented by William J. Piel of the ARCO Chemical Company at the National

Conference on Reformulated Gasolines and Clean Air Act Implementation, Washington, D.C., October 1991.

**Fuel Ethanol Feedstock.** EIA used corn input to the production of fuel ethanol (million Btu corn per barrel denatured ethanol) as the factor to estimate total biomass inputs to the production of fuel ethanol. U.S. Department of Agriculture observed fuel ethanol yields (gallons denatured ethanol per bushel of corn) were 2.5 in 1980, 2.666 in 1998, and 2.68 in 2002; EIA estimated the fuel ethanol yields in other years. EIA also assumed that corn has a gross heat content of 0.392 million Btu per bushel.

## Approximate Heat Content of Natural Gas

**Natural Gas Consumption, Electric Power Sector.** Calculated annually by EIA by dividing the heat content of natural gas consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report"; and predecessor forms.

**Natural Gas Consumption, End-Use Sectors.** Calculated annually by EIA by dividing the heat content of natural gas consumed by the end-use sectors (residential, commercial, industrial, and transportation) by the quantity consumed. Data are from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

**Natural Gas Consumption, Total.** 1973–1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity consumed.

**Natural Gas Exports.** Calculated annually by EIA by dividing the heat content of natural gas exported by the quantity exported. For 1973–1995, data are from Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

**Natural Gas Imports.** Calculated annually by EIA by dividing the heat content of natural gas imported by the quantity imported. For 1973–1995, data are from Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

**Natural Gas Production, Dry.** Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed. See **Natural Gas Consumption, Total**.

**Natural Gas Production, Marketed.** Calculated annually by EIA by dividing the heat content of dry natural gas produced (see **Natural Gas Production, Dry**) and natural gas plant liquids produced (see **Natural Gas Plant Liquids Production**) by the total quantity of marketed natural gas produced.

## Approximate Heat Content of Coal and Coal Coke

**Coal Coke Imports and Exports.** EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

**Coal Consumption, Electric Power Sector.** Calculated annually by EIA by dividing the heat content of coal consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report"; and predecessor forms.

**Coal Consumption, End-Use Sectors.** Calculated annually by EIA by dividing the heat content of coal consumed by the end-use sectors (residential, commercial, industrial, and transportation) by the quantity consumed.

**Coal Consumption, Industrial Sector, Coke Plants.** Calculated annually by EIA by dividing the heat content of coal consumed by coke plants by the quantity consumed. Data are from Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants."

**Coal Consumption, Industrial Sector, Other.** Calculated annually by EIA by dividing the heat content of coal consumed by manufacturing plants by the quantity consumed. Data are from Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing Plants."

**Coal Consumption, Residential and Commercial Sectors.** Calculated annually by EIA by dividing the heat content of coal consumed by the residential and commercial sectors by the quantity consumed. Through 1999, data are from Form EIA-6, "Coal Distribution Report." Beginning in 2000, data are for commercial combined-heat-and-power (CHP) plants from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

**Coal Consumption, Total.** Calculated annually by EIA by dividing the total heat content of coal consumed by all sectors by the total quantity consumed.

**Coal Exports.** Calculated annually by EIA by dividing the heat content of steam coal and metallurgical coal exported by the quantity exported. Data are from U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

**Coal Imports.** Assumed by EIA to be 25.000 million Btu per short ton.

**Coal Production.** Calculated annually by EIA to balance the heat content of coal supply (production and imports) and the heat content of coal disposition (exports, stock change, and consumption).

**Waste Coal Supplied.** Calculated annually by EIA by dividing the total heat content of waste coal supplied by the quantity supplied. For 1989–1997, data are from Form EIA-867, "Annual Nonutility Power Producer Report."

For 1998–2000, data are from Form EIA-860B, "Annual Electric Generator Report—Nonutility." For 2001–2003, data are from Form EIA-906, "Power Plant Report," and Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing Plants." For 2004–2007, data are from Form EIA-906, "Power Plant Report," Form EIA-920, "Combined Heat and Power Plant Report," and Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing Plants." Beginning in 2008, data are from Form EIA-923, "Power Plant Operations Reports;" and Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing Plants." The computation includes data for all electric utilities and electric-only independent producers using fossil fuels.

## Approximate Heat Rates for Electricity

**Electricity Net Generation, Fossil-Fueled Plants.** There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydro, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA calculates a rate factor that is equal to the annual average heat rate factor for fossil-fueled power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption, such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu. 1973–1988: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1989–2000: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report" (and predecessor forms); and the generation on Form EIA-759, "Monthly Power Plant Report." The computation includes data for all electric utility steam-electric plants using fossil fuels. 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricity-only independent power producers using fossil fuels.

**Electricity Net Generation, Geothermal Energy Plants.** 1973–1981: Calculated annually by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12, "Power System Statement." 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

**Electricity Net Generation, Nuclear Plants.** 1973–1984: Calculated annually by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation were reported on Form FERC-1, "Annual Report of Major Electric Utilities, Licensees, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. For 1982, the

factors were published in EIA, *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. For 1983 and 1984, the factors were published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1985-2007: Calculated annually by EIA by using the heat rate reported on Form EIA-860,

“Annual Electric Generator Report” (and predecessor forms); and the generation reported on Form EIA-906, “Power Plant Report.” 2008 and 2009: Calculated annually by EIA by using the heat rate and generation reported on Form EIA-923, “Power Plant Operations Report.”

### Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94-168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100-418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. Customary units. For example, 500 short

tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

**Table B1. Metric Conversion Factors**

Type of Unit	U.S. Unit		Equivalent in Metric Units
Mass	1 short ton (2,000 lb)	=	0.907 184 7 metric tons (t)
	1 long ton	=	1.016 047 metric tons (t)
	1 pound (lb)	=	0.453 592 37 <sup>a</sup> kilograms (kg)
	1 pound uranium oxide (lb U <sub>3</sub> O <sub>8</sub> )	=	0.384 647 <sup>b</sup> kilograms uranium (kgU)
	1 ounce, avoirdupois (avdp oz)	=	28.349 52 grams (g)
Volume	1 barrel of oil (bbl)	=	0.158 987 3 cubic meters (m <sup>3</sup> )
	1 cubic yard (yd <sup>3</sup> )	=	0.764 555 cubic meters (m <sup>3</sup> )
	1 cubic foot (ft <sup>3</sup> )	=	0.028 316 85 cubic meters (m <sup>3</sup> )
	1 U.S. gallon (gal)	=	3.785 412 liters (L)
	1 ounce, fluid (fl oz)	=	29.573 53 milliliters (mL)
	1 cubic inch (in <sup>3</sup> )	=	16.387 06 milliliters (mL)
Length	1 mile (mi)	=	1.609 344 <sup>a</sup> kilometers (km)
	1 yard (yd)	=	0.914 4 <sup>a</sup> meters (m)
	1 foot (ft)	=	0.304 8 <sup>a</sup> meters (m)
	1 inch (in)	=	2.54 <sup>a</sup> centimeters (cm)
Area	1 acre	=	0.404 69 hectares (ha)
	1 square mile (mi <sup>2</sup> )	=	2.589 988 square kilometers (km <sup>2</sup> )
	1 square yard (yd <sup>2</sup> )	=	0.836 127 4 square meters (m <sup>2</sup> )
	1 square foot (ft <sup>2</sup> )	=	0.092 903 04 <sup>a</sup> square meters (m <sup>2</sup> )
	1 square inch (in <sup>2</sup> )	=	6.451 6 <sup>a</sup> square centimeters (cm <sup>2</sup> )
Energy	1 British thermal unit (Btu) <sup>c</sup>	=	1,055.055 852 62 <sup>a</sup> joules (J)
	1 calorie (cal)	=	4.186 8 <sup>a</sup> joules (J)
	1 kilowatthour (kWh)	=	3.6 <sup>a</sup> megajoules (MJ)
Temperature <sup>d</sup>	32 degrees Fahrenheit (°F)	=	0 <sup>a</sup> degrees Celsius (°C)
	212 degrees Fahrenheit (°F)	=	100 <sup>a</sup> degrees Celsius (°C)

<sup>a</sup>Exact conversion.<sup>b</sup>Calculated by the Energy Information Administration.<sup>c</sup>The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.<sup>d</sup>To convert degrees Fahrenheit (°F) to degrees Celsius (°C) exactly, subtract 32, then multiply by 5/9.

Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, see <http://physics.nist.gov/cuu/Units/index.html>.

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_b.html](http://www.eia.doe.gov/emeu/mer/append_b.html).

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 1993), pp. 9-11, 13, and 16. • U.S. Department of Commerce, National Institute of Standards and Technology, Special Publications 330, 811, and 814. • American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268-1992, pp. 28 and 29.

**Table B2. Metric Prefixes**

<b>Unit Multiple</b>	<b>Prefix</b>	<b>Symbol</b>	<b>Unit Subdivision</b>	<b>Prefix</b>	<b>Symbol</b>
$10^1$	deka	da	$10^{-1}$	deci	d
$10^2$	hecto	h	$10^{-2}$	centi	c
$10^3$	kilo	k	$10^{-3}$	milli	m
$10^6$	mega	M	$10^{-6}$	micro	$\mu$
$10^9$	giga	G	$10^{-9}$	nano	n
$10^{12}$	tera	T	$10^{-12}$	pico	p
$10^{15}$	peta	P	$10^{-15}$	femto	f
$10^{18}$	exa	E	$10^{-18}$	atto	a
$10^{21}$	zetta	Z	$10^{-21}$	zepto	z
$10^{24}$	yotta	Y	$10^{-24}$	yocto	y

Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_b.html](http://www.eia.doe.gov/emeu/mer/append_b.html).Source: U.S. Department of Commerce, National Institute of Standards and Technology, *The International System of Units (SI)*, NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p.10.**Table B3. Other Physical Conversion Factors**

<b>Energy Source</b>	<b>Original Unit</b>		<b>Equivalent in Final Units</b>	
<b>Petroleum</b>	1 barrel (bbl)	=	42 <sup>a</sup>	U.S. gallons (gal)
<b>Coal</b>	1 short ton	=	2,000 <sup>a</sup>	pounds (lb)
	1 long ton	=	2,240 <sup>a</sup>	pounds (lb)
	1 metric ton (t)	=	1,000 <sup>a</sup>	kilograms (kg)
<b>Wood</b>	1 cord (cd)	=	1.25 <sup>b</sup>	shorts tons
	1 cord (cd)	=	128 <sup>a</sup>	cubic feet ( $\text{ft}^3$ )

<sup>a</sup>Exact conversion.<sup>b</sup>Calculated by the Energy Information Administration.Web Page: [http://www.eia.doe.gov/emeu/mer/append\\_b.html](http://www.eia.doe.gov/emeu/mer/append_b.html).Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B-10, C-17 and C-21.



# Glossary

**Alcohol:** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a **hydrocarbon** plus a hydroxyl group; CH(3)-(CH(2))<sub>n</sub>-OH (e.g., **methanol**, **ethanol**, and tertiary butyl alcohol). See **Fuel Ethanol**.

**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 short ton** on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per short 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.

**Asphalt:** A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

**ASTM:** The American Society for Testing and Materials.

**Aviation Gasoline Blending Components:** Naphthas that will be used for blending or compounding into finished aviation gasoline (e.g., straight run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

**Aviation Gasoline, Finished:** A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

**Barrel (Petroleum):** A unit of volume equal to 42 U.S. Gallons.

**Base Gas:** The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

**Biodiesel:** A fuel typically made from soybean, canola, or other vegetable oils; animal fats; and recycled grease. It can serve as a substitute for **petroleum**-derived **diesel fuel** or **distillate fuel oil**. For Energy Information Administration reporting, it is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM (American Society for Testing & Materials) D 6751.

**Biofuels:** Liquid fuels and blending components produced from **biomass** (plant) feedstocks, used primarily for transportation. See **Biodiesel** and **Fuel Ethanol**.

**Biogenic:** Produced by biological processes of living organisms. Note: EIA uses the term "biogenic" to refer only to organic nonfossil material of biological origin.

**Biomass:** Organic non-fossil material of biological origin constituting a **renewable energy** source. See **Biodiesel**, **Biofuels**, **Biomass Waste**, **Fuel Ethanol**, and **Wood and Wood-Derived Fuels**.

**Biomass Waste:** Organic non-fossil material of biological origin that is a byproduct or a discarded product. "Biomass waste" includes municipal solid waste from **biogenic** sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other **biomass** solids, liquids, and gases; but excludes **wood and wood-derived fuels** (including **black liquor**), **biofuels** feedstock, **biodiesel**, and **fuel ethanol**. *Note:* EIA "biomass waste" data also include energy crops grown specifically for energy production, which would not normally constitute waste.

**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 short ton** on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Black Liquor:** A byproduct of the paper production process, alkaline spent liquor, that can be used as a source of energy. Alkaline spent liquor is removed from the digesters in the process of chemically pulping wood. After

evaporation, the residual "black" liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

**British Thermal Unit (Btu):** 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). See **Heat Content**.

**Btu:** See **British Thermal Unit**.

**Btu Conversion Factor:** A factor for converting **energy** data between one unit of measurement and **British thermal units (Btu)**. Btu conversion factors are generally used to convert energy data from physical units of measure (such as **barrels**, **cubic feet**, or **short tons**) into the energy-equivalent measure of Btu. (See [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html) for further information on Btu conversion factors.)

**Butane:** A normally gaseous straight-chain or branched-chain hydrocarbon ( $C_4H_{10}$ ). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

*Isobutane:* A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

*Normal Butane:* A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

**Butylene:** An olefinic hydrocarbon ( $C_4H_8$ ) recovered from refinery processes.

**Capacity Factor:** The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

**Chained Dollars:** A measure used to express **real prices**. Real prices are those that have been adjusted to remove the effect of changes in the purchasing power of the dollar; they usually reflect buying power relative to a reference year. Prior to 1996, real prices were expressed in constant dollars, a measure based on the weights of goods and services in a single year, usually a recent year. In 1996, the U.S. Department of Commerce introduced the chained-dollar measure. The new measure is based on the average weights of goods and services in successive pairs of years. It is "chained" because the second year in each pair, with its weights, becomes the first year of the next pair. The advantage of using the chained-dollar measure is that it is more closely related to any

given period and is therefore subject to less distortion over time.

**CIF:** See **Cost, Insurance, Freight**.

**City Gate:** A point or measuring station at which a distribution gas utility receives gas from a natural gas pipeline company or transmission system.

**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. See **Anthracite**, **Bituminous Coal**, **Lignite**, **Subbituminous Coal**, **Waste Coal**, and **Coal Synfuel**.

**Coal Coke:** See **Coke, Coal**.

**Coal Stocks:** Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of the period.

**Coal Synfuel:** Coal-based solid fuel that has been processed by a **coal synfuel plant**; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.

**Coal Synfuel Plant:** A plant engaged in the chemical transformation of **coal** into **coal synfuel**.

**Coke, Coal:** A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

**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 (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6,024 million Btu per barrel.

**Coking Coal:** Bituminous coal suitable for making coke. See **Coke, Coal**.

**Combined-Heat-and-Power (CHP) Plant:** A plant designed to produce both heat and electricity from a single heat source. Note: This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants

included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

**Commercial Sector:** An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments. Various EIA programs differ in sectoral coverage—for more information see

<http://www.eia.doe.gov/neic/datadefinitions/Guideforwebcom.htm>.

See **End-Use Sectors and Energy-Use Sectors.**

**Completion:** The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

**Conventional Gasoline:** Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

**Conventional Hydroelectric Power:** Hydroelectric power generated from flowing water that is not created by **hydroelectric pumped storage**.

**Conversion Factor:** A factor for converting data between one unit of measurement and another (such as between **short tons** and **British thermal units**, or between **barrels** and gallons). (See [http://www.eia.doe.gov/emeu/mer/append\\_a.html](http://www.eia.doe.gov/emeu/mer/append_a.html) and [http://www.eia.doe.gov/emeu/mer/append\\_b.html](http://www.eia.doe.gov/emeu/mer/append_b.html) for further information on conversion factors.) See **Btu Conversion Factor** and **Thermal Conversion Factor**.

**Cost, Insurance, Freight (CIF):** A sales transaction in which the seller pays for the transportation and insurance of the goods to the port of destination specified by the buyer.

**Crude Oil:** A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing

through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include: 1) small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2) small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; and 3) drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

**Crude Oil F.O.B. Price:** The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

**Crude Oil (Including Lease Condensate):** A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

**Crude Oil Landed Cost:** The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

**Crude Oil Refinery Input:** The total crude oil put into processing units at refineries.

**Crude Oil Stocks:** Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

**Crude Oil Used Directly:** Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

**Crude Oil Well:** A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

**Cubic Foot (Natural Gas):** A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

**Degree-Day Normals:** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

**Degree-Days, Cooling (CDD):** A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

**Degree-Days, Heating (HDD):** A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specified reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

**Degree-Days, Population-Weighted:** Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

**Design Electrical Rating, Net:** The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

**Development Well:** A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**Diesel Fuel:** A fuel composed of **distillate fuel oils** obtained in petroleum refining operation or blends of such distillate fuel oils with **residual fuel oil** used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.

**Direct Use:** Use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of **station use**.

**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 **electricity generation**.

**Dry Hole:** An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

**Dry Natural Gas Production:** See **Natural Gas (Dry) Production**.

**Electric Power Plant:** A station 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. See also **Combined-Heat-and-Power (CHP) Plant**, **Electricity-Only Plant**, **Electric Utility**, and **Independent Power Producer**.

**Electric Utility:** Any entity that generates, transmits, or distributes **electricity** and recovers the cost of its generation, transmission or distribution assets and operations, either directly or indirectly, through cost-based rates set by a separate regulatory authority (e.g., State Public Service Commission), or is owned by a governmental unit or the consumers that the entity serves. Examples of these entities include: investor-owned entities, public power districts, public utility districts, municipalities, rural electric cooperatives, and State and Federal agencies. Electric utilities may have Federal Energy Regulatory Commission approval for interconnection agreements and wholesale trade tariffs covering either cost-of-service and/or

market-based rates under the authority of the Federal Power Act. See **Electric Power Sector**.

**Electrical System Energy Losses:** The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

**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 Generation, Gross:** The total amount of electric energy produced by generating units and measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

**Electricity Generation, Net:** The amount of **gross electricity generation** less **station use** (the **electric energy** consumed at the generating station(s) for station service or auxiliaries). *Note:* Electricity required for pumping at **hydroelectric pumped-storage** plants is regarded as electricity for station service and is deducted from gross generation.

**Electricity-Only Plant:** A plant designed to produce electricity only. See also **Combined-Heat-and-Power (CHP) Plant**.

**Electricity Retail Sales:** The amount of electricity sold to customers purchasing electricity for their own use and not for resale.

**End-Use Sectors:** The **residential, commercial, industrial**, and **transportation** sectors of the economy.

**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 Consumption:** The use of energy as a source of heat or power or as an input in the manufacturing process.

**Energy Service Provider:** An energy entity that provides service to a retail or end-use customer.

**Energy-Use Sectors:** A group of major energy-consuming components of U.S. society developed to measure and

analyze energy use. The sectors most commonly referred to in EIA are: **residential, commercial, industrial, transportation**, and **electric power**.

**Ethane:** A normally gaseous straight-chain hydrocarbon ( $C_2H_6$ ). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

**Ethanol ( $CH_3-CH_2OH$ ):** A clear, colorless, flammable oxygenated **hydrocarbon**. Ethanol is typically produced chemically from **ethylene**, or biologically from fermentation of various sugars from carbohydrates found in agricultural crops and cellulosic residues from crops or wood. It is used in the United States as a gasoline octane enhancer and **oxygenate** (blended up to 10 percent concentration). Ethanol can also be used in high concentrations (E85) in vehicles designed for its use. See **Alcohol** and **Fuel Ethanol**.

**Ethylene:** An olefinic hydrocarbon ( $C_2H_4$ ) recovered from refinery processes or petrochemical processes.

**Exploratory Well:** A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

**Exports:** Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

**Extraction Loss:** The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

**Federal Energy Administration (FEA):** A predecessor of the Energy Information Administration.

**Federal Energy Regulatory Commission (FERC):** The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

**Federal Power Commission (FPC):** The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

**First Purchase Price:** The price for domestic crude oil reported by the company that owns the crude oil the first time it is removed from the lease boundary.

**Flared Natural Gas:** Natural gas burned in flares on the base site or at gas processing plants.

**F.O.B. (Free on Board):** A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

**Footage Drilled:** Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

**Former U.S.S.R.:** See **Union of Soviet Socialist Republics (U.S.S.R.).**

**Fossil Fuel:** An energy source formed in the Earth's crust from decayed organic material, such as **petroleum**, **coal**, and **natural gas**.

**Fossil-Fueled Steam-Electric Power Plant:** An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

**Fuel Ethanol (C<sub>2</sub>H<sub>5</sub>OH):** An anhydrous **alcohol** (**ethanol** with less than 1% water) intended for gasoline blending. See **Oxygenates**.

**Full-Power Operation:** Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

**Gasohol:** A blend of finished motor gasoline containing alcohol (generally ethanol but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline, Oxygenated**.

**Gas Well:** A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

**Geothermal Energy:** Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

**Gross Domestic Product (GDP):** The total value of goods and services produced by labor and property located in

the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

**GT/IC:** Gas turbine and internal combustion plants.

**Heat Content:** The amount of heat energy available to be released by the transformation or use of a specified physical unit of an energy form (e.g., a ton of coal, a barrel of oil, a kilowatthour of electricity, a cubic foot of natural gas, or a pound of steam). The amount of heat energy is commonly expressed in **British thermal units (Btu)**. *Note:* Heat content of combustible energy forms can be expressed in terms of either gross heat content (higher or upper heating value) or net heat content (lower heating value), depending upon whether or not the available heat energy includes or excludes the energy used to vaporize water (contained in the original energy form or created during the combustion process). The Energy Information Administration typically uses gross heat content values.

**Heat Rate:** A measure of generating station thermal efficiency commonly stated as **Btu per kilowatthour**. *Note:* Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output is gross or net generation. Heat rates are typically expressed as net heat rates.

**Hydrocarbon:** An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

**Hydroelectric Power:** The production of electricity from the kinetic energy of falling water.

**Hydroelectric Power Plant:** A plant in which the turbine generators are driven by falling water.

**Hydroelectric Pumped Storage:** Hydroelectricity that is generated during peak load periods 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.

**Imports:** Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

**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, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. *Note:* This sector includes **generators** that produce **electricity** and/or **useful thermal output** primarily to support the above-mentioned industrial activities. Various EIA programs differ in sectoral coverage—for more information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebind.htm>. See **End-Use Sectors** and **Energy-Use Sectors**.

**Injections (Natural Gas):** Natural gas injected into storage reservoirs.

**Isobutane:** A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams. See **Butane**.

**Isobutylene:** An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

**Isopentane:** A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Jet Fuel:** A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

**Jet Fuel, Kerosene-Type:** A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Jet Fuel, Naphtha-Type:** A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290° to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

**Kerosene:** A petroleum distillate having a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all

grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

**Kilowatt:** A unit of electrical power equal to 1,000 **watts**.

**Kilowatthour (kWh):** A measure of electricity defined as a unit of work or energy, measured as 1 **kilowatt** (1,000 **watts**) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour**.

**Landed Costs:** The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

**Lease and Plant Fuel:** Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

**Lease Condensate:** A mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. *Note:* This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

**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 short ton** on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Liquefied Natural Gas (LNG):** Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

**Liquefied Petroleum Gases (LPG):** Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

**Low-Power Testing:** The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

**Lubricants:** Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

**Marketed Production (Natural Gas):** Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

**Methane:** A colorless, flammable, odorless, hydrocarbon gas ( $\text{CH}_4$ ) that is the principal constituent of natural gas. It is also an important source of hydrogen in various industrial processes.

**Methyl Tertiary Butyl Ether (MTBE):** An ether,  $(\text{CH}_3)_3\text{COCH}_3$ , intended for motor gasoline blending. See **Oxygenates**.

**Methanol:** A light, volatile alcohol ( $\text{CH}_3\text{OH}$ ) eligible for motor gasoline blending. See **Oxygenates**.

**Miscellaneous Petroleum Products:** All finished petroleum products not classified elsewhere—for example, petrodatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

**Motor Gasoline Blending:** Mechanical mixing of motor gasoline blending components and oxygenates as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

**Motor Gasoline Blending Components:** Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. Note: oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

**Motor Gasoline, Finished:** A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in

spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. “Motor gasoline” includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

**Motor Gasoline Grades:** The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three grades: regular, midgrade, and premium. Note: Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

**Regular Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Midgrade Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Premium Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Motor Gasoline, Oxygenated:** Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. Note: Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

**Motor Gasoline, Reformulated:** Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. Note: This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

**Motor Gasoline Retail Prices:** Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

**Motor Gasoline (Total):** For stock level data, a sum including finished motor gasoline stocks plus stocks of motor gasoline blending components but excluding stocks of oxygenates.

**MTBE:** See **Methyl Tertiary Butyl Ether**.

**NAICS (North American Industry Classification System):** A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to <http://www.census.gov/epcd/www/naics.html>.

**Naphtha:** A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400° F.

**Natural Gas:** A gaseous mixture of hydrocarbon compounds, primarily methane, used as a fuel for electricity generation and in a variety of ways in buildings, and as raw material input and fuel for industrial processes.

**Natural Gas, Dry:** 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.

**Natural Gas (Dry) Production:** The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and 2) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part

of production. Dry natural gas production equals marketed production less extraction loss.

**Natural Gas Marketed Production:** Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring; nonhydrocarbon gases removed in treating and processing operations; and quantities vented and flared.

**Natural Gas Plant Liquids (NGPL):** Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Material as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Wellhead Price:** The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

**Natural Gasoline:** A mixture of hydrocarbons (mostly pentanes and heavier) extracted from natural gas that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane, which is a saturated branch-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Net Summer Capacity:** The maximum output, commonly expressed in **kilowatts** (kW) or 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 June 1 through September 30). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

**Neutral Zone:** A 6,200 square-mile area shared equally between Kuwait and Saudi Arabia under a 1992 agreement. The Neutral Zone contains an estimated 5 billion barrels of oil and 8 trillion cubic feet of natural gas.

**Nominal Dollars:** A measure used to express **nominal price**.

**Nominal Price:** The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in

the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

**Non-Biomass Waste:** Material of non-biological origin that is a byproduct or a discarded product. "Non-biomass waste" includes municipal solid waste from non-biogenic sources, such as plastics, and tire-derived fuels.

**Nonhydrocarbon Gases:** Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

**Nuclear Electric Power (Nuclear Power):** Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

**Nuclear Electric Power Plant:** A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

**Nuclear Reactor:** An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

**OECD:** See **Organization for Economic Cooperation and Development.**

**Offshore:** That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

**Oil:** See **Crude Oil.**

**OPEC:** See **Organization of the Petroleum Exporting Countries.**

**Operable Unit (Nuclear):** In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

**Organization for Economic Cooperation and Development (OECD):** Members are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and its territories (Guam, Puerto Rico, and the Virgin Islands).

**Organization of the Petroleum Exporting Countries (OPEC):** An intergovernmental organization whose stated objective is to "coordinate and unify the petroleum policies of member countries." It was created at the Baghdad Conference on September 10–14, 1960. Current members (with years of membership) include Algeria (1969–present), Angola (2007–present), Ecuador (1973–1992 and 2007–present), Iran (1960–present), Iraq (1960–present), Kuwait (1960–present), Libya (1962–present), Nigeria (1971–present), Qatar (1961–present), Saudi Arabia (1960–present), United Arab Emirates (1967–present), and Venezuela (1960–present). Countries no longer members of OPEC include Gabon (1975–1994) and Indonesia (1962–2008).

**Oxygenates:** Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

**PAD Districts:** Petroleum Administration for Defense Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

**Pentanes Plus:** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

**Petrochemical Feedstocks:** Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

**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.**

**Petroleum Consumption:** See **Products Supplied (Petroleum).**

**Petroleum Imports:** Imports of petroleum into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. territories and possessions. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

**Petroleum Products:** Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Stocks, Primary:** For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

**Photovoltaic Energy:** Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

**Pipeline Fuel:** Gas consumed in the operation of pipelines, primarily in compressors.

**Plant Condensate:** One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquid at gas inlet separators or scrubbers in processing plants.

**Primary Energy:** Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, **coal** can be converted to synthetic gas, which can be converted to **electricity**; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy. See **Primary Energy Production** and **Primary Energy Consumption**.

**Primary Energy Consumption:** Consumption of **primary energy**. (Energy sources that are produced from other energy sources—e.g., **coal coke** from **coal**—are included in primary energy consumption only if their energy content has not already been included as part of the original energy source. Thus, U.S. primary energy consumption does include net imports of coal coke, but not the coal coke produced from domestic coal.) The Energy Information Administration includes the following in U.S. primary energy consumption: coal consumption; coal coke net imports; **petroleum consumption (petroleum products supplied)**, including **natural gas plant liquids** and **crude oil** burned as fuel); **dry natural gas**—excluding **supplemental gaseous fuels**—consumption; **nuclear electricity net generation** (converted to **Btu** using the nuclear plants **heat rate**); **conventional hydroelectricity** net generation (converted to **Btu** using the fossil-fueled plants heat rate); **geothermal** electricity net generation (converted to **Btu** using the geothermal plants heat rate), and

geothermal heat pump energy and geothermal direct use energy; **solar thermal** and **photovoltaic** electricity net generation (converted to **Btu** using the fossil-fueled plants heat rate), and solar thermal direct use energy; **wind** electricity net generation (converted to **Btu** using the fossil-fueled plants heat rate); **wood and wood-derived fuels** consumption; **biomass waste** consumption; **fuel ethanol** and **biodiesel** consumption; losses and co-products from the production of fuel ethanol and biodiesel; and electricity net imports (converted to **Btu** using the electricity heat content of 3,412 **Btu** per kilowatthour).

**Primary Energy Production:** Production of **primary energy**. The Energy Information Administration includes the following in U.S. primary energy production: **coal** production, **waste coal** supplied, and coal refuse recovery; **crude oil** and **lease condensate** production; **natural gas plant liquids** production; **dry natural gas**—excluding **supplemental gaseous fuels**—production; **nuclear electricity net generation** (converted to **Btu** using the nuclear plants **heat rate**); **conventional hydroelectricity** net generation (converted to **Btu** using the fossil-fueled plants heat rate); **geothermal** electricity net generation (converted to **Btu** using the geothermal plants heat rate), and geothermal heat pump energy and geothermal direct use energy; **solar thermal** and **photovoltaic** electricity net generation (converted to **Btu** using the fossil-fueled plants heat rate), and solar thermal direct use energy; **wind** electricity net generation (converted to **Btu** using the fossil-fueled plants heat rate); **wood and wood-derived fuels** consumption; **biomass waste** consumption; and **biofuels** feedstock.

**Prime Mover:** The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly.

**Products Supplied (Petroleum):** Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas-processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted-for crude oil (plus net receipts when calculated on a PAD District basis) minus stock change, minus crude oil losses, minus refinery inputs, and minus exports.

**Propane:** A normally gaseous straight-chain hydrocarbon ( $C_3H_8$ ). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

**Propylene:** An olefinic hydrocarbon ( $C_3H_6$ ) recovered from refinery or petrochemical processes.

**Real Dollars:** These are dollars that have been adjusted for inflation. See **Real Price**.

**Real Price:** A price that has been adjusted to remove the effect of changes in the purchasing power of the dollar. Real prices, which are expressed in constant dollars, usually reflect buying power relative to a base year.

**Refiner Acquisition Cost of Crude Oil:** The cost of crude oil to the refiner, including transportation and fees. The composite cost is the weighted average of domestic and imported crude oil costs.

**Refinery and Blender Net Inputs:** Raw materials, **unfinished oils**, and blending components processed at **refineries**, or blended at refineries or petroleum storage terminals to produce finished **petroleum products**. Included are gross inputs of **crude oil**, **natural gas plant liquids**, other hydrocarbon raw materials, **hydrogen**, and **oxygenates**. Also included are net inputs of unfinished oils, **motor gasoline blending components**, and **aviation gasoline blending components**. Net inputs are calculated as gross inputs minus gross production. Negative net inputs indicate gross inputs are less than gross production. Examples of negative net inputs include reformulated gasoline blendstock for oxygenate blending (RBOB) produced at refineries for shipment to blending terminals, and unfinished oils produced and added to inventory in advance of scheduled maintenance of a refinery crude oil distillation unit.

**Refinery and Blender Net Production:** Liquefied refinery gases, and finished **petroleum products** produced at a **refinery** or petroleum storage terminal blending facility. Net production equals gross production minus gross inputs. Negative net production indicates gross production is less than gross inputs for a finished petroleum product. Examples of negative net production include reclassification of one finished product to another finished product, or reclassification of a finished product to **unfinished oils** or blending components.

**Refinery (Petroleum):** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

**Refuse Mine:** A surface site where **coal** is recovered from previously mined coal. It may also be known as a silt bank, culm bank, refuse bank, slurry dam, or dredge operation.

**Refuse Recovery:** The recapture of **coal** from a **refuse mine** or the coal recaptured by that process. The resulting product has been cleaned to reduce the concentration of noncombustible materials.

**Renewable Energy:** Energy obtained from sources that are essentially inexhaustible (unlike, for example, the **fossil fuels**, of which there is a finite supply). Renewable sources of energy include **conventional hydroelectric power**, **biomass**, **geothermal**, **solar**, and **wind**.

**Repressuring:** The injection of a pressurized fluid (such as air, gas, or water) into oil and gas reservoir formations to effect greater ultimate recovery.

**Residential Sector:** 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. *Note:* Various EIA programs differ in sectoral coverage for more information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.htm>. See **End-Use Sectors** and **Energy-Use Sectors**.

**Residual Fuel Oil:** The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

**Road Oil:** Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

**Rotary Rig:** A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

**Short Ton (Coal):** A unit of weight equal to 2,000 pounds.

**SIC (Standard Industrial Classification):** A set of codes developed by the U.S. Office of Management and Budget which categorizes industries into groups with similar economic activities. Replaced by **NAICS (North American Industry Classification System)**.

**Solar Energy:** See **Solar Thermal Energy** and **Photovoltaic Energy**.

**Solar Thermal Energy:** The radiant energy of the sun that can be converted into other forms of energy, such as heat or electricity.

**Special Naphthas:** All finished products within the naphtha boiling ranges that are used as paint thinner, cleaners or solvents. Those products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

**Station Use:** Energy that is used to operate an **electric power plant**. It includes energy consumed for plant lighting, power, and auxiliary facilities, regardless of whether the energy is produced at the plant or comes from another source.

**Steam Coal:** All nonmetallurgical coal.

**Steam-Electric Power Plant:** 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.

**Still Gas (Refinery Gas):** Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and, petrochemical feedstock.

**Stocks:** See **Coal Stocks**, **Crude Oil Stocks**, or **Petroleum Stocks, Primary**.

**Strategic Petroleum Reserve (SPR):** Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

**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 **short ton** on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Supplemental Gaseous Fuels:** 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 Natural Gas (SNG):** (Also referred to as substitute natural gas) A manufactured product, chemically similar in most respects to **natural gas**, resulting from the conversion or reforming of **hydrocarbons** that may easily be substituted for or interchanged with pipeline-quality natural gas.

**Thermal Conversion Factor:** A factor for converting data between physical units of measure (such as **barrels**, **cubic feet**, or **short tons**) and thermal units of measure (such as **British thermal units**, calories, or joules); or for converting data between different thermal units of measure. See **Btu Conversion Factor**.

**Transportation Sector:** An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use. Note: Various EIA programs differ in sectoral coverage—for more information see <http://www.eia.doe.gov/heic/datadefinitions/Guideforwebtrans.htm>. See **End-Use Sectors** and **Energy-Use Sectors**.

**Unaccounted-for Crude Oil:** Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of **crude oil** production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

**Underground Storage:** The storage of natural gas in underground reservoirs at a different location from which it was produced.

**Unfinished Oils:** All oils requiring further refinery processing except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

**Unfractionated Stream:** Mixtures of unsegregated natural gas liquid components, excluding those in plant condensate. This product is extracted from natural gas.

**Union of Soviet Socialist Republics (U.S.S.R.):** A political entity that consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The U.S.S.R. ceased to exist as of December 31, 1991.

**United States:** The 50 States and the District of Columbia. Note: The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 States and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States."

**Useful Thermal Output:** The thermal energy made available in a combined-heat-and-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.

**U.S.S.R.:** See **Union of Soviet Socialist Republics (U.S.S.R.).**

**Vented Natural Gas:** Gas released into the air on the production site or at processing plants.

**Vessel Bunkering:** Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

**Waste Coal:** Usable material that is a byproduct of previous **coal** processing operations. Waste coal is usually composed of mixed coal, soil, and rock (mine waste). Most waste coal is burned as-is in unconventional fluidized-bed combustors. For some uses, waste coal may be partially cleaned by removing some extraneous noncombustible constituents. Examples of waste coal include fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste.

**Waste:** See **Biomass Waste** and **Non-Biomass Waste**.

**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.

**Waxes:** Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

**Wellhead Price:** The value of crude oil or natural gas at the mouth of the well.

**Wind Energy:** Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

**Wood and Wood-Derived Fuels:** Wood and products derived from wood that are used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, paper pellets, railroad ties, utility poles, **black liquor**, red liquor, sludge wood, spent sulfite liquor, and other wood-based solids and liquids.

**Working Gas:** The volume of gas in a reservoir that is in addition to the base gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.