Nuclear Regulatory Commission
Exhibit # - NRC000217-MA-BD01
Docket # - 07007015
Identified: 08/02/2011

Admitted: 08/02/2011 Withdrawn:
Rejected: Stricken:

NRC000217
DOE/EIA-0035(2011/06)

June 2011

Monthly Energy Review

www.eia.gov/mer

U.S. Energy Information Administration

Monthly Energy Review

The *Monthly Energy Review* (*MER*) is the U.S. 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; carbon dioxide emissions; 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...."*

The MER is intended for use by Members of Congress, Federal and State agencies, energy analysts, and the general public. EIA welcomes suggestions from readers regarding the content of the MER and other EIA publications.

Related Monthly Publications: Other monthly EIA reports are *Petroleum Supply Monthly*, *Petroleum Marketing Monthly*, *Natural Gas Monthly*, *Electric Power Monthly*, and *International Petroleum Monthly*. For more information, contact the Office of Communications via email infoctr@eia.gov.

Important Notes About the Data

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 Format (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.gov/totalenergy/data/annual.

Electronic Access

The MER is available on EIA's website in a variety of formats at http://www.eia.gov/totalenergy/data/monthly.

- 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: The MER is posted on the EIA website by the last work day of the month at http://www.eia.gov/totalenergy/data/monthly.

Released: June 28, 2011

DOE/EIA-0035(2011/06)

Monthly Energy Review

June 2011

U.S. Energy Information Administration
Office of Energy Statistics
U.S. Department of Energy
Washington, DC 20585

This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views in this report therefore should not be construed as representing those of the Department of Energy or other Federal agencies.

Contacts

The *Monthly Energy Review* is prepared by the U.S. Energy Information Administration, Office of Energy Statistics, Office of Survey Development and Statistical Integration, Integrated Energy Statistics Team, under the direction of Barbara T. Fichman, 202-586-5737 (barbara.fichman@eia.gov). Questions and comments specifically related to the *Monthly Energy Review* may be addressed to Alexander Sun, 202-287-5948 (alexander.sun@eia.gov).

For assistance in acquiring data, please contact the **National Energy Information Center at 202-586-8800 or infoctr@eia.gov**. Questions about the collection, processing, or interpretation of the information may be directed to the following subject specialists:

Section	**1.**	**Energy Overview**	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.gov
Section	**2.**	**Energy Consumption by Sector**	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.gov
Section	**3.**	**Petroleum**	Jennifer Fama	202-586-6254 jennifer.fama@eia.gov
Section	**4.**	**Natural Gas**	Amy Sweeney	202-586-2627 amy.sweeney@eia.gov
Section	**5.**	**Crude Oil and Natural Gas Resource Development**	Robert F. King	202-586-4787 robert.king@eia.gov
Section	**6.**	**Coal**	Nicholas Paduano	202-287-6326 nicholas.paduano@eia.gov
Section	**7.**	**Electricity**	Ronald S. Hankey	202-586-2630 ronald.hankey@eia.gov
Section	**8.**	**Nuclear Energy**	John R. Moens	202-586-1509 john.moens@eia.gov
Section	**9.**	**Energy Prices**		
		Petroleum	Patricia Wells	202-586-4885 patricia.wells@eia.gov
		Natural Gas	Amy Sweeney	202-586-2627 amy.sweeney@eia.gov
		Average Retail Prices of Electricity	Charlene Harris-Russell	202-586-2661 charlene.harris-russell@eia.gov
		Cost of Fuel at Electric Generating Plants	Rebecca Peterson	202-586-4509 rebecca.peterson@eia.gov
Section	**10.**	**Renewable Energy**	Louise Guey-Lee	202-586-1293 louise.guey-lee@eia.gov
Section	**11.**	**International Petroleum**	Patricia Smith	202-586-6925 patricia.smith@eia.gov
Section	**12.**	**Environment**	Perry Lindstrom	202-586-0934 perry.lindstrom@eia.gov

Contents

			Page
Section	1.	Energy Overview	1
Section	2.	Energy Consumption by Sector	21
Section	3.	Petroleum	35
Section	4.	Natural Gas	67
Section	5.	Crude Oil and Natural Gas Resource Development	75
Section	6.	Coal	81
Section	7.	Electricity	91
Section	8.	Nuclear Energy	113
Section	9.	Energy Prices	117
Section	10.	Renewable Energy	137
Section	11.	International Petroleum	149
Section	12.	Environment	159
Appendix	A.	British Thermal Unit Conversion Factors	173
Appendix	B.	Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors	185
Glossary			189

Tables

		Page
Section 1.	**Energy Overview**	
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 Economy	17
1.9	Heating Degree-Days by Census Division	18
1.10	Cooling Degree-Days by Census Division	19
Section 2.	**Energy Consumption by Sector**	
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
Section 3.	**Petroleum**	
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
Section 4.	**Natural Gas**	
4.1	Natural Gas Overview	69
4.2	Natural Gas Trade by Country	70
4.3	Natural Gas Consumption by Sector	71
4.4	Natural Gas in Underground Storage	72
Section 5.	**Crude Oil and Natural Gas Resource Development**	
5.1	Crude Oil and Natural Gas Drilling Activity Measurements	77
5.2	Crude Oil and Natural Gas Exploratory and Development Wells	78
5.3	Maximum U.S. Active Seismic Crew Counts	79

Tables

Page

Section 6. Coal
6.1 Coal Overview. . . . 83
6.2 Coal Consumption by Sector. . . . 84
6.3 Coal Stocks by Sector. . . . 85

Section 7. Electricity
7.1 Electricity Overview. . . . 93
7.2 Electricity Net Generation
7.2a Total (All Sectors). . . . 95
7.2b Electric Power Sector. . . . 96
7.2c Commercial and Industrial Sectors. . . . 97
7.3 Consumption of Combustible Fuels for Electricity Generation
7.3a Total (All Sectors). . . . 99
7.3b Electric Power Sector. . . . 100
7.3c Commercial and Industrial Sectors (Selected Fuels). . . . 101
7.4 Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output
7.4a Total (All Sectors). . . . 103
7.4b Electric Power Sector. . . . 104
7.4c Commercial and Industrial Sectors (Selected Fuels). . . . 105
7.5 Stocks of Coal and Petroleum: Electric Power Sector. . . . 107
7.6 Electricity End Use. . . . 109

Section 8. Nuclear Energy
8.1 Nuclear Energy Overview. . . . 115

Section 9. Energy Prices
9.1 Crude Oil Price Summary. . . . 119
9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries. . . . 120
9.3 Landed Costs of Crude Oil Imports From Selected Countries. . . . 121
9.4 Motor Gasoline Retail Prices, U.S. City Average. . . . 122
9.5 Refiner Prices of Residual Fuel Oil. . . . 123
9.6 Refiner Prices of Petroleum Products for Resale. . . . 124
9.7 Refiner Prices of Petroleum Products to End Users. . . . 125
9.8 No. 2 Distillate Prices to Residences
9.8a Northeastern States. . . . 126
9.8b Selected South Atlantic and Midwestern States. . . . 127
9.8c Selected Western States and U.S. Average. . . . 128
9.9 Average Retail Prices of Electricity. . . . 130
9.10 Cost of Fossil-Fuel Receipts at Electric Generating Plants. . . . 131
9.11 Natural Gas Prices. . . . 133

Section 10. Renewable Energy
10.1 Renewable Energy Production and Consumption by Source. . . . 139
10.2 Renewable Energy Consumption
10.2a Residential and Commercial Sectors. . . . 140
10.2b Industrial and Transportation Sectors. . . . 141
10.2c Electric Power Sector 142
10.3 Fuel Ethanol Overview. . . . 143
10.4 Biodiesel Overview. . . . 144

Tables

Page

Section 11. International Petroleum
11.1 World Crude Oil Production
11.1a OPEC Members. 152
11.1b Persian Gulf Nations, Non-OPEC, and World. 153
11.2 Petroleum Consumption in OECD Countries. 155
11.3 Petroleum Stocks in OECD Countries. 157

Section 12. Environment
12.1 Carbon Dioxide Emissions From Energy Consumption by Source 161
12.2 Carbon Dioxide Emissions From Energy Consumption: Residential Sector 163
12.3 Carbon Dioxide Emissions From Energy Consumption: Commercial Sector. 164
12.4 Carbon Dioxide Emissions From Energy Consumption: Industrial Sector. 165
12.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector. 166
12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector. 167
12.7 Carbon Dioxide Emissions From Biomass Energy Consumption 168

Appendix A. British Thermal Unit Conversion Factors
A1. Approximate Heat Content of Petroleum Products. 173
A2. Approximate Heat Content of Petroleum Production, Imports, and Exports. 174
A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production. 175
A4. Approximate Heat Content of Natural Gas. 176
A5. Approximate Heat Content of Coal and Coal Coke. 177
A6. Approximate Heat Rates for Electricity, and Heat Content of Electricity. 178

Appendix B. Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors
B1. Metric Conversion Factors. 186
B2. Metric Prefixes. 187
B3. Other Physical Conversion Factors. 187

Figures

		Page
Section 1.	**Energy Overview**	
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 Economy	17
Section 2.	**Energy Consumption by Sector**	
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
Section 3.	**Petroleum**	
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
Section 4.	**Natural Gas**	
4.1	Natural Gas	68
Section 5.	**Crude Oil and Natural Gas Resource Development**	
5.1	Crude Oil and Natural Gas Resource Development Indicators	76
Section 6.	**Coal**	
6.1	Coal	82
Section 7.	**Electricity**	
7.1	Electricity Overview	92
7.2	Electricity Net Generation	94
7.3	Consumption of Selected Combustible Fuels for Electricity Generation	98
7.4	Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output	102
7.5	Stocks of Coal and Petroleum: Electric Power Sector	106
7.6	Electricity End Use	108
Section 8.	**Nuclear Energy**	
8.1	Nuclear Energy Overview	114

Figures

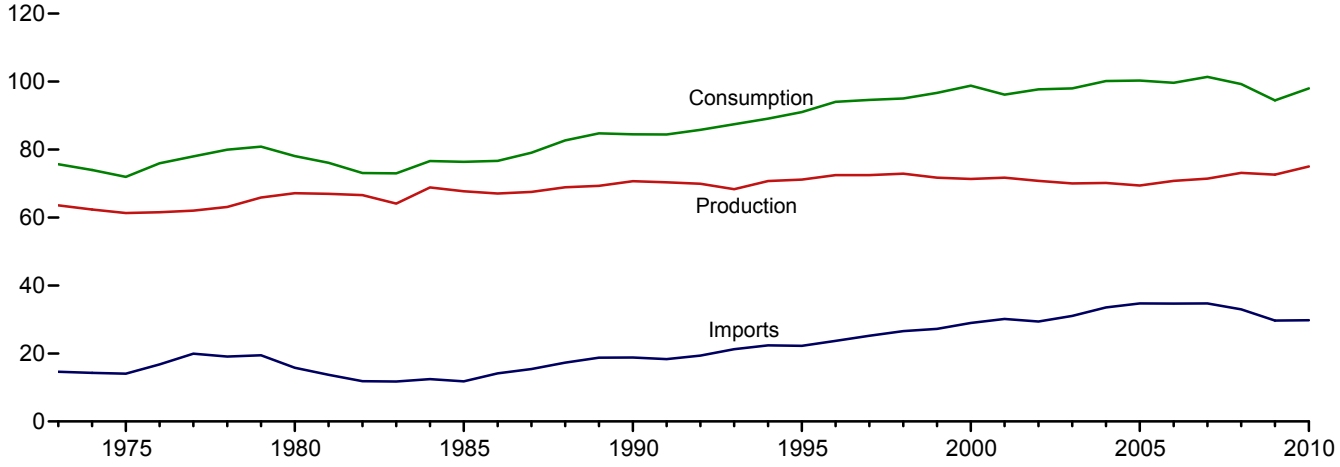
		Page
Section 9.	**Energy Prices**	
9.1	Petroleum Prices	118
9.2	Average Retail Prices of Electricity	129
9.3	Cost of Fossil-Fuel Receipts at Electric Generating Plants	129
9.4	Natural Gas Prices	132
Section 10.	**Renewable Energy**	
10.1	Renewable Energy Consumption	138
Sectionr 11.	**International Petroleum**	
11.1	World Crude Oil Production	
	11.1a Overview	150
	11.1b By Selected Country	151
11.2	Petroleum Consumption in OECD Countries	154
11.3	Petroleum Stocks in OECD Countries	156
Section 12.	**Environment**	
12.1	Carbon Dioxide Emissions From Energy Consumption by Source	160
12.2	Carbon Dioxide Emissions From Energy Consumption by Sector	162

1 Energy Overview

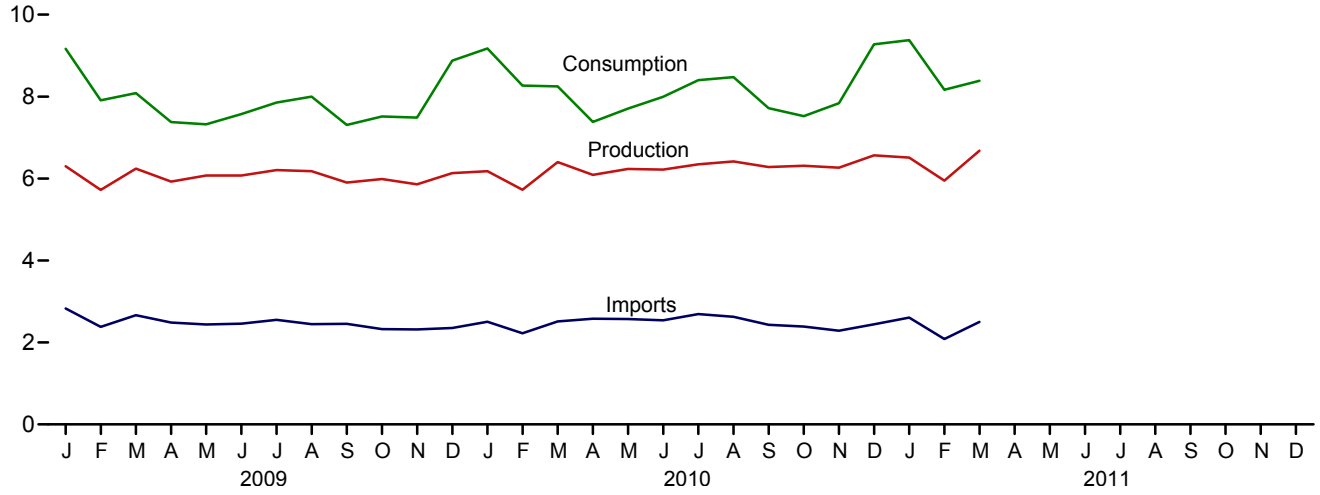
The continental United States at night from orbit. Source: National Oceanic and Atmospheric Administration satellite imagery; mosaic provided by U.S. Geological Survey.

Figure 1.1 Primary Energy Overview
(Quadrillion Btu)

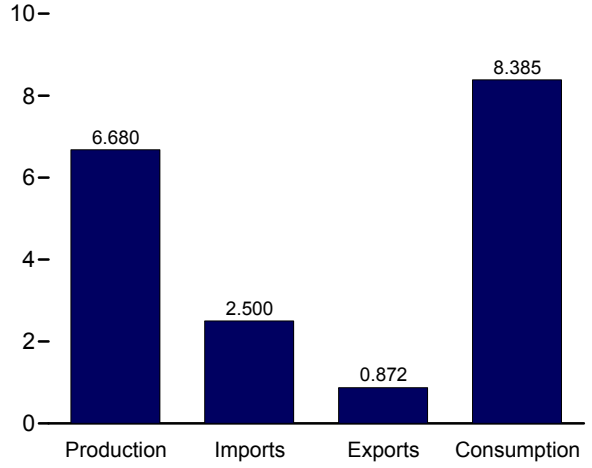
Consumption, Production, and Imports, 1973-2010



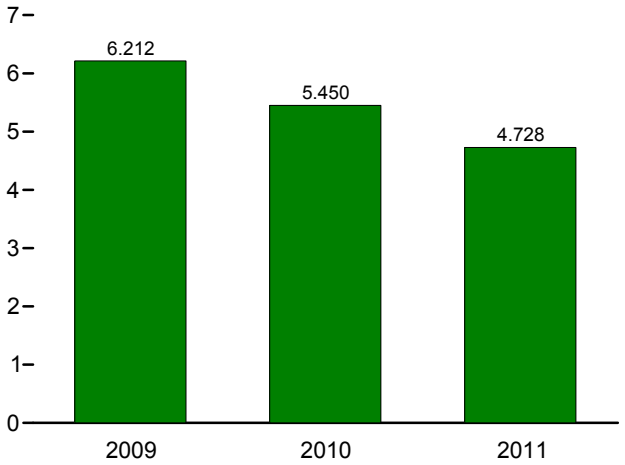
Consumption, Production, and Imports, Monthly



Overview, March 2011



Net Imports, January-March



Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.1.

Table 1.1 Primary Energy Overview

(Quadrillion Btu)

	Production				Trade			Stock Change and Other[d]	Consumption			
	Fossil Fuels[a]	Nuclear Electric Power	Renew-able Energy[b]	Total	Imports	Exports	Net Imports[c]		Fossil Fuels[e]	Nuclear Electric Power	Renew-able Energy[b]	Total[f]
1973 Total	**58.241**	**0.910**	**4.411**	**63.563**	**14.613**	**2.033**	**12.580**	**-0.459**	**70.314**	**0.910**	**4.411**	**75.684**
1975 Total	**54.733**	**1.900**	**4.687**	**61.320**	**14.032**	**2.323**	**11.709**	**-1.065**	**65.357**	**1.900**	**4.687**	**71.965**
1980 Total	**59.008**	**2.739**	**5.428**	**67.175**	**15.796**	**3.695**	**12.101**	**-1.210**	**69.828**	**2.739**	**5.428**	**78.067**
1985 Total	**57.539**	**4.076**	**6.084**	**67.698**	**11.781**	**4.196**	**7.584**	**1.110**	**66.093**	**4.076**	**6.084**	**76.392**
1990 Total	**58.560**	**6.104**	**6.041**	**70.705**	**18.817**	**4.752**	**14.065**	**-.284**	**72.332**	**6.104**	**6.041**	**84.485**
1995 Total	**57.540**	**7.075**	**6.558**	**71.174**	**22.260**	**4.511**	**17.750**	**2.105**	**77.259**	**7.075**	**6.560**	**91.029**
1996 Total	**58.387**	**7.087**	**7.012**	**72.486**	**23.702**	**4.633**	**19.069**	**2.468**	**79.785**	**7.087**	**7.014**	**94.022**
1997 Total	**58.857**	**6.597**	**7.018**	**72.472**	**25.215**	**4.514**	**20.701**	**1.429**	**80.873**	**6.597**	**7.016**	**94.602**
1998 Total	**59.314**	**7.068**	**6.494**	**72.876**	**26.581**	**4.299**	**22.281**	**-.140**	**81.369**	**7.068**	**6.493**	**95.018**
1999 Total	**57.614**	**7.610**	**6.517**	**71.742**	**27.252**	**3.715**	**23.537**	**1.372**	**82.427**	**7.610**	**6.516**	**96.652**
2000 Total	**57.366**	**7.862**	**6.104**	**71.332**	**28.973**	**4.006**	**24.967**	**2.515**	**84.731**	**7.862**	**6.106**	**98.814**
2001 Total	**58.541**	**8.029**	**5.164**	**71.735**	**30.157**	**3.771**	**26.386**	**-1.953**	**82.902**	**8.029**	**5.163**	**96.168**
2002 Total	**56.894**	**8.145**	**5.734**	**70.773**	**29.408**	**3.669**	**25.739**	**1.181**	**83.747**	**8.145**	**5.729**	**97.693**
2003 Total	**56.099**	**7.959**	**5.982**	**70.040**	**31.061**	**4.054**	**27.007**	**.931**	**84.014**	**7.959**	**5.983**	**97.978**
2004 Total	**55.895**	**8.222**	**6.070**	**70.188**	**33.544**	**4.434**	**29.110**	**.850**	**85.805**	**8.222**	**6.082**	**100.148**
2005 Total	**55.038**	**8.161**	**6.229**	**69.427**	**34.709**	**4.560**	**30.149**	**.701**	**85.790**	**8.161**	**6.242**	**100.277**
2006 Total	**55.968**	**8.215**	**6.608**	**70.792**	**34.679**	**4.872**	**29.806**	**-.974**	**84.687**	**8.215**	**6.659**	**99.624**
2007 Total	**56.447**	**8.455**	**6.537**	**71.440**	**34.703**	**5.482**	**29.221**	**.703**	**86.251**	**8.455**	**6.551**	**101.363**
2008 Total	**57.482**	**8.427**	**7.205**	**73.114**	**32.992**	**7.060**	**25.932**	**.222**	**83.540**	**8.427**	**7.190**	**99.268**
2009 January	4.898	.775	.627	6.300	2.829	.598	2.231	.633	7.760	.775	.622	9.165
February	4.506	.672	.545	5.722	2.379	.505	1.874	.312	6.691	.672	.537	7.908
March	4.913	.703	.624	6.240	2.666	.558	2.107	-.261	6.757	.703	.621	8.086
April	4.654	.621	.649	5.924	2.487	.507	1.980	-.528	6.097	.621	.653	7.377
May	4.701	.684	.690	6.075	2.437	.537	1.900	-.651	5.936	.684	.694	7.324
June	4.663	.729	.683	6.075	2.458	.566	1.892	-.394	6.149	.729	.685	7.573
July	4.799	.763	.643	6.205	2.552	.620	1.932	-.283	6.433	.763	.643	7.853
August	4.807	.756	.615	6.178	2.447	.596	1.851	-.028	6.614	.756	.615	8.001
September	4.647	.688	.568	5.903	2.455	.600	1.855	-.450	6.043	.688	.567	7.308
October	4.756	.607	.627	5.990	2.327	.648	1.679	-.156	6.268	.607	.627	7.513
November	4.599	.618	.642	5.859	2.317	.601	1.716	-.087	6.224	.618	.637	7.488
December	4.701	.740	.692	6.133	2.353	.629	1.724	1.023	7.443	.740	.686	8.879
Total	**56.644**	**8.356**	**7.603**	**72.603**	**29.706**	**6.965**	**22.741**	**-.869**	**78.415**	**8.356**	**7.587**	**94.475**
2010 January	4.749	.759	.669	6.178	2.505	.589	1.916	1.083	7.740	.759	.662	9.176
February	4.438	.682	.604	5.725	2.223	.554	1.670	.873	6.974	.682	.600	8.268
March	5.050	.676	.677	6.404	2.513	.649	1.864	-.021	6.889	.676	.672	8.247
April	4.833	.603	.652	6.088	2.577	.680	1.897	-.604	6.118	.603	.652	7.381
May	4.820	.697	.716	6.233	2.572	.701	1.872	-.400	6.289	.697	.714	7.705
June	4.754	.714	.748	6.217	2.538	.680	1.858	-.079	6.521	.714	.752	7.996
July	4.898	.752	.696	6.346	2.692	.711	1.981	.072	6.939	.752	.699	8.399
August	5.012	.749	.656	6.416	2.624	.692	1.932	R .129	7.065	.749	.657	R 8.477
September	4.940	.726	.616	6.282	2.430	.669	1.762	-.326	6.374	.726	.616	7.717
October	5.020	.656	.637	6.314	2.387	.708	1.679	-.468	6.229	.656	.637	7.524
November	4.933	.655	.678	6.266	2.286	.753	1.533	.038	6.504	.655	.675	7.837
December	5.080	.771	.714	6.564	2.443	.787	1.656	1.055	7.782	.771	.714	9.275
Total	**58.527**	**8.441**	**8.064**	**75.031**	**29.792**	**8.173**	**21.619**	**R 1.353**	**R 81.425**	**8.441**	**8.049**	**R 98.003**
2011 January	R 5.008	.761	.740	R 6.509	R 2.605	.835	R 1.770	R 1.100	R 7.884	.761	.724	R 9.379
February	R 4.570	.678	.700	R 5.947	R 2.084	R .754	R 1.330	.888	R 6.787	.678	.693	R 8.166
March	5.188	.687	.805	6.680	2.500	.872	1.628	.077	6.895	.687	.795	8.385
3-Month Total	**14.767**	**2.125**	**2.245**	**19.137**	**7.189**	**2.461**	**4.728**	**2.064**	**21.566**	**2.125**	**2.212**	**25.929**
2010 3-Month Total	**14.238**	**2.118**	**1.951**	**18.306**	**7.241**	**1.791**	**5.450**	**1.935**	**21.603**	**2.118**	**1.934**	**25.692**
2009 3-Month Total	**14.317**	**2.150**	**1.795**	**18.263**	**7.874**	**1.662**	**6.212**	**.684**	**21.209**	**2.150**	**1.780**	**25.158**

[a] Coal, natural gas (dry), crude oil, and natural gas plant liquids.
[b] See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
[c] Net imports equal imports minus exports.
[d] 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.
[e] Coal, coal coke net imports, natural gas, and petroleum.
[f] Also includes electricity net imports.
R=Revised.

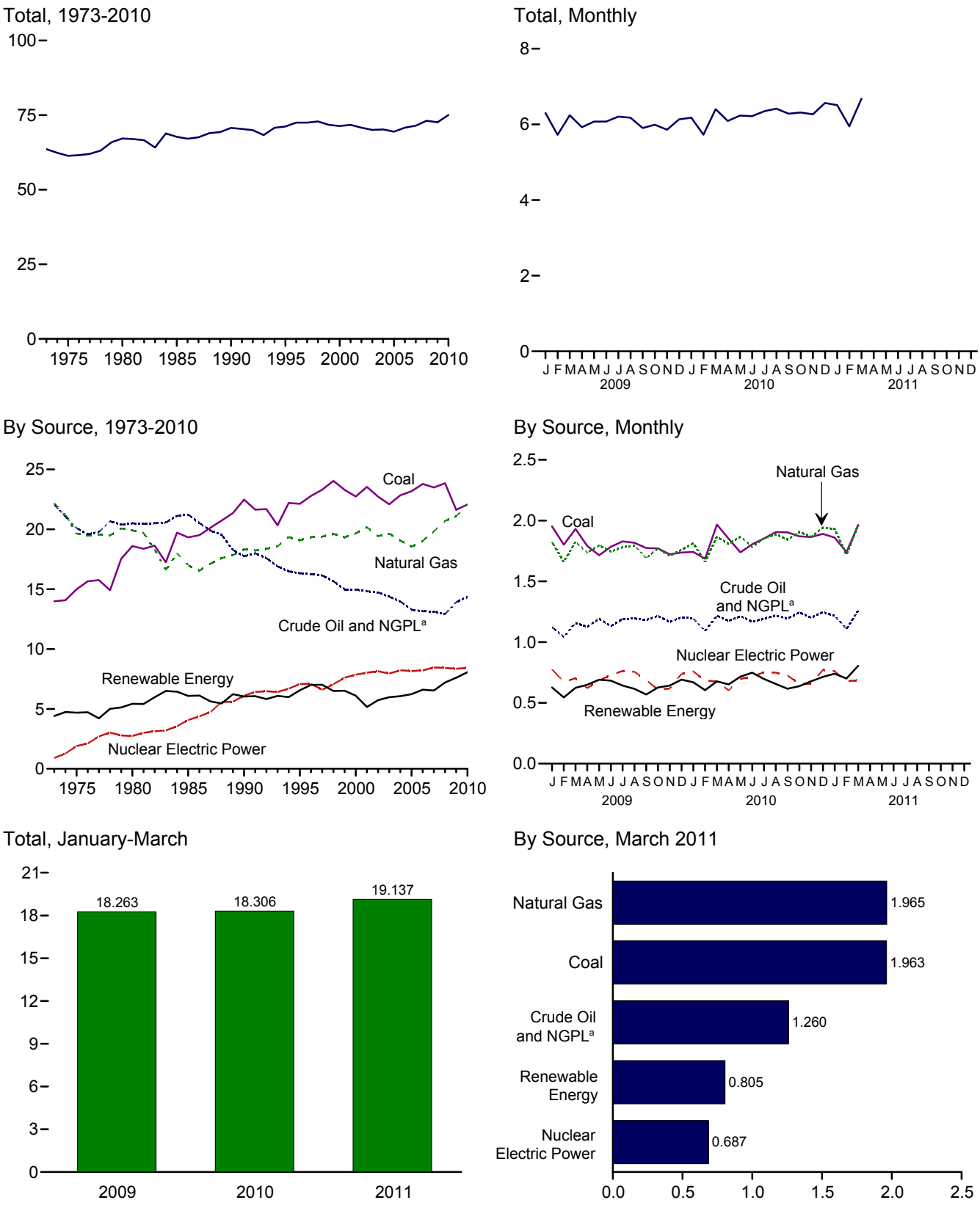
Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary 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.

Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

Figure 1.2 Primary Energy Production
(Quadrillion Btu)



[a] Natural gas plant liquids.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.2.

Table 1.2 Primary Energy Production by Source

(Quadrillion Btu)

	Fossil Fuels						Renewable Energy[a]						
	Coal[b]	Natural Gas (Dry)	Crude Oil[c]	NGPL[d]	Total	Nuclear Electric Power	Hydro-electric Power[e]	Geo-thermal	Solar/ PV	Wind	Bio-mass	Total	Total
1973 Total	**13.992**	**22.187**	**19.493**	**2.569**	**58.241**	**0.910**	**2.861**	**0.020**	**NA**	**NA**	**1.529**	**4.411**	**63.563**
1975 Total	**14.989**	**19.640**	**17.729**	**2.374**	**54.733**	**1.900**	**3.155**	**.034**	**NA**	**NA**	**1.499**	**4.687**	**61.320**
1980 Total	**18.598**	**19.908**	**18.249**	**2.254**	**59.008**	**2.739**	**2.900**	**.053**	**NA**	**NA**	**2.475**	**5.428**	**67.175**
1985 Total	**19.325**	**16.980**	**18.992**	**2.241**	**57.539**	**4.076**	**2.970**	**.097**	**(s)**	**(s)**	**3.016**	**6.084**	**67.698**
1990 Total	**22.488**	**18.326**	**15.571**	**2.175**	**58.560**	**6.104**	**3.046**	**.171**	**.059**	**.029**	**2.735**	**6.041**	**70.705**
1995 Total	**22.130**	**19.082**	**13.887**	**2.442**	**57.540**	**7.075**	**3.205**	**.152**	**.069**	**.033**	**3.099**	**6.558**	**71.174**
1996 Total	**22.790**	**19.344**	**13.723**	**2.530**	**58.387**	**7.087**	**3.590**	**.163**	**.070**	**.033**	**3.155**	**7.012**	**72.486**
1997 Total	**23.310**	**19.394**	**13.658**	**2.495**	**58.857**	**6.597**	**3.640**	**.167**	**.070**	**.034**	**3.108**	**7.018**	**72.472**
1998 Total	**24.045**	**19.613**	**13.235**	**2.420**	**59.314**	**7.068**	**3.297**	**.168**	**.069**	**.031**	**2.929**	**6.494**	**72.876**
1999 Total	**23.295**	**19.341**	**12.451**	**2.528**	**57.614**	**7.610**	**3.268**	**.171**	**.068**	**.046**	**2.965**	**6.517**	**71.742**
2000 Total	**22.735**	**19.662**	**12.358**	**2.611**	**57.366**	**7.862**	**2.811**	**.164**	**.065**	**.057**	**3.006**	**6.104**	**71.332**
2001 Total	**23.547**	**20.166**	**12.282**	**2.547**	**58.541**	**8.029**	**2.242**	**.164**	**.064**	**.070**	**2.624**	**5.164**	**71.735**
2002 Total	**22.732**	**19.439**	**12.163**	**2.559**	**56.894**	**8.145**	**2.689**	**.171**	**.063**	**.105**	**2.705**	**5.734**	**70.773**
2003 Total	**22.094**	**19.633**	**12.026**	**2.346**	**56.099**	**7.959**	**2.825**	**.175**	**.062**	**.115**	**2.805**	**5.982**	**70.040**
2004 Total	**22.852**	**19.074**	**11.503**	**2.466**	**55.895**	**8.222**	**2.690**	**.178**	**.063**	**.142**	**2.998**	**6.070**	**70.188**
2005 Total	**23.185**	**18.556**	**10.963**	**2.334**	**55.038**	**8.161**	**2.703**	**.181**	**.063**	**.178**	**3.104**	**6.229**	**69.427**
2006 Total	**23.790**	**19.022**	**10.801**	**2.356**	**55.968**	**8.215**	**2.869**	**.181**	**.068**	**.264**	**3.226**	**6.608**	**70.792**
2007 Total	**23.493**	**19.825**	**10.721**	**2.409**	**56.447**	**8.455**	**2.446**	**.186**	**.076**	**.341**	**3.489**	**6.537**	**71.440**
2008 Total	**23.851**	**20.703**	**10.509**	**2.419**	**57.482**	**8.427**	**2.511**	**.192**	**.089**	**.546**	**3.867**	**7.205**	**73.114**
2009 January	1.953	1.823	.927	.196	4.898	.775	.229	.017	.008	.058	.315	.627	6.300
February	1.802	1.661	.854	.189	4.506	.672	.174	.016	.007	.057	.291	.545	5.722
March	1.932	1.825	.940	.216	4.913	.703	.213	.017	.008	.069	.316	.624	6.240
April	1.791	1.737	.918	.209	4.654	.621	.252	.016	.008	.073	.300	.649	5.924
May	1.715	1.795	.967	.224	4.701	.684	.289	.017	.009	.061	.315	.690	6.075
June	1.785	1.746	.919	.213	4.663	.729	.285	.016	.008	.055	.318	.683	6.075
July	1.829	1.780	.971	.218	4.799	.763	.228	.017	.009	.048	.340	.643	6.205
August	1.818	1.795	.974	.220	4.807	.756	.191	.017	.009	.053	.345	.615	6.178
September	1.774	1.690	.965	.217	4.647	.688	.169	.016	.008	.045	.329	.568	5.903
October	1.771	1.770	.989	.226	4.756	.607	.192	.016	.008	.067	.343	.627	5.990
November	1.722	1.711	.944	.221	4.599	.618	.205	.017	.008	.067	.345	.642	5.859
December	1.737	1.760	.980	.224	4.701	.740	.241	.018	.008	.067	.357	.692	6.133
Total	**21.627**	**21.095**	**11.348**	**2.574**	**56.644**	**8.356**	**2.669**	**.200**	**.098**	**.721**	**3.915**	**7.603**	**72.603**
2010 January	1.742	E 1.812	E .977	.218	4.749	.759	.216	.018	.008	.068	.358	.669	6.178
February	1.686	E 1.661	E .887	.204	4.438	.682	.200	.016	.008	.054	.326	.604	5.725
March	1.967	E 1.865	E .989	.228	5.050	.676	.201	.018	.009	.085	.364	.677	6.404
April	1.850	E 1.808	E .956	.218	4.833	.603	.182	.017	.009	.096	.348	.652	6.088
May	1.739	E 1.867	E .983	.230	4.820	.697	.243	.018	.010	.085	.360	.716	6.233
June	1.804	E 1.782	E .951	.217	4.754	.714	.288	.018	.010	.078	.355	.748	6.217
July	1.853	E 1.854	E .972	.220	4.898	.752	.236	.018	.010	.065	.368	.696	6.346
August	1.905	E 1.888	E .990	.229	5.012	.749	.193	.018	.010	.065	.371	.656	6.416
September	1.903	E 1.843	E .969	.225	4.940	.726	.165	.017	.009	.069	.355	.616	6.282
October	1.870	E 1.906	E 1.010	.234	5.020	.656	.170	.017	.009	.078	.364	.637	6.314
November	1.865	E 1.866	E .973	.228	4.933	.655	.190	.018	.009	.096	.366	.678	6.266
December	1.891	E 1.942	E 1.011	.235	5.080	.771	.226	.019	.009	.086	.375	.714	6.564
Total	**22.077**	**E 22.095**	**E 11.669**	**2.686**	**58.527**	**8.441**	**2.509**	**.212**	**.109**	**.924**	**4.310**	**8.064**	**75.031**
2011 January	R 1.860	E 1.932	E .986	.230	R 5.008	.761	.251	.019	.009	.087	.374	.740	R 6.509
February	R 1.741	RE 1.720	E .911	.198	R 4.570	.678	.238	.017	.008	.101	.336	.700	R 5.947
March	1.963	E 1.965	E 1.013	.247	5.188	.687	.306	.019	.009	.102	.368	.805	6.680
3-Month Total	**5.565**	**E 5.617**	**E 2.910**	**.675**	**14.767**	**2.125**	**.795**	**.055**	**.026**	**.289**	**1.079**	**2.245**	**19.137**
2010 3-Month Total	**5.396**	**E 5.339**	**E 2.853**	**.650**	**14.238**	**2.118**	**.618**	**.053**	**.025**	**.206**	**1.049**	**1.951**	**18.306**
2009 3-Month Total	**5.686**	**5.310**	**2.721**	**.601**	**14.317**	**2.150**	**.616**	**.050**	**.023**	**.184**	**.922**	**1.795**	**18.263**

[a] Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
[b] Beginning in 1989, includes waste coal supplied. Beginning in 2001, also includes a small amount of refuse recovery. See Table 6.1.
[c] Includes lease condensate.
[d] Natural gas plant liquids.
[e] 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.

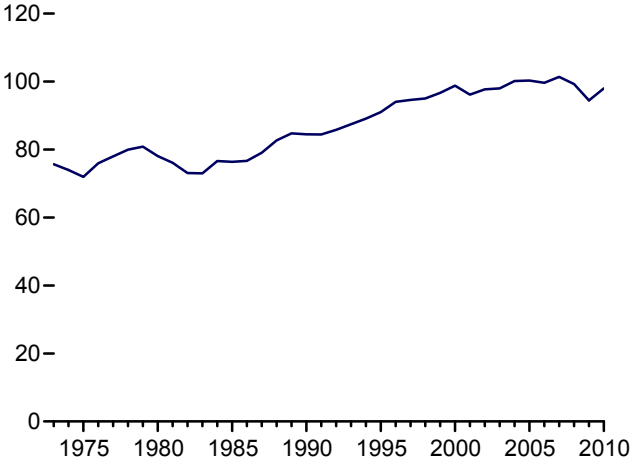
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary for all available data beginning in 1973.

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.

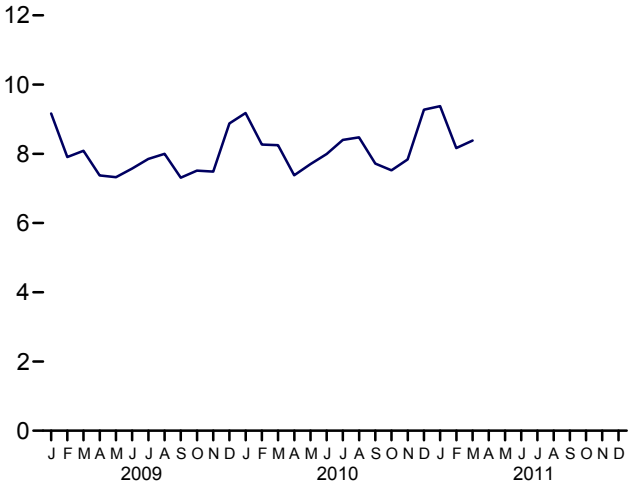
Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

Figure 1.3 Primary Energy Consumption
(Quadrillion Btu)

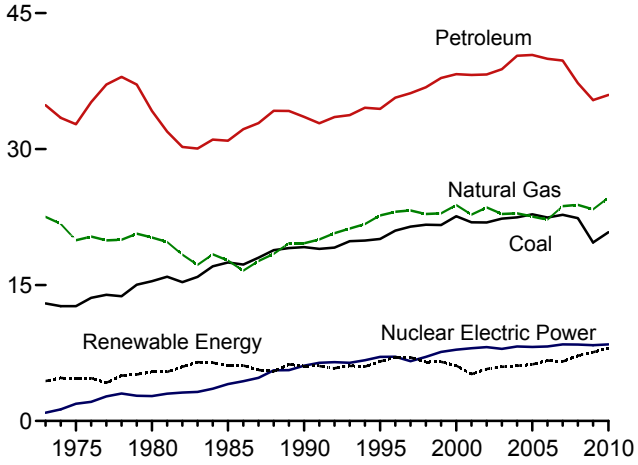
Total, 1973-2010



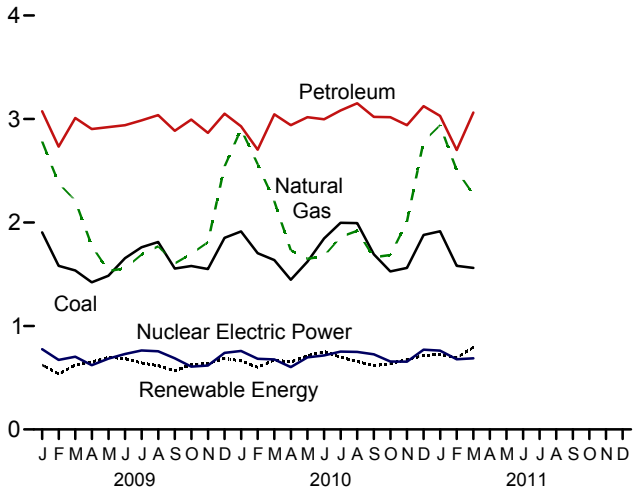
Total, Monthly



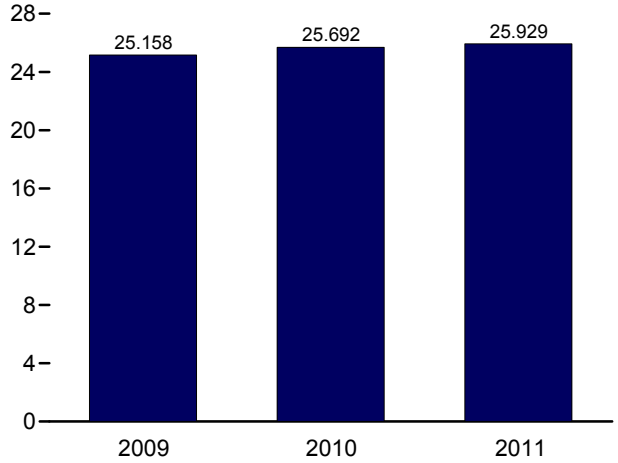
By Source,[a] 1973-2010



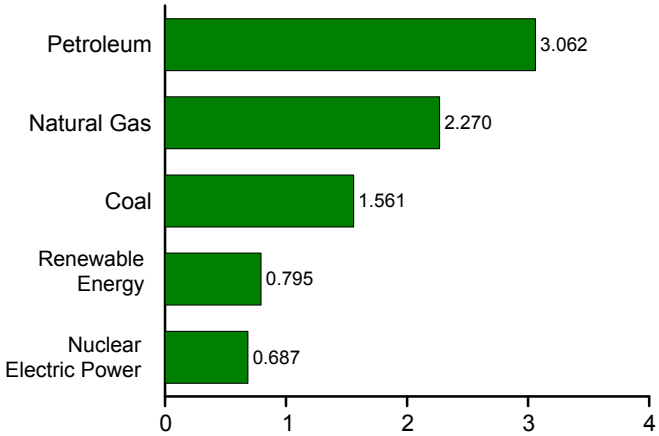
By Source,[a] Monthly



Total, January-March



By Source,[a] March 2011



[a] Small quantities of net imports of coal coke and electricity are not shown.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.3.

Table 1.3 Primary Energy Consumption by Source
(Quadrillion Btu)

	Fossil Fuels					Renewable Energy[a]						
	Coal	Natural Gas[b]	Petroleum[c]	Total[d]	Nuclear Electric Power	Hydroelectric Power[e]	Geothermal	Solar/PV	Wind	Biomass	Total	Total[f]
1973 Total	**12.971**	**22.512**	**34.837**	**70.314**	**0.910**	**2.861**	**0.020**	**NA**	**NA**	**1.529**	**4.411**	**75.684**
1975 Total	**12.663**	**19.948**	**32.732**	**65.357**	**1.900**	**3.155**	**.034**	**NA**	**NA**	**1.499**	**4.687**	**71.965**
1980 Total	**15.423**	**20.235**	**34.205**	**69.828**	**2.739**	**2.900**	**.053**	**NA**	**NA**	**2.475**	**5.428**	**78.067**
1985 Total	**17.478**	**17.703**	**30.925**	**66.093**	**4.076**	**2.970**	**.097**	**(s)**	**(s)**	**3.016**	**6.084**	**76.392**
1990 Total	**19.173**	**19.603**	**33.552**	**72.332**	**6.104**	**3.046**	**.171**	**.059**	**.029**	**2.735**	**6.041**	**84.485**
1995 Total	**20.089**	**22.671**	**34.438**	**77.259**	**7.075**	**3.205**	**.152**	**.069**	**.033**	**3.101**	**6.560**	**91.029**
1996 Total	**21.002**	**23.085**	**35.675**	**79.785**	**7.087**	**3.590**	**.163**	**.070**	**.033**	**3.157**	**7.014**	**94.022**
1997 Total	**21.445**	**23.223**	**36.159**	**80.873**	**6.597**	**3.640**	**.167**	**.070**	**.034**	**3.105**	**7.016**	**94.602**
1998 Total	**21.656**	**22.830**	**36.816**	**81.369**	**7.068**	**3.297**	**.168**	**.069**	**.031**	**2.927**	**6.493**	**95.018**
1999 Total	**21.623**	**22.909**	**37.838**	**82.427**	**7.610**	**3.268**	**.171**	**.068**	**.046**	**2.963**	**6.516**	**96.652**
2000 Total	**22.580**	**23.824**	**38.262**	**84.731**	**7.862**	**2.811**	**.164**	**.065**	**.057**	**3.008**	**6.106**	**98.814**
2001 Total	**21.914**	**22.773**	**38.186**	**82.902**	**8.029**	**2.242**	**.164**	**.064**	**.070**	**2.622**	**5.163**	**96.168**
2002 Total	**21.904**	**23.558**	**38.224**	**83.747**	**8.145**	**2.689**	**.171**	**.063**	**.105**	**2.701**	**5.729**	**97.693**
2003 Total	**22.321**	**22.831**	**38.811**	**84.014**	**7.959**	**2.825**	**.175**	**.062**	**.115**	**2.807**	**5.983**	**97.978**
2004 Total	**22.466**	**22.909**	**40.292**	**85.805**	**8.222**	**2.690**	**.178**	**.063**	**.142**	**3.010**	**6.082**	**100.148**
2005 Total	**22.797**	**22.561**	**40.388**	**85.790**	**8.161**	**2.703**	**.181**	**.063**	**.178**	**3.116**	**6.242**	**100.277**
2006 Total	**22.447**	**22.224**	**39.955**	**84.687**	**8.215**	**2.869**	**.181**	**.068**	**.264**	**3.276**	**6.659**	**99.624**
2007 Total	**22.749**	**23.702**	**39.774**	**86.251**	**8.455**	**2.446**	**.186**	**.076**	**.341**	**3.502**	**6.551**	**101.363**
2008 Total	**22.385**	**23.834**	**37.280**	**83.540**	**8.427**	**2.511**	**.192**	**.089**	**.546**	**3.852**	**7.190**	**99.268**
2009 January	1.904	2.783	3.075	7.760	.775	.229	.017	.008	.058	.310	.622	9.165
February	1.582	2.378	2.732	6.691	.672	.174	.016	.007	.057	.283	.537	7.908
March	1.536	2.212	3.010	6.757	.703	.213	.017	.008	.069	.314	.621	8.086
April	1.422	1.774	2.904	6.097	.621	.252	.016	.008	.073	.304	.653	7.377
May	1.486	1.531	2.921	5.936	.684	.289	.017	.009	.061	.319	.694	7.324
June	1.655	1.556	2.939	6.149	.729	.285	.016	.008	.055	.320	.685	7.573
July	1.760	1.689	2.987	6.433	.763	.228	.017	.009	.048	.340	.643	7.853
August	1.811	1.769	3.038	6.614	.756	.191	.017	.009	.053	.346	.615	8.001
September	1.555	1.604	2.886	6.043	.688	.169	.016	.008	.045	.327	.567	7.308
October	1.580	1.698	2.994	6.268	.607	.192	.016	.008	.067	.344	.627	7.513
November	1.550	1.810	2.866	6.224	.618	.205	.017	.008	.067	.340	.637	7.488
December	1.852	2.541	3.052	7.443	.740	.241	.018	.008	.067	.352	.686	8.879
Total	**19.692**	**23.344**	**35.403**	**78.415**	**8.356**	**2.669**	**.200**	**.098**	**.721**	**3.899**	**7.587**	**94.475**
2010 January	1.914	2.901	2.929	7.740	.759	.216	.018	.008	.068	.352	.662	9.176
February	1.704	2.563	2.704	6.974	.682	.200	.016	.008	.054	.322	.600	8.268
March	1.636	2.205	3.045	6.889	.676	.201	.018	.009	.085	.359	.672	8.247
April	1.447	1.730	2.940	6.118	.603	.182	.017	.009	.096	.347	.652	7.381
May	1.621	1.650	3.017	6.289	.697	.243	.018	.010	.085	.358	.714	7.705
June	1.846	1.676	2.998	6.521	.714	.288	.018	.010	.078	.358	.752	7.996
July	1.997	1.859	3.082	6.939	.752	.236	.018	.010	.065	.371	.699	8.399
August	1.993	R 1.919	3.152	7.065	.749	.193	.018	.010	.065	.372	.657	R 8.477
September	1.692	1.662	3.021	6.374	.726	.165	.017	.009	.069	.355	.616	7.717
October	1.527	1.686	3.018	6.229	.656	.170	.017	.009	.078	.364	.637	7.524
November	1.561	2.008	2.940	6.504	.655	.190	.018	.009	.096	.363	.675	7.837
December	1.879	2.783	3.125	7.782	.771	.226	.019	.009	.086	.375	.714	9.275
Total	**20.817**	**24.643**	**35.970**	**R 81.425**	**8.441**	**2.509**	**.212**	**.109**	**.924**	**4.295**	**8.049**	**R 98.003**
2011 January	R 1.914	2.940	3.030	R 7.884	.761	.251	.019	.009	.087	.359	.724	R 9.379
February	R 1.582	2.504	2.701	R 6.787	.678	.238	.017	.008	.101	.329	.693	R 8.166
March	1.561	2.270	3.062	6.895	.687	.306	.019	.009	.102	.358	.795	8.385
3-Month Total	**5.057**	**7.714**	**8.793**	**21.566**	**2.125**	**.795**	**.055**	**.026**	**.289**	**1.046**	**2.212**	**25.929**
2010 3-Month Total	**5.254**	**7.669**	**8.678**	**21.603**	**2.118**	**.618**	**.053**	**.025**	**.206**	**1.032**	**1.934**	**25.692**
2009 3-Month Total	**5.022**	**7.373**	**8.818**	**21.209**	**2.150**	**.616**	**.050**	**.023**	**.184**	**.907**	**1.780**	**25.158**

[a] Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
[b] Natural gas only; excludes supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[c] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
[d] Includes coal coke net imports. See Tables 1.4a and 1.4b.
[e] Conventional hydroelectric power.
[f] 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.

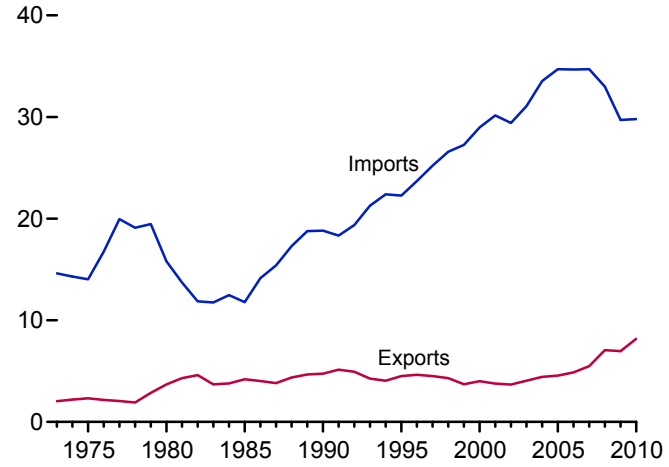
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary for all available data beginning in 1973.

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.

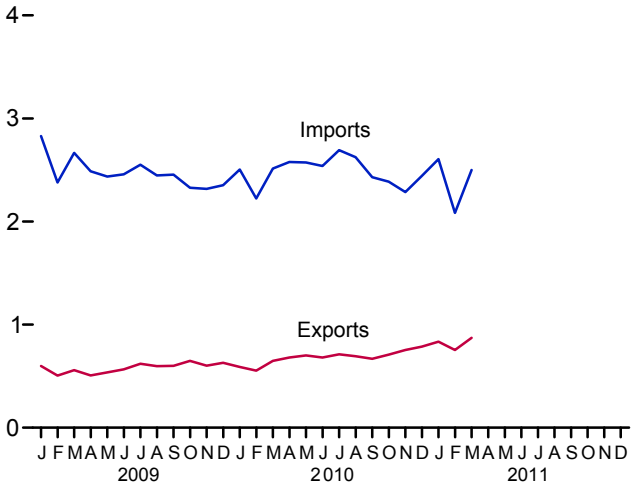
Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

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

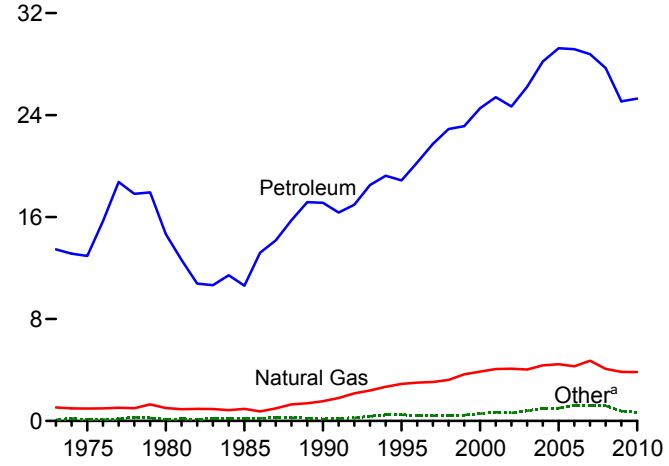
Total Imports and Exports, 1973-2010



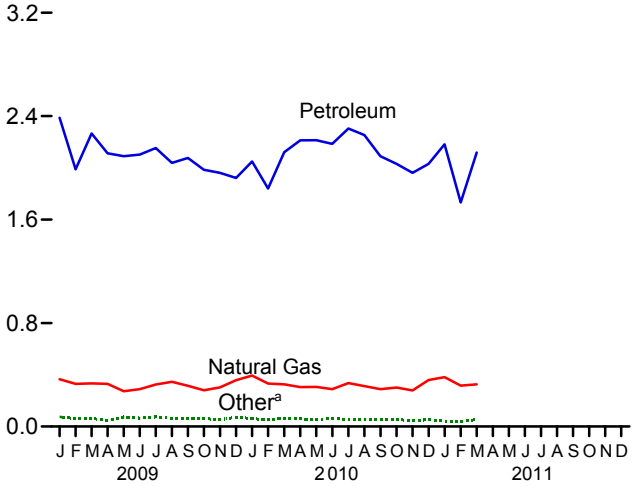
Total Imports and Exports, Monthly



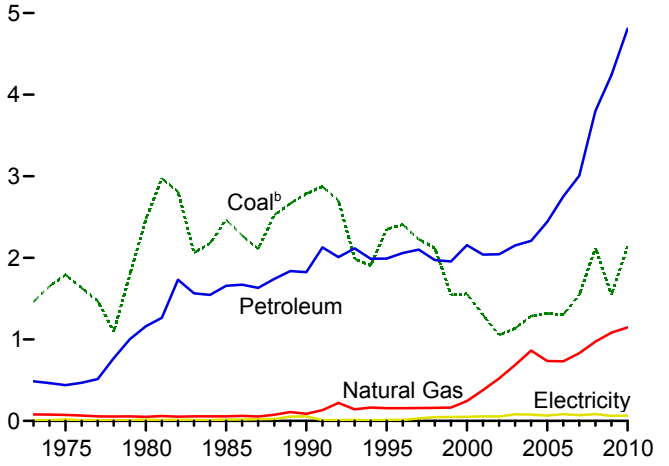
Imports by Source, 1973-2010



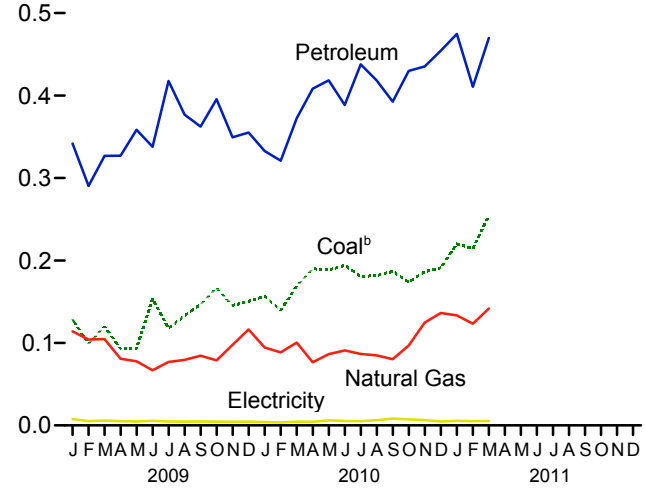
Imports by Source, Monthly



Exports by Source, 1973-2010



Exports by Major Source, Monthly

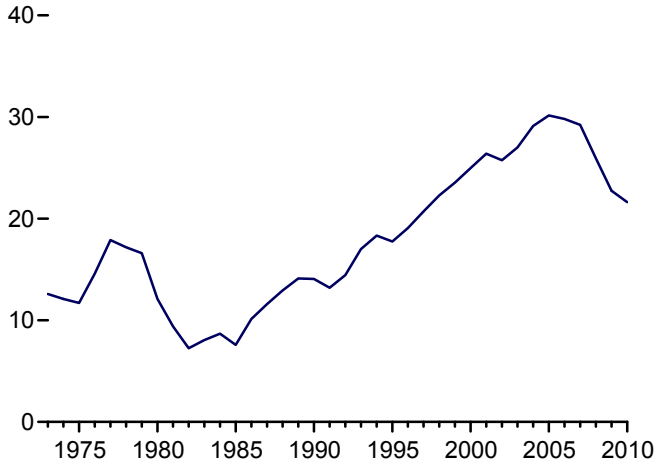


[a] Coal, coal coke, biofuels, and electricity.
[b] Includes coal coke.

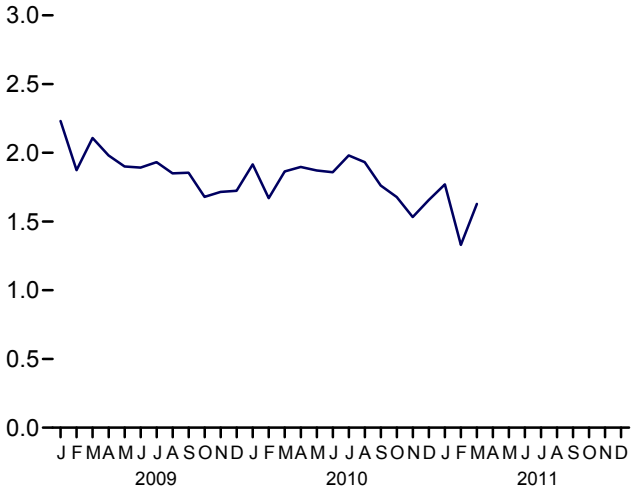
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Sources: Tables 1.4a and 1.4b.

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

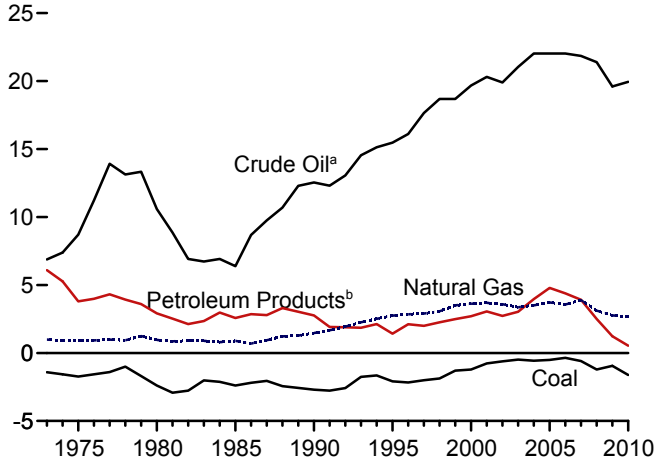
Total, 1973-2010



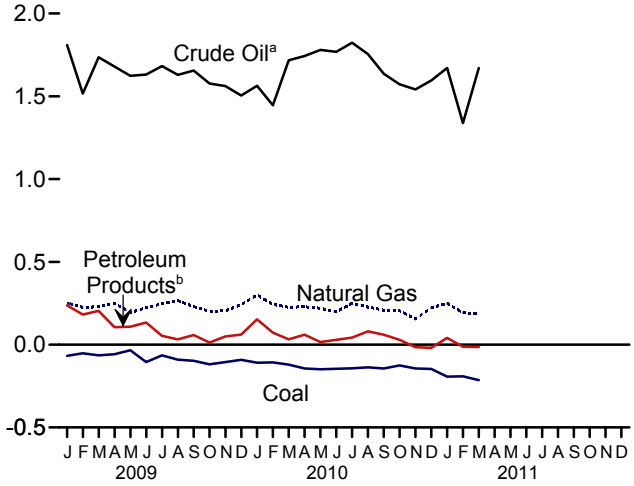
Total, Monthly



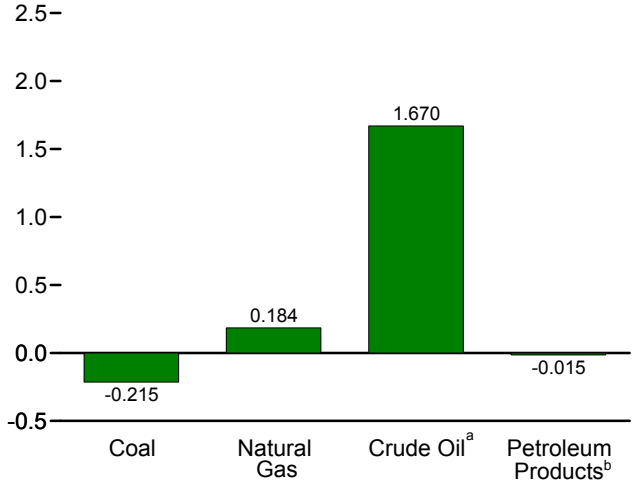
By Major Source, 1973-2010



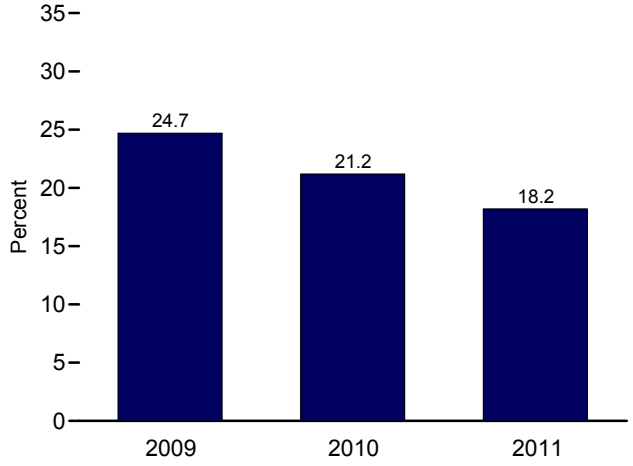
By Major Source, Monthly



By Major Source, March 2011



As Share of Consumption, January-March



[a] Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.
[b] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Sources: Tables 1.3, 1.4a, and 1.4b.

Table 1.4a Primary Energy Imports by Source

(Quadrillion Btu)

	Imports								
				Petroleum					
	Coal	Coal Coke	Natural Gas	Crude Oil[a]	Petroleum Products[b]	Total	Biofuels[c]	Electricity	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**	**5.051**	**25.398**	**.002**	**.131**	**30.157**
2002 Total	**.422**	**.080**	**4.104**	**19.920**	**4.754**	**24.674**	**.002**	**.125**	**29.408**
2003 Total	**.626**	**.068**	**4.042**	**21.060**	**5.159**	**26.219**	**.002**	**.104**	**31.061**
2004 Total	**.682**	**.170**	**4.365**	**22.082**	**6.114**	**28.197**	**.013**	**.117**	**33.544**
2005 Total	**.762**	**.088**	**4.450**	**22.091**	**7.157**	**29.248**	**.012**	**.150**	**34.709**
2006 Total	**.906**	**.101**	**4.291**	**22.085**	**7.084**	**29.169**	**.066**	**.146**	**34.679**
2007 Total	**.909**	**.061**	**4.723**	**21.914**	**6.868**	**28.781**	**.054**	**.175**	**34.703**
2008 Total	**.855**	**.089**	**4.084**	**21.448**	**6.237**	**27.685**	**.084**	**.195**	**32.992**
2009 January	.058	.001	.366	1.815	.572	2.387	.003	.015	2.829
February	.046	(s)	.330	1.521	.467	1.989	.001	.013	2.379
March	.054	(s)	.333	1.741	.525	2.266	.002	.010	2.666
April	.033	(s)	.330	1.684	.428	2.112	.001	.011	2.487
May	.057	.001	.272	1.633	.457	2.090	.002	.014	2.437
June	.046	.001	.289	1.641	.462	2.103	.003	.016	2.458
July	.050	.001	.325	1.688	.465	2.153	.004	.019	2.552
August	.039	(s)	.345	1.636	.402	2.038	.004	.020	2.447
September	.046	.001	.315	1.662	.413	2.076	.002	.015	2.455
October	.044	(s)	.280	1.590	.395	1.985	.002	.016	2.327
November	.038	.001	.302	1.570	.391	1.961	.002	.013	2.317
December	.054	.002	.358	1.517	.405	1.921	.001	.016	2.353
Total	**.566**	**.009**	**3.845**	**19.699**	**5.383**	**25.082**	**.026**	**.178**	**29.706**
2010 January	.042	.001	.394	1.570	.480	2.049	(s)	.018	2.505
February	.031	.005	.332	1.456	.385	1.840	(s)	.015	2.223
March	.047	.003	.326	1.725	.396	2.121	(s)	.015	2.513
April	.045	.001	.305	1.750	.462	2.212	(s)	.013	2.577
May	.037	.005	.306	1.786	.427	2.214	.001	.010	2.572
June	.044	.005	.289	1.774	.412	2.185	(s)	.014	2.538
July	.035	.003	.336	1.836	.468	2.304	(s)	.015	2.692
August	.043	.003	.312	1.761	.492	2.254	(s)	.012	2.624
September	.040	.002	.289	1.647	.442	2.089	(s)	.010	2.430
October	.044	.001	.301	1.576	.455	2.031	(s)	.009	2.387
November	.037	(s)	.279	1.547	.414	1.961	(s)	.009	2.286
December	.039	(s)	.360	1.602	.428	2.030	(s)	.014	2.443
Total	**.484**	**.030**	**3.830**	**20.030**	**5.260**	**25.290**	**.004**	**.154**	**29.792**
2011 January	.025	.001	.381	1.684	.498	2.181	(s)	.015	R 2.605
February	.021	.002	R .316	1.344	.388	1.732	(s)	.013	R 2.084
March	.038	.004	E .326	1.677	.442	2.119	(s)	.014	2.500
3-Month Total	**.085**	**.007**	**E 1.024**	**4.704**	**1.328**	**6.032**	**.001**	**.041**	**7.189**
2010 3-Month Total	**.120**	**.009**	**1.052**	**4.750**	**1.260**	**6.011**	**.001**	**.048**	**7.241**
2009 3-Month Total	**.158**	**.002**	**1.029**	**5.077**	**1.564**	**6.642**	**.006**	**.038**	**7.874**

[a] Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

[b] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

[c] Fuel ethanol (minus denaturant) 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.gov/totalenergy/data/monthly/#summary 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**—U.S. 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 3.3b, 10.3, 10.4, 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[a]
				Petroleum						
	Coal	Coal Coke	Natural Gas	Crude Oil[b]	Petroleum Products[c]	Total	Biofuels[d]	Electricity	Total	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**	**2.039**	**(s)**	**.056**	**3.771**	**26.386**
2002 Total	**1.032**	**.020**	**.520**	**.019**	**2.023**	**2.042**	**(s)**	**.054**	**3.669**	**25.739**
2003 Total	**1.117**	**.018**	**.686**	**.026**	**2.124**	**2.151**	**.001**	**.082**	**4.054**	**27.007**
2004 Total	**1.253**	**.033**	**.862**	**.057**	**2.151**	**2.208**	**.001**	**.078**	**4.434**	**29.110**
2005 Total	**1.273**	**.043**	**.735**	**.067**	**2.374**	**2.442**	**.001**	**.065**	**4.560**	**30.149**
2006 Total	**1.264**	**.040**	**.730**	**.052**	**2.699**	**2.751**	**.004**	**.083**	**4.872**	**29.806**
2007 Total	**1.507**	**.036**	**.830**	**.058**	**2.949**	**3.007**	**.035**	**.069**	**5.482**	**29.221**
2008 Total	**2.071**	**.049**	**.972**	**.061**	**3.739**	**3.800**	**.086**	**.083**	**7.060**	**25.932**
2009 January	.126	.003	.114	.007	.335	.342	.006	.008	.598	2.231
February	.098	.001	.104	.005	.286	.290	.006	.005	.505	1.874
March	.118	.002	.105	.005	.321	.327	.001	.006	.558	2.107
April	.090	.003	.081	.005	.322	.327	.001	.005	.507	1.980
May	.091	.002	.078	.009	.349	.358	.002	.005	.537	1.900
June	.151	.002	.067	.010	.328	.338	.002	.006	.566	1.892
July	.115	.003	.077	.006	.412	.418	.003	.005	.620	1.932
August	.130	.003	.079	.006	.371	.377	.002	.005	.596	1.851
September	.144	.003	.085	.007	.355	.362	.001	.005	.600	1.855
October	.163	.004	.079	.013	.382	.395	.002	.005	.648	1.679
November	.143	.002	.098	.008	.341	.349	.004	.004	.601	1.716
December	.146	.004	.116	.012	.343	.355	.002	.005	.629	1.724
Total	**1.515**	**.032**	**1.082**	**.093**	**4.147**	**4.240**	**.034**	**.062**	**6.965**	**22.741**
2010 January	.151	.006	.094	.006	.327	.333	.002	.004	.589	1.916
February	.138	.001	.089	.009	.312	.321	.001	.004	.554	1.670
March	.169	(s)	.100	.008	.364	.372	.002	.005	.649	1.864
April	.189	.001	.077	.006	.402	.408	.001	.004	.680	1.897
May	.186	.003	.086	.007	.412	.418	.001	.006	.701	1.872
June	.190	.004	.091	.005	.383	.388	.002	.005	.680	1.858
July	.178	.003	.087	.012	.425	.438	.001	.005	.711	1.981
August	.180	.002	.085	.006	.412	.418	.001	.006	.692	1.932
September	.184	.003	.080	.011	.382	.393	.001	.008	.669	1.762
October	.170	.003	.097	.004	.426	.430	.001	.007	.708	1.679
November	.180	.006	.125	.006	.430	.435	(s)	.006	.753	1.533
December	.186	.005	.136	.007	.447	.454	.001	.005	.787	1.656
Total	**2.101**	**.036**	**1.147**	**.088**	**4.721**	**4.809**	**.013**	**.066**	**8.173**	**21.619**
2011 January	.219	.001	.133	.013	.457	.470	.006	.005	.835	[R] 1.770
February	.213	.002	[R] .123	.005	.401	.406	.005	.005	[R] .754	[R] 1.330
March	.253	.001	[E] .142	.007	.456	.463	.008	.005	.872	1.628
3-Month Total	**.684**	**.004**	[E] **.398**	**.024**	**1.314**	**1.339**	**.019**	**.016**	**2.461**	**4.728**
2010 3-Month Total	**.458**	**.007**	**.283**	**.023**	**1.003**	**1.026**	**.005**	**.012**	**1.791**	**5.450**
2009 3-Month Total	**.342**	**.006**	**.323**	**.017**	**.942**	**.959**	**.014**	**.019**	**1.662**	**6.212**

[a] Net imports equal imports minus exports.
[b] Crude oil and lease condensate.
[c] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.
[d] Through 2010, data are for biodiesel only. Beginning in 2011, data are for fuel ethanol (minus denaturant) and biodiesel.

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

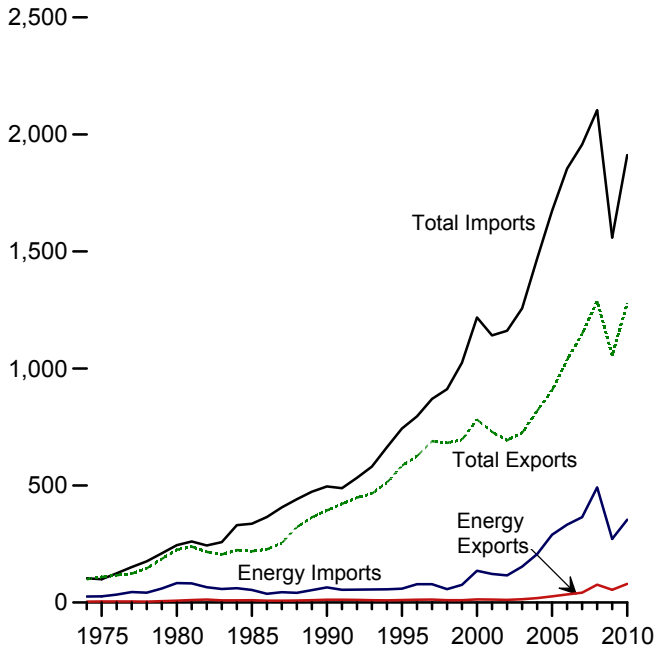
Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary for all available data beginning in 1973.

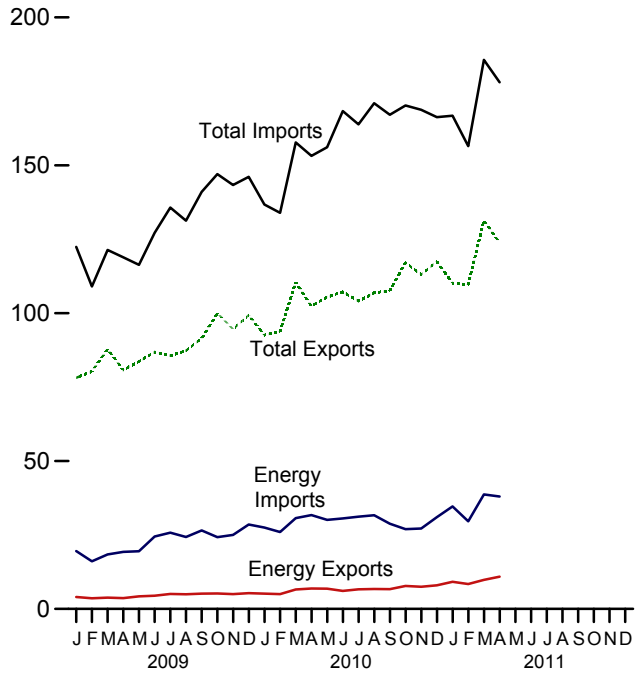
Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke: 1973-1975**—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook,* "Coke and Coal Chemicals" chapter. **1976-1980**—U.S. Energy Information Administration (EIA), *Energy Data Report,* "Coke and Coal Chemicals," annual reports. **1981 forward**—EIA, *Quarterly Coal Report,* quarterly reports. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil** and **Petroleum Products:** Tables 3.3b, 10.4, and A2. • **Biofuels:** Tables 10.3 and 10.4. • **Electricity:** Tables 7.1 and A6.

Figure 1.5 Merchandise Trade Value
(Billion Dollars[a])

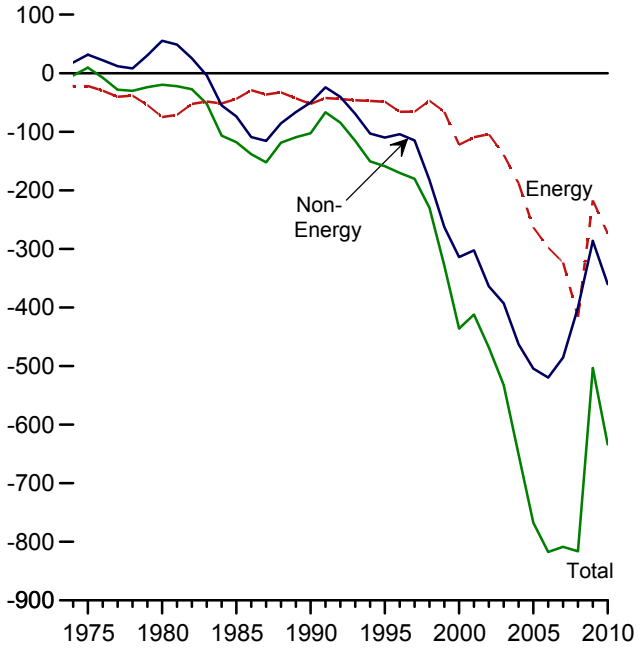
Imports and Exports, 1974-2010



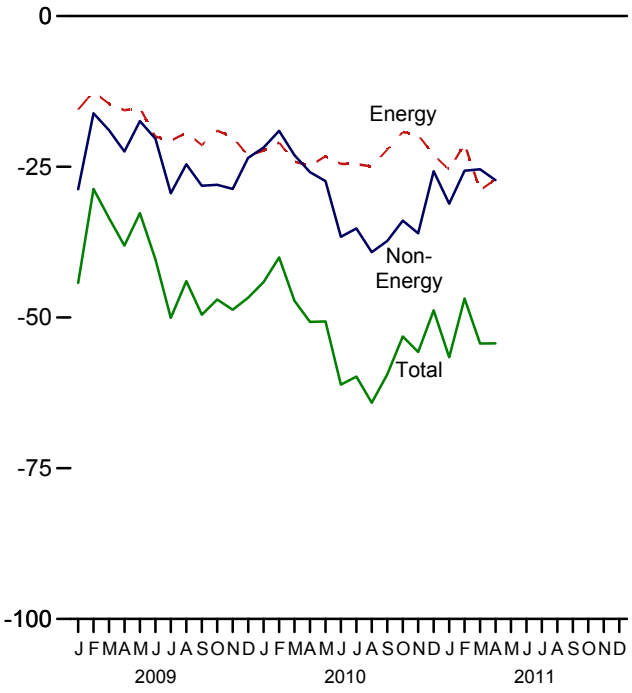
Imports and Exports, Monthly



Trade Balance, 1974-2010



Trade Balance, Monthly



[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.5.

Table 1.5 Merchandise Trade Value

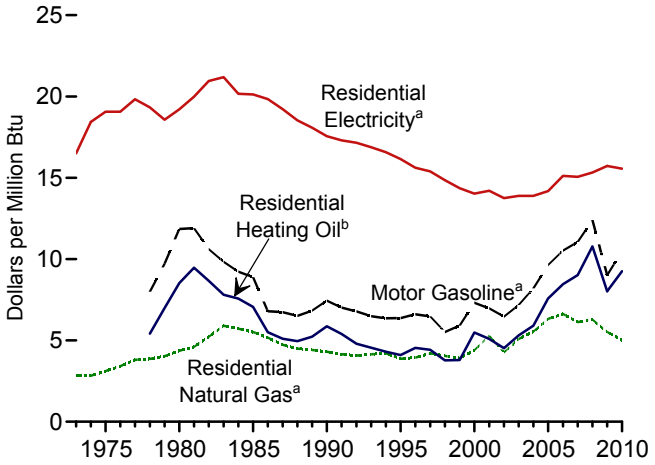
(Million Dollars[a])

	Petroleum[b]			Energy[c]			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 Total	**33,293**	**327,620**	**-294,327**	**41,725**	**364,987**	**-323,262**	**-485,501**	**1,148,199**	**1,956,962**	**-808,763**
2008 Total	**61,695**	**449,847**	**-388,152**	**76,075**	**491,885**	**-415,810**	**-400,389**	**1,287,442**	**2,103,641**	**-816,199**
2009 January	3,029	16,924	-13,895	4,037	19,559	-15,522	-28,742	78,151	122,415	-44,264
February	2,549	14,006	-11,457	3,589	16,120	-12,531	-16,132	80,349	109,012	-28,663
March	2,878	16,658	-13,780	3,835	18,398	-14,563	-18,948	87,848	121,359	-33,511
April	2,988	17,884	-14,896	3,664	19,275	-15,611	-22,462	80,822	118,896	-38,073
May	3,596	18,179	-14,583	4,227	19,484	-15,257	-17,433	83,651	116,341	-32,690
June	3,625	23,119	-19,494	4,459	24,467	-20,008	-20,336	86,830	127,173	-40,344
July	4,390	24,295	-19,905	5,077	25,754	-20,677	-29,384	85,635	135,696	-50,061
August	4,234	23,026	-18,792	4,947	24,312	-19,365	-24,591	87,315	131,272	-43,956
September	4,329	25,259	-20,930	5,152	26,546	-21,394	-28,152	91,458	141,004	-49,546
October	4,359	22,826	-18,467	5,230	24,255	-19,025	-27,996	100,005	147,027	-47,021
November	4,140	23,393	-19,253	4,994	25,047	-20,053	-28,665	94,607	143,324	-48,718
December	4,391	26,264	-21,873	5,326	28,521	-23,195	-23,539	99,372	146,106	-46,734
Total	**44,509**	**251,833**	**-207,324**	**54,536**	**271,739**	**-217,203**	**-286,379**	**1,056,043**	**1,559,625**	**-503,582**
2010 January	4,093	25,255	-21,162	5,185	27,504	-22,319	R -21,805	R 92,601	R 136,725	R -44,124
February	3,953	23,685	-19,732	4,995	25,984	-20,989	R -19,055	R 93,854	R 133,898	R -40,044
March	5,357	28,630	-23,273	6,567	30,705	-24,138	R -23,079	R 110,511	R 157,728	R -47,217
April	5,703	29,943	-24,240	6,903	31,737	-24,834	R -25,887	R 102,443	R 153,163	R -50,721
May	5,580	28,558	-22,978	6,832	30,098	-23,266	R -27,381	R 105,477	R 156,124	R -50,647
June	4,831	28,926	-24,095	6,080	30,600	-24,520	R -36,600	R 107,202	R 168,321	R -61,120
July	5,469	29,464	-23,995	6,612	31,175	-24,563	R -35,241	R 104,057	R 163,861	R -59,804
August	5,372	30,109	-24,737	6,712	31,682	-24,970	R -39,150	R 106,846	R 170,966	R -64,120
September	5,398	27,352	-21,954	6,671	28,810	-22,139	R -37,295	R 107,644	R 167,078	R -59,434
October	6,069	25,663	-19,594	7,772	26,987	-19,215	R -33,920	R 117,104	R 170,239	R -53,135
November	6,189	25,958	-19,769	7,508	27,210	-19,702	R -36,017	R 113,046	R 168,765	R -55,719
December	6,527	29,812	-23,285	7,964	31,049	-23,085	R -25,728	R 117,480	R 166,293	R -48,813
Total	**64,540**	**333,354**	**-268,814**	**79,801**	**353,540**	**-273,739**	**R -361,158**	**R 1,278,263**	**R 1,913,160**	**R -634,897**
2011 January	7,330	32,982	-25,652	9,153	34,630	-25,477	-31,114	110,155	166,745	-56,591
February	6,682	27,856	-21,174	8,404	29,597	-21,193	-25,654	109,640	156,487	-46,847
March	7,717	37,076	-29,359	9,803	38,682	-28,879	R -25,424	R 131,315	R 185,618	R -54,303
April	8,934	36,347	-27,413	10,908	37,982	-27,074	-27,214	123,787	178,075	-54,288
4-Month Total	**30,663**	**134,261**	**-103,598**	**38,268**	**140,891**	**-102,623**	**-109,406**	**474,896**	**686,925**	**-212,029**
2010 4-Month Total	**19,106**	**107,513**	**-88,407**	**23,650**	**115,930**	**-92,280**	**-89,826**	**399,408**	**581,514**	**-182,106**
2009 4-Month Total	**11,444**	**65,472**	**-54,028**	**15,125**	**73,352**	**-58,227**	**-86,284**	**327,170**	**471,681**	**-144,511**

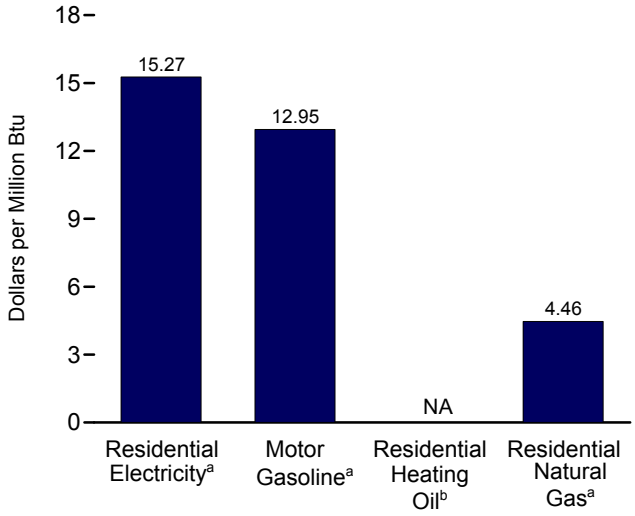
[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] Crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels.
[c] Petroleum, coal, natural gas, and electricity.
R=Revised.
Notes: • Monthly data are not adjusted for seasonal variations. • See 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.gov/totalenergy/data/monthly/#summary 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

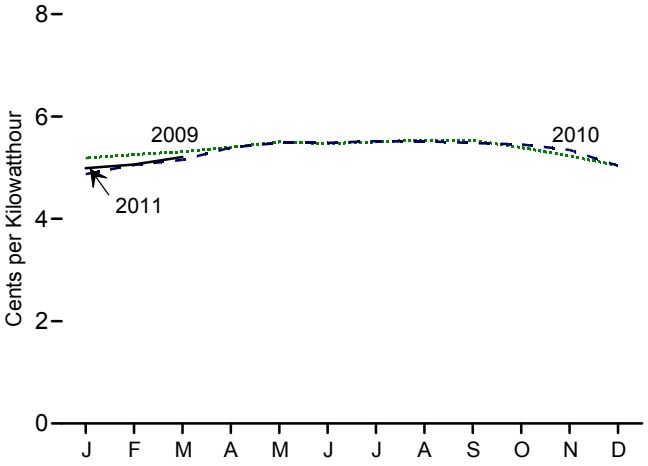
Costs, 1973-2010



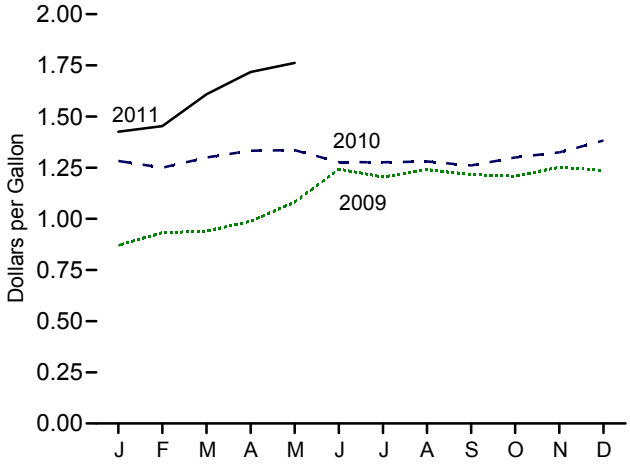
Costs, March 2011



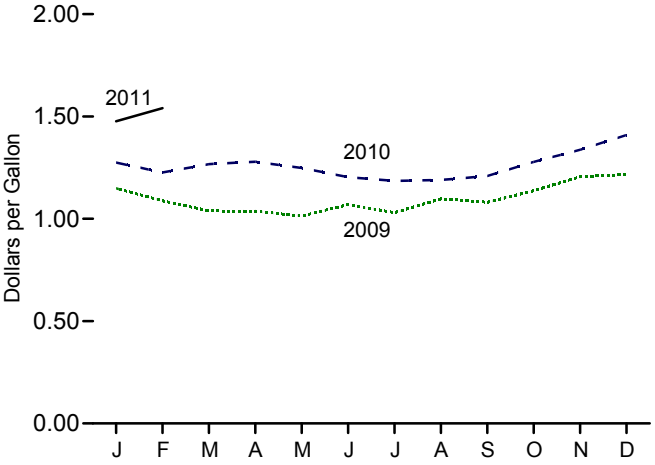
Residential Electricity,[a] Monthly



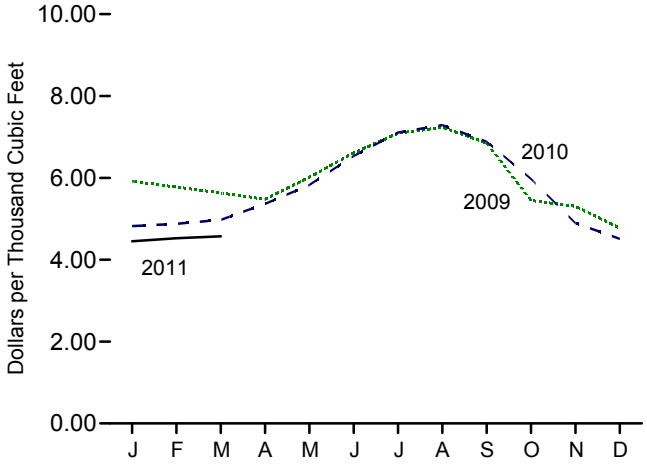
Motor Gasoline,[a] Monthly



Residential Heating Oil,[b] Monthly



Residential Natural Gas,[a] Monthly



[a] Includes taxes.
[b] Excludes taxes.
Note: See "Real Dollars" in Glossary.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.6.

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

	Consumer Price Index, All Urban Consumers[a]	Motor Gasoline[b]		Residential Heating Oil[c]		Residential Natural Gas[b]		Residential Electricity[b]	
	Index 1982-1984=100	Dollars per Gallon	Dollars per Million Btu	Dollars per Gallon	Dollars per Million Btu	Dollars per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars per Million Btu
1973 Average	**44.4**	**NA**	**NA**	**NA**	**NA**	**2.91**	**2.85**	**5.6**	**16.50**
1975 Average	**53.8**	**NA**	**NA**	**NA**	**NA**	**3.18**	**3.12**	**6.5**	**19.07**
1980 Average	**82.4**	**1.482**	**11.85**	**1.182**	**8.52**	**4.47**	**4.36**	**6.6**	**19.21**
1985 Average	**107.6**	**1.112**	**8.89**	**0.979**	**7.06**	**5.69**	**5.52**	**6.87**	**20.13**
1990 Average	**130.7**	**0.931**	**7.44**	**0.813**	**5.86**	**4.44**	**4.31**	**5.99**	**17.56**
1995 Average	**152.4**	**0.791**	**6.37**	**0.569**	**4.10**	**3.98**	**3.87**	**5.51**	**16.15**
1996 Average	**156.9**	**0.821**	**6.61**	**0.630**	**4.54**	**4.04**	**3.94**	**5.33**	**15.62**
1997 Average	**160.5**	**0.804**	**6.48**	**0.613**	**4.42**	**4.32**	**4.21**	**5.25**	**15.39**
1998 Average	**163.0**	**0.684**	**5.51**	**0.523**	**3.77**	**4.18**	**4.05**	**5.07**	**14.85**
1999 Average	**166.6**	**0.733**	**5.91**	**0.526**	**3.79**	**4.02**	**3.91**	**4.90**	**14.36**
2000 Average	**172.2**	**0.908**	**7.32**	**0.761**	**5.49**	**4.51**	**4.39**	**4.79**	**14.02**
2001 Average	**177.1**	**0.864**	**6.97**	**0.706**	**5.09**	**5.44**	**5.28**	**4.84**	**14.20**
2002 Average	**179.9**	**0.801**	**6.46**	**0.628**	**4.52**	**4.39**	**4.26**	**4.69**	**13.75**
2003 Average	**184.0**	**0.890**	**7.18**	**0.736**	**5.31**	**5.23**	**5.09**	**4.74**	**13.89**
2004 Average	**188.9**	**1.018**	**8.20**	**0.819**	**5.91**	**5.69**	**5.55**	**4.74**	**13.89**
2005 Average	**195.3**	**1.197**	**9.64**	**1.051**	**7.58**	**6.50**	**6.33**	**4.84**	**14.18**
2006 Average	**201.6**	**1.307**	**10.52**	**1.173**	**8.46**	**6.81**	**6.63**	**5.16**	**15.12**
2007 Average	**207.342**	**1.374**	**11.06**	**1.250**	**9.01**	**6.31**	**6.12**	**5.14**	**15.05**
2008 Average	**215.303**	**1.541**	**12.40**	**1.495**	**10.78**	**6.45**	**6.28**	**5.23**	**15.33**
2009 January	211.143	0.871	7.01	1.149	8.28	5.92	5.77	5.19	15.20
February	212.193	0.933	7.51	1.088	7.85	5.78	5.64	5.25	15.40
March	212.709	0.940	7.57	1.039	7.49	5.63	5.49	5.31	15.57
April	213.240	0.988	7.95	1.037	7.48	5.48	5.34	5.40	15.82
May	213.856	1.082	8.71	1.013	7.31	6.01	5.87	5.50	16.13
June	215.693	1.243	10.00	1.070	7.71	6.61	6.45	5.47	16.03
July	215.351	1.205	9.70	1.030	7.43	7.09	6.92	5.50	16.13
August	215.834	1.240	9.98	1.098	7.91	7.23	7.06	5.54	16.24
September	215.969	1.216	9.79	1.081	7.79	6.85	6.69	5.53	16.22
October	216.177	1.209	9.73	1.137	8.20	5.45	5.32	5.39	15.81
November	216.330	1.252	10.08	1.206	8.69	5.31	5.18	5.22	15.31
December	215.949	1.237	9.96	1.217	8.77	4.77	4.65	5.04	14.78
Average	**214.537**	**1.119**	**9.01**	**1.112**	**8.02**	**5.66**	**5.52**	**5.37**	**15.72**
2010 January	216.687	1.282	10.32	1.275	9.19	4.82	4.70	4.87	14.28
February	216.741	1.250	10.06	1.226	8.84	4.88	4.76	5.05	14.81
March	217.631	1.300	10.46	1.267	9.13	4.98	4.85	5.15	15.10
April	218.009	1.333	10.73	1.278	9.22	5.37	5.24	5.39	15.81
May	218.178	1.336	10.75	1.248	9.00	5.83	5.68	5.49	16.08
June	217.965	1.277	10.28	1.203	8.68	6.53	6.37	5.48	16.07
July	218.011	1.277	10.27	1.185	8.55	7.11	6.94	5.52	16.17
August	218.312	1.280	10.31	1.190	8.58	7.29	7.11	5.52	16.16
September	218.439	1.261	10.15	1.209	8.72	6.88	6.71	5.48	16.06
October	218.711	1.300	10.46	1.278	9.21	5.98	5.83	5.45	15.99
November	218.803	1.325	10.66	1.337	9.64	4.90	4.78	5.35	15.67
December	219.179	1.383	11.13	1.409	10.16	4.51	4.40	5.04	14.76
Average	**218.056**	**1.301**	**10.47**	**1.283**	**9.25**	**5.14**	**5.01**	**5.31**	**15.56**
2011 January	220.223	1.425	11.47	1.476	10.64	4.45	4.34	4.99	14.63
February	221.309	1.453	11.69	1.540	11.11	4.52	4.41	5.06	14.83
March	223.467	1.608	12.95	R NA	R NA	R 4.57	R 4.46	R 5.21	R 15.27
April	224.906	1.718	13.83	NA	NA	NA	NA	NA	NA
May	225.964	1.762	14.18	NA	NA	NA	NA	NA	NA

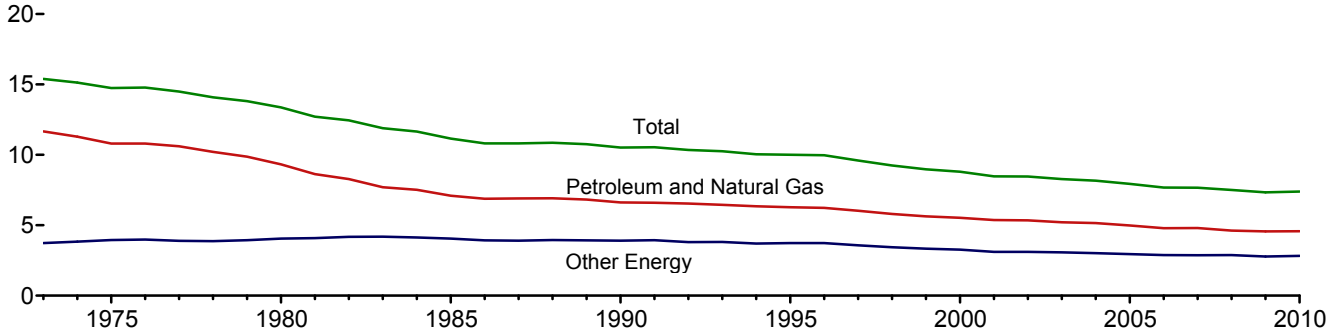
[a] Data are U.S. city averages for all items, and are not seasonally adjusted.
[b] Includes taxes.
[c] Excludes taxes.
R=Revised. NA=Not available.

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.gov/totalenergy/data/monthly/#summary 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, 1973-2010
(Thousand Btu per Chained (2005) Dollar)



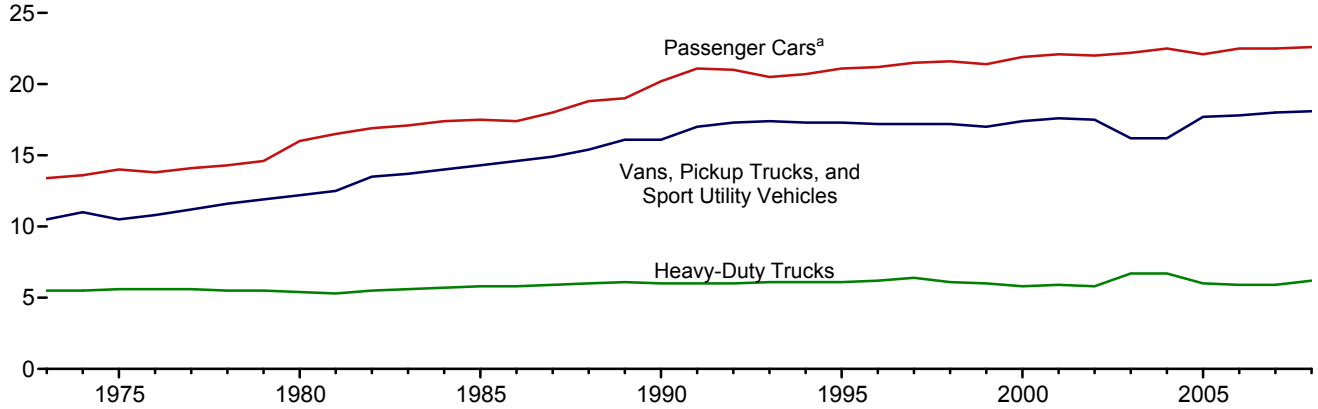
Note: See "Real Dollars" in Glossary.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.7.

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

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Real Dollar of GDP		
	Petroleum and Natural Gas	Other Energy[a]	Total		Petroleum and Natural Gas	Other Energy[a]	Total
	Quadrillion Btu			Billion Chained (2005) Dollars	Thousand Btu per Chained (2005) Dollar		
1973 Year	57.350	18.334	75.684	4,917.0	11.66	3.73	15.39
1974 Year	55.186	18.776	73.962	4,889.9	11.29	3.84	15.13
1975 Year	52.680	19.284	71.965	4,879.5	10.80	3.95	14.75
1976 Year	55.523	20.452	75.975	5,141.3	10.80	3.98	14.78
1977 Year	57.054	20.907	77.961	5,377.7	10.61	3.89	14.50
1978 Year	57.963	21.987	79.950	5,677.6	10.21	3.87	14.08
1979 Year	57.788	23.070	80.859	5,855.0	9.87	3.94	13.81
1980 Year	54.440	23.627	78.067	5,839.0	9.32	4.05	13.37
1981 Year	51.680	24.426	76.106	5,987.2	8.63	4.08	12.71
1982 Year	48.588	24.511	73.099	5,870.9	8.28	4.17	12.45
1983 Year	47.273	25.698	72.971	6,136.2	7.70	4.19	11.89
1984 Year	49.447	27.185	76.632	6,577.1	7.52	4.13	11.65
1985 Year	48.628	27.764	76.392	6,849.3	7.10	4.05	11.15
1986 Year	48.790	27.857	76.647	7,086.5	6.88	3.93	10.82
1987 Year	50.504	28.551	79.054	7,313.3	6.91	3.90	10.81
1988 Year	52.671	30.038	82.709	7,613.9	6.92	3.95	10.86
1989 Year	53.811	30.975	84.786	7,885.9	6.82	3.93	10.75
1990 Year	53.155	31.330	84.485	8,033.9	6.62	3.90	10.52
1991 Year	52.879	31.559	84.438	8,015.1	6.60	3.94	10.53
1992 Year	54.239	31.544	85.783	8,287.1	6.54	3.81	10.35
1993 Year	54.973	32.450	87.424	8,523.4	6.45	3.81	10.26
1994 Year	56.289	32.803	89.091	8,870.7	6.35	3.70	10.04
1995 Year	57.110	33.920	91.029	9,093.7	6.28	3.73	10.01
1996 Year	58.760	35.262	94.022	9,433.9	6.23	3.74	9.97
1997 Year	59.382	35.221	94.602	9,854.3	6.03	3.57	9.60
1998 Year	59.646	35.372	95.018	10,283.5	5.80	3.44	9.24
1999 Year	60.747	35.905	96.652	10,779.8	5.64	3.33	8.97
2000 Year	62.086	36.729	98.814	11,226.0	5.53	3.27	8.80
2001 Year	60.958	35.210	96.168	11,347.2	5.37	3.10	8.48
2002 Year	61.783	35.911	97.693	11,553.0	5.35	3.11	8.46
2003 Year	61.642	36.336	97.978	11,840.7	5.21	3.07	8.27
2004 Year	63.201	36.947	100.148	12,263.8	5.15	3.01	8.17
2005 Year	62.950	37.328	100.277	12,638.4	4.98	2.95	7.93
2006 Year	62.179	37.445	99.624	12,976.2	4.79	2.89	7.68
2007 Year	63.476	37.887	101.363	13,228.9	4.80	2.86	7.66
2008 Year	61.114	38.155	99.268	13,228.8	4.62	2.88	7.50
2009 Year	58.747	35.728	94.475	12,880.6	4.56	2.77	7.33
2010 Year	R 60.614	37.389	R 98.003	13,248.2	4.58	2.82	7.40

[a] Coal, coal coke net imports, nuclear electric power, renewable energy, and electricity net imports.
R=Revised.
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.gov/totalenergy/data/monthly/#summary.
Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product:** U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (June 24, 2011), Table 1.1.6.

Figure 1.8 Motor Vehicle Fuel Economy, 1973-2008
(Miles per Gallon)



[a] Motorcycles are included through 1989.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary.
Source: Table 1.8.

Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy

	Passenger Cars[a]			Vans, Pickup Trucks, and Sport Utility Vehicles[b]			Heavy-Duty Trucks[c]			All Motor Vehicles[d]		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (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	[a]10,157	[a]533	[a]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	12,304	547	22.5	10,962	609	18.0	25,152	4,275	5.9	11,920	693	17.2
2008[P]	11,788	522	22.6	10,951	605	18.1	25,254	4,075	6.2	11,619	667	17.4

[a] Through 1989, includes motorcycles.
[b] Includes a small number of trucks with 2 axles and 4 tires, such as step vans.
[c] Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.
[d] 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.gov/totalenergy/data/monthly/#summary.
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				
				Percent Change					Percent Change	
	Normal[a]	2010	2011	Normal to 2011	2010 to 2011	Normal[a]	2010	2011	Normal to 2011	2010 to 2011
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	281	200	243	-14	22	6,545	6,026	6,478	-1	8
Middle Atlantic										
New Jersey, New York, Pennsylvania	217	148	158	-27	7	5,872	5,370	5,756	-2	7
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	238	183	230	-3	26	6,447	6,133	6,509	1	6
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	208	223	250	20	12	6,701	6,701	6,831	2	2
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	61	33	49	NM	NM	2,846	2,987	2,930	3	-2
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	76	36	97	NM	NM	3,597	3,855	3,618	1	-6
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	17	15	43	NM	NM	2,286	2,650	2,212	-3	-17
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	233	283	286	23	1	5,127	5,204	4,896	-5	-6
Pacific[b]										
California, Oregon, Washington	182	240	249	37	4	3,152	3,166	3,260	3	3
U.S. Average[b]	**159**	**142**	**166**	**4**	**17**	**4,485**	**4,427**	**4,494**	(s)	**2**

[a] "Normal" is based on calculations of data from 1971 through 2000.
[b] Excludes Alaska and Hawaii.
(s)=Less than 0.5 percent and greater than -0.5 percent.

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.gov/totalenergy/data/monthly/#summary for current data. • See http://www.eia.gov/totalenergy/data/annual/#summary 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				
				Percent Change					Percent Change	
	Normal[a]	2010	2011	Normal to 2011	2010 to 2011	Normal[a]	2010	2011	Normal to 2011	2010 to 2011
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	6	33	37	NM	NM	6	33	37	NM	NM
Middle Atlantic										
New Jersey, New York, Pennsylvania	23	64	57	NM	NM	23	71	65	NM	NM
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	49	78	64	NM	NM	51	86	66	NM	NM
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	65	75	65	NM	NM	74	81	71	NM	NM
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	177	266	241	36	-9	360	393	476	32	21
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	136	224	184	35	-18	192	252	264	38	5
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	252	317	308	22	-3	426	444	623	46	40
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	96	63	62	NM	NM	145	84	107	-26	27
Pacific[b]										
California, Oregon, Washington	36	1	7	NM	NM	56	1	11	NM	NM
U.S. Average[b]	**97**	**131**	**120**	**NM**	**NM**	**162**	**174**	**209**	**29**	**20**

[a] "Normal" is based on calculations of data from 1971 through 2000.
[b] 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.gov/totalenergy/data/monthly/#summary for current data. • See http://www.eia.gov/totalenergy/data/annual/#summary 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.

Note. Merchandise Trade Value. Imports data presented are based on the customs values. Those values do not include insurance and freight and are consequently lower than the cost, insurance, and freight (CIF) values, which are also reported by the Bureau of the Census. All exports data, and imports 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 U.S. 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 forward: "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 forward: "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 forward: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum, Energy, and Non-Energy Balances
Calculated by the U.S. Energy Information Administration.

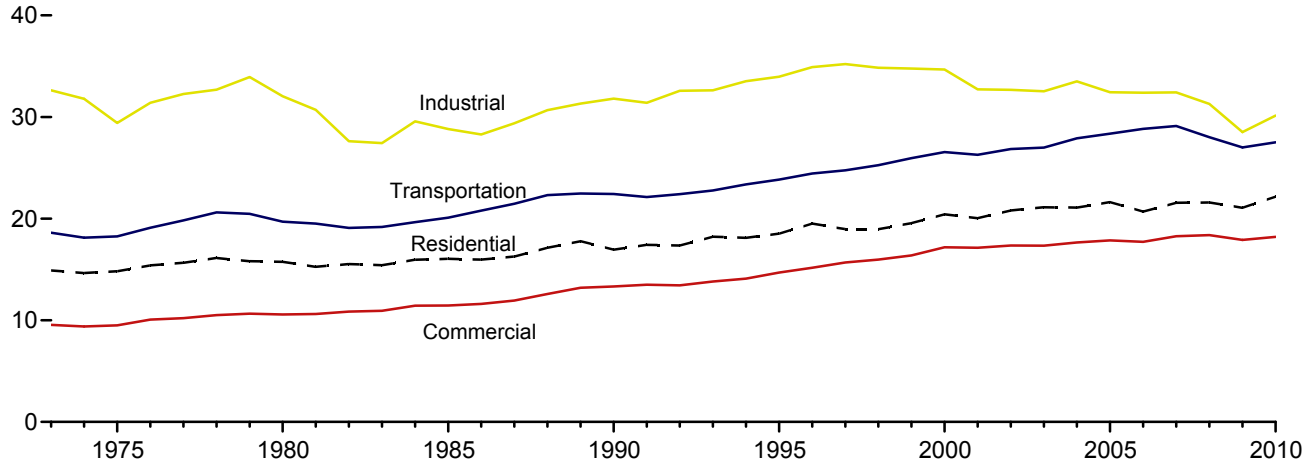
Total Merchandise
1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.
1989: "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.
1990: "U.S. Merchandise Trade, 1990 Final 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 forward: "U.S. International Trade in Goods and Services," FT-900, monthly.

2 Energy Consumption by Sector

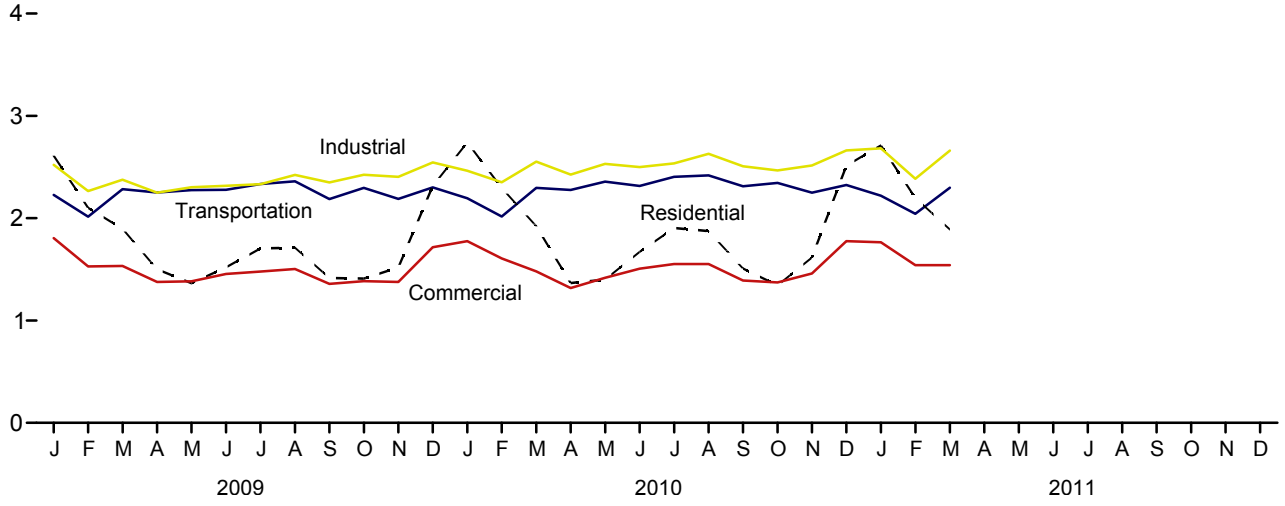
Office buildings, industries, residences, and transport systems, Baltimore, Maryland; east view from the inner harbor.
Source: U.S. Department of Energy.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

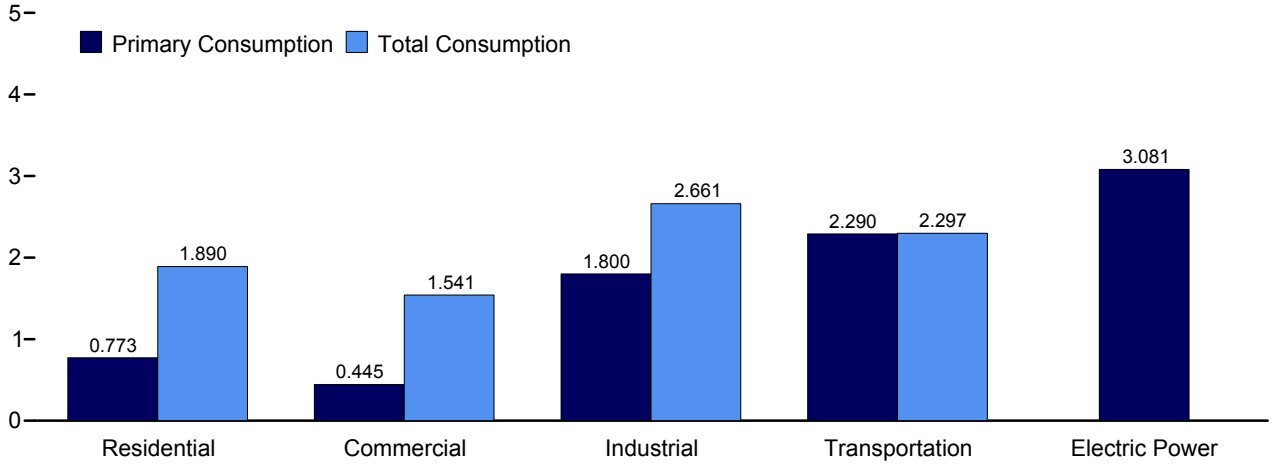
Total Consumption by End-Use Sector, 1973-2010



Total Consumption by End-Use Sector, Monthly



By Sector, March 2011



Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.1.

Table 2.1 Energy Consumption by Sector

(Trillion Btu)

	End-Use Sectors								Electric Power Sector[c,d]	Balancing Item[g]	Primary Total[h]
	Residential		Commercial[a]		Industrial[b]		Transportation				
	Primary[e]	Total[f]	Primary[e]	Total[f]	Primary[e]	Total[f]	Primary[e]	Total[f]	Primary[e]		
1973 Total	**8,225**	**14,897**	**4,423**	**9,543**	**24,720**	**32,623**	**18,577**	**18,613**	**19,731**	**7**	**75,684**
1975 Total	**7,990**	**14,813**	**4,059**	**9,492**	**21,434**	**29,413**	**18,210**	**18,245**	**20,270**	**1**	**71,965**
1980 Total	**7,439**	**15,753**	**4,105**	**10,578**	**22,595**	**32,039**	**19,659**	**19,697**	**24,269**	**-1**	**78,067**
1985 Total	**7,148**	**16,041**	**3,732**	**11,451**	**19,443**	**28,816**	**20,041**	**20,088**	**26,032**	**-4**	**76,392**
1990 Total	**6,557**	**16,945**	**3,896**	**13,320**	**21,180**	**31,810**	**22,366**	**22,420**	**30,495**	**-9**	**84,485**
1995 Total	**6,936**	**18,519**	**4,101**	**14,690**	**22,719**	**33,971**	**23,791**	**23,846**	**33,479**	**3**	**91,029**
1996 Total	**7,466**	**19,504**	**4,273**	**15,172**	**23,410**	**34,904**	**24,383**	**24,437**	**34,485**	**4**	**94,022**
1997 Total	**7,033**	**18,965**	**4,295**	**15,681**	**23,686**	**35,200**	**24,695**	**24,750**	**34,886**	**6**	**94,602**
1998 Total	**6,413**	**18,955**	**4,005**	**15,968**	**23,177**	**34,843**	**25,201**	**25,256**	**36,225**	**-3**	**95,018**
1999 Total	**6,775**	**19,557**	**4,053**	**16,376**	**22,950**	**34,764**	**25,891**	**25,949**	**36,976**	**6**	**96,652**
2000 Total	**7,159**	**20,425**	**4,278**	**17,175**	**22,824**	**34,664**	**26,489**	**26,548**	**38,062**	**2**	**98,814**
2001 Total	**6,868**	**20,042**	**4,084**	**17,137**	**21,794**	**32,720**	**26,213**	**26,275**	**37,215**	**-6**	**96,168**
2002 Total	**6,931**	**20,810**	**4,144**	**17,358**	**21,813**	**32,676**	**26,784**	**26,845**	**38,016**	**5**	**97,693**
2003 Total	**7,211**	**21,110**	**4,283**	**17,343**	**21,503**	**32,532**	**26,920**	**26,994**	**38,062**	**-1**	**97,978**
2004 Total	**6,993**	**21,093**	**4,232**	**17,659**	**22,398**	**33,506**	**27,817**	**27,895**	**38,713**	**-6**	**100,148**
2005 Total	**6,909**	**21,626**	**4,051**	**17,856**	**21,407**	**32,442**	**28,272**	**28,353**	**39,638**	**(s)**	**100,277**
2006 Total	**6,178**	**20,698**	**3,746**	**17,710**	**21,521**	**32,386**	**28,751**	**28,830**	**39,428**	**(s)**	**99,624**
2007 Total	**6,633**	**21,565**	**3,931**	**18,264**	**21,395**	**32,419**	**29,031**	**29,119**	**40,377**	**-3**	**101,363**
2008 Total	**6,817**	**21,596**	**4,073**	**18,381**	**20,474**	**31,284**	**27,925**	**28,008**	**39,978**	**(s)**	**99,268**
2009 January	1,151	2,610	631	1,805	1,717	2,521	2,219	2,227	3,446	1	9,165
February	932	2,101	523	1,528	1,545	2,266	2,009	2,016	2,901	-3	7,908
March	774	1,896	453	1,534	1,598	2,376	2,277	2,284	2,988	-4	8,086
April	538	1,500	325	1,377	1,475	2,250	2,245	2,251	2,795	-1	7,377
May	330	1,364	228	1,383	1,476	2,302	2,269	2,275	3,022	(s)	7,324
June	261	1,521	192	1,456	1,488	2,317	2,271	2,278	3,359	2	7,573
July	247	1,704	191	1,478	1,507	2,333	2,327	2,334	3,578	3	7,853
August	245	1,711	194	1,504	1,551	2,423	2,354	2,361	3,653	3	8,001
September	255	1,416	200	1,357	1,544	2,349	2,180	2,186	3,130	(s)	7,308
October	397	1,409	268	1,385	1,607	2,425	2,290	2,296	2,952	-2	7,513
November	528	1,519	324	1,377	1,594	2,405	2,182	2,188	2,860	-1	7,488
December	962	2,315	534	1,717	1,699	2,545	2,294	2,302	3,389	1	8,879
Total	**6,619**	**21,063**	**4,061**	**17,899**	**18,801**	**28,513**	**26,916**	**26,998**	**38,077**	**(s)**	**94,475**
2010 January	1,189	2,741	641	1,775	1,677	2,464	2,186	2,194	3,480	3	9,176
February	1,026	2,294	574	1,607	1,595	2,351	2,009	2,016	3,065	-1	8,268
March	770	1,922	436	1,480	1,754	2,552	2,289	2,296	3,001	-3	8,247
April	455	1,366	287	1,317	1,620	2,426	2,269	2,275	2,754	-4	7,381
May	338	1,400	233	1,417	1,619	2,532	2,350	2,357	3,165	-1	7,705
June	274	1,671	202	1,507	1,601	2,500	2,308	2,316	3,608	2	7,996
July	248	1,904	187	1,552	1,632	2,535	2,397	2,404	3,932	4	8,399
August	R 240	1,873	R 192	1,551	1,713	2,629	R 2,413	2,419	3,917	4	R 8,477
September	245	1,508	193	1,391	1,678	2,508	2,306	2,312	3,297	-1	7,717
October	353	1,343	263	1,373	1,633	2,466	2,338	2,344	2,940	-2	7,524
November	617	1,616	372	1,459	1,670	2,515	2,243	2,250	2,937	-3	7,837
December	1,089	2,514	596	1,775	1,791	2,662	2,317	2,324	3,484	(s)	9,275
Total	**6,841**	**22,153**	**4,175**	**18,205**	**19,984**	**30,139**	**27,425**	**27,507**	**39,579**	**-2**	**R 98,003**
2011 January	1,172	2,711	R 630	R 1,764	R 1,853	R 2,683	2,213	2,220	3,511	R (s)	R 9,379
February	R 961	R 2,198	R 532	R 1,542	1,618	2,386	R 2,036	R 2,042	3,021	-3	R 8,166
March	773	1,890	445	1,541	1,800	2,661	2,290	2,297	3,081	-4	8,385
3-Month Total	**2,906**	**6,799**	**1,607**	**4,847**	**5,272**	**7,730**	**6,539**	**6,560**	**9,613**	**-7**	**25,929**
2010 3-Month Total	**2,985**	**6,957**	**1,651**	**4,862**	**5,026**	**7,367**	**6,484**	**6,506**	**9,546**	**-1**	**25,692**
2009 3-Month Total	**2,858**	**6,607**	**1,606**	**4,867**	**4,859**	**7,163**	**6,504**	**6,527**	**9,336**	**-5**	**25,158**

[a] Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

[b] Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

[c] 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.

[d] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

[e] See "Primary Energy Consumption" in Glossary.

[f] 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.

[g] 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.

[h] Primary energy consumption total. See Table 1.3.

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

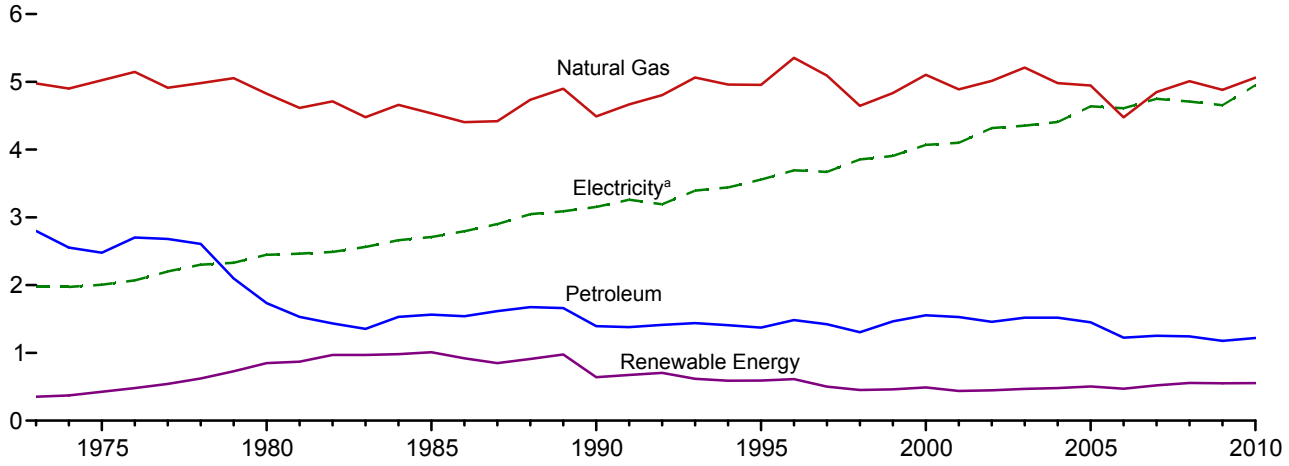
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#consumption for all available data beginning in 1973.

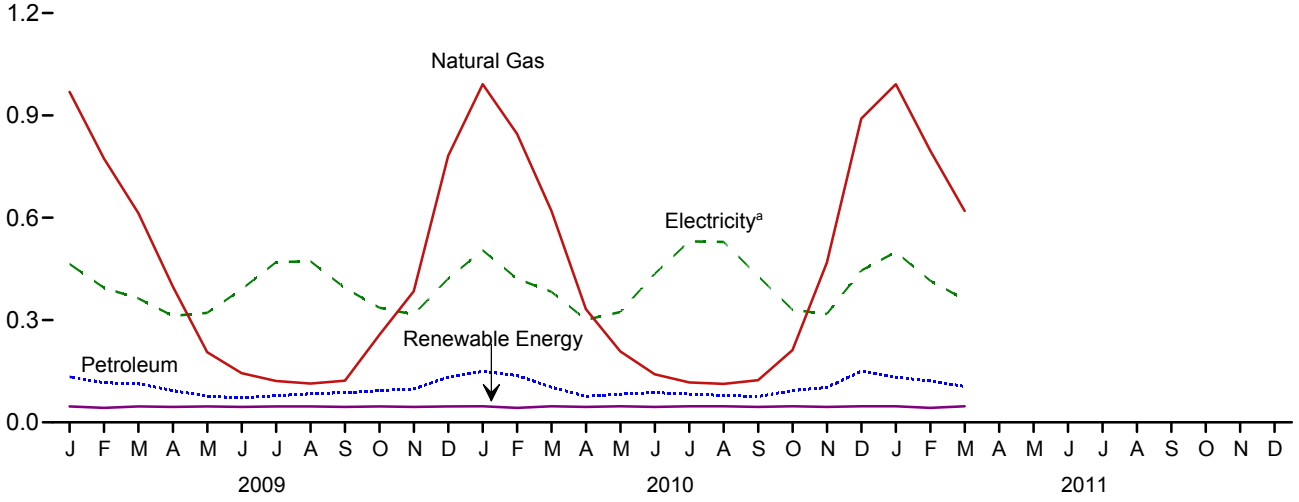
Sources: Tables 1.3 and 2.2–2.6.

Figure 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

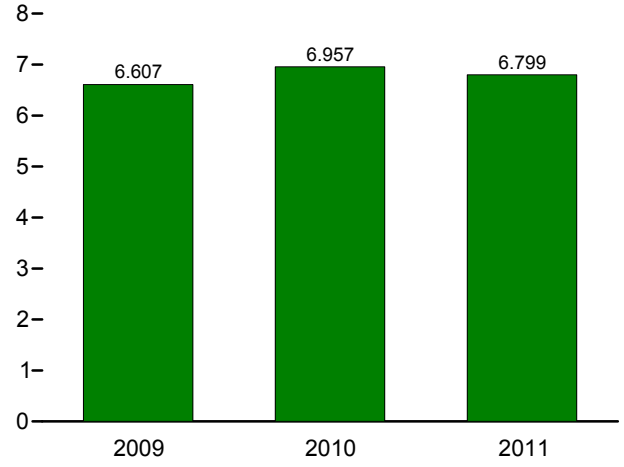
By Major Source, 1973-2010



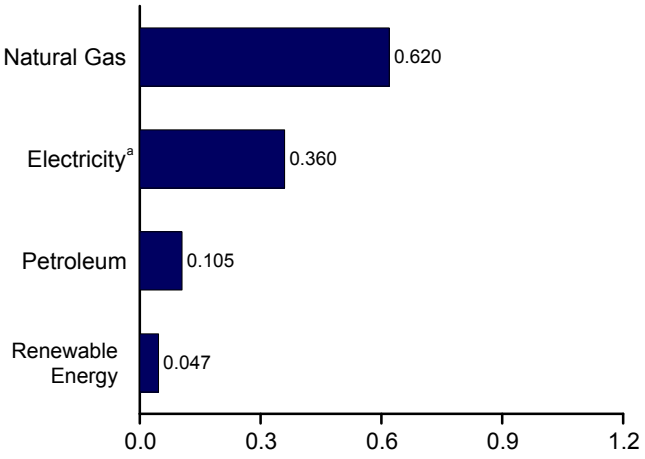
By Major Source, Monthly



Total, January-March



By Major Source, March 2011



[a] Electricity retail sales.
Note: MER uses "fossil-fuels heat rate" (found in T-2.6). AER uses "fossil-fueled plants heat rate.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.2.

Table 2.2 Residential Sector Energy Consumption

(Trillion Btu)

	Primary Consumption[a]											
	Fossil Fuels				Renewable Energy[b]							
	Coal	Natural Gas[c]	Petro-leum	Total	Geo-thermal	Solar/ PV	Bio-mass	Total	Total Primary	Electricity Retail Sales[d]	Electrical System Energy Losses[e]	Total
1973 Total	**94**	**4,977**	**2,800**	**7,871**	**NA**	**NA**	**354**	**354**	**8,225**	**1,976**	**4,696**	**14,897**
1975 Total	**63**	**5,023**	**2,479**	**7,564**	**NA**	**NA**	**425**	**425**	**7,990**	**2,007**	**4,817**	**14,813**
1980 Total	**31**	**4,825**	**1,734**	**6,589**	**NA**	**NA**	**850**	**850**	**7,439**	**2,448**	**5,866**	**15,753**
1985 Total	**39**	**4,534**	**1,565**	**6,138**	**NA**	**NA**	**1,010**	**1,010**	**7,148**	**2,709**	**6,184**	**16,041**
1990 Total	**31**	**4,491**	**1,394**	**5,916**	**6**	**56**	**580**	**641**	**6,557**	**3,153**	**7,235**	**16,945**
1995 Total	**17**	**4,954**	**1,374**	**6,345**	**7**	**64**	**520**	**591**	**6,936**	**3,557**	**8,026**	**18,519**
1996 Total	**17**	**5,354**	**1,484**	**6,854**	**7**	**65**	**540**	**612**	**7,466**	**3,694**	**8,344**	**19,504**
1997 Total	**16**	**5,093**	**1,422**	**6,531**	**8**	**64**	**430**	**502**	**7,033**	**3,671**	**8,261**	**18,965**
1998 Total	**12**	**4,646**	**1,304**	**5,962**	**8**	**64**	**380**	**452**	**6,413**	**3,856**	**8,686**	**18,955**
1999 Total	**14**	**4,835**	**1,465**	**6,314**	**9**	**63**	**390**	**461**	**6,775**	**3,906**	**8,875**	**19,557**
2000 Total	**11**	**5,105**	**1,554**	**6,670**	**9**	**60**	**420**	**489**	**7,159**	**4,069**	**9,197**	**20,425**
2001 Total	**12**	**4,889**	**1,529**	**6,430**	**9**	**59**	**370**	**438**	**6,868**	**4,100**	**9,074**	**20,042**
2002 Total	**12**	**5,014**	**1,457**	**6,484**	**10**	**57**	**380**	**448**	**6,931**	**4,317**	**9,562**	**20,810**
2003 Total	**12**	**5,209**	**1,519**	**6,741**	**13**	**57**	**400**	**470**	**7,211**	**4,353**	**9,546**	**21,110**
2004 Total	**11**	**4,981**	**1,520**	**6,513**	**14**	**57**	**410**	**481**	**6,993**	**4,408**	**9,691**	**21,093**
2005 Total	**8**	**4,946**	**1,451**	**6,406**	**16**	**58**	**430**	**504**	**6,909**	**4,638**	**10,079**	**21,626**
2006 Total	**6**	**4,476**	**1,224**	**5,706**	**18**	**63**	**390**	**472**	**6,178**	**4,611**	**9,909**	**20,698**
2007 Total	**8**	**4,850**	**1,254**	**6,111**	**22**	**70**	**430**	**522**	**6,633**	**4,750**	**10,182**	**21,565**
2008 Total	**8**	**5,010**	**1,243**	**6,261**	**26**	**80**	**450**	**556**	**6,817**	**4,708**	**10,071**	**21,596**
2009 January	1	969	134	1,104	3	8	37	47	1,151	464	995	2,610
February	1	773	116	890	3	7	33	42	932	394	774	2,101
March	1	614	113	727	3	8	37	47	774	364	758	1,896
April	1	399	93	492	3	7	35	45	538	312	650	1,500
May	(s)	206	77	283	3	8	37	47	330	321	713	1,364
June	1	144	71	216	3	7	35	45	261	390	869	1,521
July	1	121	78	200	3	8	37	47	247	470	988	1,704
August	1	114	84	198	3	8	37	47	245	472	993	1,711
September	(s)	122	87	210	3	7	35	45	255	394	767	1,416
October	1	256	93	350	3	8	37	47	397	336	676	1,409
November	1	385	98	483	3	7	35	45	528	316	674	1,519
December	1	781	133	915	3	8	37	47	962	422	931	2,315
Total	**8**	**4,883**	**1,176**	**6,067**	**33**	**89**	**430**	**552**	**6,619**	**4,656**	**9,789**	**21,063**
2010 January	1	991	149	1,142	3	8	36	47	1,189	505	1,047	2,741
February	1	845	137	983	3	7	32	42	1,026	421	847	2,294
March	1	619	103	723	3	8	36	47	770	383	769	1,922
April	(s)	332	77	409	3	8	35	45	455	301	610	1,366
May	(s)	208	83	291	3	8	36	47	338	324	738	1,400
June	1	141	87	229	3	8	35	45	274	436	961	1,671
July	(s)	117	83	201	3	8	36	47	248	531	1,126	1,904
August	1	R 113	79	R 193	3	8	36	47	R 240	529	1,105	1,873
September	(s)	124	76	200	3	8	35	45	245	429	833	1,508
October	1	212	93	306	3	8	36	47	353	330	660	1,343
November	1	468	103	571	3	8	35	45	617	318	681	1,616
December	1	891	150	1,042	3	8	36	47	1,089	445	981	2,514
Total	**7**	**R 5,061**	**1,220**	**6,288**	**37**	**97**	**420**	**554**	**6,841**	**4,950**	**10,362**	**22,153**
2011 January	1	992	132	1,125	3	8	36	47	1,172	500	1,040	2,711
February	1	797	R 121	R 919	3	7	32	42	R 961	415	821	R 2,198
March	1	620	105	726	3	8	36	47	773	360	757	1,890
3-Month Total	**2**	**2,408**	**359**	**2,770**	**9**	**24**	**104**	**136**	**2,906**	**1,275**	**2,618**	**6,799**
2010 3-Month Total	**2**	**2,456**	**390**	**2,848**	**9**	**24**	**104**	**136**	**2,985**	**1,308**	**2,664**	**6,957**
2009 3-Month Total	**3**	**2,356**	**363**	**2,721**	**8**	**22**	**106**	**136**	**2,858**	**1,222**	**2,528**	**6,607**

[a] See "Primary Energy Consumption" in Glossary.
[b] Data are estimates. See Table 10.2a for notes on series components.
[c] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[d] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
[e] 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.

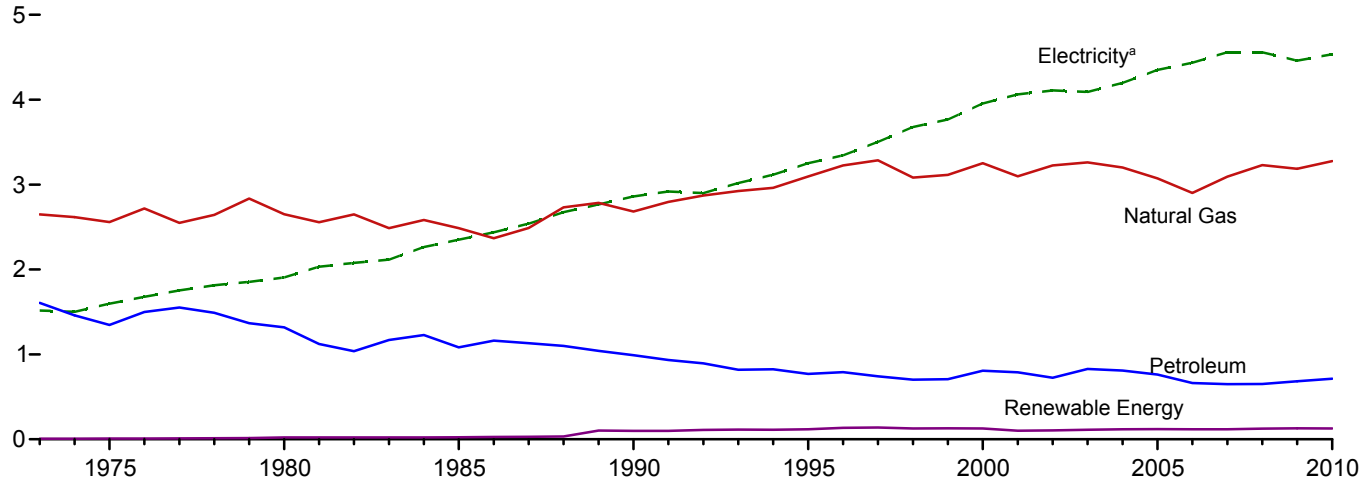
Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#consumption for all available data beginning in 1973.

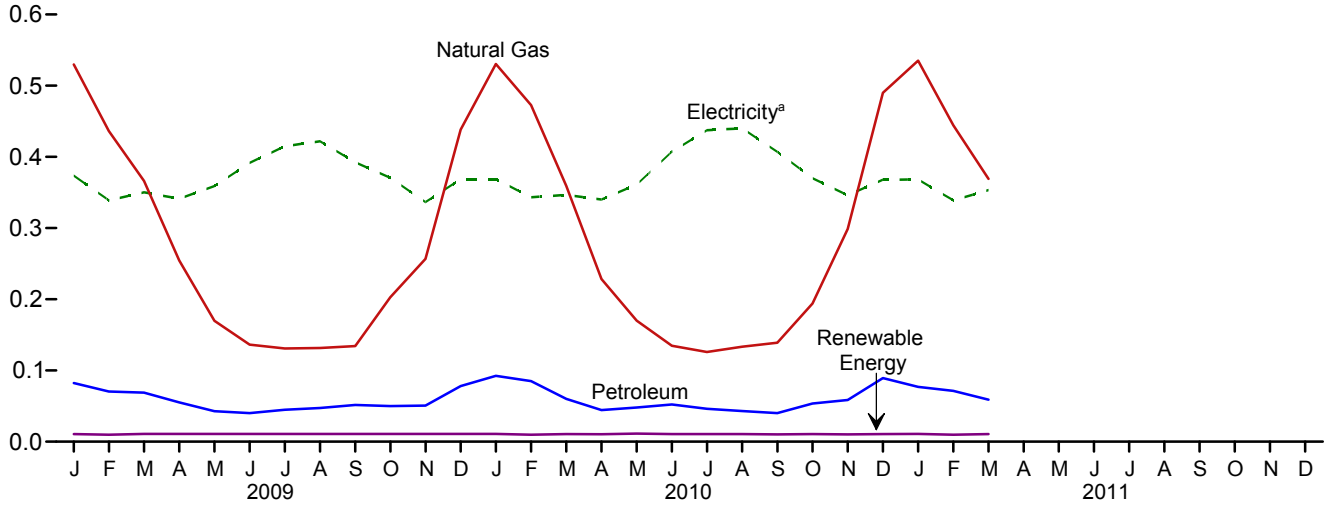
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

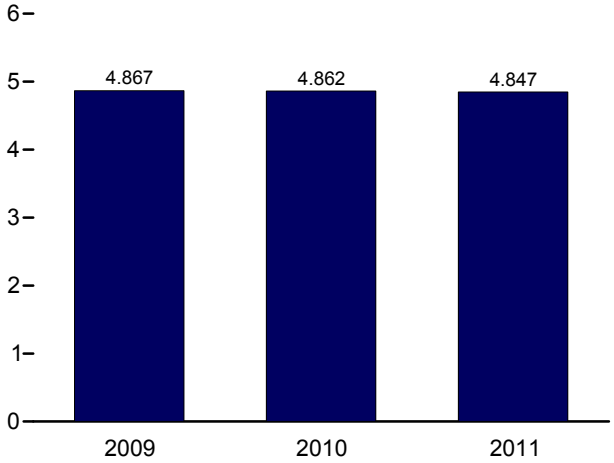
By Major Source, 1973-2010



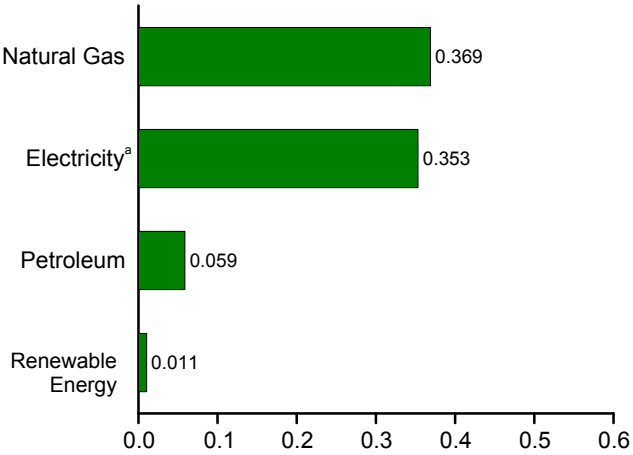
By Major Source, Monthly



Total, January-March



By Major Source, March 2011



[a] Electricity retail sales.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption

(Trillion Btu)

	Primary Consumption[a]													
	Fossil Fuels				Renewable Energy[b]									
	Coal	Natural Gas[c]	Petroleum[d]	Total	Hydroelectric Power[e]	Geothermal	Solar/PV	Wind	Biomass	Total	Total Primary	Electricity Retail Sales[f]	Electrical System Energy Losses[g]	Total
1973 Total	**160**	**2,649**	**1,607**	**4,416**	**NA**	**NA**	**NA**	**NA**	**7**	**7**	**4,423**	**1,517**	**3,604**	**9,543**
1975 Total	**147**	**2,558**	**1,346**	**4,051**	**NA**	**NA**	**NA**	**NA**	**8**	**8**	**4,059**	**1,598**	**3,835**	**9,492**
1980 Total	**115**	**2,651**	**1,318**	**4,084**	**NA**	**NA**	**NA**	**NA**	**21**	**21**	**4,105**	**1,906**	**4,567**	**10,578**
1985 Total	**137**	**2,488**	**1,083**	**3,708**	**NA**	**NA**	**NA**	**NA**	**24**	**24**	**3,732**	**2,351**	**5,368**	**11,451**
1990 Total	**124**	**2,682**	**991**	**3,798**	**1**	**3**	**–**	**–**	**94**	**98**	**3,896**	**2,860**	**6,564**	**13,320**
1995 Total	**117**	**3,096**	**769**	**3,982**	**1**	**5**	**–**	**–**	**113**	**118**	**4,101**	**3,252**	**7,338**	**14,690**
1996 Total	**122**	**3,226**	**790**	**4,138**	**1**	**5**	**–**	**–**	**129**	**135**	**4,273**	**3,344**	**7,555**	**15,172**
1997 Total	**129**	**3,285**	**743**	**4,157**	**1**	**6**	**–**	**–**	**131**	**138**	**4,295**	**3,503**	**7,883**	**15,681**
1998 Total	**93**	**3,083**	**702**	**3,878**	**1**	**7**	**–**	**–**	**118**	**127**	**4,005**	**3,678**	**8,285**	**15,968**
1999 Total	**103**	**3,115**	**707**	**3,925**	**1**	**7**	**–**	**–**	**121**	**129**	**4,053**	**3,766**	**8,557**	**16,376**
2000 Total	**92**	**3,252**	**807**	**4,150**	**1**	**8**	**–**	**–**	**119**	**128**	**4,278**	**3,956**	**8,942**	**17,175**
2001 Total	**97**	**3,097**	**790**	**3,984**	**1**	**8**	**–**	**–**	**92**	**101**	**4,084**	**4,062**	**8,990**	**17,137**
2002 Total	**90**	**3,225**	**726**	**4,040**	**(s)**	**9**	**–**	**–**	**95**	**104**	**4,144**	**4,110**	**9,104**	**17,358**
2003 Total	**82**	**3,261**	**827**	**4,170**	**1**	**11**	**–**	**–**	**101**	**113**	**4,283**	**4,090**	**8,969**	**17,343**
2004 Total	**103**	**3,201**	**809**	**4,113**	**1**	**12**	**–**	**–**	**105**	**118**	**4,232**	**4,198**	**9,229**	**17,659**
2005 Total	**97**	**3,073**	**761**	**3,932**	**1**	**14**	**–**	**–**	**105**	**119**	**4,051**	**4,351**	**9,455**	**17,856**
2006 Total	**65**	**2,902**	**663**	**3,629**	**1**	**14**	**–**	**–**	**102**	**117**	**3,746**	**4,435**	**9,529**	**17,710**
2007 Total	**70**	**3,094**	**649**	**3,814**	**1**	**14**	**–**	**–**	**102**	**118**	**3,931**	**4,560**	**9,773**	**18,264**
2008 Total	**69**	**3,228**	**651**	**3,948**	**1**	**15**	**(s)**	**–**	**109**	**125**	**4,073**	**4,558**	**9,749**	**18,381**
2009 January	8	530	82	620	(s)	1	(s)	(s)	9	11	631	374	801	1,805
February	7	436	70	513	(s)	1	(s)	(s)	8	10	523	339	666	1,528
March	6	366	69	442	(s)	1	(s)	(s)	9	11	453	350	731	1,534
April	4	255	55	314	(s)	1	(s)	(s)	9	11	325	341	711	1,377
May	4	170	43	217	(s)	1	(s)	(s)	10	11	228	359	796	1,383
June	5	136	40	181	(s)	1	(s)	(s)	9	11	192	392	872	1,456
July	4	131	45	180	(s)	1	(s)	(s)	10	11	191	415	872	1,478
August	4	132	47	183	(s)	1	(s)	(s)	10	11	194	422	887	1,504
September	4	134	52	190	(s)	1	(s)	(s)	9	10	200	392	765	1,357
October	5	203	50	258	(s)	1	(s)	(s)	9	11	268	371	745	1,385
November	6	257	51	313	(s)	1	(s)	(s)	9	11	324	337	717	1,377
December	6	438	78	523	(s)	1	(s)	(s)	9	11	534	369	814	1,717
Total	**63**	**3,187**	**682**	**3,932**	**1**	**17**	**(s)**	**(s)**	**112**	**129**	**4,061**	**4,460**	**9,378**	**17,899**
2010 January	7	531	93	630	(s)	2	(s)	(s)	9	11	641	369	765	1,775
February	6	473	85	564	(s)	1	(s)	(s)	8	10	574	343	690	1,607
March	6	359	60	425	(s)	2	(s)	(s)	9	11	436	347	697	1,480
April	4	228	44	277	(s)	2	(s)	(s)	9	11	287	340	690	1,317
May	4	170	48	222	(s)	2	(s)	(s)	10	11	233	361	823	1,417
June	4	135	52	191	(s)	2	(s)	(s)	9	11	202	407	898	1,507
July	4	126	46	176	(s)	2	(s)	(s)	9	11	187	437	928	1,552
August	4	133	43	R 181	(s)	2	(s)	(s)	9	11	R 192	440	920	1,551
September	4	139	40	183	(s)	2	(s)	(s)	9	10	193	407	791	1,391
October	5	194	54	252	(s)	2	(s)	(s)	9	11	263	370	740	1,373
November	5	299	58	362	(s)	2	(s)	–	9	10	372	346	741	1,459
December	6	490	89	585	(s)	2	(s)	–	9	11	596	368	811	1,775
Total	**58**	**3,276**	**713**	**R 4,048**	**1**	**19**	**(s)**	**(s)**	**108**	**127**	**4,175**	**4,536**	**9,495**	**18,205**
2011 January	R 7	535	77	R 619	(s)	2	(s)	–	9	11	R 630	368	766	R 1,764
February	R 6	444	R 71	R 522	(s)	1	(s)	–	8	10	R 532	339	671	R 1,542
March	6	369	59	434	(s)	2	(s)	(s)	9	11	445	353	743	1,541
3-Month Total	**19**	**1,349**	**207**	**1,575**	**(s)**	**5**	**(s)**	**(s)**	**26**	**31**	**1,607**	**1,061**	**2,180**	**4,847**
2010 3-Month Total	**20**	**1,362**	**238**	**1,620**	**(s)**	**5**	**(s)**	**(s)**	**27**	**31**	**1,651**	**1,058**	**2,152**	**4,862**
2009 3-Month Total	**21**	**1,332**	**222**	**1,575**	**(s)**	**4**	**(s)**	**(s)**	**27**	**31**	**1,606**	**1,063**	**2,197**	**4,867**

[a] See "Primary Energy Consumption" in Glossary.
[b] Most data are estimates. See Table 10.2a for notes on series components and estimation.
[c] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[d] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
[e] Conventional hydroelectric power.
[f] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
[g] 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. – =No data reported. (s)=Less than 0.5 trillion Btu.

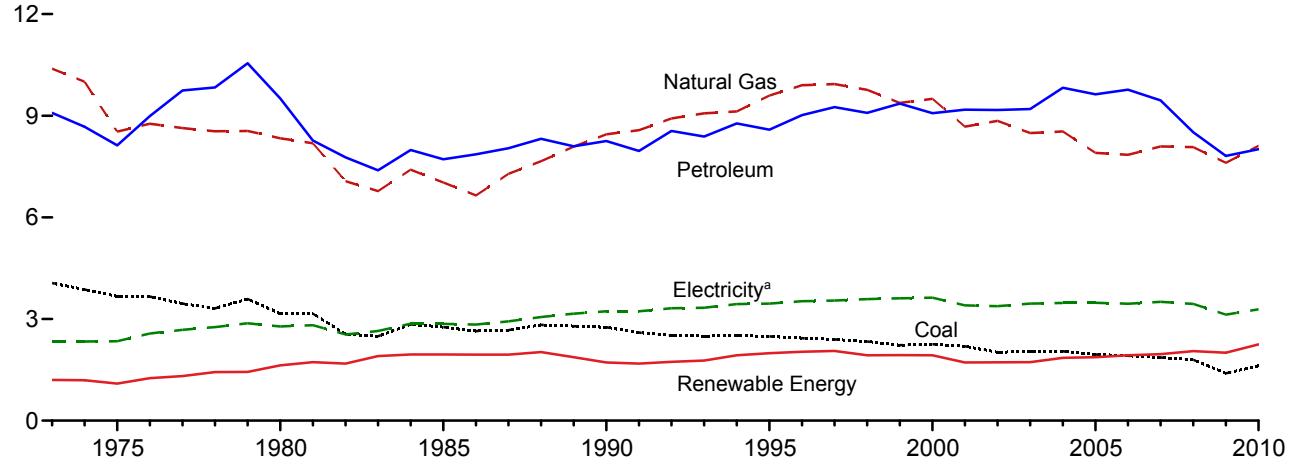
Notes: • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#consumption for all available data beginning in 1973.

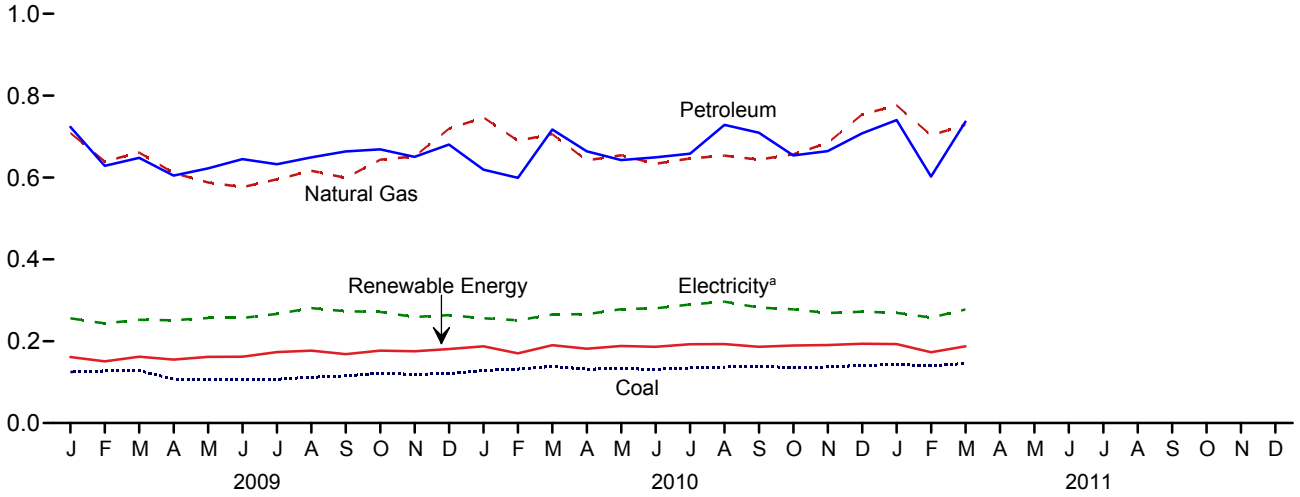
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

Figure 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

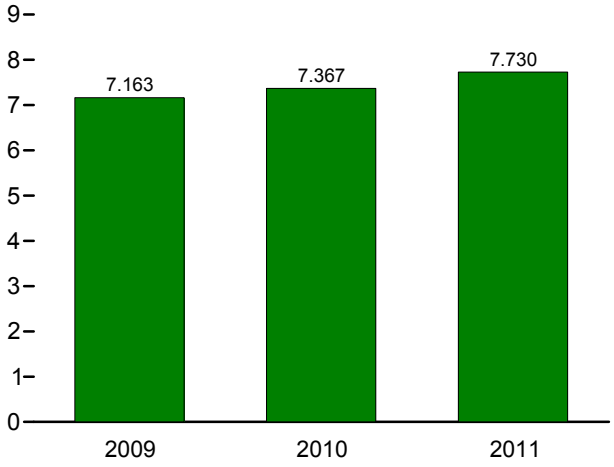
By Major Source, 1973-2010



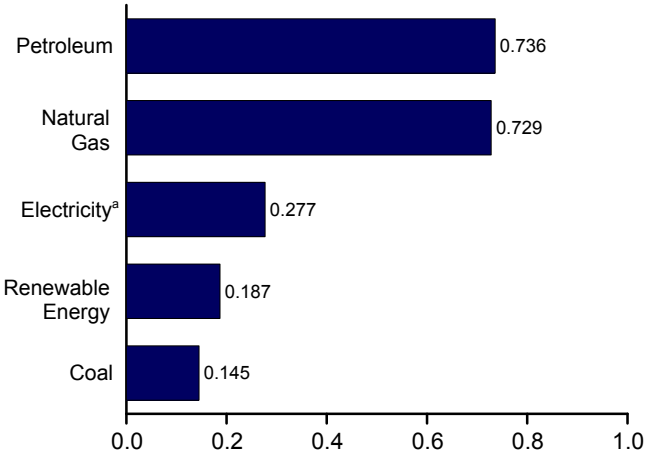
By Major Source, Monthly



Total, January-March



By Major Source, March 2011



[a] Electricity retail sales.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.4.

Table 2.4 Industrial Sector Energy Consumption

(Trillion Btu)

	Primary Consumption[a]												
	Fossil Fuels				Renewable Energy[b]								
	Coal	Natural Gas[c]	Petroleum[d]	Total[e]	Hydroelectric Power[f]	Geothermal	Solar/PV	Biomass	Total	Total Primary	Electricity Retail Sales[g]	Electrical System Energy Losses[h]	Total[e]
1973 Total	**4,057**	**10,388**	**9,083**	**23,521**	**35**	**NA**	**NA**	**1,165**	**1,200**	**24,720**	**2,341**	**5,562**	**32,623**
1975 Total	**3,667**	**8,532**	**8,127**	**20,339**	**32**	**NA**	**NA**	**1,063**	**1,096**	**21,434**	**2,346**	**5,632**	**29,413**
1980 Total	**3,155**	**8,333**	**9,509**	**20,962**	**33**	**NA**	**NA**	**1,600**	**1,633**	**22,595**	**2,781**	**6,664**	**32,039**
1985 Total	**2,760**	**7,032**	**7,714**	**17,492**	**33**	**NA**	**NA**	**1,918**	**1,951**	**19,443**	**2,855**	**6,518**	**28,816**
1990 Total	**2,756**	**8,451**	**8,251**	**19,463**	**31**	**2**	**–**	**1,684**	**1,717**	**21,180**	**3,226**	**7,404**	**31,810**
1995 Total	**2,488**	**9,592**	**8,586**	**20,727**	**55**	**3**	**–**	**1,934**	**1,992**	**22,719**	**3,455**	**7,796**	**33,971**
1996 Total	**2,434**	**9,901**	**9,019**	**21,377**	**61**	**3**	**–**	**1,969**	**2,033**	**23,410**	**3,527**	**7,968**	**34,904**
1997 Total	**2,395**	**9,933**	**9,255**	**21,629**	**58**	**3**	**–**	**1,996**	**2,057**	**23,686**	**3,542**	**7,972**	**35,200**
1998 Total	**2,335**	**9,763**	**9,082**	**21,248**	**55**	**3**	**–**	**1,872**	**1,929**	**23,177**	**3,587**	**8,079**	**34,843**
1999 Total	**2,227**	**9,375**	**9,356**	**21,016**	**49**	**4**	**–**	**1,882**	**1,934**	**22,950**	**3,611**	**8,203**	**34,764**
2000 Total	**2,256**	**9,500**	**9,075**	**20,896**	**42**	**4**	**–**	**1,881**	**1,928**	**22,824**	**3,631**	**8,208**	**34,664**
2001 Total	**2,192**	**8,676**	**9,178**	**20,075**	**33**	**5**	**–**	**1,681**	**1,719**	**21,794**	**3,400**	**7,526**	**32,720**
2002 Total	**2,019**	**8,845**	**9,168**	**20,093**	**39**	**5**	**–**	**1,676**	**1,720**	**21,813**	**3,379**	**7,484**	**32,676**
2003 Total	**2,041**	**8,488**	**9,197**	**19,777**	**43**	**3**	**–**	**1,679**	**1,726**	**21,503**	**3,454**	**7,575**	**32,532**
2004 Total	**2,047**	**8,536**	**9,825**	**20,545**	**33**	**4**	**–**	**1,817**	**1,853**	**22,398**	**3,473**	**7,635**	**33,506**
2005 Total	**1,954**	**7,903**	**9,633**	**19,534**	**32**	**4**	**–**	**1,837**	**1,873**	**21,407**	**3,477**	**7,557**	**32,442**
2006 Total	**1,914**	**7,846**	**9,770**	**19,591**	**29**	**4**	**–**	**1,897**	**1,930**	**21,521**	**3,451**	**7,415**	**32,386**
2007 Total	**1,865**	**8,090**	**9,451**	**19,431**	**16**	**5**	**–**	**1,944**	**1,964**	**21,395**	**3,507**	**7,517**	**32,419**
2008 Total	**1,796**	**8,074**	**8,511**	**18,422**	**17**	**5**	**–**	**2,031**	**2,053**	**20,474**	**3,444**	**7,365**	**31,284**
2009 January	125	709	724	1,555	2	(s)	–	159	161	1,717	256	548	2,521
February	127	639	628	1,394	1	(s)	–	149	151	1,545	243	478	2,266
March	128	661	648	1,435	2	(s)	–	160	162	1,598	252	526	2,376
April	107	611	605	1,320	2	(s)	–	153	155	1,475	251	523	2,250
May	106	588	622	1,314	2	(s)	–	160	162	1,476	257	569	2,302
June	107	576	645	1,326	2	(s)	–	160	162	1,488	257	572	2,317
July	107	596	632	1,333	1	(s)	–	172	173	1,507	266	560	2,333
August	112	616	649	1,374	1	(s)	–	175	177	1,551	281	591	2,423
September	115	599	663	1,376	1	(s)	–	167	168	1,544	273	532	2,349
October	122	643	669	1,430	1	(s)	–	175	177	1,607	272	546	2,425
November	118	651	650	1,419	1	(s)	–	174	175	1,594	259	552	2,405
December	121	719	681	1,518	2	(s)	–	179	181	1,699	264	582	2,545
Total	**1,396**	**7,609**	**7,816**	**16,796**	**18**	**4**	**–**	**1,982**	**2,005**	**18,801**	**3,130**	**6,582**	**28,513**
2010 January	129	747	619	1,490	2	(s)	(s)	185	187	1,677	256	531	2,464
February	132	690	599	1,425	2	(s)	(s)	168	170	1,595	251	505	2,351
March	138	706	717	1,564	2	(s)	(s)	188	190	1,754	265	533	2,552
April	132	642	664	1,438	2	(s)	(s)	180	182	1,620	266	540	2,426
May	133	654	643	1,431	2	(s)	(s)	186	188	1,619	278	634	2,532
June	132	633	649	1,415	1	(s)	(s)	184	186	1,601	280	618	2,500
July	135	646	658	1,440	1	(s)	(s)	191	192	1,632	289	614	2,535
August	136	653	729	1,520	1	(s)	(s)	192	193	1,713	296	620	2,629
September	139	644	709	1,491	1	(s)	(s)	185	186	1,678	282	548	2,508
October	135	657	654	1,444	1	(s)	(s)	188	189	1,633	278	555	2,466
November	137	684	664	1,480	1	(s)	(s)	189	191	1,670	269	576	2,515
December	140	754	708	1,597	1	(s)	(s)	192	194	1,791	272	599	2,662
Total	**1,618**	**8,110**	**8,013**	**17,735**	**16**	**4**	**(s)**	**2,229**	**2,249**	**19,984**	**3,283**	**6,872**	**30,139**
2011 January	R 144	776	740	R 1,660	1	(s)	(s)	191	193	R 1,853	269	560	R 2,683
February	R 140	703	R 602	1,445	2	(s)	(s)	171	173	1,618	258	510	2,386
March	145	729	736	1,613	2	(s)	(s)	185	187	1,800	277	583	2,661
3-Month Total	**429**	**2,208**	**2,079**	**4,718**	**5**	**1**	**(s)**	**548**	**554**	**5,272**	**804**	**1,654**	**7,730**
2010 3-Month Total	**399**	**2,142**	**1,935**	**4,478**	**5**	**1**	**(s)**	**542**	**548**	**5,026**	**772**	**1,569**	**7,367**
2009 3-Month Total	**380**	**2,009**	**2,000**	**4,384**	**5**	**1**	**–**	**469**	**474**	**4,859**	**751**	**1,552**	**7,163**

[a] See "Primary Energy Consumption" in Glossary.
[b] Most data are estimates. See Table 10.2b for notes on series components and estimation.
[c] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[d] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
[e] Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.
[f] Conventional hydroelectric power.
[g] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
[h] 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. – =No data reported. (s)=Less than 0.5 trillion Btu.

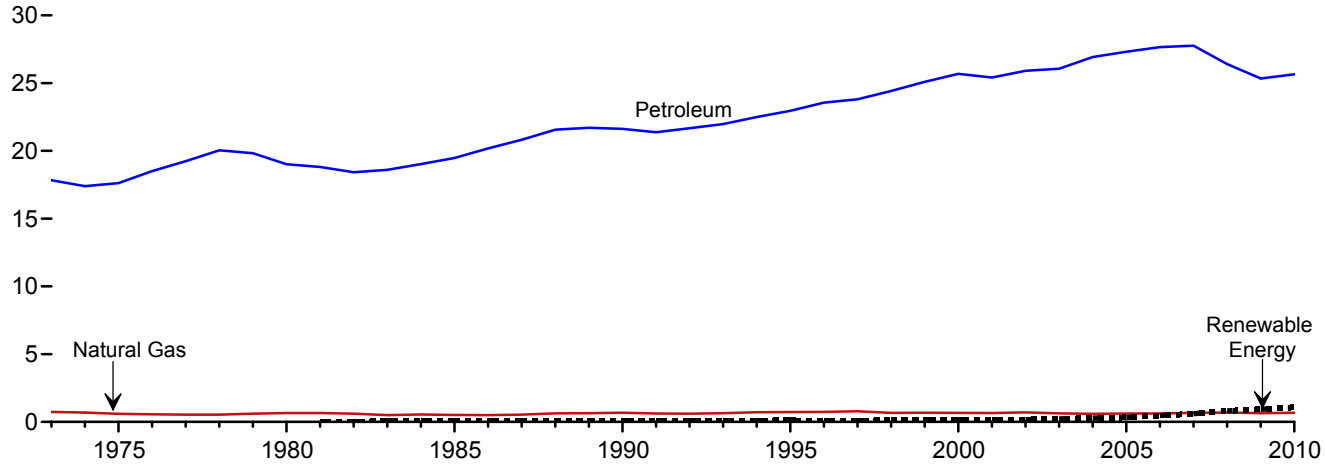
Notes: • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#consumption for all available data beginning in 1973.

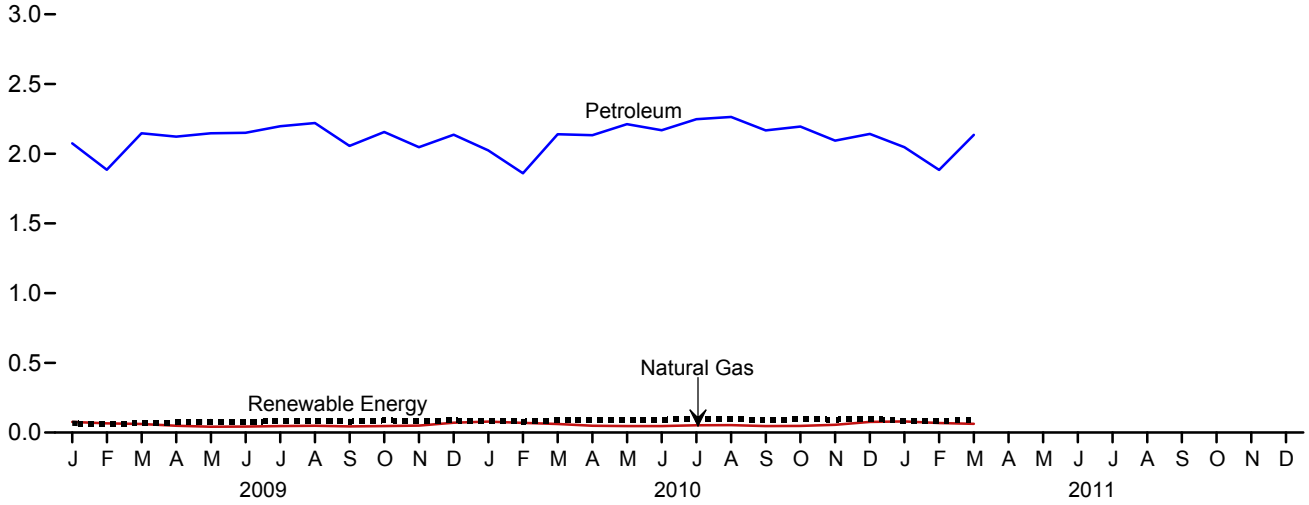
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

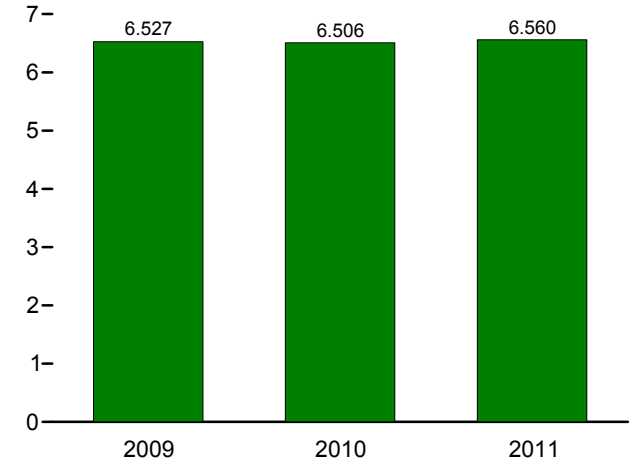
By Major Source, 1973-2010



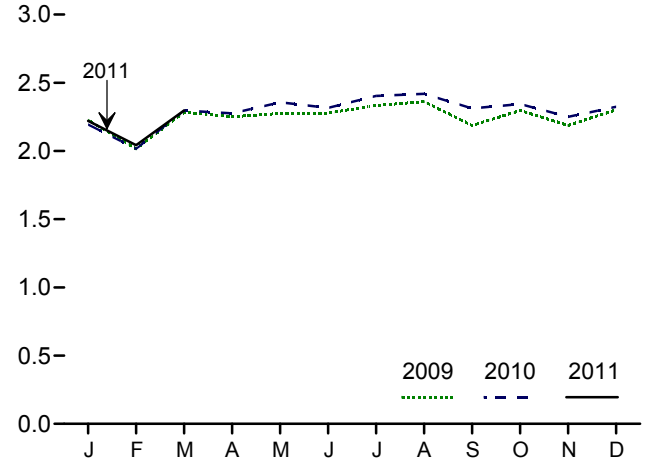
By Major Source, Monthly



Total, January-March



Total, Monthly



Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.5.

Table 2.5 Transportation Sector Energy Consumption

(Trillion Btu)

	Primary Consumption[a]						Electricity Retail Sales[e]	Electrical System Energy Losses[f]	Total
	Fossil Fuels				Renewable Energy[b]	Total Primary			
	Coal	Natural Gas[c]	Petroleum[d]	Total	Biomass				
1973 Total	**3**	**743**	**17,832**	**18,577**	**NA**	**18,577**	**11**	**25**	**18,613**
1975 Total	**1**	**595**	**17,615**	**18,210**	**NA**	**18,210**	**10**	**24**	**18,245**
1980 Total	**(g)**	**650**	**19,009**	**19,659**	**NA**	**19,659**	**11**	**27**	**19,697**
1985 Total	**(g)**	**519**	**19,472**	**19,992**	**50**	**20,041**	**14**	**32**	**20,088**
1990 Total	**(g)**	**680**	**21,626**	**22,306**	**60**	**22,366**	**16**	**37**	**22,420**
1995 Total	**(g)**	**724**	**22,955**	**23,679**	**112**	**23,791**	**17**	**38**	**23,846**
1996 Total	**(g)**	**737**	**23,565**	**24,302**	**81**	**24,383**	**17**	**38**	**24,437**
1997 Total	**(g)**	**780**	**23,813**	**24,593**	**102**	**24,695**	**17**	**38**	**24,750**
1998 Total	**(g)**	**666**	**24,422**	**25,088**	**113**	**25,201**	**17**	**38**	**25,256**
1999 Total	**(g)**	**675**	**25,098**	**25,774**	**118**	**25,891**	**17**	**40**	**25,949**
2000 Total	**(g)**	**672**	**25,682**	**26,354**	**135**	**26,489**	**18**	**42**	**26,548**
2001 Total	**(g)**	**658**	**25,412**	**26,070**	**142**	**26,213**	**20**	**43**	**26,275**
2002 Total	**(g)**	**702**	**25,913**	**26,614**	**170**	**26,784**	**19**	**42**	**26,845**
2003 Total	**(g)**	**627**	**26,063**	**26,690**	**230**	**26,920**	**23**	**51**	**26,994**
2004 Total	**(g)**	**602**	**26,925**	**27,527**	**290**	**27,817**	**25**	**54**	**27,895**
2005 Total	**(g)**	**624**	**27,309**	**27,933**	**339**	**28,272**	**26**	**56**	**28,353**
2006 Total	**(g)**	**625**	**27,651**	**28,276**	**475**	**28,751**	**25**	**54**	**28,830**
2007 Total	**(g)**	**665**	**27,763**	**28,429**	**602**	**29,031**	**28**	**60**	**29,119**
2008 Total	**(g)**	**692**	**26,407**	**27,099**	**826**	**27,925**	**26**	**56**	**28,008**
2009 January	(g)	77	2,075	2,151	67	2,219	3	6	2,227
February	(g)	66	1,885	1,951	58	2,009	2	5	2,016
March	(g)	61	2,146	2,207	70	2,277	2	5	2,284
April	(g)	49	2,123	2,172	73	2,245	2	4	2,251
May	(g)	42	2,147	2,189	79	2,269	2	5	2,275
June	(g)	43	2,150	2,193	78	2,271	2	5	2,278
July	(g)	47	2,197	2,243	83	2,327	2	5	2,334
August	(g)	49	2,220	2,269	85	2,354	2	5	2,361
September	(g)	44	2,056	2,100	80	2,180	2	4	2,186
October	(g)	47	2,156	2,203	88	2,290	2	4	2,296
November	(g)	50	2,047	2,097	85	2,182	2	4	2,188
December	(g)	70	2,137	2,207	87	2,294	2	5	2,302
Total	**(g)**	**643**	**25,339**	**25,982**	**934**	**26,916**	**27**	**56**	**26,998**
2010 January	(g)	79	2,024	2,103	84	2,186	3	5	2,194
February	(g)	70	1,859	1,929	79	2,009	2	5	2,016
March	(g)	61	2,140	2,201	89	2,289	2	5	2,296
April	(g)	48	2,132	2,181	88	2,269	2	4	2,275
May	(g)	46	2,213	2,259	91	2,350	2	5	2,357
June	(g)	47	2,168	2,215	93	2,308	2	5	2,316
July	(g)	52	2,248	2,300	97	2,397	2	5	2,404
August	(g)	53	2,263	2,317	96	R 2,413	2	4	2,419
September	(g)	46	2,168	2,214	92	2,306	2	4	2,312
October	(g)	47	2,195	2,242	96	2,338	2	4	2,344
November	(g)	56	2,094	2,150	94	2,243	2	4	2,250
December	(g)	76	2,142	2,218	99	2,317	2	5	2,324
Total	**(g)**	**682**	**25,646**	**26,327**	**1,098**	**27,425**	**26**	**55**	**27,507**
2011 January	(g)	80	2,047	2,127	86	2,213	2	5	2,220
February	(g)	68	R 1,883	R 1,952	84	R 2,036	2	4	R 2,042
March	(g)	62	2,136	2,198	92	2,290	2	5	2,297
3-Month Total	**(g)**	**211**	**6,066**	**6,277**	**262**	**6,539**	**7**	**14**	**6,560**
2010 3-Month Total	**(g)**	**210**	**6,023**	**6,232**	**252**	**6,484**	**7**	**15**	**6,506**
2009 3-Month Total	**(g)**	**203**	**6,106**	**6,309**	**195**	**6,504**	**7**	**15**	**6,527**

[a] See "Primary Energy Consumption" in Glossary.
[b] Data are estimates. See Table 10.2b for notes on series components.
[c] Natural gas only; does not include supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[d] Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
[e] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
[f] 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.
[g] Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

R=Revised. NA=Not available.

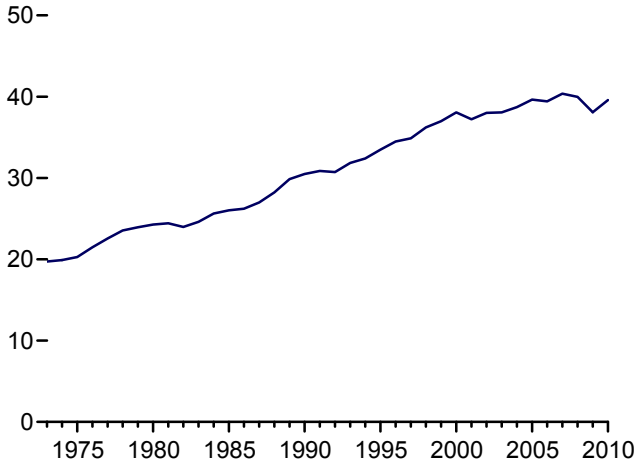
Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#consumption for all available data beginning in 1973.

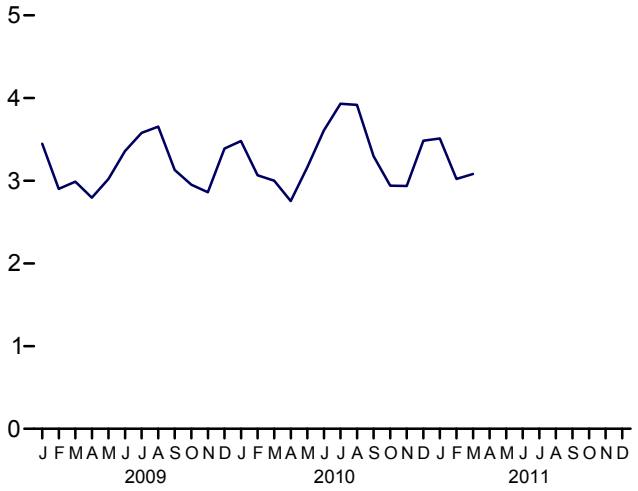
Sources: Tables 2.6, 3.8c, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

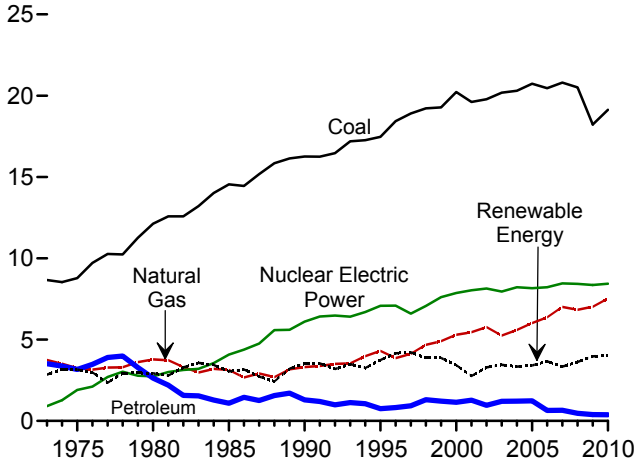
Total, 1973-2010



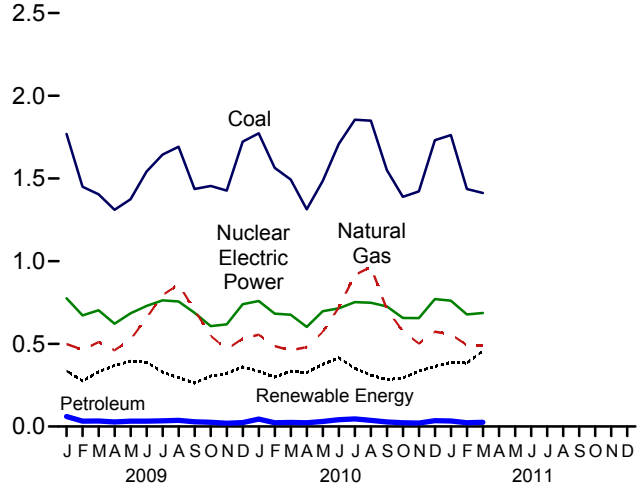
Total, Monthly



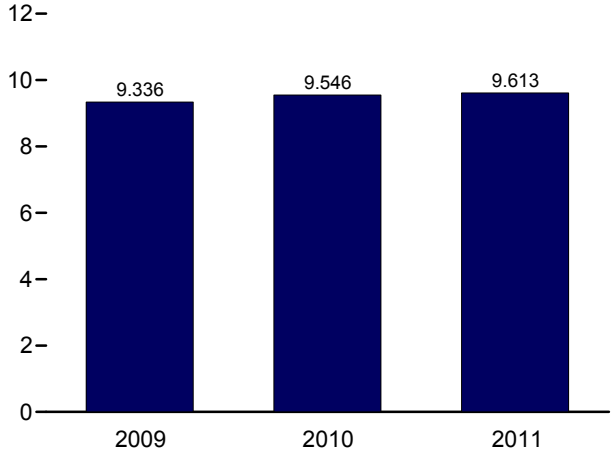
By Major Source, 1973-2010



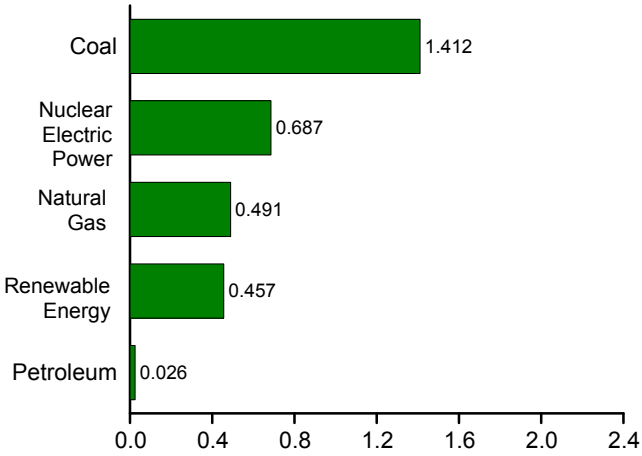
By Major Source, Monthly



Total, January-March



By Major Source, March 2011



Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.
Source: Table 2.6.

Table 2.6 Electric Power Sector Energy Consumption

(Trillion Btu)

	Primary Consumption[a]												
	Fossil Fuels					Renewable Energy[b]							
	Coal	Natural Gas[c]	Petro-leum	Total	Nuclear Electric Power	Hydro-electric Power[d]	Geo-thermal	Solar/ PV	Wind	Bio-mass	Total	Elec-tricity Net Imports	Total Primary
1973 Total	**8,658**	**3,748**	**3,515**	**15,921**	**910**	**2,827**	**20**	**NA**	**NA**	**3**	**2,851**	**49**	**19,731**
1975 Total	**8,786**	**3,240**	**3,166**	**15,191**	**1,900**	**3,122**	**34**	**NA**	**NA**	**2**	**3,158**	**21**	**20,270**
1980 Total	**12,123**	**3,778**	**2,634**	**18,534**	**2,739**	**2,867**	**53**	**NA**	**NA**	**4**	**2,925**	**71**	**24,269**
1985 Total	**14,542**	**3,135**	**1,090**	**18,767**	**4,076**	**2,937**	**97**	**(s)**	**(s)**	**14**	**3,049**	**140**	**26,032**
1990 Total[e]	**16,261**	**3,309**	**1,289**	**20,859**	**6,104**	**3,014**	**161**	**4**	**29**	**317**	**3,524**	**8**	**30,495**
1995 Total	**17,466**	**4,302**	**755**	**22,523**	**7,075**	**3,149**	**138**	**5**	**33**	**422**	**3,747**	**134**	**33,479**
1996 Total	**18,429**	**3,862**	**817**	**23,109**	**7,087**	**3,528**	**148**	**5**	**33**	**438**	**4,153**	**137**	**34,485**
1997 Total	**18,905**	**4,126**	**927**	**23,957**	**6,597**	**3,581**	**150**	**5**	**34**	**446**	**4,216**	**116**	**34,886**
1998 Total	**19,216**	**4,675**	**1,306**	**25,197**	**7,068**	**3,241**	**151**	**5**	**31**	**444**	**3,872**	**88**	**36,225**
1999 Total	**19,279**	**4,902**	**1,211**	**25,393**	**7,610**	**3,218**	**152**	**5**	**46**	**453**	**3,874**	**99**	**36,976**
2000 Total	**20,220**	**5,293**	**1,144**	**26,658**	**7,862**	**2,768**	**144**	**5**	**57**	**453**	**3,427**	**115**	**38,062**
2001 Total	**19,614**	**5,458**	**1,277**	**26,348**	**8,029**	**2,209**	**142**	**6**	**70**	**337**	**2,763**	**75**	**37,215**
2002 Total	**19,783**	**5,767**	**961**	**26,511**	**8,145**	**2,650**	**147**	**6**	**105**	**380**	**3,288**	**72**	**38,016**
2003 Total	**20,185**	**5,246**	**1,205**	**26,636**	**7,959**	**2,781**	**148**	**5**	**115**	**397**	**3,445**	**22**	**38,062**
2004 Total	**20,305**	**5,595**	**1,212**	**27,112**	**8,222**	**2,656**	**148**	**6**	**142**	**388**	**3,340**	**39**	**38,713**
2005 Total	**20,737**	**6,015**	**1,235**	**27,986**	**8,161**	**2,670**	**147**	**6**	**178**	**406**	**3,406**	**85**	**39,638**
2006 Total	**20,462**	**6,375**	**648**	**27,485**	**8,215**	**2,839**	**145**	**5**	**264**	**412**	**3,665**	**63**	**39,428**
2007 Total	**20,808**	**7,005**	**657**	**28,470**	**8,455**	**2,430**	**145**	**6**	**341**	**423**	**3,345**	**107**	**40,377**
2008 Total	**20,513**	**6,829**	**468**	**27,810**	**8,427**	**2,494**	**146**	**9**	**546**	**435**	**3,630**	**112**	**39,978**
2009 January	1,769	499	61	2,329	775	228	13	(s)	58	37	336	7	3,446
February	1,450	464	33	1,946	672	172	11	(s)	57	34	276	8	2,901
March	1,404	511	34	1,949	703	211	13	1	69	38	332	4	2,988
April	1,310	461	28	1,799	621	250	12	1	73	33	369	6	2,795
May	1,375	526	32	1,933	684	287	12	1	61	34	395	9	3,022
June	1,541	656	33	2,230	729	284	12	1	55	37	388	11	3,359
July	1,645	795	34	2,473	763	227	12	1	48	39	328	14	3,578
August	1,691	858	37	2,587	756	190	12	1	53	39	296	15	3,653
September	1,436	705	29	2,169	688	168	12	1	45	36	262	11	3,130
October	1,455	548	26	2,029	607	191	12	1	67	35	305	11	2,952
November	1,426	467	20	1,913	618	204	12	(s)	67	37	320	9	2,860
December	1,723	532	24	2,278	740	240	13	(s)	67	40	360	11	3,389
Total	**18,225**	**7,022**	**390**	**25,638**	**8,356**	**2,650**	**146**	**9**	**721**	**441**	**3,967**	**116**	**38,077**
2010 January	1,773	555	45	2,373	759	214	13	(s)	68	37	333	14	3,480
February	1,564	486	23	2,073	682	198	12	(s)	54	34	298	12	3,065
March	1,493	461	25	1,979	676	199	13	1	85	37	335	10	3,001
April	1,314	480	23	1,817	603	180	12	1	96	36	325	9	2,754
May	1,485	571	31	2,087	697	241	13	2	85	35	376	4	3,165
June	1,708	720	41	2,469	714	286	13	2	78	37	416	8	3,608
July	1,855	917	46	2,818	752	234	13	2	65	38	352	10	3,932
August	1,849	965	37	2,852	749	192	13	2	65	39	310	6	3,917
September	1,550	709	28	2,287	726	164	12	1	69	35	283	2	3,297
October	1,389	576	22	1,988	656	169	12	1	78	35	294	1	2,940
November	1,421	502	21	1,944	655	188	13	1	96	37	335	3	2,937
December	1,731	574	36	2,341	771	224	14	(s)	86	39	363	9	3,484
Total	**19,133**	**7,517**	**378**	**27,028**	**8,441**	**2,492**	**153**	**13**	**924**	**440**	**4,022**	**88**	**39,579**
2011 January	1,762	558	34	2,353	761	250	14	(s)	87	37	388	9	3,511
February	1,437	492	23	1,951	678	236	13	1	101	34	384	8	3,021
March	1,412	491	26	1,929	687	304	14	1	102	36	457	8	3,081
3-Month Total	**4,611**	**1,541**	**82**	**6,234**	**2,125**	**790**	**41**	**2**	**289**	**106**	**1,229**	**25**	**9,613**
2010 3-Month Total	**4,831**	**1,502**	**93**	**6,426**	**2,118**	**612**	**38**	**1**	**206**	**109**	**967**	**36**	**9,546**
2009 3-Month Total	**4,623**	**1,473**	**127**	**6,224**	**2,150**	**611**	**37**	**1**	**184**	**110**	**943**	**19**	**9,336**

[a] See "Primary Energy Consumption" in Glossary.
[b] See Table 10.2c for notes on series components.
[c] Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
[d] Conventional hydroelectric power.
[e] 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. • 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.gov/totalenergy/data/monthly/#consumption 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.

Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

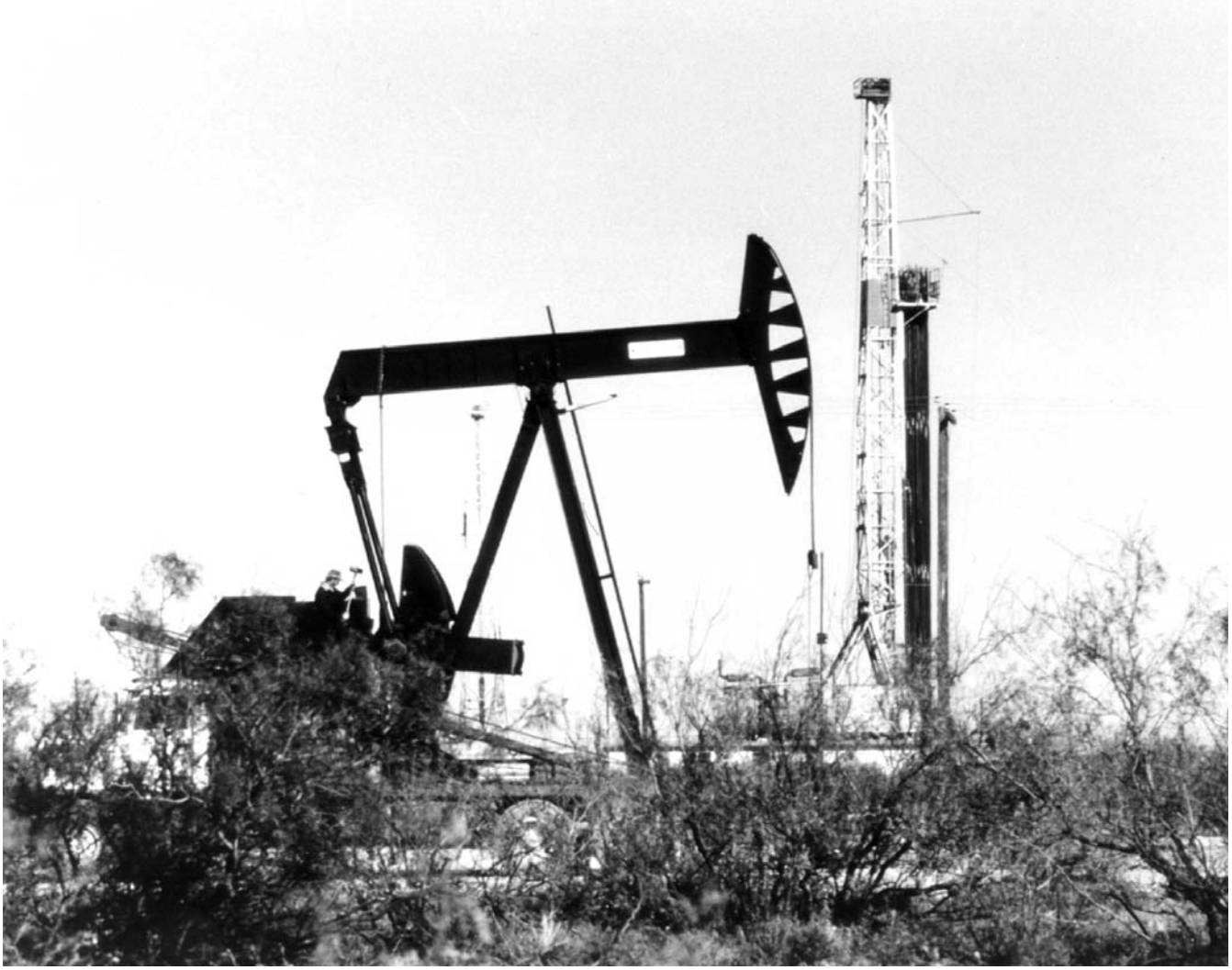
Energy Consumption by Sector

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 U.S. 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, U.S. 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.

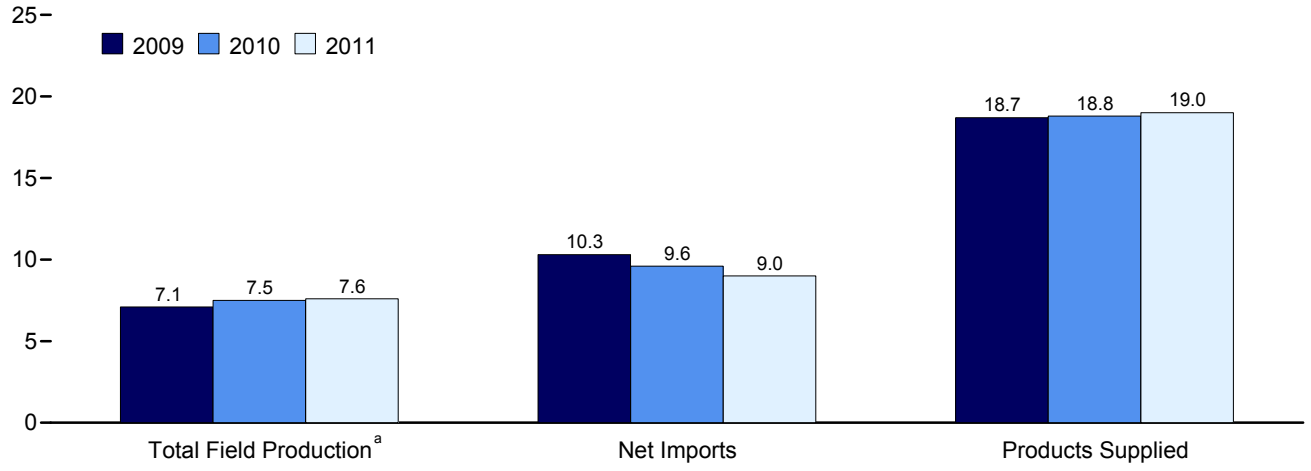
3 Petroleum



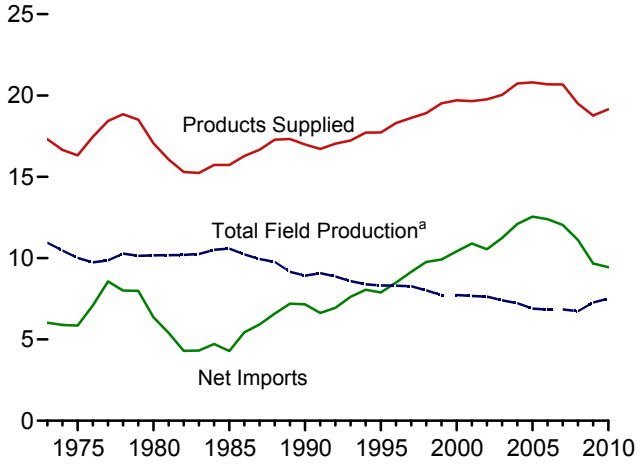
Oil pumping unit and drilling rig, Texas. Source: U.S. Department of Energy.

Figure 3.1 Petroleum Overview
(Million Barrels per Day)

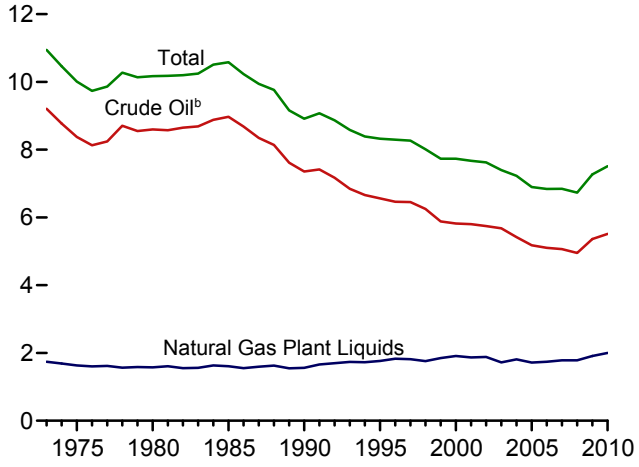
Overview, January-May



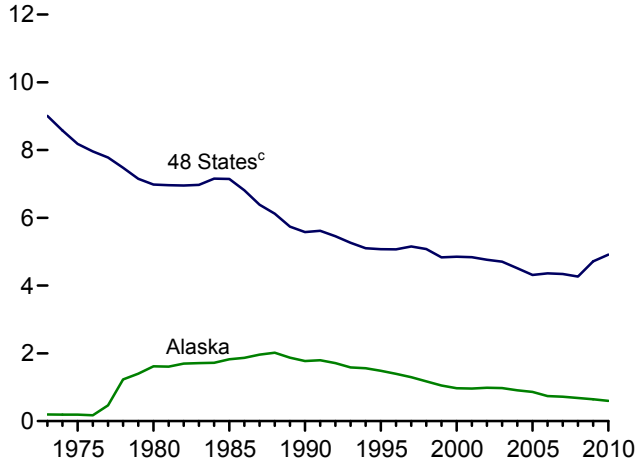
Overview, 1973-2010



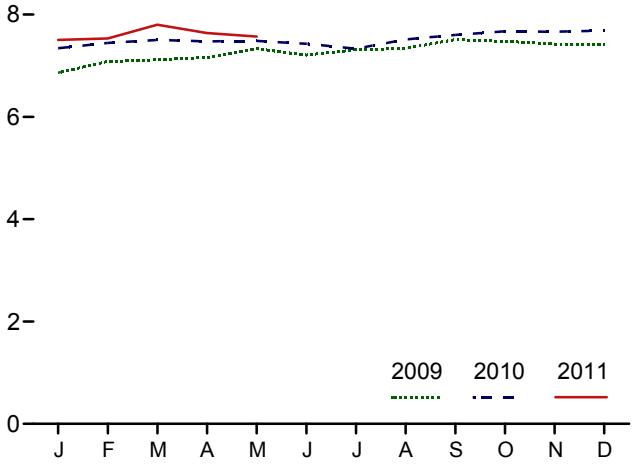
Total Field Production, 1973-2010



Crude Oil[b] Field Production, 1973-2010



Total Field Production,[a] Monthly



[a] Crude oil, including lease condensate, and natural gas plant liquids field production.
[b] Includes lease condensate.
[c] United States excluding Alaska and Hawaii.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Source: Table 3.1.

Table 3.1 Petroleum Overview

(Thousand Barrels per Day)

	Field Production[a]					Renewable Fuels and Oxygenates[f]	Processing Gain[g]	Trade			Stock Change[j]	Adjustments[k]	Petroleum Products Supplied
	Crude Oil[b]			NGPL[d,e]	Total			Imports[h]	Exports[e]	Net Imports[i]			
	48 States[c]	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**
2007 Average	**4,342**	**722**	**5,064**	**1,783**	**6,847**	**NA**	**996**	**13,468**	**1,433**	**12,036**	**-148**	**653**	**20,680**
2008 Average	**4,268**	**683**	**4,950**	**1,784**	**6,734**	**NA**	**993**	**12,915**	**1,802**	**11,114**	**195**	**852**	**19,498**
2009 January	4,475	679	5,154	1,711	6,865	663	950	13,127	1,922	11,205	933	290	19,040
February	4,552	708	5,260	1,824	7,083	686	931	12,095	1,808	10,287	394	229	18,822
March	4,518	709	5,227	1,891	7,118	684	912	12,446	1,838	10,609	839	236	18,719
April	4,621	653	5,273	1,888	7,161	681	982	11,962	1,900	10,061	445	231	18,672
May	4,701	678	5,379	1,954	7,333	714	974	11,477	2,015	9,461	488	217	18,211
June	4,711	571	5,281	1,927	7,208	741	1,038	11,936	1,963	9,973	441	308	18,828
July	4,851	551	5,402	1,908	7,310	773	986	11,830	2,348	9,482	180	256	18,626
August	4,846	572	5,418	1,920	7,337	783	1,003	11,183	2,119	9,064	-525	238	18,949
September	4,895	652	5,547	1,962	7,509	771	1,027	11,756	2,105	9,651	488	124	18,594
October	4,842	658	5,501	1,976	7,477	785	961	10,878	2,223	8,655	-748	177	18,803
November	4,765	662	5,427	1,996	7,423	833	945	11,105	2,029	9,076	-374	103	18,753
December	4,796	655	5,451	1,959	7,411	838	1,030	10,534	1,996	8,538	-1,213	208	19,237
Average	**4,715**	**645**	**5,361**	**1,910**	**7,270**	**746**	**979**	**11,691**	**2,024**	**9,667**	**109**	**218**	**18,771**
2010 January	E 4,792	E 640	E 5,433	1,910	E 7,343	838	932	11,236	1,883	9,352	172	234	18,528
February	E 4,830	E 635	E 5,465	1,979	E 7,444	857	1,065	11,148	2,012	9,136	-100	258	18,860
March	E 4,856	E 646	E 5,502	2,003	E 7,505	889	1,064	11,588	2,108	9,480	24	157	19,070
April	E 4,856	E 640	E 5,496	1,980	E 7,475	864	1,025	12,508	2,389	10,119	831	259	18,910
May	E 4,899	E 569	E 5,468	2,019	E 7,486	893	1,066	12,100	2,369	9,731	617	267	18,827
June	E 4,933	E 533	E 5,465	1,965	E 7,430	905	1,074	12,339	2,273	10,066	507	345	19,314
July	E 4,861	E 545	E 5,406	1,927	E 7,333	906	1,129	12,602	2,479	10,123	446	233	19,278
August	E 4,968	E 538	E 5,506	2,007	E 7,513	911	1,097	12,341	2,368	9,973	155	353	19,692
September	E 4,953	E 614	E 5,567	2,036	E 7,602	909	1,043	11,816	2,297	9,519	-18	415	19,507
October	E 4,998	E 618	E 5,616	2,057	E 7,673	922	1,000	11,126	2,434	8,692	-361	290	18,939
November	E 4,989	E 606	E 5,595	2,068	E 7,662	967	1,070	11,088	2,546	8,542	-665	168	19,074
December	E 5,012	E 612	E 5,624	2,063	E 7,687	961	1,203	11,109	2,572	8,537	-1,035	334	19,758
Average	**E 4,913**	**E 599**	**E 5,512**	**2,001**	**E 7,513**	**902**	**1,064**	**11,753**	**2,312**	**9,440**	**48**	**276**	**19,148**
2011 January	E 5,019	E 464	E 5,483	2,022	E 7,504	957	1,067	11,954	2,687	9,266	318	645	19,121
February	E 5,000	E 611	E 5,612	1,920	E 7,531	941	980	10,503	2,575	7,929	-1,069	418	18,869
March	RE 5,022	RE 611	RE 5,633	R 2,168	RE 7,801	R 956	R 1,027	R 11,593	R 2,660	R 8,933	R -126	R 405	R 19,248
April	E 5,020	E 602	E 5,622	E 2,015	E 7,638	E 923	E 1,024	E 11,459	E 2,247	E 9,213	E 19	E 272	E 19,050
May	E 5,031	E 578	E 5,609	E 1,960	E 7,569	E 938	E 1,060	E 11,730	E 2,196	E 9,534	E 631	E 332	E 18,803
5-Month Average	**E 5,019**	**E 572**	**E 5,591**	**E 2,019**	**E 7,610**	**E 943**	**E 1,033**	**E 11,467**	**E 2,472**	**E 8,994**	**E -26**	**E 415**	**E 19,021**
2010 5-Month Average	**E 4,847**	**E 626**	**E 5,473**	**1,978**	**E 7,451**	**868**	**1,030**	**11,722**	**2,153**	**9,569**	**313**	**234**	**18,838**
2009 5-Month Average	**4,573**	**685**	**5,258**	**1,854**	**7,112**	**686**	**950**	**12,225**	**1,898**	**10,327**	**625**	**241**	**18,690**

[a] 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."

[b] Includes lease condensate.

[c] United States excluding Alaska and Hawaii.

[d] Natural gas plant liquids.

[e] See Note 6, "Petroleum Data Discrepancies," at end of section.

[f] Renewable fuels and oxygenate plant net production.

[g] Refinery and blender net production minus refinery and blender net inputs. See Table 3.2.

[h] Includes Strategic Petroleum Reserve imports. See Table 3.3b.

[i] Net imports equal imports minus exports.

[j] 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.

[k] An adjustment for crude oil, hydrogen, oxygenates, renewable fuels, other hydrocarbons, motor gasoline blending components, finished motor gasoline, and distillate fuel oil. See U.S. Energy Information Administration (EIA), *Petroleum Supply Monthly,* Appendix B, "PSM Explanatory Notes," for further information.

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

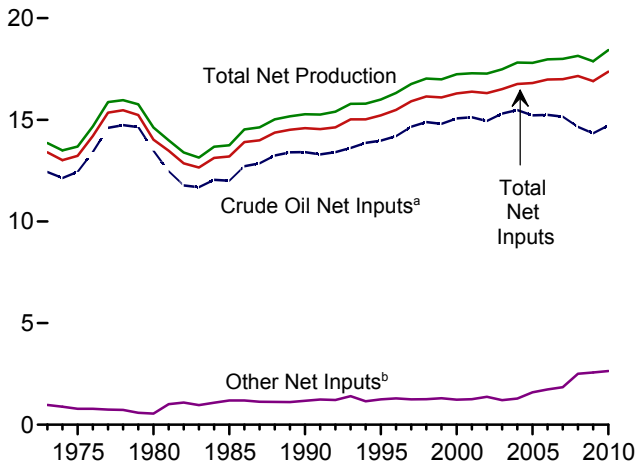
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see http://www.eia.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

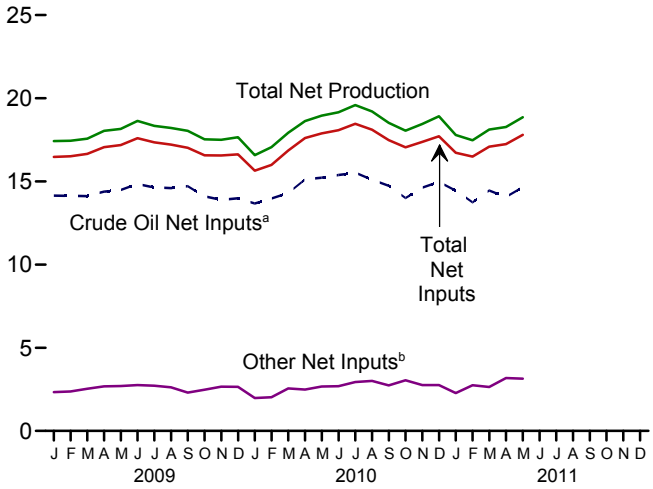
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** EIA, Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** EIA, *Petroleum 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)

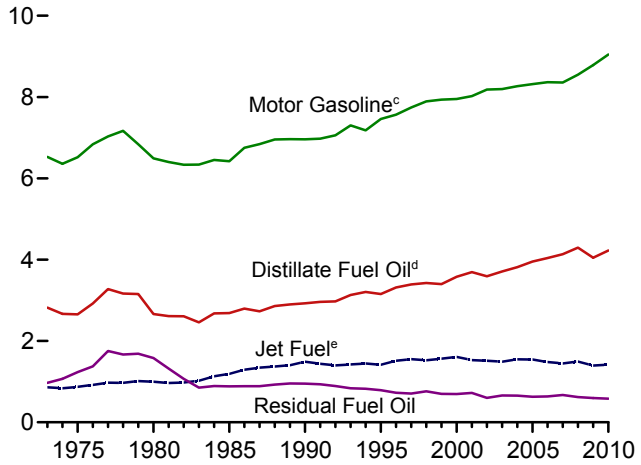
Net Inputs and Net Production, 1973-2010



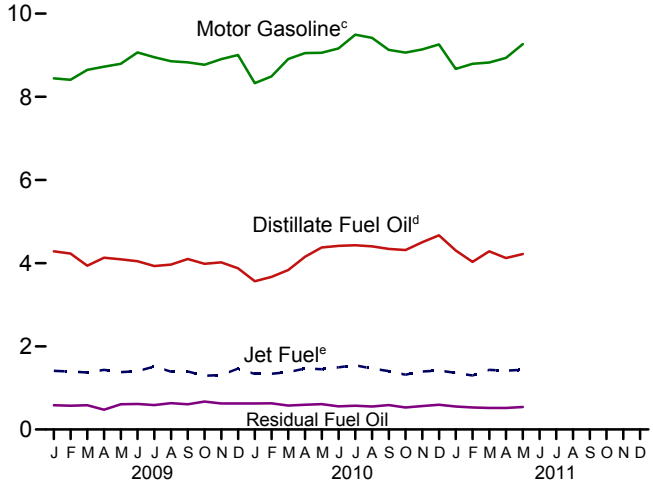
Net Inputs and Net Production, Monthly



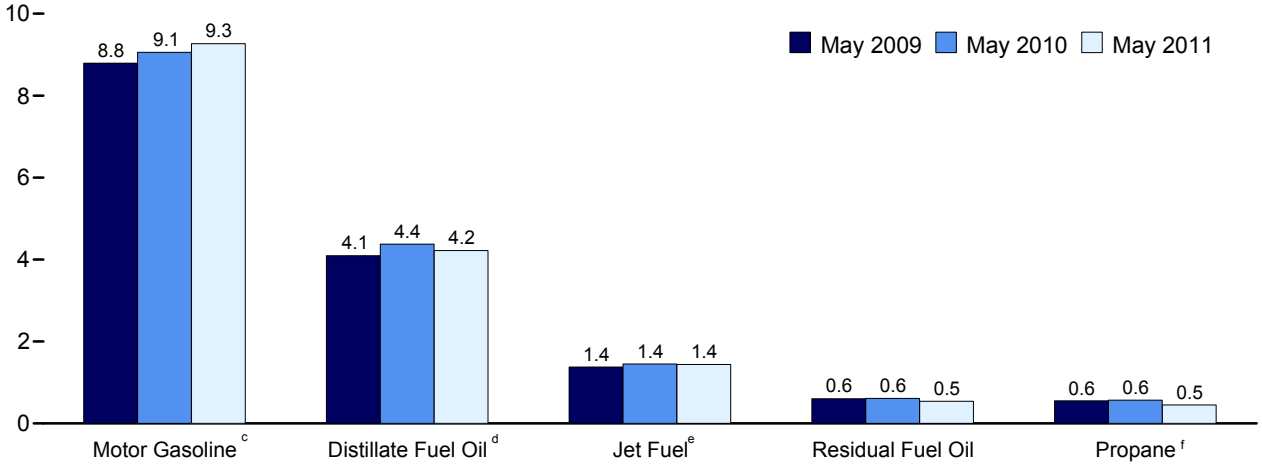
Net Production, Selected Products, 1973-2010



Net Production, Selected Products, Monthly



Net Production, Selected Products



[a] Includes lease condensate.
[b] Natural gas plant liquids and other liquids.
[c] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[d] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[e] Beginning in 2005, includes kerosene-type jet fuel only.
[f] Includes propylene.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Source: Table 3.2.

Table 3.2 Refinery and Blender Net Inputs and Net Production

(Thousand Barrels per Day)

	Refinery and Blender Net Inputs[a]				Refinery and Blender Net Production[b]							
							LPG[c]					
	Crude Oil[d]	NGPL[e]	Other Liquids[f]	Total	Distillate Fuel Oil[g]	Jet Fuel[h]	Propane[i]	Total	Motor Gasoline[j]	Residual Fuel Oil	Other Products[k]	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**
2007 Average	**15,156**	**505**	**1,337**	**16,999**	**4,133**	**1,448**	**562**	**655**	**8,358**	**673**	**2,728**	**17,994**
2008 Average	**14,648**	**485**	**2,019**	**17,153**	**4,294**	**1,493**	**519**	**630**	**8,548**	**620**	**2,561**	**18,146**
2009 January	14,146	552	1,777	16,476	4,284	1,409	479	383	8,445	585	2,321	17,426
February	14,134	493	1,883	16,509	4,231	1,391	483	471	8,408	571	2,367	17,440
March	14,118	447	2,089	16,654	3,939	1,373	519	618	8,646	583	2,407	17,566
April	14,382	416	2,264	17,062	4,132	1,432	542	782	8,724	475	2,499	18,044
May	14,483	432	2,266	17,181	4,093	1,378	554	798	8,793	605	2,488	18,155
June	14,850	429	2,323	17,602	4,047	1,404	566	847	9,068	613	2,662	18,641
July	14,636	437	2,279	17,352	3,929	1,515	554	809	8,952	586	2,546	18,337
August	14,593	404	2,218	17,214	3,965	1,389	554	838	8,856	631	2,537	18,218
September	14,710	482	1,825	17,018	4,099	1,396	559	624	8,829	604	2,493	18,045
October	14,095	545	1,933	16,573	3,984	1,291	527	476	8,770	672	2,341	17,535
November	13,898	609	2,051	16,558	4,018	1,311	550	379	8,905	624	2,264	17,502
December	13,983	580	2,066	16,629	3,877	1,465	554	442	9,006	624	2,246	17,660
Average	**14,336**	**485**	**2,082**	**16,904**	**4,048**	**1,396**	**537**	**623**	**8,786**	**598**	**2,431**	**17,882**
2010 January	13,671	497	1,482	15,650	3,563	1,339	529	465	8,327	625	2,262	16,581
February	13,967	405	1,623	15,995	3,670	1,343	562	535	8,489	630	2,392	17,060
March	14,302	397	2,161	16,860	3,833	1,377	575	710	8,910	576	2,519	17,925
April	15,120	363	2,123	17,607	4,152	1,468	585	841	9,053	593	2,525	18,631
May	15,219	385	2,282	17,886	4,375	1,449	567	840	9,059	611	2,618	18,952
June	15,389	384	2,305	18,078	4,416	1,495	572	856	9,165	556	2,665	19,152
July	15,518	373	2,570	18,461	4,431	1,543	574	859	9,493	570	2,695	19,591
August	15,110	384	2,618	18,112	4,404	1,463	552	772	9,417	551	2,603	19,208
September	14,741	441	2,299	17,481	4,341	1,404	552	613	9,128	588	2,450	18,524
October	13,999	497	2,551	17,047	4,315	1,317	526	493	9,062	528	2,333	18,047
November	14,629	530	2,221	17,380	4,503	1,394	543	389	9,142	564	2,458	18,450
December	14,962	563	2,192	17,717	4,670	1,417	572	430	9,261	595	2,547	18,920
Average	**14,722**	**435**	**2,207**	**17,364**	**4,226**	**1,418**	**559**	**651**	**9,046**	**582**	**2,506**	**18,428**
2011 January	14,446	543	1,732	16,721	4,305	1,362	560	439	8,671	552	2,459	17,788
February	13,745	517	2,229	16,491	4,032	1,298	513	490	8,793	529	2,329	17,471
March	R 14,453	R 454	R 2,183	R 17,090	R 4,284	R 1,435	R 525	R 632	R 8,824	R 519	R 2,424	R 18,117
April	E 14,067	F 422	RE 2,756	RF 17,245	E 4,122	E 1,414	RE 441	F 805	E 8,936	E 517	RE 2,475	RE 18,268
May	E 14,657	F 413	E 2,731	F 17,801	E 4,219	E 1,437	E 452	F 847	E 9,267	E 541	E 2,551	E 18,861
5-Month Average	**E 14,286**	**E 469**	**E 2,325**	**E 17,080**	**E 4,196**	**E 1,391**	**E 498**	**E 645**	**E 8,900**	**E 532**	**E 2,450**	**E 18,113**
2010 5-Month Average	**14,461**	**410**	**1,939**	**16,810**	**3,922**	**1,396**	**564**	**680**	**8,771**	**607**	**2,464**	**17,840**
2009 5-Month Average	**14,254**	**468**	**2,058**	**16,780**	**4,134**	**1,397**	**516**	**612**	**8,606**	**564**	**2,417**	**17,730**

[a] See "Refinery and Blender Net Inputs," in Glossary.
[b] See "Refinery and Blender Net Production," in Glossary.
[c] Liquefied petroleum gases.
[d] Includes lease condensate.
[e] Natural gas plant liquids (liquefied petroleum gases and pentanes plus).
[f] 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).
[g] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[h] 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."
[i] Includes propylene.
[j] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
[k] 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.

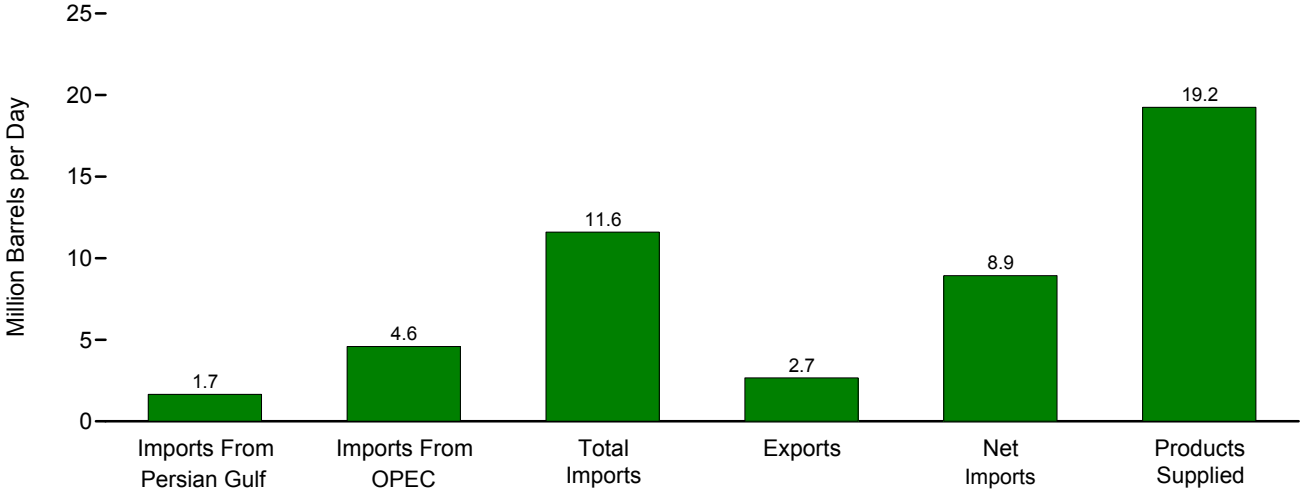
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see http://www.eia.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

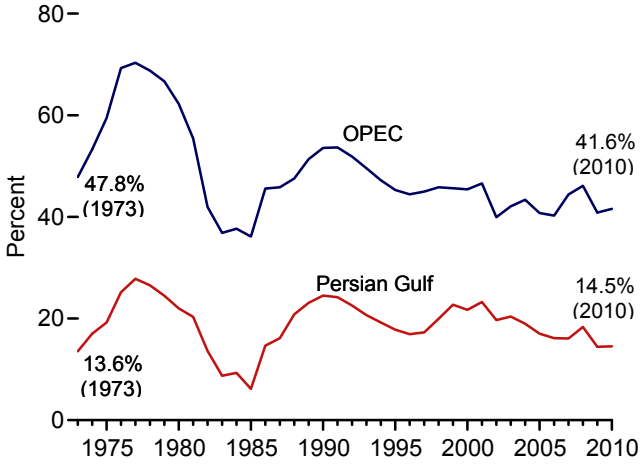
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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

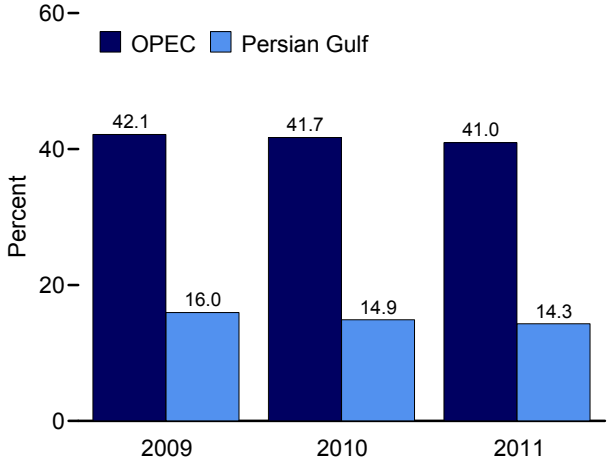
Overview, March 2011



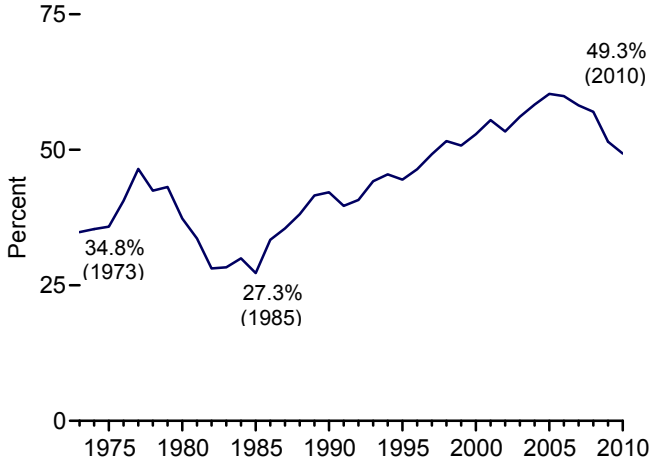
Imports From OPEC and Persian Gulf as Share of Total Imports, 1973-2010



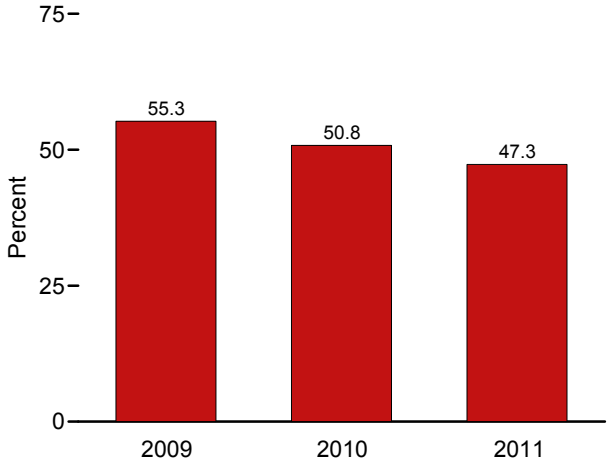
Imports From OPEC and Persian Gulf as Share of Total Imports, January-March



Net Imports as Share of Products Supplied, 1973-2010



Net Imports as Share of Products Supplied, January-May



Note: OPEC=Organization of the Petroleum Exporting Countries.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Source: Table 3.3a.

Table 3.3a Petroleum Trade: Overview

	Imports From Persian Gulf[a]	Imports From OPEC[b]	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied: Imports From Persian Gulf[a]	As Share of Products Supplied: Imports From OPEC[b]	As Share of Products Supplied: Imports	As Share of Products Supplied: Net Imports	As Share of Total Imports: Imports From Persian Gulf[a]	As Share of Total Imports: Imports From OPEC[b]
	Thousand Barrels per Day						Percent					
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 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 Average	**2,370**	**5,954**	**12,915**	**1,802**	**11,114**	**19,498**	**12.2**	**30.5**	**66.2**	**57.0**	**18.4**	**46.1**
2009 January	2,218	5,689	13,127	1,922	11,205	19,040	11.6	29.9	68.9	58.9	16.9	43.3
February	1,974	4,958	12,095	1,808	10,287	18,822	10.5	26.3	64.3	54.7	16.3	41.0
March	1,823	5,212	12,446	1,838	10,609	18,719	9.7	27.8	66.5	56.7	14.6	41.9
April	1,735	4,803	11,962	1,900	10,061	18,672	9.3	25.7	64.1	53.9	14.5	40.2
May	1,548	4,372	11,477	2,015	9,461	18,211	8.5	24.0	63.0	52.0	13.5	38.1
June	1,602	4,825	11,936	1,963	9,973	18,828	8.5	25.6	63.4	53.0	13.4	40.4
July	1,730	4,554	11,830	2,348	9,482	18,626	9.3	24.4	63.5	50.9	14.6	38.5
August	1,428	4,530	11,183	2,119	9,064	18,949	7.5	23.9	59.0	47.8	12.8	40.5
September	1,718	5,052	11,756	2,105	9,651	18,594	9.2	27.2	63.2	51.9	14.6	43.0
October	1,545	4,581	10,878	2,223	8,655	18,803	8.2	24.4	57.9	46.0	14.2	42.1
November	1,606	4,585	11,105	2,029	9,076	18,753	8.6	24.5	59.2	48.4	14.5	41.3
December	1,362	4,171	10,534	1,996	8,538	19,237	7.1	21.7	54.8	44.4	12.9	39.6
Average	**1,689**	**4,776**	**11,691**	**2,024**	**9,667**	**18,771**	**9.0**	**25.4**	**62.3**	**51.5**	**14.4**	**40.9**
2010 January	1,546	4,503	11,236	1,883	9,352	18,528	8.3	24.3	60.6	50.5	13.8	40.1
February	1,666	4,587	11,148	2,012	9,136	18,860	8.8	24.3	59.1	48.4	14.9	41.1
March	1,842	5,068	11,588	2,108	9,480	19,070	9.7	26.6	60.8	49.7	15.9	43.7
April	2,026	5,414	12,508	2,389	10,119	18,910	10.7	28.6	66.1	53.5	16.2	43.3
May	1,724	5,024	12,100	2,369	9,731	18,827	9.2	26.7	64.3	51.7	14.3	41.5
June	1,972	5,263	12,339	2,273	10,066	19,314	10.2	27.2	63.9	52.1	16.0	42.7
July	1,679	5,144	12,602	2,479	10,123	19,278	8.7	26.7	65.4	52.5	13.3	40.8
August	1,663	5,083	12,341	2,368	9,973	19,692	8.4	25.8	62.7	50.6	13.5	41.2
September	1,698	5,111	11,816	2,297	9,519	19,507	8.7	26.2	60.6	48.8	14.4	43.3
October	1,479	4,294	11,126	2,434	8,692	18,939	7.8	22.7	58.7	45.9	13.3	38.6
November	1,651	4,517	11,088	2,546	8,542	19,074	8.7	23.7	58.1	44.8	14.9	40.7
December	1,564	4,614	11,109	2,572	8,537	19,758	7.9	23.4	56.2	43.2	14.1	41.5
Average	**1,708**	**4,885**	**11,753**	**2,312**	**9,440**	**19,148**	**8.9**	**25.5**	**61.4**	**49.3**	**14.5**	**41.6**
2011 January	1,719	4,872	11,954	2,687	9,266	19,121	9.0	25.5	62.5	48.5	14.4	40.8
February	1,495	4,504	10,503	2,575	7,929	18,869	7.9	23.9	55.7	42.0	14.2	42.9
March	R 1,651	R 4,588	R 11,593	R 2,660	R 8,933	R 19,248	R 8.6	R 23.8	R 60.2	R 46.4	R 14.2	R 39.6
April	NA	NA	E 11,459	E 2,247	E 9,213	E 19,050	NA	NA	E 60.2	E 48.4	NA	NA
May	NA	NA	E 11,730	E 2,196	E 9,534	E 18,803	NA	NA	E 62.4	E 50.7	NA	NA
5-Month Average	**NA**	**NA**	E **11,467**	E **2,472**	E **8,994**	E **19,021**	**NA**	**NA**	E **60.3**	E **47.3**	**NA**	**NA**
2010 5-Month Average	**1,761**	**4,922**	**11,722**	**2,153**	**9,569**	**18,838**	**9.3**	**26.1**	**62.2**	**50.8**	**15.0**	**42.0**
2009 5-Month Average	**1,858**	**5,009**	**12,225**	**1,898**	**10,327**	**18,690**	**9.9**	**26.8**	**65.4**	**55.3**	**15.2**	**41.0**

[a] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

[b] 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.

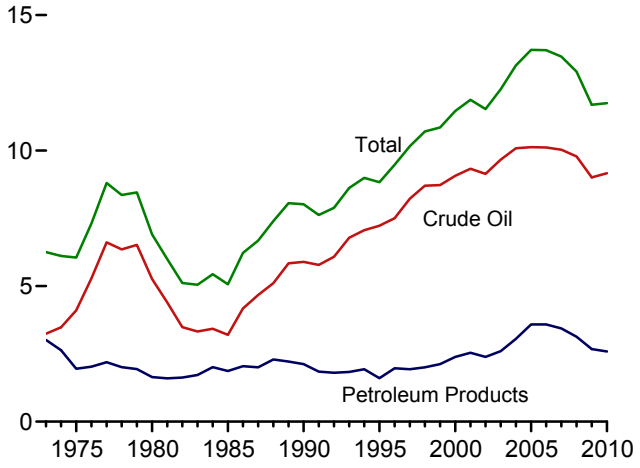
Notes: • Readers of this table may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review.* See http://www.eia.gov/totalenergy/data/monthly/pdf/historical/imported_oil.pdf. • Beginning in October 1977, data include Strategic 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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

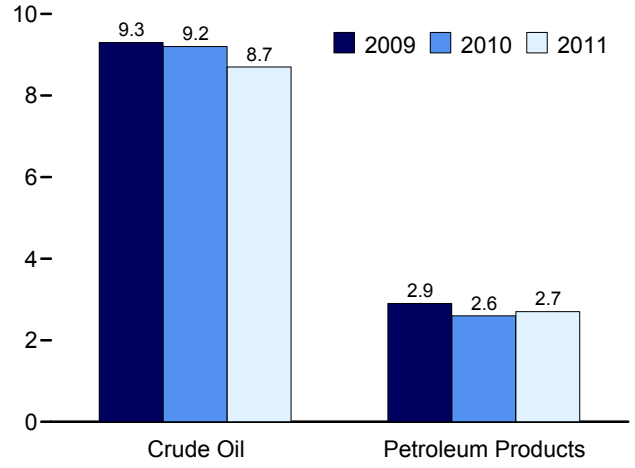
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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)

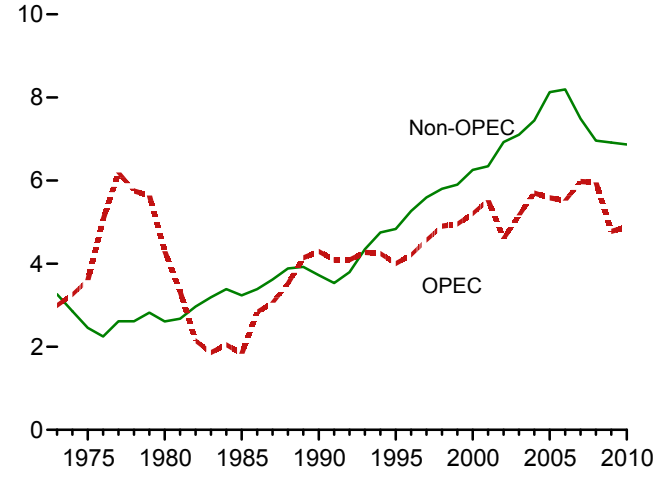
Total, 1973-2010



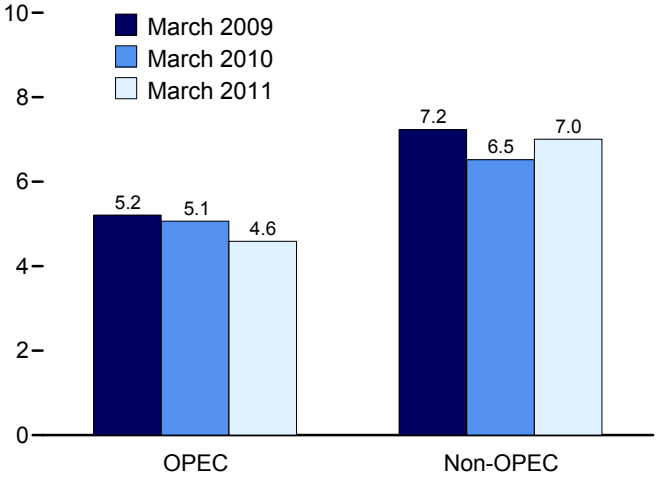
Crude Oil and Petroleum Products, January-May



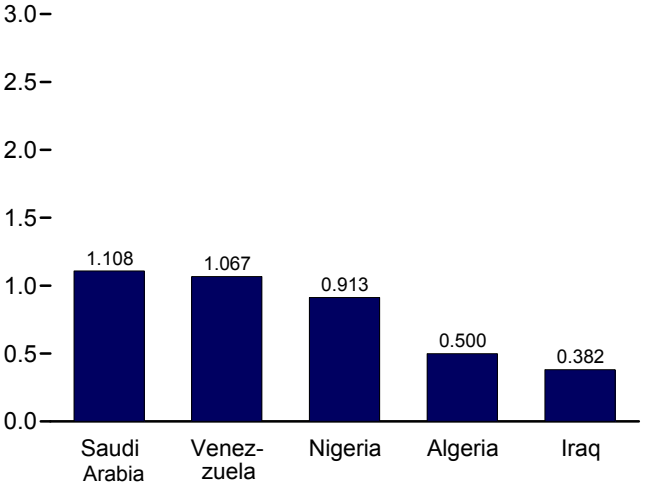
OPEC and Non-OPEC, 1973-2010



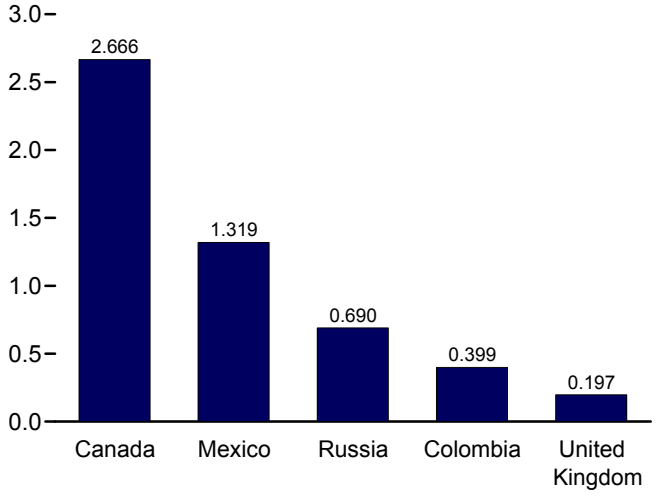
OPEC and Non-OPEC



From Selected OPEC Countries, March 2011



From Selected Non-OPEC Countries, March 2011



Note: OPEC=Organization of the Petroleum Exporting Countries.
Web Page: http http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Sources: Tables 3.3b–3.3d.

Table 3.3b Petroleum Trade: Imports and Exports by Type

(Thousand Barrels per Day)

	Imports										Exports		
	Crude Oil[a]		Distillate Fuel Oil	Jet Fuel[e]	LPG[b]		Motor Gasoline[g]	Residual Fuel Oil	Other[h]	Total	Crude Oil[a]	Petroleum Products	Total
	SPR[c,d]	Total			Propane[f]	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**
2007 Average	**7**	**10,031**	**304**	**217**	**182**	**247**	**413**	**372**	**1,885**	**13,468**	**27**	**1,405**	**1,433**
2008 Average	**19**	**9,783**	**213**	**103**	**185**	**253**	**302**	**349**	**1,913**	**12,915**	**29**	**1,773**	**1,802**
2009 January	33	9,779	368	89	223	253	236	424	1,978	13,127	36	1,885	1,922
February	34	9,074	327	71	207	234	263	349	1,776	12,095	30	1,778	1,808
March	221	9,378	269	92	218	249	274	381	1,804	12,446	30	1,807	1,838
April	154	9,374	166	90	124	164	227	396	1,545	11,962	27	1,874	1,900
May	52	8,797	206	66	105	172	244	341	1,650	11,477	53	1,962	2,015
June	77	9,135	245	65	70	98	218	363	1,812	11,936	57	1,906	1,963
July	–	9,094	191	102	100	128	230	268	1,818	11,830	31	2,317	2,348
August	16	8,814	166	92	63	105	304	256	1,446	11,183	35	2,084	2,119
September	32	9,254	205	91	95	124	142	309	1,631	11,756	42	2,063	2,105
October	–	8,566	177	84	145	182	161	303	1,404	10,878	72	2,151	2,223
November	35	8,740	164	71	206	238	149	282	1,462	11,105	46	1,983	2,029
December	16	8,170	224	55	212	241	232	307	1,305	10,534	65	1,931	1,996
Average	**56**	**9,013**	**225**	**81**	**147**	**182**	**223**	**331**	**1,635**	**11,691**	**44**	**1,980**	**2,024**
2010 January	–	8,454	429	150	191	216	179	373	1,433	11,236	33	1,851	1,883
February	–	8,680	293	75	216	234	196	378	1,291	11,148	58	1,954	2,012
March	–	9,292	179	74	136	149	120	395	1,378	11,588	45	2,063	2,108
April	–	9,741	201	74	78	101	178	474	1,739	12,508	37	2,352	2,389
May	–	9,622	191	63	81	108	107	404	1,606	12,100	36	2,333	2,369
June	–	9,872	237	79	69	109	163	279	1,599	12,339	31	2,242	2,273
July	–	9,890	166	76	55	103	114	400	1,851	12,602	69	2,410	2,479
August	–	9,486	236	103	62	106	129	329	1,952	12,341	36	2,332	2,368
September	–	9,168	189	117	84	123	130	418	1,671	11,816	61	2,235	2,297
October	–	8,489	163	94	131	163	86	363	1,768	11,126	23	2,410	2,434
November	–	8,608	178	101	131	164	128	419	1,491	11,088	32	2,515	2,546
December	–	8,631	219	73	213	229	99	358	1,501	11,109	40	2,532	2,572
Average	**–**	**9,163**	**223**	**90**	**120**	**150**	**135**	**382**	**1,609**	**11,753**	**42**	**2,271**	**2,312**
2011 January	–	9,069	326	65	172	204	103	456	1,733	11,954	72	2,616	2,687
February	–	8,013	206	68	172	199	119	428	1,471	10,503	30	2,544	2,575
March	R –	R 9,033	R 190	R 65	R 136	R 165	R 135	R 468	R 1,538	R 11,593	R 36	R 2,623	R 2,660
April	NA	E 8,710	E 177	E 82	E 77	NA	E 159	E 446	NA	E 11,459	E 34	E 2,213	E 2,247
May	NA	E 8,748	E 124	E 76	E 82	NA	E 111	E 358	NA	E 11,730	E 34	E 2,162	E 2,196
5-Month Average	**NA**	**E 8,729**	**E 205**	**E 71**	**E 127**	**NA**	**E 125**	**E 431**	**NA**	**E 11,467**	**E 42**	**E 2,431**	**E 2,472**
2010 5-Month Average	**–**	**9,163**	**258**	**88**	**139**	**161**	**155**	**405**	**1,492**	**11,722**	**41**	**2,112**	**2,153**
2009 5-Month Average	**100**	**9,284**	**267**	**82**	**175**	**214**	**249**	**379**	**1,752**	**12,225**	**35**	**1,863**	**1,898**

[a] Includes lease condensate.
[b] Liquefied petroleum gases.
[c] "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.
[d] See Note 6, "Petroleum Data Discrepancies," at end of section.
[e] 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."
[f] Includes propylene.
[g] Finished motor gasoline. Through 1980, also includes motor gasoline blending components.
[h] 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.

R=Revised. E=Estimate. NA=Not available. – – =Not applicable. – =No data reported.

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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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[a]	Ecuador[b]	Iraq	Kuwait[c]	Libya	Nigeria	Saudi Arabia[c]	Vene-zuela	Other[d]	Total OPEC
1973 Average	**136**	**(a)**	**48**	**4**	**47**	**164**	**459**	**486**	**1,135**	**514**	**2,993**
1975 Average	**282**	**(a)**	**57**	**2**	**16**	**232**	**762**	**715**	**702**	**832**	**3,601**
1980 Average	**488**	**(a)**	**27**	**28**	**27**	**554**	**857**	**1,261**	**481**	**577**	**4,300**
1985 Average	**187**	**(a)**	**67**	**46**	**21**	**4**	**293**	**168**	**605**	**439**	**1,830**
1990 Average	**280**	**(a)**	**49**	**518**	**86**	**0**	**800**	**1,339**	**1,025**	**199**	**4,296**
1995 Average	**234**	**(a)**	**(b)**	**0**	**218**	**0**	**627**	**1,344**	**1,480**	**98**	**4,002**
1996 Average	**256**	**(a)**	**(b)**	**1**	**236**	**0**	**617**	**1,363**	**1,676**	**62**	**4,211**
1997 Average	**285**	**(a)**	**(b)**	**89**	**253**	**0**	**698**	**1,407**	**1,773**	**64**	**4,569**
1998 Average	**290**	**(a)**	**(b)**	**336**	**301**	**0**	**696**	**1,491**	**1,719**	**73**	**4,905**
1999 Average	**259**	**(a)**	**(b)**	**725**	**248**	**0**	**657**	**1,478**	**1,493**	**93**	**4,953**
2000 Average	**225**	**(a)**	**(b)**	**620**	**272**	**0**	**896**	**1,572**	**1,546**	**72**	**5,203**
2001 Average	**278**	**(a)**	**(b)**	**795**	**250**	**0**	**885**	**1,662**	**1,553**	**105**	**5,528**
2002 Average	**264**	**(a)**	**(b)**	**459**	**228**	**0**	**621**	**1,552**	**1,398**	**83**	**4,605**
2003 Average	**382**	**(a)**	**(b)**	**481**	**220**	**0**	**867**	**1,774**	**1,376**	**61**	**5,162**
2004 Average	**452**	**(a)**	**(b)**	**656**	**250**	**20**	**1,140**	**1,558**	**1,554**	**70**	**5,701**
2005 Average	**478**	**(a)**	**(b)**	**531**	**243**	**56**	**1,166**	**1,537**	**1,529**	**47**	**5,587**
2006 Average	**657**	**(a)**	**(b)**	**553**	**185**	**87**	**1,114**	**1,463**	**1,419**	**38**	**5,517**
2007 Average	**670**	**508**	**(b)**	**484**	**181**	**117**	**1,134**	**1,485**	**1,361**	**39**	**5,980**
2008 Average	**548**	**513**	**221**	**627**	**210**	**103**	**988**	**1,529**	**1,189**	**26**	**5,954**
2009 January	720	541	278	568	242	64	524	1,362	1,353	38	5,689
February	375	671	243	554	251	60	496	1,118	1,139	51	4,958
March	463	653	215	587	181	61	891	967	1,106	88	5,212
April	626	462	237	484	105	118	733	1,057	891	90	4,803
May	272	505	193	295	106	99	626	1,102	1,141	33	4,372
June	433	447	154	390	179	103	830	959	1,256	75	4,825
July	383	320	198	321	187	69	879	1,046	976	176	4,554
August	551	364	131	500	148	68	917	729	1,070	51	4,530
September	655	414	153	428	246	54	912	1,045	1,146	–	5,052
October	491	450	180	499	104	91	869	943	955	–	4,581
November	400	431	155	461	287	140	980	858	874	–	4,585
December	544	278	86	325	160	23	1,029	877	849	–	4,171
Average	**493**	**460**	**185**	**450**	**182**	**79**	**809**	**1,004**	**1,063**	**50**	**4,776**
2010 January	498	280	215	506	77	40	1,013	963	911	–	4,503
February	461	326	152	540	228	40	932	898	1,009	–	4,587
March	455	502	183	475	218	63	962	1,149	1,061	–	5,068
April	464	508	179	490	278	163	1,125	1,257	950	–	5,414
May	518	448	160	394	225	39	1,026	1,097	1,109	10	5,024
June	550	425	211	630	217	98	1,108	1,125	899	–	5,263
July	518	374	205	430	189	110	1,174	1,053	1,084	7	5,144
August	565	484	242	281	251	123	985	1,132	1,022	–	5,083
September	543	417	229	422	172	43	1,174	1,093	1,008	10	5,111
October	451	324	203	143	215	36	872	1,121	930	–	4,294
November	572	276	194	340	170	23	860	1,141	942	–	4,517
December	484	319	192	336	125	66	1,070	1,087	917	16	4,614
Average	**507**	**390**	**197**	**414**	**197**	**70**	**1,025**	**1,094**	**987**	**4**	**4,885**
2011 January	565	316	178	470	147	57	1,007	1,102	1,030	–	4,872
February	394	370	242	263	118	35	978	1,114	989	–	4,504
March	500	280	146	382	161	31	913	1,108	1,067	–	4,588
3-Month Average	**489**	**320**	**187**	**375**	**143**	**41**	**966**	**1,108**	**1,030**	**–**	**4,660**
2010 3-Month Average	**472**	**371**	**184**	**506**	**173**	**48**	**970**	**1,007**	**993**	**–**	**4,723**
2009 3-Month Average	**524**	**620**	**245**	**570**	**224**	**62**	**642**	**1,150**	**1,201**	**59**	**5,297**

[a] Angola joined OPEC in January 2007. For 1973-2006, Angola is included in "Total Non-OPEC" on Table 3.3d.

[b] 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.

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

[d] For all years, includes Iran, Qatar, and United Arab Emirates. For 1973-2008, also includes Indonesia; and for 1975-1994, also includes Gabon.

– =No data reported.

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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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[a]	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 Average	**200**	**2,455**	**155**	**1,532**	**128**	**142**	**414**	**277**	**346**	**1,839**	**7,489**
2008 Average	**258**	**2,493**	**200**	**1,302**	**168**	**102**	**465**	**236**	**320**	**1,416**	**6,961**
2009 January	450	2,549	269	1,377	127	90	516	148	367	1,545	7,438
February	381	2,529	241	1,364	189	74	472	281	337	1,269	7,137
March	338	2,446	283	1,199	141	179	642	208	264	1,534	7,235
April	278	2,287	347	1,289	117	112	759	401	290	1,278	7,158
May	386	2,215	243	1,186	150	179	809	250	313	1,373	7,105
June	299	2,538	313	1,190	157	173	618	268	276	1,279	7,111
July	408	2,664	289	1,076	118	101	758	203	273	1,387	7,276
August	275	2,523	269	1,159	160	52	505	225	223	1,263	6,653
September	268	2,358	301	1,271	122	59	486	295	280	1,263	6,703
October	174	2,367	292	1,136	84	97	385	278	215	1,268	6,297
November	268	2,565	237	1,084	227	110	415	190	205	1,219	6,520
December	184	2,710	231	1,204	99	65	385	199	289	998	6,363
Average	**309**	**2,479**	**276**	**1,210**	**140**	**108**	**563**	**245**	**277**	**1,307**	**6,915**
2010 January	353	2,593	322	1,131	116	126	463	282	308	1,039	6,733
February	226	2,490	386	1,134	126	99	423	413	187	1,077	6,562
March	302	2,517	251	1,265	136	59	488	267	228	1,008	6,520
April	307	2,486	423	1,276	92	166	587	304	316	1,137	7,093
May	320	2,527	315	1,428	108	119	719	176	193	1,172	7,076
June	308	2,711	407	1,208	87	52	760	269	244	1,030	7,076
July	332	2,534	404	1,289	211	119	719	351	239	1,258	7,457
August	251	2,483	372	1,282	135	57	786	266	339	1,286	7,258
September	181	2,475	363	1,256	45	62	648	178	302	1,195	6,705
October	169	2,345	422	1,345	107	111	655	152	270	1,256	6,832
November	198	2,510	492	1,363	57	79	553	187	234	896	6,571
December	295	2,713	231	1,365	71	26	514	236	191	855	6,495
Average	**271**	**2,532**	**365**	**1,280**	**108**	**89**	**611**	**256**	**255**	**1,101**	**6,867**
2011 January	274	2,826	332	1,366	101	85	531	155	276	1,136	7,082
February	177	2,831	211	1,104	129	69	437	110	182	749	5,999
March	161	2,666	399	1,319	91	156	690	197	149	1,177	7,005
3-Month Average	**205**	**2,773**	**318**	**1,269**	**106**	**104**	**556**	**155**	**203**	**1,030**	**6,719**
2010 3-Month Average	**296**	**2,535**	**318**	**1,178**	**126**	**94**	**459**	**318**	**243**	**1,040**	**6,606**
2009 3-Month Average	**390**	**2,507**	**265**	**1,312**	**151**	**116**	**546**	**210**	**322**	**1,455**	**7,274**

[a] 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.

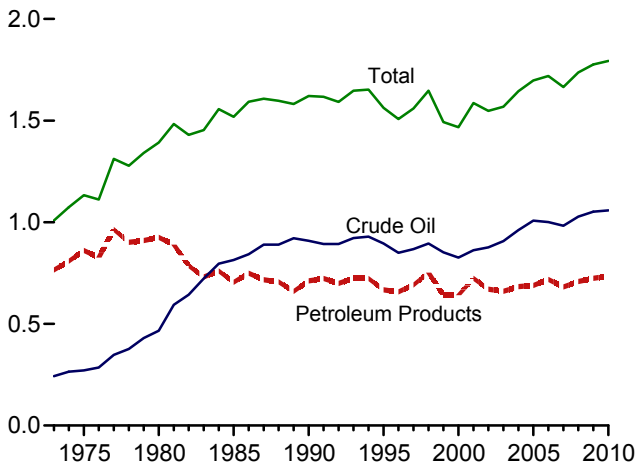
Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary for membership. Petroleum imports not classified as "OPEC" on Table 3.3c are included on this table. • The country of origin for petroleum products may not be the country of origin for the crude oil from which the products 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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

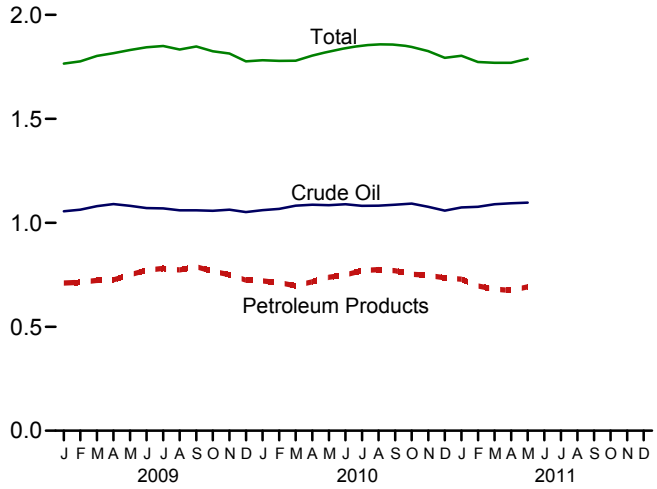
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** EIA, *Petroleum Supply Monthly,* monthly reports.

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

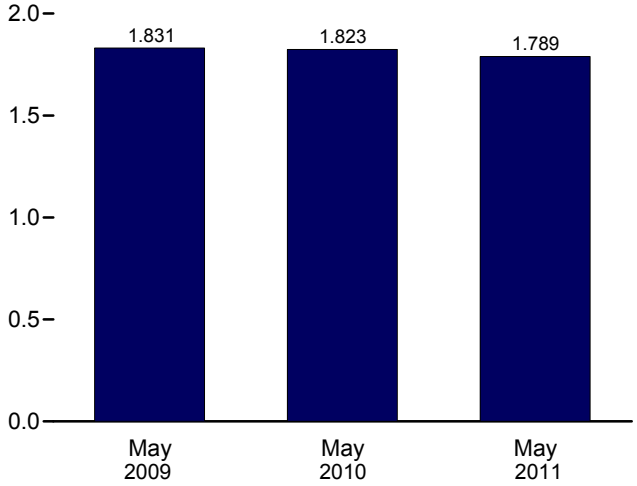
Overview, 1973-2010



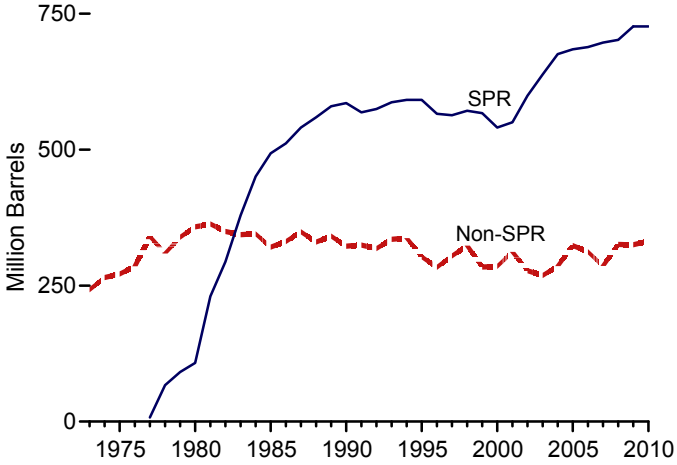
Overview, Monthly



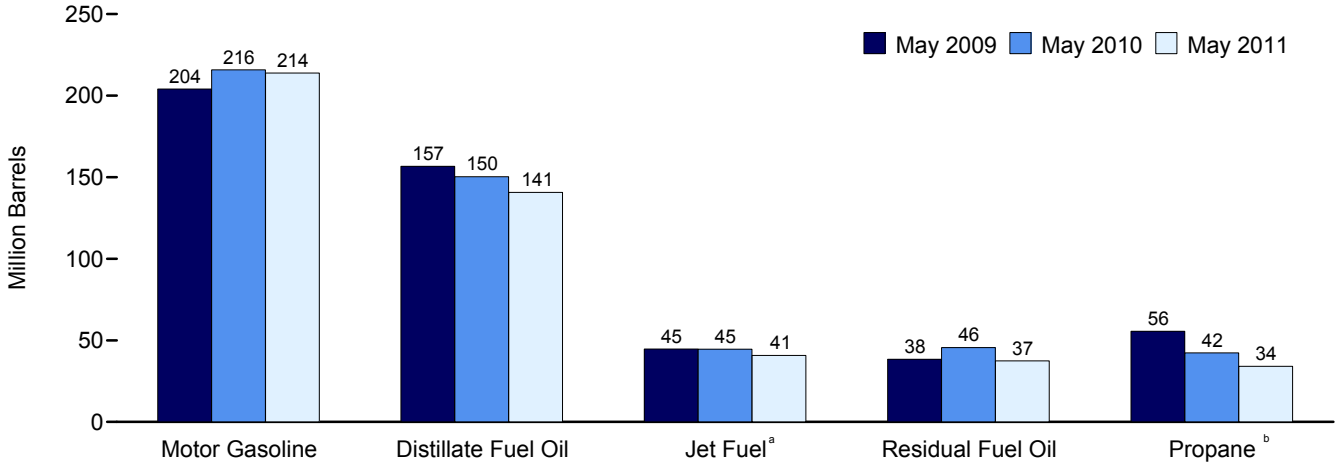
Total Stocks (Crude Oil and Petroleum Products)



SPR and Non-SPR Crude Oil Stocks, 1973-2010



Selected Products



[a] Includes kerosene-type jet fuel only.
[b] Includes propylene.
Notes: • SPR= Strategic Petroleum Reserve. • Stocks are at end of period.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Source: Table 3.4.

Table 3.4 Petroleum Stocks

(Million Barrels)

	Crude Oil[a]			Distillate Fuel Oil[f,g]	Jet Fuel[h]	LPG[b]		Motor Gasoline[f,j]	Residual Fuel Oil[f]	Other[k]	Total[f]
	SPR[c]	Non-SPR[d,e,f]	Total[e,f]			Propane[f,i]	Total[f]				
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**
2007 Year	**697**	**286**	**983**	**134**	**39**	**52**	**96**	**218**	**39**	**156**	**1,665**
2008 Year	**702**	**326**	**1,028**	**146**	**38**	**55**	**113**	**214**	**36**	**162**	**1,737**
2009 January	704	351	1,055	144	41	46	98	220	34	174	1,766
February	706	358	1,063	148	43	40	89	216	38	178	1,777
March	713	367	1,080	145	43	40	91	217	38	188	1,803
April	719	371	1,090	150	44	45	100	211	34	187	1,816
May	722	360	1,081	157	45	56	117	204	38	189	1,831
June	724	347	1,071	163	45	64	133	214	37	182	1,844
July	724	345	1,070	166	47	70	145	212	35	175	1,850
August	724	336	1,060	169	46	71	153	208	33	165	1,834
September	725	335	1,060	173	46	75	156	214	35	164	1,848
October	725	333	1,058	171	44	72	146	211	35	161	1,825
November	726	337	1,063	171	42	63	123	220	36	158	1,814
December	**727**	**325**	**1,052**	**166**	**43**	**50**	**102**	**223**	**37**	**153**	**1,776**
2010 January	727	334	1,061	163	44	35	80	232	40	162	1,781
February	727	340	1,067	155	44	28	70	233	41	169	1,779
March	727	355	1,082	146	42	28	73	224	41	172	1,779
April	727	361	1,087	145	44	35	89	220	43	176	1,804
May	727	358	1,085	150	45	42	106	216	46	176	1,823
June	727	363	1,089	158	45	51	122	215	42	168	1,839
July	727	355	1,082	166	47	55	132	220	41	164	1,853
August	727	355	1,082	170	47	59	140	221	39	158	1,857
September	727	360	1,087	167	47	61	141	219	40	156	1,857
October	727	366	1,092	162	44	62	139	210	41	158	1,846
November	727	351	1,077	162	44	61	132	213	41	158	1,826
December	**727**	**332**	**1,059**	**164**	**43**	**49**	**109**	**219**	**41**	**158**	**1,794**
2011 January	727	347	1,074	162	41	35	85	235	39	166	1,803
February	727	350	1,077	154	39	26	71	229	35	168	1,773
March	727	R 363	R 1,089	R 149	R 40	R 24	R 69	R 215	37	R 171	R 1,770
April	E 727	E 368	E 1,094	E 145	E 40	E 28	E 89	E 205	E 38	E 159	E 1,769
May	E 727	E 370	E 1,097	E 141	E 41	E 34	E 101	E 214	E 37	E 158	E 1,789

[a] Includes lease condensate.
[b] Liquefied petroleum gases.
[c] "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.
[d] All crude oil stocks other than those in "SPR."
[e] Beginning in 1981, includes stocks of Alaskan crude oil in transit. See Note 5, "Stocks of Alaskan Crude Oil," at end of section.
[f] See Note 4, "Petroleum New Stock Basis," at end of section.
[g] Excludes stocks in the Northeast Heating Oil Reserve. Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[h] 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."
[i] Includes propylene.
[j] Includes finished motor gasoline and motor gasoline blending components; excludes oxygenates.
[k] 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.

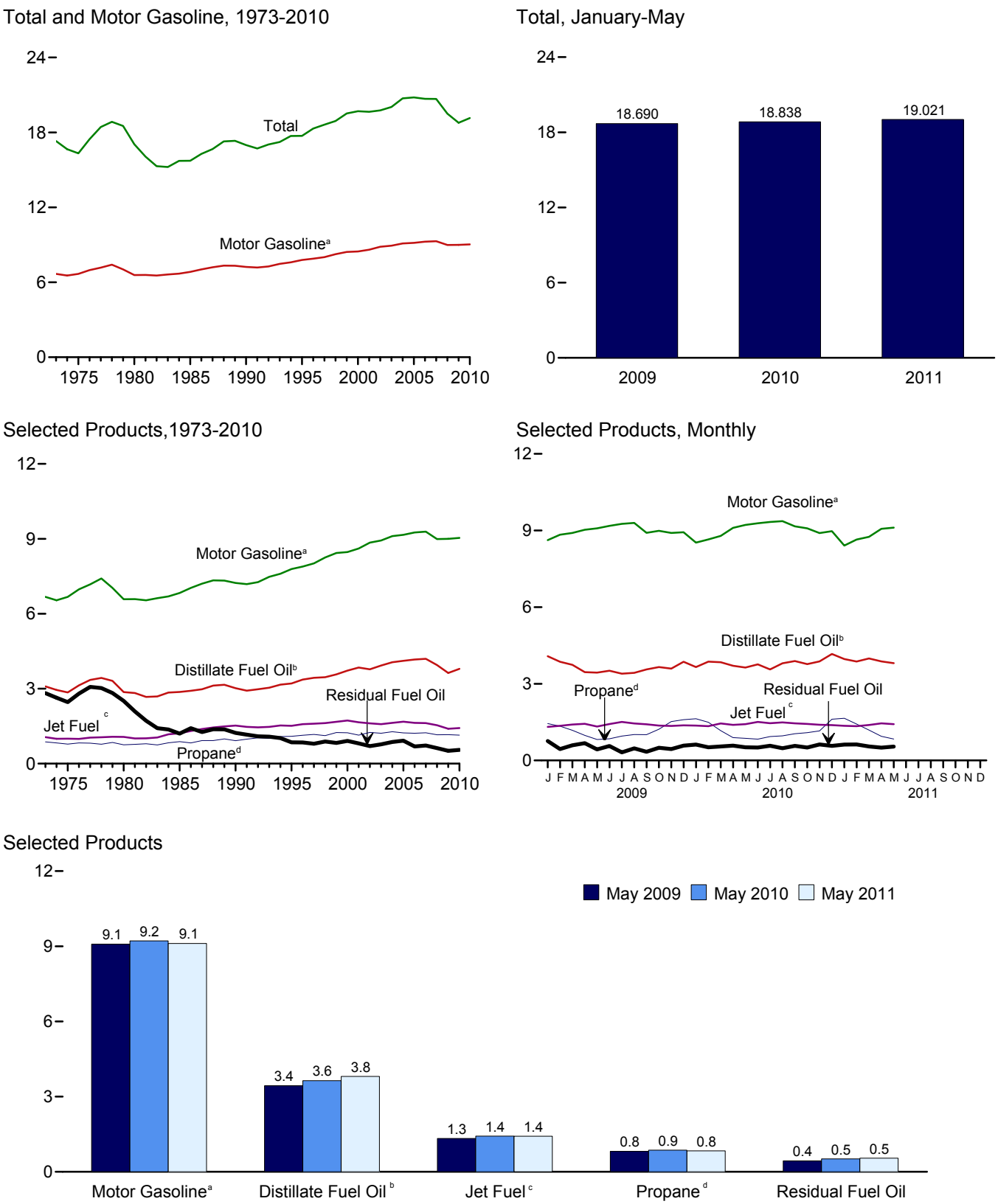
R=Revised. E=Estimate. – –=Not applicable.

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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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 3.5 Petroleum Products Supplied by Type
(Million Barrels per Day)



[a] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[b] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[c] Beginning in 2005, includes kerosene-type jet fuel only.
[d] Includes propylene.
Note: SPR= Strategic Petroleum Reserve.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
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[b]	Jet Fuel[c]	Kero-sene	LPG[a]		Lubri-cants	Motor Gasoline[e]	Petro-leum Coke	Residual Fuel Oil	Other[f]	Total
						Propane[d]	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 Average	**494**	**17**	**4,196**	**1,622**	**32**	**1,235**	**2,085**	**142**	**9,286**	**490**	**723**	**1,593**	**20,680**
2008 Average	**417**	**15**	**3,945**	**1,539**	**14**	**1,154**	**1,954**	**131**	**8,989**	**464**	**622**	**1,408**	**19,498**
2009 January	195	13	4,079	1,312	44	1,444	2,094	120	8,623	426	760	1,373	19,040
February	277	10	3,864	1,356	40	1,341	2,139	96	8,836	425	448	1,330	18,822
March	300	14	3,744	1,406	16	1,181	2,043	112	8,903	420	591	1,170	18,719
April	299	15	3,455	1,432	14	981	1,906	125	9,029	498	677	1,222	18,672
May	371	13	3,436	1,329	14	818	1,774	101	9,084	501	433	1,154	18,211
June	512	18	3,513	1,425	11	849	1,731	124	9,180	536	566	1,213	18,828
July	495	19	3,395	1,506	1	955	1,807	122	9,260	369	319	1,333	18,626
August	542	15	3,426	1,449	6	1,012	1,956	138	9,295	407	472	1,244	18,949
September	461	19	3,560	1,414	-4	1,009	1,929	124	8,911	470	340	1,372	18,594
October	377	11	3,654	1,362	21	1,219	2,208	123	8,986	329	495	1,236	18,803
November	287	10	3,596	1,352	22	1,523	2,531	117	8,906	356	445	1,132	18,753
December	204	15	3,861	1,372	26	1,597	2,504	114	8,931	385	582	1,241	19,237
Average	**360**	**14**	**3,631**	**1,393**	**18**	**1,160**	**2,051**	**118**	**8,997**	**427**	**511**	**1,251**	**18,771**
2010 January	213	11	3,656	1,365	16	1,630	2,545	106	8,525	266	622	1,204	18,528
February	249	10	3,866	1,342	35	1,495	2,450	125	8,651	334	513	1,285	18,860
March	272	14	3,842	1,446	12	1,168	2,153	138	8,787	428	545	1,432	19,070
April	335	17	3,707	1,391	8	894	1,774	127	9,103	387	578	1,484	18,910
May	389	15	3,635	1,422	11	865	1,800	140	9,217	339	514	1,345	18,827
June	481	18	3,759	1,507	12	832	1,812	160	9,284	411	505	1,367	19,314
July	467	20	3,561	1,458	16	933	1,943	142	9,332	381	574	1,384	19,278
August	543	14	3,800	1,487	9	964	1,993	131	9,366	432	479	1,438	19,692
September	462	20	3,890	1,451	9	1,046	2,049	135	9,163	433	570	1,325	19,507
October	427	15	3,769	1,429	15	1,085	2,027	128	9,086	334	506	1,203	18,939
November	297	11	3,877	1,397	46	1,154	2,089	124	8,901	389	625	1,317	19,074
December	200	12	4,169	1,383	49	1,615	2,621	112	8,972	372	571	1,296	19,758
Average	**362**	**15**	**3,794**	**1,424**	**20**	**1,139**	**2,104**	**130**	**9,034**	**376**	**550**	**1,340**	**19,148**
2011 January	224	14	3,968	1,355	17	1,652	2,660	136	8,412	363	623	1,349	19,121
February	248	13	3,871	1,343	47	1,423	2,406	121	8,648	282	627	1,264	18,869
March	R 280	R 19	R 3,993	R 1,389	R 25	R 1,189	R 2,291	R 148	R 8,750	R 339	R 547	R 1,468	R 19,248
April	F 323	F 15	E 3,878	E 1,454	RF 9	E 946	RF 1,947	RF 130	E 9,066	F 407	E 500	RE 1,321	E 19,050
May	F 384	F 16	E 3,807	E 1,418	F 12	E 837	F 1,913	F 129	E 9,112	F 412	E 543	E 1,059	E 18,803
5-Month Average	**E 292**	**E 15**	**E 3,904**	**E 1,392**	**E 22**	**E 1,207**	**E 2,242**	**E 133**	**E 8,799**	**E 362**	**E 567**	**E 1,292**	**E 19,021**
2010 5-Month Average	**292**	**13**	**3,739**	**1,394**	**16**	**1,207**	**2,141**	**127**	**8,859**	**351**	**555**	**1,351**	**18,838**
2009 5-Month Average	**289**	**13**	**3,714**	**1,367**	**25**	**1,151**	**1,989**	**111**	**8,895**	**454**	**584**	**1,248**	**18,690**

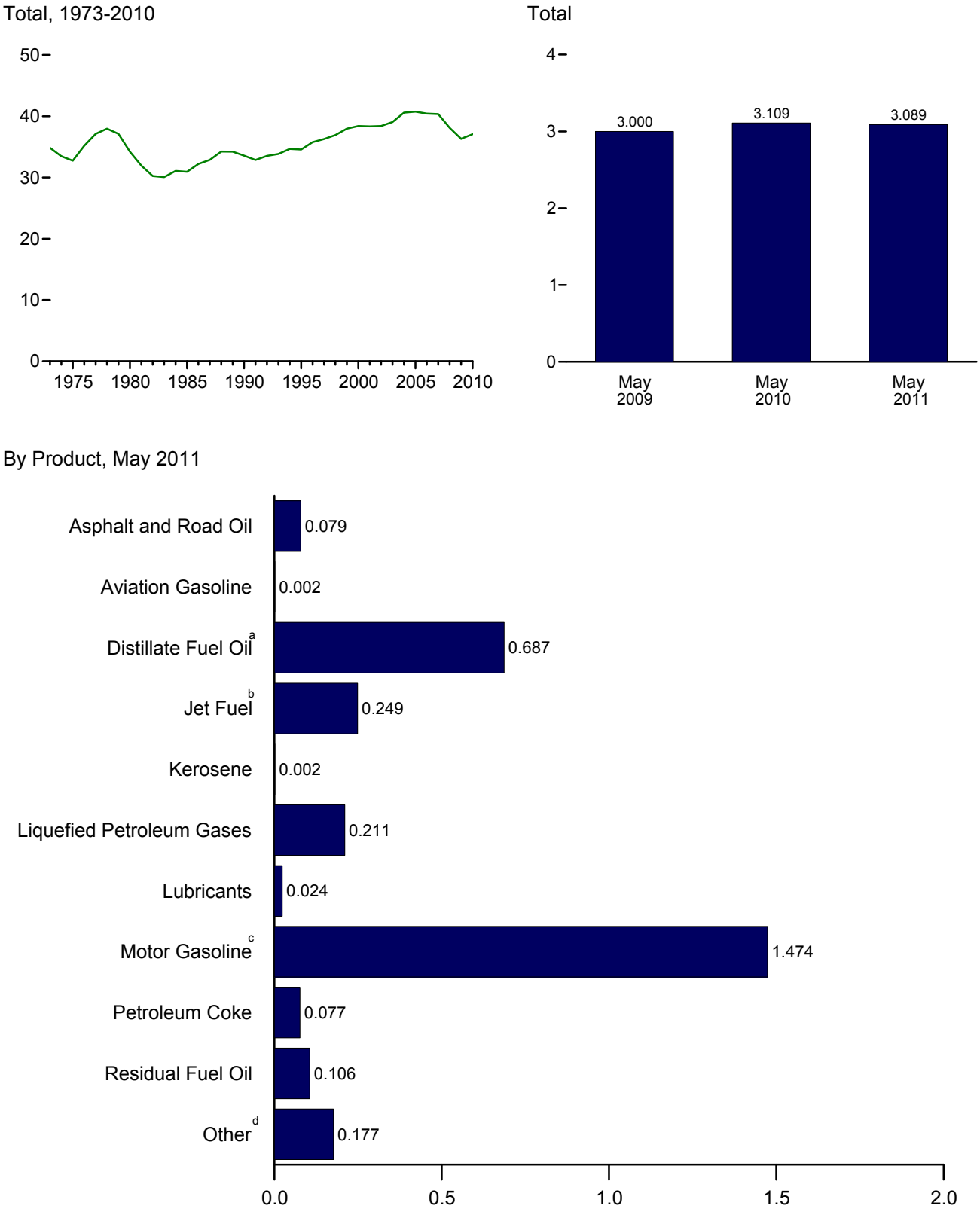
[a] Liquefied petroleum gases.
[b] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[c] Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."
[d] Includes propylene.
[e] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
[f] 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual,* annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual,* annual reports. • **1981-2009:** EIA, *Petroleum Supply Annual,* annual reports. • **2010 and 2011:** 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)



[a] Includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[b] Includes kerosene-type jet fuel only.
[c] Includes fuel ethanol blended into motor gasoline.
[d] All petroleum products not shown above.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
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[b]	Jet Fuel[c]	Kero-sene	LPG[a] Propane[d]	LPG[a] Total	Lubri-cants	Motor Gasoline[e]	Petro-leum Coke	Residual Fuel Oil	Other[f]	Total
1973 Total	**1,264**	**83**	**6,575**	**2,167**	**447**	**1,221**	**1,981**	**359**	**12,797**	**573**	**6,477**	**2,114**	**34,837**
1975 Total	**1,014**	**71**	**6,061**	**2,047**	**329**	**1,097**	**1,807**	**304**	**12,798**	**542**	**5,649**	**2,109**	**32,732**
1980 Total	**962**	**64**	**6,110**	**2,190**	**329**	**1,059**	**1,976**	**354**	**12,648**	**522**	**5,772**	**3,278**	**34,205**
1985 Total	**1,029**	**50**	**6,098**	**2,497**	**236**	**1,236**	**2,103**	**322**	**13,098**	**582**	**2,759**	**2,152**	**30,925**
1990 Total	**1,170**	**45**	**6,422**	**3,129**	**88**	**1,284**	**2,059**	**362**	**13,872**	**745**	**2,820**	**2,839**	**33,552**
1995 Total	**1,178**	**40**	**6,818**	**3,132**	**112**	**1,534**	**2,512**	**346**	**14,825**	**802**	**1,955**	**2,837**	**34,556**
1996 Total	**1,176**	**37**	**7,175**	**3,274**	**128**	**1,594**	**2,660**	**335**	**15,064**	**837**	**1,952**	**3,121**	**35,759**
1997 Total	**1,224**	**40**	**7,304**	**3,308**	**136**	**1,638**	**2,690**	**354**	**15,254**	**829**	**1,828**	**3,298**	**36,265**
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**	**3,129**	**37,960**
2000 Total	**1,276**	**36**	**7,935**	**3,580**	**140**	**1,734**	**2,945**	**369**	**16,155**	**895**	**2,091**	**2,979**	**38,402**
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**	**3,040**	**38,400**
2003 Total	**1,220**	**30**	**8,349**	**3,265**	**113**	**1,701**	**2,748**	**309**	**16,981**	**1,000**	**1,772**	**3,264**	**39,051**
2004 Total	**1,304**	**31**	**8,652**	**3,383**	**133**	**1,791**	**2,824**	**313**	**17,379**	**1,156**	**1,990**	**3,428**	**40,593**
2005 Total	**1,323**	**35**	**8,755**	**3,475**	**144**	**1,721**	**2,682**	**312**	**17,444**	**1,133**	**2,111**	**3,318**	**40,732**
2006 Total	**1,261**	**33**	**8,864**	**3,379**	**111**	**1,701**	**2,700**	**303**	**17,622**	**1,148**	**1,581**	**3,416**	**40,420**
2007 Total	**1,197**	**32**	**8,921**	**3,358**	**67**	**1,729**	**2,733**	**313**	**17,689**	**1,077**	**1,659**	**3,313**	**40,358**
2008 Total	**1,012**	**28**	**8,411**	**3,193**	**30**	**1,620**	**2,574**	**291**	**17,168**	**1,022**	**1,432**	**2,941**	**38,101**
2009 January	40	2	736	231	8	172	235	23	1,395	80	148	247	3,144
February	51	1	630	215	6	144	215	16	1,291	72	79	214	2,792
March	62	2	676	247	3	140	226	21	1,440	78	115	208	3,079
April	59	2	604	244	2	113	201	23	1,413	90	128	209	2,976
May	76	2	621	234	2	97	193	19	1,469	94	84	206	3,000
June	102	3	614	242	2	98	183	23	1,437	97	107	208	3,016
July	102	3	613	265	(s)	114	198	23	1,498	69	62	236	3,069
August	111	2	619	255	1	120	215	26	1,504	76	92	220	3,121
September	92	3	622	241	-1	116	205	23	1,395	85	64	234	2,963
October	78	2	660	239	4	145	243	23	1,454	61	96	218	3,078
November	57	1	628	230	4	175	272	21	1,394	64	84	192	2,949
December	42	2	697	241	5	190	278	22	1,445	72	113	219	3,136
Total	**873**	**27**	**7,720**	**2,883**	**36**	**1,624**	**2,664**	**262**	**17,135**	**938**	**1,173**	**2,611**	**36,321**
2010 January	44	2	660	240	3	194	283	20	1,379	50	121	213	3,014
February	46	1	631	213	5	161	247	21	1,264	56	90	206	2,781
March	56	2	694	254	2	139	238	26	1,421	80	106	254	3,134
April	67	3	648	237	1	103	191	23	1,425	70	109	255	3,028
May	80	2	656	250	2	103	198	26	1,491	63	100	239	3,109
June	96	3	657	256	2	96	192	29	1,453	74	95	234	3,092
July	96	3	643	256	3	111	213	27	1,509	71	112	244	3,178
August	112	2	686	261	2	115	217	25	1,515	81	93	254	3,248
September	92	3	680	247	1	120	216	24	1,434	78	107	228	3,112
October	88	2	681	251	3	129	222	24	1,470	62	99	213	3,114
November	59	2	677	238	8	133	222	23	1,393	70	118	225	3,035
December	41	2	753	243	9	192	292	21	1,451	69	111	232	3,224
Total	**877**	**27**	**8,066**	**2,946**	**41**	**1,595**	**2,732**	**289**	**17,207**	**826**	**1,263**	**2,797**	**37,070**
2011 January	46	2	717	238	3	196	295	26	1,361	68	121	239	3,116
February	46	2	631	213	7	153	241	20	1,263	48	110	202	2,784
March	R 58	R 3	R 721	R 244	4	R 141	R 251	R 28	R 1,415	R 63	R 107	R 259	R 3,152
April	F 64	F 2	E 678	E 247	RF 2	E 109	RF 208	F 24	E 1,419	F 74	E 94	RE 217	E 3,029
May	F 79	F 2	E 687	E 249	F 2	E 100	F 211	F 24	E 1,474	F 77	E 106	E 177	E 3,089
5-Month Total	**E 293**	**E 12**	**E 3,434**	**E 1,192**	**E 19**	**E 699**	**E 1,205**	**E 122**	**E 6,933**	**E 329**	**E 538**	**E 1,095**	**E 15,170**
2010 5-Month Total	**293**	**10**	**3,289**	**1,194**	**14**	**699**	**1,158**	**116**	**6,980**	**319**	**527**	**1,167**	**15,067**
2009 5-Month Total	**289**	**10**	**3,267**	**1,170**	**22**	**666**	**1,069**	**102**	**7,009**	**413**	**554**	**1,084**	**14,989**

[a] Liquefied petroleum gases.
[b] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[c] 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."
[d] Includes propylene.
[e] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
[f] 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. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.

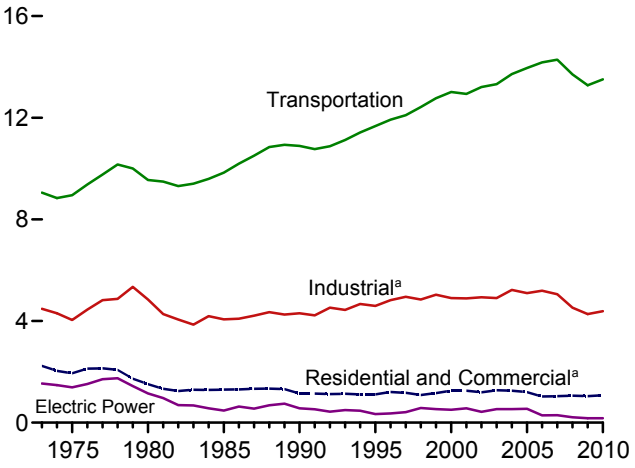
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a–3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent 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.gov/totalenergy/data/monthly/#petroleum. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

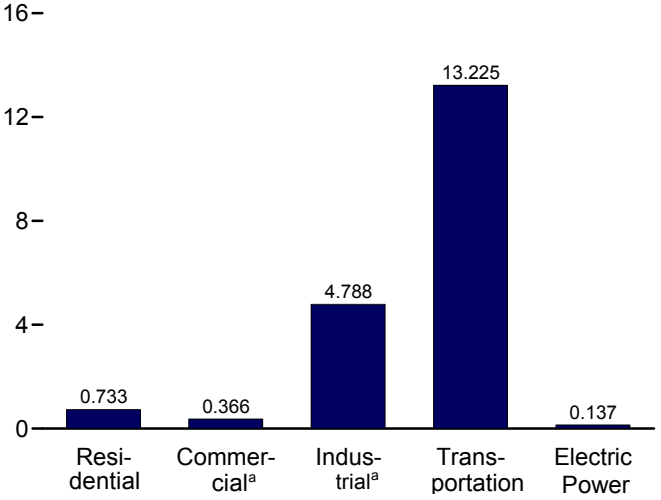
Sources: See end of section.

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

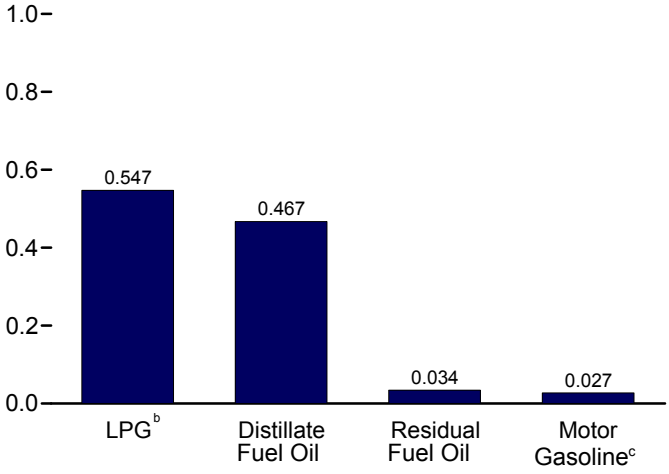
By Sector, 1973-2010



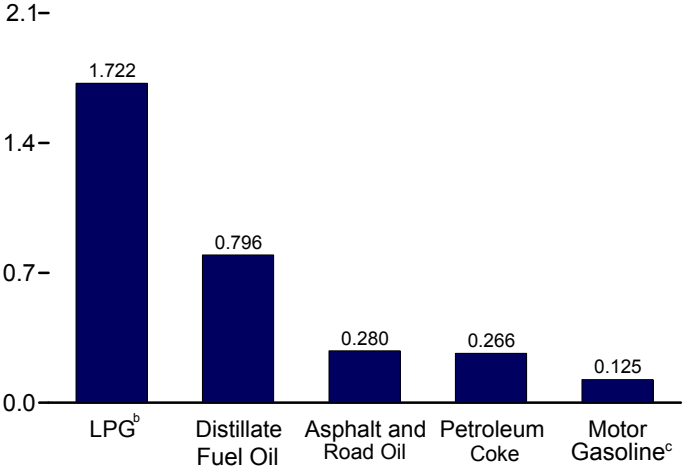
By Sector, March 2011



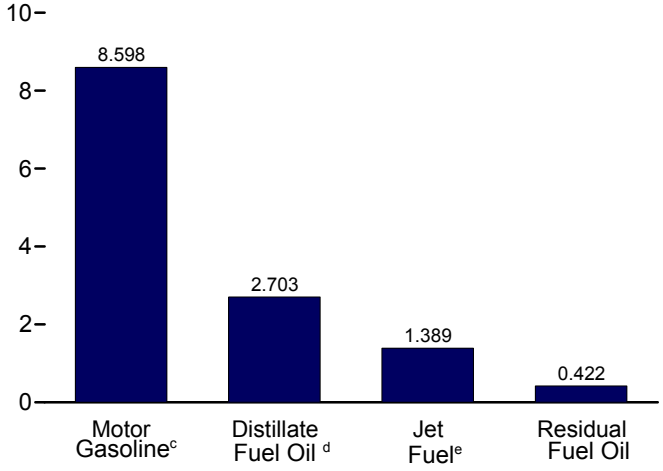
Residential and Commercial Sectors,[a] Selected Products, March 2011



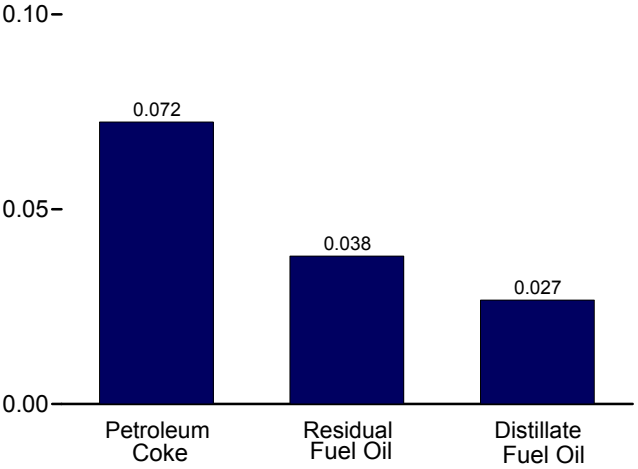
Industrial Sector,[a] Selected Products, March 2011



Transportation Sector, Selected Products, March 2011



Electric Power Sector, March 2011



[a] Includes combined-heat-and-power plants and a small number of electricity-only plants.
[b] Liquefied petroleum gases.
[c] Includes fuel ethanol blended into motor gasoline.
[d] Includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
[e] Includes kerosene-type jet fuel only.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Sources: Tables 3.7a–3.7c.

Table 3.7a Petroleum Consumption: Residential and Commercial Sectors

(Thousand Barrels per Day)

	Residential Sector				Commercial Sector[a]						
	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Motor Gasoline[b]	Petro-leum Coke	Residual Fuel Oil	Total
1973 Average	**942**	**110**	**407**	**1,459**	**303**	**31**	**105**	**45**	**NA**	**290**	**774**
1975 Average	**850**	**78**	**365**	**1,293**	**276**	**24**	**92**	**46**	**NA**	**214**	**653**
1980 Average	**617**	**51**	**222**	**890**	**243**	**20**	**63**	**56**	**NA**	**245**	**626**
1985 Average	**514**	**77**	**224**	**815**	**297**	**16**	**68**	**50**	**NA**	**99**	**530**
1990 Average	**460**	**31**	**252**	**742**	**252**	**6**	**73**	**58**	**0**	**100**	**489**
1995 Average	**426**	**36**	**282**	**743**	**225**	**11**	**78**	**10**	**(s)**	**62**	**385**
1996 Average	**434**	**43**	**334**	**811**	**227**	**10**	**87**	**14**	**(s)**	**60**	**397**
1997 Average	**411**	**45**	**325**	**781**	**209**	**12**	**86**	**22**	**(s)**	**48**	**378**
1998 Average	**363**	**52**	**303**	**718**	**202**	**15**	**84**	**20**	**(s)**	**37**	**358**
1999 Average	**389**	**54**	**376**	**819**	**206**	**13**	**100**	**15**	**(s)**	**32**	**366**
2000 Average	**424**	**46**	**395**	**865**	**230**	**14**	**107**	**23**	**(s)**	**40**	**415**
2001 Average	**427**	**46**	**375**	**849**	**239**	**15**	**102**	**20**	**(s)**	**30**	**406**
2002 Average	**404**	**29**	**384**	**817**	**209**	**8**	**101**	**24**	**(s)**	**35**	**376**
2003 Average	**425**	**34**	**389**	**848**	**226**	**9**	**112**	**32**	**(s)**	**48**	**428**
2004 Average	**433**	**41**	**364**	**839**	**221**	**10**	**108**	**23**	**(s)**	**53**	**416**
2005 Average	**402**	**40**	**366**	**809**	**210**	**10**	**94**	**24**	**(s)**	**50**	**389**
2006 Average	**335**	**32**	**318**	**685**	**189**	**7**	**88**	**26**	**(s)**	**33**	**343**
2007 Average	**342**	**21**	**345**	**708**	**181**	**4**	**87**	**32**	**(s)**	**33**	**337**
2008 Average	**314**	**10**	**394**	**718**	**174**	**2**	**113**	**24**	**(s)**	**32**	**345**
2009 January	445	33	399	877	306	5	101	27	(s)	52	491
February	413	31	407	851	284	5	103	27	(s)	48	467
March	358	12	389	760	246	2	99	28	(s)	42	416
April	283	11	363	657	195	2	92	28	0	33	349
May	191	11	338	540	131	2	86	28	0	22	269
June	183	9	330	521	126	1	84	29	0	21	261
July	205	1	344	550	141	(s)	87	29	0	24	281
August	214	5	373	591	147	1	95	29	(s)	25	296
September	259	-3	367	623	178	-1	93	28	(s)	30	329
October	223	16	421	659	153	2	107	28	0	26	316
November	226	16	482	725	155	3	122	28	(s)	26	335
December	401	20	477	898	275	3	121	28	(s)	47	474
Average	**283**	**13**	**391**	**687**	**194**	**2**	**99**	**28**	**(s)**	**33**	**357**
2010 January	496	12	485	993	340	2	123	27	(s)	62	554
February	508	26	467	1,001	349	4	118	27	(s)	63	562
March	292	9	410	711	200	1	104	27	(s)	36	370
April	211	6	338	555	145	1	86	28	(s)	26	286
May	223	9	343	575	153	1	87	29	0	28	298
June	263	9	345	617	181	1	88	29	0	33	331
July	204	13	370	586	140	2	94	29	0	25	290
August	182	7	380	569	125	1	96	29	(s)	23	274
September	169	6	390	566	116	1	99	28	(s)	21	266
October	252	11	386	649	173	2	98	28	(s)	31	332
November	292	35	398	725	200	5	101	28	(s)	36	371
December	466	38	499	1,003	320	6	127	28	(s)	58	539
Average	**295**	**15**	**401**	**711**	**203**	**2**	**102**	**28**	**(s)**	**37**	**372**
2011 January	387	13	507	907	266	2	129	26	(s)	48	471
February	R 406	36	458	R 900	R 279	5	116	27	(s)	R 51	R 478
March	277	19	436	733	190	3	111	27	(s)	34	366
3-Month Average	**355**	**22**	**467**	**845**	**244**	**3**	**119**	**27**	**(s)**	**44**	**437**
2010 3-Month Average	**429**	**16**	**453**	**898**	**295**	**2**	**115**	**27**	**(s)**	**53**	**493**
2009 3-Month Average	**405**	**25**	**398**	**829**	**278**	**4**	**101**	**27**	**(s)**	**47**	**458**

[a] Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

[b] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

R=Revised. NA=Not available. (s)=Less than 500 barrels per day and greater 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum 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[a]									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline[b]	Petroleum Coke	Residual Fuel Oil	Other[c]	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**	**1,646**	**73**	**195**	**423**	**108**	**1,657**	**5,222**
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**
2007 Average	**494**	**595**	**6**	**1,637**	**73**	**161**	**412**	**84**	**1,593**	**5,056**
2008 Average	**417**	**599**	**2**	**1,419**	**67**	**131**	**394**	**86**	**1,408**	**4,523**
2009 January	195	845	5	1,574	62	123	360	66	1,373	4,602
February	277	676	5	1,608	49	126	358	43	1,330	4,472
March	300	591	2	1,535	58	127	345	55	1,170	4,183
April	299	397	2	1,432	64	129	429	61	1,222	4,034
May	371	440	2	1,333	52	129	434	47	1,154	3,961
June	512	439	1	1,301	64	131	466	51	1,213	4,178
July	495	313	(s)	1,357	63	132	299	27	1,333	4,021
August	542	312	1	1,470	71	133	339	38	1,244	4,148
September	461	451	-1	1,449	64	127	400	30	1,372	4,353
October	377	564	3	1,659	63	128	288	42	1,236	4,360
November	287	608	3	1,902	60	127	314	41	1,132	4,474
December	204	621	3	1,881	59	127	331	54	1,241	4,522
Average	**360**	**521**	**2**	**1,541**	**61**	**128**	**363**	**46**	**1,251**	**4,274**
2010 January	213	427	2	1,912	54	122	197	58	1,204	4,189
February	249	512	4	1,841	64	123	264	50	1,285	4,394
March	272	679	2	1,618	71	125	359	51	1,432	4,609
April	335	583	1	1,333	65	130	325	55	1,484	4,311
May	389	466	1	1,353	72	131	274	48	1,345	4,080
June	481	432	1	1,361	82	132	333	46	1,367	4,236
July	467	342	2	1,460	73	133	299	52	1,384	4,213
August	543	523	1	1,497	67	134	370	43	1,438	4,616
September	462	700	1	1,540	69	131	373	54	1,325	4,656
October	427	537	2	1,523	66	130	279	49	1,203	4,216
November	297	654	6	1,569	64	127	340	59	1,317	4,434
December	200	670	6	1,969	58	128	309	54	1,296	4,690
Average	**362**	**544**	**2**	**1,581**	**67**	**129**	**310**	**52**	**1,340**	**4,387**
2011 January	224	790	2	1,999	70	120	282	59	1,349	4,895
February	248	R 631	6	1,808	62	123	215	59	1,264	R 4,415
March	280	796	3	1,722	76	125	266	52	1,468	4,788
3-Month Average	**250**	**743**	**4**	**1,844**	**70**	**123**	**256**	**57**	**1,363**	**4,709**
2010 3-Month Average	**245**	**540**	**2**	**1,789**	**63**	**123**	**274**	**53**	**1,308**	**4,398**
2009 3-Month Average	**257**	**705**	**4**	**1,571**	**56**	**125**	**354**	**55**	**1,290**	**4,417**

[a] Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

[b] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

[c] 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 500 barrels per day and greater 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum 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[a]			
	Aviation Gasoline	Distillate Fuel Oil[b]	Jet Fuel[c]	Liquefied Petroleum Gases	Lubri-cants	Motor Gasoline[d]	Residual Fuel Oil	Total	Distillate Fuel Oil[e]	Petro-leum Coke	Residual Fuel Oil[f]	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**	**8,887**	**321**	**13,720**	**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 Average	**17**	**3,037**	**1,622**	**16**	**69**	**9,093**	**433**	**14,287**	**42**	**78**	**173**	**293**
2008 Average	**15**	**2,824**	**1,539**	**29**	**64**	**8,834**	**400**	**13,704**	**34**	**70**	**104**	**209**
2009 January	13	2,422	1,312	20	58	8,473	450	12,750	60	66	193	319
February	10	2,452	1,356	21	47	8,683	271	12,840	40	67	85	191
March	14	2,508	1,406	20	55	8,748	429	13,180	40	75	65	180
April	15	2,555	1,432	19	61	8,872	526	13,480	26	69	57	152
May	13	2,642	1,329	17	49	8,926	293	13,269	32	67	72	171
June	18	2,734	1,425	17	60	9,020	415	13,689	31	70	78	179
July	19	2,707	1,506	18	59	9,100	185	13,594	28	70	83	180
August	15	2,723	1,449	19	67	9,133	312	13,719	30	68	97	195
September	19	2,649	1,414	19	60	8,756	217	13,134	24	69	63	156
October	11	2,688	1,362	22	60	8,830	358	13,332	26	41	68	136
November	10	2,579	1,352	25	57	8,751	335	13,109	27	42	42	111
December	15	2,531	1,372	24	56	8,776	440	13,215	33	54	41	128
Average	**14**	**2,600**	**1,393**	**20**	**57**	**8,840**	**353**	**13,279**	**33**	**63**	**79**	**175**
2010 January	11	2,314	1,365	25	51	8,377	411	12,552	79	68	92	240
February	10	2,468	1,342	24	61	8,501	362	12,768	29	69	38	136
March	14	2,648	1,446	21	67	8,635	417	13,247	23	69	41	133
April	17	2,747	1,391	17	62	8,945	456	13,635	22	61	41	124
May	15	2,761	1,422	18	68	9,057	371	13,711	32	65	67	163
June	18	2,842	1,507	18	78	9,122	320	13,905	41	78	106	224
July	20	2,833	1,458	19	69	9,170	376	13,944	42	82	121	245
August	14	2,936	1,487	19	63	9,203	314	14,037	34	62	99	196
September	20	2,874	1,451	20	65	9,004	432	13,866	30	60	62	153
October	15	2,782	1,429	20	62	8,928	387	13,623	26	56	38	119
November	11	2,702	1,397	20	60	8,746	493	13,431	29	49	35	114
December	12	2,653	1,383	26	54	8,816	392	13,336	60	63	67	190
Average	**15**	**2,714**	**1,424**	**21**	**63**	**8,877**	**394**	**13,508**	**37**	**65**	**68**	**170**
2011 January	14	2,485	1,355	26	66	8,266	457	12,670	40	81	58	179
February	13	R 2,524	1,343	23	59	8,497	R 480	R 12,941	31	67	37	135
March	19	2,703	1,389	22	72	8,598	422	13,225	27	72	38	137
3-Month Average	**16**	**2,572**	**1,363**	**24**	**66**	**8,452**	**452**	**12,945**	**32**	**74**	**45**	**151**
2010 3-Month Average	**12**	**2,477**	**1,386**	**23**	**60**	**8,504**	**397**	**12,859**	**44**	**69**	**58**	**171**
2009 3-Month Average	**13**	**2,461**	**1,358**	**20**	**53**	**8,633**	**387**	**12,926**	**47**	**69**	**115**	**231**

[a] 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.

[b] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

[c] 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.

[d] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

[e] Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

[f] Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

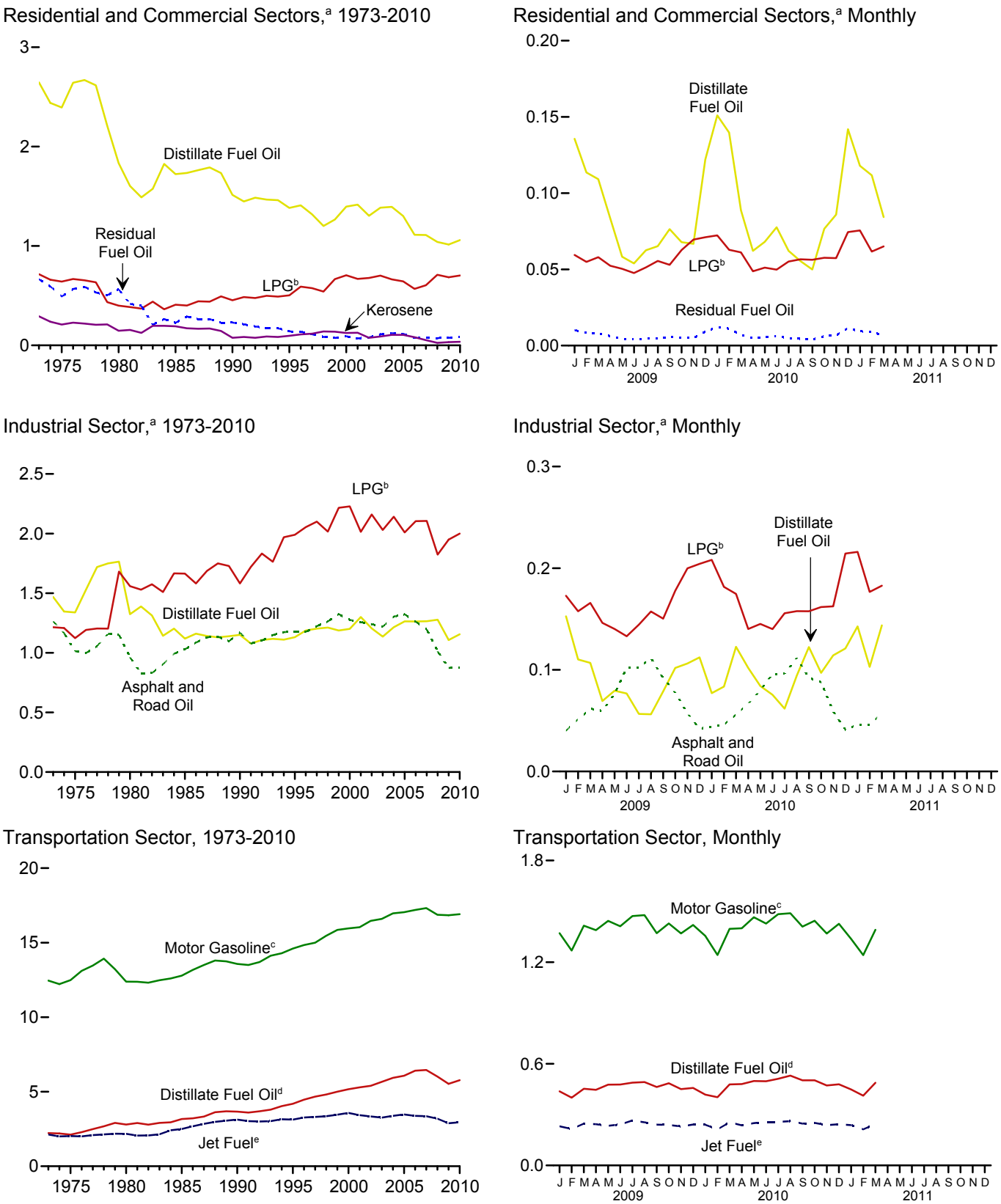
R=Revised.

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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum 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)



[a] Includes combined-heat-and-power plants and a small number of electricity-only plants.
[b] Liquefied petroleum gases.
[c] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[d] Beginning in 2009, includes renewable diesel fuel (including bio-diesel) blended into distillate fuel oil.
[e] Beginning in 2005, includes kerosene-type jet fuel only.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.
Sources: Tables 3.8a–3.8c.

Table 3.8a Heat Content of Petroleum Consumption: Residential and Commercial Sectors

(Trillion Btu)

	Residential Sector				Commercial Sector[a]						
	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Motor Gasoline[b]	Petroleum Coke	Residual Fuel Oil	Total
1973 Total	**2,003**	**227**	**570**	**2,800**	**644**	**65**	**147**	**87**	**NA**	**665**	**1,607**
1975 Total	**1,807**	**161**	**512**	**2,479**	**587**	**49**	**129**	**89**	**NA**	**492**	**1,346**
1980 Total	**1,316**	**107**	**311**	**1,734**	**518**	**41**	**88**	**107**	**NA**	**565**	**1,318**
1985 Total	**1,092**	**159**	**314**	**1,565**	**631**	**33**	**95**	**96**	**NA**	**228**	**1,083**
1990 Total	**978**	**64**	**352**	**1,394**	**536**	**12**	**102**	**111**	**0**	**230**	**991**
1995 Total	**905**	**74**	**395**	**1,374**	**479**	**22**	**109**	**18**	**(s)**	**141**	**769**
1996 Total	**926**	**89**	**469**	**1,484**	**483**	**21**	**122**	**27**	**(s)**	**137**	**790**
1997 Total	**874**	**93**	**455**	**1,422**	**444**	**25**	**120**	**43**	**(s)**	**111**	**743**
1998 Total	**772**	**108**	**424**	**1,304**	**429**	**31**	**118**	**39**	**(s)**	**85**	**702**
1999 Total	**828**	**111**	**526**	**1,465**	**438**	**27**	**140**	**28**	**(s)**	**73**	**707**
2000 Total	**905**	**95**	**555**	**1,554**	**491**	**30**	**150**	**45**	**(s)**	**92**	**807**
2001 Total	**908**	**95**	**526**	**1,529**	**508**	**31**	**143**	**37**	**(s)**	**70**	**790**
2002 Total	**860**	**60**	**537**	**1,457**	**444**	**16**	**141**	**45**	**(s)**	**80**	**726**
2003 Total	**905**	**70**	**544**	**1,519**	**481**	**19**	**157**	**60**	**(s)**	**111**	**828**
2004 Total	**924**	**85**	**512**	**1,520**	**470**	**20**	**152**	**45**	**(s)**	**122**	**810**
2005 Total	**854**	**84**	**513**	**1,451**	**447**	**22**	**131**	**46**	**(s)**	**116**	**762**
2006 Total	**712**	**66**	**446**	**1,224**	**401**	**15**	**123**	**49**	**(s)**	**75**	**664**
2007 Total	**726**	**44**	**484**	**1,254**	**384**	**9**	**121**	**61**	**(s)**	**75**	**651**
2008 Total	**669**	**21**	**553**	**1,243**	**372**	**4**	**158**	**46**	**(s)**	**73**	**653**
2009 January	80	6	47	134	55	1	12	4	(s)	10	83
February	67	5	44	116	46	1	11	4	(s)	8	71
March	65	2	46	113	44	(s)	12	4	(s)	8	69
April	49	2	42	93	34	(s)	11	4	0	6	55
May	35	2	40	77	24	(s)	10	5	0	4	43
June	32	1	38	71	22	(s)	10	4	0	4	40
July	37	(s)	41	78	25	(s)	10	5	0	5	45
August	39	1	44	84	27	(s)	11	5	(s)	5	47
September	45	-1	42	87	31	(s)	11	4	(s)	6	52
October	40	3	50	93	28	(s)	13	5	0	5	50
November	40	3	55	98	27	(s)	14	4	(s)	5	51
December	72	4	57	133	50	1	14	4	(s)	9	78
Total	**602**	**28**	**547**	**1,176**	**413**	**4**	**139**	**53**	**(s)**	**76**	**685**
2010 January	90	2	58	149	61	(s)	15	4	(s)	12	93
February	83	4	50	137	57	1	13	4	(s)	11	85
March	53	2	49	103	36	(s)	12	4	(s)	7	60
April	37	1	39	77	25	(s)	10	4	(s)	5	45
May	40	2	41	83	28	(s)	10	5	0	5	48
June	46	2	40	87	32	(s)	10	5	0	6	53
July	37	2	44	83	25	(s)	11	5	0	5	46
August	33	1	45	79	23	(s)	11	5	(s)	4	43
September	30	1	45	76	20	(s)	11	4	(s)	4	40
October	45	2	46	93	31	(s)	12	5	(s)	6	54
November	51	6	46	103	35	1	12	4	(s)	7	59
December	84	7	59	150	58	1	15	5	(s)	11	90
Total	**628**	**31**	**561**	**1,220**	**431**	**5**	**142**	**54**	**(s)**	**84**	**717**
2011 January	70	2	60	132	48	(s)	15	4	(s)	9	77
February	R 66	6	49	R 121	R 45	1	12	4	(s)	R 9	R 72
March	50	3	52	105	34	1	13	4	(s)	7	59
3-Month Total	**186**	**11**	**161**	**359**	**128**	**2**	**41**	**13**	**(s)**	**25**	**208**
2010 3-Month Total	**225**	**8**	**157**	**390**	**155**	**1**	**40**	**13**	**(s)**	**30**	**238**
2009 3-Month Total	**212**	**13**	**137**	**363**	**146**	**2**	**35**	**13**	**(s)**	**27**	**222**

[a] Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

[b] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu and greater 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum for all available data beginning in 1973.

Sources: See end of section.

Table 3.8b Heat Content of Petroleum Consumption: Industrial Sector

(Trillion Btu)

	Industrial Sector[a]									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline[b]	Petroleum Coke	Residual Fuel Oil	Other[c]	Total
1973 Total	**1,264**	**1,469**	**156**	**1,215**	**195**	**255**	**558**	**1,858**	**2,114**	**9,083**
1975 Total	**1,014**	**1,339**	**119**	**1,123**	**149**	**223**	**540**	**1,509**	**2,109**	**8,127**
1980 Total	**962**	**1,324**	**181**	**1,559**	**182**	**158**	**516**	**1,349**	**3,278**	**9,509**
1985 Total	**1,029**	**1,119**	**44**	**1,664**	**166**	**218**	**575**	**748**	**2,152**	**7,714**
1990 Total	**1,170**	**1,150**	**12**	**1,582**	**186**	**185**	**714**	**411**	**2,839**	**8,251**
1995 Total	**1,178**	**1,131**	**15**	**1,990**	**178**	**200**	**721**	**337**	**2,837**	**8,588**
1996 Total	**1,176**	**1,187**	**18**	**2,054**	**173**	**200**	**757**	**335**	**3,121**	**9,020**
1997 Total	**1,224**	**1,203**	**19**	**2,100**	**182**	**212**	**727**	**291**	**3,298**	**9,256**
1998 Total	**1,263**	**1,211**	**22**	**2,016**	**191**	**199**	**858**	**230**	**3,093**	**9,083**
1999 Total	**1,324**	**1,187**	**13**	**2,217**	**193**	**152**	**936**	**207**	**3,129**	**9,357**
2000 Total	**1,276**	**1,200**	**16**	**2,228**	**190**	**150**	**796**	**241**	**2,979**	**9,076**
2001 Total	**1,257**	**1,300**	**23**	**2,014**	**174**	**295**	**858**	**203**	**3,056**	**9,181**
2002 Total	**1,240**	**1,204**	**14**	**2,160**	**172**	**309**	**842**	**190**	**3,040**	**9,171**
2003 Total	**1,220**	**1,136**	**24**	**2,030**	**159**	**324**	**825**	**220**	**3,264**	**9,202**
2004 Total	**1,304**	**1,214**	**28**	**2,141**	**161**	**372**	**934**	**249**	**3,428**	**9,831**
2005 Total	**1,323**	**1,264**	**39**	**2,009**	**160**	**356**	**889**	**281**	**3,318**	**9,640**
2006 Total	**1,261**	**1,263**	**30**	**2,104**	**156**	**376**	**934**	**239**	**3,416**	**9,780**
2007 Total	**1,197**	**1,265**	**13**	**2,106**	**161**	**306**	**906**	**193**	**3,313**	**9,461**
2008 Total	**1,012**	**1,277**	**4**	**1,823**	**150**	**250**	**868**	**198**	**2,941**	**8,523**
2009 January	40	153	1	173	12	20	67	13	247	725
February	51	110	1	158	8	18	60	8	214	629
March	62	107	(s)	166	11	21	64	11	208	649
April	59	69	(s)	146	12	20	78	12	209	606
May	76	79	(s)	140	10	21	81	9	206	623
June	102	77	(s)	133	12	20	84	10	208	646
July	102	57	(s)	144	12	21	56	5	236	634
August	111	56	(s)	157	13	21	63	7	220	650
September	92	79	(s)	150	12	20	72	6	234	665
October	78	102	(s)	178	12	21	54	8	218	670
November	57	106	(s)	200	11	20	57	8	192	651
December	42	112	1	204	11	21	62	11	219	682
Total	**873**	**1,107**	**4**	**1,950**	**135**	**244**	**799**	**106**	**2,611**	**7,829**
2010 January	44	77	(s)	208	10	20	37	11	213	620
February	46	84	1	182	11	18	45	9	206	600
March	56	123	(s)	175	13	20	67	10	254	718
April	67	102	(s)	140	12	20	59	10	255	665
May	80	84	(s)	145	13	21	51	9	239	644
June	96	75	(s)	140	15	21	60	9	234	650
July	96	62	(s)	156	14	22	56	10	244	660
August	112	94	(s)	158	13	22	69	8	254	730
September	92	122	(s)	158	13	20	67	10	228	711
October	88	97	(s)	162	12	21	52	10	213	655
November	59	114	1	162	12	20	61	11	225	666
December	41	121	1	214	11	21	58	10	232	709
Total	**877**	**1,156**	**5**	**2,000**	**149**	**245**	**682**	**119**	**2,797**	**8,029**
2011 January	46	143	(s)	216	13	19	53	12	239	741
February	46	R 103	1	177	11	18	36	10	202	R 603
March	58	144	1	183	14	20	50	10	259	738
3-Month Total	**150**	**389**	**2**	**575**	**38**	**58**	**139**	**32**	**700**	**2,082**
2010 3-Month Total	**146**	**283**	**1**	**565**	**34**	**58**	**148**	**30**	**673**	**1,939**
2009 3-Month Total	**153**	**370**	**2**	**496**	**31**	**59**	**192**	**31**	**668**	**2,003**

[a] Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[b] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
[c] 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 and greater 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum for all available data beginning in 1973.
Sources: See end of section.

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

	Transportation Sector								Electric Power Sector[a]			
	Aviation Gasoline	Distillate Fuel Oil[b]	Jet Fuel[c]	Liquefied Petroleum Gases	Lubri-cants	Motor Gasoline[d]	Residual Fuel Oil	Total	Distillate Fuel Oil[e]	Petro-leum Coke	Residual Fuel Oil[f]	Total
1973 Total	**83**	**2,222**	**2,131**	**49**	**163**	**12,455**	**727**	**17,832**	**273**	**15**	**3,226**	**3,515**
1975 Total	**71**	**2,121**	**2,029**	**43**	**155**	**12,485**	**711**	**17,615**	**226**	**2**	**2,937**	**3,166**
1980 Total	**64**	**2,795**	**2,179**	**18**	**172**	**12,383**	**1,398**	**19,009**	**169**	**5**	**2,459**	**2,634**
1985 Total	**50**	**3,170**	**2,497**	**30**	**156**	**12,784**	**786**	**19,472**	**85**	**7**	**998**	**1,090**
1990 Total	**45**	**3,661**	**3,129**	**23**	**176**	**13,575**	**1,016**	**21,626**	**97**	**30**	**1,163**	**1,289**
1995 Total	**40**	**4,195**	**3,132**	**18**	**168**	**14,607**	**911**	**23,070**	**108**	**81**	**566**	**755**
1996 Total	**37**	**4,469**	**3,274**	**16**	**163**	**14,837**	**851**	**23,648**	**109**	**80**	**628**	**817**
1997 Total	**40**	**4,672**	**3,308**	**14**	**172**	**14,999**	**712**	**23,918**	**111**	**102**	**715**	**927**
1998 Total	**35**	**4,812**	**3,357**	**18**	**180**	**15,463**	**674**	**24,538**	**136**	**124**	**1,047**	**1,306**
1999 Total	**39**	**5,001**	**3,462**	**14**	**182**	**15,855**	**665**	**25,219**	**140**	**112**	**959**	**1,211**
2000 Total	**36**	**5,165**	**3,580**	**12**	**179**	**15,960**	**888**	**25,820**	**175**	**99**	**871**	**1,144**
2001 Total	**35**	**5,292**	**3,426**	**14**	**164**	**16,041**	**586**	**25,557**	**171**	**103**	**1,003**	**1,277**
2002 Total	**34**	**5,392**	**3,340**	**14**	**162**	**16,465**	**677**	**26,085**	**127**	**175**	**659**	**961**
2003 Total	**30**	**5,666**	**3,265**	**17**	**150**	**16,597**	**571**	**26,297**	**161**	**175**	**869**	**1,205**
2004 Total	**31**	**5,932**	**3,383**	**19**	**152**	**16,962**	**740**	**27,219**	**111**	**222**	**879**	**1,212**
2005 Total	**35**	**6,076**	**3,475**	**28**	**151**	**17,043**	**837**	**27,645**	**115**	**243**	**876**	**1,235**
2006 Total	**33**	**6,414**	**3,379**	**27**	**147**	**17,197**	**906**	**28,105**	**74**	**214**	**361**	**648**
2007 Total	**32**	**6,457**	**3,358**	**22**	**152**	**17,321**	**994**	**28,335**	**89**	**171**	**397**	**657**
2008 Total	**28**	**6,020**	**3,193**	**40**	**141**	**16,872**	**920**	**27,214**	**73**	**154**	**240**	**468**
2009 January	2	437	231	2	11	1,371	88	2,142	11	12	38	61
February	1	400	215	2	8	1,269	48	1,943	6	11	15	33
March	2	453	247	2	10	1,415	84	2,214	7	14	13	34
April	2	446	244	2	11	1,389	99	2,194	5	12	11	28
May	2	477	234	2	9	1,444	57	2,225	6	13	14	32
June	3	478	242	2	11	1,412	78	2,226	5	13	15	33
July	3	489	265	2	11	1,472	36	2,278	5	13	16	34
August	2	492	255	2	13	1,477	61	2,302	5	13	19	37
September	3	463	241	2	11	1,371	41	2,131	4	13	12	29
October	2	485	239	3	11	1,428	70	2,239	5	8	13	26
November	1	451	230	3	10	1,370	63	2,129	5	8	8	20
December	2	457	241	3	10	1,420	86	2,219	6	10	8	24
Total	**27**	**5,528**	**2,883**	**28**	**127**	**16,837**	**810**	**26,240**	**70**	**139**	**181**	**390**
2010 January	2	418	240	3	10	1,355	80	2,107	14	13	18	45
February	1	403	213	3	10	1,242	64	1,936	5	12	7	23
March	2	478	254	2	13	1,397	81	2,227	4	13	8	25
April	3	480	237	2	11	1,400	86	2,219	4	11	8	23
May	2	499	250	2	13	1,465	72	2,303	6	12	13	31
June	3	497	256	2	14	1,428	60	2,260	7	14	20	41
July	3	512	256	2	13	1,483	73	2,343	8	15	24	46
August	2	530	261	2	12	1,489	61	2,358	6	12	19	37
September	3	502	247	2	12	1,409	81	2,257	5	11	12	28
October	2	502	251	2	12	1,444	75	2,290	5	10	7	22
November	2	472	238	2	11	1,369	93	2,187	5	9	7	21
December	2	479	243	3	10	1,426	76	2,240	11	12	13	36
Total	**27**	**5,771**	**2,946**	**29**	**140**	**16,908**	**904**	**26,726**	**80**	**143**	**155**	**378**
2011 January	2	449	238	3	12	1,337	89	2,131	7	15	11	34
February	2	R 412	213	3	10	1,241	85	R 1,965	5	11	7	23
March	3	488	244	3	14	1,391	82	2,224	5	14	7	26
3-Month Total	**7**	**1,349**	**696**	**8**	**36**	**3,969**	**256**	**6,321**	**17**	**40**	**25**	**82**
2010 3-Month Total	**5**	**1,298**	**707**	**8**	**33**	**3,994**	**225**	**6,270**	**23**	**37**	**33**	**93**
2009 3-Month Total	**6**	**1,290**	**693**	**7**	**29**	**4,054**	**219**	**6,299**	**24**	**38**	**65**	**127**

[a] 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.

[b] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

[c] 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.

[d] Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

[e] Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

[f] 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–3.8c. • 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.gov/totalenergy/data/monthly/#petroleum for all available data beginning in 1973.

Sources: See end of section.

Petroleum

Note 1. Petroleum Survey Respondents. The U.S. 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 (PSM).* 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 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 redesignated 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* 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–3.8c.

Table 3.6 Sources

Asphalt and Road Oil, Aviation Gasoline, Distillate Fuel Oil, Kerosene, Propane, Lubricants, Petroleum Coke, and Residual Fuel Oil

Product supplied data in thousand barrels per day for these petroleum products are from Table 3.5, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Jet Fuel

Product supplied data in thousand barrels per day for kerosene-type jet fuel and, through 2004, naphtha-type jet fuel are from the U.S. Energy Information Administration's (EIA) *Petroleum Supply Annual (PSA), Petroleum Supply Monthly (PSM)*, and earlier publications (see sources for Table 3.5). These data are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total jet fuel product supplied is the sum of the data in trillion Btu for kerosene-type and naphtha-type jet fuel.

Liquefied Petroleum Gases (LPG) Total

Prior to the current two months, product supplied data in thousand barrels per day for the component products of LPG (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene) are from the PSA, PSM, and earlier publications (see sources for Table 3.5). These data are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total LPG product supplied is the sum of the data in trillion Btu for the LPG component products.

For the current two months, product supplied data in thousand barrels per day for total LPG are from Table 3.5, and are converted to trillion Btu by multiplying by the LPG heat content factors in Table A3.

Motor Gasoline

Product supplied data in thousand barrels per day for motor gasoline are from Table 3.5, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Other Petroleum Products

Prior to the current two months, product supplied data in thousand barrels per day for "other" petroleum products are from the PSA, PSM, and earlier publications (see sources for Table 3.5). "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; and beginning in 2005, also includes naphtha-type jet fuel. These data are converted to trillion Btu by multiplying by the appropriate heat content factors in MER Table A1. Total "Other" petroleum product supplied is the sum of the data in trillion Btu for the individual products.

For the current two months, total "Other" petroleum products supplied is calculated by first estimating total petroleum products supplied (product supplied data in thousand barrels per day for total petroleum from Table 3.5 are converted to trillion Btu by multiplying by the total petroleum consumption heat content factor in Table A3), and then subtracting data in trillion Btu (from Table 3.6) for asphalt and road oil, aviation gasoline, distillate fuel oil, jet fuel, kerosene, total LPG, lubricants, motor gasoline, petroleum coke, and residual fuel oil.

Total Petroleum

Total petroleum products supplied is the sum of the data in trillion Btu for the products (except "Propane") shown in Table. 3.6.

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: U.S. Energy Information Administration's (EIA), *Energy Data Reports*, "Petroleum Statement, Annual."
1981–2009: EIA, *Petroleum Supply Annual*.
2010 and 2011: 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 sources for 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 oil 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 to 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 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 to 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 allocated to the residential, commercial, and industrial sectors 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 allocated to the residential, commercial, and industrial sectors 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 allocated to the residential, commercial and industrial sectors in proportion to the 1979 shares, and the 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 sectors combined are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the combined sectors. Since 2003, residential sector LPG consumption is assumed to equal propane retail sales, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector. Prior to 2003, residential sector LPG consumption is based on the average of the State residential shares for 2003–2008, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial 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 78 percent (in 2008).

LPG consumed annually by the industrial sector is estimated as the difference between LPG total product supplied and the sum of the estimated LPG consumption by the residential, commercial, and transportation sectors. The industrial sector LPG consumption 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 sources for 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 sources for 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 to 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 allocated to the commercial and industrial sectors 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 allocated to the commercial and industrial sectors in proportion to the 1979 shares, and the 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 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.

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.

Table 3.8a Sources

Distillate Fuel Oil, Kerosene, Petroleum Coke, and Residual Fuel Oil

Residential and/or commercial sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7a, and are converted to trillion Btu by

multiplying by the appropriate heat content factors in Table A1.

Liquefied Petroleum Gases (LPG)
Residential and commercial sector consumption data in thousand barrels per day for LPG are from Table 3.7a, and are converted to trillion Btu by multiplying by the propane heat content factor in Table A1.

Motor Gasoline
Commercial sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7a, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Total Petroleum
Residential sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Residential Sector" in Table 3.8a. Commercial sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Commercial Sector" in Table 3.8a.

Table 3.8b Sources

Asphalt and Road Oil, Distillate Fuel Oil, Kerosene, Lubricants, Petroleum Coke, and Residual Fuel Oil
Industrial sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7b, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Liquefied Petroleum Gases (LPG)
Industrial sector consumption data for LPG are calculated by subtracting LPG consumption data in trillion Btu for the residential (Table 3.8a), commercial (Table 3.8a), and transportation (Table 3.8c) sectors from total LPG consumption (Table 3.6).

Motor Gasoline
Industrial sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7b, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Other Petroleum Products
Industrial sector "Other" petroleum data are equal to the "Other" petroleum data in Table 3.6.

Total Petroleum
Industrial sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown in Table 3.8b.

Table 3.8c Sources

Aviation Gasoline, Distillate Fuel Oil, Lubricants, Petroleum Coke, and Residual Fuel Oil
Transportation and/or electric power sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7c, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Jet Fuel
Transportation sector consumption data in thousand barrels per day for kerosene-type jet fuel and, through 2004, naphtha-type jet fuel (see sources for Table 3.7c) are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total transportation sector jet fuel consumption is the sum of the data in trillion Btu for kerosene-type and naphtha-type jet fuel.

Liquefied Petroleum Gases (LPG)
Transportation sector consumption data in thousand barrels per day for LPG are from Table 3.7c, and are converted to trillion Btu by multiplying by the propane heat content factor in Table A1.

Motor Gasoline
Transportation sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7c, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Total Petroleum
Transportation sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Transportation Sector" in Table 3.8c. Electric power sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Electric Power Sector" in Table 3.8c.

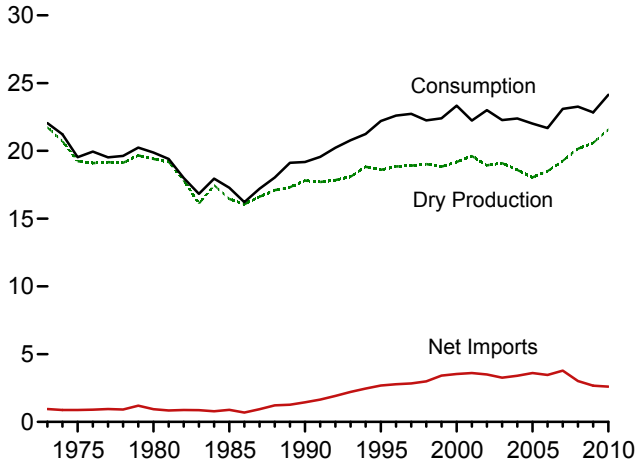
4

Natural Gas

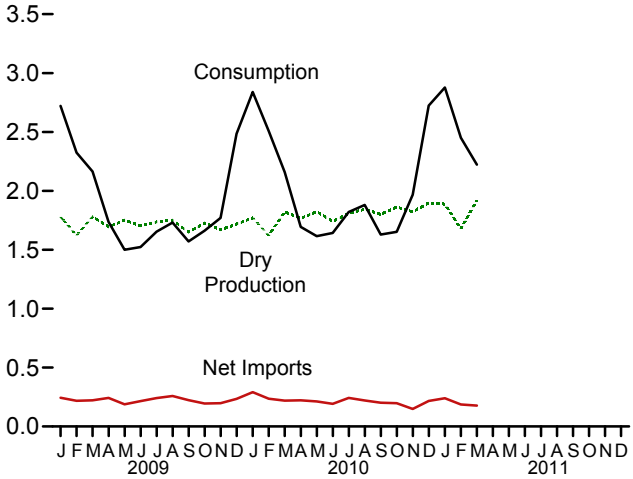
Natural gas pipeline, El Paso County, Texas. Source: U.S. Department of Energy.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

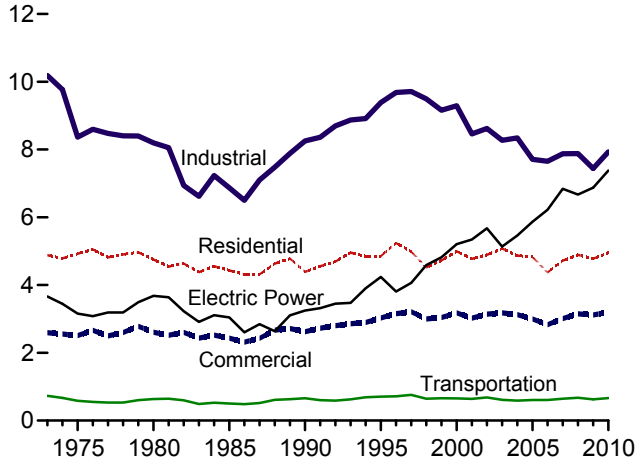
Overview, 1973-2010



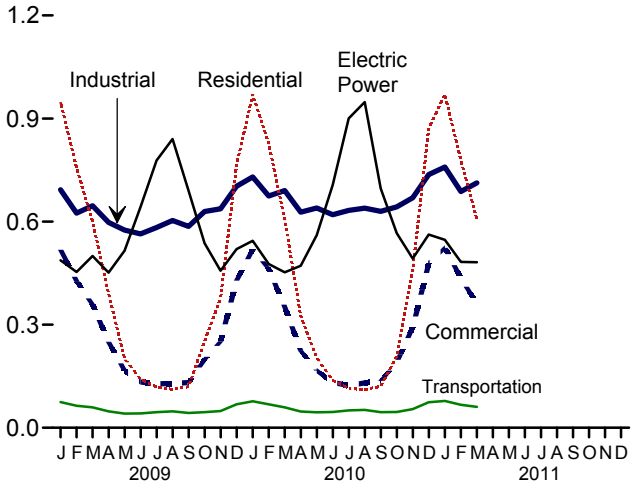
Overview, Monthly



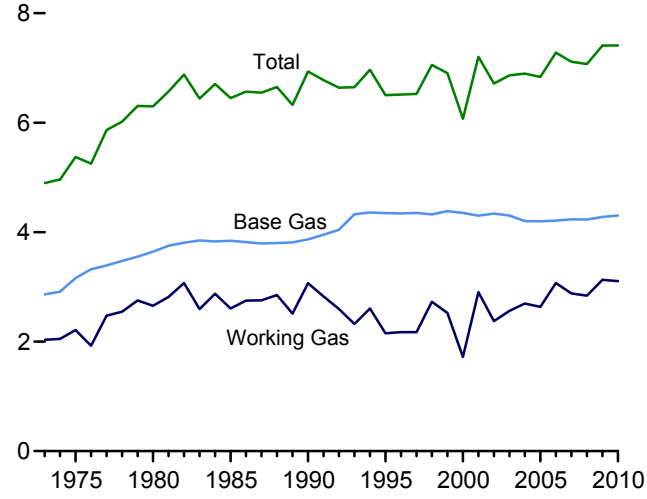
Consumption by Sector, 1973-2010



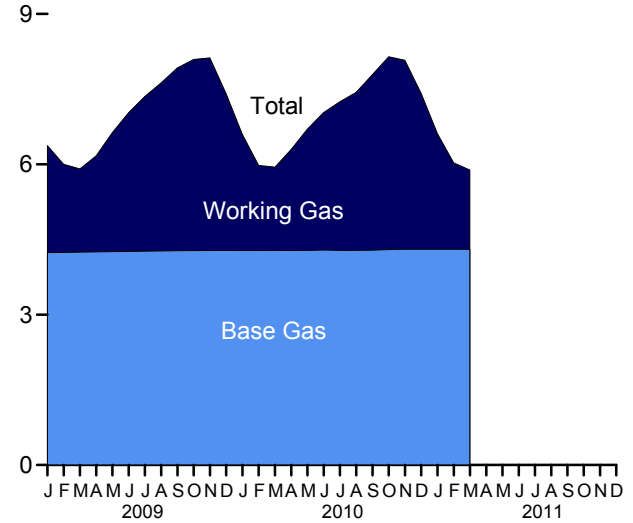
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2010



Underground Storage, End of Month



Web Page: http://www.eia.gov/totalenergy/data/monthly/#naturalgas.
Sources: Tables 4.1, 4.3, and 4.4.

Table 4.1 Natural Gas Overview

(Billion Cubic Feet)

	Gross Withdrawals[a]	Marketed Production (Wet)[b]	Extraction Loss[c]	Dry Gas Production[d]	Supplemental Gaseous Fuels[e]	Trade			Net Storage Withdrawals[f]	Balancing Item[g]	Consumption[h]
						Imports	Exports	Net Imports			
1973 Total	**24,067**	[i]**22,648**	**917**	[i]**21,731**	**NA**	**1,033**	**77**	**956**	**-442**	**-196**	**22,049**
1975 Total	**21,104**	[i]**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**	**22,609**
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**	**-306**	**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 Total	**24,664**	**20,196**	**930**	**19,266**	**63**	**4,608**	**822**	**3,785**	**192**	**-209**	**23,097**
2008 Total	**25,636**	**21,112**	**953**	**20,159**	**61**	**3,984**	**963**	**3,021**	**34**	**-7**	**23,268**
2009 January	2,249	1,867	89	1,779	6	357	113	244	719	-27	2,721
February	2,071	1,701	81	1,621	5	322	103	218	380	101	2,325
March	2,257	1,869	89	1,781	6	325	104	221	98	58	2,164
April	2,143	1,779	84	1,694	5	322	80	242	-257	51	1,736
May	2,186	1,838	87	1,751	6	266	77	189	-475	29	1,499
June	2,137	1,788	85	1,703	5	282	66	216	-393	-8	1,523
July	2,166	1,823	86	1,737	5	317	76	240	-345	15	1,653
August	2,189	1,839	87	1,752	6	337	79	258	-280	-4	1,731
September	2,086	1,731	82	1,649	5	307	84	223	-301	-6	1,570
October	2,195	1,813	86	1,727	5	273	78	195	-172	-94	1,662
November	2,139	1,752	83	1,669	5	295	97	198	-36	-66	1,771
December	2,196	1,802	85	1,717	5	350	115	234	707	-180	2,484
Total	**26,013**	**21,604**	**1,024**	**20,580**	**65**	**3,751**	**1,072**	**2,679**	**-355**	**-130**	**22,840**
2010 January	2,225	[E]1,850	80	[E]1,770	6	385	94	291	812	-40	2,840
February	2,051	[E]1,697	75	[E]1,622	6	324	88	236	620	25	2,508
March	2,304	[E]1,906	84	[E]1,821	6	318	100	219	36	77	2,159
April	2,208	[E]1,847	81	[E]1,766	5	298	76	222	-355	57	1,695
May	2,251	[E]1,909	85	[E]1,824	4	298	86	213	-409	-17	1,615
June	2,142	[E]1,820	80	[E]1,740	6	282	90	192	-321	25	1,643
July	2,194	[E]1,891	81	[E]1,810	6	328	86	242	-227	-10	1,821
August	2,231	[E]1,928	84	[E]1,844	6	304	84	220	-186	-4	[R]1,880
September	2,241	[E]1,883	83	[E]1,800	6	281	79	202	-353	-26	1,629
October	2,333	[E]1,948	86	[E]1,861	6	294	96	198	-352	-60	1,653
November	2,284	[E]1,907	84	[E]1,823	6	272	124	149	74	-85	1,967
December	2,394	[E]1,984	87	[E]1,897	5	351	135	216	666	-60	2,724
Total	**26,858**	[E]**22,569**	**992**	[E]**21,577**	**67**	**3,737**	**1,137**	**2,600**	**5**	**-117**	[R]**24,133**
2011 January	2,309	[E]1,972	85	[E]1,887	6	[R]372	132	[R]240	799	[R]-55	2,877
February	2,109	[E]1,752	73	[E]1,679	6	[R]309	[R]122	[R]186	584	[R]-5	2,451
March	2,413	[E]2,010	91	[E]1,919	6	318	141	177	145	-25	2,223
3-Month Total	**6,832**	[E]**5,735**	**250**	[E]**5,485**	**18**	**999**	**395**	**604**	**1,528**	**-84**	**7,551**
2010 3-Month Total	**6,580**	[E]**5,453**	**240**	[E]**5,213**	**18**	**1,027**	**281**	**746**	**1,468**	**62**	**7,507**
2009 3-Month Total	**6,576**	**5,438**	**258**	**5,180**	**16**	**1,003**	**320**	**684**	**1,197**	**132**	**7,210**

[a] Gas withdrawn from natural gas and crude oil wells; excludes lease condensate.
[b] Gross withdrawals minus repressuring, nonhydrocarbon gases removed, and vented and flared. See Note 1, "Natural Gas Production," at end of section.
[c] See Note 2, "Natural Gas Extraction Loss," at end of section.
[d] Marketed production (wet) minus extraction loss.
[e] See Note 3, "Supplemental Gaseous Fuels," at end of section.
[f] Net withdrawals from underground storage. For 1980-2009, also includes net withdrawals of liquefied natural gas in above-ground tanks. See Note 4, "Natural Gas Storage," at end of section.
[g] 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).
[h] See Note 6, "Natural Gas Consumption," at end of section.
[i] May include unknown quantities of nonhydrocarbon gases.
[j] 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: • See Note 8, "Natural Gas Adjustments, 1993-2000," 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.gov/totalenergy/data/monthly/#naturalgas 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: 1973-2005—**U.S. Energy Information Administration (EIA), *Natural Gas Annual,* annual reports. **2006 forward—**EIA, *Natural Gas Monthly,* May 2011, Table 1.

Table 4.2 Natural Gas Trade by Country

(Billion Cubic Feet)

	Imports									Exports				
	Algeria[a]	Canada[b]	Egypt[a]	Mexico[b]	Nigeria[a]	Qatar[a]	Trinidad and Tobago[a]	Other[a,c]	Total	Canada[b]	Japan[a]	Mexico[b]	Other[a,d]	Total
1973 Total	**3**	**1,028**	**0**	**2**	**0**	**0**	**0**	**0**	**1,033**	**15**	**48**	**14**	**0**	**77**
1975 Total	**5**	**948**	**0**	**0**	**0**	**0**	**0**	**0**	**953**	**10**	**53**	**9**	**0**	**73**
1980 Total	**86**	**797**	**0**	**102**	**0**	**0**	**0**	**0**	**985**	**0**	**45**	**4**	**0**	**49**
1985 Total	**24**	**926**	**0**	**0**	**0**	**0**	**0**	**0**	**950**	**0**	**53**	**2**	**0**	**55**
1990 Total	**84**	**1,448**	**0**	**0**	**0**	**0**	**0**	**0**	**1,532**	**17**	**53**	**16**	**0**	**86**
1995 Total	**18**	**2,816**	**0**	**7**	**0**	**0**	**0**	**0**	**2,841**	**28**	**65**	**61**	**0**	**154**
1996 Total	**35**	**2,883**	**0**	**14**	**0**	**0**	**0**	**5**	**2,937**	**52**	**68**	**34**	**0**	**153**
1997 Total	**66**	**2,899**	**0**	**17**	**0**	**0**	**0**	**12**	**2,994**	**56**	**62**	**38**	**0**	**157**
1998 Total	**69**	**3,052**	**0**	**15**	**0**	**0**	**0**	**17**	**3,152**	**40**	**66**	**53**	**0**	**159**
1999 Total	**76**	**3,368**	**0**	**55**	**0**	**20**	**51**	**17**	**3,586**	**39**	**64**	**61**	**0**	**163**
2000 Total	**47**	**3,544**	**0**	**12**	**13**	**46**	**99**	**21**	**3,782**	**73**	**66**	**106**	**0**	**244**
2001 Total	**65**	**3,729**	**0**	**10**	**38**	**23**	**98**	**14**	**3,977**	**167**	**66**	**141**	**0**	**373**
2002 Total	**27**	**3,785**	**0**	**2**	**8**	**35**	**151**	**8**	**4,015**	**189**	**63**	**263**	**0**	**516**
2003 Total	**53**	**3,437**	**0**	**0**	**50**	**14**	**378**	**11**	**3,944**	**271**	**66**	**343**	**0**	**680**
2004 Total	**120**	**3,607**	**0**	**0**	**12**	**12**	**462**	**46**	**4,259**	**395**	**62**	**397**	**0**	**854**
2005 Total	**97**	**3,700**	**73**	**9**	**8**	**3**	**439**	**11**	**4,341**	**358**	**65**	**305**	**0**	**729**
2006 Total	**17**	**3,590**	**120**	**13**	**57**	**0**	**389**	**0**	**4,186**	**341**	**61**	**322**	**0**	**724**
2007 Total	**77**	**3,783**	**115**	**54**	**95**	**18**	**448**	**18**	**4,608**	**482**	**47**	**292**	**2**	**822**
2008 Total	**0**	**3,589**	**55**	**43**	**12**	**3**	**267**	**15**	**3,984**	**559**	**39**	**365**	**0**	**963**
2009 January	0	324	5	6	0	0	19	3	357	84	2	28	0	113
February	0	293	6	(s)	0	0	16	6	322	75	3	25	0	103
March	0	293	12	1	0	0	17	3	325	77	3	24	0	104
April	0	259	22	7	8	0	20	6	322	55	2	23	0	80
May	0	216	15	1	0	0	31	3	266	46	2	29	0	77
June	0	230	14	1	0	0	34	3	282	37	2	28	0	66
July	0	270	14	2	3	0	21	6	317	42	4	31	0	76
August	0	299	17	3	0	0	17	0	337	45	2	32	0	79
September	0	274	14	1	2	0	15	0	307	47	4	33	0	84
October	0	244	15	2	0	0	13	0	273	47	2	29	0	78
November	0	258	12	(s)	0	8	17	0	295	66	2	29	0	97
December	0	311	14	3	0	4	17	0	350	81	4	28	3	115
Total	**0**	**3,271**	**160**	**28**	**13**	**13**	**236**	**29**	**3,751**	**701**	**31**	**338**	**3**	**1,072**
2010 January	0	327	17	1	0	12	22	6	385	68	2	23	0	94
February	0	277	12	1	0	6	16	12	324	60	2	22	3	88
March	0	276	9	5	3	1	16	9	318	77	2	21	0	100
April	0	251	6	5	9	9	15	3	298	50	4	22	0	76
May	0	257	9	4	9	0	16	3	298	55	2	29	0	86
June	0	248	6	2	11	0	11	5	282	51	2	34	3	90
July	0	290	6	1	5	0	17	8	328	50	4	32	0	86
August	0	281	0	1	0	0	17	5	304	49	2	33	0	84
September	0	250	6	3	3	0	16	3	281	50	7	23	0	79
October	0	256	3	4	2	5	15	9	294	63	2	25	6	96
November	0	241	0	(s)	0	9	14	9	272	84	2	30	8	124
December	0	321	0	1	0	4	15	9	351	82	3	38	12	135
Total	**0**	**3,276**	**73**	**30**	**42**	**46**	**190**	**81**	**3,737**	**739**	**33**	**333**	**32**	**1,137**
2011 January	0	R 332	3	(s)	0	13	16	9	R 372	81	2	37	13	132
February	0	R 276	6	(s)	0	0	11	15	R 309	R 81	2	R 37	3	R 122
March	0	279	6	(s)	0	14	10	9	318	94	2	41	3	141
3-Month Total	**0**	**887**	**15**	**1**	**0**	**27**	**37**	**32**	**999**	**256**	**6**	**114**	**19**	**395**
2010 3-Month Total	**0**	**880**	**37**	**8**	**3**	**19**	**54**	**27**	**1,027**	**206**	**6**	**67**	**3**	**281**
2009 3-Month Total	**0**	**911**	**23**	**7**	**0**	**0**	**52**	**12**	**1,003**	**235**	**8**	**77**	**0**	**320**

[a] As liquefied natural gas.

[b] 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 9, "Natural Gas Imports and Exports," at end of section.

[c] 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 forward; Oman in 2000-2005; Peru in 2010 and 2011; United Arab Emirates in 1996-2000; Yemen in 2010 and 2011; and Other (unassigned) in 2004.

[d] Brazil in 2010; India in 2010 and 2011; Russia in 2007; South Korea in 2009-2011; Spain in 2010 and 2011; and United Kingdom in 2010 and 2011.

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

Notes: • See Note 9, "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.gov/totalenergy/data/monthly/#naturalgas for all available data beginning in 1973.

Sources: • **1973-1987:** U.S. Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • **1988-2008:** EIA, *Natural Gas Annual,* annual reports. • **2009 forward:** EIA, *Natural Gas Monthly,* May 2011, Table 4; and U.S. 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											
			Industrial					Transportation				
				Other Industrial								
	Residential	Commercial[a]	Lease and Plant Fuel	CHP[b]	Non-CHP[c]	Total	Total	Pipelines[d] and Distribution[e]	Vehicle Fuel	Total	Electric Power Sector[f,g]	Total
1973 Total	**4,879**	**2,597**	**1,496**	**([h])**	**8,689**	**8,689**	**10,185**	**728**	**NA**	**728**	**3,660**	**22,049**
1975 Total	**4,924**	**2,508**	**1,396**	**([h])**	**6,968**	**6,968**	**8,365**	**583**	**NA**	**583**	**3,158**	**19,538**
1980 Total	**4,752**	**2,611**	**1,026**	**([h])**	**7,172**	**7,172**	**8,198**	**635**	**NA**	**635**	**3,682**	**19,877**
1985 Total	**4,433**	**2,432**	**966**	**([h])**	**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**	**22,609**
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**
2007 Total	**4,722**	**3,013**	**1,226**	**1,050**	**5,598**	**6,648**	**7,874**	**621**	**25**	**646**	**6,841**	**23,097**
2008 Total	**4,892**	**3,153**	**1,220**	**955**	**5,706**	**6,661**	**7,881**	**648**	**26**	**674**	**6,668**	**23,268**
2009 January	948	518	110	81	502	582	693	72	2	75	487	2,721
February	756	427	101	71	452	524	625	62	2	64	453	2,325
March	600	358	111	79	457	536	646	57	2	59	500	2,164
April	390	249	105	74	419	492	597	45	2	48	451	1,736
May	201	166	108	77	391	468	575	39	2	41	515	1,499
June	141	134	105	82	377	459	564	39	2	42	643	1,523
July	119	128	107	89	387	476	583	43	2	45	778	1,653
August	111	129	108	92	403	495	603	45	2	48	840	1,731
September	120	131	102	88	396	484	586	41	2	43	690	1,570
October	251	199	107	85	437	522	629	43	2	46	537	1,662
November	376	251	104	81	452	533	637	46	2	49	457	1,771
December	764	429	107	91	505	596	703	66	2	68	520	2,484
Total	**4,778**	**3,119**	**1,275**	**990**	**5,177**	**6,167**	**7,442**	**598**	**29**	**627**	**6,873**	**22,840**
2010 January	970	519	[E] 109	90	531	621	730	[E] 74	[E] 3	[E] 77	544	2,840
February	827	462	[E] 100	78	496	574	674	[E] 66	[E] 3	[E] 68	477	2,508
March	606	352	[E] 112	84	494	578	690	[E] 57	[E] 3	[E] 59	452	2,159
April	325	224	[E] 109	79	440	519	628	[E] 44	[E] 3	[E] 47	472	1,695
May	204	166	[E] 113	81	446	527	640	[E] 42	[E] 3	[E] 45	560	1,615
June	138	132	[E] 107	83	430	512	620	[E] 43	[E] 3	[E] 46	707	1,643
July	115	123	[E] 112	88	433	521	632	[E] 48	[E] 3	[E] 50	900	1,821
August	110	[R] 131	[E] 114	87	438	525	639	[E] 49	[E] 3	[E] 52	948	[R] 1,880
September	121	136	[E] 111	85	434	519	630	[E] 43	[E] 3	[E] 45	696	1,629
October	208	190	[E] 115	82	446	528	643	[E] 43	[E] 3	[E] 46	566	1,653
November	458	292	[E] 113	81	476	557	669	[E] 52	[E] 3	[E] 54	493	1,967
December	871	479	[E] 117	91	529	620	737	[E] 71	[E] 3	[E] 74	562	2,724
Total	**4,952**	**3,206**	**[E] 1,332**	**1,007**	**5,593**	**6,600**	**7,932**	**[E] 632**	**[E] 33**	**[E] 665**	**7,378**	**[R] 24,133**
2011 January	970	523	[E] 116	88	554	643	759	[E] 75	[E] 3	[E] 78	547	2,877
February	779	435	[E] 103	78	506	584	687	[E] 64	[E] 3	[E] 67	483	2,451
March	606	361	[E] 119	82	512	594	713	[E] 58	[E] 3	[E] 61	482	2,223
3-Month Total	**2,356**	**1,319**	**[E] 339**	**249**	**1,572**	**1,820**	**2,159**	**[E] 197**	**[E] 8**	**[E] 206**	**1,511**	**7,551**
2010 3-Month Total	**2,402**	**1,333**	**[E] 322**	**252**	**1,521**	**1,773**	**2,095**	**[E] 197**	**[E] 8**	**[E] 205**	**1,473**	**7,507**
2009 3-Month Total	**2,304**	**1,303**	**322**	**231**	**1,411**	**1,642**	**1,964**	**191**	**7**	**198**	**1,441**	**7,210**

[a] 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.
[b] Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants.
[c] All industrial sector fuel use other than that in "Lease and Plant Fuel" and "CHP."
[d] Natural gas consumed in the operation of pipelines, primarily in compressors.
[e] Natural gas used as fuel in the delivery of natural gas to consumers.
[f] 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.
[g] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.
[h] Included in "Non-CHP."
[i] 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 8, "Natural Gas Adjustments, 1993-2000," at end of section. • 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.gov/totalenergy/data/monthly/#naturalgas for all available data beginning in 1973.

Sources: • **Residential, Commercial, Lease and Plant Fuel, Other Industrial Total** and **Pipelines and Distribution: 1973-2005—**U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA),* annual reports. **2006 forward—**EIA, *Natural Gas Monthly (NGM),* May 2011, Table 2. • **Industrial CHP:** Table 7.4c. • **Vehicle Fuel: 1990 and 1991—**EIA, NGA 2000, (November 2001), Table 95. **1992-1998—**EIA, "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). **1999-2005—**EIA, NGA, annual reports. **2006 forward—**EIA, NGM, May 2011, 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[a]	Volume	Percent	Withdrawals	Injections	Net[b,c]
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**
2007 Total	**4,234**	**2,879**	**7,113**	**-191**	**-6.2**	**3,325**	**3,133**	**192**
2008 Total	**4,232**	**2,840**	**7,073**	**-39**	**-1.4**	**3,374**	**3,340**	**34**
2009 January	4,237	2,133	6,370	77	3.8	783	78	705
February	4,243	1,758	6,001	293	20.0	472	100	372
March	4,248	1,660	5,908	394	31.1	294	202	93
April	4,255	1,910	6,165	474	33.0	106	356	-251
May	4,257	2,375	6,632	535	29.1	45	512	-467
June	4,268	2,760	7,028	583	26.8	62	448	-386
July	4,263	3,090	7,354	573	22.8	83	421	-338
August	4,267	3,359	7,626	493	17.2	88	362	-274
September	4,276	3,646	7,922	485	15.3	57	352	-295
October	4,281	3,810	8,091	410	12.1	99	266	-167
November	4,288	3,837	8,125	492	14.7	140	173	-33
December	4,277	3,130	7,407	290	10.2	738	44	694
Total	**4,277**	**3,130**	**7,407**	**290**	**10.2**	**2,966**	**3,315**	**-349**
2010 January	4,278	2,319	6,597	185	8.7	877	65	812
February	4,281	1,696	5,978	-62	-3.5	660	40	620
March	4,282	1,662	5,944	3	.2	240	204	36
April	4,281	2,012	6,293	102	5.4	70	425	-355
May	4,282	2,421	6,703	47	2.0	55	464	-409
June	4,289	2,741	7,030	-19	-.7	64	385	-321
July	4,283	2,967	7,249	-123	-4.0	114	340	-227
August	4,283	3,150	7,433	-209	-6.2	143	329	-186
September	4,287	3,500	7,787	-146	-4.0	56	409	-353
October	4,300	3,847	8,146	37	1.0	52	405	-352
November	4,304	3,773	8,077	-65	-1.7	238	163	74
December	4,305	3,107	7,412	-23	-.7	732	66	666
Total	**4,305**	**3,107**	**7,412**	**-23**	**-.7**	**3,303**	**3,298**	**5**
2011 January	4,306	2,308	6,614	-11	-.5	852	53	799
February	4,306	1,724	6,029	27	1.6	668	84	584
March	4,304	1,581	5,884	-82	-4.9	317	172	145
3-Month Total	**– –**	**– –**	**– –**	**– –**	**– –**	**1,838**	**310**	**1,528**
2010 3-Month Total	**– –**	**– –**	**– –**	**– –**	**– –**	**1,778**	**310**	**1,468**
2009 3-Month Total	**– –**	**– –**	**– –**	**– –**	**– –**	**1,549**	**380**	**1,169**

[a] For total underground storage capacity at the end of each calendar year, see Note 4, "Natural Gas Storage," at end of section.

[b] For 1980-2009, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

[c] 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.gov/totalenergy/data/monthly/#naturalgas for all available data beginning in 1973.

Sources: • **Storage Activity: 1973-1975—**U.S. 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. **1996-2005—**EIA, *Natural Gas Monthly (NGM),* monthly issues. **2006 forward—**EIA, NGM, May 2011, Table 6. • **All Other Data: 1973 and 1974—**American Gas Association, *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 2011, Table 6.

Natural Gas

Note 1. Natural Gas Production. Final annual data are from the U.S. Energy Information Administration (EIA) *Natural Gas Annual (NGA)*.

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*).

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.

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, and 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, the amount consumed by each energy-use sector is estimated by EIA. These estimates are used to create natural gas (without supplemental gaseous fuels) data for Tables 1.3, 2.2, 2.3, 2.4, and 2.6 (note: to avoid double-counting in these tables, supplemental gaseous fuels are accounted for in their primary energy category: "Coal," "Petroleum," or "Biomass"). 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:

1975	6,280	**1987**	8,124	**1999**	8,229
1976	6,544	**1988**	8,124	**2000**	8,241
1977	6,678	**1989**	8,120	**2001**	8,182
1978	6,890	**1990**	7,794	**2002**	8,207
1979	6,929	**1991**	7,993	**2003**	8,206
1980	7,434	**1992**	7,932	**2004**	8,255
1981	7,805	**1993**	7,989	**2005**	8,268
1982	7,915	**1994**	8,043	**2006**	8,330
1983	7,985	**1995**	7,953	**2007**	8,402
1984	8,043	**1996**	7,980	**2008**	8,499
1985	8,087	**1997**	8,332	**2009**	8,656
1986	8,145	**1998**	8,179	**2010**	[P]8,710

P=Preliminary

Monthly underground storage data are collected from the Federal Energy Regulatory Commission 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 1980–2009 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 Data Adjustments, 1993–2000. For 1993–2000, the original data for natural gas delivered to industrial consumers (now "Other Industrial" in Table 4.3) included deliveries to both industrial users and independent power producers (IPPs). These data were adjusted to remove the estimated consumption at IPPs from "Other Industrial" and include it with electric utilities under "Electric Power Sector." (To estimate the monthly IPP consumption, the monthly pattern for Other Industrial CHP in Table 4.3 was used.)

For 1996–2000, monthly data for several natural gas series shown in EIA's Natural Gas Navigator (see http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_m.htm) were not reconciled and updated to be consistent with the final annual data in EIA's NGA. In the *Monthly Energy Review*, monthly data for these series were adjusted so that the monthly data sum to the final annual values. The Table 4.1 data series (and years) that were adjusted are: Gross Withdrawals (1996, 1997), Marketed Production (1997), Extraction Loss (1997, 1998, 2000), Dry Gas Production (1996, 1997), Supplemental Gaseous Fuels (1997–2000), Balancing Item (1997–2000), and Total Consumption (1997–2000). The Table 4.3 data series (and years) that were adjusted are: Lease and Plant Fuel (1997–2000), Total Industrial (1997–2000), Pipelines and Distribution (2000), Total Transportation (2000), and Total Consumption (1997–2000).

Note 9. 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, Peru, Qatar, Trinidad and Tobago, the United Arab Emirates, and Yemen. 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 Brazil, India, Japan, Russia, South Korea, Spain, and United Kingdom. Also, small amounts of LNG have gone to Mexico since 1998.

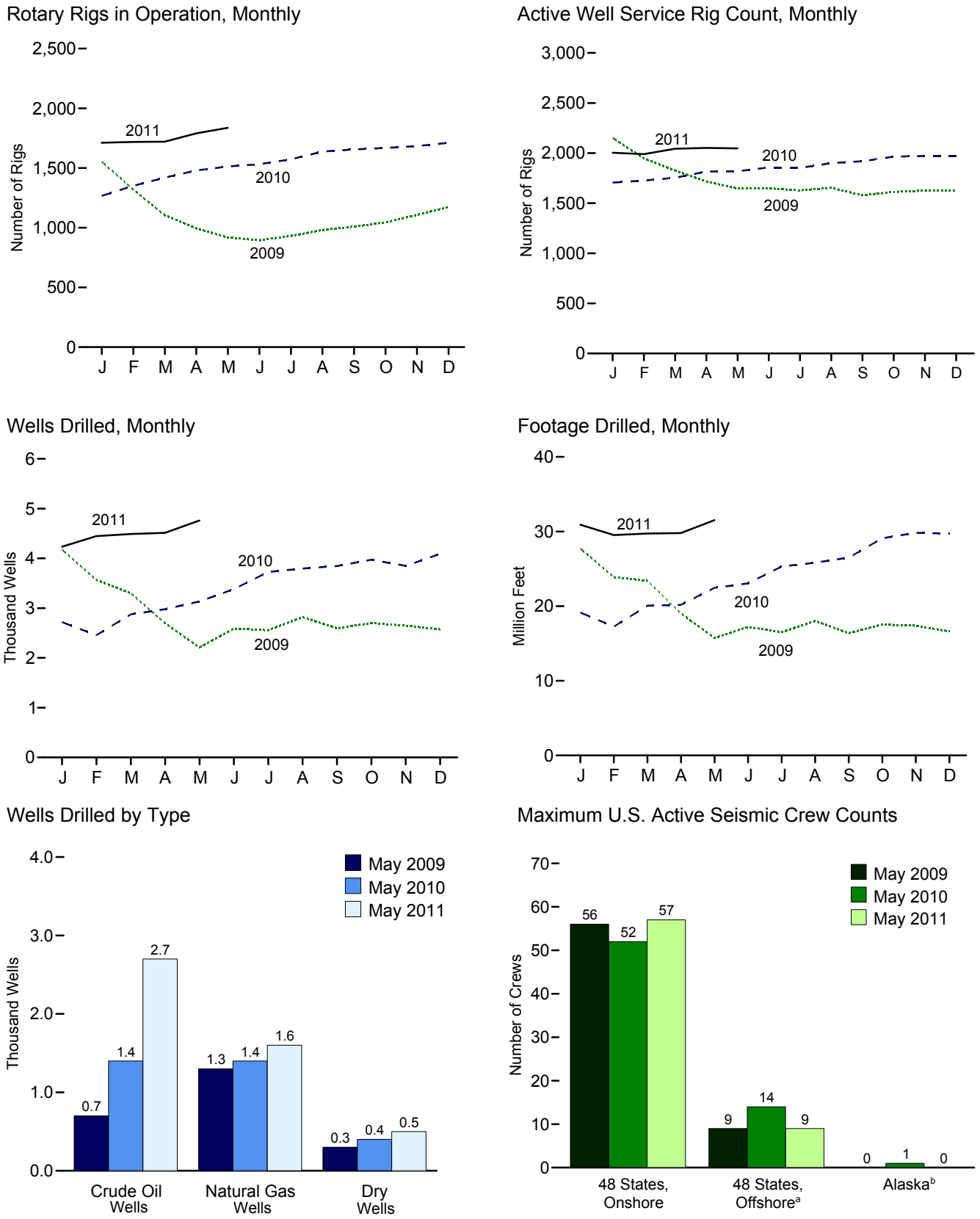
Annual and final monthly data are from the annual EIA Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," which requires data to be reported by month for the calendar year.

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

New oil and gas drilling activity in Wyoming. Source: Dreamstime Stock Photos.

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators



[a] Federal and State Jurisdiction waters of the Gulf of Mexico.
[b] All onshore.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#crude.
Sources: Tables 5.1–5.3.

Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements

(Number of Rigs)

	Rotary Rigs in Operation[a]					Active Well Service Rig Count[c]
	By Site		By Type			
	Onshore	Offshore	Crude Oil	Natural Gas	Total[b]	
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**
2007 Average	**1,695**	**72**	**297**	**1,466**	**1,768**	**2,388**
2008 Average	**1,814**	**65**	**379**	**1,491**	**1,879**	**2,515**
2009 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
June	848	47	194	691	895	1,648
July	893	38	245	675	931	1,629
August	949	31	279	691	980	1,653
September	976	33	293	704	1,009	1,579
October	1,011	33	312	722	1,044	1,613
November	1,071	36	362	734	1,107	1,625
December	1,136	37	404	758	1,172	1,625
Average	**1,046**	**44**	**278**	**801**	**1,089**	**1,722**
2010 January	1,225	42	433	822	1,267	1,706
February	1,305	45	446	892	1,350	1,726
March	1,368	51	471	933	1,419	1,754
April	1,426	53	508	959	1,479	1,816
May	1,464	49	541	960	1,513	1,818
June	1,511	20	566	953	1,531	1,857
July	1,558	15	591	971	1,573	1,852
August	1,619	20	644	983	1,638	1,900
September	1,635	19	668	977	1,655	1,918
October	1,647	21	693	966	1,668	1,965
November	1,662	22	723	950	1,683	1,971
December	1,687	24	759	940	1,711	1,968
Average	**1,514**	**31**	**591**	**943**	**1,546**	**1,854**
2011 January	1,686	26	793	909	1,711	2,004
February	1,692	26	801	907	1,718	1,990
March	1,694	26	830	884	1,720	2,044
April	1,762	28	896	885	1,790	2,052
May	1,804	32	948	878	1,836	2,047
5-Month Average	**1,729**	**27**	**856**	**892**	**1,757**	**2,027**
2010 5-Month Average	**1,361**	**48**	**481**	**915**	**1,409**	**1,764**
2009 5-Month Average	**1,129**	**55**	**245**	**927**	**1,183**	**1,858**

[a] 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.

[b] 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.

[c] 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.gov/totalenergy/data/monthly/#crude 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. See http://www.c-a-m.com/Forms/Product.aspx?prodID=cdc209c4-79a3-47e5-99c2-fdeda6d4aad6.

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**	**811**	**3,652**	**5,241**	**12,061**	**10,435**	**4,593**	**27,089**	**12,839**	**11,246**	**8,245**	**32,330**	**156,183**
1995 Total	**570**	**558**	**2,024**	**3,152**	**7,678**	**7,524**	**2,790**	**17,992**	**8,248**	**8,082**	**4,814**	**21,144**	**117,378**
1996 Total	**489**	**576**	**1,956**	**3,021**	**8,347**	**8,451**	**2,934**	**19,732**	**8,836**	**9,027**	**4,890**	**22,753**	**126,634**
1997 Total	**491**	**562**	**2,113**	**3,166**	**10,715**	**10,936**	**3,761**	**25,412**	**11,206**	**11,498**	**5,874**	**28,578**	**161,704**
1998 Total	**327**	**566**	**1,590**	**2,483**	**7,355**	**11,073**	**3,171**	**21,599**	**7,682**	**11,639**	**4,761**	**24,082**	**137,581**
1999 Total	**197**	**570**	**1,157**	**1,924**	**4,608**	**11,457**	**2,393**	**18,458**	**4,805**	**12,027**	**3,550**	**20,382**	**103,024**
2000 Total	**288**	**657**	**1,341**	**2,286**	**7,802**	**16,394**	**2,805**	**27,001**	**8,090**	**17,051**	**4,146**	**29,287**	**144,591**
2001 Total	**357**	**1,052**	**1,733**	**3,142**	**8,531**	**21,020**	**2,865**	**32,416**	**8,888**	**22,072**	**4,598**	**35,558**	**180,230**
2002 Total	**258**	**844**	**1,282**	**2,384**	**6,517**	**16,498**	**2,472**	**25,487**	**6,775**	**17,342**	**3,754**	**27,871**	**145,322**
2003 Total	**350**	**997**	**1,297**	**2,644**	**7,779**	**19,725**	**2,685**	**30,189**	**8,129**	**20,722**	**3,982**	**32,833**	**177,537**
2004 Total	**383**	**1,671**	**1,350**	**3,404**	**8,406**	**22,515**	**2,732**	**33,653**	**8,789**	**24,186**	**4,082**	**37,057**	**204,807**
2005 Total	**539**	**2,135**	**1,462**	**4,136**	**10,240**	**26,449**	**3,191**	**39,880**	**10,779**	**28,584**	**4,653**	**44,016**	**240,861**
2006 Total	**644**	**2,450**	**1,537**	**4,631**	**12,586**	**30,310**	**3,618**	**46,514**	**13,230**	**32,760**	**5,155**	**51,145**	**282,312**
2007 Total	**825**	**2,777**	**1,600**	**5,202**	**12,525**	**30,075**	**3,441**	**46,041**	**13,350**	**32,852**	**5,041**	**51,243**	**303,482**
2008 Total	**921**	**2,459**	**1,590**	**4,970**	**15,870**	**30,872**	**3,792**	**50,534**	**16,791**	**33,331**	**5,382**	**55,504**	**345,912**
2009 January	82	187	111	380	1,196	2,340	259	3,795	1,278	2,527	370	4,175	27,723
February	62	139	98	299	1,021	2,030	217	3,268	1,083	2,169	315	3,567	23,895
March	59	167	92	318	904	1,851	226	2,981	963	2,018	318	3,299	23,404
April	39	72	102	213	786	1,481	217	2,484	825	1,553	319	2,697	19,026
May	50	101	88	239	601	1,206	163	1,970	651	1,307	251	2,209	15,735
June	47	95	83	225	804	1,361	199	2,364	851	1,456	282	2,589	17,207
July	44	94	114	252	801	1,275	229	2,305	845	1,369	343	2,557	16,513
August	49	89	94	232	924	1,441	221	2,586	973	1,530	315	2,818	18,022
September	58	77	105	240	945	1,192	219	2,356	1,003	1,269	324	2,596	16,378
October	55	82	84	221	1,023	1,219	236	2,478	1,078	1,301	320	2,699	17,549
November	40	94	87	221	1,040	1,178	209	2,427	1,080	1,272	296	2,648	17,373
December	33	92	99	224	987	1,144	217	2,348	1,020	1,236	316	2,572	16,619
Total	**618**	**1,289**	**1,157**	**3,064**	**11,032**	**17,718**	**2,612**	**31,362**	**11,650**	**19,007**	**3,769**	**34,426**	**229,444**
2010 January	59	90	96	245	963	1,328	184	2,475	1,022	1,418	280	2,720	19,130
February	47	82	80	209	942	1,137	168	2,247	989	1,219	248	2,456	17,260
March	R 62	R 88	102	252	1,109	1,288	225	2,622	R 1,171	R 1,376	327	2,874	20,058
April	54	90	81	225	1,231	1,246	277	2,754	1,285	1,336	358	2,979	20,180
May	55	112	97	264	R 1,312	R 1,281	R 277	R 2,870	R 1,367	R 1,393	R 374	R 3,134	22,449
June	61	R 117	108	R 286	1,457	1,315	324	3,096	1,518	R 1,432	432	R 3,382	23,060
July	53	R 106	124	R 283	1,476	1,504	464	3,444	1,529	R 1,610	588	R 3,727	25,308
August	R 59	130	108	R 297	1,619	1,538	342	3,499	R 1,678	1,668	450	R 3,796	25,830
September	73	R 99	99	R 271	1,602	1,675	297	3,574	1,675	R 1,774	396	R 3,845	26,507
October	77	R 101	130	R 308	R 1,630	1,684	350	R 3,664	R 1,707	R 1,785	480	R 3,972	29,106
November	R 69	122	R 107	R 298	R 1,579	1,685	288	R 3,552	R 1,648	1,807	R 395	R 3,850	29,820
December	85	109	132	326	R 1,879	1,597	289	R 3,765	R 1,964	1,706	421	R 4,091	29,730
Total	**R 754**	**R 1,246**	**R 1,264**	**R 3,264**	**R 16,799**	**R 17,278**	**R 3,485**	**R 37,562**	**R 17,553**	**R 18,524**	**R 4,749**	**R 40,826**	**288,438**
2011 January	91	115	132	338	R 2,017	1,588	292	R 3,897	R 2,108	1,703	424	R 4,235	30,914
February	93	116	133	342	2,283	1,550	273	4,106	2,376	1,666	406	4,448	29,520
March	100	119	135	354	2,304	1,536	297	4,137	2,404	1,655	432	4,491	29,723
April	104	111	139	354	2,328	1,518	314	4,160	2,432	1,629	453	4,514	29,785
May	109	108	142	359	2,568	1,512	323	4,403	2,677	1,620	465	4,762	31,524
5-Month Total	**497**	**569**	**681**	**1,747**	**11,500**	**7,704**	**1,499**	**20,703**	**11,997**	**8,273**	**2,180**	**22,450**	**151,466**
2010 5-Month Total	**277**	**462**	**456**	**1,195**	**5,557**	**6,280**	**1,131**	**12,968**	**5,834**	**6,742**	**1,587**	**14,163**	**99,077**
2009 5-Month Total	**292**	**666**	**491**	**1,449**	**4,508**	**8,908**	**1,082**	**14,498**	**4,800**	**9,574**	**1,573**	**15,947**	**109,783**

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.gov/totalenergy/data/monthly/#crude for all available data beginning in 1973.

Sources: • **1973–1989:** U.S. 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[a]				Alaska[b]				
	Dimensions[c]				Dimensions[c]				Dimensions[c]				
	2	3	4	Total[d]	2	3	4	Total[d]	2	3	4	Total[d]	Total
2000 May	3	34	1	38	6	11	0	18	1	2	0	3	59
2001 May	7	37	1	45	9	8	0	17	1	1	0	2	64
2002 May	8	24	0	32	9	8	0	17	1	1	0	2	51
2003 May	7	17	0	24	8	4	0	12	1	1	0	2	38
2004 May	9	26	0	35	5	4	0	9	0	0	0	0	44
2005 May	8	34	0	42	7	6	0	13	0	0	0	0	55
2006 May	4	42	0	46	5	6	0	11	0	1	0	1	58
2007 May	3	55	0	58	4	6	1	11	0	1	0	1	70
2008 May	4	54	0	58	3	11	1	15	0	0	0	0	73
2009 January	2	63	0	65	2	8	0	10	0	0	0	0	75
February	3	62	0	65	2	9	0	11	0	0	0	0	76
March	3	59	0	62	2	8	0	10	0	0	0	0	72
April	3	57	0	60	2	8	0	10	0	0	0	0	70
May	2	54	0	56	2	7	0	9	0	0	0	0	65
June	2	50	0	52	2	6	0	8	0	0	0	0	60
July	2	51	0	53	2	6	0	8	0	0	0	0	61
August	2	49	0	51	3	6	0	9	0	0	0	0	60
September	1	49	0	50	4	6	0	10	0	0	0	0	60
October	1	50	0	51	5	7	0	12	0	0	0	0	63
November	0	49	0	49	5	8	0	13	0	0	0	0	62
December	0	49	0	49	5	8	0	13	0	1	0	1	63
2010 January	0	50	0	50	5	8	0	13	0	1	0	1	64
February	0	51	0	51	5	8	0	13	0	1	0	1	65
March	0	49	0	49	5	8	0	13	0	1	0	1	63
April	1	51	0	52	5	8	0	13	0	1	0	1	66
May	1	50	0	52	5	9	0	14	0	1	0	1	67
June	2	50	0	52	4	10	0	14	0	1	0	1	67
July	2	51	0	53	3	10	0	13	0	1	0	1	67
August	2	50	0	52	4	9	0	13	0	0	0	0	65
September	2	49	0	51	4	9	0	13	0	0	0	0	64
October	1	50	0	51	4	7	0	11	0	0	0	0	62
November	1	50	0	51	4	7	0	11	0	0	0	0	62
December	1	51	0	52	4	6	0	10	0	0	0	0	62
2011 January	2	52	0	54	4	6	0	10	0	0	0	0	64
February	3	53	0	56	3	6	0	9	0	0	0	0	65
March	2	52	0	54	3	6	0	9	0	0	0	0	63
April	2	53	0	55	3	6	0	9	0	0	0	0	64
May	3	54	0	57	3	6	0	9	0	0	0	0	66

[a] Federal and State Jurisdiction waters of the Gulf of Mexico.

[b] All onshore.

[c] 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.

[d] 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.gov/totalenergy/data/monthly/#crude for all available data beginning in March 2000.

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

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.

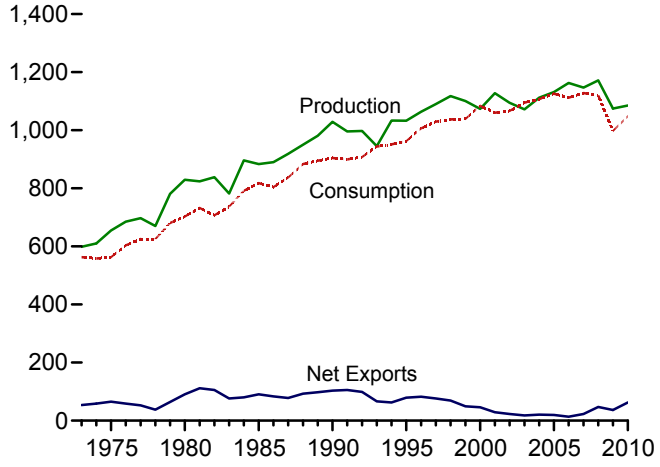
Prior to the March 1985 MER, drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported 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 U.S. 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

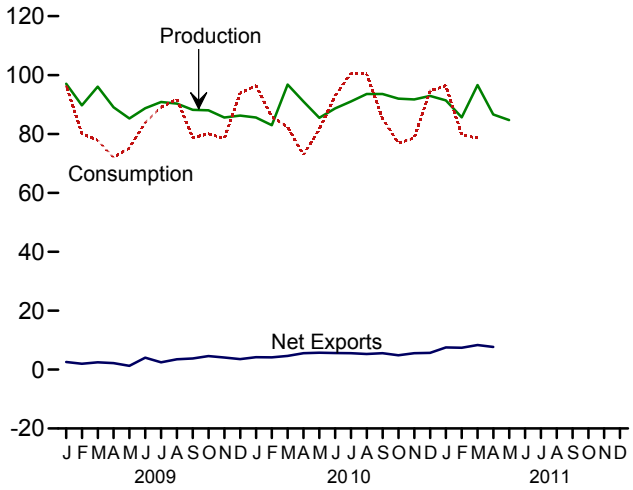
Coal yard, Curtis Bay, Maryland. Source: U.S. Department of Energy.

Figure 6.1 Coal
(Million Short Tons)

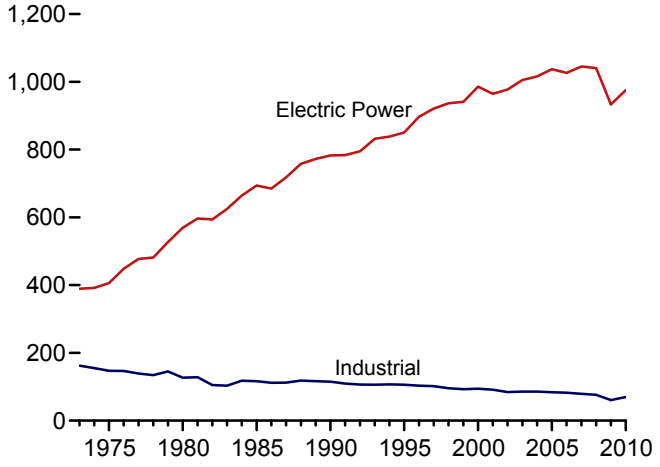
Overview, 1973-2010



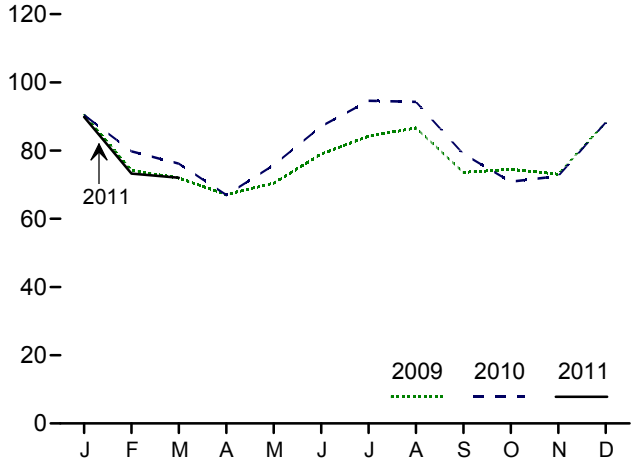
Overview, Monthly



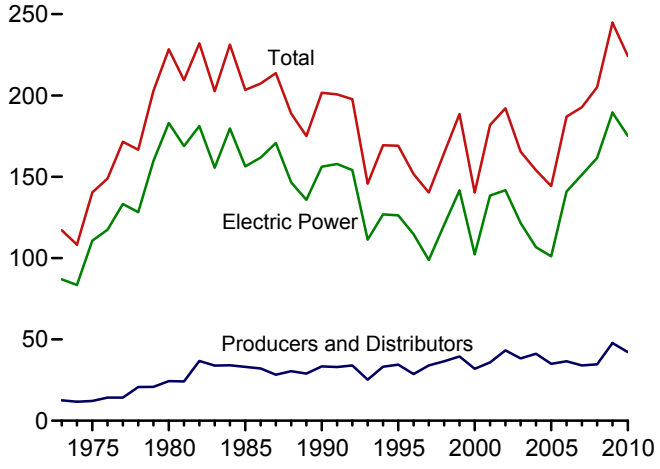
Consumption by Sector, 1973-2010



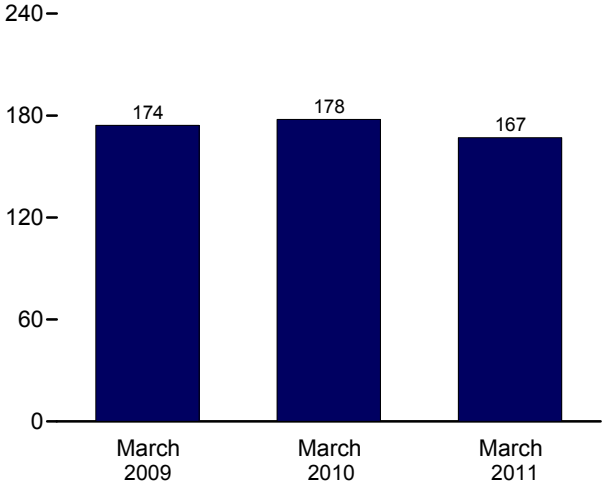
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2010



Electric Power Sector Stocks, End of Month



Web Page: http://www.eia.gov/totalenergy/data/monthly/#coal.
Sources: Tables 6.1–6.3.

Table 6.1 Coal Overview

(Thousand Short Tons)

	Production[a]	Waste Coal Supplied[b]	Trade			Stock Change[d]	Losses and Unaccounted for[e]	Consumption
			Imports	Exports	Net Imports[c]			
1973 Total	**598,568**	**NA**	**127**	**53,587**	**-53,460**	**([f])**	**[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**
2007 Total	**1,146,635**	**14,076**	**36,347**	**59,163**	**-22,816**	**5,812**	**4,085**	**1,127,998**
2008 Total	**1,171,809**	**14,146**	**34,208**	**81,519**	**-47,311**	**12,354**	**5,740**	**1,120,548**
2009 January	97,022	1,272	2,329	4,907	-2,578	-2,104	1,370	96,449
February	89,688	928	1,855	3,822	-1,968	7,901	626	80,121
March	96,062	1,121	2,141	4,605	-2,464	12,517	4,389	77,814
April	89,072	1,036	1,303	3,513	-2,210	13,303	2,577	72,019
May	85,236	1,065	2,283	3,552	-1,269	7,537	2,231	75,264
June	88,708	1,118	1,840	5,886	-4,045	2,746	-792	83,827
July	90,847	1,248	2,018	4,477	-2,459	-781	1,282	89,134
August	90,308	1,206	1,568	5,056	-3,488	-4,988	1,282	91,731
September	88,185	1,113	1,854	5,625	-3,771	4,868	1,902	78,757
October	88,002	1,142	1,762	6,364	-4,603	4,561	-54	80,035
November	85,564	1,164	1,506	5,586	-4,080	2,724	1,423	78,502
December	86,229	1,252	2,179	5,703	-3,524	-8,617	-1,252	93,826
Total	**1,074,923**	**13,666**	**22,639**	**59,097**	**-36,458**	**39,668**	**14,985**	**997,478**
2010 January	85,589	1,201	1,665	5,866	-4,202	-10,728	-3,065	96,381
February	82,968	903	1,239	5,386	-4,146	-7,969	1,897	85,796
March	96,760	1,165	1,899	6,554	-4,655	8,047	2,819	82,404
April	91,010	1,087	1,812	7,358	-5,545	12,072	1,634	72,845
May	85,456	1,163	1,475	7,220	-5,745	1,911	-2,649	81,612
June	88,666	1,193	1,771	7,387	-5,616	-11,636	2,917	92,962
July	91,020	1,288	1,390	6,928	-5,539	-15,359	1,547	100,581
August	93,587	1,295	1,702	7,001	-5,299	-8,656	-2,132	100,372
September	93,597	1,138	1,588	7,145	-5,556	-335	4,319	85,195
October	91,977	1,116	1,775	6,623	-4,849	13,664	-2,323	76,904
November	91,708	1,088	1,473	7,015	-5,542	4,715	3,915	78,624
December	92,942	1,225	1,563	7,232	-5,669	-6,190	69	94,620
Total	**1,085,281**	**13,862**	**19,353**	**81,716**	**-62,363**	**-20,465**	**8,950**	**1,048,295**
2011 January	[R] 91,398	[R] 1,233	1,014	8,509	-7,496	[R] -11,076	[R] -195	[R] 96,406
February	[R] 85,618	[R] 1,061	843	8,275	-7,432	[R] -5,347	[R] 4,949	[R] 79,644
March	[R] 96,608	[R] 1,079	1,524	9,832	-8,308	[R] 4,386	[R] 6,389	[R] 78,603
April	86,600	NA	[R] 1,136	[R] 8,843	[R] -7,706	NA	NA	NA
May	84,721	NA	NA	NA	NA	NA	NA	NA
5-Month Total	**444,945**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
2010 5-Month Total	**441,783**	**5,518**	**8,090**	**32,385**	**-24,294**	**3,333**	**637**	**419,037**
2009 5-Month Total	**457,081**	**5,422**	**9,911**	**20,400**	**-10,489**	**39,154**	**11,193**	**401,666**

[a] 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).

[b] 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."

[c] Net imports equal imports minus exports. A minus sign indicates exports are greater than imports.

[d] A negative value indicates a decrease in stocks; a positive value indicates an increase.

[e] "Losses and Unaccounted for" is calculated as the sum of production, imports, and waste coal supplied, minus exports, stock change, and consumption.

[f] 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 U.S. 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.gov/totalenergy/data/monthly/#coal 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											
		Commercial			Industrial							
						Other Industrial						
	Residential	CHP[a]	Other[b]	Total	Coke Plants	CHP[c]	Non-CHP[d]	Total	Total	Transportation	Electric Power Sector[e,f]	Total
1973 Total	**4,113**	**(g)**	**7,004**	**7,004**	**94,101**	**(h)**	**68,038**	**68,038**	**162,139**	**116**	**389,212**	**562,584**
1975 Total	**2,823**	**(g)**	**6,587**	**6,587**	**83,598**	**(h)**	**63,646**	**63,646**	**147,244**	**24**	**405,962**	**562,640**
1980 Total	**1,355**	**(g)**	**5,097**	**5,097**	**66,657**	**(h)**	**60,347**	**60,347**	**127,004**	**(h)**	**569,274**	**702,730**
1985 Total	**1,711**	**(g)**	**6,068**	**6,068**	**41,056**	**(h)**	**75,372**	**75,372**	**116,429**	**(h)**	**693,841**	**818,049**
1990 Total	**1,345**	**1,191**	**4,189**	**5,379**	**38,877**	**27,781**	**48,549**	**76,330**	**115,207**	**(h)**	**782,567**	**904,498**
1995 Total	**755**	**1,419**	**3,633**	**5,052**	**33,011**	**29,363**	**43,693**	**73,055**	**106,067**	**(h)**	**850,230**	**962,104**
1996 Total	**721**	**1,660**	**3,625**	**5,285**	**31,706**	**29,434**	**42,254**	**71,689**	**103,395**	**(h)**	**896,921**	**1,006,321**
1997 Total	**711**	**1,738**	**4,015**	**5,752**	**30,203**	**29,853**	**41,661**	**71,515**	**101,718**	**(h)**	**921,364**	**1,029,544**
1998 Total	**534**	**1,443**	**2,879**	**4,322**	**28,189**	**28,553**	**38,887**	**67,439**	**95,628**	**(h)**	**936,619**	**1,037,103**
1999 Total	**585**	**1,490**	**2,803**	**4,293**	**28,108**	**27,763**	**36,975**	**64,738**	**92,846**	**(h)**	**940,922**	**1,038,647**
2000 Total	**454**	**1,547**	**2,126**	**3,673**	**28,939**	**28,031**	**37,177**	**65,208**	**94,147**	**(h)**	**985,821**	**1,084,095**
2001 Total	**481**	**1,448**	**2,441**	**3,888**	**26,075**	**25,755**	**39,514**	**65,268**	**91,344**	**(h)**	**964,433**	**1,060,146**
2002 Total	**533**	**1,405**	**2,506**	**3,912**	**23,656**	**26,232**	**34,515**	**60,747**	**84,403**	**(h)**	**977,507**	**1,066,355**
2003 Total	**551**	**1,816**	**1,869**	**3,685**	**24,248**	**24,846**	**36,415**	**61,261**	**85,509**	**(h)**	**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**	**(h)**	**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**	**(h)**	**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**	**(h)**	**1,026,636**	**1,112,292**
2007 Total	**353**	**1,927**	**1,247**	**3,173**	**22,715**	**22,537**	**34,078**	**56,615**	**79,331**	**(h)**	**1,045,141**	**1,127,998**
2008 Total	**351**	**2,021**	**1,134**	**3,155**	**22,070**	**21,902**	**32,491**	**54,393**	**76,463**	**(h)**	**1,040,580**	**1,120,548**
2009 January	44	208	148	356	1,390	1,793	2,225	4,018	5,409	(h)	90,640	96,449
February	38	178	126	305	1,449	1,605	2,470	4,075	5,524	(h)	74,254	80,121
March	36	170	120	290	1,559	1,692	2,289	3,981	5,540	(h)	71,948	77,814
April	25	128	71	199	1,150	1,487	2,036	3,522	4,673	(h)	67,123	72,019
May	22	117	65	181	1,118	1,550	1,967	3,517	4,635	(h)	70,425	75,264
June	26	135	75	211	1,134	1,600	1,903	3,503	4,637	(h)	78,954	83,827
July	23	137	49	186	1,032	1,659	1,991	3,650	4,682	(h)	84,243	89,134
August	24	143	51	194	1,168	1,694	2,017	3,710	4,878	(h)	86,635	91,731
September	21	127	45	172	1,250	1,611	2,136	3,747	4,997	(h)	73,566	78,757
October	27	129	88	216	1,431	1,671	2,170	3,841	5,272	(h)	74,520	80,035
November	31	151	103	255	1,274	1,622	2,257	3,878	5,153	(h)	73,063	78,502
December	36	174	119	293	1,371	1,783	2,088	3,871	5,242	(h)	88,255	93,826
Total	**353**	**1,798**	**1,059**	**2,857**	**15,326**	**19,766**	**25,549**	**45,314**	**60,641**	**(h)**	**933,627**	**997,478**
2010 January	43	195	150	345	1,472	2,051	2,053	4,104	5,576	(h)	90,418	96,381
February	37	170	132	302	1,584	1,947	2,171	4,118	5,703	(h)	79,754	85,796
March	34	156	120	276	1,801	2,079	2,075	4,155	5,955	(h)	76,139	82,404
April	22	126	49	175	1,786	1,659	2,227	3,886	5,672	(h)	66,976	72,845
May	21	125	49	173	1,794	1,929	1,973	3,902	5,696	(h)	75,721	81,612
June	24	138	54	192	1,772	1,930	1,946	3,876	5,648	(h)	87,097	92,962
July	23	143	42	186	1,783	2,092	1,922	4,014	5,797	(h)	94,576	100,581
August	25	156	46	202	1,814	2,163	1,887	4,050	5,864	(h)	94,281	100,372
September	23	142	42	184	1,894	1,907	2,155	4,062	5,956	(h)	79,032	85,195
October	26	132	81	213	1,731	1,887	2,209	4,096	5,826	(h)	70,838	76,904
November	27	136	83	219	1,787	1,776	2,335	4,111	5,898	(h)	72,479	78,624
December	34	169	104	273	1,874	2,161	2,002	4,163	6,036	(h)	88,277	94,620
Total	**339**	**1,787**	**954**	**2,741**	**21,092**	**23,581**	**24,955**	**48,535**	**69,628**	**(h)**	**975,588**	**1,048,295**
2011 January	R 40	184	R 140	R 325	R 1,746	2,184	R 2,272	R 4,457	R 6,202	(h)	89,839	R 96,406
February	R 37	171	R 131	R 302	R 1,623	1,919	R 2,509	R 4,428	R 6,052	(h)	73,253	R 79,644
March	34	158	120	278	1,819	1,918	2,540	4,458	6,276	(h)	72,015	78,603
3-Month Total	**112**	**513**	**391**	**905**	**5,188**	**6,022**	**7,321**	**13,343**	**18,531**	**(h)**	**235,107**	**254,654**
2010 3-Month Total	**114**	**520**	**402**	**923**	**4,857**	**6,077**	**6,300**	**12,377**	**17,234**	**(h)**	**246,311**	**264,581**
2009 3-Month Total	**118**	**557**	**394**	**951**	**4,398**	**5,090**	**6,985**	**12,075**	**16,473**	**(h)**	**236,842**	**254,383**

[a] 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.

[b] All commercial sector fuel use other than that in "Commercial CHP."

[c] 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.

[d] All industrial sector fuel use other than that in "Coke Plants" and "Industrial CHP."

[e] 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.

[f] Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.

[g] Included in "Commercial Other."

[h] 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 U.S. 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.gov/totalenergy/data/monthly/#coal 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[b,c]	Total
		Residential and Commercial	Industrial			Total		
			Coke Plants	Other[a]	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**	[c] **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**
2007 Year	**33,977**	**NA**	**1,936**	**5,624**	**7,560**	**7,560**	**151,221**	**192,758**
2008 Year	**34,688**	**498**	**2,331**	**6,007**	**8,338**	**8,836**	**161,589**	**205,112**
2009 January	38,394	490	2,260	5,788	8,049	8,539	156,075	203,008
February	42,066	483	2,190	5,570	7,760	8,243	160,601	210,909
March	41,257	475	2,119	5,352	7,471	7,946	174,223	223,426
April	43,195	477	2,000	5,266	7,266	7,744	185,790	236,729
May	41,622	480	1,880	5,181	7,061	7,541	195,103	244,266
June	44,018	482	1,760	5,096	6,856	7,338	195,656	247,012
July	45,372	496	1,702	5,099	6,800	7,297	193,563	246,232
August	42,457	510	1,644	5,101	6,745	7,255	191,532	241,244
September	41,690	524	1,585	5,104	6,690	7,214	197,208	246,112
October	43,882	526	1,683	5,106	6,789	7,314	199,477	250,673
November	42,217	527	1,780	5,108	6,888	7,415	203,765	253,397
December	**47,718**	**529**	**1,957**	**5,109**	**7,066**	**7,595**	**189,467**	**244,780**
2010 January	48,854	510	1,832	4,793	6,625	7,135	178,063	234,052
February	48,286	490	1,708	4,476	6,184	6,674	171,123	226,083
March	50,153	471	1,583	4,159	5,743	6,213	177,763	234,130
April	50,614	482	1,715	4,194	5,909	6,392	189,196	246,202
May	50,248	494	1,846	4,230	6,076	6,570	191,295	248,113
June	48,667	505	1,978	4,265	6,243	6,748	181,062	236,477
July	45,105	509	1,948	4,341	6,289	6,798	169,215	221,118
August	45,808	513	1,918	4,417	6,335	6,848	159,805	212,461
September	42,430	517	1,889	4,492	6,381	6,899	162,798	212,126
October	43,709	529	1,901	4,503	6,404	6,934	175,147	225,790
November	40,688	541	1,913	4,514	6,428	6,969	182,848	230,505
December	**42,151**	**553**	**1,925**	**4,525**	**6,451**	**7,004**	**175,160**	**224,315**
2011 January	40,848	[R] 536	[R] 1,937	[R] 4,859	[R] 6,796	[R] 7,332	165,059	[R] 213,239
February	38,526	[R] 520	[R] 1,948	[R] 5,194	[R] 7,141	[R] 7,661	161,705	[R] 207,892
March	37,334	503	1,959	5,528	7,487	7,990	166,954	212,278

[a] 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.

[b] 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.

[c] 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.

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 U.S. 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.gov/totalenergy/data/monthly/#coal 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 U.S. 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 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 forward, 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 311; 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 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 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.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: U.S. 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 forward: 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 U.S. 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 forward: 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 forward: 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: U.S. Energy Information Administration (EIA), Form EIA-6, "Coal Distribution Report," quarterly.
1998–2007: EIA, Form EIA-6A, "Coal Distribution Report," annual.

2008 forward: 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 forward: 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 forward: 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.

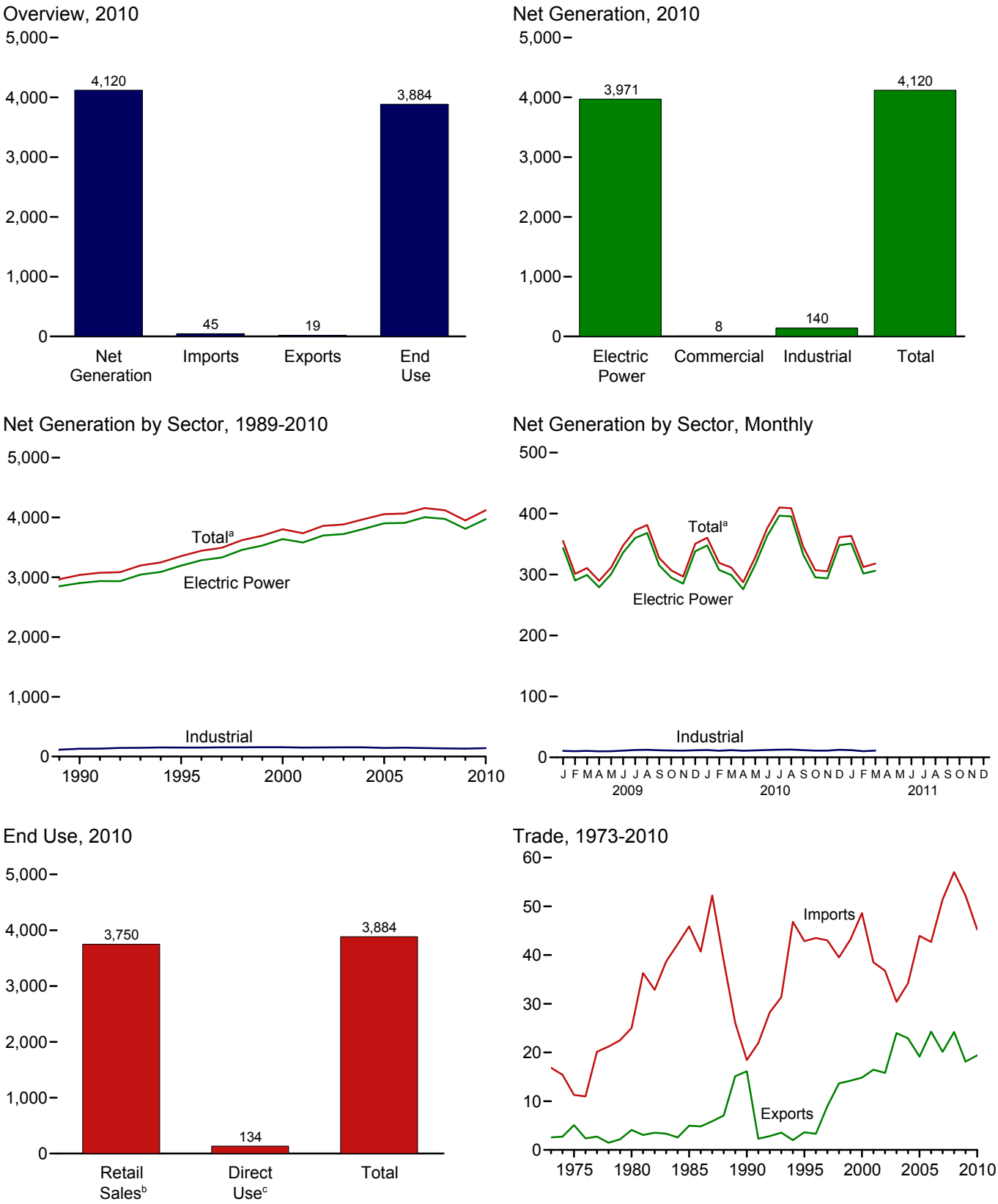
Electric Power

Table 7.5.

7 Electricity

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

Figure 7.1 Electricity Overview
(Billion Kilowatthours)



[a] Includes commercial sector.
[b] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[c] See "Direct Use" in Glossary.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity.
Source: Table 7.1.

Table 7.1 Electricity Overview

(Billion Kilowatthours)

	Net Generation				Trade			T&D Losses[e] and Unaccounted for[f]	End Use		
	Electric Power Sector[a]	Commercial Sector[b]	Industrial Sector[c]	Total	Imports[d]	Exports[d]	Net Imports[d]		Retail Sales[g]	Direct Use[h]	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**	**44**	**19**	**25**	**269**	**3,661**	**150**	**3,811**
2006 Total	**3,908**	**8**	**148**	**4,065**	**43**	**24**	**18**	**266**	**3,670**	**147**	**3,817**
2007 Total	**4,005**	**8**	**143**	**4,157**	**51**	**20**	**31**	**298**	**3,765**	**126**	**3,890**
2008 Total	**3,974**	**8**	**137**	**4,119**	**57**	**24**	**33**	**287**	**3,733**	**132**	**3,865**
2009 January	344	1	11	355	4	2	2	25	321	E 10	332
February	290	1	10	301	4	2	2	7	287	E 10	297
March	299	1	11	311	3	2	1	18	284	E 10	294
April	279	1	10	290	3	1	2	16	266	E 10	275
May	300	1	10	311	4	1	3	29	275	E 10	285
June	336	1	11	348	5	2	3	35	305	E 11	315
July	360	1	12	373	6	1	4	27	338	E 11	349
August	368	1	12	381	6	1	4	29	345	E 12	357
September	315	1	12	327	4	1	3	8	311	E 11	322
October	295	1	11	307	5	1	3	12	287	E 11	298
November	285	1	11	297	4	1	3	21	268	E 11	278
December	338	1	12	351	5	1	3	33	310	E 11	321
Total	**3,810**	**8**	**132**	**3,950**	**52**	**18**	**34**	**261**	**3,597**	**127**	**3,724**
2010 January	348	1	12	360	5	1	4	21	332	E 11	343
February	308	1	11	319	4	1	3	14	298	E 10	309
March	299	1	12	312	4	1	3	11	292	E 11	303
April	276	1	11	287	4	1	3	13	266	E 10	277
May	316	1	11	328	3	2	1	36	283	E 11	294
June	363	1	12	376	4	2	2	37	330	E 12	341
July	397	1	13	410	4	2	3	32	369	E 12	381
August	395	1	13	409	4	2	2	27	371	E 12	384
September	332	1	12	345	3	2	(s)	6	328	E 11	340
October	295	1	11	307	3	2	(s)	10	287	E 11	298
November	294	1	11	305	3	2	1	22	274	E 11	285
December	348	1	12	361	4	1	3	33	319	E 12	330
Total	**3,971**	**8**	**140**	**4,120**	**45**	**19**	**26**	**261**	**3,750**	**E 134**	**3,884**
2011 January	351	1	12	363	4	2	3	21	334	E 11	345
February	302	1	10	312	4	2	2	7	297	E 10	307
March	306	1	11	318	4	2	2	19	291	E 11	301
3-Month Total	**958**	**2**	**33**	**994**	**12**	**5**	**7**	**47**	**922**	**E 32**	**954**
2010 3-Month Total	**954**	**2**	**35**	**991**	**14**	**4**	**11**	**46**	**922**	**E 33**	**955**
2009 3-Month Total	**933**	**2**	**31**	**966**	**11**	**5**	**6**	**50**	**892**	**E 30**	**922**

[a] 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.

[b] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

[c] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, data are for industrial hydroelectric power only.

[d] Electricity transmitted across U.S. borders. Net imports equal imports minus exports.

[e] 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.

[f] Data collection frame differences and nonsampling error.

[g] Electricity retail sales to ultimate customers by electric utilities and, beginning in 1996, other energy service providers.

[h] 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.

E=Estimate. NA=Not available. (s)=Less than 0.5 billion kilowatthours.

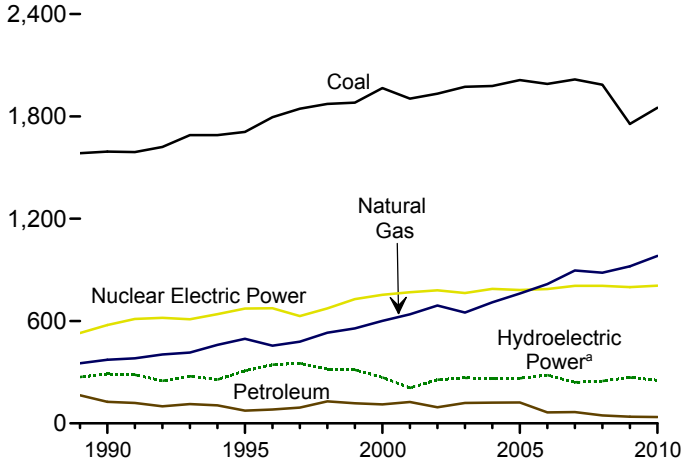
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity for all available data beginning in 1973.

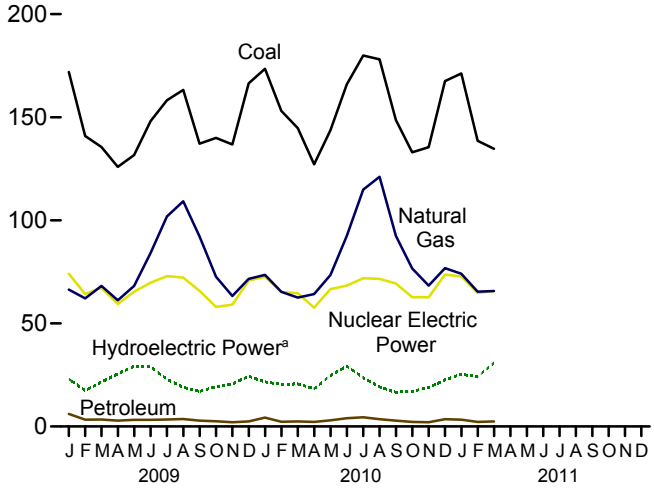
Sources: See end of section.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

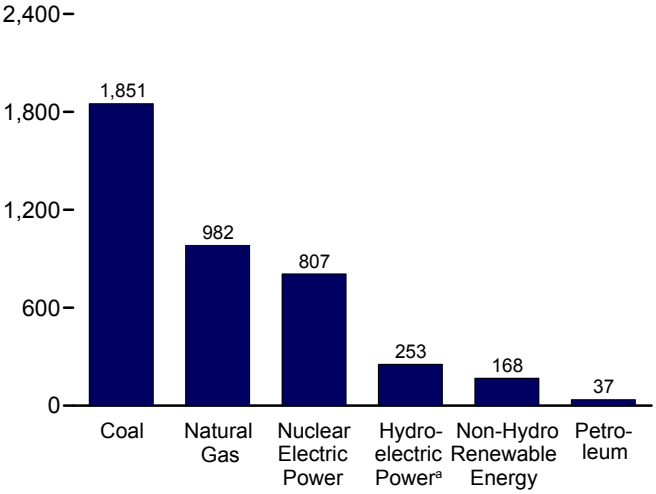
Total (All Sectors), Major Sources, 1989-2010



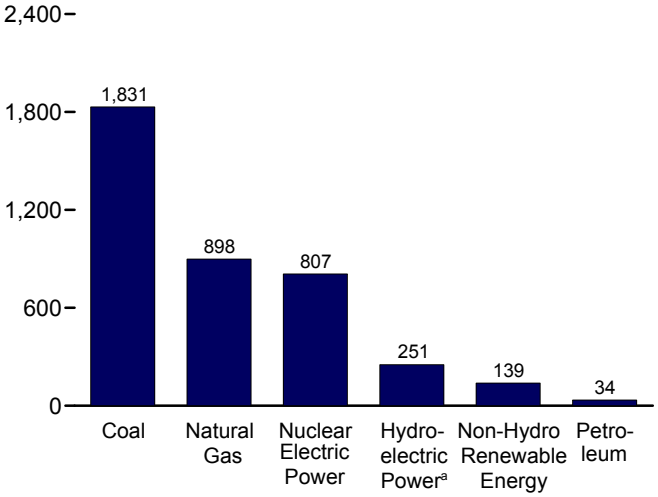
Total (All Sectors), Major Sources, Monthly



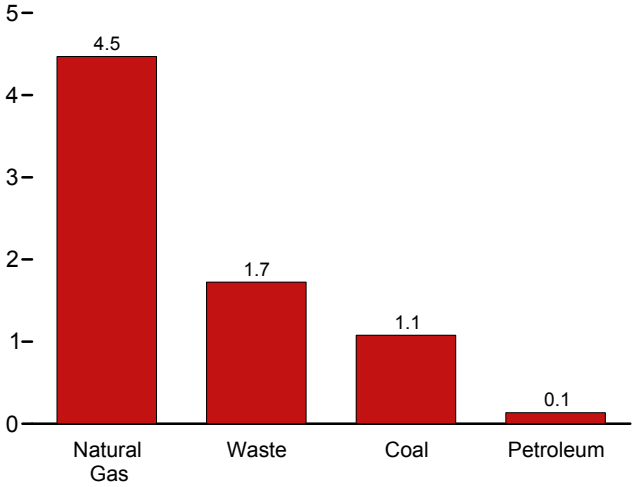
Total (All Sectors), Major Sources, 2010



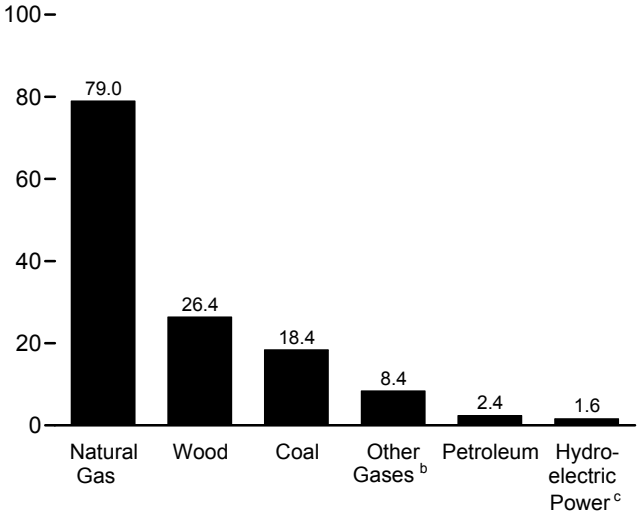
Electric Power Sector, Major Sources, 2010



Commercial Sector, Major Sources, 2010



Industrial Sector, Major Sources, 2010



[a] Conventional and pumped storage hydroelectric power.
[b] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[c] Conventional hydroelectric power.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity.
Sources: Tables 7.2a–7.2c.

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

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

	Fossil Fuels						Renewable Energy						
								Biomass					
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power[f]	Wood[g]	Waste[h]	Geothermal	Solar/PV[i]	Wind	Total[j]
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 [k]	**1,594,011**	**126,460**	**372,765**	**10,383**	**576,862**	**-3,508**	**292,866**	**32,522**	**13,260**	**15,434**	**367**	**2,789**	**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 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 Total	**1,985,801**	**46,243**	**882,981**	**11,707**	**806,208**	**-6,288**	**254,831**	**37,300**	**17,734**	**14,840**	**864**	**55,363**	**4,119,388**
2009 January	171,925	6,104	66,390	807	74,102	-501	23,490	3,030	1,462	1,289	7	5,951	354,993
February	140,916	3,318	62,139	784	64,227	-413	17,812	2,823	1,357	1,168	30	5,852	300,887
March	135,530	3,349	68,203	834	67,241	-315	21,827	2,919	1,553	1,300	78	7,099	310,603
April	125,935	2,807	61,159	758	59,408	-272	25,770	2,664	1,542	1,222	99	7,458	289,537
May	131,673	3,209	68,146	773	65,395	-349	29,560	2,735	1,522	1,235	110	6,262	311,306
June	148,087	3,243	84,205	876	69,735	-226	29,233	2,997	1,558	1,209	103	5,599	347,658
July	158,234	3,358	101,894	966	72,949	-491	23,385	3,227	1,628	1,255	121	4,955	372,542
August	163,260	3,642	109,240	1,012	72,245	-613	19,580	3,355	1,604	1,251	116	5,464	381,221
September	137,145	2,853	92,127	1,022	65,752	-348	17,359	3,061	1,501	1,217	95	4,651	327,401
October	139,956	2,560	72,603	960	58,021	-385	19,691	3,032	1,533	1,221	68	6,814	307,040
November	136,810	2,072	63,285	910	59,069	-330	21,008	3,049	1,572	1,273	40	6,875	296,635
December	166,434	2,422	71,590	930	70,710	-383	24,730	3,158	1,608	1,368	21	6,906	350,507
Total	**1,755,904**	**38,937**	**920,979**	**10,632**	**798,855**	**-4,627**	**273,445**	**36,050**	**18,443**	**15,009**	**891**	**73,886**	**3,950,331**
2010 January	173,505	4,301	73,558	909	72,569	-537	22,156	3,248	1,482	1,373	10	6,965	360,401
February	153,073	2,313	65,345	829	65,245	-96	20,513	2,958	1,315	1,217	34	5,494	319,004
March	144,703	2,436	62,548	997	64,635	-49	20,626	3,170	1,557	1,332	81	8,683	311,601
April	127,164	2,246	64,240	947	57,611	-303	18,630	2,998	1,596	1,262	124	9,838	287,279
May	143,686	2,991	73,427	992	66,658	-197	24,920	3,010	1,562	1,334	175	8,681	328,208
June	165,918	4,026	92,398	939	68,301	-227	29,489	3,198	1,577	1,294	196	7,992	376,100
July	179,933	4,454	114,883	950	71,913	-466	24,136	3,419	1,610	1,304	182	6,631	409,972
August	178,101	3,553	121,127	1,041	71,574	-533	19,748	3,403	1,606	1,319	173	6,613	408,761
September	148,667	2,817	92,503	973	69,371	-349	16,915	3,173	1,527	1,263	146	7,080	345,064
October	132,955	2,207	76,631	782	62,751	-374	17,382	2,954	1,518	1,224	75	7,963	307,054
November	135,496	2,050	68,332	897	62,655	-429	19,425	3,124	1,588	1,333	67	9,875	305,340
December	167,548	3,532	76,822	938	73,683	-530	23,111	3,319	1,619	1,412	38	8,833	361,244
Total	**1,850,750**	**36,925**	**981,815**	**11,193**	**806,968**	**-4,091**	**257,052**	**37,975**	**18,557**	**15,666**	**1,299**	**94,647**	**4,120,028**
2011 January	171,246	3,288	74,070	923	72,743	-426	25,746	3,167	1,432	1,435	43	8,888	363,378
February	138,590	2,201	65,375	795	64,789	-247	24,346	2,699	1,325	1,289	102	10,315	312,334
March	134,715	2,437	65,679	958	65,662	-350	31,385	2,878	1,568	1,425	110	10,452	317,835
3-Month Total	**444,550**	**7,926**	**205,124**	**2,676**	**203,193**	**-1,023**	**81,476**	**8,744**	**4,325**	**4,150**	**255**	**29,654**	**993,546**
2010 3-Month Total	**471,281**	**9,050**	**201,451**	**2,735**	**202,449**	**-682**	**63,295**	**9,376**	**4,353**	**3,922**	**125**	**21,141**	**991,006**
2009 3-Month Total	**448,371**	**12,771**	**196,732**	**2,425**	**205,570**	**-1,230**	**63,130**	**8,772**	**4,373**	**3,757**	**116**	**18,902**	**966,483**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[c] Natural gas, plus a small amount of supplemental gaseous fuels.
[d] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[e] Pumped storage facility production minus energy used for pumping.
[f] Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."
[g] Wood and wood-derived fuels.
[h] 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).
[i] Solar thermal and photovoltaic (PV) energy.
[j] 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).
[k] 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.

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.gov/totalenergy/data/monthly/#electricity 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						Renewable Energy						
								Biomass					
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power[f]	Wood[g]	Waste[h]	Geothermal	Solar/PV[i]	Wind	Total[j]
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[k]	**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**
2007 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**
2008 Total	**1,968,838**	**42,881**	**802,372**	**3,200**	**806,208**	**-6,288**	**253,096**	**10,638**	**15,379**	**14,840**	**864**	**55,363**	**3,974,349**
2009 January	170,626	5,736	59,969	220	74,102	-501	23,316	990	1,256	1,289	7	5,951	343,516
February	139,743	2,999	56,164	213	64,227	-413	17,662	903	1,178	1,168	30	5,852	290,221
March	134,314	3,077	61,837	240	67,241	-315	21,624	862	1,343	1,300	78	7,099	299,257
April	124,803	2,557	55,301	231	59,408	-272	25,570	721	1,334	1,222	99	7,458	278,994
May	130,527	2,965	62,125	234	65,395	-349	29,364	749	1,323	1,235	110	6,262	300,496
June	146,845	2,994	77,591	253	69,735	-226	29,055	928	1,358	1,209	103	5,599	336,011
July	156,943	3,111	94,487	288	72,949	-491	23,243	976	1,417	1,255	121	4,955	359,842
August	161,917	3,391	101,636	278	72,245	-613	19,444	1,021	1,395	1,251	116	5,464	368,139
September	135,950	2,607	84,942	298	65,752	-348	17,263	891	1,301	1,217	95	4,651	315,163
October	138,667	2,340	65,852	280	58,021	-385	19,552	825	1,315	1,221	68	6,814	295,093
November	135,644	1,846	56,735	256	59,069	-330	20,865	866	1,345	1,273	40	6,875	285,012
December	165,146	2,190	64,367	269	70,710	-383	24,548	1,004	1,388	1,368	21	6,906	338,095
Total	**1,741,123**	**35,811**	**841,006**	**3,058**	**798,855**	**-4,627**	**271,506**	**10,738**	**15,954**	**15,009**	**891**	**73,886**	**3,809,837**
2010 January	171,811	4,053	66,354	269	72,569	-537	21,976	1,039	1,278	1,373	10	6,964	347,699
February	151,487	2,111	58,953	242	65,245	-96	20,338	930	1,146	1,217	34	5,494	307,583
March	142,988	2,264	55,716	262	64,635	-49	20,435	931	1,367	1,332	81	8,683	299,184
April	125,900	2,068	57,804	259	57,611	-303	18,449	831	1,376	1,262	124	9,838	275,789
May	142,079	2,779	66,766	265	66,658	-197	24,739	872	1,341	1,334	174	8,681	316,096
June	164,235	3,783	85,264	252	68,301	-227	29,335	978	1,358	1,294	195	7,992	363,367
July	178,103	4,209	107,406	254	71,913	-466	24,024	1,077	1,390	1,304	181	6,631	396,648
August	176,200	3,335	113,577	232	71,574	-533	19,652	1,101	1,383	1,319	172	6,613	395,249
September	147,090	2,624	85,268	224	69,371	-349	16,840	946	1,311	1,263	146	7,080	332,413
October	131,361	2,031	70,141	157	62,751	-374	17,272	837	1,308	1,224	75	7,963	295,340
November	134,166	1,887	61,684	217	62,655	-429	19,302	927	1,388	1,333	66	9,875	293,670
December	165,806	3,296	69,440	205	73,683	-530	22,966	1,041	1,413	1,412	38	8,833	348,195
Total	**1,831,226**	**34,438**	**898,373**	**2,840**	**806,968**	**-4,091**	**255,328**	**11,508**	**16,060**	**15,666**	**1,295**	**94,646**	**3,971,233**
2011 January	169,476	3,073	66,967	248	72,743	-426	25,601	980	1,233	1,435	43	8,888	350,766
February	137,092	2,041	59,237	222	64,789	-247	24,178	868	1,149	1,289	101	10,315	301,505
March	133,261	2,272	59,107	253	65,662	-350	31,188	877	1,372	1,425	110	10,451	306,200
3-Month Total	**439,830**	**7,386**	**185,311**	**724**	**203,193**	**-1,023**	**80,967**	**2,726**	**3,754**	**4,150**	**254**	**29,653**	**958,470**
2010 3-Month Total	**466,286**	**8,427**	**181,023**	**773**	**202,449**	**-682**	**62,750**	**2,899**	**3,792**	**3,922**	**124**	**21,141**	**954,466**
2009 3-Month Total	**444,682**	**11,812**	**177,969**	**672**	**205,570**	**-1,230**	**62,603**	**2,755**	**3,778**	**3,757**	**116**	**18,902**	**932,994**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[c] Natural gas, plus a small amount of supplemental gaseous fuels.
[d] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[e] Pumped storage facility production minus energy used for pumping.
[f] Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."
[g] Wood and wood-derived fuels.
[h] 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).
[i] Solar thermal and photovoltaic (PV) energy.
[j] 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).
[k] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilites 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.gov/totalenergy/data/monthly/#electricity 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[a]					Industrial Sector[b]							
				Biomass							Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Total[g]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[h]	Hydroelectric Power[i]	Wood[j]	Waste[f]	Total[k]
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**	**7,008**	**60,007**	**9,641**	**2,975**	**25,379**	**949**	**130,830**
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 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 Total	**1,261**	**142**	**4,188**	**1,534**	**7,926**	**15,703**	**3,219**	**76,421**	**8,507**	**1,676**	**26,641**	**821**	**137,113**
2009 January	105	44	362	131	717	1,194	324	6,059	587	165	2,039	75	10,760
February	92	19	333	120	627	1,081	299	5,642	571	144	1,919	59	10,040
March	86	11	344	145	668	1,130	261	6,022	595	193	2,054	65	10,678
April	74	11	324	145	633	1,058	239	5,534	527	191	1,941	63	9,910
May	76	9	310	155	640	1,070	235	5,710	539	187	1,984	44	10,170
June	82	5	345	155	675	1,160	244	6,269	623	169	2,068	46	10,973
July	96	8	394	156	733	1,195	239	7,013	678	140	2,249	55	11,968
August	109	13	414	154	769	1,235	239	7,189	734	136	2,332	55	12,314
September	89	8	374	148	693	1,105	238	6,810	725	95	2,168	52	11,545
October	85	8	346	146	659	1,204	212	6,405	680	136	2,206	72	11,289
November	94	11	311	151	648	1,072	215	6,239	655	137	2,181	76	10,975
December	107	13	367	143	703	1,181	219	6,855	662	175	2,152	78	11,709
Total	**1,096**	**163**	**4,225**	**1,748**	**8,165**	**13,686**	**2,963**	**75,748**	**7,574**	**1,868**	**25,292**	**740**	**132,329**
2010 January	119	11	365	142	711	1,574	238	6,839	640	173	2,207	62	11,990
February	105	9	324	114	612	1,481	193	6,068	587	168	2,026	55	10,809
March	88	9	340	134	645	1,627	163	6,491	735	182	2,238	55	11,772
April	79	9	331	153	656	1,184	170	6,105	688	169	2,165	67	10,834
May	84	13	332	153	670	1,523	199	6,330	727	169	2,136	68	11,442
June	92	15	366	151	712	1,591	228	6,768	687	141	2,219	68	12,021
July	98	18	427	147	767	1,732	227	7,050	696	106	2,341	73	12,558
August	96	14	440	154	783	1,804	203	7,110	808	94	2,301	69	12,728
September	84	12	398	151	724	1,493	181	6,836	748	72	2,225	64	11,927
October	79	9	372	147	684	1,515	167	6,118	624	106	2,115	63	11,030
November	65	7	380	136	656	1,266	156	6,268	680	117	2,196	64	11,014
December	87	11	395	142	712	1,655	226	6,988	733	134	2,276	64	12,336
Total	**1,078**	**136**	**4,470**	**1,723**	**8,334**	**18,446**	**2,351**	**78,972**	**8,353**	**1,632**	**26,445**	**774**	**140,461**
2011 January	103	12	377	137	706	1,667	203	6,726	675	134	2,185	62	11,906
February	96	8	337	122	634	1,402	152	5,801	572	157	1,829	53	10,195
March	78	7	320	136	629	1,375	158	6,252	705	184	1,999	60	11,006
3-Month Total	**276**	**27**	**1,034**	**395**	**1,969**	**4,444**	**513**	**18,779**	**1,952**	**475**	**6,012**	**175**	**33,107**
2010 3-Month Total	**312**	**29**	**1,030**	**390**	**1,969**	**4,683**	**594**	**19,398**	**1,962**	**524**	**6,471**	**172**	**34,571**
2009 3-Month Total	**284**	**75**	**1,039**	**397**	**2,012**	**3,405**	**884**	**17,723**	**1,753**	**502**	**6,011**	**199**	**31,477**

[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[e] Natural gas, plus a small amount of supplemental gaseous fuels.
[f] 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).
[g] Includes a small amount of conventional hydroelectric power, other gases, photovoltaic (PV) energy, wind, wood, and other, which are not separately displayed.
[h] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[i] Conventional hydroelectric power.
[j] Wood and wood-derived fuels.
[k] Includes photovoltaic (PV) energy, 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).

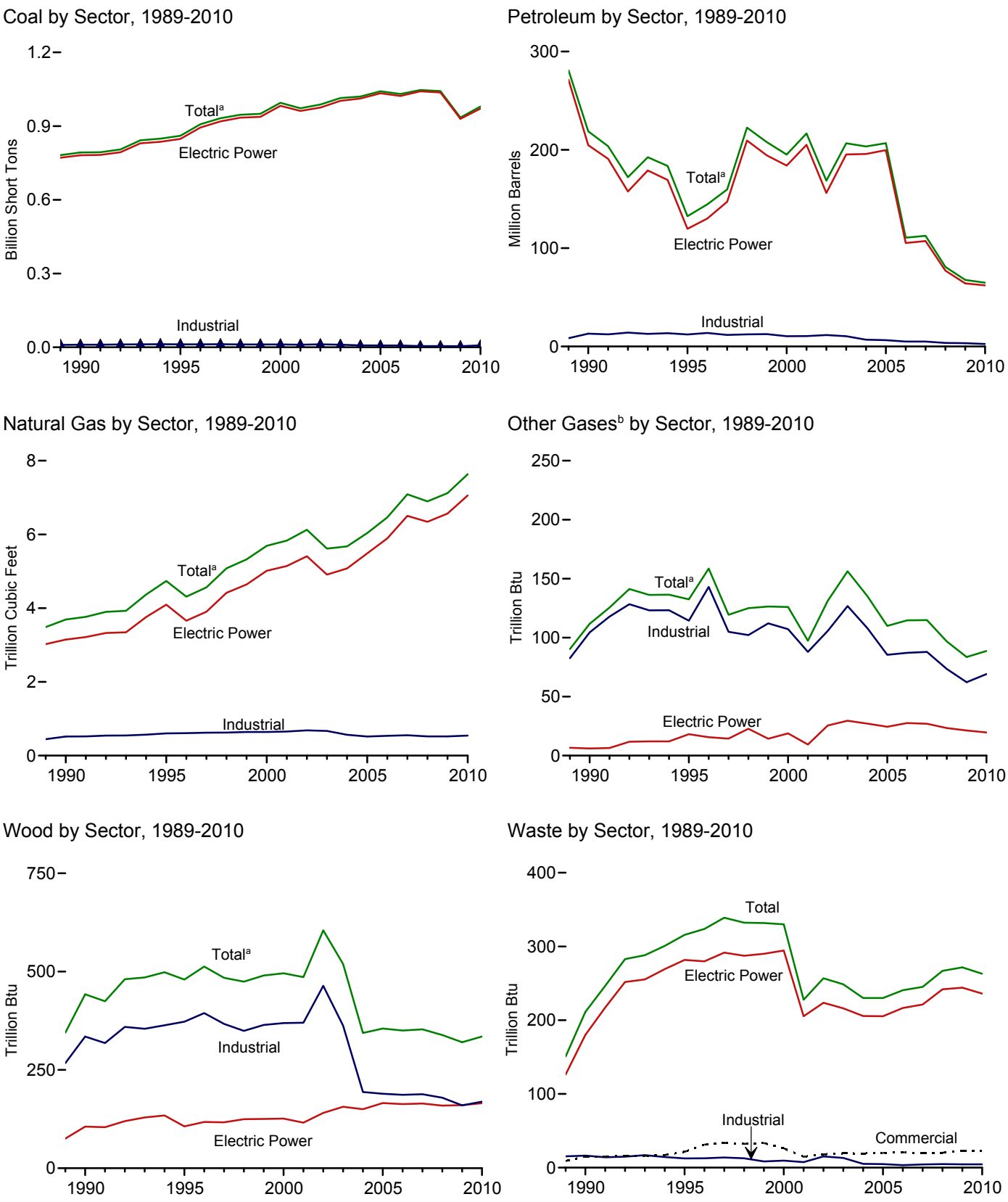
NA=Not available.

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.gov/totalenergy/data/monthly/#electricity for all available data beginning in 1973.

Sources: See end of section.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation



[a] Includes commercial sector.
[b] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity.
Sources: Tables 7.3a–7.3c.

Table 7.3a Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors) (Sum of Tables 7.3b and 7.3c)

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	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[k]	**792,457**	**18,143**	**190,652**	**437**	**1,914**	**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 Total	**1,046,795**	**15,683**	**63,833**	**2,917**	**6,036**	**112,615**	**7,089**	**115**	**353**	**245**	**168**
2008 Total	**1,042,335**	**12,832**	**38,191**	**2,822**	**5,417**	**80,932**	**6,896**	**97**	**339**	**267**	**172**
2009 January	90,639	1,882	6,033	424	426	10,467	505	6	28	21	13
February	74,256	1,203	2,414	256	390	5,823	470	6	25	20	12
March	71,990	1,252	2,045	246	480	5,943	519	7	26	23	14
April	67,209	825	1,691	178	427	4,828	468	6	23	23	14
May	70,508	1,071	2,216	185	432	5,632	533	6	24	23	15
June	79,071	1,001	2,313	150	433	5,628	665	7	26	23	15
July	84,360	934	2,517	134	455	5,859	802	8	29	24	15
August	86,789	1,002	2,976	166	439	6,338	865	8	30	24	15
September	73,705	765	1,846	135	438	4,936	713	8	27	22	14
October	74,686	847	2,062	139	276	4,427	559	7	27	22	14
November	73,150	827	1,217	143	273	3,551	479	7	27	23	14
December	88,320	1,050	1,246	172	353	4,234	544	8	29	23	14
Total	**934,683**	**12,658**	**28,576**	**2,328**	**4,821**	**67,668**	**7,121**	**84**	**320**	**272**	**170**
2010 January	90,716	2,473	2,857	210	437	7,723	566	7	29	21	12
February	80,053	817	1,081	167	402	4,076	496	6	26	19	11
March	76,548	743	1,264	114	441	4,326	473	8	28	22	13
April	67,090	681	1,174	104	385	3,882	492	8	26	23	14
May	76,123	1,014	2,024	101	417	5,227	580	8	26	23	14
June	87,451	1,253	3,150	137	489	6,983	729	8	28	22	14
July	94,992	1,333	3,735	184	529	7,897	922	7	30	23	14
August	94,767	1,090	3,039	142	411	6,326	971	8	31	23	15
September	79,350	935	1,832	128	382	4,805	720	8	28	22	14
October	71,161	812	1,132	114	355	3,831	587	6	26	22	14
November	72,643	857	1,010	132	303	3,515	513	7	28	22	13
December	88,662	1,883	2,061	258	406	6,230	586	7	30	23	13
Total	**979,555**	**13,892**	**24,359**	**1,790**	**4,956**	**64,821**	**7,633**	**89**	**335**	**263**	**161**
2011 January	90,223	1,245	1,746	220	524	5,834	562	7	29	21	12
February	73,570	855	1,033	118	387	3,940	503	6	26	19	11
March	72,330	840	1,143	118	460	4,402	501	7	26	23	13
3-Month Total	**236,122**	**2,940**	**3,923**	**456**	**1,371**	**14,175**	**1,566**	**21**	**81**	**63**	**37**
2010 3-Month Total	**247,317**	**4,033**	**5,202**	**491**	**1,280**	**16,124**	**1,535**	**22**	**83**	**62**	**37**
2009 3-Month Total	**236,885**	**4,337**	**10,492**	**926**	**1,296**	**22,234**	**1,493**	**19**	**79**	**64**	**40**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] 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.
[c] 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.
[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Natural gas, plus a small amount of supplemental gaseous fuels.
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).
[j] 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).
[k] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

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.gov/totalenergy/data/monthly/#electricity 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[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	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[k]	**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 Total	**1,041,346**	**15,135**	**62,072**	**2,496**	**5,523**	**107,316**	**6,502**	**27**	**165**	**221**	**117**
2008 Total	**1,036,891**	**12,318**	**37,222**	**2,608**	**5,000**	**77,149**	**6,342**	**23**	**159**	**242**	**122**
2009 January	90,224	1,778	5,871	400	398	10,039	460	1	15	19	9
February	73,894	1,084	2,313	234	363	5,445	429	1	13	18	8
March	71,583	1,198	1,958	201	455	5,632	475	2	13	20	10
April	66,830	769	1,623	149	403	4,557	428	2	11	20	9
May	70,105	981	2,154	172	407	5,340	491	2	11	21	10
June	78,636	932	2,264	130	406	5,357	619	2	14	21	10
July	83,917	865	2,474	126	423	5,577	751	2	15	22	10
August	86,322	927	2,935	150	409	6,056	812	2	15	21	10
September	73,288	707	1,801	122	407	4,663	664	2	13	20	10
October	74,232	809	2,022	129	247	4,195	512	2	13	20	9
November	72,767	787	1,173	136	243	3,309	434	2	13	20	9
December	87,894	1,012	1,180	161	326	3,982	494	2	15	21	10
Total	**929,692**	**11,848**	**27,768**	**2,110**	**4,485**	**64,151**	**6,567**	**21**	**160**	**244**	**115**
2010 January	90,034	2,435	2,782	199	409	7,462	516	2	15	18	9
February	79,389	789	1,032	162	376	3,861	452	2	13	17	8
March	75,792	720	1,229	108	415	4,134	425	2	14	20	9
April	66,651	655	1,141	100	359	3,690	447	2	13	21	10
May	75,386	983	1,976	95	389	4,999	534	2	12	20	10
June	86,745	1,213	3,090	130	458	6,722	680	2	14	20	10
July	94,205	1,292	3,665	179	498	7,627	870	2	15	21	10
August	93,918	1,056	2,988	137	382	6,093	919	1	16	20	10
September	78,683	904	1,789	122	357	4,602	670	1	13	19	10
October	70,489	784	1,090	105	334	3,649	542	1	12	20	10
November	72,135	833	975	124	283	3,347	468	1	14	20	10
December	87,895	1,851	1,996	244	379	5,984	535	1	15	20	10
Total	**971,322**	**13,515**	**23,752**	**1,705**	**4,639**	**62,170**	**7,056**	**20**	**165**	**236**	**115**
2011 January	89,440	1,224	1,689	215	495	5,602	512	2	14	19	9
February	72,891	834	994	112	365	3,764	457	1	13	17	8
March	71,684	822	1,106	111	437	4,222	455	2	13	21	10
3-Month Total	**234,016**	**2,880**	**3,790**	**438**	**1,296**	**13,589**	**1,425**	**5**	**40**	**57**	**27**
2010 3-Month Total	**245,215**	**3,944**	**5,043**	**469**	**1,200**	**15,457**	**1,393**	**6**	**42**	**56**	**26**
2009 3-Month Total	**235,701**	**4,061**	**10,143**	**834**	**1,216**	**21,116**	**1,364**	**5**	**41**	**58**	**28**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] 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.
[c] 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.
[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Natural gas, plus a small amount of supplemental gaseous fuels.
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).
[j] 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).
[k] 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.gov/totalenergy/data/monthly/#electricity 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[a]				Industrial Sector[b]						
				Biomass					Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	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**	**8,482**	**444**	**83**	**267**	**15**	**37**
1990 Total	**417**	**953**	**28**	**15**	**10,740**	**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 Total	**361**	**258**	**34**	**19**	**5,089**	**5,041**	**554**	**88**	**188**	**4**	**41**
2008 Total	**369**	**166**	**33**	**20**	**5,075**	**3,617**	**520**	**73**	**179**	**5**	**39**
2009 January	32	54	3	2	384	374	42	5	13	(s)	3
February	28	22	3	2	334	356	38	5	12	(s)	3
March	25	12	3	2	382	299	41	5	13	(s)	3
April	22	12	3	2	356	259	38	4	12	(s)	3
May	22	11	3	2	381	282	39	4	13	(s)	4
June	24	7	3	2	412	265	43	5	13	(s)	4
July	28	9	3	2	415	273	48	6	14	(s)	4
August	30	15	3	2	437	267	50	6	15	(s)	4
September	26	10	3	2	391	263	47	6	14	(s)	3
October	24	10	3	2	430	223	44	6	14	(s)	3
November	26	11	3	2	357	232	43	5	14	(s)	4
December	30	16	3	2	396	236	47	6	14	(s)	4
Total	**317**	**190**	**34**	**23**	**4,674**	**3,328**	**520**	**62**	**160**	**4**	**42**
2010 January	34	12	3	2	647	248	47	5	14	(s)	2
February	30	12	3	2	633	203	42	5	13	(s)	2
March	26	11	3	2	730	181	44	6	14	(s)	3
April	22	10	3	2	417	182	42	6	14	(s)	3
May	24	14	3	2	714	214	43	6	14	(s)	3
June	28	17	3	2	678	245	46	6	14	(s)	3
July	30	20	3	2	757	250	49	6	15	(s)	3
August	30	16	3	2	819	217	49	7	15	(s)	3
September	26	14	3	2	641	189	47	6	14	(s)	3
October	24	11	3	2	648	172	42	5	14	(s)	3
November	21	8	3	2	487	159	43	6	14	(s)	3
December	27	12	3	2	739	234	48	6	15	(s)	2
Total	**322**	**157**	**36**	**22**	**7,911**	**2,494**	**542**	**69**	**169**	**5**	**33**
2011 January	30	12	3	2	752	220	46	6	14	(s)	2
February	29	9	3	2	650	166	43	5	13	(s)	2
March	27	8	3	2	618	171	43	6	14	(s)	3
3-Month Total	**87**	**29**	**9**	**5**	**2,020**	**557**	**133**	**16**	**41**	**1**	**7**
2010 3-Month Total	**91**	**36**	**8**	**5**	**2,011**	**632**	**134**	**16**	**41**	**1**	**7**
2009 3-Month Total	**85**	**89**	**8**	**5**	**1,099**	**1,029**	**121**	**14**	**38**	**1**	**9**

[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[e] Natural gas, plus a small amount of supplemental gaseous fuels.
[f] 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).
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).

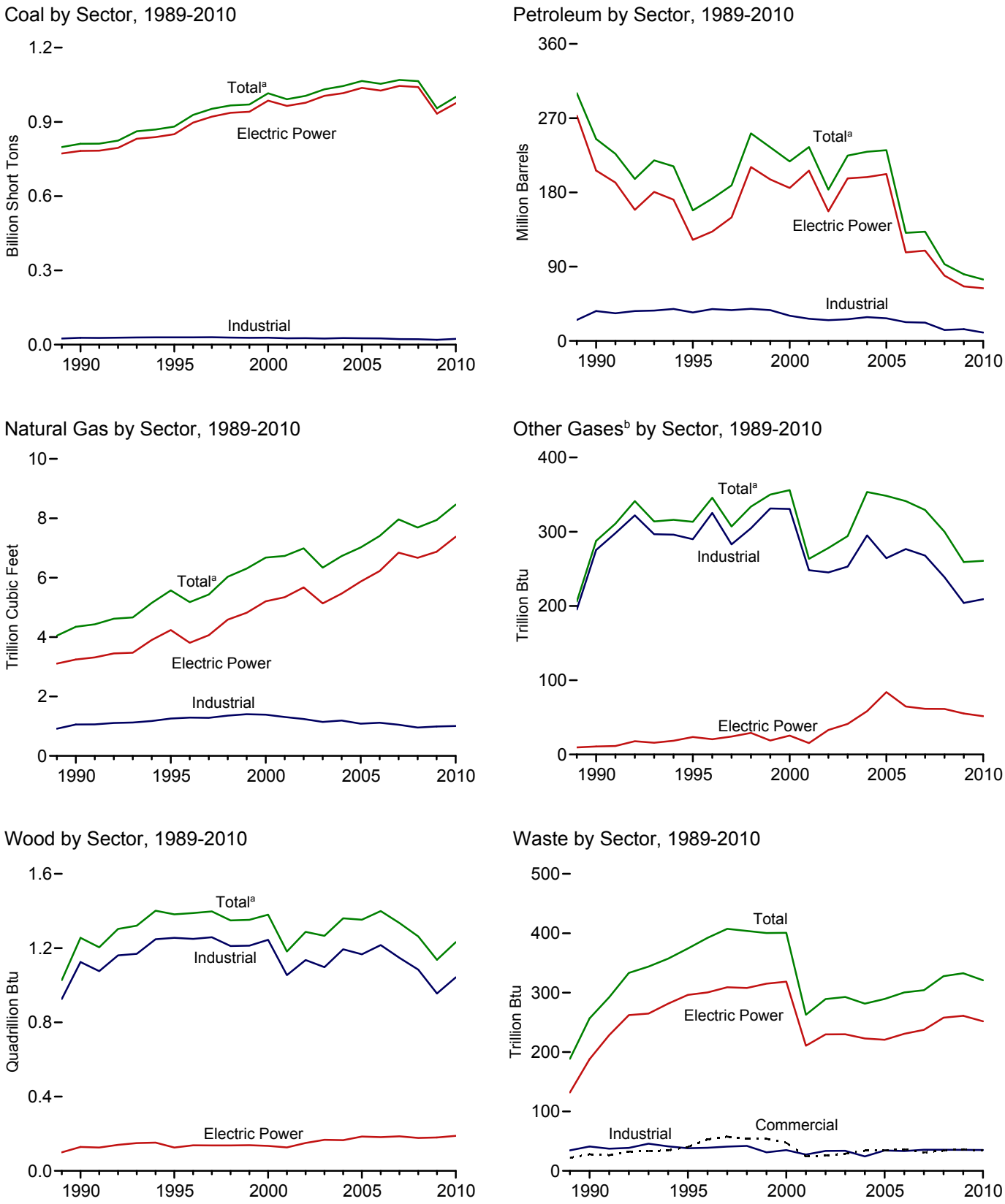
(s)=Less than 0.5 trillion Btu.

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.gov/totalenergy/data/monthly/#electricity for all available data beginning in 1989.

Sources: • **1989-1997:** U.S. 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 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.4 Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output



[a] Includes commercial sector.
[b] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity.
Sources: Tables 7.4a–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[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	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[k]	**811,538**	**20,194**	**209,081**	**1,332**	**2,832**	**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 Total	**1,069,606**	**17,042**	**74,616**	**4,237**	**7,299**	**132,389**	**7,962**	**329**	**1,336**	**304**	**239**
2008 Total	**1,064,503**	**14,137**	**43,477**	**3,765**	**6,314**	**92,948**	**7,689**	**300**	**1,263**	**328**	**212**
2009 January	92,641	2,157	6,799	536	509	12,037	575	21	95	27	18
February	76,038	1,432	2,913	354	474	7,069	531	20	89	25	17
March	73,810	1,449	2,473	350	559	7,068	584	21	92	30	18
April	68,738	994	2,054	275	494	5,794	531	19	86	27	19
May	72,092	1,238	2,817	270	501	6,827	597	20	89	27	20
June	80,689	1,174	2,706	205	514	6,652	731	21	93	27	20
July	86,039	1,118	2,850	181	545	6,876	874	23	100	28	20
August	88,471	1,158	3,297	215	530	7,322	940	24	103	28	20
September	75,305	923	2,168	199	531	5,946	785	24	96	26	19
October	76,319	980	2,380	195	364	5,377	628	22	98	28	19
November	74,836	972	1,546	194	366	4,541	544	22	97	29	19
December	90,212	1,204	1,671	242	441	5,320	618	22	101	29	19
Total	**955,190**	**14,800**	**33,672**	**3,218**	**5,828**	**80,830**	**7,938**	**259**	**1,137**	**333**	**228**
2010 January	92,663	2,661	3,295	293	530	8,900	641	22	105	27	15
February	81,871	896	1,393	235	463	4,840	561	20	95	24	13
March	78,373	809	1,481	157	509	4,991	542	24	105	27	15
April	68,761	743	1,392	136	451	4,525	556	23	99	27	16
May	77,775	1,138	2,339	149	479	6,018	647	23	101	28	16
June	89,165	1,423	3,528	184	544	7,855	795	22	103	27	16
July	96,811	1,492	4,150	217	590	8,809	995	21	107	27	16
August	96,600	1,241	3,387	182	455	7,083	1,042	23	108	27	17
September	81,081	1,028	2,124	168	415	5,396	788	21	103	25	16
October	72,857	883	1,426	169	426	4,611	654	19	100	27	16
November	74,391	941	1,260	178	370	4,232	580	21	103	27	15
December	90,607	2,010	2,452	347	470	7,161	660	22	104	28	15
Total	**1,000,956**	**15,265**	**28,227**	**2,414**	**5,703**	**74,420**	**8,460**	**261**	**1,232**	**321**	**186**
2011 January	92,207	1,317	2,131	271	581	6,627	642	22	103	27	15
February	75,344	939	1,257	155	462	4,661	567	20	93	25	14
March	74,090	898	1,391	158	538	5,136	569	23	97	27	16
3-Month Total	**241,642**	**3,154**	**4,779**	**584**	**1,581**	**16,424**	**1,778**	**65**	**293**	**78**	**44**
2010 3-Month Total	**252,908**	**4,367**	**6,169**	**685**	**1,502**	**18,731**	**1,744**	**65**	**305**	**77**	**43**
2009 3-Month Total	**242,489**	**5,039**	**12,185**	**1,241**	**1,542**	**26,174**	**1,690**	**62**	**276**	**83**	**53**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.
[c] Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.
[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Natural gas, plus a small amount of supplemental gaseous fuels.
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).
[j] 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).
[k] Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

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.gov/totalenergy/data/monthly/#electricity 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[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Biomass		Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]			Wood[h]	Waste[i]	
	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[k]	**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**
2007 Total	**1,045,141**	**15,327**	**63,086**	**2,594**	**5,685**	**109,431**	**6,841**	**61**	**186**	**237**	**124**
2008 Total	**1,040,580**	**12,547**	**38,241**	**2,670**	**5,119**	**79,056**	**6,668**	**61**	**177**	**258**	**131**
2009 January	90,640	1,865	5,974	424	410	10,311	487	4	17	21	10
February	74,254	1,106	2,385	256	374	5,614	453	4	15	19	9
March	71,948	1,227	2,023	214	464	5,785	500	4	14	24	10
April	67,123	776	1,709	159	414	4,712	451	4	12	21	10
May	70,425	987	2,230	192	418	5,497	515	5	13	22	11
June	78,954	935	2,345	132	418	5,501	643	5	15	22	11
July	84,243	868	2,558	127	434	5,721	778	5	16	23	11
August	86,635	930	3,021	151	419	6,199	840	5	17	23	11
September	73,566	709	1,885	123	416	4,799	690	5	14	21	10
October	74,520	813	2,123	132	256	4,349	537	5	14	21	10
November	73,063	797	1,260	138	252	3,457	457	4	15	22	10
December	88,255	1,023	1,270	162	336	4,137	520	5	17	22	10
Total	**933,627**	**12,035**	**28,782**	**2,210**	**4,611**	**66,081**	**6,873**	**55**	**180**	**261**	**124**
2010 January	90,418	2,451	2,865	204	423	7,636	544	5	17	20	10
February	79,754	806	1,069	186	388	4,001	477	4	16	18	9
March	76,139	725	1,271	111	428	4,247	452	5	16	22	10
April	66,976	661	1,223	102	369	3,830	472	5	14	21	10
May	75,721	988	2,067	96	400	5,151	560	5	14	21	11
June	87,097	1,218	3,177	132	467	6,864	707	4	16	21	11
July	94,576	1,299	3,752	181	507	7,768	900	4	17	22	11
August	94,281	1,061	3,077	139	386	6,210	948	4	18	21	11
September	79,032	909	1,874	124	361	4,712	696	4	15	20	10
October	70,838	796	1,175	107	344	3,799	566	3	14	21	10
November	72,479	876	1,061	126	295	3,536	493	4	16	21	10
December	88,277	1,860	2,085	246	389	6,137	562	4	17	22	10
Total	**975,588**	**13,650**	**24,696**	**1,755**	**4,758**	**63,891**	**7,378**	**52**	**189**	**252**	**124**
2011 January	89,839	1,236	1,796	217	501	5,755	547	4	16	21	10
February	73,253	861	1,041	114	375	3,891	483	4	15	19	9
March	72,015	827	1,177	111	449	4,359	482	5	14	21	11
3-Month Total	**235,107**	**2,924**	**4,014**	**442**	**1,325**	**14,005**	**1,511**	**13**	**45**	**61**	**29**
2010 3-Month Total	**246,311**	**3,981**	**5,205**	**502**	**1,239**	**15,884**	**1,473**	**14**	**48**	**60**	**28**
2009 3-Month Total	**236,842**	**4,197**	**10,382**	**893**	**1,248**	**21,710**	**1,441**	**12**	**46**	**63**	**29**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[b] Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.
[c] Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.
[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Natural gas, plus a small amount of supplemental gaseous fuels.
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).
[j] 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).
[k] 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.gov/totalenergy/data/monthly/#electricity 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[a]				Industrial Sector[b]						
				Biomass					Biomass		
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	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**	**25,444**	**914**	**195**	**926**	**35**	**85**
1990 Total	**1,191**	**2,056**	**46**	**28**	**27,781**	**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 Total	**1,927**	**752**	**70**	**31**	**22,537**	**22,207**	**1,050**	**268**	**1,148**	**36**	**98**
2008 Total	**2,021**	**671**	**66**	**34**	**21,902**	**13,222**	**955**	**239**	**1,084**	**35**	**60**
2009 January	208	176	7	3	1,793	1,550	81	17	78	4	6
February	178	70	6	3	1,605	1,385	71	16	74	3	6
March	170	35	6	3	1,692	1,248	79	17	77	4	6
April	128	26	5	3	1,487	1,056	74	15	73	3	6
May	117	19	5	3	1,550	1,311	77	15	76	2	7
June	135	14	6	3	1,600	1,138	82	16	77	2	7
July	137	19	7	3	1,659	1,136	89	18	83	2	7
August	143	38	7	3	1,694	1,086	92	19	86	2	7
September	127	20	7	3	1,611	1,128	88	19	81	2	7
October	129	17	6	3	1,671	1,010	85	17	84	4	7
November	151	35	6	3	1,622	1,049	81	17	82	4	7
December	174	53	7	3	1,783	1,130	91	17	84	4	7
Total	**1,798**	**521**	**76**	**36**	**19,766**	**14,228**	**990**	**204**	**955**	**35**	**82**
2010 January	195	41	7	3	2,051	1,222	90	17	88	3	3
February	170	33	6	3	1,947	807	78	15	79	3	3
March	156	32	6	3	2,079	712	84	19	89	3	3
April	126	26	6	3	1,659	669	79	18	84	3	3
May	125	36	6	3	1,929	831	81	18	86	3	3
June	138	41	6	3	1,930	950	83	18	87	3	4
July	143	56	7	3	2,092	985	88	17	90	3	4
August	156	51	7	3	2,163	823	87	19	90	3	4
September	142	36	6	3	1,907	648	85	17	88	3	4
October	132	30	6	3	1,887	782	82	16	86	3	4
November	136	29	7	3	1,776	667	81	17	87	3	3
December	169	47	7	3	2,161	977	91	18	87	3	3
Total	**1,787**	**458**	**75**	**34**	**23,581**	**10,071**	**1,007**	**209**	**1,042**	**35**	**41**
2011 January	184	46	7	3	2,184	825	88	18	87	3	3
February	171	27	6	3	1,919	743	78	16	78	3	3
March	158	31	6	3	1,918	746	82	19	82	3	3
3-Month Total	**513**	**105**	**18**	**8**	**6,022**	**2,314**	**249**	**52**	**247**	**8**	**9**
2010 3-Month Total	**520**	**107**	**19**	**8**	**6,077**	**2,740**	**252**	**52**	**256**	**9**	**10**
2009 3-Month Total	**557**	**281**	**18**	**9**	**5,090**	**4,183**	**231**	**50**	**229**	**11**	**18**

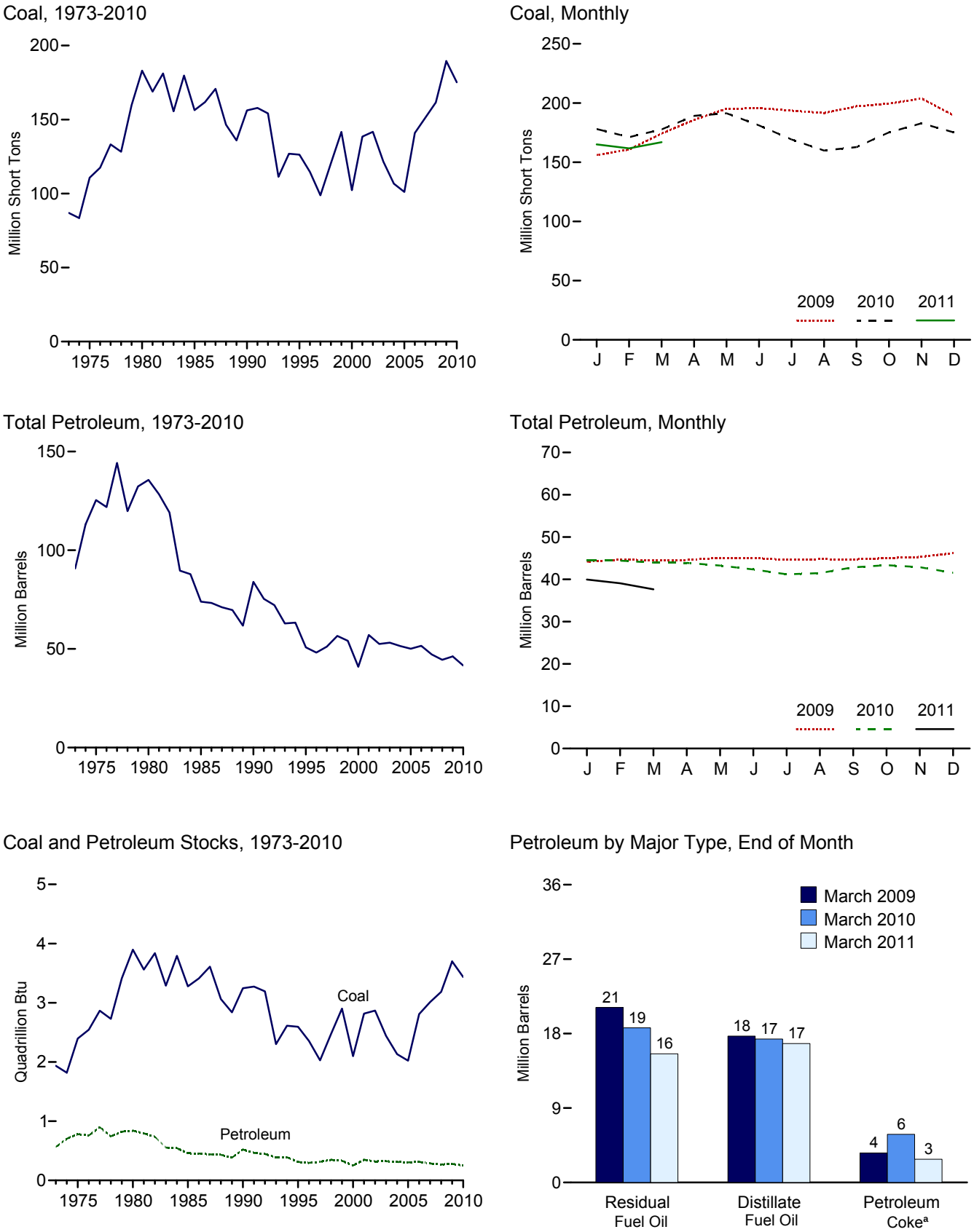
[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[e] Natural gas, plus a small amount of supplemental gaseous fuels.
[f] 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).
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood and wood-derived fuels.
[i] 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).

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.gov/totalenergy/data/monthly/#electricity for all available data beginning in 1989.

Sources: • **1989-1997:** U.S. 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 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector



[a] Converted from short tons to barrels by multiplying by 5.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity.
Sources: Tables 7.5, A1, and A5 (column 6).

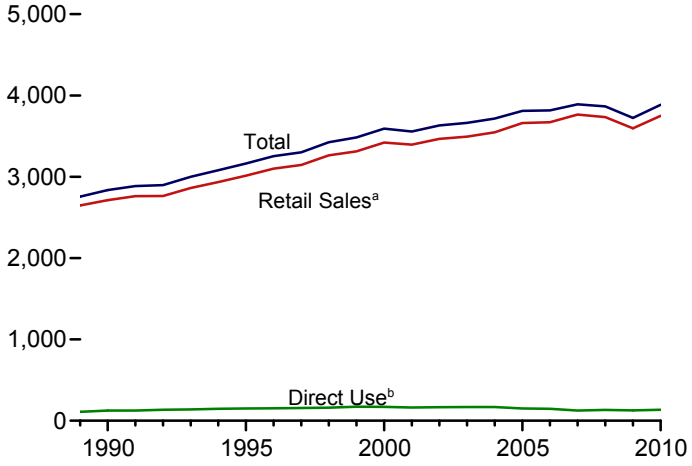
Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

	Coal[a]	Petroleum				
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels
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[f]	**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**
2007 Year	**151,221**	**18,395**	**24,136**	**1,902**	**554**	**47,203**
2008 Year	**161,589**	**17,761**	**21,088**	**1,955**	**739**	**44,498**
2009 January	156,075	17,882	20,501	2,061	746	44,175
February	160,601	17,737	21,141	2,102	738	44,668
March	174,223	17,691	21,160	2,118	715	44,544
April	185,790	18,055	20,890	2,129	705	44,598
May	195,103	17,958	21,022	2,195	779	45,072
June	195,656	17,866	21,131	2,234	763	45,048
July	193,563	17,971	20,734	2,252	729	44,604
August	191,532	18,040	20,093	2,265	876	44,777
September	197,208	18,162	19,454	2,292	963	44,726
October	199,477	18,009	18,931	2,307	1,152	45,007
November	203,765	17,880	18,806	2,316	1,258	45,294
December	**189,467**	**17,886**	**19,068**	**2,257**	**1,394**	**46,181**
2010 January	178,063	17,190	18,159	2,208	1,380	44,455
February	171,123	17,427	18,605	2,232	1,233	44,430
March	177,763	17,342	18,692	2,109	1,164	43,962
April	189,196	17,341	18,356	2,240	1,190	43,890
May	191,295	17,306	17,953	2,266	1,148	43,266
June	181,062	17,230	17,450	2,211	1,095	42,367
July	169,215	17,156	16,473	2,297	1,055	41,202
August	159,805	16,993	16,386	2,316	1,155	41,471
September	162,798	17,012	17,415	2,346	1,213	42,839
October	175,147	16,904	17,839	2,377	1,247	43,357
November	182,848	17,283	17,498	2,416	1,137	42,883
December	**175,160**	**17,052**	**16,702**	**2,371**	**1,087**	**41,563**
2011 January	165,059	16,982	16,160	2,436	876	39,957
February	161,705	16,966	15,723	2,487	781	39,083
March	166,954	16,798	15,554	2,474	563	37,644

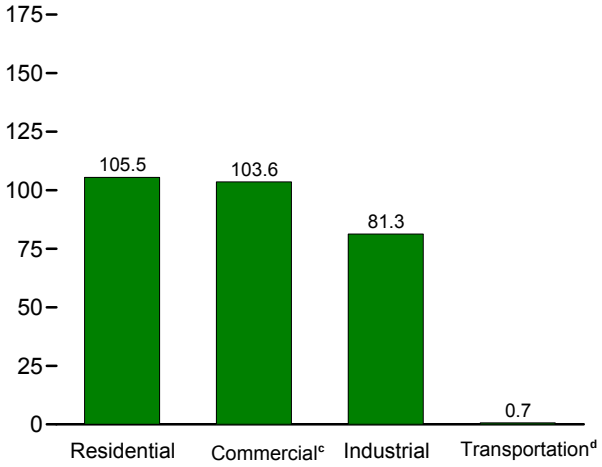
[a] Anthracite, bituminous coal, subbituminous coal, and lignite.
[b] Fuel oil nos. 1, 2 and 4. For 1973-1979, data are for gas turbine and internal combustion plant stocks of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.
[c] Fuel oil nos. 5 and 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.
[d] Jet fuel and kerosene. Through 2003, data also include a small amount of waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] 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.gov/totalenergy/data/monthly/#electricity 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:** U.S. 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 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.6 Electricity End Use
(Billion Kilowatthours)

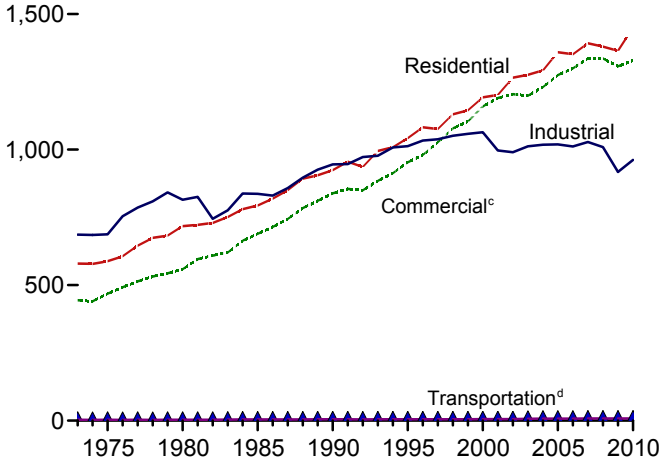
Electricity End Use Overview, 1989-2010



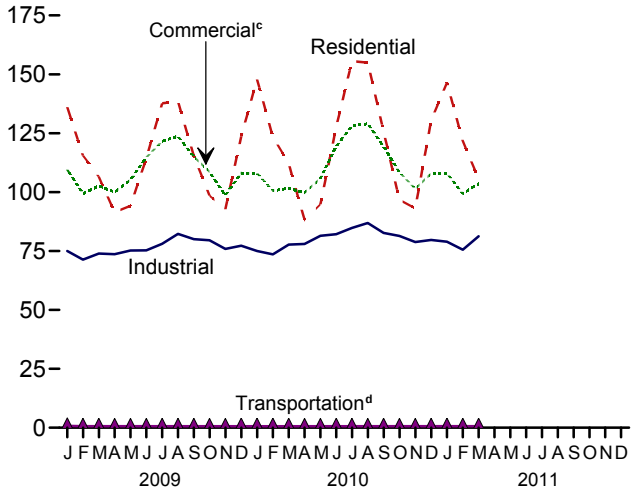
Retail Sales[a] by Sector, March 2011



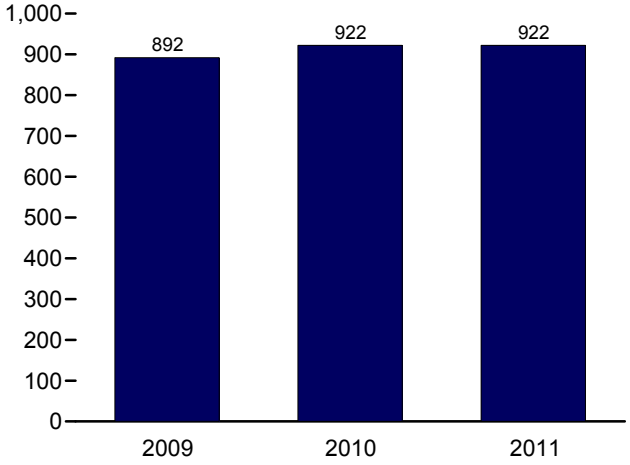
Retail Sales[a] by Sector, 1973-2010



Retail Sales[a] by Sector, Monthly



Retail Sales[a] Total, January-March



Retail Sales[a] Total, Monthly

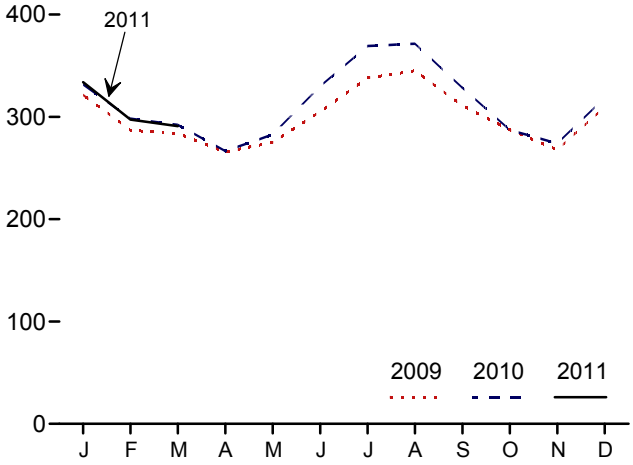


Table 7.6 Electricity End Use

(Million Kilowatthours)

	Retail Sales[a]							Discontinued Retail Sales Series	
	Residential	Commercial[b]	Industrial[c]	Transportation[d]	Total Retail Sales[e]	Direct Use[f]	Total End Use[g]	*Commercial (Old)* [h]	*Other (Old)* [i]
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**	**– –**	**– –**
2007 Total	**1,392,241**	**1,336,315**	**1,027,832**	**8,173**	**3,764,561**	**125,670**	**3,890,231**	**– –**	**– –**
2008 Total	**1,379,981**	**1,335,981**	**1,009,300**	**7,700**	**3,732,962**	**132,197**	**3,865,159**	**– –**	**– –**
2009 January	136,080	109,523	75,003	774	321,379	[E] 10,369	331,749	– –	– –
February	115,536	99,358	71,304	672	286,869	[E] 9,637	296,507	– –	– –
March	106,544	102,646	73,913	671	283,773	[E] 10,251	294,025	– –	– –
April	91,473	100,020	73,662	611	265,766	[E] 9,526	275,292	– –	– –
May	94,180	105,215	75,198	599	275,193	[E] 9,767	284,960	– –	– –
June	114,347	114,752	75,246	611	304,956	[E] 10,524	315,480	– –	– –
July	137,681	121,608	78,045	674	338,009	[E] 11,475	349,484	– –	– –
August	138,447	123,662	82,298	644	345,051	[E] 11,820	356,871	– –	– –
September	115,372	115,027	80,022	638	311,059	[E] 11,057	322,116	– –	– –
October	98,522	108,635	79,584	607	287,348	[E] 10,795	298,143	– –	– –
November	92,722	98,646	75,917	592	267,877	[E] 10,501	278,378	– –	– –
December	123,570	108,076	77,251	688	309,585	[E] 11,214	320,800	– –	– –
Total	**1,364,474**	**1,307,168**	**917,442**	**7,781**	**3,596,865**	**126,938**	**3,723,803**	**– –**	**– –**
2010 January	147,895	108,031	74,972	738	331,635	[E] 11,476	343,111	– –	– –
February	123,425	100,588	73,602	722	298,337	[E] 10,319	308,656	– –	– –
March	112,151	101,603	77,726	657	292,137	[E] 11,219	303,356	– –	– –
April	88,175	99,709	77,977	604	266,465	[E] 10,382	276,846	– –	– –
May	94,838	105,813	81,482	595	282,728	[E] 10,943	293,671	– –	– –
June	127,692	119,394	82,166	654	329,906	[E] 11,504	341,411	– –	– –
July	155,554	128,192	84,809	658	369,214	[E] 12,039	381,253	– –	– –
August	154,954	128,967	86,889	608	371,418	[E] 12,208	383,625	– –	– –
September	125,770	119,324	82,677	628	328,399	[E] 11,430	339,829	– –	– –
October	96,755	108,437	81,373	607	287,172	[E] 10,584	297,757	– –	– –
November	93,170	101,399	78,805	595	273,969	[E] 10,544	284,514	– –	– –
December	130,380	107,864	79,688	672	318,605	[E] 11,789	330,394	– –	– –
Total	**1,450,758**	**1,329,322**	**962,165**	**7,740**	**3,749,985**	[E] **134,438**	**3,884,423**	**– –**	**– –**
2011 January	146,431	107,908	78,934	697	333,969	[E] 11,395	345,364	– –	– –
February	121,729	99,357	75,566	650	297,302	[E] 9,784	307,086	– –	– –
March	105,476	103,551	81,263	657	290,947	[E] 10,512	301,459	– –	– –
3-Month Total	**373,636**	**310,815**	**235,762**	**2,004**	**922,218**	[E] **31,691**	**953,909**	**– –**	**– –**
2010 3-Month Total	**383,471**	**310,221**	**226,299**	**2,117**	**922,109**	[E] **33,014**	**955,123**	**– –**	**– –**
2009 3-Month Total	**358,159**	**311,526**	**220,220**	**2,117**	**892,022**	[E] **30,258**	**922,280**	**– –**	**– –**

[a] Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
[b] Commercial sector, including public street and highway lighting, interdepartmental sales, and other sales to public authorities.
[c] Industrial sector. Through 2002, excludes agriculture and irrigation; beginning in 2003, includes agriculture and irrigation.
[d] Transportation sector, including sales to railroads and railways.
[e] The sum of "Residential," "Commercial," "Industrial," and "Transportation."
[f] 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.
[g] The sum of "Total Retail Sales" and "Direct Use."
[h] "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.
[i] "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.gov/totalenergy/data/monthly/#electricity for all available data beginning in 1973.

Sources: See end of section.

Electricity

Note. Classification of Power Plants Into Energy-Use Sectors. The U.S. 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.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: U.S. 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: U.S. 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 forward: 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 U.S. 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 forward: 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: U.S. 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 forward: 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: U.S. 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 forward: EIA, Form EIA-923, "Power Plant Operations 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: U.S. 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 2011, 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.gov/states/sep_use/notes/use_elec.pdf.
2003 forward: EIA, *Electric Power Monthly*, June 2011, 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.gov/states/sep_use/notes/use_elec.pdf.
2003 forward: EIA, *Electric Power Monthly*, June 2011, Table 5.1.

Direct Use, Annual

1989–1996: EIA, Form EIA-867, "Annual Nonutility Power Producer Report."
1997–2009: EIA, *Electric Power Annual 2009*, November 2010, Table 7.2.
2010: Sum of monthly estimates.

Direct Use, Monthly

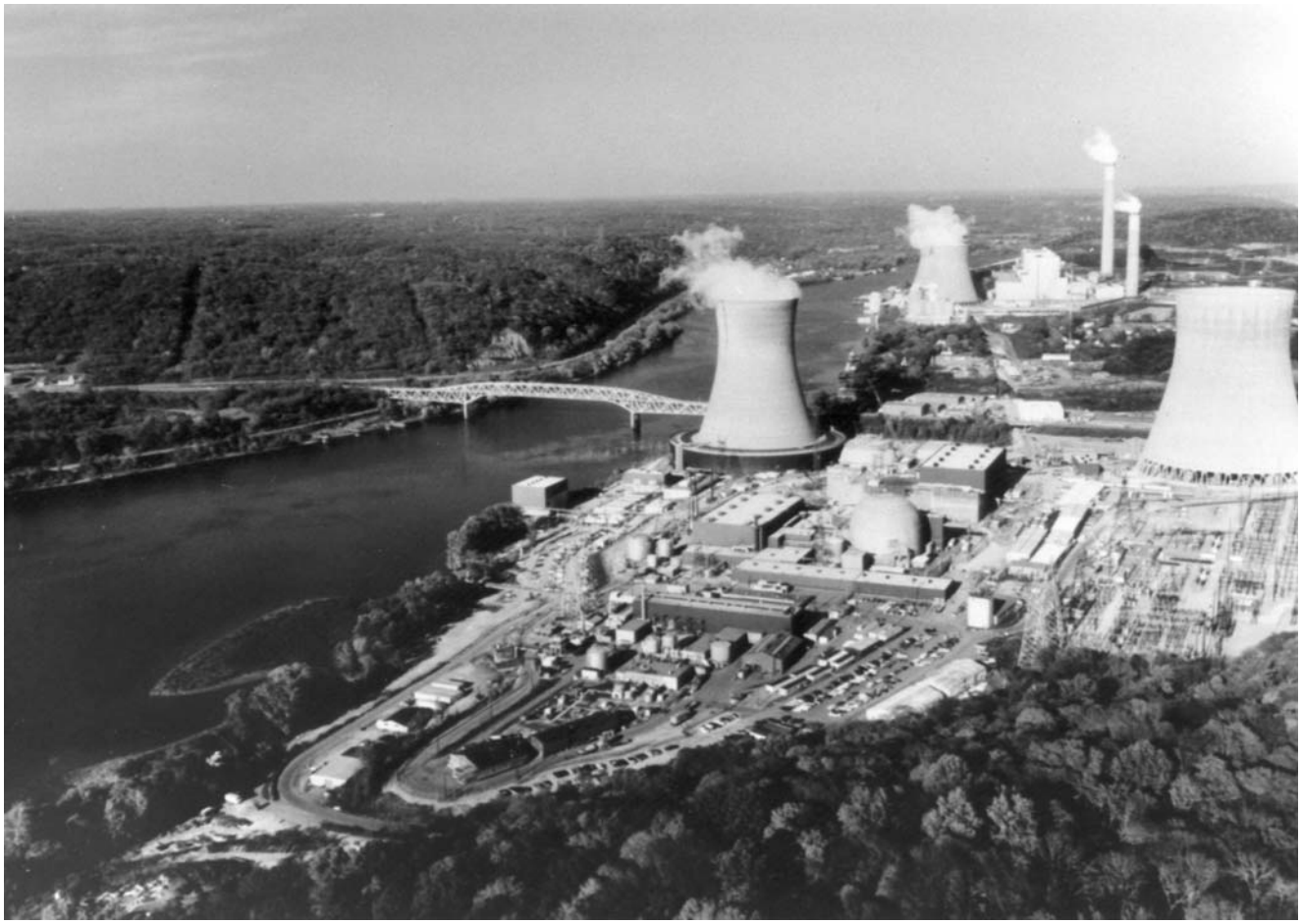
Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2010 and 2011, the 2009 annual share is used.

Discontinued Retail Sales Series Commercial (Old) and Other (Old)

1973–2002: See sources for "Residential" and "Industrial."

8

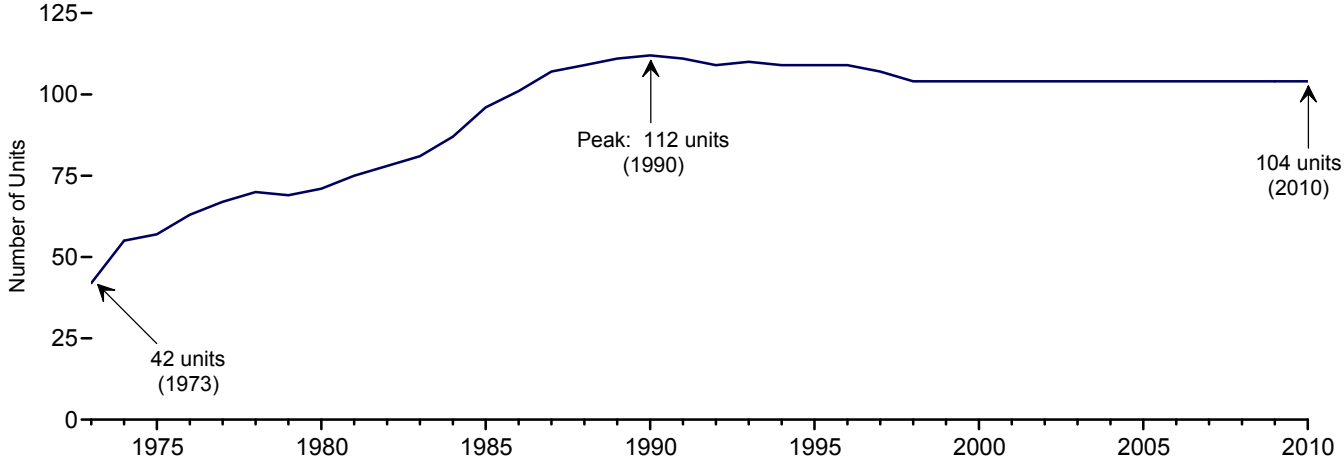
Nuclear Energy



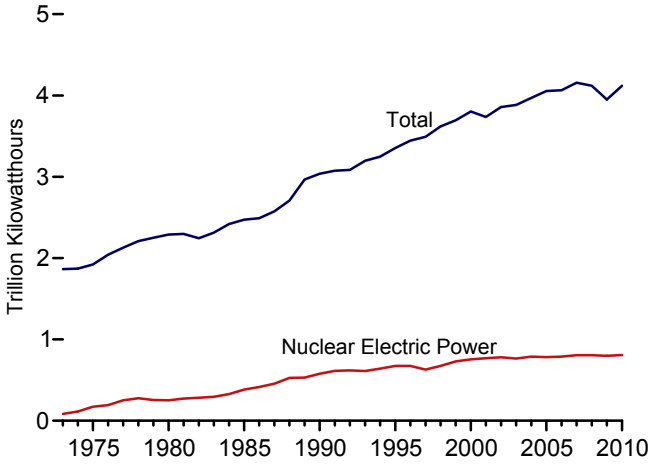
Site of Shippingport atomic power station, the first commercial nuclear power plant in the United States (rectangular reactor building and foreground); background, Beaver Valley 1 and 2 nuclear power plants and Bruce Mansfield coal-fired power plant (southwestern Pennsylvania). Source: U.S. Department of Energy.

Figure 8.1 Nuclear Energy Overview

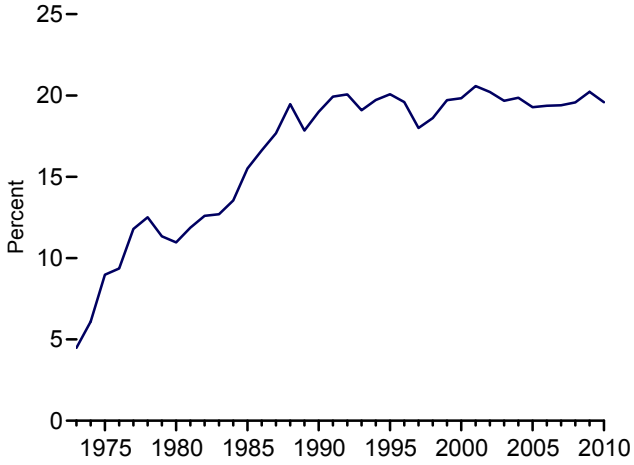
Operable Units, End of Year, 1973-2010



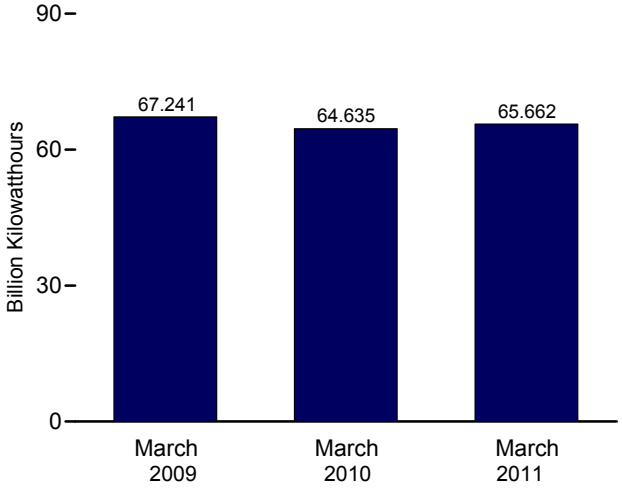
Electricity Net Generation, 1973-2010



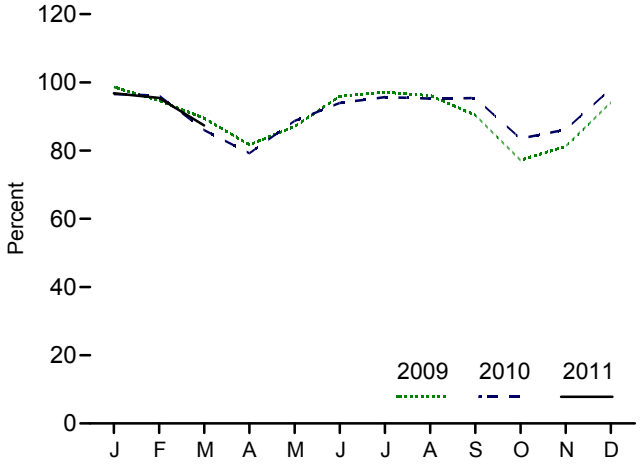
Nuclear Share of Electricity Net Generation, 1973-2010



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: http://www.eia.gov/aer/nuclear.html.
Sources: Tables 7.2a and 8.1.

Table 8.1 Nuclear Energy Overview

	Total Operable Units[a,b]	Net Summer Capacity of Operable Units[b,c]	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor[d]
	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**
2007 Total	**104**	**100.266**	**806,425**	**19.4**	**91.8**
2008 Total	**104**	**100.755**	**806,208**	**19.6**	**91.1**
2009 January	104	101.004	74,102	20.9	98.6
February	104	101.004	64,227	21.3	94.6
March	104	101.004	67,241	21.6	89.5
April	104	101.004	59,408	20.5	81.7
May	104	101.004	65,395	21.0	87.0
June	104	101.004	69,735	20.1	95.9
July	104	101.004	72,949	19.6	97.1
August	104	101.004	72,245	19.0	96.1
September	104	101.004	65,752	20.1	90.4
October	104	101.004	58,021	18.9	77.2
November	104	101.004	59,069	19.9	81.2
December	104	101.004	70,710	20.2	94.1
Total	**104**	**101.004**	**798,855**	**20.2**	**90.3**
2010 January	104	101.004	72,569	20.1	96.6
February	104	101.004	65,245	20.5	96.1
March	104	101.004	64,635	20.7	86.0
April	104	101.004	57,611	20.1	79.2
May	104	101.004	66,658	20.3	88.7
June	104	101.004	68,301	18.2	93.9
July	104	101.004	71,913	17.5	95.7
August	104	101.004	71,574	17.5	95.2
September	104	101.004	69,371	20.1	95.4
October	104	101.004	62,751	20.4	83.5
November	104	101.004	62,655	20.5	86.2
December	104	101.004	73,683	20.4	98.1
Total	**104**	**101.004**	**806,968**	**19.6**	**91.2**
2011 January	104	101.004	72,743	20.0	96.8
February	104	101.004	64,789	20.7	95.5
March	104	101.004	65,662	20.7	87.4
3-Month Total	**104**	**101.004**	**203,193**	**20.5**	**93.1**
2010 3-Month Total	**104**	**101.004**	**202,449**	**20.4**	**92.8**
2009 3-Month Total	**104**	**101.004**	**205,570**	**21.3**	**94.2**

[a] 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 2009,* August 2010, Table 9.1, http://www.eia.gov/aer/nuclear.html.

[b] At end of period.

[c] For the definition of "Net Summer Capacity," see Note 2, "Nuclear Capacity," at end of section.

[d] 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.gov/totalenergy/data/monthly/#nuclear 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 U.S. Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

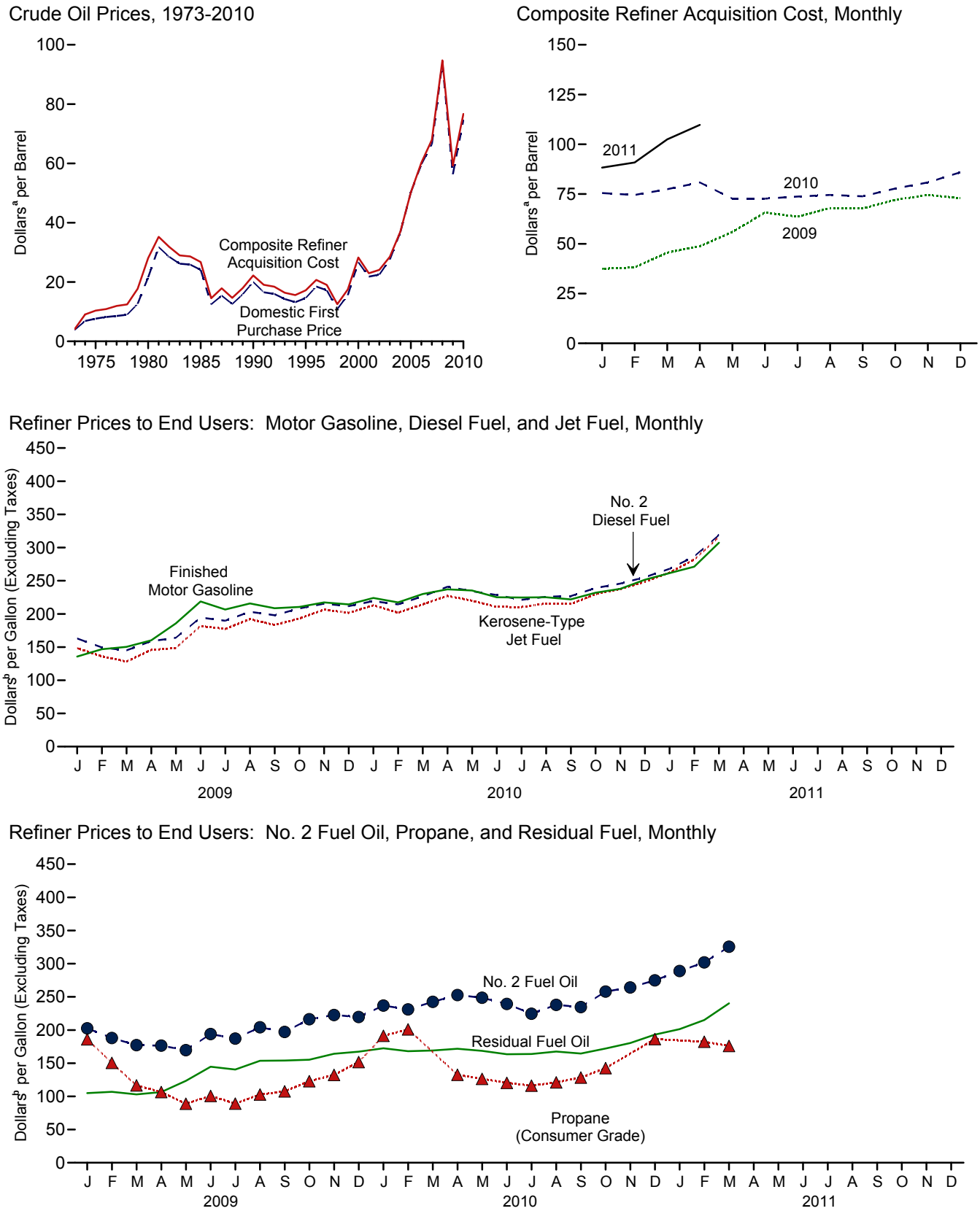
1983 forward: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate. For a list of currently operable units, see http://www.eia.gov/cneaf/nuclear/page/nuc_reactors/operational.xls.

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



[a]Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary. Sources: Tables 9.1, 9.5, and 9.7.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#prices.

Table 9.1 Crude Oil Price Summary

(Dollars[a] per Barrel)

	Domestic First Purchase Price[c]	F.O.B. Cost of Imports[d]	Landed Cost of Imports[e]	Refiner Acquisition Cost[b]		
				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**
2007 Average	**66.52**	**66.36**	**67.97**	**69.65**	**67.04**	**67.94**
2008 Average	**94.04**	**90.32**	**93.33**	**98.47**	**92.77**	**94.74**
2009 January	35.00	36.87	38.74	38.67	36.84	37.45
February	34.14	38.08	40.27	37.51	38.56	38.15
March	42.45	44.34	46.74	44.92	45.96	45.57
April	45.19	47.67	51.43	47.52	49.58	48.78
May	52.67	55.61	58.27	54.58	56.77	55.96
June	63.09	64.82	65.89	64.65	66.37	65.72
July	60.44	62.32	64.78	63.79	63.46	63.58
August	65.28	67.47	68.53	67.81	68.09	67.99
September	65.28	65.41	68.50	67.87	67.65	67.74
October	69.82	70.45	72.58	72.09	72.06	72.08
November	71.99	73.16	74.41	74.60	74.40	74.48
December	70.42	71.24	73.50	73.35	72.67	72.95
Average	**56.35**	**57.78**	**60.23**	**59.49**	**59.17**	**59.29**
2010 January	72.89	72.96	74.78	76.04	75.07	75.48
February	72.74	71.50	75.01	75.91	73.73	74.58
March	75.77	75.41	77.65	78.52	76.77	77.43
April	78.80	78.27	79.34	82.12	80.03	80.83
May	70.90	69.21	72.00	75.23	71.15	72.66
June	70.77	70.17	72.62	73.93	71.91	72.66
July	71.37	71.01	73.43	74.54	73.25	73.73
August	72.07	71.27	73.63	76.21	73.50	74.58
September	71.23	71.72	74.25	74.87	73.20	73.85
October	76.02	75.52	77.26	78.88	77.02	77.77
November	79.20	79.56	81.56	82.05	80.07	80.85
December	83.98	83.95	86.64	86.48	85.59	85.95
Average	**74.71**	**74.20**	**76.49**	**77.96**	**75.88**	**76.69**
2011 January	85.66	[R] 86.80	[R] 89.61	88.73	87.99	88.28
February	86.69	[R] 91.98	[R] 93.47	[R] 89.50	91.72	[R] 90.85
March	[R] 99.21	[R] 103.76	[R] 102.52	[R] 102.36	[R] 102.59	[R] 102.50
April	NA	NA	NA	[E] 110.22	[E] 109.23	[E] 109.72

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] See Note 1, "Crude Oil Refinery Acquisition Costs," at end of section.
[c] See Note 2, "Crude Oil Domestic First Purchase Prices," at end of section.
[d] See Note 3, "Crude Oil F.O.B. Costs," at end of section.
[e] See Note 4, "Crude Oil Landed Costs," at end of section.
[f] 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.gov/totalenergy/data/monthly/#prices 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

(Dollars[a] per Barrel)

	Selected Countries							Persian Gulf Nations[b]	Total OPEC[c]	Total Non-OPEC[c]
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[d]	**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 Average	**67.80**	**67.93**	**61.35**	**76.64**	**W**	**69.96**	**64.10**	**69.93**	**69.58**	**62.69**
2008 Average	**95.66**	**91.17**	**84.61**	**102.06**	**93.03**	**96.33**	**88.06**	**91.44**	**93.15**	**87.15**
2009 January	39.50	26.24	36.96	46.26	W	W	36.68	35.24	37.61	36.15
February	40.60	32.55	37.59	45.02	W	–	38.03	36.38	39.71	36.81
March	44.56	46.69	40.94	50.34	48.31	W	41.78	47.66	45.75	42.96
April	50.59	W	46.71	54.00	W	–	45.98	51.05	48.82	46.87
May	55.23	54.17	55.49	59.02	W	–	54.91	58.05	56.30	55.12
June	66.96	62.94	63.83	69.00	W	–	63.16	64.26	65.37	64.34
July	63.34	58.58	60.42	69.73	W	–	60.16	63.42	63.25	61.39
August	72.25	64.41	67.20	72.37	66.37	W	65.42	66.14	67.65	67.31
September	67.49	63.68	64.51	69.65	W	–	64.18	67.25	65.91	65.04
October	71.19	69.59	68.71	76.01	W	W	66.95	73.45	70.54	70.38
November	76.89	70.96	72.71	77.58	W	W	69.43	72.99	73.60	72.81
December	74.56	66.72	69.75	76.06	W	–	68.32	72.85	72.48	70.01
Average	**57.07**	**57.90**	**56.47**	**64.61**	**57.87**	**65.63**	**55.58**	**59.53**	**58.53**	**57.16**
2010 January	74.62	70.08	72.96	75.91	W	–	70.86	W	73.42	72.49
February	W	68.70	69.16	76.07	W	–	68.83	71.89	71.77	71.14
March	78.11	73.90	72.76	81.27	W	–	70.88	76.10	75.83	74.91
April	84.40	74.85	75.57	85.94	W	W	72.59	80.01	78.88	77.73
May	71.86	64.32	68.30	74.28	W	–	66.37	73.60	70.45	68.24
June	72.90	67.19	67.64	75.61	W	–	66.19	72.49	71.39	69.20
July	74.77	70.00	68.53	79.63	W	–	67.25	71.76	72.16	69.87
August	77.11	69.88	69.53	75.70	W	W	68.27	72.79	72.38	70.35
September	W	69.71	69.90	80.93	74.06	–	67.59	73.34	73.24	70.24
October	W	76.06	73.93	84.59	W	–	72.10	78.28	77.55	73.80
November	85.99	78.92	77.14	86.61	W	–	75.03	80.99	80.95	78.49
December	W	81.62	81.75	93.68	W	–	77.78	W	85.72	82.40
Average	**78.18**	**72.56**	**72.46**	**80.83**	**76.44**	**W**	**70.30**	**75.65**	**75.23**	**73.24**
2011 January	95.97	83.36	84.36	R 99.86	W	–	R 81.25	W	R 89.74	R 83.92
February	W	R 87.23	R 88.77	R 109.07	W	–	R 85.11	R 97.32	R 96.03	R 88.45
March	113.76	100.16	102.81	118.53	W	–	97.68	107.36	105.83	101.85

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

[b] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

[c] 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."

[d] 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 3, "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.gov/totalenergy/data/monthly/#prices for all available data beginning in 1973.

Sources: See end of section.

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries

(Dollars[a] per Barrel)

	Selected Countries								Persian Gulf Nations[b]	Total OPEC[c]	Total Non-OPEC[c]
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[d]	**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**
2007 Average	**71.27**	**60.38**	**70.91**	**62.31**	**78.01**	**70.78**	**72.47**	**66.13**	**69.83**	**71.14**	**63.96**
2008 Average	**98.18**	**90.00**	**93.43**	**85.97**	**104.83**	**94.75**	**96.95**	**90.76**	**93.59**	**95.49**	**90.59**
2009 January	43.58	34.17	32.08	38.08	48.98	39.78	W	39.12	39.41	40.26	36.96
February	42.83	35.83	34.49	38.16	47.00	44.46	W	39.58	43.17	42.75	38.08
March	47.58	44.22	46.70	41.76	53.02	52.14	47.76	43.87	50.54	48.55	45.09
April	53.45	47.60	46.43	47.26	59.03	57.32	52.41	48.40	57.10	54.22	48.78
May	56.44	54.42	54.90	56.22	63.48	62.40	60.43	56.78	62.11	60.06	56.79
June	68.46	63.97	65.65	64.39	69.29	66.27	68.54	64.52	66.28	66.63	65.19
July	67.21	62.18	63.24	60.99	71.46	66.14	W	62.11	66.20	66.27	63.23
August	72.52	64.23	66.71	67.71	73.94	69.37	73.66	67.23	69.23	70.00	66.96
September	72.63	66.59	66.27	65.00	71.98	72.77	W	65.85	72.05	70.02	66.84
October	74.94	70.28	71.24	69.40	77.72	74.20	W	68.85	74.18	73.71	71.46
November	78.25	71.95	72.70	73.29	79.00	73.92	W	71.41	73.99	75.18	73.67
December	77.11	70.01	70.18	70.20	78.63	73.08	78.33	70.46	74.54	75.01	71.88
Average	**61.32**	**57.60**	**58.50**	**57.35**	**68.01**	**62.14**	**63.87**	**57.78**	**62.15**	**61.90**	**58.58**
2010 January	77.32	72.59	74.26	73.23	78.58	76.63	77.97	72.63	76.34	75.91	73.59
February	79.06	73.37	73.11	69.48	79.25	77.29	77.84	70.91	77.27	76.24	73.33
March	80.93	76.82	76.08	73.07	83.68	77.57	79.07	72.92	77.55	78.40	76.84
April	82.26	78.36	76.33	75.03	86.80	79.53	80.25	75.21	79.15	80.07	78.61
May	74.80	69.16	66.52	68.71	76.90	77.52	W	68.53	76.20	73.95	70.20
June	76.54	69.14	69.64	68.02	78.14	76.01	77.67	68.30	75.14	74.55	70.92
July	77.20	70.25	71.61	69.31	81.07	75.46	76.60	69.59	74.75	74.81	72.03
August	78.40	70.10	71.49	69.95	79.15	76.06	79.52	70.14	75.81	75.42	71.81
September	80.49	68.66	70.85	70.47	81.58	77.15	W	68.88	76.64	76.39	71.89
October	85.33	69.23	76.72	74.73	86.01	81.81	W	74.29	81.24	80.52	74.15
November	86.98	75.40	80.24	77.55	89.15	84.62	87.10	77.53	84.09	84.38	78.96
December	91.77	80.76	82.76	82.37	95.44	90.45	92.50	80.79	89.99	89.25	83.97
Average	**80.63**	**72.80**	**74.25**	**72.86**	**83.15**	**79.25**	**80.12**	**72.43**	**78.58**	**78.27**	**74.67**
2011 January	99.58	R 81.43	R 85.88	85.00	R 101.24	R 96.59	W	R 84.70	R 96.57	R 94.03	R 85.02
February	R 110.07	R 80.14	R 90.14	R 89.08	R 108.97	R 100.43	R W	R 89.88	R 99.54	R 98.96	R 88.80
March	116.00	86.22	105.28	103.22	120.03	107.07	115.48	101.45	106.34	107.83	98.73

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).
[c] 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."
[d] 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 4, "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.gov/totalenergy/data/monthly/#prices 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:** U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 22. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 22.

Table 9.4 Motor Gasoline Retail Prices, U.S. City Average

(Dollars[a] per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium[b]	All Types[c]
1973 Average	**0.388**	**NA**	**NA**	**NA**
1975 Average	**0.567**	**NA**	**NA**	**NA**
1980 Average	**1.191**	**1.245**	**NA**	**1.221**
1985 Average	**1.115**	**1.202**	**1.340**	**1.196**
1990 Average	**1.149**	**1.164**	**1.349**	**1.217**
1995 Average	**NA**	**1.147**	**1.336**	**1.205**
1996 Average	**NA**	**1.231**	**1.413**	**1.288**
1997 Average	**NA**	**1.234**	**1.416**	**1.291**
1998 Average	**NA**	**1.059**	**1.250**	**1.115**
1999 Average	**NA**	**1.165**	**1.357**	**1.221**
2000 Average	**NA**	**1.510**	**1.693**	**1.563**
2001 Average	**NA**	**1.461**	**1.657**	**1.531**
2002 Average	**NA**	**1.358**	**1.556**	**1.441**
2003 Average	**NA**	**1.591**	**1.777**	**1.638**
2004 Average	**NA**	**1.880**	**2.068**	**1.923**
2005 Average	**NA**	**2.295**	**2.491**	**2.338**
2006 Average	**NA**	**2.589**	**2.805**	**2.635**
2007 Average	**NA**	**2.801**	**3.033**	**2.849**
2008 Average	**NA**	**3.266**	**3.519**	**3.317**
2009 January	NA	1.787	2.036	1.838
February	NA	1.928	2.182	1.979
March	NA	1.949	2.197	2.000
April	NA	2.056	2.309	2.107
May	NA	2.265	2.511	2.314
June	NA	2.631	2.883	2.681
July	NA	2.543	2.806	2.594
August	NA	2.627	2.887	2.677
September	NA	2.574	2.845	2.626
October	NA	2.561	2.826	2.613
November	NA	2.660	2.917	2.709
December	NA	2.621	2.882	2.671
Average	**NA**	**2.350**	**2.607**	**2.401**
2010 January	NA	2.731	2.987	2.779
February	NA	2.659	2.922	2.709
March	NA	2.780	3.035	2.829
April	NA	2.858	3.113	2.906
May	NA	2.869	3.124	2.915
June	NA	2.736	3.000	2.783
July	NA	2.736	2.997	2.783
August	NA	2.745	3.015	2.795
September	NA	2.704	2.968	2.754
October	NA	2.795	3.055	2.843
November	NA	2.852	3.109	2.899
December	NA	2.985	3.234	3.031
Average	**NA**	**2.788**	**3.047**	**2.836**
2011 January	NA	3.091	3.345	3.139
February	NA	3.167	3.424	3.215
March	NA	3.546	3.807	3.594
April	NA	3.816	4.074	3.863
May	NA	3.933	4.192	3.982

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] The 1981 average (available in Web file) is based on September through December data only.
[c] 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.gov/totalenergy/data/monthly/#prices 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 U.S. Energy Information Administration as the simple averages of monthly data.

Table 9.5 Refiner Prices of Residual Fuel Oil

(Dollars[a] 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	**0.293**	**0.314**	**0.245**	**0.275**	**0.263**	**0.298**
1980 Average	**0.608**	**0.675**	**0.479**	**0.523**	**0.528**	**0.607**
1985 Average	**0.610**	**0.644**	**0.560**	**0.582**	**0.577**	**0.610**
1990 Average	**0.472**	**0.505**	**0.372**	**0.400**	**0.413**	**0.444**
1995 Average	**0.383**	**0.436**	**0.338**	**0.377**	**0.363**	**0.392**
1996 Average	**0.456**	**0.526**	**0.389**	**0.433**	**0.420**	**0.455**
1997 Average	**0.415**	**0.488**	**0.366**	**0.403**	**0.387**	**0.423**
1998 Average	**0.299**	**0.354**	**0.269**	**0.287**	**0.280**	**0.305**
1999 Average	**0.382**	**0.405**	**0.329**	**0.362**	**0.354**	**0.374**
2000 Average	**0.627**	**0.708**	**0.512**	**0.566**	**0.566**	**0.602**
2001 Average	**0.523**	**0.642**	**0.428**	**0.492**	**0.476**	**0.531**
2002 Average	**0.546**	**0.640**	**0.508**	**0.544**	**0.530**	**0.569**
2003 Average	**0.728**	**0.804**	**0.588**	**0.651**	**0.661**	**0.698**
2004 Average	**0.764**	**0.835**	**0.601**	**0.692**	**0.681**	**0.739**
2005 Average	**1.115**	**1.168**	**0.842**	**0.974**	**0.971**	**1.048**
2006 Average	**1.202**	**1.342**	**1.085**	**1.173**	**1.136**	**1.218**
2007 Average	**1.406**	**1.436**	**1.314**	**1.350**	**1.350**	**1.374**
2008 Average	**1.918**	**2.144**	**1.843**	**1.889**	**1.866**	**1.964**
2009 January	1.035	1.164	0.861	0.953	0.926	1.049
February	1.011	1.200	0.918	0.974	0.954	1.068
March	1.019	1.183	0.917	0.952	0.952	1.030
April	1.077	1.174	0.992	1.027	1.017	1.066
May	1.205	1.213	1.191	1.245	1.195	1.234
June	1.401	1.440	1.373	1.451	1.381	1.447
July	1.417	1.488	1.400	1.369	1.405	1.404
August	1.584	1.641	1.567	1.488	1.572	1.536
September	1.531	1.689	1.556	1.491	1.549	1.540
October	1.619	1.717	1.549	1.501	1.560	1.552
November	1.743	1.739	1.700	1.602	1.711	1.642
December	1.723	1.813	1.673	1.614	1.685	1.674
Average	**1.337**	**1.413**	**1.344**	**1.306**	**1.342**	**1.341**
2010 January	1.767	1.852	1.705	1.660	1.721	1.725
February	1.725	1.862	1.650	1.574	1.666	1.681
March	1.739	1.862	1.700	1.609	1.711	1.692
April	1.827	1.887	1.725	1.655	1.748	1.718
May	1.675	1.898	1.675	1.601	1.675	1.686
June	1.629	1.874	1.604	1.555	1.612	1.636
July	1.686	1.858	1.604	1.536	1.629	1.639
August	1.705	1.895	1.625	1.571	1.642	1.676
September	1.716	1.883	1.612	1.558	1.632	1.645
October	1.793	1.913	1.688	1.637	1.712	1.721
November	1.865	2.025	1.741	1.701	1.768	1.804
December	2.036	2.215	1.814	1.784	1.865	1.931
Average	**1.756**	**1.920**	**1.679**	**1.619**	**1.697**	**1.713**
2011 January	NA	2.302	1.896	1.870	1.918	2.013
February	2.100	2.451	2.079	2.019	2.086	2.150
March	2.344	2.650	2.309	2.245	2.322	2.403

[a] Prices are not adjusted for inflation. See "Nominal Dollars" 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 U.S. 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.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 16. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 16.

Table 9.6 Refiner Prices of Petroleum Products for Resale

(Dollars[a] per Gallon, Excluding Taxes)

	Finished Motor Gasoline[b]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**0.434**	**0.537**	**0.386**	**0.404**	**0.369**	**0.365**	**0.237**
1980 Average	**0.941**	**1.128**	**0.868**	**0.864**	**0.803**	**0.801**	**0.415**
1985 Average	**0.835**	**1.130**	**0.794**	**0.874**	**0.776**	**0.772**	**0.398**
1990 Average	**0.786**	**1.063**	**0.773**	**0.839**	**0.697**	**0.694**	**0.386**
1995 Average	**0.626**	**0.975**	**0.539**	**0.580**	**0.511**	**0.538**	**0.344**
1996 Average	**0.713**	**1.055**	**0.646**	**0.714**	**0.639**	**0.659**	**0.461**
1997 Average	**0.700**	**1.065**	**0.613**	**0.653**	**0.590**	**0.606**	**0.416**
1998 Average	**0.526**	**0.912**	**0.450**	**0.465**	**0.422**	**0.444**	**0.288**
1999 Average	**0.645**	**1.007**	**0.533**	**0.550**	**0.493**	**0.546**	**0.342**
2000 Average	**0.963**	**1.330**	**0.880**	**0.969**	**0.886**	**0.898**	**0.595**
2001 Average	**0.886**	**1.256**	**0.763**	**0.821**	**0.756**	**0.784**	**0.540**
2002 Average	**0.828**	**1.146**	**0.716**	**0.752**	**0.694**	**0.724**	**0.431**
2003 Average	**1.002**	**1.288**	**0.871**	**0.955**	**0.881**	**0.883**	**0.607**
2004 Average	**1.288**	**1.627**	**1.208**	**1.271**	**1.125**	**1.187**	**0.751**
2005 Average	**1.670**	**2.076**	**1.723**	**1.757**	**1.623**	**1.737**	**0.933**
2006 Average	**1.969**	**2.490**	**1.961**	**2.007**	**1.834**	**2.012**	**1.031**
2007 Average	**2.182**	**2.758**	**2.171**	**2.249**	**2.072**	**2.203**	**1.194**
2008 Average	**2.586**	**3.342**	**3.020**	**2.851**	**2.745**	**2.994**	**1.437**
2009 January	1.246	1.851	1.472	1.810	1.548	1.480	0.974
February	1.333	2.040	1.352	1.607	1.427	1.326	0.890
March	1.397	2.031	1.266	1.456	1.358	1.315	0.805
April	1.482	2.225	1.425	1.480	1.397	1.456	0.719
May	1.763	2.478	1.460	1.540	1.468	1.531	0.728
June	2.022	2.743	1.780	1.849	1.744	1.828	0.838
July	1.867	2.548	1.759	1.773	1.658	1.745	0.760
August	2.026	2.759	1.894	1.951	1.804	1.937	0.837
September	1.915	2.592	1.822	1.857	1.774	1.848	0.923
October	1.975	2.611	1.917	2.053	1.918	1.978	1.004
November	2.039	2.701	2.060	2.067	2.004	2.037	1.088
December	1.999	2.655	2.012	2.148	1.989	1.997	1.178
Average	**1.767**	**2.480**	**1.719**	**1.844**	**1.657**	**1.713**	**0.921**
2010 January	2.097	2.759	2.121	2.282	2.075	2.078	1.332
February	2.033	2.662	1.999	2.216	1.986	2.025	1.324
March	2.197	2.906	2.129	2.219	2.100	2.163	1.179
April	2.265	2.999	2.247	2.281	2.214	2.312	1.144
May	2.152	2.945	2.186	2.110	2.129	2.177	1.098
June	2.113	2.835	2.094	2.103	2.037	2.120	1.049
July	2.113	2.891	2.100	2.046	2.001	2.098	1.012
August	2.095	2.842	2.138	2.125	2.041	2.161	1.084
September	2.088	2.805	2.131	2.163	2.093	2.190	1.151
October	2.198	2.890	2.263	2.384	2.221	2.325	1.253
November	2.243	2.868	2.342	NA	2.308	2.392	1.277
December	2.383	3.024	2.459	2.744	2.435	2.486	1.322
Average	**2.165**	**2.874**	**2.185**	**2.299**	**2.147**	**2.214**	**1.212**
2011 January	2.472	3.161	2.585	2.804	2.585	2.621	1.380
February	2.584	3.248	2.783	R 2.974	R 2.737	R 2.820	1.401
March	2.934	3.607	3.097	3.196	2.996	3.136	1.404

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] See Note 5, "Motor Gasoline Prices," at end of section.
R=Revised. NA=Not available.

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 U.S. 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.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 4. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users

(Dollars[a] per Gallon, Excluding Taxes)

	Finished Motor Gasoline[b]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**0.484**	**0.516**	**0.387**	**0.421**	**0.400**	**0.377**	**0.335**
1980 Average	**1.035**	**1.084**	**0.868**	**0.902**	**0.788**	**0.818**	**0.482**
1985 Average	**0.912**	**1.201**	**0.796**	**1.030**	**0.849**	**0.789**	**0.717**
1990 Average	**0.883**	**1.120**	**0.766**	**0.923**	**0.734**	**0.725**	**0.745**
1995 Average	**0.765**	**1.005**	**0.540**	**0.589**	**0.562**	**0.560**	**0.492**
1996 Average	**0.847**	**1.116**	**0.651**	**0.740**	**0.673**	**0.681**	**0.605**
1997 Average	**0.839**	**1.128**	**0.613**	**0.745**	**0.636**	**0.642**	**0.552**
1998 Average	**0.673**	**0.975**	**0.452**	**0.501**	**0.482**	**0.494**	**0.405**
1999 Average	**0.781**	**1.059**	**0.543**	**0.605**	**0.558**	**0.584**	**0.458**
2000 Average	**1.106**	**1.306**	**0.899**	**1.123**	**0.927**	**0.935**	**0.603**
2001 Average	**1.032**	**1.323**	**0.775**	**1.045**	**0.829**	**0.842**	**0.506**
2002 Average	**0.947**	**1.288**	**0.721**	**0.990**	**0.737**	**0.762**	**0.419**
2003 Average	**1.156**	**1.493**	**0.872**	**1.224**	**0.933**	**0.944**	**0.577**
2004 Average	**1.435**	**1.819**	**1.207**	**1.160**	**1.173**	**1.243**	**0.839**
2005 Average	**1.829**	**2.231**	**1.735**	**1.957**	**1.705**	**1.786**	**1.089**
2006 Average	**2.128**	**2.682**	**1.998**	**2.244**	**1.982**	**2.096**	**1.358**
2007 Average	**2.345**	**2.849**	**2.165**	**2.263**	**2.241**	**2.267**	**1.489**
2008 Average	**2.775**	**3.273**	**3.052**	**3.283**	**2.986**	**3.150**	**1.892**
2009 January	1.358	1.857	1.483	2.626	2.026	1.630	1.861
February	1.468	1.974	1.360	2.627	1.879	1.495	1.505
March	1.503	1.977	1.281	2.565	1.772	1.450	1.166
April	1.601	2.150	1.458	2.540	1.765	1.589	1.065
May	1.856	2.423	1.486	2.497	1.697	1.640	0.889
June	2.187	2.707	1.818	2.490	1.939	1.945	1.008
July	2.067	2.607	1.774	2.462	1.871	1.897	0.891
August	2.157	2.764	1.922	2.545	2.041	2.032	1.029
September	2.086	2.684	1.834	NA	1.972	1.980	1.075
October	2.104	2.693	1.930	2.738	2.163	2.082	1.229
November	2.173	2.845	2.064	2.875	2.227	2.155	1.323
December	2.144	2.799	2.016	2.894	2.197	2.117	1.517
Average	**1.888**	**2.442**	**1.704**	**2.675**	**1.962**	**1.834**	**1.220**
2010 January	2.240	2.914	2.129	2.986	2.369	2.192	1.913
February	2.173	2.855	2.018	2.974	2.310	2.144	2.009
March	2.301	3.103	2.144	2.978	2.425	2.265	NA
April	2.370	3.201	2.272	3.040	2.527	2.410	1.326
May	2.353	3.129	2.199	2.938	2.487	2.343	1.264
June	2.251	2.981	2.105	2.965	2.393	2.284	1.204
July	2.247	3.028	2.103	NA	2.246	2.212	1.162
August	2.250	2.967	2.158	2.772	2.379	2.260	1.211
September	2.219	2.893	2.148	2.898	2.346	2.269	1.283
October	2.319	3.000	2.298	3.058	2.580	2.389	1.425
November	2.378	3.095	2.374	3.130	2.641	2.457	NA
December	2.514	3.218	2.484	3.276	2.749	2.554	1.863
Average	**2.301**	**3.028**	**2.201**	**3.063**	**2.462**	**2.314**	**1.481**
2011 January	2.615	3.323	2.623	3.358	2.889	2.681	NA
February	2.712	3.374	2.818	3.506	3.020	2.867	1.823
March	3.072	3.762	3.161	3.697	3.256	3.189	1.760

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] See Note 5, "Motor Gasoline Prices," at end of section.
NA=Not available.

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 U.S. 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.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 2. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 2.

Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States

(Dollars[a] per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average	**0.486**	**0.503**	**0.508**	**0.488**	**0.507**	**0.501**	**0.501**	**0.496**	**0.488**
1980 Average	**0.963**	**1.004**	**1.015**	**0.978**	**1.011**	**0.983**	**0.982**	**0.979**	**0.964**
1985 Average	**0.997**	**1.024**	**1.077**	**1.070**	**1.067**	**1.080**	**1.113**	**1.059**	**1.023**
1990 Average	**0.989**	**1.028**	**1.070**	**1.084**	**1.086**	**1.098**	**1.125**	**1.087**	**1.026**
1995 Average	**0.787**	**0.779**	**0.853**	**0.844**	**0.874**	**0.864**	**0.955**	**0.888**	**0.826**
1996 Average	**0.972**	**0.940**	**0.969**	**0.976**	**0.986**	**0.986**	**1.063**	**1.024**	**0.953**
1997 Average	**0.942**	**0.942**	**0.987**	**0.960**	**0.989**	**0.963**	**1.065**	**1.033**	**0.950**
1998 Average	**0.788**	**0.788**	**0.873**	**0.818**	**0.868**	**0.831**	**0.948**	**0.892**	**0.814**
1999 Average	**0.813**	**0.770**	**0.854**	**0.836**	**0.858**	**0.852**	**0.969**	**0.913**	**0.815**
2000 Average	**1.297**	**1.281**	**1.255**	**1.273**	**1.259**	**1.291**	**1.442**	**1.404**	**1.224**
2001 Average	**1.217**	**1.256**	**1.261**	**1.221**	**1.236**	**1.239**	**1.363**	**1.314**	**1.159**
2002 Average	**1.129**	**1.119**	**1.172**	**1.141**	**1.124**	**1.118**	**1.218**	**1.220**	**1.064**
2003 Average	**1.314**	**1.312**	**1.309**	**1.386**	**1.344**	**1.355**	**1.436**	**1.489**	**1.304**
2004 Average	**1.511**	**1.497**	**1.505**	**1.559**	**1.511**	**1.518**	**1.627**	**1.662**	**1.489**
2005 Average	**1.986**	**1.972**	**1.987**	**2.064**	**2.000**	**2.012**	**2.105**	**2.166**	**1.974**
2006 Average	**2.294**	**2.283**	**2.408**	**2.355**	**2.360**	**2.357**	**2.458**	**2.467**	**2.286**
2007 Average	**2.540**	**2.535**	**2.679**	**2.576**	**2.602**	**2.615**	**2.674**	**2.664**	**2.508**
2008 Average	**3.199**	**3.207**	**3.323**	**3.197**	**3.210**	**3.195**	**3.293**	**3.267**	**3.157**
2009 January	2.506	2.537	2.774	2.356	2.346	2.576	2.543	2.389	2.427
February	2.404	2.426	2.693	2.226	2.209	2.429	2.447	2.288	2.268
March	2.237	2.283	2.545	2.166	2.127	2.362	2.334	2.166	2.202
April	2.250	2.246	2.437	2.192	2.143	2.314	2.338	2.187	2.177
May	2.175	2.151	2.370	2.142	2.169	2.225	2.300	2.187	2.190
June	2.295	2.201	2.376	2.371	2.385	2.413	2.428	2.381	2.211
July	2.268	2.077	2.324	2.312	2.285	2.354	2.291	2.322	2.137
August	2.350	2.243	2.378	2.432	2.454	2.490	2.523	2.454	2.257
September	2.333	2.272	2.403	2.386	2.357	2.349	2.455	2.437	2.196
October	2.391	2.373	2.484	2.470	2.537	2.516	2.574	2.541	2.315
November	2.461	2.484	2.604	2.619	2.685	2.645	2.747	2.710	2.520
December	2.486	2.523	2.640	2.634	2.718	2.665	2.733	2.731	2.536
Average	**2.382**	**2.377**	**2.593**	**2.358**	**2.376**	**2.487**	**2.504**	**2.404**	**2.330**
2010 January	2.583	2.611	2.753	2.762	2.856	2.764	2.893	2.928	2.692
February	2.536	2.600	2.705	2.729	2.777	2.730	2.845	2.871	2.697
March	2.560	2.632	2.747	2.795	2.800	2.758	2.801	2.929	2.755
April	2.565	2.651	2.771	2.868	2.959	2.815	2.845	2.946	2.752
May	2.511	2.636	2.710	2.811	2.921	2.736	2.781	2.873	2.680
June	2.479	2.574	2.649	2.716	2.829	2.705	2.691	2.747	2.561
July	2.478	2.532	2.614	2.656	2.728	2.653	2.651	2.715	2.519
August	2.469	2.513	2.619	2.651	2.735	2.634	2.668	2.701	2.543
September	2.539	2.543	2.657	2.686	2.745	2.647	2.721	2.754	2.583
October	2.677	2.642	2.784	2.860	2.942	2.822	2.848	2.912	2.759
November	2.774	2.772	2.924	2.969	3.044	2.946	2.969	3.077	2.892
December	2.910	2.904	3.032	3.126	3.197	3.106	3.147	3.278	3.061
Average	**2.639**	**2.680**	**2.795**	**2.850**	**2.927**	**2.835**	**2.894**	**2.973**	**2.780**
2011 January	3.071	3.102	3.186	3.313	3.368	3.268	3.281	3.458	3.237
February	3.188	3.269	3.330	3.493	3.536	3.477	3.428	3.624	3.369
March	NA	NA	NA	NA	NA	NA	NA	NA	NA

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
NA=Not available.

Notes: • States are grouped in Tables 9.8a–9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 15. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 15.

Due to recent budget cuts, EIA is adjusting its data programs. Beginning with the June 2011 *Monthly Energy Review*, No. 2 distillate fuel oil prices to residences (Tables 9.8a–9.8c) will not be available for March 2011 forward.

Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States (Dollars[a] per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average	**0.478**	**0.507**	**0.492**	**0.491**	**0.462**	**0.474**	**0.479**	**0.485**	**0.465**	**0.447**	**0.478**
1980 Average	**0.954**	**1.026**	**0.979**	**0.985**	**0.922**	**0.919**	**0.978**	**0.996**	**0.958**	**0.915**	**0.999**
1985 Average	**1.046**	**1.143**	**1.088**	**1.063**	**0.980**	**0.997**	**1.021**	**0.991**	**0.975**	**0.983**	**1.019**
1990 Average	**1.058**	**1.078**	**1.119**	**1.106**	**0.991**	**0.981**	**1.009**	**0.993**	**0.961**	**0.942**	**1.014**
1995 Average	**0.870**	**1.010**	**0.936**	**0.844**	**0.815**	**0.808**	**0.860**	**0.816**	**0.785**	**0.812**	**0.801**
1996 Average	**0.984**	**1.178**	**1.063**	**0.952**	**0.960**	**0.921**	**0.977**	**0.912**	**0.893**	**0.899**	**0.909**
1997 Average	**0.984**	**1.174**	**1.057**	**0.948**	**0.962**	**0.913**	**0.942**	**0.865**	**0.870**	**0.933**	**0.899**
1998 Average	**0.858**	**1.022**	**0.902**	**0.856**	**0.818**	**0.767**	**0.804**	**0.748**	**0.735**	**0.801**	**0.738**
1999 Average	**0.884**	**1.011**	**0.907**	**0.870**	**0.789**	**0.820**	**0.883**	**0.793**	**0.716**	**0.847**	**0.774**
2000 Average	**1.270**	**W**	**1.351**	**1.269**	**1.251**	**1.220**	**NA**	**1.207**	**1.095**	**1.171**	**1.156**
2001 Average	**1.234**	**1.431**	**1.342**	**1.202**	**1.139**	**1.160**	**NA**	**1.133**	**1.121**	**1.180**	**1.122**
2002 Average	**1.164**	**W**	**1.201**	**1.057**	**1.054**	**1.058**	**1.109**	**1.025**	**0.975**	**1.073**	**1.051**
2003 Average	**1.433**	**W**	**1.455**	**1.311**	**1.304**	**1.284**	**1.321**	**1.202**	**1.198**	**1.269**	**1.218**
2004 Average	**1.570**	**W**	**1.632**	**1.462**	**1.493**	**1.475**	**1.539**	**1.537**	**1.405**	**1.465**	**1.433**
2005 Average	**2.075**	**W**	**2.127**	**2.044**	**2.043**	**2.009**	**2.053**	**2.017**	**2.021**	**1.993**	**1.987**
2006 Average	**2.381**	**W**	**2.398**	**2.268**	**2.261**	**2.244**	**2.329**	**2.317**	**2.312**	**2.297**	**2.268**
2007 Average	**2.584**	**W**	**2.668**	**2.407**	**2.478**	**2.494**	**2.588**	**2.557**	**2.528**	**2.571**	**2.587**
2008 Average	**3.187**	**W**	**3.273**	**3.124**	**3.221**	**3.147**	**3.067**	**3.105**	**3.152**	**3.088**	**3.065**
2009 January	2.428	W	2.470	2.225	2.329	2.041	1.991	2.062	2.069	2.004	1.974
February	2.310	W	2.407	2.145	2.188	1.888	1.866	1.912	1.869	1.854	1.813
March	2.253	W	2.275	1.999	2.042	1.826	1.806	1.822	1.836	1.781	1.735
April	2.267	W	2.263	NA	2.035	1.917	1.810	1.922	1.983	1.870	1.890
May	2.253	W	2.224	1.824	2.008	1.941	1.807	1.972	NA	1.975	1.872
June	2.289	W	2.320	2.037	2.119	2.180	2.095	2.176	2.060	2.200	2.156
July	2.253	W	2.307	2.055	2.122	2.103	1.964	2.181	NA	2.166	2.092
August	2.340	W	2.397	2.140	2.217	2.279	2.153	2.321	2.147	2.284	2.297
September	2.309	W	2.396	2.118	2.253	2.205	2.179	2.318	NA	2.262	2.232
October	2.505	W	2.561	2.322	2.397	2.364	2.336	2.391	2.386	2.331	2.301
November	2.683	W	2.707	2.408	2.504	2.479	2.485	2.520	2.483	2.421	2.388
December	2.724	W	2.763	2.495	2.496	2.493	2.447	2.507	2.427	2.395	2.394
Average	**2.421**	**W**	**2.473**	**2.193**	**2.265**	**2.130**	**2.096**	**2.189**	**2.155**	**2.105**	**2.124**
2010 January	2.878	W	2.861	2.594	2.681	2.572	2.526	2.565	2.526	2.466	2.505
February	2.857	W	2.833	2.561	2.714	2.533	2.501	2.510	2.516	2.421	W
March	2.988	W	2.894	2.587	2.712	2.585	2.640	2.614	2.660	2.537	2.580
April	NA	W	2.858	NA	2.676	2.566	2.731	2.679	2.777	2.640	2.668
May	2.853	W	2.808	2.435	2.583	2.574	2.669	NA	2.783	2.567	2.581
June	2.695	W	2.705	2.356	2.501	2.436	2.505	2.482	NA	2.478	2.557
July	2.655	W	2.636	2.345	2.499	2.436	2.481	2.510	2.582	2.508	2.466
August	2.617	W	2.669	2.351	2.547	2.511	2.508	2.550	W	2.514	2.559
September	2.678	W	2.692	2.397	2.577	2.554	2.596	2.607	2.732	2.562	2.596
October	2.847	W	2.822	2.567	2.720	2.695	2.734	2.701	NA	2.702	2.719
November	NA	W	2.985	2.754	2.834	2.802	2.830	2.864	2.915	2.788	2.866
December	3.223	W	3.195	2.920	3.024	2.923	2.933	2.979	3.030	2.894	2.965
Average	**2.951**	**W**	**2.925**	**2.621**	**2.724**	**2.653**	**2.657**	**2.670**	**2.749**	**2.610**	**2.470**
2011 January	3.431	W	3.377	3.093	3.204	3.039	3.041	3.109	3.098	3.008	3.031
February	3.560	W	3.508	R 3.222	3.365	R 3.189	3.196	3.246	3.286	3.169	R 3.184
March	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[a] Prices are not adjusted for inflation. See "Nominal Dollars" 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–9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 15. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 15.

Due to recent budget cuts, EIA is adjusting its data programs. Beginning with the June 2011 *Monthly Energy Review*, No. 2 distillate fuel oil prices to residences (Tables 9.8a–9.8c) will not be available for March 2011 forward.

Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average (Dollars[a] per Gallon, Excluding Taxes)

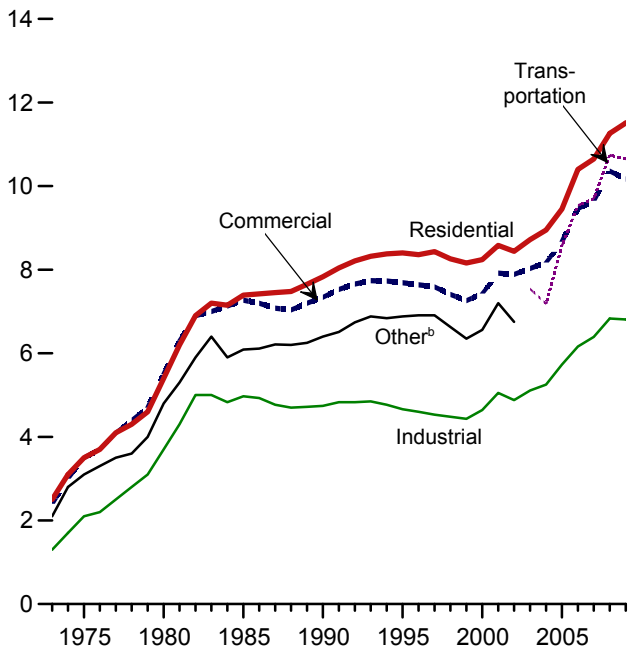
	Idaho	Washington	Oregon	Alaska	U.S. Average
1978 Average	**0.436**	**0.486**	**0.458**	**0.532**	**0.490**
1980 Average	**0.916**	**1.008**	**0.973**	**0.978**	**0.974**
1985 Average	**0.972**	**1.011**	**0.971**	**1.083**	**1.053**
1990 Average	**0.974**	**1.029**	**0.970**	**1.101**	**1.063**
1995 Average	**0.839**	**0.962**	**0.894**	**0.834**	**0.867**
1996 Average	**0.933**	**1.080**	**0.989**	**0.909**	**0.989**
1997 Average	**0.953**	**1.139**	**1.031**	**0.973**	**0.984**
1998 Average	**0.784**	**0.978**	**0.861**	**0.852**	**0.852**
1999 Average	**0.762**	**1.065**	**0.938**	**0.966**	**0.876**
2000 Average	**1.170**	**1.445**	**1.368**	**1.337**	**1.311**
2001 Average	**1.038**	**1.336**	**1.211**	**1.377**	**1.250**
2002 Average	**0.919**	**1.204**	**1.060**	**1.087**	**1.129**
2003 Average	**1.188**	**1.487**	**1.303**	**1.243**	**1.355**
2004 Average	**1.495**	**1.749**	**1.594**	**1.524**	**1.548**
2005 Average	**2.123**	**2.385**	**2.146**	**2.061**	**2.052**
2006 Average	**2.391**	**2.681**	**2.411**	**2.395**	**2.365**
2007 Average	**2.598**	**2.909**	**2.500**	**2.518**	**2.592**
2008 Average	**3.078**	**3.401**	**3.060**	**3.485**	**3.219**
2009 January	1.879	2.388	1.939	2.160	2.426
February	1.762	2.253	1.819	NA	2.309
March	1.674	2.124	1.727	1.946	2.210
April	1.863	2.414	1.986	2.140	2.211
May	1.878	2.473	2.050	2.256	2.167
June	2.148	2.544	2.278	2.506	2.307
July	2.123	2.335	2.149	2.362	2.219
August	2.158	2.489	2.326	2.554	2.369
September	2.273	2.658	2.357	NA	2.334
October	2.333	2.737	2.469	NA	2.458
November	2.459	2.871	2.551	NA	2.608
December	2.354	2.830	2.475	NA	2.628
Average	**2.048**	**2.491**	**2.132**	**2.503**	**2.386**
2010 January	2.392	2.918	2.583	NA	2.763
February	2.412	2.817	2.536	2.790	2.658
March	2.569	2.924	2.664	2.884	2.757
April	2.747	3.105	2.817	2.965	2.787
May	2.675	3.053	2.685	2.958	2.723
June	NA	2.892	2.653	2.891	2.623
July	2.540	NA	NA	2.878	2.584
August	2.598	2.757	2.625	2.901	2.597
September	2.676	NA	2.760	2.944	2.641
October	2.853	3.174	2.871	3.041	2.795
November	2.937	3.195	2.935	3.070	2.926
December	2.980	3.242	2.991	3.134	3.089
Average	**2.716**	**3.039**	**2.776**	**2.951**	**2.798**
2011 January	3.005	3.350	3.079	3.210	3.251
February	3.173	3.537	3.295	3.366	3.409
March	NA	NA	NA	NA	NA

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
NA=Not available.
Notes: • States are grouped in Tables 9.8a–9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section.
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices for all available data beginning in 1978.
Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009,* Table 15. • **2010 and 2011:** EIA, *Petroleum Marketing Monthly,* June 2011, Table 15.

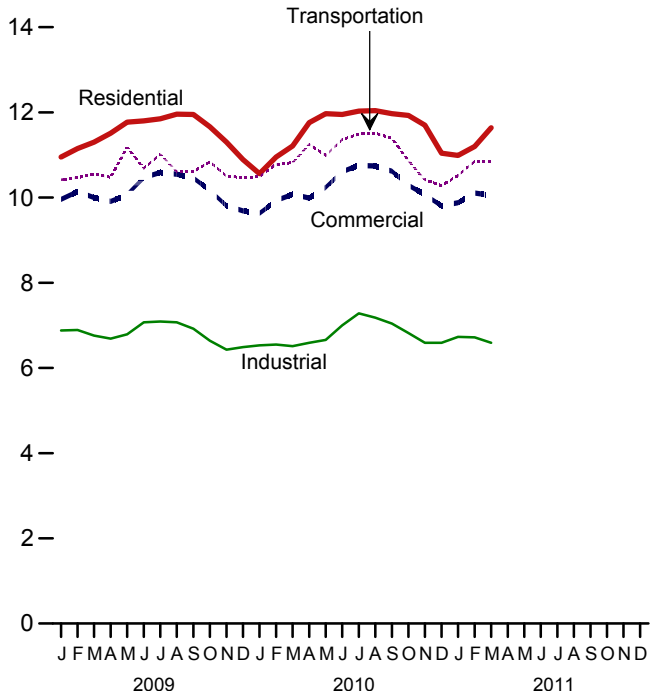
Due to recent budget cuts, EIA is adjusting its data programs. Beginning with the June 2011 *Monthly Energy Review*, No. 2 distillate fuel oil prices to residences (Tables 9.8a–9.8c) will not be available for March 2011 forward.

Figure 9.2 Average Retail Prices of Electricity
(Cents[a] per Kilowatthour)

By Sector, 1973-2010



By Sector, Monthly

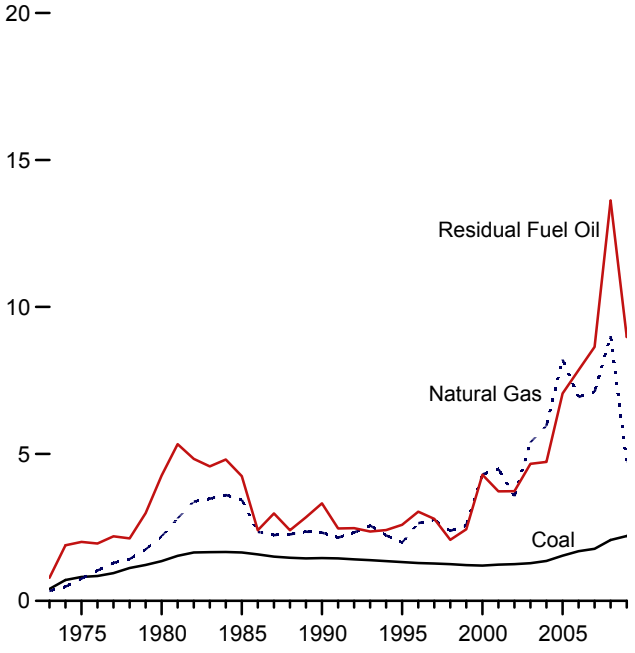


[a]Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
[b]Public street and highway lighting, interdepartmental sales, other sales to public authorities, agricultural and irrigation, and transportation including railroads and railways.

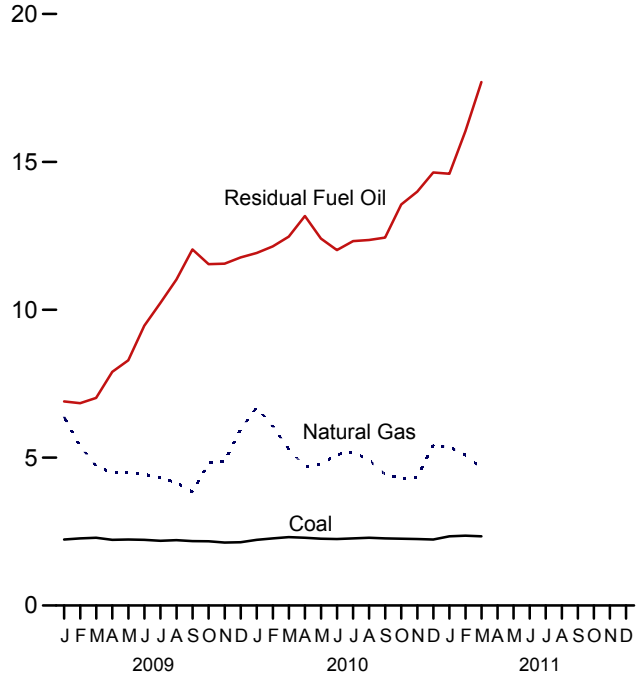
Note: Includes taxes.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#prices.
Source: Table 9.9.

Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Dollars[a] per Million Btu, Including Taxes)

Costs, 1973-2010



Costs, Monthly



[a]Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#prices.
Source: Table 9.10.

Table 9.9 Average Retail Prices of Electricity

(Cents[a] per Kilowatthour, Including Taxes)

	Residential	Commercial[b]	Industrial[c]	Transportation[d]	Other[e]	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**
2007 Average	**10.65**	**9.65**	**6.39**	**9.70**	**– –**	**9.13**
2008 Average	**11.26**	**10.36**	**6.83**	**10.74**	**– –**	**9.74**
2009 January	10.95	9.96	6.88	10.42	– –	9.66
February	11.15	10.14	6.89	10.47	– –	9.74
March	11.30	10.00	6.76	10.55	– –	9.65
April	11.51	9.91	6.69	10.48	– –	9.57
May	11.77	10.07	6.79	11.18	– –	9.76
June	11.80	10.47	7.07	10.69	– –	10.13
July	11.85	10.59	7.09	11.02	– –	10.30
August	11.96	10.55	7.07	10.61	– –	10.28
September	11.95	10.46	6.92	10.61	– –	10.10
October	11.66	10.17	6.64	10.84	– –	9.70
November	11.30	9.81	6.43	10.50	– –	9.37
December	10.89	9.69	6.49	10.47	– –	9.38
Average	**11.51**	**10.17**	**6.81**	**10.65**	**– –**	**9.82**
2010 January	10.56	9.63	6.53	10.49	– –	9.34
February	10.95	9.93	6.55	10.78	– –	9.52
March	11.21	10.08	6.51	10.82	– –	9.57
April	11.76	9.99	6.59	11.25	– –	9.58
May	11.97	10.24	6.66	10.99	– –	9.79
June	11.95	10.61	7.00	11.36	– –	10.23
July	12.03	10.76	7.28	11.49	– –	10.50
August	12.04	10.74	7.18	11.51	– –	10.45
September	11.97	10.62	7.04	11.39	– –	10.24
October	11.93	10.29	6.82	10.86	– –	9.86
November	11.70	10.07	6.59	10.42	– –	9.62
December	11.04	9.81	6.59	10.28	– –	9.51
Average	**11.58**	**10.26**	**6.79**	**10.96**	**– –**	**9.88**
2011 January	10.99	9.88	6.73	10.52	– –	9.62
February	11.20	10.11	6.72	10.85	– –	9.70
March	11.64	10.05	6.59	10.85	– –	9.66
3-Month Average	**11.24**	**10.01**	**6.68**	**10.73**	**– –**	**9.66**
2010 3-Month Average	**10.88**	**9.87**	**6.53**	**10.69**	**– –**	**9.47**
2009 3-Month Average	**11.12**	**10.03**	**6.84**	**10.48**	**– –**	**9.68**

[a] Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
[b] Commercial sector. For 1973-2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.
[c] Industrial sector. For 1973-2002, prices exclude agriculture and irrigation.
[d] Transportation sector, including railroads and railways.
[e] 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.gov/totalenergy/data/monthly/#prices 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:** U.S. 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 2011, Table 5.3.

Table 9.10 Cost of Fossil-Fuel Receipts at Electric Generating Plants

(Dollars[a] per Million Btu, Including Taxes)

	Coal	Petroleum				Natural Gas[e]	All Fossil Fuels[f]
		Residual Fuel Oil[b]	Distillate Fuel Oil[c]	Petroleum Coke	Total[d]		
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[g]	**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 Average	**1.77**	**8.64**	**14.85**	**1.51**	**7.17**	**7.11**	**3.23**
2008 Average	**2.07**	**13.62**	**21.46**	**2.11**	**10.87**	**9.01**	**4.12**
2009 January	2.23	6.90	11.67	2.06	6.76	6.38	3.42
February	2.27	6.84	11.36	1.82	6.28	5.38	3.14
March	2.29	7.02	10.75	1.63	5.83	4.73	2.98
April	2.22	7.90	11.54	1.20	5.82	4.48	2.85
May	2.23	8.29	12.00	1.68	6.30	4.48	2.93
June	2.22	9.46	13.66	1.58	7.43	4.44	3.01
July	2.19	10.23	14.00	1.63	7.59	4.32	3.02
August	2.21	11.02	14.94	1.81	7.83	4.15	2.99
September	2.18	12.04	15.22	1.36	6.81	3.84	2.80
October	2.17	11.54	15.79	1.55	7.50	4.82	3.04
November	2.13	11.56	15.50	1.30	8.01	4.87	2.96
December	2.14	11.77	15.88	1.61	8.37	5.96	3.40
Average	**2.21**	**8.98**	**13.22**	**1.61**	**7.02**	**4.74**	**3.04**
2010 January	2.22	11.92	15.71	1.69	9.87	6.70	3.73
February	2.27	12.14	15.60	1.79	9.61	6.06	3.43
March	2.31	12.47	16.52	2.05	8.87	5.28	3.14
April	2.29	13.17	17.05	2.13	7.76	4.70	3.00
May	2.26	12.41	16.54	2.17	9.57	4.77	3.12
June	2.25	12.02	16.13	2.09	9.36	5.11	3.35
July	2.27	12.32	15.89	2.36	9.68	5.18	3.51
August	2.29	12.36	16.22	2.59	9.32	4.92	3.40
September	2.27	12.44	16.53	2.61	9.62	4.44	3.11
October	2.26	13.56	17.09	2.36	9.14	4.29	2.94
November	2.25	13.99	17.50	2.14	11.11	4.34	2.94
December	2.23	14.64	18.51	2.50	11.30	5.41	3.31
Average	**2.26**	**12.60**	**16.59**	**2.23**	**9.62**	**5.08**	**3.25**
2011 January	2.34	14.60	19.48	2.85	11.74	5.37	3.37
February	2.36	16.04	20.92	2.61	12.18	5.09	3.27
March	2.34	17.70	23.32	2.88	13.96	4.64	3.13
3-Month Average	**2.34**	**16.04**	**21.07**	**2.79**	**12.59**	**5.04**	**3.25**
2010 3-Month Average	**2.27**	**12.12**	**15.85**	**1.84**	**9.52**	**6.05**	**3.43**
2009 3-Month Average	**2.26**	**6.91**	**11.32**	**1.84**	**6.38**	**5.49**	**3.18**

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

[b] For 1973-2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

[c] For 1973-2001, electric utility data are for light oil (fuel oil nos. 1 and 2).

[d] 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.

[e] 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.

[f] Weighted average of costs shown under "Coal," "Petroleum," and "Natural Gas."

[g] 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.

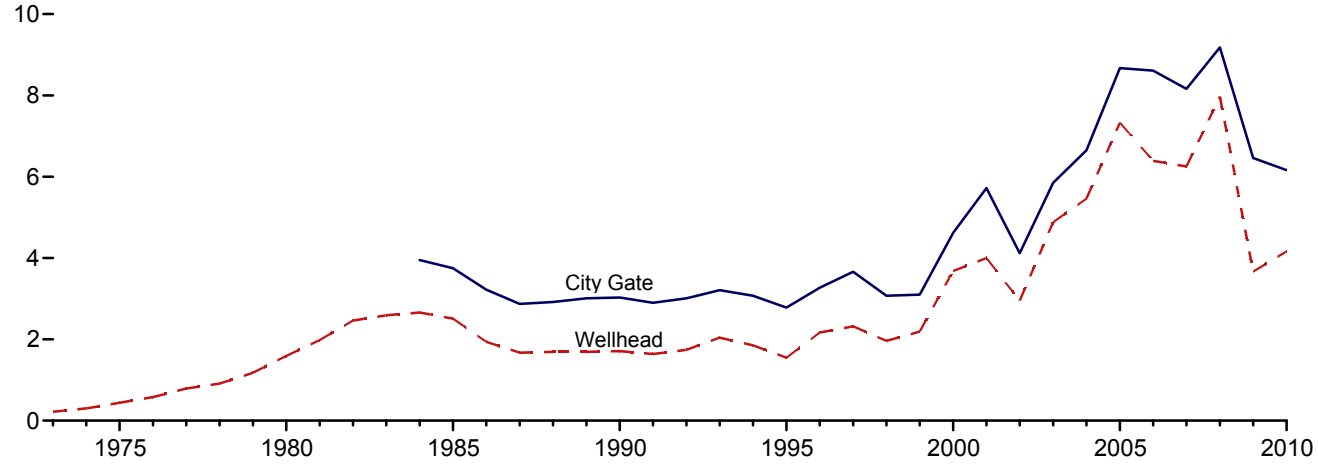
Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices for all available data beginning in 1973.

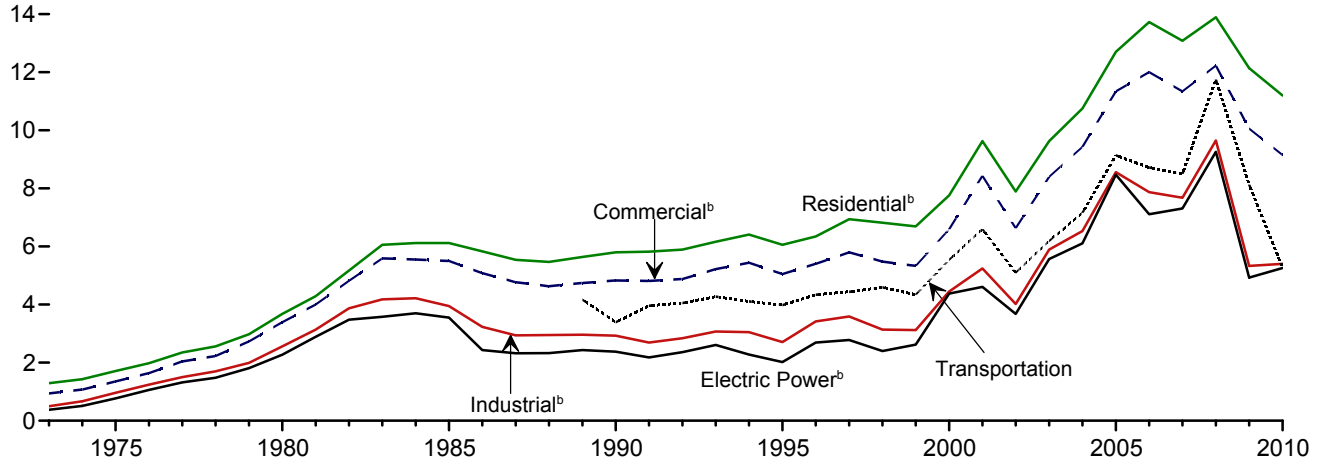
Sources: See end of section.

Figure 9.4 Natural Gas Prices
(Dollars[a] per Thousand Cubic Feet)

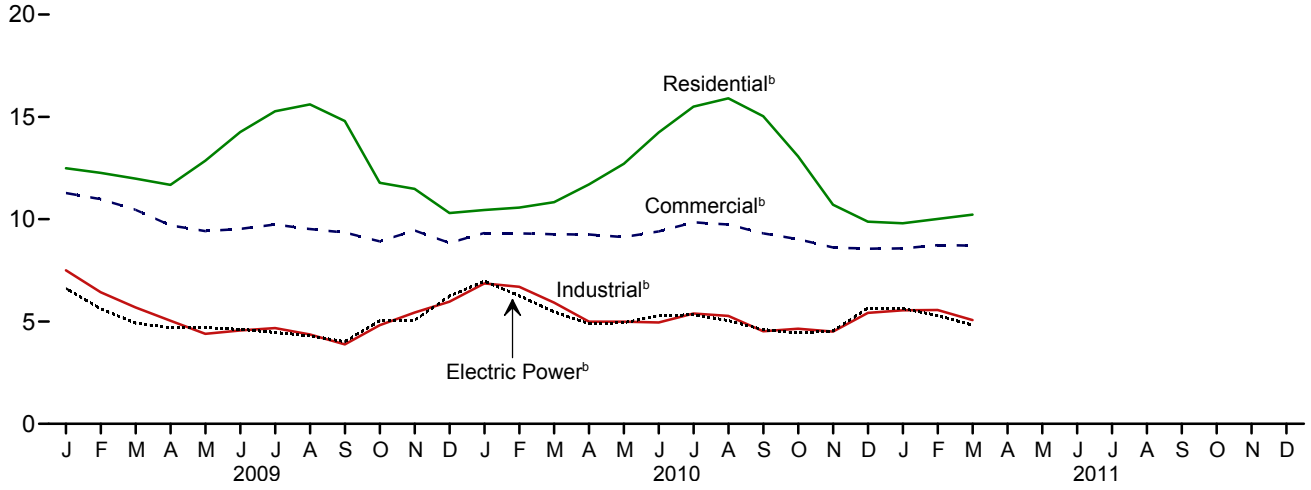
Selected Prices, 1973-2010



Consuming Sectors, 1973-2010



Consuming Sectors, Monthly



[a]Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b]Includes taxes.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#prices.
Source: Table 9.11.

Table 9.11 Natural Gas Prices

(Dollars[a] per Thousand Cubic Feet)

	Wellhead Price	City Gate Price	Consuming Sectors[b]								
			Residential		Commercial[c]		Industrial[d]		Transportation	Electric Power[e]	
			Price[f]	Percentage of Sector[g]	Price[f]	Percentage of Sector[g]	Price[f]	Percentage of Sector[g]	Vehicle Fuel[h] Price[f]	Price[f]	Percentage of Sector[g,i]
1973 Average	**0.22**	**NA**	**1.29**	**NA**	**0.94**	**NA**	**0.50**	**NA**	**NA**	**0.38**	**92.1**
1975 Average	**.44**	**NA**	**1.71**	**NA**	**1.35**	**NA**	**.96**	**NA**	**NA**	**.77**	**96.1**
1980 Average	**1.59**	**NA**	**3.68**	**NA**	**3.39**	**NA**	**2.56**	**NA**	**NA**	**2.27**	**96.9**
1985 Average	**2.51**	**3.75**	**6.12**	**NA**	**5.50**	**NA**	**3.95**	**68.8**	**NA**	**3.55**	**94.0**
1990 Average	**1.71**	**3.03**	**5.80**	**99.2**	**4.83**	**86.6**	**2.93**	**35.2**	**3.39**	**2.38**	**76.8**
1995 Average	**1.55**	**2.78**	**6.06**	**99.0**	**5.05**	**76.7**	**2.71**	**24.5**	**3.98**	**2.02**	**71.4**
1996 Average	**2.17**	**3.27**	**6.34**	**99.0**	**5.40**	**77.6**	**3.42**	**19.4**	**4.34**	**2.69**	**68.4**
1997 Average	**2.32**	**3.66**	**6.94**	**98.8**	**5.80**	**70.8**	**3.59**	**18.1**	**4.44**	**2.78**	**68.0**
1998 Average	**1.96**	**3.07**	**6.82**	**97.7**	**5.48**	**67.0**	**3.14**	**16.1**	**4.59**	**2.40**	**63.7**
1999 Average	**2.19**	**3.10**	**6.69**	**95.2**	**5.33**	**66.1**	**3.12**	**18.8**	**4.34**	**2.62**	**58.3**
2000 Average	**3.68**	**4.62**	**7.76**	**92.6**	**6.59**	**63.9**	**4.45**	**19.8**	**5.54**	**4.38**	**50.5**
2001 Average	**4.00**	**5.72**	**9.63**	**92.4**	**8.43**	**66.0**	**5.24**	**20.8**	**6.60**	**4.61**	**40.2**
2002 Average	**2.95**	**4.12**	**7.89**	**97.9**	**6.63**	**77.4**	**4.02**	**22.7**	**5.10**	**[e]3.68**	**83.9**
2003 Average	**4.88**	**5.85**	**9.63**	**97.5**	**8.40**	**78.2**	**5.89**	**22.1**	**6.19**	**5.57**	**91.2**
2004 Average	**5.46**	**6.65**	**10.75**	**97.7**	**9.43**	**78.0**	**6.53**	**23.7**	**7.16**	**6.11**	**89.8**
2005 Average	**7.33**	**8.67**	**12.70**	**98.2**	**11.34**	**82.1**	**8.56**	**24.1**	**9.14**	**8.47**	**91.3**
2006 Average	**6.39**	**8.61**	**13.73**	**98.1**	**12.00**	**80.8**	**7.87**	**23.4**	**8.72**	**7.11**	**93.4**
2007 Average	**6.25**	**8.16**	**13.08**	**98.0**	**11.34**	**80.4**	**7.68**	**22.2**	**8.50**	**7.31**	**92.2**
2008 Average	**7.97**	**9.18**	**13.89**	**97.5**	**12.23**	**79.9**	**9.65**	**20.5**	**11.75**	**9.26**	**101.1**
2009 January	4.60	7.98	12.49	[R]97.6	11.28	82.4	7.50	20.1	NA	6.62	100.9
February	3.70	7.25	12.26	[R]97.7	10.98	81.1	6.43	19.9	NA	5.62	101.1
March	3.38	6.83	11.98	[R]97.4	10.46	80.7	5.69	19.4	NA	4.92	101.8
April	3.18	5.68	11.68	[R]97.2	9.70	77.7	5.04	18.6	NA	4.70	101.6
May	3.23	5.47	12.86	[R]97.2	9.42	74.4	4.40	19.0	NA	4.70	101.5
June	3.38	5.53	14.26	[R]96.8	9.53	73.3	4.56	18.7	NA	4.62	101.0
July	3.45	5.67	15.27	[R]96.9	9.74	70.5	4.68	18.6	NA	4.47	100.8
August	3.37	5.58	15.61	[R]96.9	9.52	68.5	4.37	18.3	NA	4.30	100.7
September	2.98	5.32	14.80	[R]96.6	9.35	69.3	3.88	18.0	NA	4.02	100.6
October	3.83	5.62	11.78	[R]96.8	8.92	73.3	4.82	17.8	NA	5.04	102.4
November	4.20	6.31	11.48	[R]97.2	9.45	75.8	5.44	17.8	NA	5.06	101.0
December	4.66	6.23	10.30	[R]97.6	8.84	80.1	5.97	18.9	NA	6.24	100.7
Average	**3.67**	**6.46**	**12.14**	**97.4**	**10.06**	**77.8**	**5.33**	**18.8**	**8.13**	**4.93**	**101.1**
2010 January	[E]5.14	6.82	10.45	[R]96.5	9.32	76.0	6.86	17.6	NA	6.97	100.8
February	[E]4.89	6.61	10.57	[R]96.6	9.31	76.6	6.70	17.2	NA	6.26	100.5
March	[E]4.36	6.41	10.83	[R]96.3	9.26	73.8	5.92	17.0	NA	5.47	101.0
April	[E]3.92	5.85	11.70	[R]95.8	9.25	68.4	4.99	16.9	NA	4.89	100.8
May	[E]4.04	5.81	12.71	[R]96.8	9.13	65.4	4.99	17.0	NA	4.94	100.9
June	[E]4.25	6.07	14.24	[R]96.6	9.40	63.9	4.95	16.8	NA	5.29	100.6
July	[E]4.36	6.30	15.50	[R]96.4	9.85	62.2	5.39	17.6	NA	5.33	100.5
August	[E]4.22	6.21	15.91	[R]96.0	9.74	60.9	5.27	17.1	NA	5.05	100.3
September	[E]3.76	5.71	15.03	[R]96.3	9.31	60.0	4.52	16.6	NA	4.60	100.6
October	[E]3.69	5.74	13.07	[R]96.3	9.02	63.9	4.65	15.8	NA	4.44	101.3
November	[E]3.34	5.49	10.71	[R]97.0	8.62	71.2	4.51	16.6	NA	4.54	100.9
December	[E]3.96	5.74	9.88	[R]97.4	8.56	74.3	5.42	16.7	NA	5.66	101.2
Average	**[E]4.16**	**6.16**	**11.20**	**96.6**	**9.15**	**71.1**	**5.40**	**16.9**	**NA**	**5.26**	**100.7**
2011 January	[E]4.08	5.70	9.80	[R]97.4	8.57	76.0	5.55	16.3	NA	5.63	101.4
February	[E]4.23	5.66	10.01	[R]97.4	8.73	74.6	5.56	16.3	NA	5.29	102.0
March	[E]3.90	5.65	10.22	97.1	8.71	72.6	5.07	16.1	NA	4.83	103.8
3-Month Average	**[E]4.07**	**5.67**	**9.98**	**97.3**	**8.66**	**74.6**	**5.40**	**16.3**	**NA**	**5.26**	**102.3**
2010 3-Month Average	**[E]4.80**	**6.65**	**10.59**	**96.5**	**9.30**	**75.6**	**6.50**	**17.3**	**NA**	**6.28**	**100.8**
2009 3-Month Average	**3.89**	**7.45**	**12.28**	**97.6**	**10.96**	**81.5**	**6.58**	**19.8**	**NA**	**5.71**	**101.3**

[a] Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
[b] See Note 9, "Natural Gas Prices," at end of section.
[c] 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.
[d] 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.
[e] 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.
[f] Includes taxes.
[g] 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.
[h] Much of the natural gas delivered for vehicle fuel represents deliveries to fueling stations that are used primarily or exclusively by fleet vehicles. Thus, the prices are often those associated with the cost of gas in the operation of fleet vehicles.
[i] 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.gov/totalenergy/data/monthly/#prices 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 U.S. 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, vehicle fuel, and electric power consumers. They do not include the price of natural gas delivered on behalf of third parties to residential, commercial, industrial, and vehicle fuel customers except for certain States in the residential and commercial sectors for 2002 forward. 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."
1978–2009: U.S. Energy Information Administration (EIA), *Petroleum Marketing Annual 2009*, Table 1.
2010: EIA, *Petroleum Marketing Monthly*, June 2011, 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."
1978–2009: EIA, *Petroleum Marketing Annual 2009*, Table 1.
2010: EIA, *Petroleum Marketing Monthly*, June 2011, 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."
1978–2009: EIA, *Petroleum Marketing Annual 2009*, Table 1.
2010: EIA, *Petroleum Marketing Monthly*, June 2011, 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: U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report."
1978–2009: EIA, *Petroleum Marketing Annual 2009*, Table 21.
2010: EIA, *Petroleum Marketing Monthly*, June 2011, 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: U.S. 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 forward: EIA, *Electric Power Monthly*, May 2011, Table 4.1; and Form EIA-923, "Power Plant Operations Report."

Table 9.11 Sources

All Prices Except Vehicle Fuel and Electric Power
1973–2002: U.S. Energy Information Administration (EIA), *Natural Gas Annual* (*NGA*), annual reports.
2003 forward: EIA, *Natural Gas Monthly* (*NGM*), May 2011, Table 3.

Vehicle Fuel Price
EIA, NGA, annual reports.

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 forward: Form EIA-923, "Power Plant Operations Report."

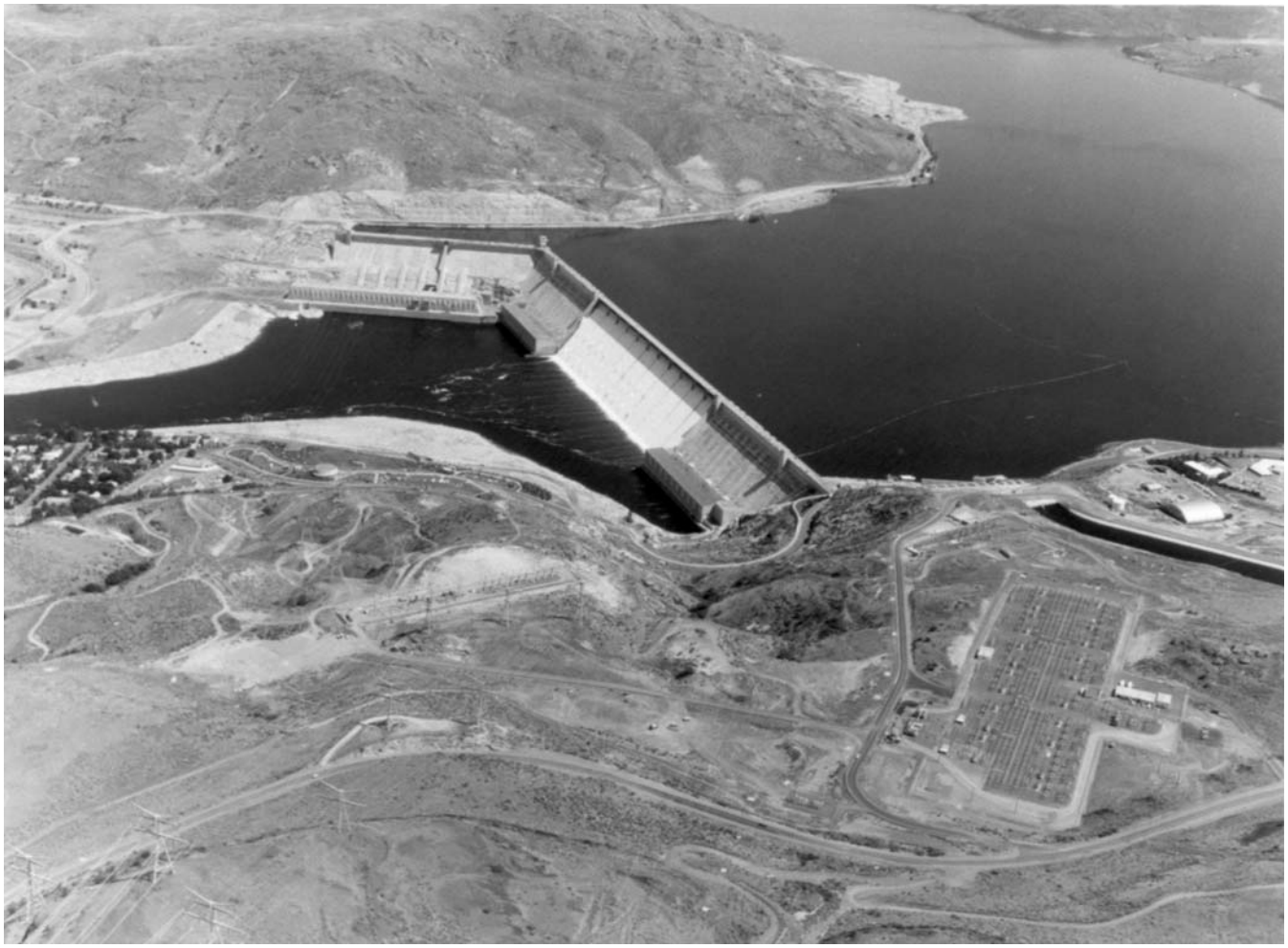
Percentage of Residential Sector
1989–2008: EIA, Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."
2009 and 2011: Estimated by EIA as the average of the three previous annual values.

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 2011, 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 2011, 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 forward: 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).

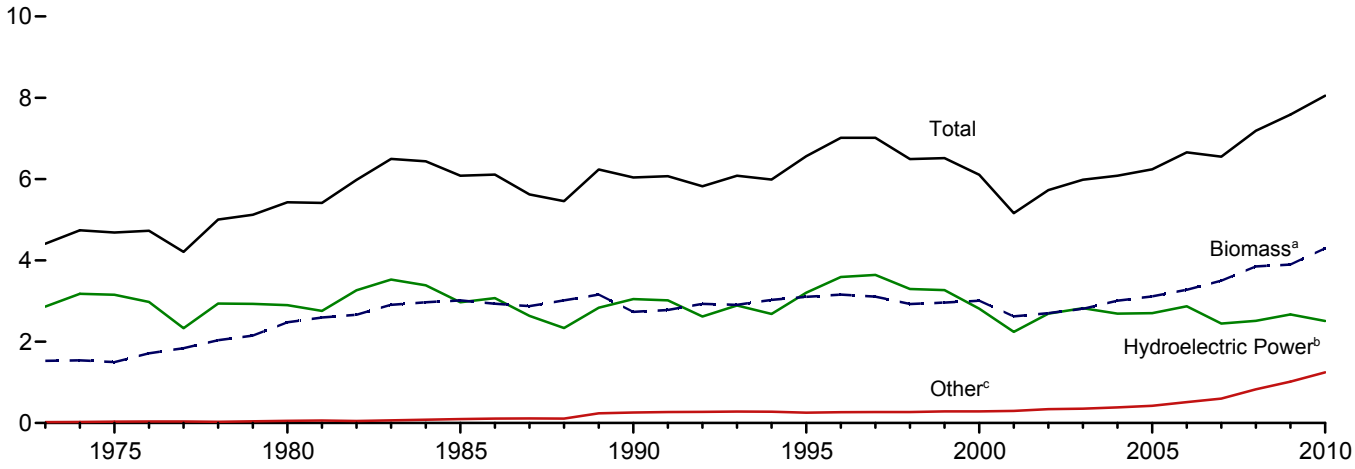
10 Renewable Energy



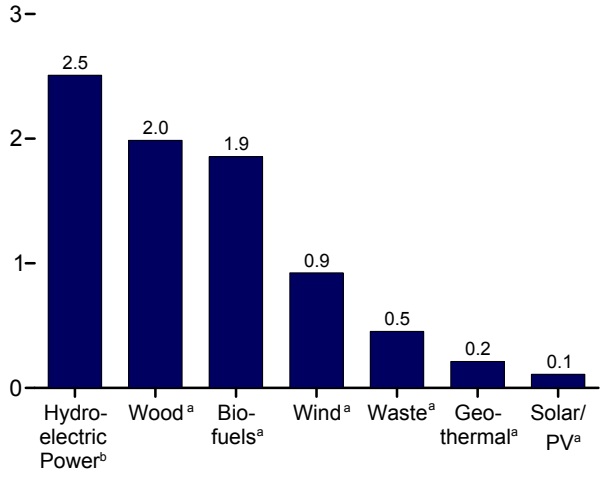
Grand Coulee Dam, Washington State. Source: U.S. Bureau of Reclamation.

Figure 10.1 Renewable Energy Consumption
(Quadrillion Btu)

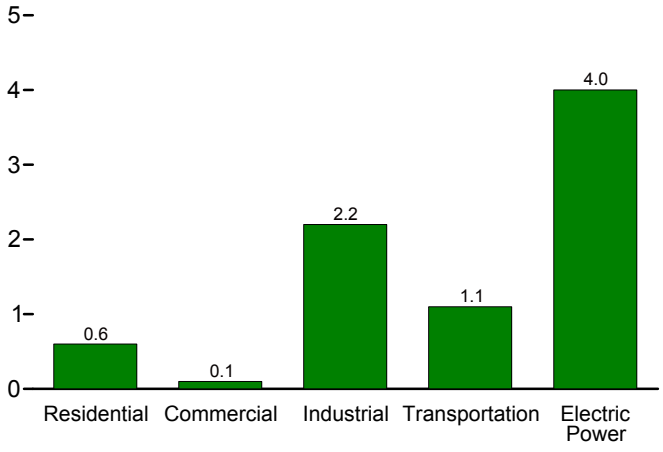
Total and Major Sources, 1973-2010



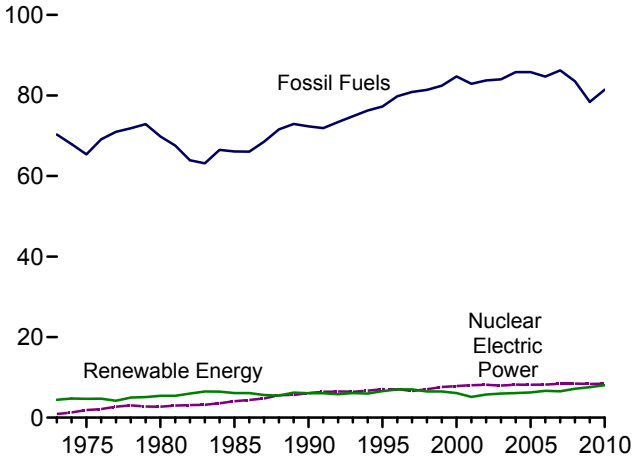
By Source, 2010



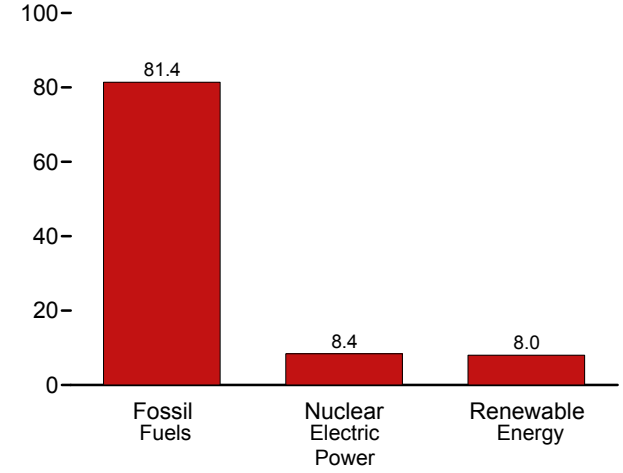
By Sector, 2010



Compared With Other Resources, 1973-2010



Compared With Other Resources, 2010



[a] See Table 10.1 for definition.
[b] Conventional hydroelectric power.
[c] Geothermal, solar/PV, and wind.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#renewable.
Sources: Tables 1.3 and 10.1–10.2c.

Table 10.1 Renewable Energy Production and Consumption by Source

(Trillion Btu)

	Production[a]			Consumption								
	Biomass		Total Renewable Energy[d]	Hydroelectric Power[e]	Geothermal[f]	Solar/PV[g]	Wind[h]	Biomass				Total Renewable Energy
	Biofuels[b]	Total[c]						Wood[i]	Waste[j]	Biofuels[k]	Total	
1973 Total	**NA**	**1,529**	**4,411**	**2,861**	**20**	**NA**	**NA**	**1,527**	**2**	**NA**	**1,529**	**4,411**
1975 Total	**NA**	**1,499**	**4,687**	**3,155**	**34**	**NA**	**NA**	**1,497**	**2**	**NA**	**1,499**	**4,687**
1980 Total	**NA**	**2,475**	**5,428**	**2,900**	**53**	**NA**	**NA**	**2,474**	**2**	**NA**	**2,475**	**5,428**
1985 Total	**93**	**3,016**	**6,084**	**2,970**	**97**	**(s)**	**(s)**	**2,687**	**236**	**93**	**3,016**	**6,084**
1990 Total	**111**	**2,735**	**6,041**	**3,046**	**171**	**59**	**29**	**2,216**	**408**	**111**	**2,735**	**6,041**
1995 Total	**198**	**3,099**	**6,558**	**3,205**	**152**	**69**	**33**	**2,370**	**531**	**200**	**3,101**	**6,560**
1996 Total	**141**	**3,155**	**7,012**	**3,590**	**163**	**70**	**33**	**2,437**	**577**	**143**	**3,157**	**7,014**
1997 Total	**186**	**3,108**	**7,018**	**3,640**	**167**	**70**	**34**	**2,371**	**551**	**184**	**3,105**	**7,016**
1998 Total	**202**	**2,929**	**6,494**	**3,297**	**168**	**69**	**31**	**2,184**	**542**	**201**	**2,927**	**6,493**
1999 Total	**211**	**2,965**	**6,517**	**3,268**	**171**	**68**	**46**	**2,214**	**540**	**209**	**2,963**	**6,516**
2000 Total	**233**	**3,006**	**6,104**	**2,811**	**164**	**65**	**57**	**2,262**	**511**	**236**	**3,008**	**6,106**
2001 Total	**254**	**2,624**	**5,164**	**2,242**	**164**	**64**	**70**	**2,006**	**364**	**253**	**2,622**	**5,163**
2002 Total	**308**	**2,705**	**5,734**	**2,689**	**171**	**63**	**105**	**1,995**	**402**	**303**	**2,701**	**5,729**
2003 Total	**402**	**2,805**	**5,982**	**2,825**	**175**	**62**	**115**	**2,002**	**401**	**404**	**2,807**	**5,983**
2004 Total	**487**	**2,998**	**6,070**	**2,690**	**178**	**63**	**142**	**2,121**	**389**	**499**	**3,010**	**6,082**
2005 Total	**564**	**3,104**	**6,229**	**2,703**	**181**	**63**	**178**	**2,136**	**403**	**577**	**3,116**	**6,242**
2006 Total	**720**	**3,226**	**6,608**	**2,869**	**181**	**68**	**264**	**2,109**	**397**	**771**	**3,276**	**6,659**
2007 Total	**978**	**3,489**	**6,537**	**2,446**	**186**	**76**	**341**	**2,098**	**413**	**991**	**3,502**	**6,551**
2008 Total	**1,387**	**3,867**	**7,205**	**2,511**	**192**	**89**	**546**	**2,044**	**436**	**1,372**	**3,852**	**7,190**
2009 January	120	315	627	229	17	8	58	158	37	115	310	622
February	111	291	545	174	16	7	57	146	34	102	283	537
March	120	316	624	213	17	8	69	155	40	118	314	621
April	116	300	649	252	16	8	73	147	37	120	304	653
May	126	315	690	289	17	9	61	152	37	131	319	694
June	127	318	683	285	16	8	55	154	37	129	320	685
July	139	340	643	228	17	9	48	163	39	139	340	643
August	141	345	615	191	17	9	53	166	38	141	346	615
September	136	329	568	169	16	8	45	157	36	134	327	567
October	144	343	627	192	16	8	67	161	38	145	344	627
November	149	345	642	205	17	8	67	158	39	144	340	637
December	154	357	692	241	18	8	67	164	39	148	352	686
Total	**1,583**	**3,915**	**7,603**	**2,669**	**200**	**98**	**721**	**1,881**	**452**	**1,567**	**3,899**	**7,587**
2010 January	151	358	669	216	18	8	68	169	38	145	352	662
February	140	326	604	200	16	8	54	153	34	135	322	600
March	157	364	677	201	18	9	85	169	38	152	359	672
April	149	348	652	182	17	9	96	161	38	148	347	652
May	156	360	716	243	18	10	85	165	39	155	358	714
June	152	355	748	288	18	10	78	165	38	155	358	752
July	158	368	696	236	18	10	65	171	39	161	371	699
August	160	371	656	193	18	10	65	172	39	161	372	657
September	154	355	616	165	17	9	69	165	36	154	355	616
October	162	364	637	170	17	9	78	164	38	162	364	637
November	163	366	678	190	18	9	96	165	38	160	363	675
December	167	375	714	226	19	9	86	168	39	167	375	714
Total	**1,870**	**4,310**	**8,064**	**2,509**	**212**	**109**	**924**	**1,986**	**454**	**1,855**	**4,295**	**8,049**
2011 January	169	374	740	251	19	9	87	167	38	154	359	724
February	151	336	700	238	17	8	101	150	35	144	329	693
March	170	368	805	306	19	9	102	161	38	159	358	795
3-Month Total	**490**	**1,079**	**2,245**	**795**	**55**	**26**	**289**	**478**	**111**	**457**	**1,046**	**2,212**
2010 3-Month Total	**448**	**1,049**	**1,951**	**618**	**53**	**25**	**206**	**490**	**110**	**432**	**1,032**	**1,934**
2009 3-Month Total	**351**	**922**	**1,795**	**616**	**50**	**23**	**184**	**459**	**112**	**336**	**907**	**1,780**

[a] Production equals consumption for all renewable energy sources except biofuels.
[b] Total biomass inputs to the production of fuel ethanol and biodiesel.
[c] Wood and wood-derived fuels, biomass waste, and total biomass inputs to the production of fuel ethanol and biodiesel.
[d] Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and biomass.
[e] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[f] Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and geothermal heat pump and direct use energy.
[g] Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy.
[h] Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[i] Wood and wood-derived fuels.
[j] 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).
[k] Fuel ethanol (minus denaturant) 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.gov/totalenergy/data/monthly/#renewable for all available data beginning in 1973.
Sources: Tables 10.2a–10.4.

Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors

(Trillion Btu)

	Residential Sector				Commercial Sector[a]								
			Biomass						Biomass				
	Geo-thermal[b]	Solar/PV[c]	Wood[d]	Total	Hydro-electric Power[e]	Geo-thermal[b]	Solar/PV[f]	Wind[g]	Wood[d]	Waste[h]	Fuel Ethanol[i]	Total	Total
1973 Total	**NA**	**NA**	**354**	**354**	**NA**	**NA**	**NA**	**NA**	**7**	**NA**	**NA**	**7**	**7**
1975 Total	**NA**	**NA**	**425**	**425**	**NA**	**NA**	**NA**	**NA**	**8**	**NA**	**NA**	**8**	**8**
1980 Total	**NA**	**NA**	**850**	**850**	**NA**	**NA**	**NA**	**NA**	**21**	**NA**	**NA**	**21**	**21**
1985 Total	**NA**	**NA**	**1,010**	**1,010**	**NA**	**NA**	**NA**	**NA**	**24**	**NA**	**(s)**	**24**	**24**
1990 Total	**6**	**56**	**580**	**641**	**1**	**3**	**–**	**–**	**66**	**28**	**(s)**	**94**	**98**
1995 Total	**7**	**64**	**520**	**591**	**1**	**5**	**–**	**–**	**72**	**40**	**(s)**	**113**	**118**
1996 Total	**7**	**65**	**540**	**612**	**1**	**5**	**–**	**–**	**76**	**53**	**(s)**	**129**	**135**
1997 Total	**8**	**64**	**430**	**502**	**1**	**6**	**–**	**–**	**73**	**58**	**(s)**	**131**	**138**
1998 Total	**8**	**64**	**380**	**452**	**1**	**7**	**–**	**–**	**64**	**54**	**(s)**	**118**	**127**
1999 Total	**9**	**63**	**390**	**461**	**1**	**7**	**–**	**–**	**67**	**54**	**(s)**	**121**	**129**
2000 Total	**9**	**60**	**420**	**489**	**1**	**8**	**–**	**–**	**71**	**47**	**(s)**	**119**	**128**
2001 Total	**9**	**59**	**370**	**438**	**1**	**8**	**–**	**–**	**67**	**25**	**(s)**	**92**	**101**
2002 Total	**10**	**57**	**380**	**448**	**(s)**	**9**	**–**	**–**	**69**	**26**	**(s)**	**95**	**104**
2003 Total	**13**	**57**	**400**	**470**	**1**	**11**	**–**	**–**	**71**	**29**	**1**	**101**	**113**
2004 Total	**14**	**57**	**410**	**481**	**1**	**12**	**–**	**–**	**70**	**34**	**1**	**105**	**118**
2005 Total	**16**	**58**	**430**	**504**	**1**	**14**	**–**	**–**	**70**	**34**	**1**	**105**	**119**
2006 Total	**18**	**63**	**390**	**472**	**1**	**14**	**–**	**–**	**65**	**36**	**1**	**102**	**117**
2007 Total	**22**	**70**	**430**	**522**	**1**	**14**	**–**	**–**	**69**	**31**	**2**	**102**	**118**
2008 Total	**26**	**80**	**450**	**556**	**1**	**15**	**(s)**	**–**	**73**	**34**	**2**	**109**	**125**
2009 January	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	9	11
February	3	7	33	42	(s)	1	(s)	(s)	6	3	(s)	8	10
March	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	9	11
April	3	7	35	45	(s)	1	(s)	(s)	6	3	(s)	9	11
May	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	10	11
June	3	7	35	45	(s)	1	(s)	(s)	6	3	(s)	9	11
July	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	10	11
August	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	10	11
September	3	7	35	45	(s)	1	(s)	(s)	6	3	(s)	9	10
October	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	9	11
November	3	7	35	45	(s)	1	(s)	(s)	6	3	(s)	9	11
December	3	8	37	47	(s)	1	(s)	(s)	6	3	(s)	9	11
Total	**33**	**89**	**430**	**552**	**1**	**17**	**(s)**	**(s)**	**72**	**36**	**3**	**112**	**129**
2010 January	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
February	3	7	32	42	(s)	1	(s)	(s)	5	3	(s)	8	10
March	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
April	3	8	35	45	(s)	2	(s)	(s)	6	3	(s)	9	11
May	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	10	11
June	3	8	35	45	(s)	2	(s)	(s)	6	3	(s)	9	11
July	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
August	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
September	3	8	35	45	(s)	2	(s)	(s)	6	3	(s)	9	10
October	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
November	3	8	35	45	(s)	2	(s)	–	6	3	(s)	9	10
December	3	8	36	47	(s)	2	(s)	–	6	3	(s)	9	11
Total	**37**	**97**	**420**	**554**	**1**	**19**	**(s)**	**(s)**	**70**	**34**	**3**	**108**	**127**
2011 January	3	8	36	47	(s)	2	(s)	–	6	3	(s)	9	11
February	3	7	32	42	(s)	1	(s)	–	5	3	(s)	8	10
March	3	8	36	47	(s)	2	(s)	(s)	6	3	(s)	9	11
3-Month Total	**9**	**24**	**104**	**136**	**(s)**	**5**	**(s)**	**(s)**	**17**	**8**	**1**	**26**	**31**
2010 3-Month Total	**9**	**24**	**104**	**136**	**(s)**	**5**	**(s)**	**(s)**	**17**	**8**	**1**	**27**	**31**
2009 3-Month Total	**8**	**22**	**106**	**136**	**(s)**	**4**	**(s)**	**(s)**	**18**	**9**	**1**	**27**	**31**

[a] 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.

[b] Geothermal heat pump and direct use energy.

[c] Solar thermal direct use energy, and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6). Includes small amounts of distributed solar thermal and PV energy used in the commercial, industrial, and electric power sectors.

[d] Wood and wood-derived fuels.

[e] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[f] Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1 megawatt or greater.

[g] Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[h] 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).

[i] The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.

NA=Not available. – =No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for commercial sector solar/PV, hydroelectric power, wind, 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.gov/totalenergy/data/monthly/#renewable 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[a]									Transportation Sector		
				Biomass						Biomass		
	Hydro-electric Power[b]	Geo-thermal[c]	Solar/ PV[d]	Wood[e]	Waste[f]	Fuel Ethanol[g]	Losses and Co-products[h]	Total	Total	Fuel Ethanol[i]	Bio-diesel	Total
1973 Total	**35**	**NA**	**NA**	**1,165**	**NA**	**NA**	**NA**	**1,165**	**1,200**	**NA**	**NA**	**NA**
1975 Total	**32**	**NA**	**NA**	**1,063**	**NA**	**NA**	**NA**	**1,063**	**1,096**	**NA**	**NA**	**NA**
1980 Total	**33**	**NA**	**NA**	**1,600**	**NA**	**NA**	**NA**	**1,600**	**1,633**	**NA**	**NA**	**NA**
1985 Total	**33**	**NA**	**NA**	**1,645**	**230**	**1**	**42**	**1,918**	**1,951**	**50**	**NA**	**50**
1990 Total	**31**	**2**	**–**	**1,442**	**192**	**1**	**49**	**1,684**	**1,717**	**60**	**NA**	**60**
1995 Total	**55**	**3**	**–**	**1,652**	**195**	**2**	**86**	**1,934**	**1,992**	**112**	**NA**	**112**
1996 Total	**61**	**3**	**–**	**1,683**	**224**	**1**	**61**	**1,969**	**2,033**	**81**	**NA**	**81**
1997 Total	**58**	**3**	**–**	**1,731**	**184**	**1**	**80**	**1,996**	**2,057**	**102**	**NA**	**102**
1998 Total	**55**	**3**	**–**	**1,603**	**180**	**1**	**86**	**1,872**	**1,929**	**113**	**NA**	**113**
1999 Total	**49**	**4**	**–**	**1,620**	**171**	**1**	**90**	**1,882**	**1,934**	**118**	**NA**	**118**
2000 Total	**42**	**4**	**–**	**1,636**	**145**	**1**	**99**	**1,881**	**1,928**	**135**	**NA**	**135**
2001 Total	**33**	**5**	**–**	**1,443**	**129**	**3**	**108**	**1,681**	**1,719**	**141**	**1**	**142**
2002 Total	**39**	**5**	**–**	**1,396**	**146**	**3**	**130**	**1,676**	**1,720**	**168**	**2**	**170**
2003 Total	**43**	**3**	**–**	**1,363**	**142**	**4**	**169**	**1,679**	**1,726**	**228**	**2**	**230**
2004 Total	**33**	**4**	**–**	**1,476**	**132**	**6**	**203**	**1,817**	**1,853**	**286**	**3**	**290**
2005 Total	**32**	**4**	**–**	**1,452**	**148**	**7**	**230**	**1,837**	**1,873**	**327**	**12**	**339**
2006 Total	**29**	**4**	**–**	**1,472**	**130**	**10**	**285**	**1,897**	**1,930**	**442**	**33**	**475**
2007 Total	**16**	**5**	**–**	**1,413**	**144**	**10**	**377**	**1,944**	**1,964**	**557**	**46**	**602**
2008 Total	**17**	**5**	**–**	**1,344**	**144**	**12**	**532**	**2,031**	**2,053**	**786**	**40**	**826**
2009 January	2	(s)	–	98	14	1	46	159	161	67	(s)	67
February	1	(s)	–	93	12	1	43	149	151	58	(s)	58
March	2	(s)	–	98	14	1	48	160	162	67	3	70
April	2	(s)	–	93	12	1	46	153	155	70	3	73
May	2	(s)	–	96	12	1	50	160	162	77	2	79
June	2	(s)	–	97	12	1	50	160	162	75	3	78
July	1	(s)	–	104	12	1	54	172	173	80	3	83
August	1	(s)	–	107	12	1	55	175	177	81	4	85
September	1	(s)	–	101	12	1	53	167	168	75	6	80
October	1	(s)	–	104	14	1	56	175	177	82	6	88
November	1	(s)	–	101	14	1	57	174	175	81	4	85
December	2	(s)	–	104	14	1	60	179	181	82	5	87
Total	**18**	**4**	**–**	**1,198**	**154**	**13**	**617**	**1,982**	**2,005**	**894**	**40**	**934**
2010 January	2	(s)	(s)	110	14	1	59	185	187	83	1	84
February	2	(s)	(s)	100	13	1	55	168	170	76	4	79
March	2	(s)	(s)	111	14	1	62	188	190	87	2	89
April	2	(s)	(s)	106	14	1	59	180	182	85	3	88
May	2	(s)	(s)	109	14	1	62	186	188	89	2	91
June	1	(s)	(s)	109	14	1	60	184	186	91	2	93
July	1	(s)	(s)	113	14	1	62	191	192	93	3	97
August	1	(s)	(s)	113	14	1	63	192	193	93	2	96
September	1	(s)	(s)	109	13	1	61	185	186	89	3	92
October	1	(s)	(s)	108	14	1	64	188	189	94	2	96
November	1	(s)	(s)	109	14	1	65	189	191	92	2	94
December	1	(s)	(s)	109	14	1	67	192	194	97	2	99
Total	**16**	**4**	**(s)**	**1,307**	**168**	**16**	**738**	**2,229**	**2,249**	**1,070**	**28**	**1,098**
2011 January	1	(s)	(s)	110	14	1	66	191	193	83	3	86
February	2	(s)	(s)	98	13	1	59	171	173	81	3	84
March	2	(s)	(s)	105	14	1	65	185	187	87	5	92
3-Month Total	**5**	**1**	**(s)**	**312**	**41**	**4**	**190**	**548**	**554**	**252**	**11**	**262**
2010 3-Month Total	**5**	**1**	**(s)**	**321**	**41**	**4**	**176**	**542**	**548**	**245**	**6**	**252**
2009 3-Month Total	**5**	**1**	**–**	**289**	**40**	**3**	**137**	**469**	**474**	**191**	**4**	**195**

[a] 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.

[b] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

[c] Geothermal heat pump and direct use energy.

[d] Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 megawatt or greater.

[e] Wood and wood-derived fuels.

[f] 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).

[g] The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the industrial sector.

[h] 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.

[i] The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

NA=Not available. – =No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1973-1978 and 1989 forward, and solar/PV. • 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.gov/totalenergy/data/monthly/#renewable 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[a]	Geo-thermal[b]	Solar/PV[c]	Wind[d]	Biomass			Total
					Wood[e]	Waste[f]	Total	
1973 Total	**2,827**	**20**	**NA**	**NA**	**1**	**2**	**3**	**2,851**
1975 Total	**3,122**	**34**	**NA**	**NA**	**(s)**	**2**	**2**	**3,158**
1980 Total	**2,867**	**53**	**NA**	**NA**	**3**	**2**	**4**	**2,925**
1985 Total	**2,937**	**97**	**(s)**	**(s)**	**8**	**7**	**14**	**3,049**
1990 Total[g]	**3,014**	**161**	**4**	**29**	**129**	**188**	**317**	**3,524**
1995 Total	**3,149**	**138**	**5**	**33**	**125**	**296**	**422**	**3,747**
1996 Total	**3,528**	**148**	**5**	**33**	**138**	**300**	**438**	**4,153**
1997 Total	**3,581**	**150**	**5**	**34**	**137**	**309**	**446**	**4,216**
1998 Total	**3,241**	**151**	**5**	**31**	**137**	**308**	**444**	**3,872**
1999 Total	**3,218**	**152**	**5**	**46**	**138**	**315**	**453**	**3,874**
2000 Total	**2,768**	**144**	**5**	**57**	**134**	**318**	**453**	**3,427**
2001 Total	**2,209**	**142**	**6**	**70**	**126**	**211**	**337**	**2,763**
2002 Total	**2,650**	**147**	**6**	**105**	**150**	**230**	**380**	**3,288**
2003 Total	**2,781**	**148**	**5**	**115**	**167**	**230**	**397**	**3,445**
2004 Total	**2,656**	**148**	**6**	**142**	**165**	**223**	**388**	**3,340**
2005 Total	**2,670**	**147**	**6**	**178**	**185**	**221**	**406**	**3,406**
2006 Total	**2,839**	**145**	**5**	**264**	**182**	**231**	**412**	**3,665**
2007 Total	**2,430**	**145**	**6**	**341**	**186**	**237**	**423**	**3,345**
2008 Total	**2,494**	**146**	**9**	**546**	**177**	**258**	**435**	**3,630**
2009 January	228	13	(s)	58	17	21	37	336
February	172	11	(s)	57	15	19	34	276
March	211	13	1	69	14	24	38	332
April	250	12	1	73	12	21	33	369
May	287	12	1	61	13	22	34	395
June	284	12	1	55	15	22	37	388
July	227	12	1	48	16	23	39	328
August	190	12	1	53	17	23	39	296
September	168	12	1	45	14	21	36	262
October	191	12	1	67	14	21	35	305
November	204	12	(s)	67	15	22	37	320
December	240	13	(s)	67	17	22	40	360
Total	**2,650**	**146**	**9**	**721**	**180**	**261**	**441**	**3,967**
2010 January	214	13	(s)	68	17	20	37	333
February	198	12	(s)	54	16	18	34	298
March	199	13	1	85	16	22	37	335
April	180	12	1	96	14	21	36	325
May	241	13	2	85	14	21	35	376
June	286	13	2	78	16	21	37	416
July	234	13	2	65	17	22	38	352
August	192	13	2	65	18	21	39	310
September	164	12	1	69	15	20	35	283
October	169	12	1	78	14	21	35	294
November	188	13	1	96	16	21	37	335
December	224	14	(s)	86	17	22	39	363
Total	**2,492**	**153**	**13**	**924**	**189**	**252**	**440**	**4,022**
2011 January	250	14	(s)	87	16	21	37	388
February	236	13	1	101	15	19	34	384
March	304	14	1	102	14	21	36	457
3-Month Total	**790**	**41**	**2**	**289**	**45**	**61**	**106**	**1,229**
2010 3-Month Total	**612**	**38**	**1**	**206**	**48**	**60**	**109**	**967**
2009 3-Month Total	**611**	**37**	**1**	**184**	**46**	**63**	**110**	**943**

[a] Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[b] Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[c] Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[d] Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
[e] Wood and wood-derived fuels.
[f] 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).
[g] 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.gov/totalenergy/data/monthly/#renewable for all available data beginning in 1973.
Sources: • **Biomass:** Table 7.4b. • **All Other Data:** Tables 7.2b and A6.

Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rate is used as the thermal conversion factor for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources—hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**. See Table A6.

Table 10.3 Fuel Ethanol Overview

	Feed-stock[a]	Losses and Co-products[b]	Dena-turant[c]	Production[d]			Trade[d] Net Imports[e]	Stocks[d,f]	Stock Change[d,g]	Consumption[d]			*Consump-tion Minus Denaturant*[h]
	TBtu	TBtu	Mbbl	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	MMgal	TBtu	*TBtu*
1981 Total	**13**	**6**	**40**	**1,978**	**83**	**7**	**NA**	**NA**	**NA**	**1,978**	**83**	**7**	***7***
1985 Total	**93**	**42**	**294**	**14,693**	**617**	**52**	**NA**	**NA**	**NA**	**14,693**	**617**	**52**	***51***
1990 Total	**111**	**49**	**356**	**17,802**	**748**	**63**	**NA**	**NA**	**NA**	**17,802**	**748**	**63**	***62***
1995 Total	**198**	**86**	**647**	**32,325**	**1,358**	**115**	**387**	**2,186**	**-207**	**32,919**	**1,383**	**117**	***114***
1996 Total	**141**	**61**	**464**	**23,178**	**973**	**83**	**313**	**2,065**	**-121**	**23,612**	**992**	**84**	***82***
1997 Total	**186**	**80**	**613**	**30,674**	**1,288**	**109**	**85**	**2,925**	**860**	**29,899**	**1,256**	**107**	***104***
1998 Total	**202**	**86**	**669**	**33,453**	**1,405**	**119**	**66**	**3,406**	**481**	**33,038**	**1,388**	**118**	***115***
1999 Total	**211**	**90**	**698**	**34,881**	**1,465**	**124**	**87**	**4,024**	**618**	**34,350**	**1,443**	**122**	***119***
2000 Total	**233**	**99**	**773**	**38,627**	**1,622**	**138**	**116**	**3,400**	**-624**	**39,367**	**1,653**	**140**	***137***
2001 Total	**253**	**108**	**841**	**42,028**	**1,765**	**150**	**315**	**4,298**	**898**	**41,445**	**1,741**	**148**	***144***
2002 Total	**307**	**130**	**1,019**	**50,956**	**2,140**	**182**	**306**	**6,200**	**1,902**	**49,360**	**2,073**	**176**	***171***
2003 Total	**400**	**169**	**1,335**	**66,772**	**2,804**	**238**	**292**	**5,978**	**-222**	**67,286**	**2,826**	**240**	***233***
2004 Total	**484**	**203**	**1,621**	**81,058**	**3,404**	**289**	**3,542**	**6,002**	**24**	**84,576**	**3,552**	**301**	***293***
2005 Total	**552**	**230**	**1,859**	**92,961**	**3,904**	**331**	**3,234**	**5,563**	**-439**	**96,634**	**4,059**	**344**	***335***
2006 Total	**688**	**285**	**2,326**	**116,294**	**4,884**	**414**	**17,408**	**8,760**	**3,197**	**130,505**	**5,481**	**465**	***453***
2007 Total	**914**	**376**	**3,105**	**155,263**	**6,521**	**553**	**10,457**	**10,535**	**1,775**	**163,945**	**6,886**	**584**	***569***
2008 Total	**1,300**	**531**	**4,433**	**221,637**	**9,309**	**790**	**12,610**	**14,226**	**3,691**	**230,556**	**9,683**	**821**	***800***
2009 January	114	46	403	19,561	822	70	388	14,514	288	19,661	826	70	*68*
February	106	43	409	18,255	767	65	56	15,834	1,320	16,991	714	61	*59*
March	117	48	452	20,121	845	72	79	16,411	577	19,623	824	70	*68*
April	113	46	427	19,374	814	69	166	15,322	-1,089	20,629	866	74	*71*
May	123	50	459	21,024	883	75	507	14,173	-1,149	22,680	953	81	*79*
June	123	50	455	21,125	887	75	705	13,974	-199	22,029	925	78	*76*
July	133	54	503	22,887	961	82	960	14,223	249	23,598	991	84	*82*
August	135	55	494	23,136	972	82	983	14,671	448	23,671	994	84	*82*
September	129	53	479	22,218	933	79	310	15,283	612	21,916	920	78	*76*
October	137	55	515	23,467	986	84	269	14,933	-350	24,086	1,012	86	*83*
November	141	57	523	24,122	1,013	86	285	15,578	645	23,762	998	85	*82*
December	146	59	569	25,134	1,056	90	12	16,594	1,016	24,130	1,013	86	*83*
Total	**1,517**	**616**	**5,688**	**260,424**	**10,938**	**928**	**4,720**	**16,594**	**2,368**	**262,776**	**11,037**	**936**	***910***
2010 January	147	59	533	25,366	1,065	90	34	17,800	[i]1,089	24,311	1,021	87	*84*
February	135	55	488	23,328	980	83	27	18,897	1,097	22,258	935	79	*77*
March	153	62	527	26,270	1,103	94	27	19,691	794	25,503	1,071	91	*88*
April	145	58	512	24,962	1,048	89	36	19,682	-9	25,007	1,050	89	*87*
May	152	61	534	26,244	1,102	93	39	19,721	39	26,244	1,102	93	*91*
June	149	60	521	25,631	1,077	91	40	18,610	-1,111	26,782	1,125	95	*93*
July	154	62	540	26,581	1,116	95	18	17,784	-826	27,425	1,152	98	*95*
August	157	63	538	26,963	1,132	96	10	17,340	-444	27,417	1,152	98	*95*
September	151	61	530	26,061	1,095	93	5	17,408	68	25,998	1,092	93	*90*
October	159	64	563	27,410	1,151	98	1	17,295	-113	27,524	1,156	98	*95*
November	161	65	586	27,745	1,165	99	–	18,029	734	27,011	1,134	96	*94*
December	165	67	592	28,457	1,195	101	6	17,940	-89	28,552	1,199	102	*99*
Total	**1,830**	**738**	**6,464**	**315,018**	**13,231**	**1,122**	**243**	**17,940**	**[i]1,229**	**314,032**	**13,189**	**1,118**	***1,089***
2011 January	165	66	581	28,524	1,198	102	-1,359	20,672	2,732	24,433	1,026	87	*85*
February	147	59	535	25,400	1,067	90	-1,425	20,809	137	23,838	1,001	85	*83*
March	163	65	548	28,194	1,184	100	-2,003	21,440	631	25,560	1,074	91	*89*
3-Month Total	**475**	**190**	**1,664**	**82,118**	**3,449**	**292**	**-4,787**	**21,440**	**3,500**	**73,831**	**3,101**	**263**	***256***
2010 3-Month Total	**435**	**176**	**1,548**	**74,964**	**3,148**	**267**	**88**	**19,691**	**2,980**	**72,072**	**3,027**	**257**	***250***
2009 3-Month Total	**338**	**137**	**1,264**	**57,937**	**2,433**	**206**	**523**	**16,411**	**2,185**	**56,275**	**2,364**	**201**	***195***

[a] Total corn and other biomass inputs to the production of undenatured ethanol used for 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] The amount of denaturant in fuel ethanol produced.
[d] Minus denaturant.
[e] Through 2010, data are for fuel ethanol imports only; data for fuel ethanol exports are not available. Beginning in 2011, data are for fuel ethanol imports minus fuel ethanol exports.
[f] Stocks are at end of period.
[g] A negative value indicates a decrease in stocks and a positive value indicates an increase.
[h] Consumption of fuel ethanol minus denaturant. Data for fuel ethanol minus denaturant are used to develop data for "Renewable Energy/Biomass" in Tables 10.1–10.2b, as well as in Sections 1 and 2.
[i] Derived from the preliminary December 2009 stocks value (16,711 thousand barrels), not the final December 2009 value (16,594 thousand barrels) 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 Btu by multiplying by the approximate heat content of fuel ethanol—see Table A3. • Through 1980, data are not available. For 1981–1992, data are estimates. For 1993–2008, only data for feedstock, losses and co-products, and denaturant are estimates. Beginning in 2009, only data for feedstock, and losses and co-products, are estimates. • See "Denaturant," "Ethanol," "Fuel Ethanol," and "Fuel Ethanol Minus Denaturant" 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.gov/totalenergy/data/monthly/#renewable for all available data beginning in 1981.

Sources: See end of section.

Table 10.4 Biodiesel Overview

	Feed-stock[a]	Losses and Co-products[b]	Production			Trade			Stocks[d]	Stock Change[e]	Bal-ancing Item[f]	Consumption		
						Imports	Exports	Net Imports[c]						
	TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	MMgal	TBtu
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 Total	**63**	**1**	**11,662**	**490**	**62**	**3,342**	**6,477**	**-3,135**	**NA**	**NA**	**NA**	**8,528**	**358**	**46**
2008 Total	**88**	**1**	**16,145**	**678**	**87**	**7,502**	**16,128**	**-8,626**	**NA**	**NA**	**NA**	**7,519**	**316**	**40**
2009 January	5	(s)	1,011	42	5	261	1,150	-889	664	664	621	79	3	(s)
February	4	(s)	780	33	4	158	1,166	-1,009	424	-240	61	73	3	(s)
March	3	(s)	599	25	3	383	203	180	665	241	0	538	23	3
April	3	(s)	624	26	3	52	154	-102	632	-33	0	554	23	3
May	4	(s)	689	29	4	117	417	-300	600	-32	0	421	18	2
June	4	(s)	761	32	4	138	366	-228	581	-19	0	552	23	3
July	6	(s)	1,030	43	6	58	581	-523	511	-70	0	576	24	3
August	6	(s)	1,070	45	6	126	397	-271	511	0	0	799	34	4
September	6	(s)	1,158	49	6	123	224	-101	527	16	0	1,041	44	6
October	7	(s)	1,364	57	7	159	424	-265	553	26	0	1,074	45	6
November	8	(s)	1,511	63	8	105	819	-714	531	-22	0	819	34	4
December	8	(s)	1,455	61	8	165	431	-265	711	180	0	1,010	42	5
Total	**65**	**1**	**12,054**	**506**	**65**	**1,844**	**6,332**	**-4,489**	**711**	**711**	**682**	**7,537**	**317**	**40**
2010 January	4	(s)	764	32	4	41	296	-256	834	[g]328	0	181	8	1
February	4	(s)	797	33	4	31	139	-108	844	10	0	679	29	4
March	4	(s)	812	34	4	60	433	-374	969	125	0	314	13	2
April	4	(s)	735	31	4	45	227	-182	931	-38	0	591	25	3
May	4	(s)	688	29	4	80	251	-171	1,060	129	0	387	16	2
June	3	(s)	554	23	3	54	304	-249	968	-92	0	397	17	2
July	4	(s)	670	28	4	32	199	-167	830	-138	0	641	27	3
August	3	(s)	543	23	3	52	225	-173	771	-59	0	429	18	2
September	3	(s)	556	23	3	69	131	-62	682	-89	0	582	24	3
October	3	(s)	497	21	3	18	132	-114	650	-32	0	415	17	2
November	2	(s)	376	16	2	30	57	-27	676	26	0	323	14	2
December	2	(s)	409	17	2	34	109	-75	662	-14	0	348	15	2
Total	**40**	**1**	**7,401**	**311**	**40**	**546**	**2,503**	**-1,958**	**662**	**[g]156**	**0**	**5,288**	**222**	**28**
2011 January	4	(s)	740	31	4	49	217	-169	738	76	0	496	21	3
February	4	(s)	718	30	4	37	88	-51	869	131	0	536	23	3
March	7	(s)	1,220	51	7	53	197	-144	984	115	0	961	40	5
3-Month Total	**15**	**(s)**	**2,678**	**112**	**14**	**139**	**503**	**-364**	**984**	**322**	**0**	**1,993**	**84**	**11**
2010 3-Month Total	**13**	**(s)**	**2,373**	**100**	**13**	**131**	**868**	**-737**	**969**	**463**	**0**	**1,173**	**49**	**6**
2009 3-Month Total	**13**	**(s)**	**2,391**	**100**	**13**	**802**	**2,520**	**-1,718**	**665**	**665**	**682**	**690**	**29**	**4**

[a] Total vegetable oil and other biomass inputs to the production of biodiesel.
[b] 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.
[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] Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition.
[g] Derived from the preliminary December 2009 stocks value (506 thousand barrels), not the final December 2009 value (711 thousand barrels) that is shown under "Stocks."

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 Btu by multiplying by 5.359 million Btu per barrel (the approximate heat content of biodiesel—see Table A3). • Through 2000, data are not available. Beginning in 2001, data not from U.S. Energy Information Administration (EIA) surveys 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.gov/totalenergy/data/monthly/#renewable for all available data beginning in 2001.

Sources: See end of section.

Renewable Energy

Note. Renewable Energy Production and Consumption. In Tables 1.1, 1.3, and 10.1, renewable energy consumption consists of: conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6); geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and geothermal heat pump and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6); 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 (minus denaturant) and biodiesel consumption; and losses and co-products from the production of fuel ethanol and biodiesel. In Tables 1.1, 1.2, and 10.1, renewable 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

U.S. Energy Information Administration (EIA) 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 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

1989 forward: Commercial sector conventional hydroelectricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," and predecessor forms, are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

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, Solar/PV

2008 forward: Commercial sector solar thermal and photovoltaic (PV) electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Wind

2009 forward: Commercial sector wind electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

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 estimate based on the 1983 value.

1985–1988: Values interpolated.

1989 forward: EIA, *Monthly Energy Review* (*MER*), Tables 7.4a–7.4c; and EIA 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 (Minus Denaturant)

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 (minus denaturant) consumption (Table 10.3).

Table 10.2b Sources

Industrial Sector, Hydroelectric Power

Industrial sector conventional hydroelectricity net generation data from Table 7.2c are converted to Btu by multiplying by the fossil-fuels heat rate—see Table 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, Solar/PV

2010 forward: Industrial sector solar thermal and photovoltaic (PV) electricity net generation data from the U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

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, *Monthly Energy Review (MER)*, Table 7.4c; and EIA 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 estimates for total waste consumption based on *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.

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 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 (Minus Denaturant)

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 (minus denaturant) consumption (Table 10.3).

Industrial Sector, Losses and Co-products

Calculated as fuel ethanol losses and co-products (Table 10.3) plus biodiesel losses and co-products (Table 10.4).

Transportation Sector, Fuel Ethanol (Minus Denaturant)

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 (minus denaturant) consumption (Table 10.3).

Transportation Sector, Biodiesel

EIA, MER, Table 10.4. Transportation sector biodiesel consumption is assumed to equal total biodiesel consumption.

Table 10.3 Sources

Feedstock

Calculated as fuel ethanol production (in thousand barrels) minus denaturant, and then multiplied by the fuel ethanol feedstock factor—see Table A3.

Losses and Co-products

Calculated as fuel ethanol feedstock plus denaturant minus fuel ethanol production.

Denaturant

1981–2008: Data in thousand barrels for petroleum denaturant in fuel ethanol produced are estimated as 2 percent of fuel ethanol production; these data are converted to Btu by multiplying by 4.645 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009: U.S. Energy Information Administration (EIA), *Petroleum Supply Annual (PSA)*, Table 1. Data in thousand barrels for net production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus and conventional motor gasoline.

2010 and 2011: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1. Data in thousand barrels for net production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline and motor gasoline blending components at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus, conventional motor gasoline, and motor gasoline blending components.

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 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, PSA, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

2010 and 2011: EIA, PSM, monthly reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

Trade, Stocks, and Stock Change

1992–2009: EIA, PSA, annual reports, Table 1.

2010 and 2011: EIA, PSM, monthly reports, Table 1.

Consumption

1981–1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10; and interpolated values for 1982, 1983, 1985, 1986, and 1988.

1990–1992: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D2; and interpolated value for 1991.

1993–2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as 10 percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16).

2005–2008: 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).

2009: EIA, PSA, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

2010 and 2011: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

Consumption Minus Denaturant

Calculated as fuel ethanol consumption minus the amount of denaturant in fuel ethanol consumed. Denaturant in fuel ethanol consumed is estimated by multiplying denaturant in fuel ethanol produced by the fuel ethanol consumption-to-production ratio.

Table 10.4 Sources

Feedstock
Calculated as biodiesel production in thousand barrels multiplied by 5.433 million Btu per barrel (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 U.S. Energy Information Administration (EIA) estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel).

2007 and January 2010 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).

January 2008–December 2009: EIA, *Monthly Biodiesel Production Report*, December 2009 (release date October 2010), Table 11. Monthly data for 2008 are estimated based on U.S. Department of Commerce, Bureau of the Census, M311K data, multiplied by the EIA 2008 annual value's share of the M311K 2008 annual value.

Trade
U.S. Department of Agriculture, imports data for Harmonized Tariff Schedule codes 3824.90.40.20, "Fatty Esters Animal/Vegetable/Mixture" (for data through June 2010), and 3824.90.40.30, "Biodiesel/Mixes" (for data beginning in July 2010); and exports data for Schedule B code 3824.90.40.00, "Fatty Substances Animal/Vegetable/Mixture" (for data through December 2010), and 3824.90.40.30, "Biodiesel <70%" (for data beginning in January 2011). Although these categories include products other than biodiesel (such as biodiesel coprocessed with petroleum feedstocks; and products 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 substitutes.

Stocks and Stock Change
2009: EIA, *Petroleum Supply Annual (PSA)*, Table 1, data for renewable fuels except fuel ethanol.

2010 and 2011: EIA, *Petroleum Supply Monthly*, 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.

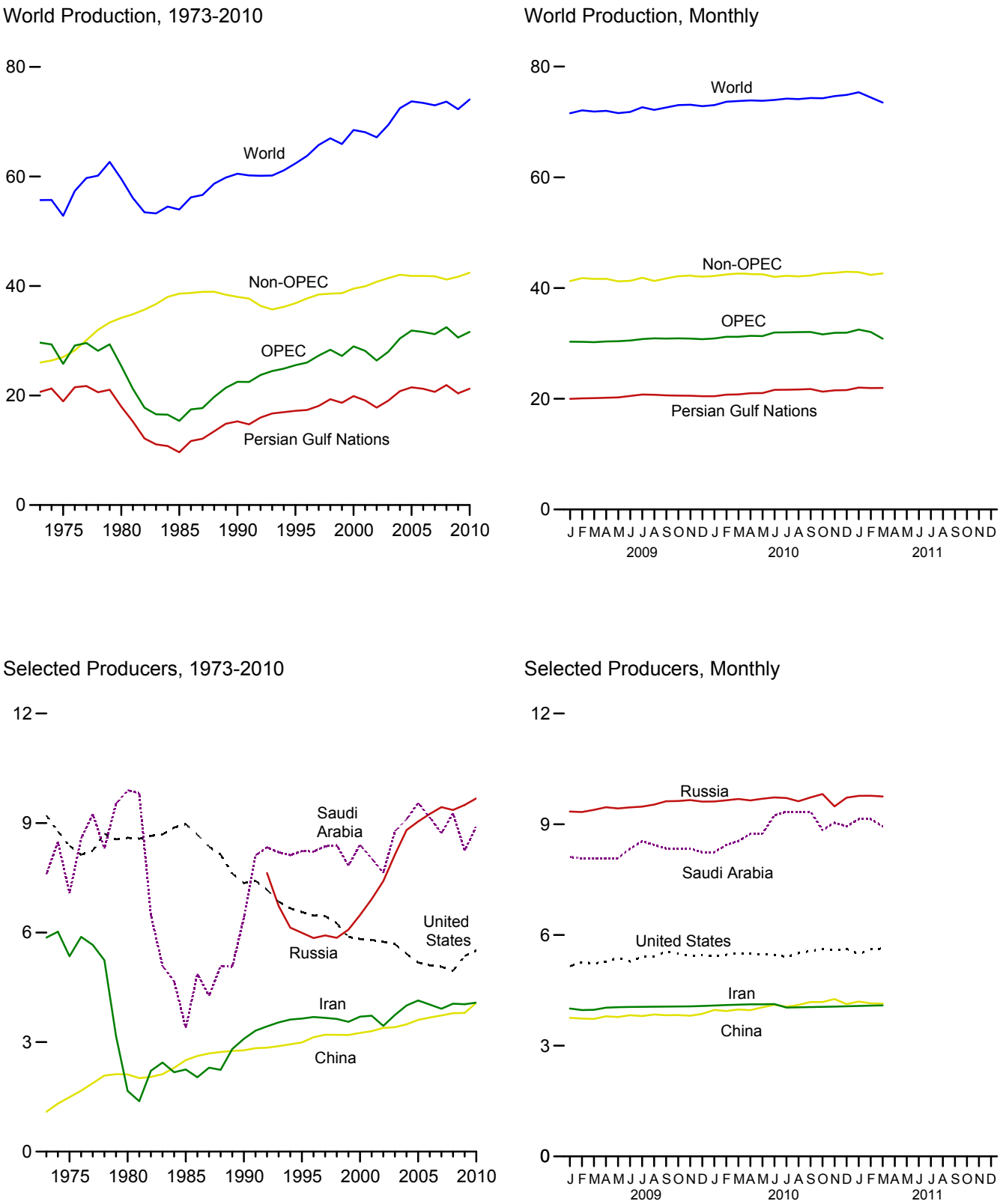
January and February 2009: EIA, PSA, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol.

March 2009 forward: Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.

11 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)

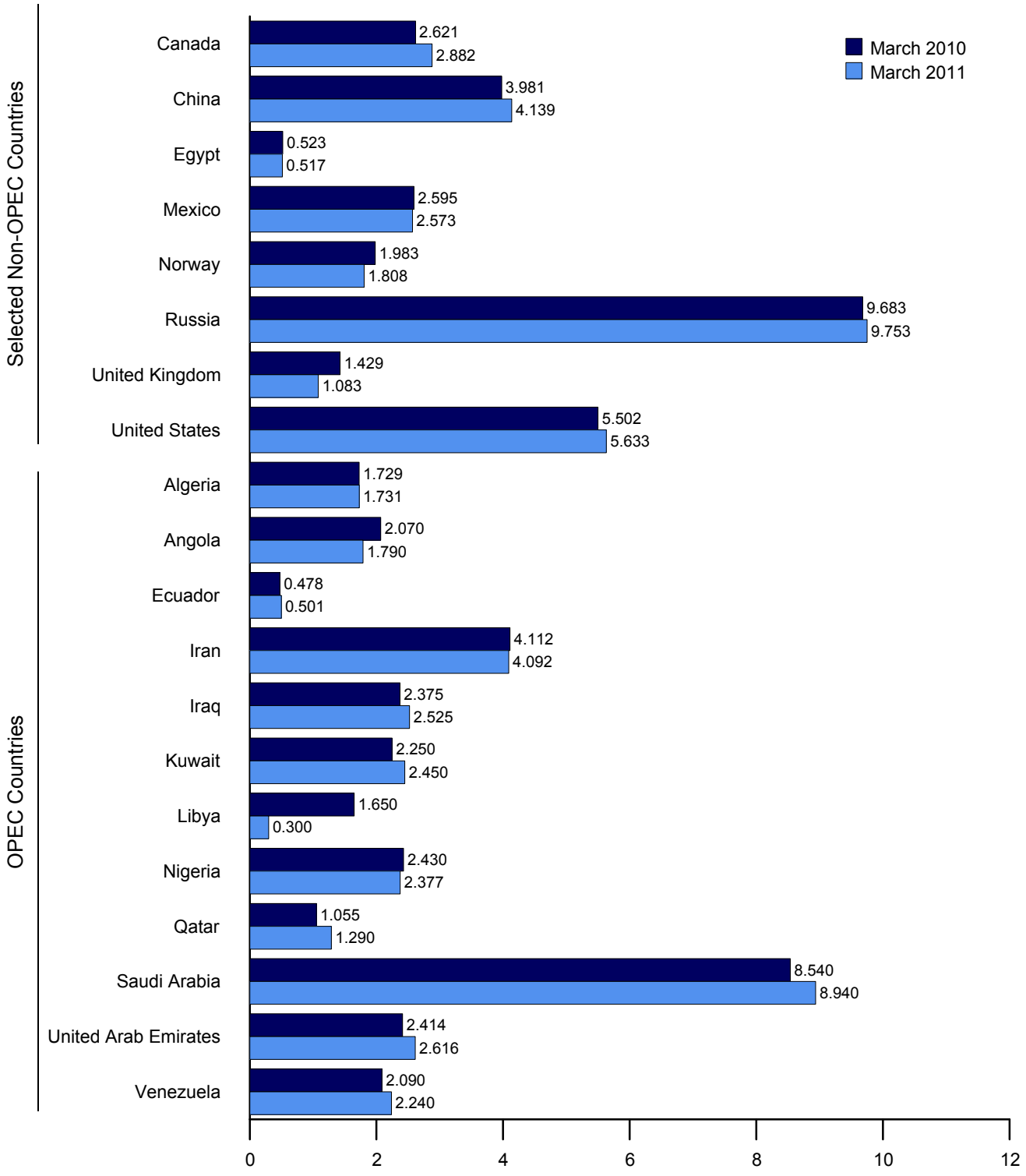


Notes: • OPEC is the Organization of the Petroleum Exporting Countries. • The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Persian Gulf Nations."

Web Page: http://www.eia.gov/totalenergy/data/monthly/#international.

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 the Petroleum Exporting Countries.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#international.
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[a]	Libya	Nigeria	Qatar	Saudi Arabia[a]	United Arab Emirates	Vene-zuela	Total OPEC[b]
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 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 Average	**1,825**	**1,981**	**505**	**4,050**	**2,375**	**2,586**	**1,736**	**2,165**	**924**	**9,261**	**2,681**	**2,394**	**32,483**
2009 January	1,758	1,915	504	4,007	2,212	2,350	1,650	2,192	860	8,113	2,411	2,340	30,312
February	1,757	1,840	498	3,963	2,313	2,350	1,650	2,162	935	8,068	2,412	2,340	30,288
March	1,757	1,840	497	3,970	2,365	2,350	1,650	2,060	910	8,072	2,412	2,340	30,223
April	1,757	1,840	495	4,030	2,366	2,350	1,650	2,217	910	8,077	2,412	2,240	30,344
May	1,757	1,840	486	4,044	2,418	2,350	1,650	2,212	910	8,081	2,412	2,240	30,399
June	1,756	1,840	491	4,050	2,419	2,350	1,650	2,059	910	8,335	2,412	2,240	30,514
July	1,726	1,890	483	4,053	2,470	2,350	1,650	2,051	910	8,540	2,413	2,240	30,777
August	1,726	1,950	477	4,056	2,472	2,350	1,650	2,193	945	8,440	2,413	2,240	30,912
September	1,726	1,950	475	4,060	2,473	2,350	1,650	2,240	945	8,340	2,413	2,240	30,862
October	1,726	1,990	475	4,063	2,425	2,350	1,650	2,290	951	8,340	2,413	2,240	30,913
November	1,726	1,990	477	4,067	2,375	2,350	1,650	2,370	962	8,340	2,413	2,140	30,860
December	1,726	1,990	470	4,076	2,375	2,350	1,650	2,450	974	8,240	2,414	2,040	30,754
Average	**1,741**	**1,907**	**486**	**4,037**	**2,391**	**2,350**	**1,650**	**2,208**	**927**	**8,250**	**2,413**	**2,239**	**30,599**
2010 January	1,730	2,040	464	4,088	2,475	2,250	1,650	2,480	969	8,240	2,414	2,090	30,889
February	1,729	2,060	470	4,100	2,475	2,250	1,650	2,420	1,036	8,440	2,414	2,140	31,184
March	1,729	2,070	478	4,112	2,375	2,250	1,650	2,430	1,055	8,540	2,414	2,090	31,193
April	1,729	2,070	480	4,120	2,375	2,250	1,650	2,360	1,072	8,740	2,414	2,110	31,371
May	1,729	2,030	478	4,120	2,375	2,250	1,650	2,310	1,091	8,740	2,415	2,140	31,327
June	1,728	1,980	491	4,127	2,425	2,250	1,650	2,410	1,113	9,240	2,415	2,140	31,968
July	1,728	1,970	492	4,033	2,325	2,350	1,650	2,410	1,136	9,340	2,415	2,140	31,989
August	1,728	1,890	485	4,040	2,325	2,350	1,650	2,510	1,164	9,340	2,415	2,140	32,037
September	1,728	1,790	490	4,047	2,375	2,350	1,650	2,550	1,193	9,340	2,415	2,140	32,068
October	1,728	1,790	497	4,053	2,375	2,350	1,650	2,580	1,216	8,840	2,415	2,140	31,634
November	1,728	1,790	508	4,060	2,375	2,350	1,650	2,510	1,235	9,040	2,415	2,240	31,901
December	1,728	1,790	499	4,068	2,525	2,350	1,650	2,490	1,235	8,940	2,415	2,240	31,930
Average	**1,729**	**1,939**	**486**	**4,080**	**2,399**	**2,300**	**1,650**	**2,455**	**1,127**	**8,900**	**2,415**	**2,146**	**31,626**
2011 January	1,728	1,790	500	4,076	2,625	2,350	1,650	2,590	1,280	9,140	2,515	2,240	32,484
February	1,731	1,790	509	4,084	2,525	2,350	1,340	2,560	1,280	9,140	2,516	2,240	32,065
March	1,731	1,790	501	4,092	2,525	2,450	300	2,377	1,290	8,940	2,616	2,240	30,852
3-Month Average	**1,730**	**1,790**	**503**	**4,084**	**2,559**	**2,384**	**1,089**	**2,507**	**1,283**	**9,071**	**2,550**	**2,240**	**31,792**
2010 3-Month Average	**1,729**	**2,057**	**471**	**4,100**	**2,440**	**2,250**	**1,650**	**2,444**	**1,020**	**8,406**	**2,414**	**2,106**	**31,086**
2009 3-Month Average	**1,757**	**1,866**	**500**	**3,981**	**2,296**	**2,350**	**1,650**	**2,137**	**900**	**8,085**	**2,412**	**2,340**	**30,274**

[a] 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 2011, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 570 thousand barrels per day. Data for Saudi Arabia include approximately 150 thousand barrels per day from the Abu Safah field produced on behalf of Bahrain.

[b] 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.

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.gov/totalenergy/data/monthly/#international 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[b]	Selected Non-OPEC[a] Producers									Total Non-OPEC[a]	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**	**65,923**
2000 Average	**19,892**	**1,977**	**3,249**	**768**	**3,012**	**3,222**	**– –**	**6,479**	**2,275**	**5,822**	**39,513**	**68,492**
2001 Average	**19,098**	**2,029**	**3,300**	**720**	**3,127**	**3,226**	**– –**	**6,917**	**2,282**	**5,801**	**39,936**	**68,095**
2002 Average	**17,794**	**2,171**	**3,390**	**715**	**3,177**	**3,131**	**– –**	**7,408**	**2,292**	**5,746**	**40,764**	**67,156**
2003 Average	**19,063**	**2,306**	**3,409**	**713**	**3,371**	**3,042**	**– –**	**8,132**	**2,093**	**5,681**	**41,450**	**69,430**
2004 Average	**20,787**	**2,398**	**3,485**	**673**	**3,383**	**2,954**	**– –**	**8,805**	**1,845**	**5,419**	**42,063**	**72,471**
2005 Average	**21,501**	**2,369**	**3,609**	**658**	**3,334**	**2,698**	**– –**	**9,043**	**1,649**	**5,178**	**41,842**	**73,712**
2006 Average	**21,232**	**2,525**	**3,673**	**633**	**3,256**	**2,491**	**– –**	**9,247**	**1,490**	**5,102**	**41,837**	**73,428**
2007 Average	**20,672**	**2,628**	**3,729**	**637**	**3,076**	**2,270**	**– –**	**9,437**	**1,498**	**5,064**	**41,775**	**72,985**
2008 Average	**21,913**	**2,579**	**3,790**	**581**	**2,792**	**2,182**	**– –**	**9,357**	**1,391**	**4,950**	**41,187**	**73,670**
2009 January	19,989	2,592	3,755	553	2,685	2,195	– –	9,343	1,425	5,154	41,250	71,563
February	20,076	2,684	3,733	550	2,663	2,260	– –	9,331	1,449	5,260	41,796	72,085
March	20,114	2,579	3,726	547	2,652	2,238	– –	9,388	1,451	5,227	41,655	71,878
April	20,179	2,459	3,795	547	2,642	2,072	– –	9,459	1,468	5,273	41,663	72,007
May	20,249	2,436	3,775	544	2,609	1,890	– –	9,429	1,390	5,379	41,204	71,603
June	20,511	2,559	3,824	541	2,519	1,850	– –	9,457	1,359	5,281	41,302	71,815
July	20,771	2,667	3,801	538	2,561	2,147	– –	9,476	1,342	5,402	41,871	72,648
August	20,711	2,575	3,844	535	2,542	1,970	– –	9,532	993	5,418	41,271	72,183
September	20,616	2,528	3,826	532	2,599	1,923	– –	9,623	1,119	5,547	41,739	72,601
October	20,577	2,594	3,828	529	2,602	2,077	– –	9,629	1,266	5,501	42,137	73,050
November	20,542	2,725	3,813	526	2,553	2,123	– –	9,654	1,372	5,427	42,243	73,103
December	20,464	2,564	3,863	523	2,593	2,073	– –	9,614	1,310	5,451	42,084	72,838
Average	**20,402**	**2,579**	**3,799**	**539**	**2,601**	**2,067**	**– –**	**9,495**	**1,328**	**5,361**	**41,683**	**72,282**
2010 January	20,471	2,497	3,968	523	2,615	2,060	– –	9,615	1,379	[E] 5,433	42,155	73,044
February	20,750	2,712	3,938	523	2,610	2,038	– –	9,648	1,274	[E] 5,465	42,459	73,644
March	20,781	2,621	3,981	523	2,595	1,983	– –	9,683	1,429	[E] 5,502	42,589	73,782
April	21,007	2,695	3,961	523	2,593	1,967	– –	9,646	1,378	[E] 5,496	42,506	73,877
May	21,025	2,745	4,040	523	2,593	1,921	– –	9,691	1,297	[E] 5,468	42,497	73,824
June	21,604	2,772	4,108	523	2,546	1,611	– –	9,727	1,076	[E] 5,465	42,010	73,978
July	21,634	2,765	4,056	522	2,573	1,864	– –	9,710	1,055	[E] 5,406	42,216	74,205
August	21,669	2,783	4,104	522	2,559	1,648	– –	9,623	1,070	[E] 5,506	42,095	74,132
September	21,755	2,648	4,183	522	2,570	1,637	– –	9,725	1,194	[E] 5,567	42,242	74,310
October	21,284	2,690	4,181	522	2,571	1,952	– –	9,816	1,195	[E] 5,616	[R] 42,642	[R] 74,277
November	21,510	2,942	4,263	525	2,512	1,868	– –	9,484	1,248	[E] 5,595	42,758	74,659
December	21,568	2,933	4,126	525	2,574	1,886	– –	9,719	1,207	[E] 5,624	[R] 42,942	[R] 74,872
Average	**21,257**	**2,734**	**4,076**	**523**	**2,576**	**1,869**	**– –**	**9,674**	**1,233**	**[E] 5,512**	**[R] 42,426**	**[R] 74,052**
2011 January	22,021	2,850	4,195	522	2,584	1,905	– –	9,769	1,316	[E] 5,483	[R] 42,865	[R] 75,349
February	21,930	[R] 2,657	4,147	521	2,556	1,861	– –	9,773	1,085	[E] 5,612	[R] 42,371	[R] 74,435
March	21,948	2,882	4,139	517	2,573	1,808	– –	9,753	1,083	[E] 5,633	42,645	73,497
3-Month Average	**21,968**	**2,801**	**4,161**	**520**	**2,572**	**1,858**	**– –**	**9,765**	**1,164**	**[E] 5,575**	**42,635**	**74,427**
2010 3-Month Average	**20,664**	**2,607**	**3,963**	**523**	**2,607**	**2,027**	**– –**	**9,649**	**1,363**	**[E] 5,466**	**42,399**	**73,485**
2009 3-Month Average	**20,059**	**2,616**	**3,738**	**550**	**2,667**	**2,230**	**– –**	**9,355**	**1,441**	**5,212**	**41,560**	**71,834**

[a] 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.

[b] 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.

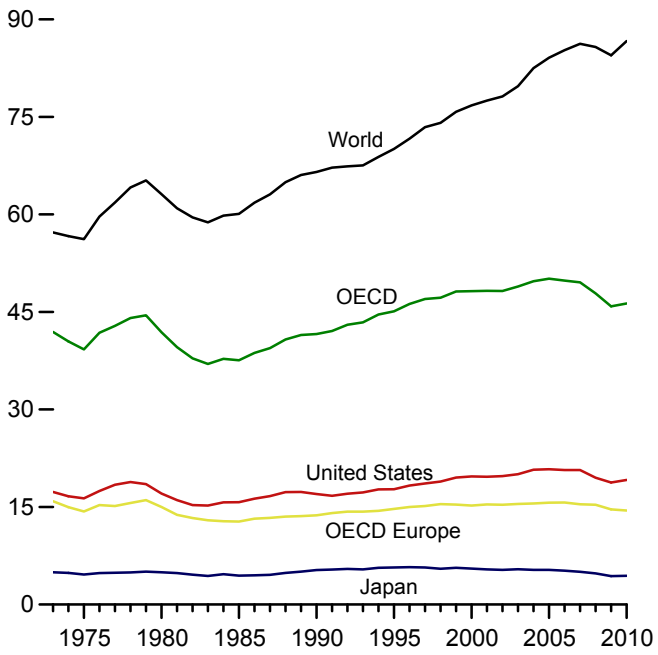
Notes: • Data are for crude oil and lease condensate; they exclude natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum 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.gov/totalenergy/data/monthly/#international for all available data beginning in 1973.

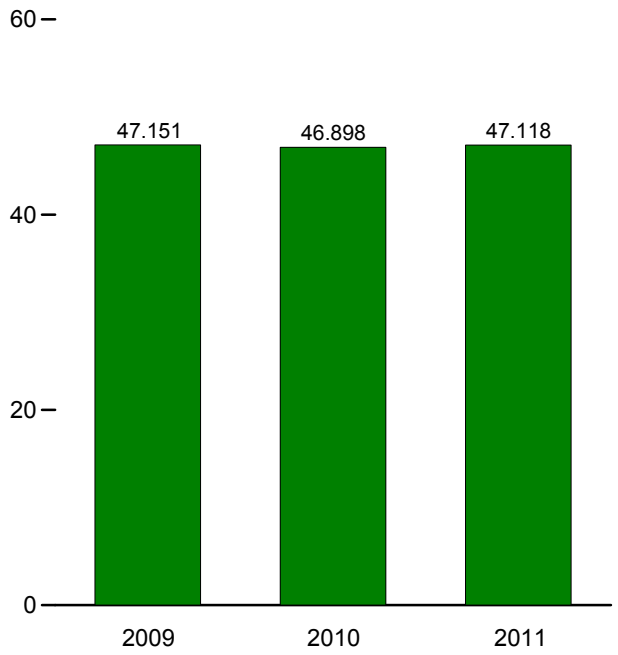
Sources: See end of section.

Figure 11.2 Petroleum Consumption in OECD Countries
(Million Barrels per Day)

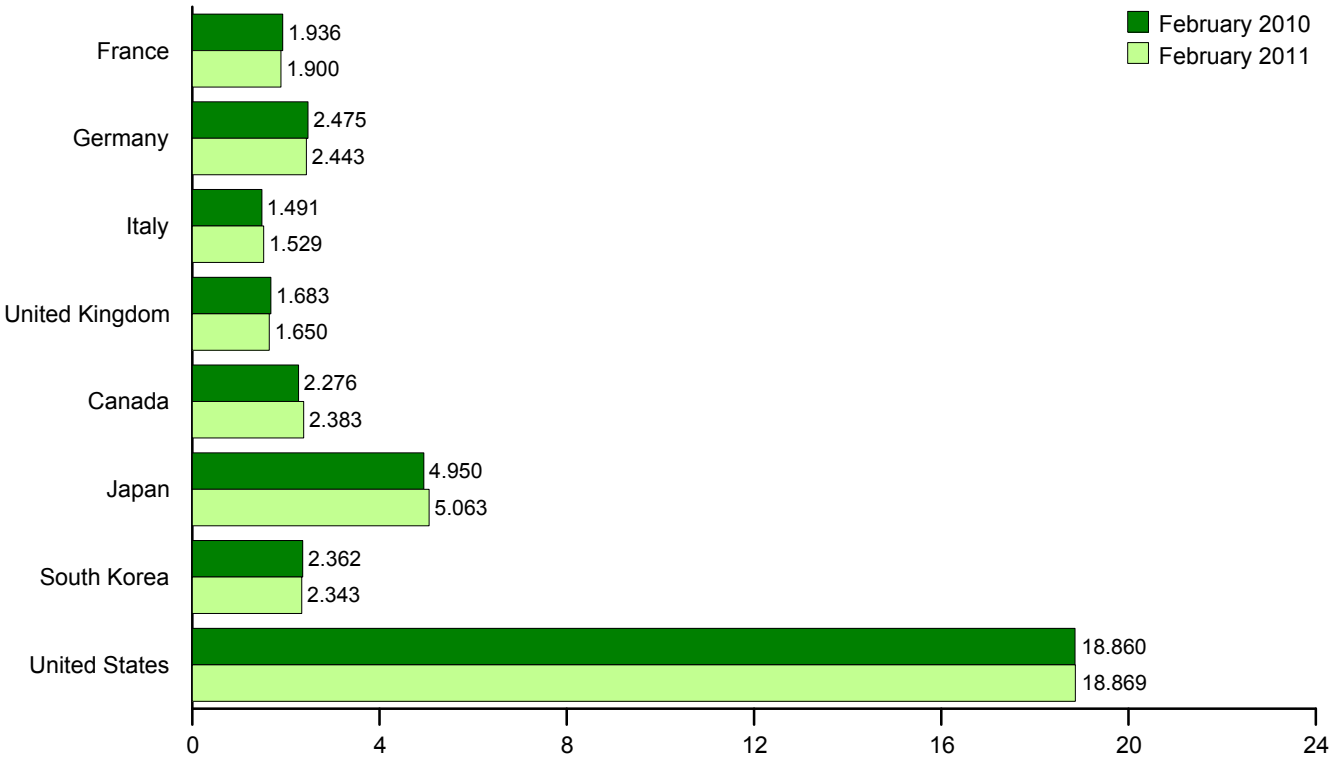
Overview, 1973-2010



OECD Total, February



By Selected OECD Country



Note: OECD is the Organization for Economic Cooperation and Development.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#international.
Source: Table 11.2.

Table 11.2 Petroleum Consumption in OECD Countries

(Thousand Barrels per Day)

	France	Germany[a]	Italy	United Kingdom	OECD Europe[b]	Canada	Japan	South Korea	United States	Other OECD[c]	OECD[d]	World
1973 Average	**2,601**	**3,324**	**2,068**	**2,341**	**15,879**	**1,729**	**4,949**	**281**	**17,308**	**1,768**	**41,913**	**57,237**
1975 Average	**2,252**	**2,957**	**1,855**	**1,911**	**14,314**	**1,779**	**4,621**	**311**	**16,322**	**1,885**	**39,232**	**56,198**
1980 Average	**2,256**	**3,082**	**1,934**	**1,725**	**14,995**	**1,873**	**4,960**	**537**	**17,056**	**2,449**	**41,870**	**63,113**
1985 Average	**1,753**	**2,651**	**1,705**	**1,617**	**12,770**	**1,526**	**4,436**	**552**	**15,726**	**2,564**	**37,575**	**60,083**
1990 Average	**1,826**	**2,682**	**1,868**	**1,776**	**13,729**	**1,737**	**5,315**	**1,048**	**16,988**	**2,784**	**41,601**	**66,533**
1995 Average	**1,920**	**2,882**	**1,942**	**1,816**	**14,714**	**1,817**	**5,693**	**2,008**	**17,725**	**3,135**	**45,092**	**70,067**
1996 Average	**1,949**	**2,922**	**1,920**	**1,852**	**14,998**	**1,871**	**5,739**	**2,101**	**18,309**	**3,206**	**46,224**	**71,665**
1997 Average	**1,969**	**2,917**	**1,934**	**1,810**	**15,140**	**1,959**	**5,702**	**2,255**	**18,620**	**3,322**	**46,999**	**73,436**
1998 Average	**2,043**	**2,923**	**1,943**	**1,792**	**15,447**	**1,949**	**5,507**	**1,917**	**18,917**	**3,443**	**47,180**	**74,079**
1999 Average	**2,031**	**2,838**	**1,891**	**1,811**	**15,364**	**2,036**	**5,642**	**2,084**	**19,519**	**3,512**	**48,157**	**75,791**
2000 Average	**2,000**	**2,772**	**1,854**	**1,765**	**15,219**	**2,035**	**5,515**	**2,135**	**19,701**	**3,591**	**48,197**	**76,772**
2001 Average	**2,054**	**2,815**	**1,832**	**1,747**	[R] **15,392**	**2,066**	**5,412**	**2,132**	**19,649**	**3,605**	[R] **48,256**	[R] **77,511**
2002 Average	**1,985**	**2,722**	**1,870**	**1,739**	**15,342**	**2,087**	**5,319**	**2,149**	**19,761**	**3,558**	**48,217**	**78,160**
2003 Average	**2,001**	**2,679**	**1,860**	**1,759**	[R] **15,462**	**2,217**	**5,429**	**2,175**	**20,034**	**3,598**	[R] **48,914**	[R] **79,723**
2004 Average	**2,009**	**2,665**	**1,794**	**1,785**	**15,531**	**2,310**	**5,319**	**2,155**	**20,731**	**3,687**	**49,733**	**82,511**
2005 Average	**1,991**	**2,647**	**1,755**	**1,823**	**15,667**	**2,341**	**5,328**	**2,191**	**20,802**	**3,800**	**50,129**	**84,105**
2006 Average	**1,991**	**2,692**	**1,743**	**1,804**	**15,684**	**2,253**	**5,198**	**2,180**	**20,687**	**3,816**	**49,818**	**85,255**
2007 Average	**1,979**	[R] **2,422**	**1,688**	**1,738**	[R] **15,407**	**2,307**	**5,037**	**2,241**	**20,680**	**3,874**	[R] **49,547**	[R] **86,242**
2008 Average	**1,945**	**2,550**	**1,633**	**1,729**	**15,336**	**2,242**	**4,788**	**2,142**	**19,498**	**3,846**	**47,853**	[R] **85,755**
2009 January	1,990	2,419	1,491	1,744	[R] 14,854	2,231	4,850	2,297	19,040	3,578	[R] 46,850	NA
February	1,998	2,648	1,568	1,698	[R] 15,204	2,220	4,721	2,455	18,822	3,729	[R] 47,151	NA
March	1,920	2,789	1,506	1,739	[R] 15,150	2,154	4,615	2,187	18,719	3,700	[R] 46,524	NA
April	1,799	2,509	1,510	1,708	[R] 14,644	2,049	4,231	2,209	18,672	3,657	[R] 45,461	NA
May	1,669	2,339	1,465	1,614	[R] 13,939	2,053	3,823	2,128	18,211	3,677	[R] 43,830	NA
June	1,817	2,376	1,525	1,692	[R] 14,649	2,142	4,068	2,077	18,828	3,788	[R] 45,551	NA
July	1,839	2,415	1,676	1,660	[R] 14,775	2,170	4,000	2,005	18,626	3,813	[R] 45,390	NA
August	1,577	2,267	1,400	1,656	[R] 13,861	2,157	4,176	2,066	18,949	3,773	[R] 44,983	NA
September	1,884	2,554	1,580	1,674	[R] 15,073	2,138	4,146	2,034	18,594	3,715	[R] 45,700	NA
October	1,845	2,510	1,583	1,654	[R] 14,862	2,103	4,302	2,188	18,803	3,827	[R] 46,086	NA
November	1,714	2,357	1,484	1,637	[R] 14,257	2,151	4,400	2,227	18,753	3,854	[R] 45,642	NA
December	1,894	2,303	1,547	1,532	[R] 14,384	[R] 2,201	5,089	2,367	19,237	3,981	[R] 47,259	NA
Average	**1,828**	**2,456**	**1,528**	**1,667**	[R] **14,633**	[R] **2,147**	**4,367**	**2,185**	**18,771**	**3,758**	[R] **45,861**	[R] **84,478**
2010 January	1,739	2,180	1,328	1,582	[R] 13,354	[R] 2,141	4,731	2,342	18,528	3,560	[R] 44,656	NA
February	1,936	2,475	1,491	1,683	[R] 14,550	2,276	4,950	2,362	18,860	3,900	[R] 46,898	NA
March	1,896	2,524	1,523	1,678	[R] 14,673	2,163	4,690	2,234	19,070	3,802	[R] 46,632	NA
April	1,827	2,280	1,478	1,642	[R] 14,094	[R] 2,154	4,324	2,229	18,910	3,854	[R] 45,564	NA
May	1,676	2,373	1,411	1,611	[R] 13,757	[R] 2,184	3,838	2,150	18,827	3,814	[R] 44,571	NA
June	1,818	2,529	1,536	1,594	[R] 14,526	[R] 2,286	3,964	2,157	19,314	3,918	[R] 46,166	NA
July	1,811	2,590	1,618	1,627	[R] 14,789	[R] 2,205	4,167	2,092	19,278	3,835	[R] 46,366	NA
August	1,724	2,566	1,466	1,639	[R] 14,366	[R] 2,362	4,385	2,201	19,692	3,679	[R] 46,686	NA
September	1,927	2,767	1,583	1,636	[R] 15,240	[R] 2,285	4,438	2,172	19,507	3,765	[R] 47,407	NA
October	1,735	2,641	1,492	1,663	14,765	[R] 2,216	4,032	2,206	18,939	3,727	[R] 45,886	NA
November	1,770	2,604	1,525	1,643	14,843	[R] 2,280	4,592	2,371	19,074	3,900	[R] 47,059	NA
December	1,922	2,343	1,590	1,522	[R] 14,477	[R] 2,297	[R] 5,002	2,476	19,758	3,930	[R] 47,939	NA
Average	**1,814**	**2,489**	**1,503**	**1,626**	[R] **14,450**	[R] **2,237**	[R] **4,423**	**2,249**	**19,148**	**3,806**	[R] **46,312**	[R] **86,672**
2011 January	[R] 1,759	2,230	[R] 1,329	1,598	[R] 13,516	[R] 2,244	[R] 4,896	2,424	19,121	[R] 3,531	[R] 45,732	NA
February	1,900	2,443	1,529	1,650	14,562	2,383	5,063	2,343	18,869	3,899	47,118	NA
2-Month Average	**1,826**	**2,331**	**1,424**	**1,623**	**14,012**	**2,310**	**4,975**	**2,386**	**19,002**	**3,706**	**46,390**	**NA**
2010 2-Month Average	**1,833**	**2,320**	**1,405**	**1,630**	**13,922**	**2,205**	**4,835**	**2,351**	**18,686**	**3,722**	**45,720**	**NA**
2009 2-Month Average	**1,994**	**2,528**	**1,528**	**1,722**	**15,020**	**2,226**	**4,788**	**2,372**	**18,936**	**3,649**	**46,993**	**NA**

[a] Data are for unified Germany, i.e., the former East Germany and West Germany.

[b] "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.

[c] "Other OECD" consists of Australia, Chile, Mexico, New Zealand, and the U.S. Territories.

[d] 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.

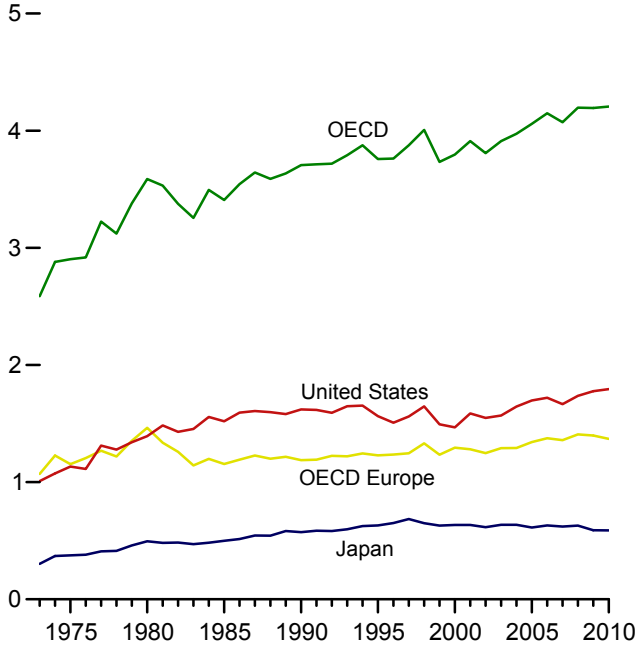
Notes: • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#international for all available data beginning in 1973.

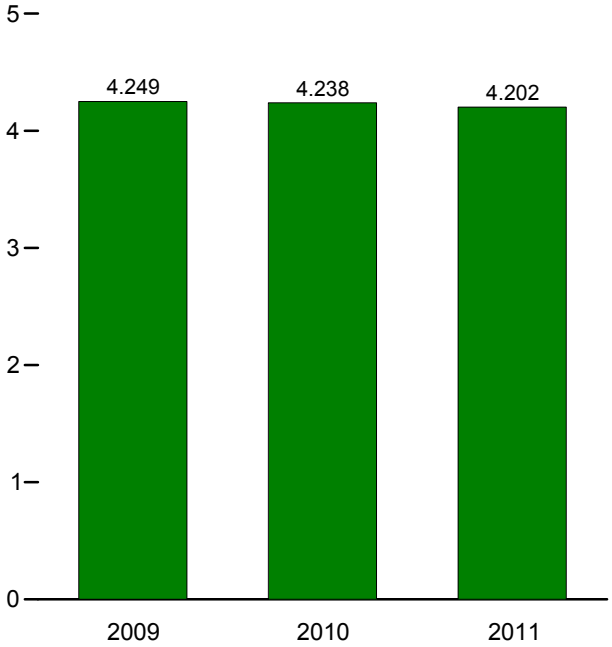
Sources: • **United States:** Table 3.1. • **Chile, East Germany, Former Czechoslavakia, Hungary, Mexico, Poland, South Korea, Non-OECD Countries, U.S. Territories,** and **World: 1973-1979—**U.S. Energy Information Administration (EIA), International Energy Database. • **Countries Other Than United States: 1980-2008—**EIA, International Energy Statistics (IES). • **OECD Countries,** and **U.S. Territories: 2009 forward—**EIA, IES. • **World: 2009—**EIA, *Short Term Energy Outlook,* June 07, 2011, Table 3a. • **All Other Data:—**International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances in OECD Countries,* various issues.

Figure 11.3 Petroleum Stocks in OECD Countries
(Billion Barrels)

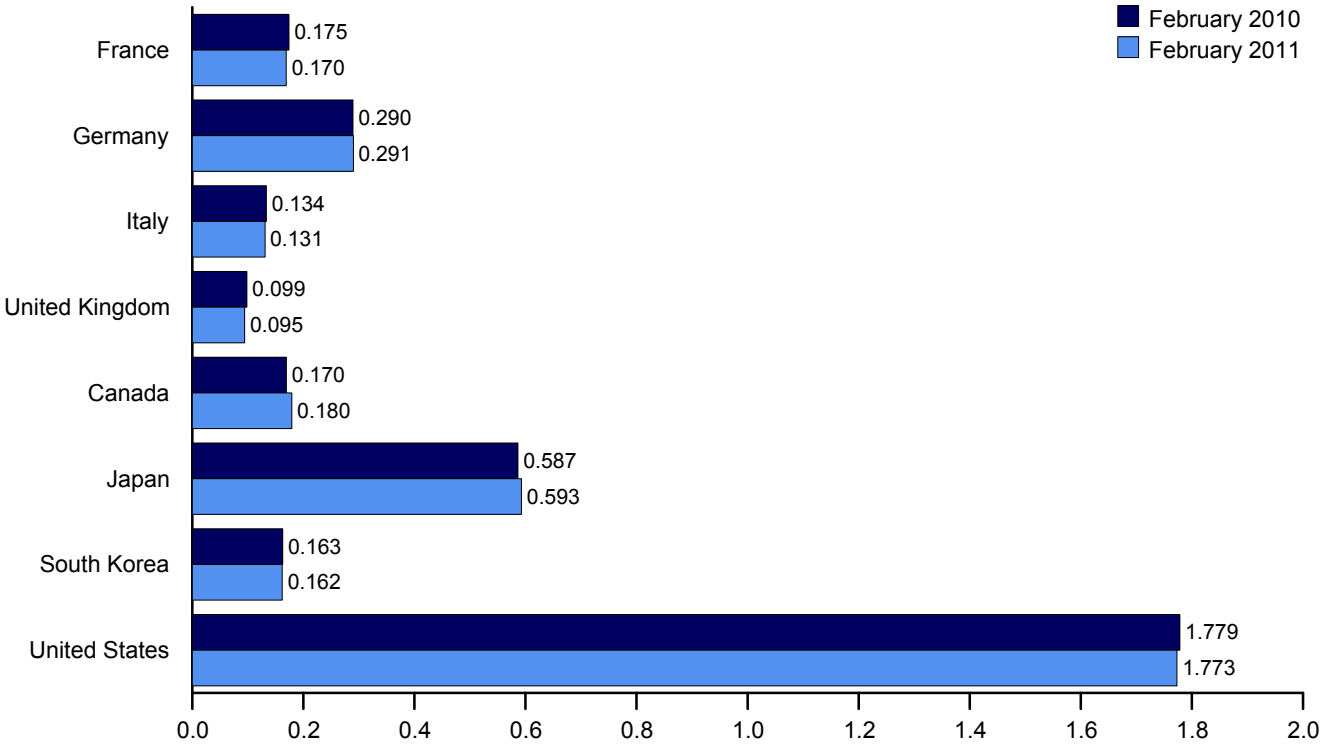
Overview, End of Year, 1973-2010



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.gov/totalenergy/data/monthly/#international.
Source: Table 11.3.

Table 11.3 Petroleum Stocks in OECD Countries

(Million Barrels)

	France	Germany[a]	Italy	United Kingdom	OECD Europe[b]	Canada	Japan	South Korea	United States	Other OECD[c]	OECD[d]
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**	**R 143**	**634**	**140**	**1,468**	**117**	**3,796**
2001 Year	**165**	**273**	**134**	**113**	**1,281**	**R 155**	**634**	**143**	**1,586**	**112**	**R 3,911**
2002 Year	**170**	**253**	**138**	**104**	**1,247**	**R 155**	**615**	**140**	**1,548**	**103**	**R 3,809**
2003 Year	**179**	**273**	**135**	**100**	**1,290**	**R 166**	**636**	**155**	**1,568**	**96**	**R 3,911**
2004 Year	**177**	**267**	**136**	**101**	**1,292**	**R 154**	**635**	**149**	**1,645**	**99**	**R 3,974**
2005 Year	**185**	**283**	**132**	**95**	**1,342**	**R 168**	**612**	**135**	**1,698**	**103**	**R 4,058**
2006 Year	**182**	**283**	**133**	**103**	**1,374**	**R 169**	**631**	**152**	**1,720**	**103**	**R 4,149**
2007 Year	**180**	**275**	**133**	**90**	**1,358**	**R 176**	**621**	**143**	**1,665**	**108**	**R 4,072**
2008 Year	**179**	**279**	**128**	**99**	**1,407**	**R 175**	**630**	**135**	**1,737**	**114**	**R 4,197**
2009 January	179	282	136	100	1,413	R 177	618	149	1,766	115	R 4,237
February	178	281	128	98	1,412	R 177	619	157	1,777	107	R 4,249
March	178	280	131	100	1,415	R 175	611	155	1,803	109	R 4,269
April	173	281	132	98	1,405	R 178	606	152	1,816	114	R 4,272
May	176	286	133	92	1,403	R 179	609	149	1,831	112	R 4,282
June	173	285	129	92	1,403	R 177	611	149	1,844	110	R 4,295
July	174	283	127	97	1,398	R 181	607	157	1,850	108	R 4,301
August	178	287	130	96	1,415	R 183	610	160	1,834	111	R 4,312
September	174	280	129	94	1,400	R 178	607	167	1,848	117	R 4,317
October	173	281	130	96	1,382	R 179	604	167	1,825	109	R 4,266
November	179	286	130	96	1,408	R 177	606	162	1,814	109	R 4,275
December	**175**	**284**	**126**	**94**	**1,398**	**R 170**	**589**	**155**	**1,776**	**105**	**R 4,194**
2010 January	182	295	127	95	1,437	R 173	593	162	1,781	111	R 4,258
February	175	290	134	99	1,422	R 170	587	163	1,779	117	R 4,238
March	172	289	129	93	1,403	R 172	581	164	1,779	114	R 4,213
April	172	284	135	95	1,414	R 174	590	166	1,804	111	R 4,260
May	173	286	131	99	1,421	R 177	599	166	1,823	108	R 4,294
June	170	280	133	96	1,403	R 176	597	167	1,839	120	R 4,302
July	168	282	127	96	1,389	R 185	598	170	1,853	116	R 4,311
August	171	289	133	93	1,405	R 194	597	169	1,857	115	R 4,337
September	163	286	127	95	1,365	R 186	582	174	1,857	R 111	R 4,274
October	161	285	129	94	1,374	R 188	599	170	1,846	R 112	R 4,288
November	170	287	126	92	1,366	R 187	604	171	1,826	108	R 4,261
December	**168**	**287**	**133**	**89**	**1,370**	**R 183**	**R 588**	**165**	**1,794**	**105**	**R 4,205**
2011 January	R 173	295	140	96	R 1,414	R 179	R 598	168	1,803	105	R 4,267
February	170	291	131	95	1,386	180	593	162	1,773	108	4,202

[a] 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.

[b] "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.

[c] "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1984 forward, Mexico.

[d] 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.gov/totalenergy/data/monthly/#international for all available data beginning in 1973.

Sources: • **United States:** Table 3.4. • **U.S. Territories: 1983 forward—**U.S. 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 12, 2011.

International Petroleum

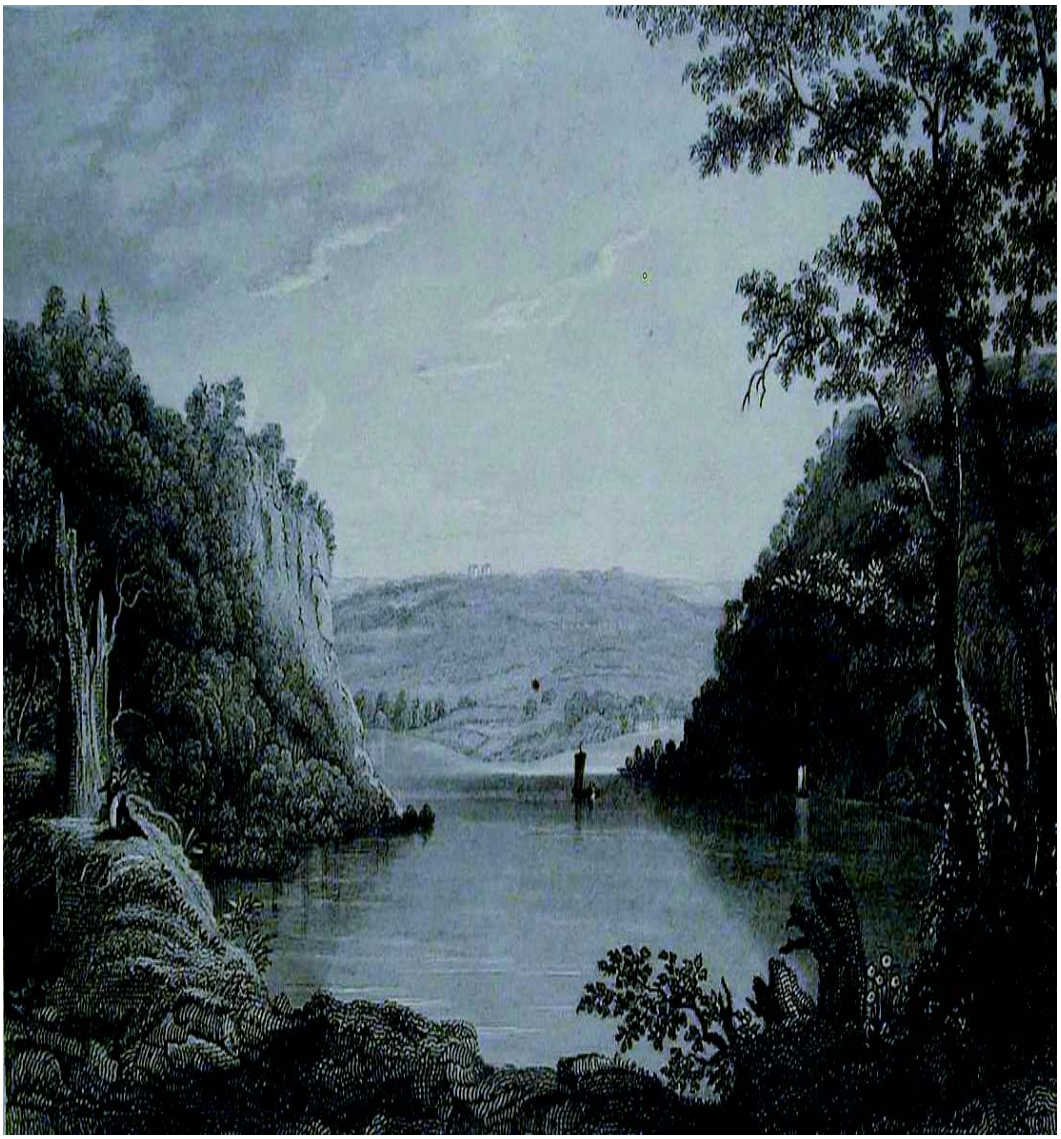
Tables 11.1a and 11.1b Sources

United States
Table 3.1.

All Other Countries and World, Annual Data
1973–1979: U.S. Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.
1980 forward: EIA, International Energy Database, June 2011.

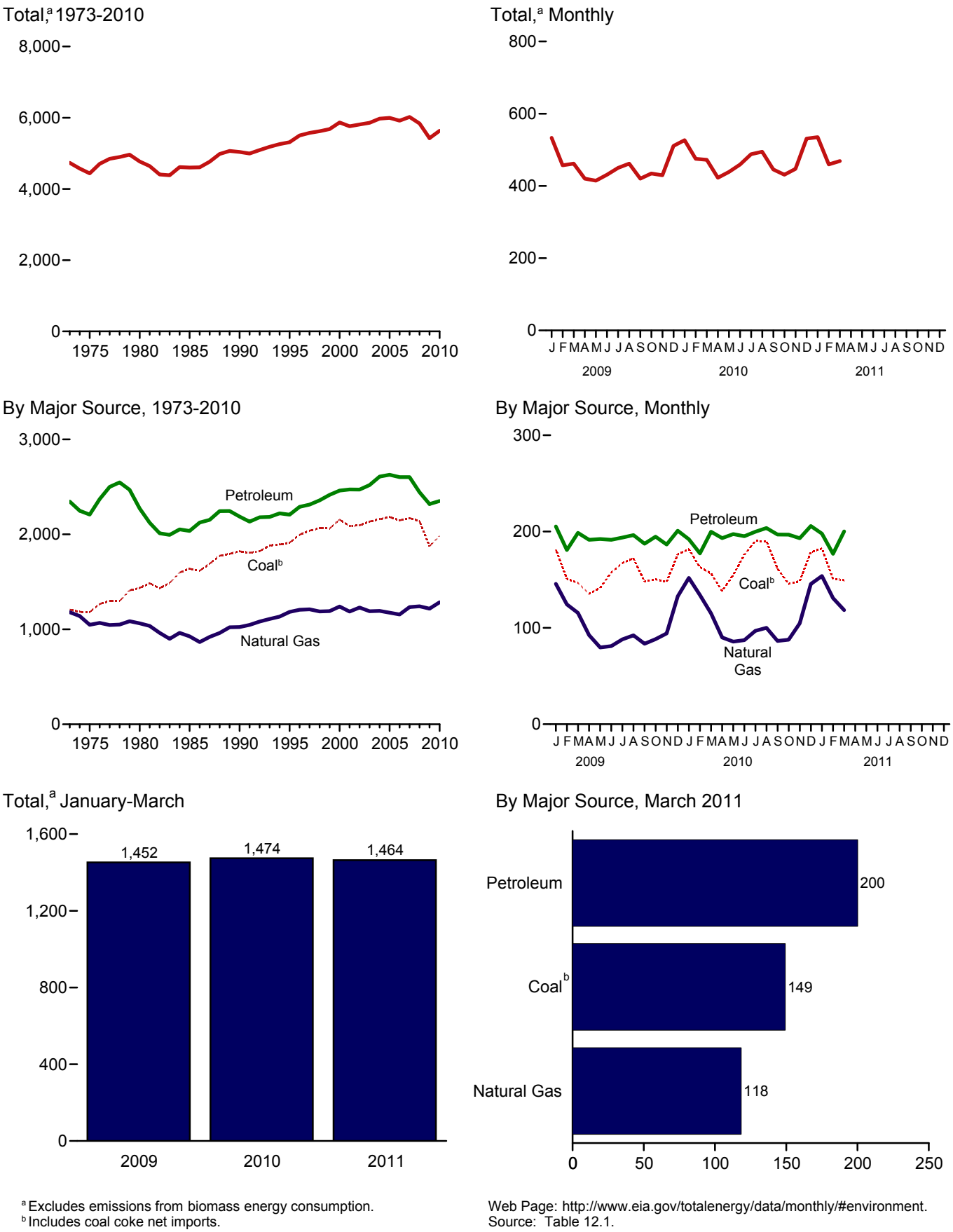
All Other Countries and World, Monthly Data
1973–1980: *Petroleum Intelligence Weekly (PIW)*, *Oil & Gas Journal (OGJ)*, and EIA adjustments.
1981–1993: *PIW*, *OGJ*, and other industry sources.
1994 forward: EIA, *International Petroleum Monthly*, and International Energy Database, June 2011.

12 Environment



"Harpers Ferry, Junction of the Rivers Shenandoah and Potomac." Engraving by W. Goodacre and James Archer, published in *The History and Topography of the United States of North America*, by John Howard Hinton, 1852. From the collection of the National Park Service, Harpers Ferry National Historical Park, Accession #1297.

Figure 12.1 Carbon Dioxide Emissions From Energy Consumption by Source
(Million Metric Tons of Carbon Dioxide)



[a] Excludes emissions from biomass energy consumption.
[b] Includes coal coke net imports.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#environment.
Source: Table 12.1.

Table 12.1 Carbon Dioxide Emissions From Energy Consumption by Source

(Million Metric Tons of Carbon Dioxide[a])

	Coal[b]	Natural Gas[c]	Petroleum											Total[h,i]
			Aviation Gasoline	Distillate Fuel Oil[d]	Jet Fuel	Kero-sene	LPG[e]	Lubri-cants	Motor Gasoline[f]	Petroleum Coke	Residual Fuel Oil	Other[g]	Total	
1973 Total	**1,207**	**1,181**	**6**	**480**	**155**	**32**	**91**	**13**	**911**	**51**	**508**	**100**	**2,346**	**4,733**
1975 Total	**1,181**	**1,047**	**5**	**443**	**146**	**24**	**82**	**11**	**911**	**48**	**443**	**97**	**2,209**	**4,437**
1980 Total	**1,436**	**1,063**	**4**	**446**	**156**	**24**	**87**	**13**	**900**	**46**	**453**	**142**	**2,272**	**4,770**
1985 Total	**1,638**	**926**	**3**	**445**	**178**	**17**	**86**	**12**	**930**	**55**	**216**	**93**	**2,035**	**4,600**
1990 Total	**1,821**	**1,025**	**3**	**470**	**223**	**6**	**69**	**13**	**988**	**67**	**220**	**127**	**2,187**	**5,039**
1995 Total	**1,913**	**1,184**	**3**	**498**	**222**	**8**	**78**	**13**	**1,044**	**75**	**152**	**114**	**2,207**	**5,314**
1996 Total	**1,995**	**1,205**	**3**	**524**	**232**	**9**	**84**	**12**	**1,063**	**78**	**152**	**132**	**2,290**	**5,501**
1997 Total	**2,040**	**1,211**	**3**	**534**	**234**	**10**	**85**	**13**	**1,075**	**79**	**142**	**138**	**2,313**	**5,575**
1998 Total	**2,064**	**1,189**	**2**	**538**	**238**	**12**	**75**	**14**	**1,107**	**89**	**158**	**125**	**2,358**	**5,622**
1999 Total	**2,062**	**1,192**	**3**	**555**	**245**	**11**	**91**	**14**	**1,127**	**93**	**148**	**130**	**2,417**	**5,682**
2000 Total	**2,155**	**1,241**	**3**	**580**	**254**	**10**	**102**	**14**	**1,135**	**84**	**163**	**117**	**2,461**	**5,867**
2001 Total	**2,088**	**1,187**	**2**	**598**	**243**	**11**	**92**	**13**	**1,151**	**88**	**145**	**132**	**2,473**	**5,759**
2002 Total	**2,095**	**1,229**	**2**	**587**	**237**	**6**	**98**	**12**	**1,183**	**94**	**125**	**127**	**2,472**	**5,809**
2003 Total	**2,136**	**1,191**	**2**	**610**	**231**	**8**	**95**	**11**	**1,188**	**94**	**138**	**140**	**2,518**	**5,857**
2004 Total	**2,160**	**1,194**	**2**	**632**	**240**	**10**	**98**	**12**	**1,214**	**105**	**155**	**142**	**2,609**	**5,975**
2005 Total	**2,182**	**1,175**	**2**	**640**	**246**	**10**	**94**	**12**	**1,214**	**105**	**164**	**141**	**2,628**	**5,996**
2006 Total	**2,147**	**1,157**	**2**	**648**	**240**	**8**	**93**	**11**	**1,224**	**104**	**122**	**150**	**2,603**	**5,918**
2007 Total	**2,172**	**1,235**	**2**	**652**	**238**	**5**	**94**	**12**	**1,227**	**98**	**129**	**148**	**2,603**	**6,022**
2008 Total	**2,139**	**1,243**	**2**	**615**	**226**	**2**	**89**	**11**	**1,166**	**92**	**111**	**130**	**2,444**	**5,838**
2009 January	181	146	(s)	54	16	1	9	1	95	7	12	11	205	533
February	151	124	(s)	46	15	(s)	8	1	88	7	6	10	181	457
March	147	116	(s)	49	18	(s)	8	1	98	7	9	9	199	462
April	135	92	(s)	44	17	(s)	7	1	96	8	10	8	191	420
May	142	80	(s)	45	17	(s)	6	1	99	9	7	9	192	415
June	158	81	(s)	45	17	(s)	6	1	97	9	8	8	191	431
July	167	88	(s)	45	19	(s)	7	1	101	6	5	10	194	450
August	172	92	(s)	45	18	(s)	7	1	101	7	7	9	196	462
September	148	84	(s)	45	17	(s)	7	1	94	8	5	10	187	420
October	150	88	(s)	48	17	(s)	8	1	98	6	8	9	195	434
November	148	94	(s)	46	16	(s)	10	1	94	6	7	8	187	430
December	176	133	(s)	51	17	(s)	10	1	97	7	9	9	201	511
Total	**1,876**	**1,218**	**2**	**564**	**204**	**3**	**91**	**10**	**1,157**	**87**	**91**	**111**	**2,320**	**5,425**
2010 January	182	152	(s)	48	17	(s)	10	1	92	5	9	9	192	527
February	163	134	(s)	46	15	(s)	9	1	85	5	7	9	177	475
March	156	115	(s)	51	18	(s)	8	1	95	7	8	11	200	472
April	138	90	(s)	47	17	(s)	6	1	95	7	8	11	193	423
May	155	86	(s)	48	18	(s)	6	1	100	6	8	10	197	439
June	176	87	(s)	48	18	(s)	6	1	97	7	7	10	195	459
July	190	97	(s)	47	18	(s)	7	1	101	7	9	10	200	488
August	190	100	(s)	50	19	(s)	7	1	101	8	7	11	204	495
September	161	86	(s)	50	17	(s)	7	1	96	7	8	10	197	446
October	146	88	(s)	50	18	(s)	7	1	98	6	8	9	197	431
November	148	105	(s)	49	17	1	7	1	93	7	9	9	193	447
December	179	146	(s)	55	17	1	10	1	96	6	9	10	206	531
Total	**1,985**	**1,285**	**2**	**589**	**209**	**3**	**92**	**11**	**1,150**	**77**	**98**	**121**	**2,351**	**5,632**
2011 January	182	154	(s)	52	17	(s)	10	1	91	6	9	10	198	535
February	151	131	(s)	46	15	1	8	1	84	4	9	9	177	R 460
March	149	118	(s)	53	17	(s)	8	1	95	6	8	12	200	469
3-Month Total	**483**	**403**	**(s)**	**151**	**49**	**1**	**27**	**3**	**270**	**17**	**26**	**30**	**575**	**1,464**
2010 3-Month Total	**501**	**401**	**(s)**	**145**	**50**	**1**	**27**	**2**	**272**	**17**	**25**	**29**	**569**	**1,474**
2009 3-Month Total	**479**	**386**	**(s)**	**149**	**49**	**1**	**24**	**2**	**280**	**21**	**27**	**30**	**585**	**1,452**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Includes coal coke net imports.
[c] Natural gas, excluding supplemental gaseous fuels.
[d] Distillate fuel oil, excluding biodiesel.
[e] Liquefied petroleum gases.
[f] Finished motor gasoline, excluding fuel ethanol.
[g] Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.
[h] Includes electric power sector use of geothermal energy and non-biomass waste. See Table 12.6.
[i] Excludes emissions from biomass energy consumption. See Table 12.7.

R=Revised. (s)=Less than 0.5 million metric tons.

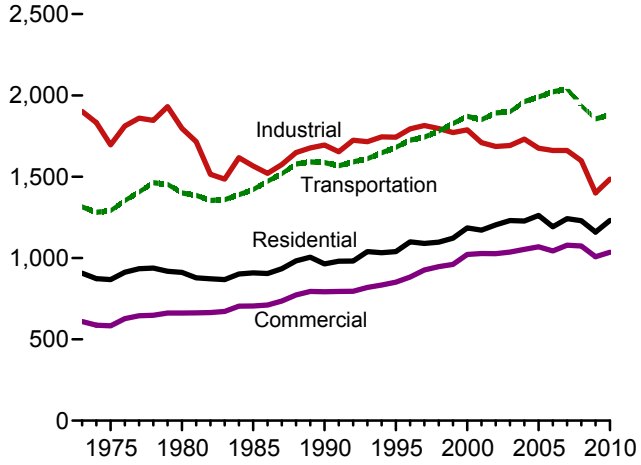
Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

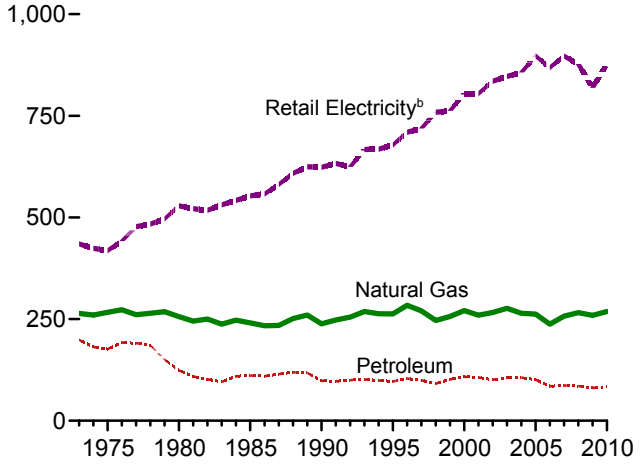
Sources: See end of section.

Figure 12.2 Carbon Dioxide Emissions From Energy Consumption by Sector
(Million Metric Tons of Carbon Dioxide)

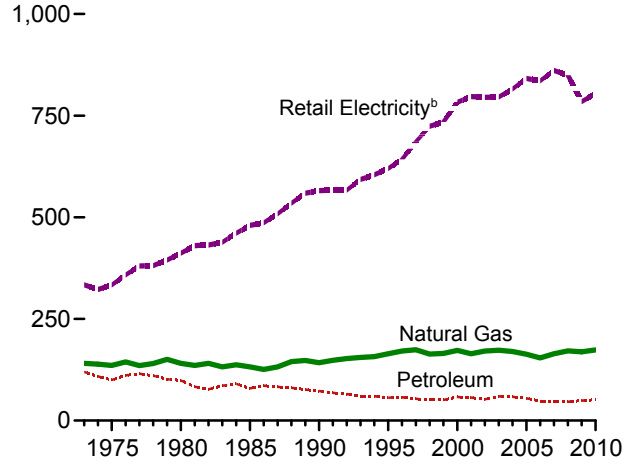
Total[a] by End-Use Sector,[b] 1973-2010



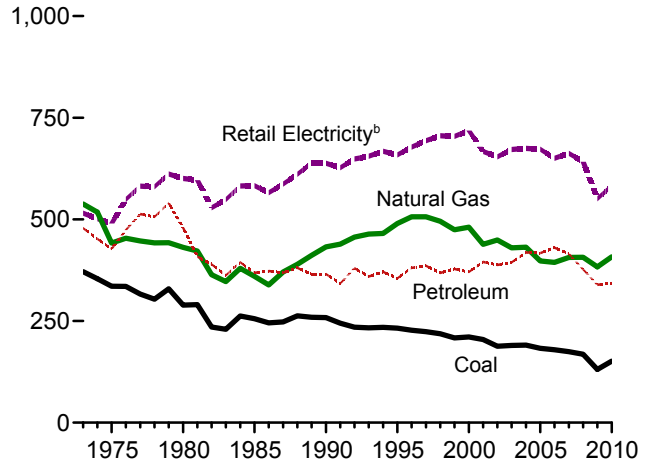
Residential Sector by Major Source, 1973-2010



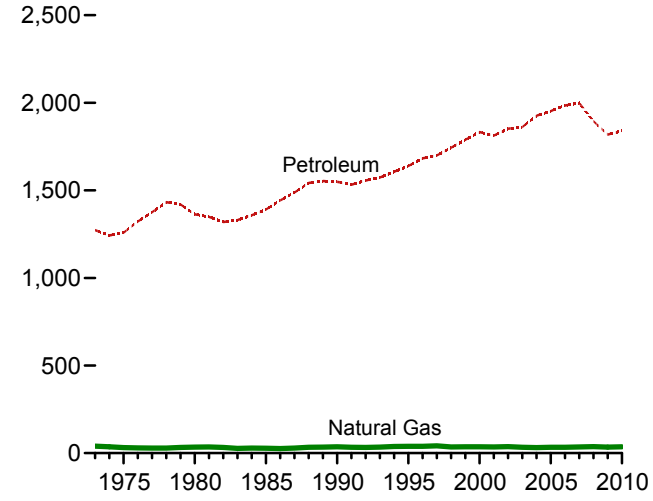
Commercial Sector by Major Source, 1973-2010



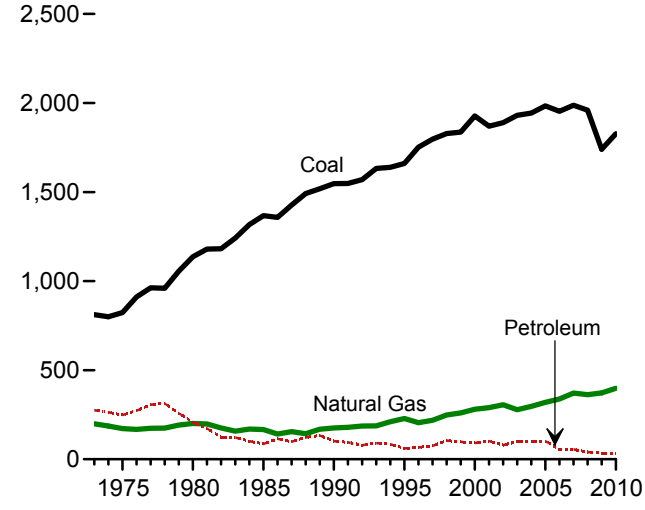
Industrial Sector by Major Source, 1973-2010



Transportation Sector by Major Source, 1973-2010



Electric Power Sector by Major Source, 1973-2010



[a] Excludes emissions from biomass energy consumption.
[b] Emissions from energy consumption in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#environment.
Sources: Tables 12.2–12.6.

Table 12.2 Carbon Dioxide Emissions From Energy Consumption: Residential Sector

(Million Metric Tons of Carbon Dioxide[a])

	Coal	Natural Gas[b]	Petroleum				Retail Elec-tricity[e]	Total[f]
			Distillate Fuel Oil[c]	Kerosene	LPG[d]	Total		
1973 Total	**9**	**264**	**147**	**16**	**36**	**199**	**435**	**907**
1975 Total	**6**	**266**	**132**	**12**	**32**	**176**	**419**	**867**
1980 Total	**3**	**256**	**96**	**8**	**20**	**124**	**529**	**911**
1985 Total	**4**	**241**	**80**	**11**	**20**	**111**	**553**	**909**
1990 Total	**3**	**238**	**72**	**5**	**22**	**98**	**624**	**963**
1995 Total	**2**	**263**	**66**	**5**	**25**	**96**	**678**	**1,039**
1996 Total	**2**	**284**	**68**	**6**	**30**	**104**	**710**	**1,099**
1997 Total	**2**	**270**	**64**	**7**	**29**	**99**	**719**	**1,090**
1998 Total	**1**	**247**	**56**	**8**	**27**	**91**	**759**	**1,097**
1999 Total	**1**	**257**	**61**	**8**	**33**	**102**	**762**	**1,122**
2000 Total	**1**	**271**	**66**	**7**	**35**	**108**	**805**	**1,185**
2001 Total	**1**	**259**	**66**	**7**	**33**	**106**	**805**	**1,172**
2002 Total	**1**	**266**	**63**	**4**	**34**	**101**	**835**	**1,204**
2003 Total	**1**	**276**	**66**	**5**	**34**	**106**	**847**	**1,230**
2004 Total	**1**	**264**	**68**	**6**	**32**	**106**	**856**	**1,228**
2005 Total	**1**	**262**	**62**	**6**	**32**	**101**	**897**	**1,261**
2006 Total	**1**	**237**	**52**	**5**	**28**	**85**	**869**	**1,192**
2007 Total	**1**	**257**	**53**	**3**	**31**	**87**	**897**	**1,242**
2008 Total	**1**	**266**	**49**	**2**	**35**	**85**	**878**	**1,229**
2009 January	(s)	51	6	(s)	3	9	85	146
February	(s)	41	5	(s)	3	8	67	116
March	(s)	33	5	(s)	3	8	62	102
April	(s)	21	4	(s)	3	6	53	80
May	(s)	11	3	(s)	3	5	56	72
June	(s)	8	2	(s)	2	5	70	82
July	(s)	6	3	(s)	3	5	83	95
August	(s)	6	3	(s)	3	6	85	97
September	(s)	6	3	(s)	3	6	66	78
October	(s)	14	3	(s)	3	6	59	79
November	(s)	20	3	(s)	3	7	57	84
December	(s)	41	5	(s)	4	9	78	129
Total	**1**	**259**	**44**	**2**	**35**	**81**	**819**	**1,159**
2010 January	(s)	53	7	(s)	4	10	91	154
February	(s)	45	6	(s)	3	10	74	128
March	(s)	33	4	(s)	3	7	65	105
April	(s)	18	3	(s)	2	5	51	74
May	(s)	11	3	(s)	3	6	59	76
June	(s)	7	3	(s)	3	6	80	93
July	(s)	6	3	(s)	3	6	97	109
August	(s)	6	2	(s)	3	5	97	108
September	(s)	7	2	(s)	3	5	72	84
October	(s)	11	3	(s)	3	6	56	74
November	(s)	25	4	(s)	3	7	56	88
December	(s)	47	6	(s)	4	10	82	139
Total	**1**	**268**	**46**	**2**	**35**	**84**	**878**	**1,231**
2011 January	(s)	53	5	(s)	4	9	88	150
February	(s)	42	5	(s)	3	8	68	119
March	(s)	33	4	(s)	3	7	60	100
3-Month Total	**(s)**	**128**	**14**	**1**	**10**	**25**	**216**	**369**
2010 3-Month Total	**(s)**	**130**	**16**	**1**	**10**	**27**	**230**	**387**
2009 3-Month Total	**(s)**	**125**	**16**	**1**	**9**	**25**	**214**	**365**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Natural gas, excluding supplemental gaseous fuels.
[c] Distillate fuel oil, excluding biodiesel.
[d] Liquefied petroleum gases.
[e] Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.
[f] Excludes emissions from biomass energy consumption. See Table 12.7.
(s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Table 12.3 Carbon Dioxide Emissions From Energy Consumption: Commercial Sector

(Million Metric Tons of Carbon Dioxide[a])

	Coal	Natural Gas[b]	Petroleum							Retail Electricity[f]	Total[g]
			Distillate Fuel Oil[c]	Kerosene	LPG[d]	Motor Gasoline[e]	Petroleum Coke	Residual Fuel Oil	Total		
1973 Total	**15**	**141**	**47**	**5**	**9**	**6**	**NA**	**52**	**120**	**334**	**609**
1975 Total	**14**	**136**	**43**	**4**	**8**	**6**	**NA**	**39**	**100**	**333**	**583**
1980 Total	**11**	**141**	**38**	**3**	**6**	**8**	**NA**	**44**	**98**	**412**	**662**
1985 Total	**13**	**132**	**46**	**2**	**6**	**7**	**NA**	**18**	**79**	**480**	**704**
1990 Total	**12**	**142**	**39**	**1**	**6**	**8**	**0**	**18**	**73**	**566**	**793**
1995 Total	**11**	**164**	**35**	**2**	**7**	**1**	**(s)**	**11**	**56**	**620**	**851**
1996 Total	**12**	**171**	**35**	**2**	**8**	**2**	**(s)**	**11**	**57**	**643**	**883**
1997 Total	**12**	**174**	**32**	**2**	**8**	**3**	**(s)**	**9**	**54**	**686**	**926**
1998 Total	**9**	**164**	**31**	**2**	**7**	**3**	**(s)**	**7**	**51**	**724**	**947**
1999 Total	**10**	**165**	**32**	**2**	**9**	**2**	**(s)**	**6**	**51**	**735**	**960**
2000 Total	**9**	**173**	**36**	**2**	**9**	**3**	**(s)**	**7**	**58**	**783**	**1,022**
2001 Total	**9**	**164**	**37**	**2**	**9**	**3**	**(s)**	**6**	**57**	**797**	**1,027**
2002 Total	**9**	**171**	**32**	**1**	**9**	**3**	**(s)**	**6**	**52**	**795**	**1,027**
2003 Total	**8**	**173**	**35**	**1**	**10**	**4**	**(s)**	**9**	**59**	**796**	**1,036**
2004 Total	**10**	**170**	**34**	**1**	**10**	**3**	**(s)**	**10**	**58**	**816**	**1,054**
2005 Total	**9**	**163**	**33**	**2**	**8**	**3**	**(s)**	**9**	**55**	**842**	**1,069**
2006 Total	**6**	**154**	**29**	**1**	**8**	**3**	**(s)**	**6**	**48**	**836**	**1,043**
2007 Total	**7**	**164**	**28**	**1**	**8**	**4**	**(s)**	**6**	**47**	**861**	**1,079**
2008 Total	**7**	**171**	**27**	**(s)**	**10**	**3**	**(s)**	**6**	**46**	**850**	**1,074**
2009 January	1	28	4	(s)	1	(s)	(s)	1	6	69	103
February	1	23	3	(s)	1	(s)	(s)	1	5	58	87
March	1	19	3	(s)	1	(s)	(s)	1	5	60	85
April	(s)	14	2	(s)	1	(s)	0	(s)	4	58	75
May	(s)	9	2	(s)	1	(s)	0	(s)	3	62	75
June	(s)	7	2	(s)	1	(s)	0	(s)	3	70	80
July	(s)	7	2	(s)	1	(s)	0	(s)	3	73	84
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	76	86
September	(s)	7	2	(s)	1	(s)	(s)	(s)	4	66	77
October	(s)	11	2	(s)	1	(s)	0	(s)	4	65	80
November	1	14	2	(s)	1	(s)	(s)	(s)	4	60	78
December	1	23	4	(s)	1	(s)	(s)	1	6	68	98
Total	**6**	**169**	**30**	**(s)**	**9**	**4**	**(s)**	**6**	**49**	**785**	**1,008**
2010 January	1	28	4	(s)	1	(s)	(s)	1	7	66	102
February	1	25	4	(s)	1	(s)	(s)	1	6	60	92
March	1	19	3	(s)	1	(s)	(s)	1	4	59	83
April	(s)	12	2	(s)	1	(s)	(s)	(s)	3	58	73
May	(s)	9	2	(s)	1	(s)	0	(s)	3	66	79
June	(s)	7	2	(s)	1	(s)	0	(s)	4	74	86
July	(s)	7	2	(s)	1	(s)	0	(s)	3	80	90
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	81	91
September	(s)	7	1	(s)	1	(s)	(s)	(s)	3	69	79
October	(s)	10	2	(s)	1	(s)	(s)	(s)	4	63	77
November	(s)	16	3	(s)	1	(s)	(s)	1	4	61	82
December	1	26	4	(s)	1	(s)	(s)	1	6	68	101
Total	**5**	**174**	**32**	**(s)**	**9**	**4**	**(s)**	**7**	**51**	**805**	**1,035**
2011 January	1	28	4	(s)	1	(s)	(s)	1	6	65	100
February	1	24	3	(s)	1	(s)	(s)	1	5	56	85
March	1	20	3	(s)	1	(s)	(s)	1	4	58	83
3-Month Total	**2**	**72**	**9**	**(s)**	**3**	**1**	**(s)**	**2**	**15**	**179**	**267**
2010 3-Month Total	**2**	**72**	**11**	**(s)**	**3**	**1**	**(s)**	**2**	**17**	**186**	**277**
2009 3-Month Total	**2**	**71**	**11**	**(s)**	**2**	**1**	**(s)**	**2**	**16**	**186**	**275**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Natural gas, excluding supplemental gaseous fuels.
[c] Distillate fuel oil, excluding biodiesel.
[d] Liquefied petroleum gases.
[e] Finished motor gasoline, excluding fuel ethanol.
[f] Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.
[g] Excludes emissions from biomass energy consumption. See Table 12.7.
NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Table 12.4 Carbon Dioxide Emissions From Energy Consumption: Industrial Sector

(Million Metric Tons of Carbon Dioxide[a])

	Coal	Coal Coke Net Imports	Natural Gas[b]	Petroleum									Retail Elec-tricity[g]	Total[h]
				Distillate Fuel Oil[c]	Kero-sene	LPG[d]	Lubri-cants	Motor Gasoline[e]	Petroleum Coke	Residual Fuel Oil	Other[f]	Total		
1973 Total	**371**	**-1**	**538**	**106**	**11**	**43**	**7**	**18**	**49**	**144**	**100**	**478**	**515**	**1,902**
1975 Total	**336**	**2**	**442**	**97**	**9**	**39**	**6**	**16**	**48**	**117**	**97**	**427**	**490**	**1,696**
1980 Total	**289**	**-4**	**431**	**96**	**13**	**61**	**7**	**11**	**45**	**105**	**142**	**480**	**601**	**1,797**
1985 Total	**256**	**-2**	**360**	**81**	**3**	**58**	**6**	**15**	**54**	**57**	**93**	**369**	**583**	**1,566**
1990 Total	**258**	**1**	**432**	**84**	**1**	**39**	**7**	**13**	**64**	**31**	**127**	**366**	**638**	**1,695**
1995 Total	**233**	**7**	**490**	**82**	**1**	**45**	**7**	**14**	**67**	**24**	**114**	**355**	**659**	**1,743**
1996 Total	**227**	**3**	**506**	**86**	**1**	**46**	**6**	**14**	**70**	**24**	**132**	**381**	**678**	**1,795**
1997 Total	**224**	**5**	**506**	**88**	**1**	**48**	**7**	**15**	**68**	**21**	**138**	**386**	**694**	**1,815**
1998 Total	**219**	**8**	**495**	**88**	**2**	**39**	**7**	**14**	**77**	**16**	**125**	**368**	**706**	**1,796**
1999 Total	**208**	**7**	**474**	**86**	**1**	**48**	**7**	**11**	**81**	**14**	**130**	**378**	**704**	**1,772**
2000 Total	**211**	**7**	**481**	**87**	**1**	**56**	**7**	**11**	**74**	**17**	**117**	**370**	**719**	**1,788**
2001 Total	**204**	**3**	**439**	**95**	**2**	**49**	**6**	**21**	**77**	**14**	**132**	**395**	**667**	**1,709**
2002 Total	**188**	**7**	**449**	**88**	**1**	**54**	**6**	**22**	**76**	**13**	**127**	**388**	**654**	**1,686**
2003 Total	**190**	**6**	**430**	**83**	**2**	**50**	**6**	**23**	**76**	**15**	**140**	**394**	**672**	**1,692**
2004 Total	**191**	**16**	**431**	**88**	**2**	**55**	**6**	**26**	**82**	**17**	**142**	**419**	**675**	**1,731**
2005 Total	**183**	**5**	**398**	**92**	**3**	**51**	**6**	**25**	**80**	**20**	**141**	**417**	**673**	**1,675**
2006 Total	**179**	**7**	**394**	**92**	**2**	**56**	**6**	**26**	**82**	**16**	**150**	**430**	**650**	**1,661**
2007 Total	**175**	**3**	**406**	**92**	**1**	**54**	**6**	**21**	**80**	**13**	**148**	**415**	**662**	**1,662**
2008 Total	**168**	**5**	**407**	**93**	**(s)**	**42**	**6**	**17**	**76**	**14**	**130**	**377**	**642**	**1,598**
2009 January	12	(s)	36	11	(s)	5	(s)	1	6	1	11	36	47	130
February	12	(s)	32	8	(s)	4	(s)	1	6	1	10	30	41	115
March	12	(s)	33	8	(s)	4	(s)	1	6	1	9	29	43	117
April	10	(s)	31	5	(s)	3	(s)	1	7	1	8	26	42	109
May	10	(s)	30	6	(s)	3	(s)	1	7	1	9	27	45	111
June	10	(s)	29	6	(s)	3	(s)	1	8	1	8	27	46	111
July	10	(s)	30	4	(s)	3	(s)	1	5	(s)	10	25	47	112
August	11	(s)	31	4	(s)	3	(s)	1	6	1	9	25	50	117
September	11	(s)	30	6	(s)	3	(s)	1	7	(s)	10	28	46	115
October	11	(s)	32	7	(s)	4	(s)	1	5	1	9	28	47	119
November	11	(s)	33	8	(s)	5	(s)	1	5	1	8	28	46	118
December	11	(s)	36	8	(s)	5	(s)	1	6	1	9	31	49	127
Total	**131**	**-3**	**383**	**80**	**(s)**	**46**	**5**	**17**	**73**	**7**	**111**	**339**	**551**	**1,401**
2010 January	12	(s)	38	6	(s)	5	(s)	1	3	1	9	26	46	121
February	12	(s)	35	6	(s)	5	(s)	1	4	1	9	26	44	118
March	13	(s)	35	9	(s)	4	(s)	1	6	1	11	33	45	127
April	12	(s)	32	7	(s)	3	(s)	1	5	1	11	30	45	119
May	12	(s)	33	6	(s)	3	1	1	5	1	10	27	51	123
June	12	(s)	32	5	(s)	3	1	1	6	1	10	27	51	122
July	13	(s)	33	4	(s)	3	1	1	5	1	10	26	53	124
August	13	(s)	33	7	(s)	3	(s)	1	6	1	11	30	54	130
September	13	(s)	32	9	(s)	3	(s)	1	6	1	10	31	48	124
October	13	(s)	33	7	(s)	4	(s)	1	5	1	9	27	47	120
November	13	-1	34	8	(s)	4	(s)	1	6	1	9	30	48	124
December	13	-1	38	9	(s)	5	(s)	1	5	1	10	32	50	133
Total	**151**	**-1**	**408**	**84**	**(s)**	**46**	**6**	**16**	**62**	**8**	**121**	**343**	**583**	**1,485**
2011 January	13	(s)	39	10	(s)	5	(s)	1	5	1	10	33	48	R 134
February	13	(s)	35	R 7	(s)	4	(s)	1	3	1	9	26	42	117
March	14	(s)	37	10	(s)	4	1	1	5	1	12	33	46	130
3-Month Total	**40**	**(s)**	**111**	**28**	**(s)**	**14**	**1**	**4**	**13**	**2**	**30**	**93**	**136**	**380**
2010 3-Month Total	**37**	**(s)**	**108**	**21**	**(s)**	**14**	**1**	**4**	**14**	**2**	**29**	**85**	**135**	**365**
2009 3-Month Total	**36**	**(s)**	**101**	**27**	**(s)**	**13**	**1**	**4**	**18**	**2**	**30**	**95**	**131**	**362**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Natural gas, excluding supplemental gaseous fuels.
[c] Distillate fuel oil, excluding biodiesel.
[d] Liquefied petroleum gases.
[e] Finished motor gasoline, excluding fuel ethanol.
[f] Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.
[g] Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.
[h] Excludes emissions from biomass energy consumption. See Table 12.7.

R=Revised. (s)=Less than 0.5 million metric tons and greater than -0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Table 12.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector

(Million Metric Tons of Carbon Dioxide[a])

	Coal	Natural Gas[b]	Petroleum								Retail Electricity[f]	Total[g]
			Aviation Gasoline	Distillate Fuel Oil[c]	Jet Fuel	LPG[d]	Lubricants	Motor Gasoline[e]	Residual Fuel Oil	Total		
1973 Total	**(s)**	**39**	**6**	**163**	**152**	**3**	**6**	**886**	**57**	**1,273**	**2**	**1,315**
1975 Total	**(s)**	**32**	**5**	**155**	**145**	**3**	**6**	**889**	**56**	**1,258**	**2**	**1,292**
1980 Total	**([h])**	**34**	**4**	**204**	**155**	**1**	**6**	**881**	**110**	**1,363**	**2**	**1,400**
1985 Total	**([h])**	**28**	**3**	**232**	**178**	**2**	**6**	**908**	**62**	**1,391**	**3**	**1,421**
1990 Total	**([h])**	**36**	**3**	**268**	**223**	**1**	**7**	**967**	**80**	**1,548**	**3**	**1,588**
1995 Total	**([h])**	**38**	**3**	**307**	**222**	**1**	**6**	**1,029**	**72**	**1,639**	**3**	**1,681**
1996 Total	**([h])**	**39**	**3**	**327**	**232**	**1**	**6**	**1,047**	**67**	**1,683**	**3**	**1,725**
1997 Total	**([h])**	**41**	**3**	**342**	**234**	**1**	**6**	**1,057**	**56**	**1,699**	**3**	**1,744**
1998 Total	**([h])**	**35**	**2**	**352**	**238**	**1**	**7**	**1,090**	**53**	**1,743**	**3**	**1,782**
1999 Total	**([h])**	**36**	**3**	**366**	**245**	**1**	**7**	**1,115**	**52**	**1,789**	**3**	**1,828**
2000 Total	**([h])**	**36**	**3**	**378**	**254**	**1**	**7**	**1,121**	**70**	**1,833**	**4**	**1,872**
2001 Total	**([h])**	**35**	**2**	**387**	**243**	**1**	**6**	**1,127**	**46**	**1,813**	**4**	**1,852**
2002 Total	**([h])**	**37**	**2**	**394**	**237**	**1**	**6**	**1,158**	**53**	**1,851**	**4**	**1,892**
2003 Total	**([h])**	**33**	**2**	**414**	**231**	**1**	**6**	**1,161**	**45**	**1,861**	**5**	**1,899**
2004 Total	**([h])**	**32**	**2**	**434**	**240**	**1**	**6**	**1,185**	**58**	**1,926**	**5**	**1,962**
2005 Total	**([h])**	**33**	**2**	**444**	**246**	**2**	**6**	**1,186**	**66**	**1,953**	**5**	**1,991**
2006 Total	**([h])**	**33**	**2**	**469**	**240**	**2**	**5**	**1,194**	**71**	**1,984**	**5**	**2,022**
2007 Total	**([h])**	**35**	**2**	**472**	**238**	**1**	**6**	**1,201**	**78**	**1,999**	**5**	**2,040**
2008 Total	**([h])**	**37**	**2**	**440**	**226**	**3**	**5**	**1,146**	**72**	**1,895**	**5**	**1,937**
2009 January	([h])	4	(s)	32	16	(s)	(s)	93	7	149	(s)	153
February	([h])	3	(s)	29	15	(s)	(s)	86	4	135	(s)	139
March	([h])	3	(s)	33	18	(s)	(s)	96	7	154	(s)	158
April	([h])	3	(s)	33	17	(s)	(s)	94	8	152	(s)	155
May	([h])	2	(s)	35	17	(s)	(s)	98	4	154	(s)	157
June	([h])	2	(s)	35	17	(s)	(s)	95	6	154	(s)	157
July	([h])	2	(s)	36	19	(s)	(s)	99	3	157	(s)	160
August	([h])	3	(s)	36	18	(s)	(s)	100	5	159	(s)	162
September	([h])	2	(s)	34	17	(s)	(s)	92	3	147	(s)	150
October	([h])	2	(s)	35	17	(s)	(s)	96	6	155	(s)	158
November	([h])	3	(s)	33	16	(s)	(s)	92	5	147	(s)	150
December	([h])	4	(s)	33	17	(s)	(s)	95	7	153	(s)	158
Total	**([h])**	**34**	**2**	**404**	**204**	**2**	**5**	**1,137**	**64**	**1,818**	**5**	**1,857**
2010 January	([h])	4	(s)	31	17	(s)	(s)	91	6	145	(s)	150
February	([h])	4	(s)	29	15	(s)	(s)	83	5	133	(s)	138
March	([h])	3	(s)	35	18	(s)	(s)	93	6	154	(s)	157
April	([h])	3	(s)	35	17	(s)	(s)	94	7	153	(s)	156
May	([h])	2	(s)	36	18	(s)	(s)	98	6	159	(s)	162
June	([h])	2	(s)	36	18	(s)	1	95	5	155	(s)	158
July	([h])	3	(s)	37	18	(s)	(s)	99	6	161	(s)	164
August	([h])	3	(s)	39	19	(s)	(s)	100	5	162	(s)	166
September	([h])	2	(s)	37	17	(s)	(s)	94	6	156	(s)	158
October	([h])	3	(s)	37	18	(s)	(s)	96	6	157	(s)	160
November	([h])	3	(s)	34	17	(s)	(s)	91	7	150	(s)	154
December	([h])	4	(s)	35	17	(s)	(s)	95	6	154	(s)	158
Total	**([h])**	**36**	**2**	**421**	**209**	**2**	**5**	**1,130**	**71**	**1,840**	**5**	**1,881**
2011 January	([h])	4	(s)	33	17	(s)	(s)	89	7	147	(s)	152
February	([h])	4	(s)	30	15	(s)	(s)	83	7	135	(s)	139
March	([h])	3	(s)	36	17	(s)	1	93	6	153	(s)	157
3-Month Total	**([h])**	**11**	**(s)**	**98**	**49**	**1**	**1**	**265**	**20**	**435**	**1**	**448**
2010 3-Month Total	**([h])**	**11**	**(s)**	**95**	**50**	**1**	**1**	**267**	**18**	**432**	**1**	**445**
2009 3-Month Total	**([h])**	**11**	**(s)**	**94**	**49**	**(s)**	**1**	**276**	**17**	**438**	**1**	**450**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Natural gas, excluding supplemental gaseous fuels.
[c] Distillate fuel oil, excluding biodiesel.
[d] Liquefied petroleum gases.
[e] Finished motor gasoline, excluding fuel ethanol.
[f] Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.
[g] Excludes emissions from biomass energy consumption. See Table 12.7.
[h] Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

(s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Table 12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector

(Million Metric Tons of Carbon Dioxide[a])

	Coal	Natural Gas[b]	Petroleum				Geo-thermal	Non-Biomass Waste[d]	Total[e]
			Distillate Fuel Oil[c]	Petroleum Coke	Residual Fuel Oil	Total			
1973 Total	**812**	**199**	**20**	**2**	**254**	**276**	**NA**	**NA**	**1,286**
1975 Total	**824**	**172**	**17**	**(s)**	**231**	**248**	**NA**	**NA**	**1,244**
1980 Total	**1,137**	**200**	**12**	**1**	**194**	**207**	**NA**	**NA**	**1,544**
1985 Total	**1,367**	**166**	**6**	**1**	**79**	**86**	**NA**	**NA**	**1,619**
1990 Total	**1,548**	**176**	**7**	**3**	**92**	**102**	**(s)**	**6**	**1,831**
1995 Total	**1,661**	**228**	**8**	**8**	**45**	**61**	**(s)**	**10**	**1,960**
1996 Total	**1,752**	**205**	**8**	**8**	**50**	**66**	**(s)**	**10**	**2,033**
1997 Total	**1,797**	**219**	**8**	**10**	**56**	**75**	**(s)**	**10**	**2,101**
1998 Total	**1,828**	**248**	**10**	**13**	**82**	**105**	**(s)**	**10**	**2,192**
1999 Total	**1,836**	**260**	**10**	**11**	**76**	**97**	**(s)**	**10**	**2,204**
2000 Total	**1,927**	**281**	**13**	**10**	**69**	**91**	**(s)**	**10**	**2,310**
2001 Total	**1,870**	**290**	**12**	**11**	**79**	**102**	**(s)**	**11**	**2,273**
2002 Total	**1,890**	**306**	**9**	**18**	**52**	**79**	**(s)**	**13**	**2,288**
2003 Total	**1,931**	**278**	**12**	**18**	**69**	**98**	**(s)**	**11**	**2,319**
2004 Total	**1,943**	**297**	**8**	**23**	**69**	**100**	**(s)**	**11**	**2,352**
2005 Total	**1,984**	**319**	**8**	**25**	**69**	**102**	**(s)**	**11**	**2,417**
2006 Total	**1,954**	**338**	**5**	**22**	**28**	**56**	**(s)**	**12**	**2,359**
2007 Total	**1,987**	**372**	**7**	**17**	**31**	**55**	**(s)**	**11**	**2,426**
2008 Total	**1,959**	**362**	**5**	**16**	**19**	**40**	**(s)**	**12**	**2,374**
2009 January	169	26	1	1	3	5	(s)	1	201
February	138	25	(s)	1	1	3	(s)	1	167
March	134	27	1	1	1	3	(s)	1	165
April	125	24	(s)	1	1	2	(s)	1	153
May	131	28	(s)	1	1	3	(s)	1	163
June	147	35	(s)	1	1	3	(s)	1	186
July	157	42	(s)	1	1	3	(s)	1	203
August	162	46	(s)	1	1	3	(s)	1	211
September	137	37	(s)	1	1	3	(s)	1	178
October	139	29	(s)	1	1	2	(s)	1	171
November	136	25	(s)	1	1	2	(s)	1	164
December	165	28	(s)	1	1	2	(s)	1	196
Total	**1,741**	**373**	**5**	**14**	**14**	**34**	**(s)**	**11**	**2,159**
2010 January	169	29	1	1	1	4	(s)	1	204
February	149	26	(s)	1	1	2	(s)	1	178
March	143	24	(s)	1	1	2	(s)	1	170
April	125	25	(s)	1	1	2	(s)	1	154
May	142	30	(s)	1	1	3	(s)	1	176
June	163	38	1	1	2	4	(s)	1	206
July	177	49	1	2	2	4	(s)	1	231
August	177	51	(s)	1	2	3	(s)	1	232
September	148	38	(s)	1	1	2	(s)	1	189
October	133	31	(s)	1	1	2	(s)	1	166
November	136	27	(s)	1	1	2	(s)	1	165
December	165	30	1	1	1	3	(s)	1	200
Total	**1,828**	**399**	**6**	**15**	**12**	**33**	**(s)**	**11**	**2,271**
2011 January	168	30	1	2	1	3	(s)	1	202
February	137	26	(s)	1	1	2	(s)	1	166
March	135	26	(s)	1	1	2	(s)	1	164
3-Month Total	**440**	**82**	**1**	**4**	**2**	**7**	**(s)**	**3**	**532**
2010 3-Month Total	**461**	**80**	**2**	**4**	**3**	**8**	**(s)**	**3**	**552**
2009 3-Month Total	**442**	**78**	**2**	**4**	**5**	**11**	**(s)**	**3**	**533**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Natural gas, excluding supplemental gaseous fuels.
[c] Distillate fuel oil, excluding biodiesel.
[d] Municipal solid waste from non-biogenic sources, and tire-derived fuels.
[e] Excludes emissions from biomass energy consumption. See Table 12.7.
NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Table 12.7 Carbon Dioxide Emissions From Biomass Energy Consumption

(Million Metric Tons of Carbon Dioxide[a])

	By Source					By Sector					
	Wood[b]	Biomass Waste[c]	Fuel Ethanol[d]	Bio-diesel	Total	Resi-dential	Com-mercial[e]	Indus-trial[f]	Trans-portation	Electric Power[g]	Total
1973 Total	**143**	**(s)**	**NA**	**NA**	**143**	**33**	**1**	**109**	**NA**	**(s)**	**143**
1975 Total	**140**	**(s)**	**NA**	**NA**	**141**	**40**	**1**	**100**	**NA**	**(s)**	**141**
1980 Total	**232**	**(s)**	**NA**	**NA**	**232**	**80**	**2**	**150**	**NA**	**(s)**	**232**
1985 Total	**252**	**14**	**3**	**NA**	**270**	**95**	**2**	**168**	**3**	**1**	**270**
1990 Total	**208**	**24**	**4**	**NA**	**237**	**54**	**8**	**147**	**4**	**23**	**237**
1995 Total	**222**	**30**	**8**	**NA**	**260**	**49**	**9**	**166**	**8**	**28**	**260**
1996 Total	**229**	**32**	**6**	**NA**	**266**	**51**	**10**	**170**	**6**	**30**	**266**
1997 Total	**222**	**30**	**7**	**NA**	**259**	**40**	**10**	**172**	**7**	**30**	**259**
1998 Total	**205**	**30**	**8**	**NA**	**242**	**36**	**9**	**160**	**8**	**30**	**242**
1999 Total	**208**	**29**	**8**	**NA**	**245**	**37**	**9**	**161**	**8**	**30**	**245**
2000 Total	**212**	**27**	**9**	**NA**	**248**	**39**	**9**	**161**	**9**	**29**	**248**
2001 Total	**188**	**33**	**10**	**(s)**	**231**	**35**	**9**	**147**	**10**	**31**	**231**
2002 Total	**187**	**36**	**12**	**(s)**	**235**	**36**	**9**	**144**	**12**	**35**	**235**
2003 Total	**188**	**36**	**16**	**(s)**	**240**	**38**	**9**	**141**	**16**	**37**	**240**
2004 Total	**199**	**35**	**20**	**(s)**	**255**	**38**	**10**	**151**	**20**	**36**	**255**
2005 Total	**200**	**37**	**23**	**1**	**261**	**40**	**10**	**150**	**23**	**37**	**261**
2006 Total	**198**	**36**	**31**	**2**	**267**	**37**	**9**	**151**	**33**	**38**	**267**
2007 Total	**197**	**37**	**39**	**3**	**277**	**40**	**9**	**146**	**41**	**39**	**277**
2008 Total	**192**	**40**	**55**	**3**	**289**	**42**	**10**	**140**	**57**	**40**	**289**
2009 January	15	3	5	(s)	23	3	1	11	5	3	23
February	14	3	4	(s)	21	3	1	10	4	3	21
March	15	4	5	(s)	23	3	1	10	5	3	23
April	14	3	5	(s)	22	3	1	10	5	3	22
May	14	3	5	(s)	23	3	1	10	5	3	23
June	14	3	5	(s)	23	3	1	10	5	3	23
July	15	4	6	(s)	25	3	1	11	6	4	25
August	16	3	6	(s)	25	3	1	11	6	4	25
September	15	3	5	(s)	24	3	1	11	6	3	24
October	15	3	6	(s)	25	3	1	11	6	3	25
November	15	4	6	(s)	24	3	1	11	6	3	24
December	15	4	6	(s)	25	3	1	11	6	4	25
Total	**176**	**41**	**62**	**3**	**283**	**40**	**10**	**127**	**64**	**41**	**283**
2010 January	16	3	6	(s)	25	3	1	12	6	3	25
February	14	3	5	(s)	23	3	1	11	5	3	23
March	16	3	6	(s)	25	3	1	12	6	3	25
April	15	3	6	(s)	25	3	1	11	6	3	25
May	15	4	6	(s)	25	3	1	12	6	3	25
June	16	3	6	(s)	25	3	1	12	6	3	25
July	16	4	7	(s)	26	3	1	12	7	4	26
August	16	4	7	(s)	26	3	1	12	7	4	26
September	15	3	6	(s)	25	3	1	12	6	3	25
October	15	3	7	(s)	25	3	1	12	7	3	25
November	15	3	6	(s)	25	3	1	12	6	3	25
December	16	4	7	(s)	26	3	1	12	7	4	26
Total	**186**	**41**	**75**	**2**	**304**	**39**	**10**	**139**	**75**	**41**	**304**
2011 January	16	3	6	(s)	25	3	1	12	6	3	25
February	14	3	6	(s)	23	3	1	10	6	3	23
March	15	3	6	(s)	25	3	1	11	6	3	25
3-Month Total	**45**	**10**	**18**	**1**	**73**	**10**	**2**	**33**	**18**	**10**	**73**
2010 3-Month Total	**46**	**10**	**17**	**(s)**	**74**	**10**	**2**	**34**	**17**	**10**	**74**
2009 3-Month Total	**43**	**10**	**13**	**(s)**	**67**	**10**	**2**	**31**	**13**	**10**	**67**

[a] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[b] Wood and wood-derived fuels.
[c] Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.
[d] Fuel ethanol minus denaturant.
[e] Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[f] Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[g] 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.

NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Carbon dioxide emissions from biomass energy consumption are excluded from the energy-related carbon dioxide emissions reported in Tables 12.1–12.6. See Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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.gov/totalenergy/data/monthly/#environment for all available data beginning in 1973.

Sources: See end of section.

Environment

Note 1. Emissions of Carbon Dioxide and Other Greenhouse Gases. Greenhouse gases are those gases—such as water vapor, carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride—that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

Energy-related carbon dioxide emissions account for about 98 percent of U.S. CO_2 emissions. The vast majority of CO_2 emissions come from fossil fuel combustion, with smaller amounts from the nonfuel use of fossil fuels, as well as from electricity generation using geothermal energy and non-biomass waste. Other sources of CO_2 emissions include industrial processes, such as cement and limestone production. Data in the U.S. Energy Information Administration's (EIA) *Monthly Energy Review (MER)* Tables 12.1–12.6 are estimates for U.S. CO_2 emissions from energy consumption, including the nonfuel use of fossil fuels (excluded are estimates for CO_2 emissions from biomass energy consumption, which appear in Table 12.7).

For annual U.S. estimates for emissions of CO_2 from all sources, as well as for emissions of other greenhouse gases, see EIA's *Emissions of Greenhouse Gases Report* at http://www.eia.gov/environment/emissions/ghg_report/.

Note 2. Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion. Carbon dioxide (CO_2) emissions from the combustion of biomass to produce energy are excluded from the energy-related CO_2 emissions reported in MER Tables 12.1–12.6, but appear in Table 12.7. According to current international convention (see the Intergovernmental Panel on Climate Change's "2006 IPCC Guidelines for National Greenhouse Gas Inventories"), carbon released through biomass combustion is excluded from reported energy-related emissions. The release of carbon from biomass combustion is assumed to be balanced by the uptake of carbon when the feedstock is grown, resulting in zero net emissions over some period of time. (This is not to say that biomass energy is carbon-neutral. Energy inputs are required in order to grow, fertilize, and harvest the feedstock and to produce and process the biomass into fuels.)

However, analysts have debated whether increased use of biomass energy may result in a decline in terrestrial carbon stocks, leading to a net positive release of carbon rather than the zero net release assumed by its exclusion from reported energy-related emissions. For example, the clearing of forests for biofuel crops could result in an initial release of carbon that is not fully recaptured in subsequent use of the land for agriculture.

To reflect the potential net emissions, the international convention for greenhouse gas inventories is to report biomass emissions in the category "agriculture, forestry, and other land use," usually based on estimates of net changes in carbon stocks over time.

This indirect accounting of CO_2 emissions from biomass can potentially lead to confusion in accounting for and understanding the flow of CO_2 emissions within energy and non-energy systems. In recognition of this issue, reporting of CO_2 emissions from biomass combustion alongside other energy-related CO_2 emissions offers an alternative accounting treatment. It is important, however, to avoid misinterpreting emissions from fossil energy and biomass energy sources as necessarily additive. Instead, the combined total of direct CO_2 emissions from biomass and energy-related CO_2 emissions implicitly assumes that none of the carbon emitted was previously or subsequently reabsorbed in terrestrial sinks or that other emissions sources offset any such sequestration.

Section 12 Methodology and Sources

To estimate carbon dioxide emissions from energy consumption for the *Monthly Energy Review (MER)*, Tables 12.1–12.7, the U.S. Energy Information Administration (EIA) uses the following methodology and sources:

Step 1. Determine Fuel Consumption

Coal—Coal sectoral (residential, commercial, coke plants, other industrial, transportation, electric power) consumption data in thousand short tons are from MER Table 6.2. Coal sectoral consumption data are converted to trillion Btu by multiplying by the coal heat content factors in MER Table A5.

Coal Coke Net Imports—Coal coke net imports data in trillion Btu are derived from coal coke imports and exports data in MER Tables 1.4a and 1.4b.

Natural Gas (excluding supplemental gaseous fuels)—Natural gas sectoral consumption data in trillion Btu are from MER Tables 2.2–2.6.

Petroleum—Total and sectoral consumption (product supplied) data in thousand barrels per day for asphalt and road oil, aviation gasoline, distillate fuel oil, jet fuel, kerosene, liquefied petroleum gases (LPG), lubricants, motor gasoline, petroleum coke, and residual fuel oil are from MER Tables 3.5 and 3.7a–3.7c. For the component products of LPG (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene) and "other petroleum" (aviation gasoline blending components, crude oil, motor gasoline blending components, naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products), consumption (product supplied) data in thousand

barrels per day are from EIA's *Petroleum Supply Annual* (*PSA*), *Petroleum Supply Monthly* (*PSM*), and earlier publications (see sources for MER Table 3.5). Petroleum consumption data by product are converted to trillion Btu by multiplying by the petroleum heat content factors in MER Table A1 (Table A3 for motor gasoline).

Biomass—Sectoral consumption data in trillion Btu for wood, biomass waste, fuel ethanol (minus denaturant), and biodiesel are from MER Tables 10.2a–10.2c.

Step 2. Remove Biofuels From Petroleum

Distillate Fuel Oil—Beginning in 2009, the distillate fuel oil data (for total and transportation sector) in Step 1 include biodiesel, a non-fossil renewable fuel. To remove the biodiesel portion from distillate fuel oil, data in thousand barrels per day for refinery and blender net inputs of renewable diesel fuel (from the PSA/PSM) are converted to trillion Btu by multiplying by the biodiesel heat content factor in MER Table A3, and then subtracted from the distillate fuel oil consumption values.

Motor Gasoline—Beginning in 1993, the motor gasoline data (for total, commercial sector, industrial sector, and transportation sector) in Step 1 include fuel ethanol, a non-fossil renewable fuel. To remove the fuel ethanol portion from motor gasoline, data in trillion Btu for fuel ethanol consumption (from MER Tables 10.2a, 10.2b, and 10.3) are subtracted from the motor gasoline consumption values. (Note that about 2 percent of fuel ethanol is fossil-based petroleum denaturant, to make the fuel ethanol undrinkable. For 1993–2008, petroleum denaturant is double counted in the PSA product supplied statistics, in both the original product category—e.g., pentanes plus—and also in the finished motor gasoline category; for this time period for MER Section 12, petroleum denaturant is removed along with the fuel ethanol from motor gasoline, but left in the original product. Beginning in 2009, petroleum denaturant is counted only in the PSA/PSM product supplied statistics for motor gasoline; for this time period for MER Section 12, petroleum denaturant is left in motor gasoline.)

Step 3. Remove Carbon Sequestered by Nonfuel Use

The following fuels have industrial nonfuel uses as chemical feedstocks and other products: coal, natural gas, asphalt and road oil, distillate fuel oil, liquefied petroleum gases (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene), lubricants (which have industrial and transportation nonfuel uses), naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, petroleum coke, residual fuel oil, special naphthas, still gas, waxes, and miscellaneous petroleum products. In the nonfuel use of these fuels, some of the carbon is sequestered, and is thus subtracted from the fuel consumption values in Steps 1 and 2.

Estimates of annual nonfuel use and associated carbon sequestration are developed by EIA using the methodology detailed in "Documentation for *Emissions of Greenhouse Gases in the United States 2008*" at http://www.eia.gov/oiaf/1605/ggrpt/documentation/pdf/0638(2008).pdf.

To obtain monthly estimates of nonfuel use and associated carbon sequestration, monthly patterns for industrial consumption and product supplied data series are used. For coal nonfuel use, the monthly pattern for coke plants coal consumption from MER Table 6.2 is used. For natural gas, the monthly pattern for other industrial non-CHP natural gas consumption from MER Table 4.3 is used. For distillate fuel oil, petroleum coke, and residual fuel oil, the monthly patterns for industrial consumption from MER Table 3.7b are used. For the other petroleum products, the monthly patterns for product supplied from the PSA and PSM are used.

Step 4. Determine Carbon Dioxide Emissions From Energy Consumption

Carbon dioxide (CO_2) emissions data in million metric tons are calculated by multiplying consumption values in trillion Btu from Steps 1 and 2 (minus the carbon sequestered in nonfuel use in Step 3) by the CO_2 emissions factors at http://www.eia.gov/oiaf/1605/ggrpt/excel/CO2_coeffs_09_v2.xls. Beginning in 2010, the 2009 factors are used.

Coal—CO_2 emissions for coal are calculated for each sector (residential, commercial, coke plants, other industrial, transportation, electric power). Total coal emissions are the sum of the sectoral coal emissions.

Coal Coke Net Imports—CO_2 emissions for coal coke net imports are calculated.

Natural Gas—CO_2 emissions for natural gas are calculated for each sector (residential, commercial, industrial, transportation, electric power). Total natural gas emissions are the sum of the sectoral natural gas emissions.

Petroleum—CO_2 emissions are calculated for each petroleum product. Total petroleum emissions are the sum of the product emissions. Total LPG emissions are the sum of the emissions for the component products (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene); residential, commercial, and transportation sector LPG emissions are estimated by multiplying consumption values in trillion Btu from MER Tables 3.8a and 3.8c by the propane emissions factor; industrial sector LPG emissions are estimated as total LPG emissions minus emissions by the other sectors.

Geothermal and Non-Biomass Waste—Annual CO_2 emissions data for geothermal and non-biomass waste are EIA estimates based on Form EIA-923, "Power Plant Operations Report" (and predecessor forms). Monthly estimates are created by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month. (Annual estimates for the current year are set equal to those of the previous year.)

Biomass—CO_2 emissions for wood, biomass waste, fuel ethanol (minus denaturant), and biodiesel are calculated for

each sector. Total emissions for each biomass fuel are the sum of the sectoral emissions. The following factors, in million metric tons CO_2 per quadrillion Btu, are used: wood —93.80; biomass waste—90.70; fuel ethanol—68.44; and biodiesel—73.84. For 1973–1988, the biomass portion of waste in MER Tables 10.2a–10.2c is estimated as 67 percent; for 1989–2000, the biomass portion of waste is estimated as 67 percent in 1989 to 58 percent in 2000, based on the biogenic shares of total municipal solid waste shown in EIA's "Methodolology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy," Table 1 at http://www.eia.gov/cneaf/solar.renewables/page/mswaste/msw.pdf.

A 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	Pentanes Plus	4.620
Aviation Gasoline	5.048	Petrochemical Feedstocks	
Butane	4.326	Naptha Less Than 401°F	5.248
Butane-Propane Mixture[a]	4.130	Other Oils Equal to or Greater Than 401°F	5.825
Distillate Fuel Oil[b]	5.825	Still Gas	6.000
Ethane	3.082	Petroleum Coke	6.024
Ethane-Propane Mixture[c]	3.308	Plant Condensate	5.418
Isobutane	3.974	Propane	3.836
Jet Fuel, Kerosene Type	5.670	Residual Fuel Oil	6.287
Jet Fuel, Naphtha Type	5.355	Road Oil	6.636
Kerosene	5.670	Special Naphthas	5.248
Lubricants	6.065	Still Gas	6.000
Motor Gasoline[d]		Unfinished Oils	5.825
Conventional	5.253	Unfractionated Stream	5.418
Reformulated	5.150	Waxes	5.537
Oxygenated	5.150	Miscellaneous	5.796
Natural Gasoline and Isopentane	4.620		

[a] 60 percent butane and 40 percent propane.
[b] Does not include biodiesel. See Table A3 for biodiesel heat contents.
[c] 70 percent ethane and 30 percent propane.
[d] See Table A3 for motor gasoline weighted heat contents beginning in 1994, and for fuel ethanol heat contents.
Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#appendices.
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[a]	Natural Gas Plant Liquids	Crude Oil[a]	Petroleum Products	Total	Crude Oil[a]	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	5.800	3.706	5.990	5.479	5.866	5.800	5.762	5.762
2009	5.800	3.692	5.988	5.525	5.882	5.800	5.737	5.738
2010[P]	5.800	3.677	5.989	5.566	5.896	5.800	5.696	5.698
2011[E]	5.800	3.677	5.989	5.566	5.896	5.800	5.696	5.698

[a] 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.gov/totalenergy/data/monthly/#appendices.
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[a] Consumption by Sector						Liquefied Petroleum Gases Consumption[f]	Motor Gasoline Consumption[g]	Fuel Ethanol[h]	*Fuel Ethanol Feedstock Factor*[i]	Biodiesel	*Biodiesel Feedstock Factor*[j]
	Residential	Commercial[b]	Industrial[b]	Transportation[b,c]	Electric Power[d,e]	Total[b,c]						
1973	5.258	5.689	5.557	5.396	6.245	5.515	3.746	5.253	NA	*NA*	NA	*NA*
1974	5.253	5.683	5.525	5.394	6.238	5.504	3.730	5.253	NA	*NA*	NA	*NA*
1975	5.253	5.649	5.513	5.392	6.250	5.494	3.715	5.253	NA	*NA*	NA	*NA*
1976	5.277	5.672	5.523	5.396	6.251	5.504	3.711	5.253	NA	*NA*	NA	*NA*
1977	5.285	5.682	5.539	5.401	6.249	5.518	3.677	5.253	NA	*NA*	NA	*NA*
1978	5.287	5.665	5.536	5.405	6.251	5.519	3.669	5.253	NA	*NA*	NA	*NA*
1979	5.365	5.717	5.409	5.429	6.258	5.494	3.680	5.253	NA	*NA*	NA	*NA*
1980	5.321	5.751	5.366	5.441	6.254	5.479	3.674	5.253	3.563	*6.586*	NA	*NA*
1981	5.283	5.693	5.299	5.433	6.258	5.448	3.643	5.253	3.563	*6.562*	NA	*NA*
1982	5.266	5.698	5.247	5.423	6.258	5.415	3.615	5.253	3.563	*6.539*	NA	*NA*
1983	5.140	5.591	5.254	5.416	6.255	5.406	3.614	5.253	3.563	*6.515*	NA	*NA*
1984	5.307	5.657	5.207	5.418	6.251	5.395	3.599	5.253	3.563	*6.492*	NA	*NA*
1985	5.263	5.598	5.199	5.423	6.247	5.387	3.603	5.253	3.563	*6.469*	NA	*NA*
1986	5.268	5.632	5.269	5.426	6.257	5.418	3.640	5.253	3.563	*6.446*	NA	*NA*
1987	5.239	5.594	5.233	5.429	6.249	5.403	3.659	5.253	3.563	*6.423*	NA	*NA*
1988	5.257	5.597	5.228	5.433	6.250	5.410	3.652	5.253	3.563	*6.400*	NA	*NA*
1989	5.194	5.549	5.219	5.438	[d]6.240	5.410	3.683	5.253	3.563	*6.377*	NA	*NA*
1990	5.145	5.553	5.253	5.442	6.244	5.411	3.625	5.253	3.563	*6.355*	NA	*NA*
1991	5.094	5.528	5.167	5.441	6.246	5.384	3.614	5.253	3.563	*6.332*	NA	*NA*
1992	5.124	5.513	5.168	5.443	6.238	5.378	3.624	5.253	3.563	*6.309*	NA	*NA*
1993	5.102	[b]5.505	[b]5.178	[b]5.436	6.230	[b]5.379	3.606	5.253	3.563	*6.287*	NA	*NA*
1994	5.098	5.515	5.150	5.424	6.213	5.361	3.635	[f]5.230	3.563	*6.264*	NA	*NA*
1995	5.063	5.478	5.121	5.417	6.188	5.341	3.623	5.215	3.563	*6.242*	NA	*NA*
1996	4.998	5.433	5.114	5.420	6.195	5.336	3.613	5.216	3.563	*6.220*	NA	*NA*
1997	4.989	5.391	5.120	5.416	6.199	5.336	3.616	5.213	3.563	*6.198*	NA	*NA*
1998	4.975	5.365	5.137	5.413	6.210	5.349	3.614	5.212	3.563	*6.176*	NA	*NA*
1999	4.902	5.291	5.092	5.413	6.205	5.328	3.616	5.211	3.563	*6.167*	NA	*NA*
2000	4.908	5.316	5.057	5.422	6.189	5.326	3.607	5.210	3.563	*6.159*	NA	*NA*
2001	4.937	5.325	5.142	5.412	6.199	5.345	3.614	5.210	3.563	*6.151*	5.359	*5.433*
2002	4.886	5.293	5.093	5.411	6.173	5.324	3.613	5.208	3.563	*6.143*	5.359	*5.433*
2003	4.907	5.307	5.142	5.409	6.182	5.340	3.629	5.207	3.563	*6.116*	5.359	*5.433*
2004	4.953	5.328	5.144	5.421	6.192	5.350	3.618	5.215	3.563	*6.089*	5.359	*5.433*
2005	4.916	5.364	5.178	5.427	6.188	5.365	3.620	5.218	3.563	*6.063*	5.359	*5.433*
2006	4.894	5.310	5.160	5.431	6.143	5.353	3.605	5.218	3.563	*6.036*	5.359	*5.433*
2007	4.850	5.298	5.127	5.434	6.151	5.346	3.591	5.219	3.563	*6.009*	5.359	*5.433*
2008	4.732	5.175	5.149	5.426	6.123	5.339	3.600	5.218	3.563	*5.983*	5.359	*5.433*
2009	4.691	5.266	5.018	[c]5.414	6.105	[c]5.301	3.558	5.218	3.563	*5.957*	5.359	*5.433*
2010	[E]4.701	[E]5.280	[E]5.014	[E]5.420	[P]6.085	[P]5.300	[P]3.558	[P]5.218	[P]3.561	*5.930*	5.359	*5.433*
2011	[E]4.701	[E]5.280	[E]5.014	[E]5.420	[E]6.085	[E]5.300	[E]3.558	[E]5.218	[E]3.561	*5.904*	5.359	*5.433*

[a] 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.

[b] Beginning in 1993, includes fuel ethanol blended into motor gasoline.

[c] Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

[d] 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.

[e] Electric power sector factors are weighted average heat contents for distillate fuel oil, petroleum coke, and residual fuel oil; they exclude other liquids.

[f] Quantity-weighted averages of the major components of liquefied petroleum gases are calculated by using heat content values shown in Table A1.

[g] 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 A3.

[h] Includes denaturant (petroleum added to ethanol to make it undrinkable). Fuel ethanol factors are weighted average heat contents for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline and motor gasoline blending components used as denaturant (5.253 million Btu per barrel). The factor for 2009 is used as the estimated factor for 1980-2008.

[i] Corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol), used as the factor to estimate total biomass inputs to the production of undenatured ethanol. Observed ethanol yields (gallons undenatured ethanol per bushel of corn) are 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; yields in other years are estimated. Corn is assumed to have a gross heat content of 0.392 million Btu per bushel. Undenatured ethanol is assumed to have a gross heat content of 3.539 million Btu per barrel.

[j] 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.gov/totalenergy/data/monthly/#appendices.

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[a]				
	Marketed	Dry	End-Use Sectors[b]	Electric Power Sector[c]	Total	Imports	Exports
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	[c]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	1,028	1,029	1,025	1,028	1,025	1,009
2004	1,104	1,026	1,026	1,027	1,026	1,025	1,009
2005	1,104	1,028	1,028	1,028	1,028	1,025	1,009
2006	1,103	1,028	1,028	1,028	1,028	1,025	1,009
2007	1,104	1,029	1,030	1,027	1,029	1,025	1,009
2008	1,100	1,027	1,027	1,027	1,027	1,025	1,009
2009	1,101	1,025	1,025	1,025	1,025	1,025	1,009
2010	[E]1,101	[E]1,024	[E]1,025	[P]1,022	[E]1,024	[E]1,025	[E]1,009
2011	[E]1,101	[E]1,024	[E]1,025	[E]1,022	[E]1,024	[E]1,025	[E]1,009

[a] Consumption factors are for natural gas, plus a small amount of supplemental gaseous fuels.
[b] Residential, commercial, industrial, and transportation sectors.
[c] 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.gov/totalenergy/data/monthly/#appendices.

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
			Consumption							
			Residential and Commercial Sectors	Industrial Sector		Electric Power Sector[d,e]				
	Production[a]	Waste Coal Supplied[b]		Coke Plants	Other[c]		Total	Imports	Exports	Imports and Exports
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	[b]10.391	23.650	26.800	22.347	[d]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	[a]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	20.208	12.121	21.887	26.281	22.348	19.713	19.977	25.000	25.399	24.800
2009	19.969	11.862	22.059	26.334	21.893	19.521	19.742	25.000	25.633	24.800
2010[P]	20.192	11.755	21.254	26.296	21.909	19.612	19.858	25.000	25.713	24.800
2011[E]	20.192	11.755	21.254	26.296	21.909	19.612	19.858	25.000	25.713	24.800

[a] 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).

[b] 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."

[c] Includes transportation. Excludes coal synfuel plants.

[d] 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.

[e] 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.gov/totalenergy/data/monthly/#appendices.

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[a] for Electricity Net Generation			Heat Content[f] of Electricity[g]
	Fossil Fuels[b,c]	Nuclear[d]	Geothermal[e]	
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	[c]10,333	10,443	21,017	3,412
2002	10,173	10,442	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	10,436	21,017	3,412
2006	9,919	10,436	21,017	3,412
2007	9,884	10,485	21,017	3,412
2008	9,854	10,453	21,017	3,412
2009	9,760	10,460	21,017	3,412
2010	[E] 9,760	[E] 10,460	[E] 21,017	3,412
2011	[E] 9,760	[E] 10,460	[E] 21,017	3,412

[a] The values in columns 1–3 of this table are for net heat rates. See "Heat Rate" in Glossary.
[b] Used as the thermal conversion factor for hydro, geothermal, solar thermal/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.
[c] 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.
[d] Used as the thermal conversion factor for nuclear electricity net generation.
[e] Technology-based thermal conversion factors for geothermal electricity net generation. Beginning with the April 2011 *Monthly Energy Review,* the technology-based geothermal heat rates are no longer used in Btu calculations in this report, but they are retained on this table for purposes of comparison.
[f] See "Heat Content" in Glossary.
[g] 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.gov/totalenergy/data/monthly/#appendices.
Sources: See "Thermal Conversion Factor Source Documentation," which follows this table.

Beginning with the April 2011 *Monthly Energy Review*, the fossil-fuels heat rates are used as the thermal conversion factors for geothermal electricity net generation in order to treat geothermal electricity net generation similarly to electricity net generation from other non-combustible renewable energy sources – hydroelectric power, wind, photovoltaic, and solar thermal energy. **The technology-based geothermal heat rates are no longer used in Btu calculations in this report**.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. The U.S. 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 (Denatured).**

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.gov/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.gov/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.gov/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.gov/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.

Ethanol (Undenatured). 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 (Denatured). 1981–2008: EIA used the 2009 factor. 2009 forward: Calculated by EIA as the annual quantity-weighted average of the thermal conversion factors for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline and motor gasoline blending components used as denaturant (5.253 million Btu per barrel). The quantity of ethanol consumed is from EIA's *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*, Table 1, data for renewable fuels and oxygenate plant net production of fuel ethanol. The quantity of pentanes plus used as denaturant is from PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of pentanes plus, multiplied by -1. The quantity of conventional motor gasoline and motor gasoline blending components used as denaturant is from PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of conventional motor gasoline and motor gasoline blending components, multiplied by -1.

Fuel Ethanol Feedstock. EIA used corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol) as the annual factor to estimate total biomass inputs to the production of undenatured ethanol. U.S. Department of Agriculture observed ethanol yields (gallons undenatured ethanol per bushel of corn) were 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; EIA estimated the 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, 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 forward, data are from Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing Plants"; Form EIA-923, "Power Plant Operations Report"; and predecessor forms.

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 hydroelectric power, wind, photovoltaic, solar thermal, and geothermal energy. 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 data reported on Form EIA-860, "Annual Electric Generator Report" (and predecessor forms); and net generation data reported 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. Beginning with the April 2011 *Monthly Energy Review*, the technology-based geothermal heat rates are no longer used in Btu calculations in this report, but they are retained on Table A6 for purposes of comparison.

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 forward: 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-923, "Power Plant Operations Report" (and predecessor forms).

B

Appendix

Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other U.S. 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[a]	kilograms (kg)
	1 pound uranium oxide (lb U_3O_8)	=	0.384 647[b]	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^3)
	1 cubic yard (yd^3)	=	0.764 555	cubic meters (m^3)
	1 cubic foot (ft^3)	=	0.028 316 85	cubic meters (m^3)
	1 U.S. gallon (gal)	=	3.785 412	liters (L)
	1 ounce, fluid (fl oz)	=	29.573 53	milliliters (mL)
	1 cubic inch (in^3)	=	16.387 06	milliliters (mL)
Length	1 mile (mi)	=	1.609 344[a]	kilometers (km)
	1 yard (yd)	=	0.914 4[a]	meters (m)
	1 foot (ft)	=	0.304 8[a]	meters (m)
	1 inch (in)	=	2.54[a]	centimeters (cm)
Area	1 acre	=	0.404 69	hectares (ha)
	1 square mile (mi^2)	=	2.589 988	square kilometers (km^2)
	1 square yard (yd^2)	=	0.836 127 4	square meters (m^2)
	1 square foot (ft^2)	=	0.092 903 04[a]	square meters (m^2)
	1 square inch (in^2)	=	6.451 6[a]	square centimeters (cm^2)
Energy	1 British thermal unit (Btu)[c]	=	1,055.055 852 62[a]	joules (J)
	1 calorie (cal)	=	4.186 8[a]	joules (J)
	1 kilowatthour (kWh)	=	3.6[a]	megajoules (MJ)
Temperature[d]	32 degrees Fahrenheit (°F)	=	0[a]	degrees Celsius (°C)
	212 degrees Fahrenheit (°F)	=	100[a]	degrees Celsius (°C)

[a]Exact conversion.
[b]Calculated by the U.S. Energy Information Administration.
[c]The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.
[d]To convert degrees Fahrenheit (ºF) to degrees Celsius (ºC) 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.gov/totalenergy/data/monthly/#appendices.

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

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
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	µ
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.gov/totalenergy/data/monthly/#appendices.
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

Energy Source	Original Unit		Equivalent in Final Units	
Petroleum	1 barrel (bbl)	=	42[a]	U.S. gallons (gal)
Coal	1 short ton	=	2,000[a]	pounds (lb)
	1 long ton	=	2,240[a]	pounds (lb)
	1 metric ton (t)	=	1,000[a]	kilograms (kg)
Wood	1 cord (cd)	=	1.25[b]	shorts tons
	1 cord (cd)	=	128[a]	cubic feet (ft^3)

[a]Exact conversion.
[b]Calculated by the U.S. Energy Information Administration.
Web Page: http://www.eia.gov/totalenergy/data/monthly/#appendices.
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; $CH(3)-(CH(2))_n-OH$ (e.g., **methanol**, **ethanol**, and tertiary butyl alcohol). See **Fuel Ethanol.**

Alternative Fuel: Alternative fuels, for transportation applications, include the following: **methanol**; denatured **ethanol**, and other **alcohols**; fuel mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with **motor gasoline** or other fuels; **natural gas**; **liquefied petroleum gas** (**propane**); **hydrogen**; **coal**-derived liquid fuels; fuels (other than alcohol) derived from biological materials (**biofuels** such as soy **diesel fuel**); **electricity** (including electricity from **solar energy**); and "... any other fuel the Secretary determines, by rule, is substantially not **petroleum** and would yield substantial energy security benefits and substantial environmental benefits." The term "alternative fuel" does not include alcohol or other blended portions of primarily petroleum-based fuels used as **oxygenates** or extenders, i.e., **MTBE**, ETBE, other ethers, and the 10-percent ethanol portion of **gasohol**.

Alternative-Fuel Vehicle (AFV): A vehicle designed to operate on an **alternative fuel** (e.g., compressed **natural gas**, **methane** blend, or **electricity**). The vehicle could be either a dedicated vehicle designed to operate exclusively on alternative fuel or a nondedicated vehicle designed to operate on alternative fuel and/or a traditional fuel.

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.

Anthropogenic: Made or generated by a human or caused by human activity. The term is used in the context of global **climate change** to refer to gaseous emissions that are the result of human activities, as well as other potentially climate-altering activities, such as deforestation.

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 U.S. 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.gov/totalenergy/data/monthly/#appendices 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 10.9º 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 31.1º 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.

Carbon Dioxide (CO_2): A colorless, odorless, non-poisonous gas that is a normal part of Earth's atmosphere. Carbon dioxide is a product of **fossil-fuel** combustion as well as other processes. It is considered a **greenhouse gas** as it traps heat (infrared energy) radiated by the Earth into the atmosphere and thereby contributes to the potential for **global warming**. The **global warming potential** (GWP) of other greenhouse gases is measured in relation to that of carbon dioxide, which by international scientific convention is assigned a value of one (1).

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.

Climate Change: A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, "climate change" has been used synonymously with the term "**global warming**"; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

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 2,000º 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.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.gov/totalenergy/data/monthly/#appendices and http://www.eia.gov/totalenergy/data/monthly/#appendices 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 60º 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.

Denaturant: Petroleum, typically **pentanes plus** or **conventional motor gasoline**, added to **fuel ethanol** to make it unfit for human consumption. Fuel ethanol is denatured, usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent denaturant. See **Fuel Ethanol** and **Fuel Ethanol Minus Denaturant**.

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**.

E85: A fuel containing a mixture of 85 percent **ethanol** and 15 percent **motor gasoline**.

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 -127.48º F. It is extracted from natural gas and refinery gas streams.

Ethanol (C_2H_5OH): A clear, colorless, flammable **alcohol**. Ethanol is typically produced biologically from **biomass** feedstocks such as agricultural crops and cellulosic residues from agricultural crops or wood. Ethanol can also be produced chemically from **ethylene**. See **Biomass**, **Fuel Ethanol**, and **Fuel Ethanol Minus Denaturant**.

Ethylene: An olefinic hydrocarbon (C2H4) 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 U.S. 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 U.S. 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 U.S. Department of Energy was created. Its functions were divided between the U.S. 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: Ethanol intended for fuel use. Fuel ethanol in the United States must be anhydrous (less than 1 percent water). Fuel ethanol is denatured (made unfit for human consumption), usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent petroleum, typically **pentanes plus** or **conventional motor gasoline**. Fuel ethanol is used principally for blending in low concentrations with **motor gasoline** as an **oxygenate** or octane enhancer. In high concentrations, it is used to fuel **alternative-fuel vehicles** specially designed for its use. See **Alternative-Fuel Vehicle**, **Denaturant**, **E85**, **Ethanol**, **Fuel Ethanol Minus Denaturant**, and **Oxygenates**.

Fuel Ethanol Minus Denaturant: An unobserved quantity of anhydrous, **biomass**-derived, undenatured **ethanol** for fuel use. The quantity is obtained by subtracting the estimated **denaturant** volume from **fuel ethanol** volume. Fuel ethanol minus denaturant is counted as **renewable energy**, while denaturant is counted as **nonrenewable fuel**. See **Denaturant**, **Ethanol**, **Fuel Ethanol**, **Nonrenewable Fuels**, **Oxygenates**, and **Renewable Energy**.

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.

Global Warming: An increase in the near-surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased **anthropogenic** emissions of **greenhouse gases**. See **Climate Change**.

Global Warming Potential (GWP): An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emission of one kilogram of a **greenhouse gas** to that from the emission of one kilogram of **carbon dioxide** over a fixed period of time, such as 100 years.

Greenhouse Gases: Those gases, such as water vapor, **carbon dioxide**, nitrous oxide, **methane**, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

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 U.S. 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.

Hydrogen (H): The lightest of all gases, hydrogen occurs chiefly in combination with oxygen in water. It also exists in acids, bases, **alcohols**, **petroleum**, and other **hydrocarbons**.

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.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 isused 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 401º F at the 10-percent recovery point, a final boiling point of 572º F, and a minimum flash point of 100º 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 -260º 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 (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, $(CH_3)_3COCH_3$, intended for motor gasoline blending. See **Oxygenates**.

Methanol: A light, volatile alcohol (CH_3OH) eligible for motor gasoline blending. See **Oxygenates**.

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere-for example, petrolatum, 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 122ºF to 158ºF at the 10-percent recovery point to 365ºF to 374ºF 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/eos/www/naics/.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400º 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.

Nonrenewable Fuels: Fuels that cannot be easily made or "renewed," such as **crude oil**, **natural gas**, and **coal**.

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): An international organization helping governments tackle the economic, social and governance challenges of a globalized economy. Its membership comprises about 30 member countries. With active relationships with some 70 other countries, non-governmental organizations (NGOs) and civil society, it has a global reach. For details about the organization, see http://www.oecd.org.

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 U.S. 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). See **Total Energy Consumption**.

Primary Energy Production: Production of **primary energy**. The U.S. 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 -43.67º 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**, **oxygenates** (excluding **fuel ethanol**), and renewable fuels (including fuel ethanol). 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.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.**

Total Energy Consumption: **Primary energy consumption** in the **end-use sectors**, plus **electricity retail sales** and **electrical system energy losses**.

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.gov/neic/datadefinitions/Guideforwebtrans.htm
See **End-Use Sectors** and **Energy-Use Sectors**.

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.