

Monthly Energy Review

On the Web at: www.eia.doe.gov/mer

January 2001



www.eia.doe.gov

Energy Information Administration

More on Renewable Energy
(See New Appendix E)

Energy Plug:
Energy Education Resources

Monthly Energy Review

The *Monthly Energy Review (MER)* presents an overview of the Energy Information Administration's recent monthly energy statistics. The statistics cover the major activities of U.S. production, consumption, trade, stocks, and prices for petroleum, natural gas, coal, electricity, and nuclear energy. Also included are international energy and thermal and metric conversion factors.

Publication of this report is in keeping with responsibilities given to the Energy Information Administration (EIA) in Public Law 95-91 (Department of Energy Organization Act), which states, in part, in Section 205(a)(2), that:

"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 data series in the *MER* and in other EIA publications.

Related publications: Other monthly EIA reports are *Petroleum Supply Monthly*, *Petroleum Marketing Monthly*, *Natural Gas Monthly*, *Electric Power Monthly*, and *International Petroleum Statistics Report*.

Readers of the *MER* may also be interested in EIA's *Annual Energy Review*, where many of the same data series are provided annually beginning with 1949. Contact our National Energy Information Center at 202-586-8800 for more information or go to <http://www.eia.doe.gov/aer>.

Ordering Information

Complimentary subscriptions and single issues are available to certain groups of subscribers, such as public and academic libraries; Federal, State, local, and foreign governments; EIA survey respondents; and the media. For further information and for answers to questions on energy statistics, contact:

National Energy Information Center, EI-30
Energy Information Administration
Forrestal Building, Room 1E-238
Washington, DC 20585
202-586-8800
Fax: 202-586-0727
Internet E-Mail: infoctr@eia.doe.gov
TTY: For people who are deaf
or hard of hearing: 202-586-1181
9 a.m. to 5 p.m., eastern time, M-F

This publication and other EIA publications may be **purchased** from the Superintendent of Documents, U.S. Government Printing Office. Orders may be directed to:

Superintendent of Documents
U.S. Government Printing Office
P.O. Box 371954
Pittsburgh, PA 15250-7954
202-512-1800
Fax: 202-512-2250
7:30 a.m. to 5:00 p.m., eastern time, M-F

The *Monthly Energy Review* (ISSN 0095-7356) is published monthly by the Energy Information Administration, 1000 Independence Avenue, SW, Washington, DC 20585, and sells for \$98.00 per year (price subject to change without advance notice). Periodical postage paid at Washington, DC 20066-9998, and additional mailing offices. POSTMASTER: Send address changes to *Monthly Energy Review*, Energy Information Administration, EI-30, 1000 Independence Avenue, SW, Washington, DC 20585-0623.

Electronic Access

The *Monthly Energy Review (MER)* is available on the Energy Information Administration (EIA) website in a wide variety of formats at: <http://www.eia.doe.gov/mer>

* Tables: ASCII text (TXT) and Portable Document Format (PDF) files.

* Table Data Files: Excel (XLS) and Lotus (WK1).

* Database Files (unrounded monthly data 1973 forward): Excel (XLS) files.

* Graph pages, *MER* sections, and complete *MER*: PDF files.

Complete *MER* PDF files are also available on the EIA "Energy Info Disk" through the U.S. Department of Commerce at 1-800-STAT-USA.

Also available are ASCII comma delimited data files at:
<http://www.eia.doe.gov/pub/energy/overview/monthly.energy/current.mer>

Cover Image: Optical glass fibers, though many times thinner than a human hair, carry vastly greater quantities of data than metallic wires, occupy less space, and are more secure. First introduced in the 1970s, high-purity optical fibers are capable of transmitting data over long distances and have replaced wires in many telecommunications, computing, and electronics applications.

Timing of Release: *MER* data are normally released in the afternoon of the third-to-last workday of each month and are usually available electronically the following day.



Monthly Energy Review

January 2001

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

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

Contacts

The *Monthly Energy Review* is prepared in the Integrated Energy Statistics Division of the Office of Energy Markets and End Use, Energy Information Administration, under the direction of Katherine E. Seiferlein, 202-586-5695 (kitty.seiferlein@eia.doe.gov). Questions and comments specifically related to the *Monthly Energy Review* may be addressed to Chuck Allen, 202-586-5828 (chuck.allen@eia.doe.gov), Diane Perritt, 202-586-2788 (diane.perritt@eia.doe.gov), or Michelle Burch, 202-586-5850 (michelle.burch@eia.doe.gov).

For assistance in acquiring data, please contact the **National Energy Information Center at 202-586-8800 or infoctr@eia.doe.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.doe.gov
Section 2. Energy Consumption by Sector	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.doe.gov
Section 3. Petroleum	Michael Conner	202-586-1795 michael.conner@eia.doe.gov
Section 4. Natural Gas	Ann M. Ducca	202-586-6137 ann.ducca@eia.doe.gov
Section 5. Oil and Gas Resource Development	Robert F. King	202-586-4787 robert.king@eia.doe.gov
Section 6. Coal	Mary L. Lilly	202-287-1742 mary.lilly@eia.doe.gov
Section 7. Electricity		
Electric Utilities	Melvin E. Johnson	202-287-1754 melvin.johnson@eia.doe.gov
Nonutility Power Producers	Barbara A. Rucker	202-287-1765 barbara.rucker@eia.doe.gov
Retail Sales	Deborah Johnson	202-287-1970 deborah.johnson@eia.doe.gov
Section 8. Nuclear Energy	John R. Moens	202-287-1976 john.moens@eia.doe.gov
Section 9. Energy Prices		
Petroleum	Patricia Wells	202-586-4885 patricia.wells@eia.doe.gov
Natural Gas	Roy Kass	202-586-4790 nathaniel.kass@eia.doe.gov
Electricity Retail Prices	Deborah Johnson	202-287-1970 deborah.johnson@eia.doe.gov
Electricity Fossil-Fuel Receipts	Kenneth M. McClevey	202-287-1732 kenneth.mcclevey@eia.doe.gov
Section 10. International Energy		
Petroleum Production	Patricia Smith	202-586-6925 patricia.smith@eia.doe.gov
Petroleum Consumption and Stocks	H. Vicky McLaine	202-586-9412 harriet.mclaine@eia.doe.gov
Nuclear Electricity Gross Generation	John R. Moens	202-287-1976 john.moens@eia.doe.gov

Contents

	Page
Energy Plug: <i>Energy Education Resources</i>	ix
Section 1. Energy Overview	1
Section 2. Energy Consumption by Sector	23
Section 3. Petroleum	41
Section 4. Natural Gas	71
Section 5. Oil and Gas Resource Development	81
Section 6. Coal	85
Section 7. Electricity	93
Section 8. Nuclear Energy	109
Section 9. Energy Prices	115
Section 10. International Energy	135
Appendix A. Thermal Conversion Factors	151
Appendix B. Metric and Other Physical Conversion Factors	161
Appendix C. Carbon Dioxide Emission Factors for Coal	165
Appendix D. List of Features	167
Appendix E. Renewable Energy	173
Glossary	181

Tables

	Page
Section 1. Energy Overview	
1.1 Energy Summary for October 2000	1
1.2 Energy Overview	3
1.3 Energy Production by Source.	5
1.4 Energy Consumption by Source.	7
1.5 Energy Net Imports by Source.	9
1.6 Merchandise Trade Value	11
1.7 Cost of Fuels to End Users in Constant (1982-1984) Dollars	13
1.8 Overview of U.S. Petroleum Trade	15
1.9 Energy Consumption per Dollar of Gross Domestic Product	16
1.10 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates.	17
1.11 Heating Degree-Days by Census Division.	18
1.12 Cooling Degree-Days by Census Division	19
Section 2. Energy Consumption by Sector	
2.1 Energy Consumption by Sector	25
2.2 Residential Sector Energy Consumption	27
2.3 Commercial Sector Energy Consumption	29
2.4 Industrial Sector Energy Consumption	31
2.5 Transportation Sector Energy Consumption	33
2.6 Electric Power Sector Energy Consumption	35
Section 3. Petroleum	
3.1 Petroleum Overview	
3.1a Field Production, Stock Change, Petroleum Products Supplied, and Stocks.	42
3.1b Imports, Exports, and Net Imports	43
3.2 Crude Oil Supply and Disposition	
3.2a Supply	46
3.2b Disposition and Stocks	47
3.3 Petroleum Imports From	
3.3a Bahrain, Iran, Iraq, and Kuwait	48
3.3b Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf	49
3.3c Algeria, Ecuador, Gabon, Indonesia, and Libya	50
3.3d Nigeria, Venezuela, Total Other OPEC, and Total OPEC	51
3.3e Angola, Australia, Bahamas, Brazil, Canada, and China	52
3.3f Colombia, Ecuador, Gabon, Italy, Malaysia, and Mexico	53
3.3g Netherlands, Netherlands Antilles, Norway, Puerto Rico, Russia, and Spain	54
3.3h Trinidad and Tobago, United Kingdom, U.S. Virgin Islands, Other Non-OPEC, Total Non-OPEC, and Total Imports	55
3.4 Finished Motor Gasoline Supply and Disposition	57
3.5 Distillate Fuel Oil Supply and Disposition	59
3.6 Residual Fuel Oil Supply and Disposition.	61
3.7 Jet Fuel Supply and Disposition.	63
3.8 Liquefied Petroleum Gases Supply and Disposition	65
3.9 Propane and Propylene Supply and Disposition	67
3.10 Other Petroleum Products Supply and Disposition	68
Section 4. Natural Gas	
4.1 Natural Gas Overview	73
4.2 Natural Gas Production	74
4.3 Natural Gas Trade by Country	75
4.4 Natural Gas Consumption by End-Use Sector.	76
4.5 Natural Gas in Underground Storage.	77
Section 5. Oil and Gas Resource Development	
5.1 Oil and Gas Drilling Activity Measurements.	82
5.2 Oil and Gas Wells Drilled	83

Tables (Continued)

	Page
Section 6. Coal	
6.1 Coal Overview	87
6.2 Coal Consumption by End-Use Sector	88
6.3 Coal Stocks.	89
Section 7. Electricity	
7.1 Electricity Overview	95
7.2 Electricity Net Generation	97
7.3 Electricity Net Generation at Electric Utilities	98
7.4 Electricity Net Generation at Nonutility Power Producers	99
7.5 Electricity End Use	101
7.6 Consumption of Fossil Fuels To Generate Electricity	103
7.7 Consumption of Fossil Fuels To Generate Electricity at Electric Utilities	104
7.8 Consumption of Fossil Fuels To Generate Electricity at Nonutility Power Producers	105
7.9 Electric Power Sector Stocks of Coal and Petroleum	107
Section 8. Nuclear Energy	
8.1 Nuclear Power Plant Operations	111
8.2 Nuclear Generating Unit	112
Section 9. Energy Prices	
9.1 Crude Oil Price Summary	117
9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries	118
9.3 Landed Costs of Crude Oil Imports From Selected Countries	120
9.4 Motor Gasoline Retail Prices, U.S. City Average	121
9.5 Refiner Prices of Residual Fuel Oil	122
9.6 Refiner Prices of Petroleum Products for Resale.	122
9.7 Refiner Prices of Petroleum Products to End Users.	123
9.8 No. 2 Distillate Prices to Residences	
9.8a Northeastern States	124
9.8b Selected South Atlantic and Midwestern States	125
9.8c Selected Western States and U.S. Average	126
9.9 Retail Prices of Electricity Sold by Electric Utilities.	128
9.10 Quantity and Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants	129
9.11 Natural Gas Prices	131
Section 10. International Energy	
10.1 World Oil Production	
10.1a OPEC Members	136
10.1b Persian Gulf Nations, Non-OPEC, and World	137
10.2 Petroleum Consumption in OECD Countries	141
10.3 Petroleum Stocks in OECD Countries	143
10.4 Nuclear Electricity Gross Generation	
10.4a Regions and World	145
10.4b North, Central, and South America	146
10.4c Western Europe	147
10.4d Eastern Europe and Former U.S.S.R.	148
10.4e Africa and Far East	149
Appendix A. Thermal Conversion Factors	
A1. Approximate Heat Content of Petroleum Products	151
A2. Approximate Heat Content of Crude Oil, Crude Oil and Products, and Natural Gas Plant Liquids	152
A3. Approximate Heat Content of Petroleum Products, Weighted Averages	153
A4. Approximate Heat Content of Natural Gas	154
A5. Approximate Heat Content of Coal	155
A6. Approximate Heat Rates for Electricity.	156

Tables (Continued)

	Page
Appendix B. Metric and Other Physical Conversion Factors	
B1. Metric Conversion Factors	162
B2. Metric Prefixes	163
B3. Other Physical Conversion Factors	163
Appendix C. Carbon Dioxide Emission Factors for Coal	
C1. Average Carbon Dioxide Emission Factors for Coal by Sector	163
Appendix E. Renewable Energy	
E1. Renewable Energy Consumption by Source	174
E2. Renewable Energy Consumption by End-Use Sector	175
E3a. Renewable Energy Consumption by the Electric Power Sector	176
E3b. Renewable Energy Consumption by the Electric Power Sector	177

Figures

	Page
Section 1. Energy Overview	
1.1 Energy Overview	2
1.2 Energy Production	4
1.3 Energy Consumption	6
1.4 Energy Net Imports	8
1.5 Merchandise Trade Value	10
1.6 Cost of Fuels to End Users in Constant (1982-1984) Dollars	12
1.7 Overview of U.S. Petroleum Trade	14
1.8 Energy Consumption per Dollar of Gross Domestic Product	16
1.9 Motor Vehicle Fuel Rates	17
Section 2. Energy Consumption by Sector	
2.1 Energy Consumption by Sector	24
2.2 Residential Sector Energy Consumption	26
2.3 Commercial Sector Energy Consumption	26
2.4 Industrial Sector Energy Consumption	30
2.5 Transportation Sector Energy Consumption	32
2.6 Electric Power Sector Energy Consumption	34
Section 3. Petroleum	
3.1a Petroleum Overview	44
3.1b Petroleum Overview	45
3.2 Finished Motor Gasoline	56
3.3 Distillate Fuel	58
3.4 Residual Fuel	60
3.5 Jet Fuel	62
3.6 Liquefied Petroleum Gases	64
3.7 Propane and Propylene	66
Section 4. Natural Gas	
4.1 Natural Gas	72
Section 5. Oil and Gas Resource Development	
5.1 Oil and Gas Resource Development Indicators	81
Section 6. Coal	
6.1 Coal	86
Section 7. Electricity	
7.1 Electricity Overview	94
7.2 Electric Utility Retail Sales of Electricity	96
7.3 Electricity End Use	100
7.4 Consumption of Fossil Fuels To Generate Electricity	102
7.5 Electric Power Sector Stocks of Coal and Petroleum	106
Section 8. Nuclear Energy	
8.1 Nuclear Power Plant Operations	110
Section 9. Energy Prices	
9.1 Petroleum Prices	116
9.2 Retail Prices of Electricity Sold by Electric Utilities	127
9.3 Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants	127
9.4 Natural Gas Prices	130
Section 10. International Energy	
10.1 Crude Oil Production	138
10.2 Crude Oil Production by Selected Country	139
10.3 Petroleum Consumption in OECD Countries	140
10.4 Petroleum Stocks in OECD Countries	142
10.5 Nuclear Electricity Gross Generation	144

Energy Plug



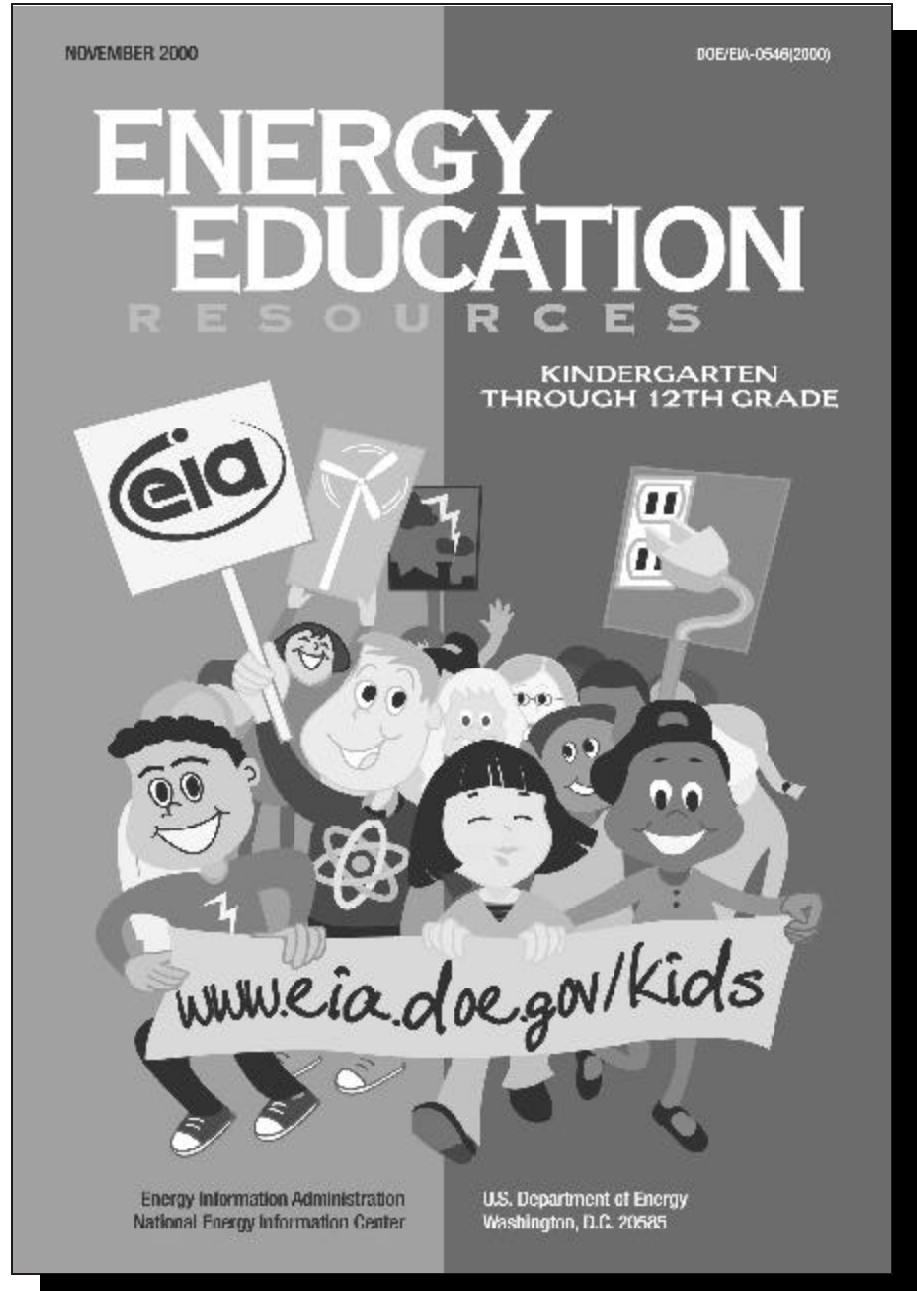
Energy Education Resources

Students and teachers looking for a comprehensive guide to sources of information about energy and energy-related topics need look no further than *Energy Education Resources: Kindergarten Through 12th Grade*, recently updated and released by the Energy Information Administration.

The new edition of *Energy Education Resources (EER)* contains 159 entries for nonprofit organizations, businesses, government agencies, energy producers, universities, and other groups that exist to provide energy information in various forms or do so as an adjunct to their primary activities.

The *EER*'s listings are shown alphabetically and range from the Air & Waste Management Association and the Alliance to Save Energy to Women in Mining, Inc. and Xcel Energy. Each entry includes the address, telephone number, and a brief description of the organization and the energy-related materials it offers. Most of the entries also include Internet and e-mail addresses. Entries are cross-referenced in a subject index at the back of the publication.

Please note that some organizations express policy positions on energy issues in the materials they offer. The Energy Information Administration, as the independent statistical agency within the Department of Energy, does not advocate any policy position, and makes *EER* available strictly for the purpose of helping students and educators to locate materials.



Energy Education Resources: Kindergarten Through 12th Grade, DOE/EIA-0546(2000); 107 pages. To access the booklet via the Internet, go to www.eia.doe.gov and click on Kids' Page and then On line Resources. Contact wmaster@eia.doe.gov or call 202-586-8959 if you have problems. To obtain a hard copy, contact the National Energy Information Center (NEIC) at infoctr@eia.doe.gov or 202-586-8800. Questions about the booklet's content should be directed to Paula Altman at paula.altman@eia.doe.gov or 202-586-8800. For general information about energy, contact NEIC.

Section 1. Energy Overview

Energy production during October 2000 totaled 6.1 quadrillion Btu, a 1.8-percent increase compared with the level of production during October 1999. Production of coal increased 7.0 percent; crude oil decreased 2.1 percent; natural gas plant liquids decreased 1.8 percent; natural gas (dry) increased 1.5 percent; and nuclear electric power decreased 0.6 percent, compared with the level of production during October 1999.

Energy consumption during October 2000 totaled 7.8 quadrillion Btu, 0.4 percent below the level of consumption during October 1999. Consumption of coal

increased 3.9 percent; natural gas decreased 1.7 percent; petroleum decreased 0.8 percent; and nuclear electric power decreased 0.6 percent, compared with the level 1 year earlier.

Net imports of energy during October 2000 totaled 2.0 quadrillion Btu, 3.2 percent above the level of net imports 1 year earlier. Net imports of petroleum products decreased 23.3 percent; crude oil increased 3.5 percent; and natural gas rose 1.4 percent. Net imports of coal coke increased 48.2 while net imports of coal fell 41.3 percent, compared with the level in October 1999.

Table 1.1 Energy Summary for October 2000
(Quadrillion Btu)

	October			Cumulative January Through October				
	2000	1999	Percent Change ^a	2000	2000 Daily Rate	1999	1999 Daily Rate	Percent Change ^b
Production^c	6.071	5.966	1.8	60.142	0.197	60.264	0.198	-0.5
Fossil Fuels	4.964	4.833	2.7	47.762	.157	47.828	.157	-.5
Coal	2.058	1.924	7.0	19.199	.063	19.419	.064	-1.5
Natural Gas (Dry)	^E 1.637	1.613	1.5	^E 16.030	^E .053	15.984	.053	.0
Crude Oil ^d	^E 1.046	1.069	-2.1	^E 10.312	^E .034	10.343	.034	-.6
Natural Gas Plant Liquids .....	.223	.227	-1.8	2.220	.007	2.082	.007	6.3
Nuclear Electric Power .....	.587	.591	-.6	6.655	.022	6.364	.021	4.2
Renewable Energy .....	.524	.548	-4.3	5.773	.019	6.127	.020	-6.1
Consumption^e	7.784	7.813	-.4	81.139	.266	80.363	.264	.6
Fossil Fuels ^f	6.677	6.667	.1	68.642	.225	67.860	.223	.8
Coal	1.812	1.745	3.9	18.320	.060	17.980	.059	1.6
Natural Gas ^g	^F 1.599	1.627	-1.7	^E 18.628	^E .061	18.243	.060	1.8
Petroleum ^h	3.254	3.282	-.8	31.522	.103	31.523	.104	-.3
Nuclear Electric Power .....	.587	.591	-.6	6.655	.022	6.364	.021	4.2
Renewable Energy ^e .....	.537	.571	-5.9	6.002	.020	6.289	.021	-4.9
Net Imports	2.016	1.954	3.2	20.225	.066	20.041	.066	.6
Fossil Fuels ⁱ	2.003	1.931	3.7	19.997	.066	19.879	.065	.3
Coal ^j	-.082	-.139	-41.3	-1.003	-.003	-1.112	-.004	-10.2
Coal Coke .....	.006	.004	48.2	.061	(s)	.043	(s)	41.8
Natural Gas	^E .305	.301	1.4	^E 2.921	^E .010	2.892	.010	.7
Crude Oil ^k	1.632	1.576	3.5	16.077	.053	15.741	.052	1.8
Petroleum Products ^l .....	.136	.178	-23.3	1.829	.006	2.245	.007	-18.8
Renewable Energy ^m	^E .013	^E .023	-44.0	^E .228	^E .001	^E .163	^E .001	40.1

^a Based on data prior to rounding.

^b Based on daily rates prior to rounding.

^c Total production also includes hydroelectricity generated from pumped storage.

^d Includes lease condensate.

^e Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Renewable Energy," but is counted only once in total energy consumption.

^f Fossil fuel consumption also includes coal coke net imports and electricity net imports from fossil fuels.

^g Includes supplemental gaseous fuels.

^h Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.

ⁱ Fossil fuel net imports also include electricity net imports from fossil fuels.

^j Minus sign indicates exports are greater than imports.

^k Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

^l Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

^m Electricity net imports derived from hydroelectric power or geothermal energy.

(s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu. E=Estimate. F=Forecast.

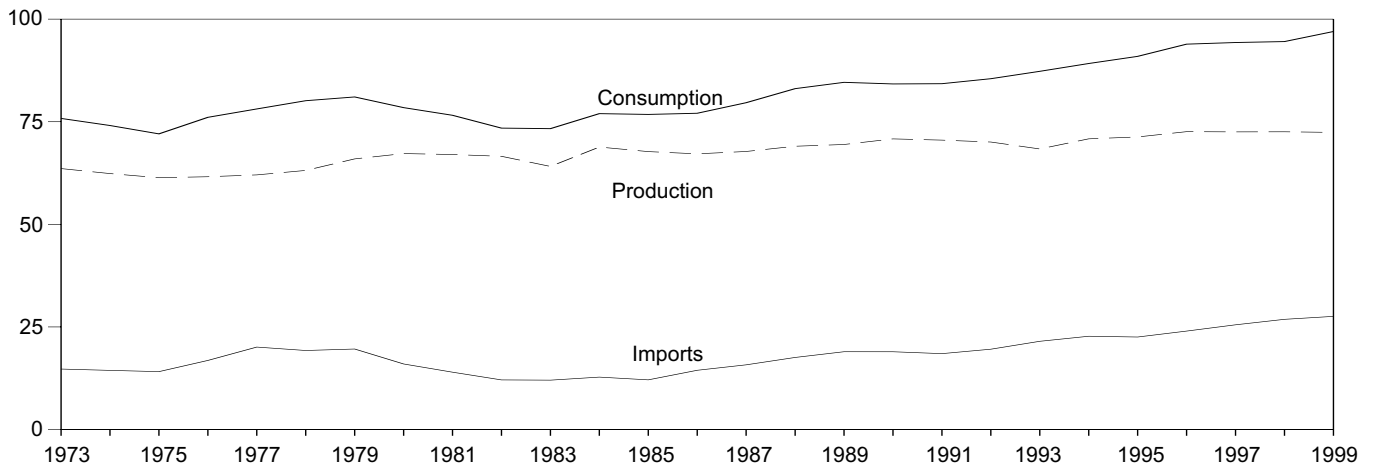
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: Tables 1.3, 1.4, and 1.5.

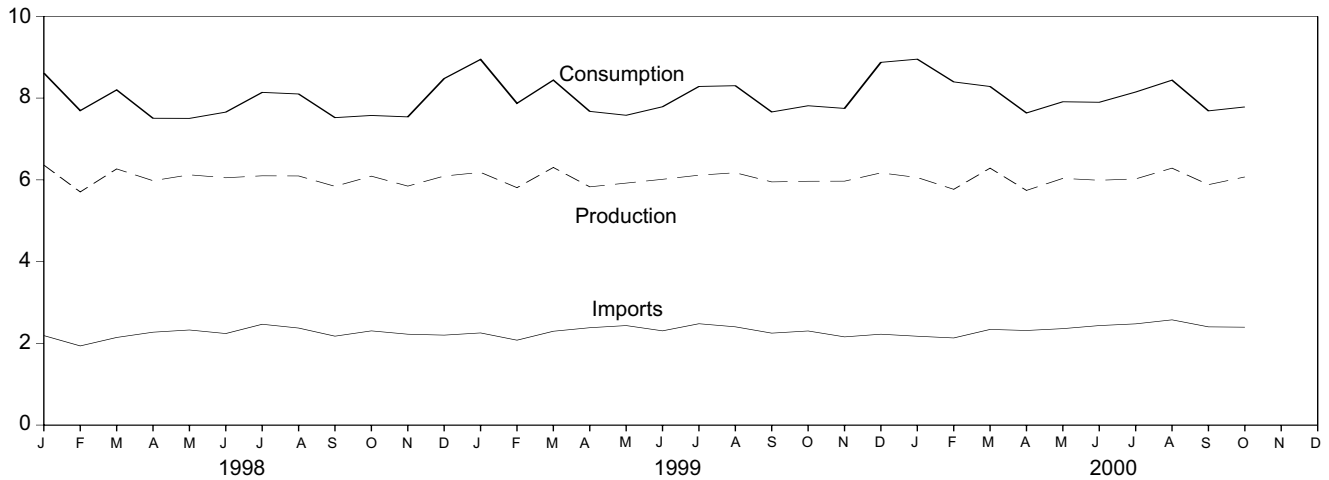
This table is redesigned to incorporate additional renewable energy data. See Appendix E for further information.

Figure 1.1 Energy Overview
(Quadrillion Btu)

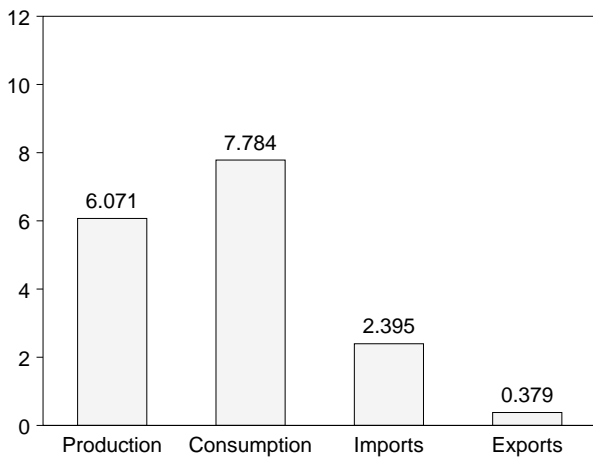
Consumption, Production, and Imports, 1973-1999



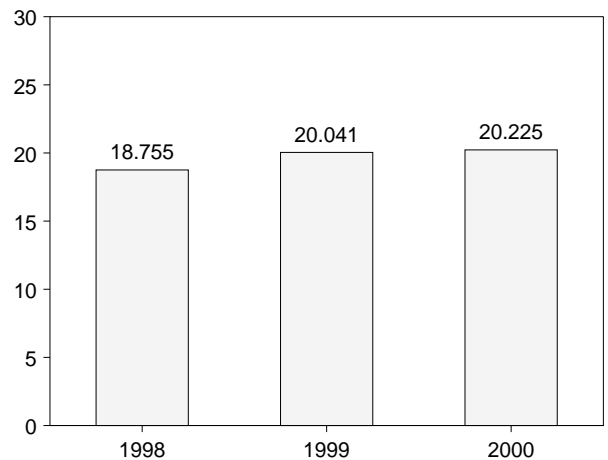
Consumption, Production, and Imports, Monthly



Overview, October 2000



Net Imports, January-October



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.2.

Table 1.2 Energy Overview
(Quadrillion Btu)

	Production	Consumption ^a	Imports	Exports	Net Imports
1973 Total	R 63.585	R 75.808	14.731	2.051	12.680
1974 Total	R 62.372	R 74.080	14.413	2.223	12.190
1975 Total	R 61.357	R 72.042	14.111	2.359	11.752
1976 Total	R 61.602	R 76.072	16.837	2.188	14.648
1977 Total	R 62.052	R 78.122	20.090	2.071	18.019
1978 Total	R 63.137	R 80.123	19.254	1.931	17.323
1979 Total	R 65.948	R 81.044	19.616	2.870	16.746
1980 Total	R 67.241	R 78.435	15.971	3.723	12.247
1981 Total	R 67.007	R 76.569	13.975	4.329	9.646
1982 Total	R 66.574	R 73.440	12.092	4.633	7.460
1983 Total	R 64.106	R 73.317	12.027	3.717	8.310
1984 Total	R 68.832	R 76.972	12.767	3.804	8.963
1985 Total	R 67.720	R 76.778	12.103	4.231	7.872
1986 Total	R 67.178	R 77.065	14.438	4.055	10.382
1987 Total	R 67.760	R 79.633	15.764	3.853	11.911
1988 Total	R 69.025	R 83.068	17.564	4.415	13.149
1989 Total	R 69.457	R 84.607	R 18.955	4.767	R 14.188
1990 Total	R 70.822	R 84.214	R 18.952	4.865	R 14.087
1991 Total	R 70.515	R 84.271	R 18.497	5.157	R 13.339
1992 Total	R 70.056	R 85.491	R 19.577	4.957	R 14.621
1993 Total	R 68.367	R 87.281	R 21.498	4.283	R 17.215
1994 Total	R 70.836	R 89.189	R 22.726	4.075	R 18.651
1995 Total	R 71.291	R 90.924	R 22.541	4.536	R 18.005
1996 Total	R 72.583	R 93.902	R 23.992	4.658	R 19.334
1997 Total	R 72.532	R 94.307	25.516	4.574	20.942
1998 January	R 6.362	R 8.614	2.190	.414	1.776
February	R 5.705	R 7.694	1.937	.324	1.614
March	R 6.268	R 8.201	2.144	.366	1.778
April	R 5.979	R 7.506	2.273	.375	1.897
May	R 6.123	R 7.503	2.327	.406	R 1.921
June	R 6.051	R 7.657	2.240	.377	1.863
July	R 6.099	R 8.140	2.467	.371	2.096
August	R 6.095	R 8.101	2.374	.333	2.041
September	R 5.841	R 7.522	2.176	.351	1.825
October	R 6.090	R 7.576	2.305	.359	1.946
November	R 5.847	R 7.541	2.223	.313	1.910
December	R 6.093	R 8.478	2.201	.354	1.847
Total	R 72.553	R 94.537	26.857	4.344	22.513
1999 January	R 6.183	R 8.947	2.255	.307	1.948
February	R 5.809	R 7.872	2.077	.252	1.825
March	R 6.303	R 8.440	2.296	.292	2.004
April	R 5.829	R 7.675	2.382	.357	2.025
May	R 5.921	R 7.580	2.435	.305	2.131
June	R 6.014	R 7.788	2.306	.321	1.984
July	R 6.114	R 8.285	2.480	.322	2.158
August	R 6.174	R 8.303	2.404	.333	2.071
September	R 5.950	R 7.661	2.250	.308	1.942
October	R 5.966	R 7.813	2.303	.349	1.954
November	R 5.968	R 7.748	2.158	.324	1.834
December	R 6.171	R 8.875	2.223	.356	1.867
Total	R 72.404	R 96.991	27.569	3.826	23.743
2000 January	R 6.057	R 8.953	2.174	.329	1.845
February	R 5.768	R 8.397	2.132	.270	1.862
March	R 6.286	R 8.284	2.340	.373	1.967
April	R 5.742	R 7.636	2.315	.317	1.998
May	R 6.036	R 7.911	2.360	.333	2.027
June	R 5.990	R 7.898	2.435	.333	2.101
July	R 6.023	R 8.149	2.477	.327	2.149
August	R 6.286	R 8.439	2.575	.388	2.187
September	R 5.882	R 7.688	R 2.403	.330	R 2.073
October	6.071	7.784	2.395	.379	2.016
10-Month Total	60.142	81.139	23.605	3.380	20.225
1999 10-Month Total	60.264	80.363	23.188	3.147	20.041
1998 10-Month Total	60.612	78.513	22.433	3.678	18.755

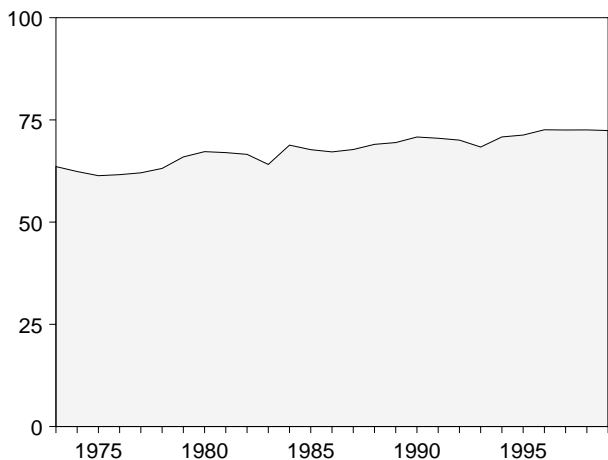
^a The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation, and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.
R=Revised.

Notes: For definitions, see Notes 1 through 4 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.
Sources: **Production:** Table 1.3. **Consumption:** Table 1.4. **Imports and Exports:** Tables 3.1b, 4.3, 6.1, 7.1, A2-A6, E3b, and Section 2, "Energy Consumption Notes and Sources," Note 5. **Net Imports:** Table 1.5.

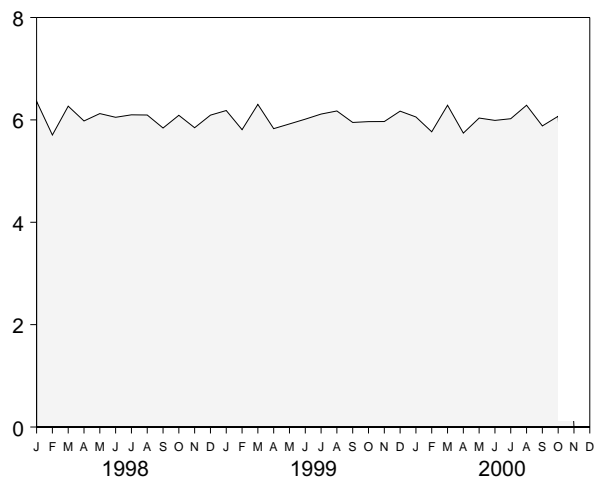
Revised data reflect the incorporation of additional renewable energy data. See Tables 1.3, 1.4, 1.5, and Appendix E for further information.

Figure 1.2 Energy Production
(Quadrillion Btu)

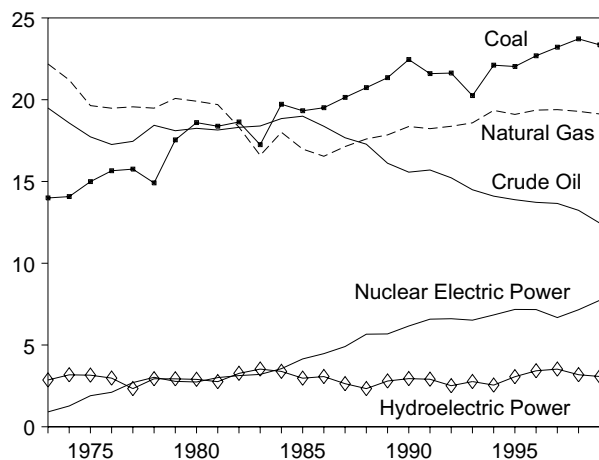
Total, 1973-1999



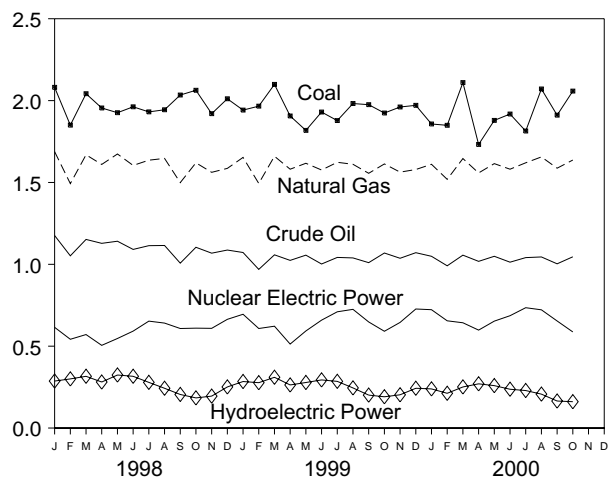
Total, Monthly



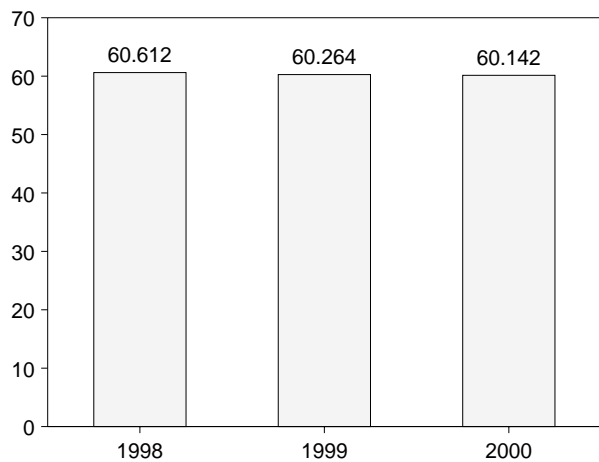
By Major Sources, 1973-1999



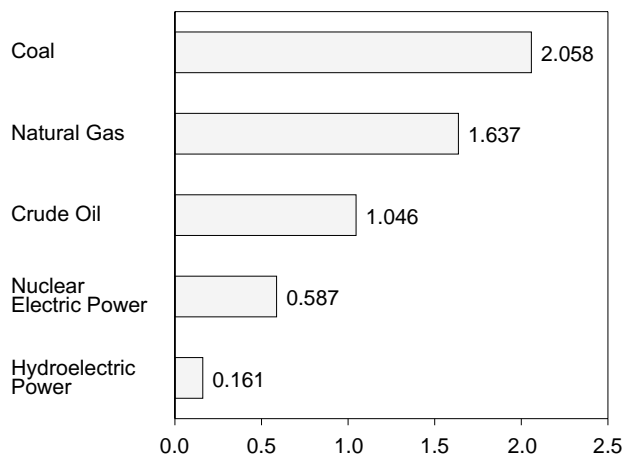
By Major Sources, Monthly



Total, January-October



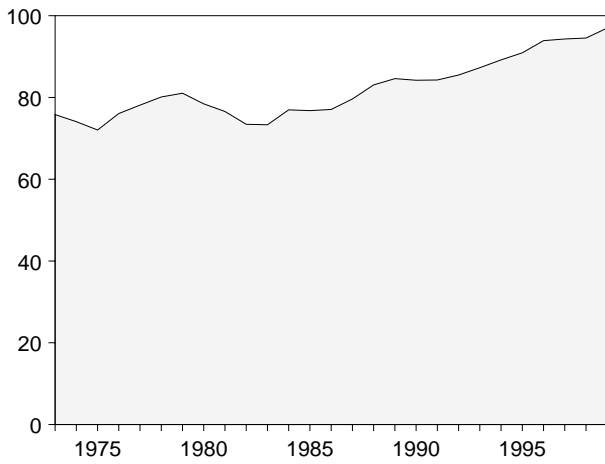
By Major Sources, October 2000



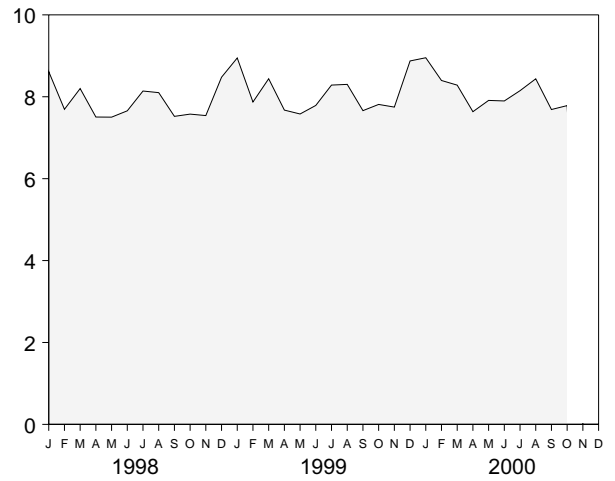
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.3.

Figure 1.3 Energy Consumption
(Quadrillion Btu)

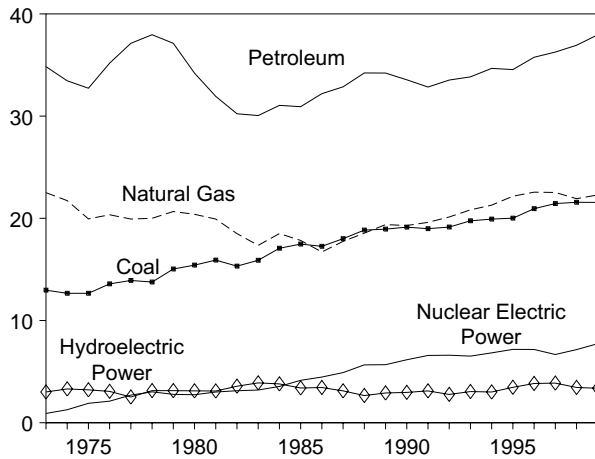
Total, 1973-1999



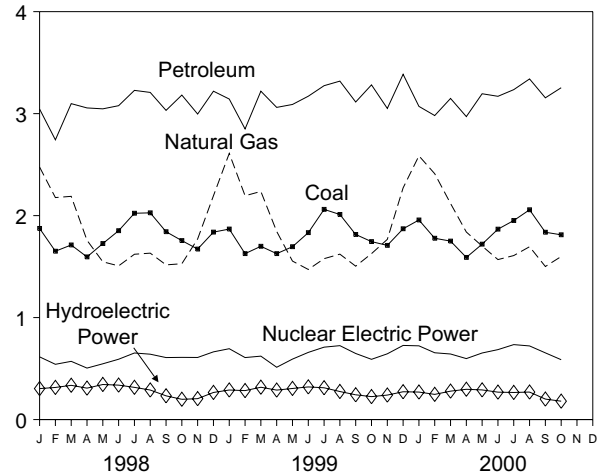
Total, Monthly



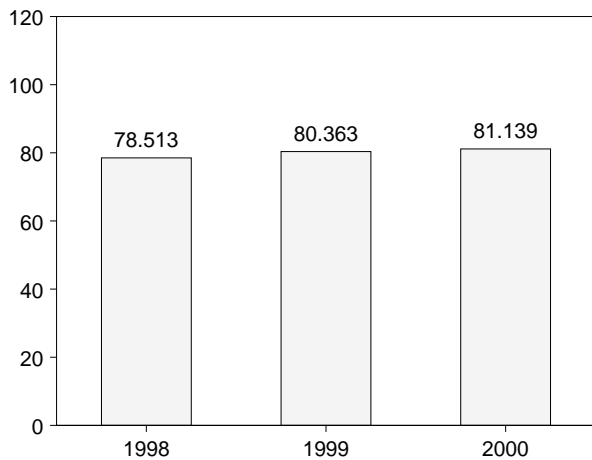
By Major Sources, 1973-1999



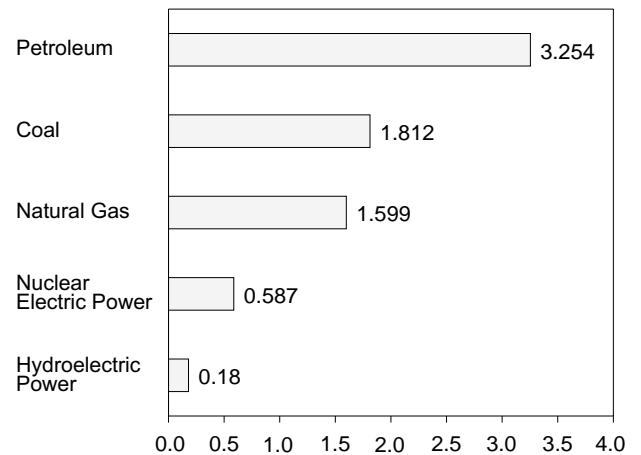
By Major Sources, Monthly



Total, January-October



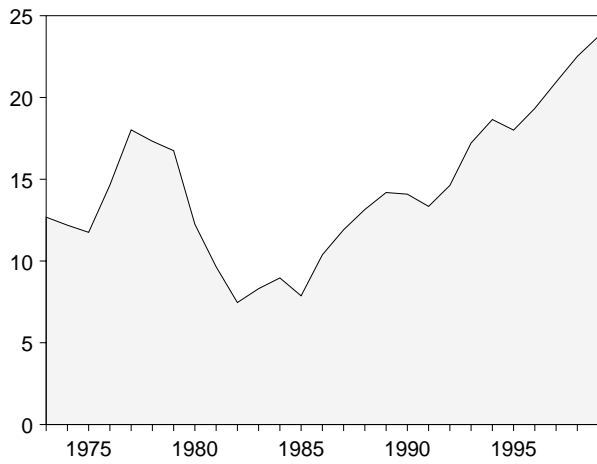
By Major Sources, October 2000



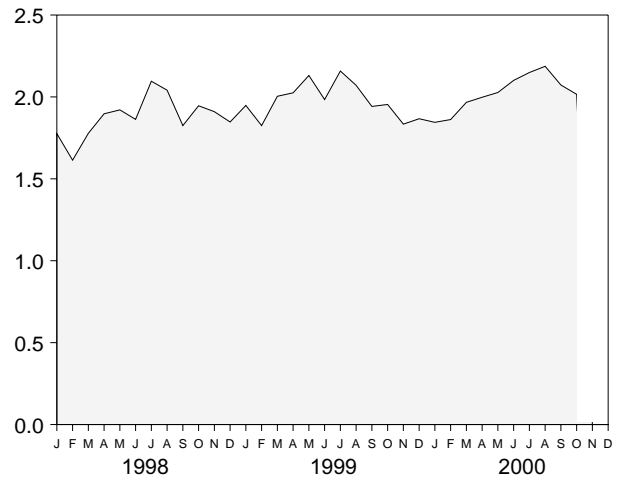
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.4.

Figure 1.4 Energy Net Imports
(Quadrillion Btu, Except as Noted)

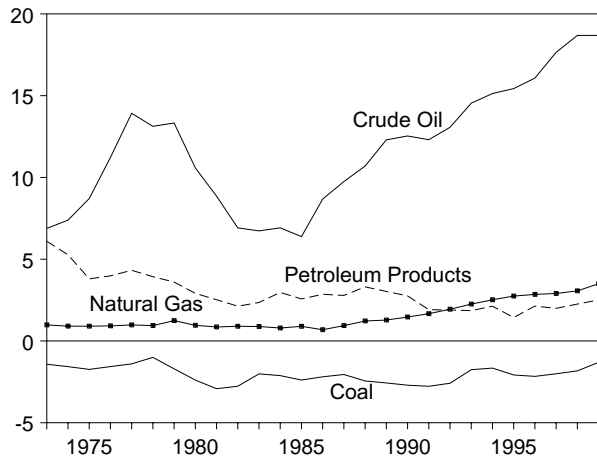
Total, 1973-1999



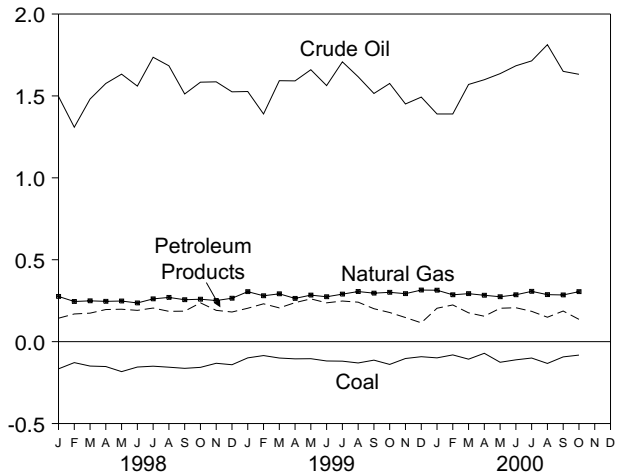
Total, Monthly



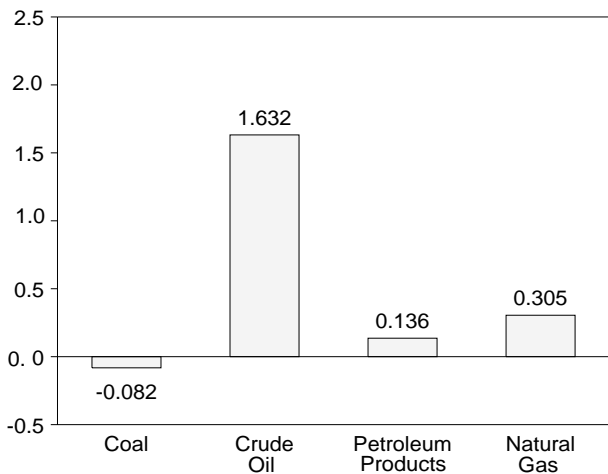
By Major Sources, 1973-1999



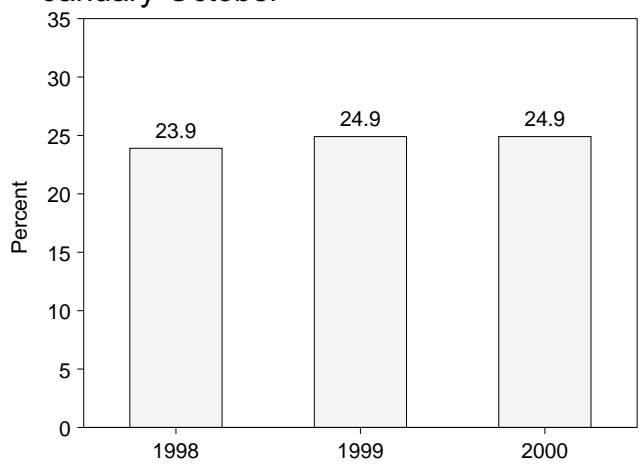
By Major Sources, Monthly



By Major Sources, October 2000



As Share of Consumption, January-October



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 1.4 and 1.5.

Table 1.5 Energy Net Imports by Source
(Quadrillion Btu)

	Fossil Fuels							Renewable Energy			Total
	Coal	Coal Coke	Natural Gas	Crude Oil ^b	Petroleum Products ^c	Electricity ^d	Total	Electricity ^a		Total	
								Hydro- power ^e	Geo- thermal		
1973 Total	-1.422	-0.007	0.981	6.883	6.097	(f)	12.531	0.148	(f)	0.148	12.680
1974 Total	-1.568	.056	.907	7.389	5.273	(f)	12.058	.133	(f)	.133	12.190
1975 Total	-1.738	.014	.904	8.708	3.800	(f)	11.688	.064	(f)	.064	11.752
1976 Total	-1.567	(s)	.922	11.221	3.982	(f)	14.559	.089	(f)	.089	14.648
1977 Total	-1.401	.015	.981	13.921	4.321	(f)	17.837	.182	(f)	.182	18.019
1978 Total	-1.004	.125	.941	13.125	3.932	(f)	17.118	.204	(f)	.204	17.323
1979 Total	-1.702	.063	1.243	13.328	3.603	(f)	16.535	.211	(f)	.211	16.746
1980 Total	-2.391	-.035	.957	10.586	2.912	(f)	12.030	.217	(f)	.217	12.247
1981 Total	-2.918	-.016	.857	8.854	2.522	(f)	9.298	.347	(f)	.347	9.646
1982 Total	-2.768	-.022	.898	6.917	2.128	(f)	7.153	.306	(f)	.306	7.460
1983 Total	-2.013	-.016	.885	6.731	2.351	(f)	7.938	.372	(f)	.372	8.310
1984 Total	-2.119	-.011	.792	6.918	2.970	(f)	8.549	.414	(f)	.414	8.963
1985 Total	-2.389	-.013	.896	6.381	2.570	(f)	7.445	.428	(f)	.428	7.872
1986 Total	-2.193	-.017	.686	6.676	2.855	(f)	10.007	.375	(f)	.375	10.382
1987 Total	-2.049	.009	.937	9.748	2.784	(f)	11.428	.483	(f)	.483	11.911
1988 Total	-2.446	.040	1.221	10.698	3.308	(f)	12.821	.328	(f)	.328	13.149
1989 Total	-2.566	.030	1.278	12.296	3.029	-.034	14.034	.143	.011	.154	R 14.188
1990 Total	-2.705	.005	1.464	12.536	2.757	-.080	13.977	.098	.011	.110	R 14.087
1991 Total	-2.769	.010	1.666	12.308	1.912	.059	13.186	.138	.015	.153	R 13.339
1992 Total	-2.587	.035	1.941	13.065	1.895	.053	14.401	.201	.019	.219	R 14.621
1993 Total	-1.758	.027	2.255	14.542	1.854	.050	16.970	.227	.018	.246	R 17.215
1994 Total	-1.657	.058	2.518	15.131	2.126	.141	18.317	.309	.025	.334	R 18.651
1995 Total	-2.081	.061	2.745	15.432	1.434	.121	17.712	.274	.019	.293	R 18.005
1996 Total	-2.165	.023	2.847	16.075	2.132	.109	19.021	.300	.014	.313	R 19.334
1997 Total	-2.006	.046	2.904	17.648	1.997	.109	20.698	.244	(s)	.244	20.942
1998 January	-.166	.008	.276	1.497	.143	E .002	1.761	E .015	E (s)	E .015	1.776
February	-.128	.003	.245	1.309	.169	E .002	1.600	E .013	E (s)	E .013	1.614
March	-.149	.003	.249	1.481	.174	E .003	1.761	E .017	E (s)	E .017	1.778
April	-.152	.004	.246	1.576	.196	E .006	1.877	E .020	E (s)	E .020	1.897
May	-.183	.005	.248	1.633	.198	E .003	1.903	E .017	E (s)	E .017	R 1.921
June	-.155	.009	.236	1.560	.191	E .003	1.844	E .019	E (s)	E .019	1.863
July	-.150	.007	.261	1.736	.205	E .009	2.068	E .028	E (s)	E .028	2.096
August	-.156	.010	.270	1.684	.185	E .014	2.008	E .033	E (s)	E .033	2.041
September	-.163	.006	.256	1.512	.186	E .005	1.803	E .022	E (s)	E .022	1.825
October	-.157	.007	.259	1.584	.237	E (s)	1.930	E .015	E (s)	E .015	1.946
November	-.132	.004	.251	1.586	.191	E -.001	1.899	E .011	E (s)	E .011	1.910
December	-.141	.002	.265	1.525	.181	E .001	1.834	E .013	E (s)	E .013	1.847
Total	-1.830	.067	3.064	18.684	2.256	.048	22.289	.224	.001	.225	22.513
1999 January	-.099	.005	.305	1.527	.204	E (s)	1.942	E .006	E (s)	E .006	1.948
February	-.085	.002	.280	1.390	.231	E .001	1.819	E .006	E (s)	E .006	1.825
March	-.100	.007	.292	1.593	.206	E (s)	1.998	E .007	E (s)	E .007	2.004
April	-.105	.009	.264	1.592	.238	E .008	2.006	E .018	E (s)	E .018	2.025
May	-.104	.003	.284	1.660	.261	E .008	2.113	E .018	E (s)	E .018	2.131
June	-.118	.002	.274	1.563	.237	E .008	1.966	E .018	E (s)	E .018	1.984
July	-.119	.003	.290	1.708	.248	E .009	2.139	E .019	E (s)	E .019	2.158
August	-.130	.006	.306	1.617	.241	E .010	2.051	E .020	E (s)	E .020	2.071
September	-.113	.002	.296	1.515	.201	E .015	1.915	E .027	E (s)	E .027	1.942
October	-.139	.004	.301	1.576	.178	E .011	1.931	E .023	E (s)	E .023	1.954
November	-.103	.009	.293	1.451	.147	E .012	1.809	E .024	E (s)	E .025	1.834
December	-.092	.006	.315	1.493	.115	E .009	1.847	E .021	E (s)	E .021	1.867
Total	-1.307	.058	3.500	18.686	2.507	.092	23.535	.207	.001	.208	23.743
2000 January	-.099	.004	.314	1.390	.204	E .011	1.824	E .020	E (s)	E .020	1.845
February	-.081	.007	.286	1.390	.224	E .012	1.839	E .023	E (s)	E .023	1.862
March	-.107	.006	.293	1.570	.176	E .009	1.948	E .019	E (s)	E .019	1.967
April	-.071	.006	.283	1.599	.155	E .008	1.980	E .018	E (s)	E .018	1.998
May	-.126	.008	.274	1.636	.204	E .010	2.006	E .022	E (s)	E .022	2.027
June	-.111	.004	.286	1.684	.207	E .010	2.079	E .022	E (s)	E .022	2.101
July	-.100	.006	E .307	1.714	.185	E .011	2.124	E .026	E (s)	E .026	2.149
August	-.133	.008	E .287	1.813	.149	E .022	2.146	E .040	E (s)	E .041	2.187
September	-.093	.007	RE .285	1.650	.187	E .012	2.049	E .024	E (s)	E .024	R 2.073
October	-.082	.006	E .305	1.632	.136	E .005	2.003	E .013	E (s)	E .013	2.016
10-Month Total	-1.003	.061	E 2.921	16.077	1.829	E .111	19.997	E .228	E .001	E .228	20.225
1999 10-Month Total	-1.112	.043	2.892	15.741	2.245	E .070	19.879	E .162	E .001	E .163	20.041
1998 10-Month Total	-1.558	.062	2.547	15.572	1.884	E .048	18.555	E .199	E .001	E .200	18.755

^a Through 1988, all electricity imports and exports are included in "Hydropower." From 1989, includes only electricity imports and exports derived from hydroelectric power or geothermal energy.

^b Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

^c Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

^d May include some nuclear-generated electricity.

^e Conventional hydroelectric power.

^f Included in "Hydropower."

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

trillion Btu.

Notes: See Notes 3 and 4 at end of section. Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.

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

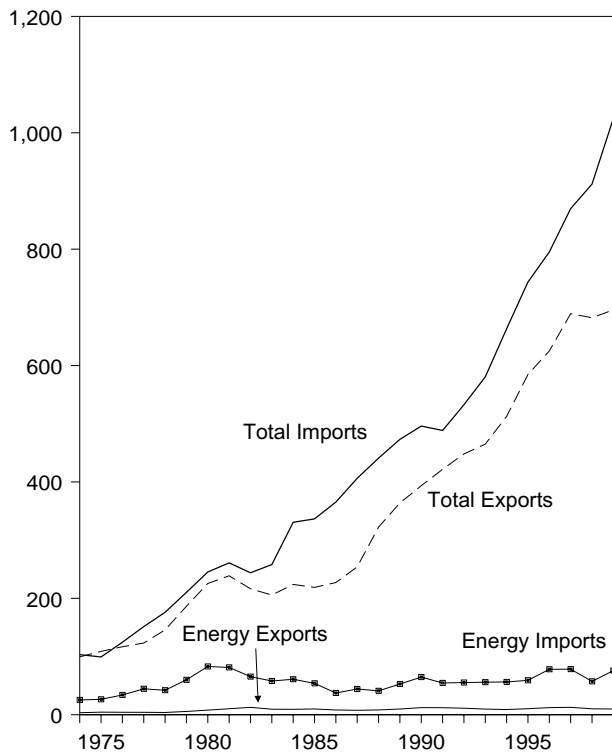
Sources: **Coal:** Tables 6.1 and A5. **Coal Coke:** Section 2, "Energy Consumption Notes and Sources," Note 5, and Table A5. **Natural Gas:** Tables 4.1 and A4. **Crude Oil and Petroleum Products:** Tables 3.1b, A2, and A3.

Fossil Fuel Electricity: Derived from Table 7.1 sources and Table A6. **Renewable Energy:** Table E3b.

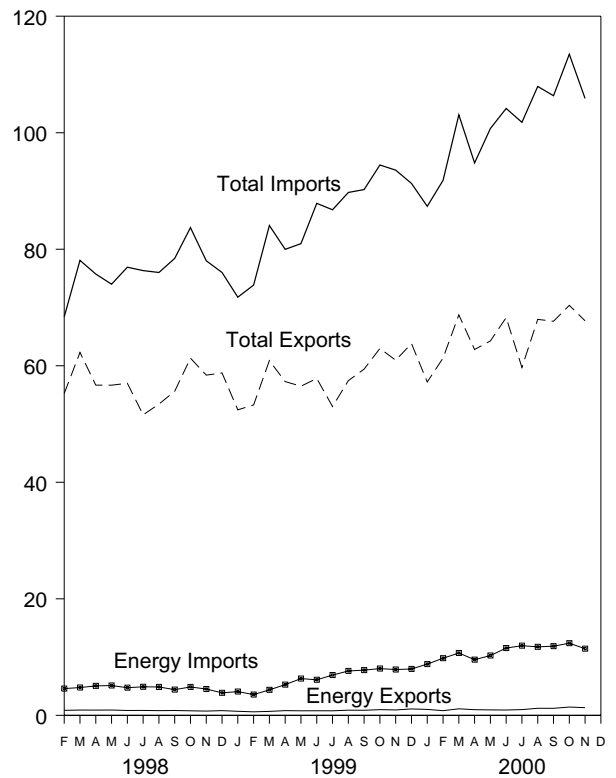
This table is redesigned to incorporate additional renewable energy data.
See Appendix E for further information.

Figure 1.5 Merchandise Trade Value
(Billion Dollars)

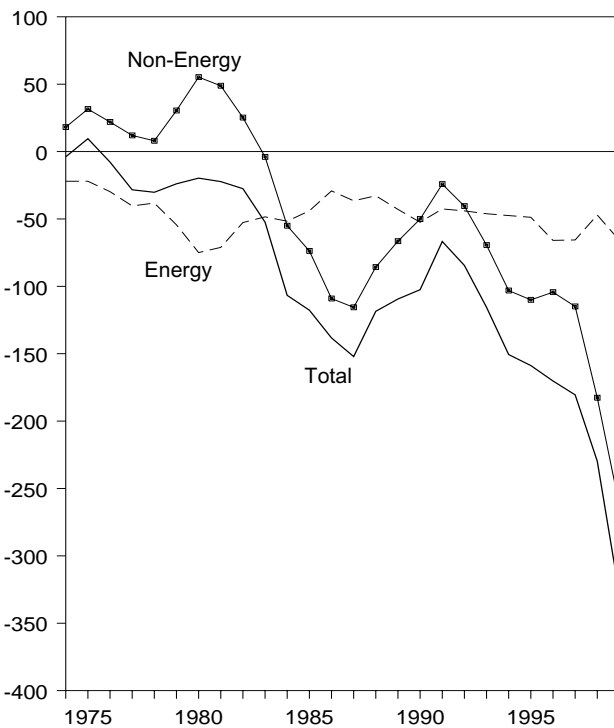
Imports and Exports, 1974-1999



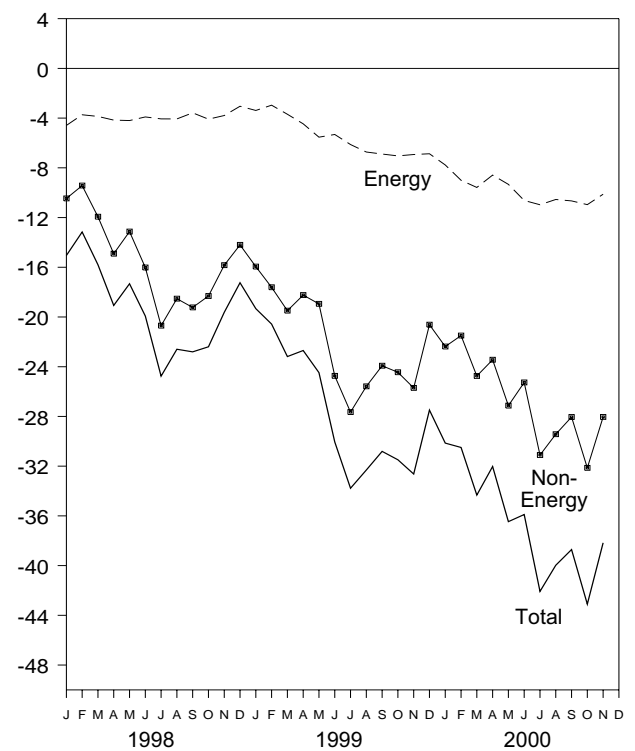
Imports and Exports, Monthly



Trade Balance, 1974-1999



Trade Balance, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.6.

Table 1.6 Merchandise Trade Value
(Million Dollars)

	Petroleum ^a			Energy ^b			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
1976 Total	998	32,226	-31,228	4,226	33,996	-29,770	21,950	116,794	124,614	-7,820
1977 Total	1,276	42,368	-41,093	4,184	44,537	-40,354	12,001	123,182	151,534	-28,353
1978 Total	1,561	39,526	-37,965	3,881	42,096	-38,215	8,010	145,847	176,052	-30,205
1979 Total	1,914	56,715	-54,801	5,621	59,998	-54,377	30,455	186,363	210,285	-23,922
1980 Total	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1981 Total	3,696	76,659	-72,963	10,279	81,360	-71,081	48,814	238,715	260,982	-22,267
1982 Total	5,947	60,458	-54,511	12,729	65,409	-52,680	25,170	216,442	243,952	-27,510
1983 Total	4,557	53,217	-48,659	9,500	57,952	-48,452	-3,957	205,639	258,048	-52,409
1984 Total	4,470	56,924	-52,454	9,311	60,980	-51,669	-55,033	223,976	330,678	-106,703
1985 Total	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1986 Total	3,640	35,142	-31,503	8,115	37,310	-29,195	-109,084	227,159	365,438	-138,279
1987 Total	3,922	42,285	-38,363	7,713	44,220	-36,506	-115,613	254,122	406,241	-152,119
1988 Total	3,693	38,787	-35,094	8,235	41,042	-32,806	-85,720	322,426	440,952	-118,526
1989 Total	5,021	49,704	-44,683	9,869	52,779	-42,910	-66,490	363,812	473,211	-109,399
1990 Total	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1991 Total	6,954	51,350	-44,396	12,081	54,629	-42,548	-24,175	421,730	488,453	-66,723
1992 Total	6,412	51,217	-44,805	11,254	55,256	-44,002	-40,500	448,164	532,665	-84,501
1993 Total	6,215	51,046	-44,831	9,756	55,900	-46,144	-69,425	465,091	580,659	-115,568
1994 Total	5,659	50,835	-45,176	8,911	56,391	-47,480	-103,149	512,626	663,256	-150,629
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 January	715	4,996	-4,281	1,056	5,645	-4,589	-10,463	55,172	70,224	-15,052
February	597	4,074	-3,477	855	4,587	-3,732	-9,428	55,234	68,394	-13,160
March	589	4,189	-3,600	905	4,770	-3,865	-11,934	62,297	78,096	-15,799
April	602	4,492	-3,890	896	5,056	-4,160	-14,909	56,675	75,744	-19,069
May	585	4,549	-3,964	915	5,112	-4,197	-13,129	56,672	73,998	-17,326
June	524	4,145	-3,621	836	4,741	-3,905	-16,019	56,994	76,918	-19,924
July	523	4,278	-3,755	840	4,901	-4,061	-20,699	51,577	76,337	-24,760
August	522	4,229	-3,707	802	4,867	-4,065	-18,529	53,420	76,014	-22,594
September	513	3,878	-3,365	833	4,409	-3,576	-19,231	55,627	78,434	-22,807
October	476	4,280	-3,804	780	4,864	-4,084	-18,315	61,313	83,712	-22,399
November	415	3,892	-3,477	728	4,520	-3,792	-15,833	58,395	78,020	-19,625
December	514	3,260	-2,746	806	3,853	-3,047	-14,198	58,762	76,007	-17,245
Total	6,574	50,264	-43,690	10,251	57,323	-47,072	-182,686	682,138	911,896	-229,758
1999 January	460	3,428	-2,968	692	4,075	-3,383	-15,947	52,436	71,766	-19,330
February	380	3,025	-2,645	600	3,561	-2,961	-17,609	53,279	73,849	-20,570
March	440	3,809	-3,369	683	4,373	-3,690	-19,493	60,889	84,072	-23,183
April	579	4,668	-4,089	804	5,264	-4,460	-18,237	57,283	79,980	-22,697
May	563	5,630	-5,067	773	6,307	-5,534	-18,943	56,489	80,965	-24,477
June	565	5,432	-4,867	789	6,105	-5,316	-24,739	57,825	87,880	-30,055
July	560	6,146	-5,586	781	6,906	-6,125	-27,653	52,998	86,775	-33,778
August	630	6,786	-6,156	888	7,614	-6,726	-25,584	57,439	89,749	-32,310
September	623	6,908	-6,285	869	7,760	-6,891	-23,922	59,431	90,244	-30,813
October	738	7,197	-6,459	982	8,022	-7,040	-24,447	62,973	94,460	-31,487
November	700	6,949	-6,249	925	7,854	-6,929	-25,704	60,948	93,581	-32,633
December	884	7,190	-6,306	1,094	7,962	-6,868	-20,621	63,808	91,296	-27,489
Total	7,118	67,173	-60,055	9,880	75,803	-65,923	-262,898	695,797	1,024,618	-328,821
2000 January	796	7,836	-7,040	1,021	8,790	-7,769	-22,378	57,221	87,368	-30,147
February	625	9,016	-8,391	796	9,799	-9,003	-21,494	61,325	91,822	-30,497
March	877	9,943	-9,066	1,117	10,696	-9,579	-24,748	68,740	103,067	-34,327
April	793	8,832	-8,039	970	9,555	-8,585	-23,443	62,786	94,815	-32,028
May	687	9,452	-8,765	935	10,266	-9,331	-27,133	64,262	100,726	-36,464
June	673	10,546	-9,873	915	11,542	-10,627	-25,265	68,271	104,164	-35,892
July	723	10,734	-10,011	983	11,952	-10,969	-31,108	59,707	101,784	-42,077
August	929	10,441	-9,512	1,210	11,754	-10,544	-29,432	67,965	107,941	-39,976
September	962	10,502	-9,540	1,207	11,869	-10,662	-28,048	67,639	106,349	-38,710
October	1,180	11,080	-9,900	1,422	12,381	-10,959	^R -32,141	^R 70,371	^R 113,471	^R -43,100
November	988	9,979	-8,991	1,315	11,438	-10,123	-28,044	67,716	105,882	-38,167
11-Month Total	9,230	108,360	-99,130	11,890	120,042	-108,152	-293,234	716,004	1,117,390	-401,386
1999 11-Month Total	6,238	59,978	-53,740	8,786	67,841	-59,055	-242,278	631,990	933,321	-301,333
1998 11-Month Total	6,061	47,002	-40,941	9,446	53,472	-44,026	-168,489	623,376	835,891	-212,515

^a Crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels.

^b Petroleum, coal, natural gas, and electricity.

R=Revised.

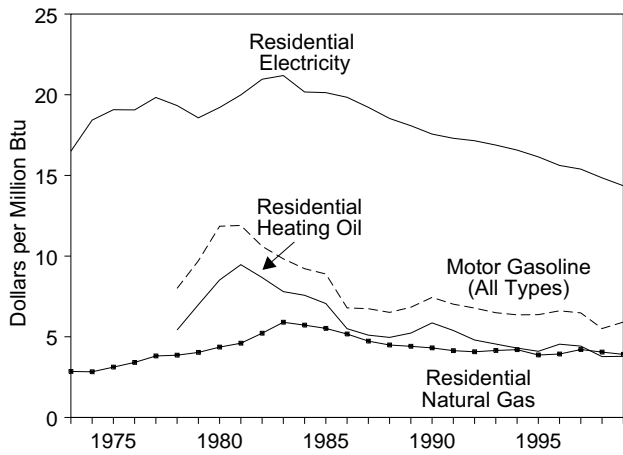
Notes: Monthly data are not adjusted for seasonal variations. See Note 5 at end of section. Totals may not equal sum of components due to independent rounding. The U.S. import statistics reflect both government

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.

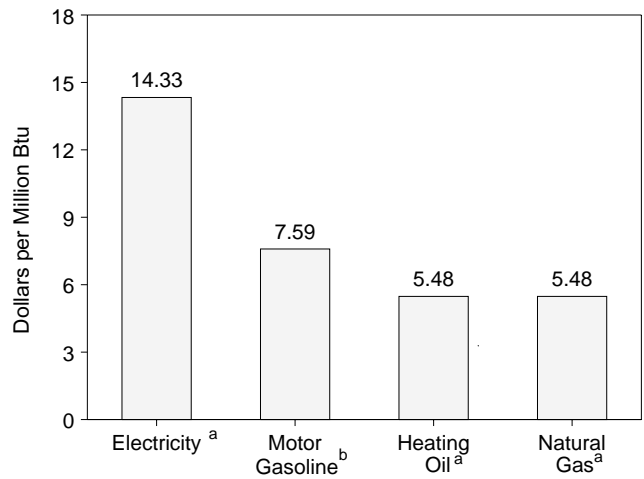
Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this section.

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

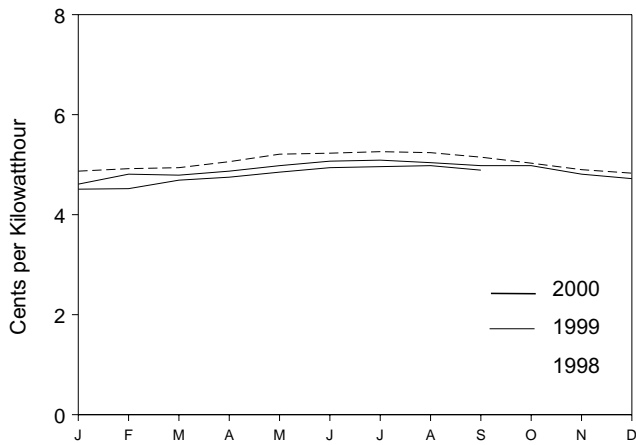
Costs, 1973-1999



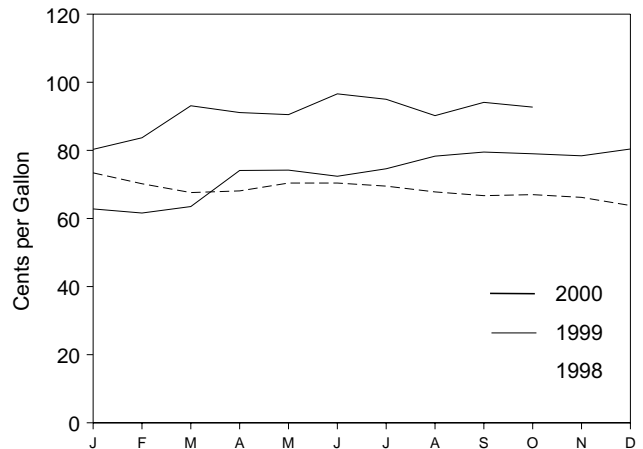
Costs, September 2000



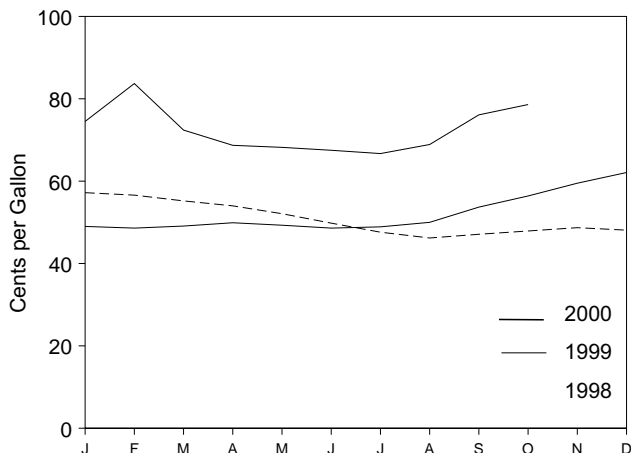
Residential Electricity, Monthly



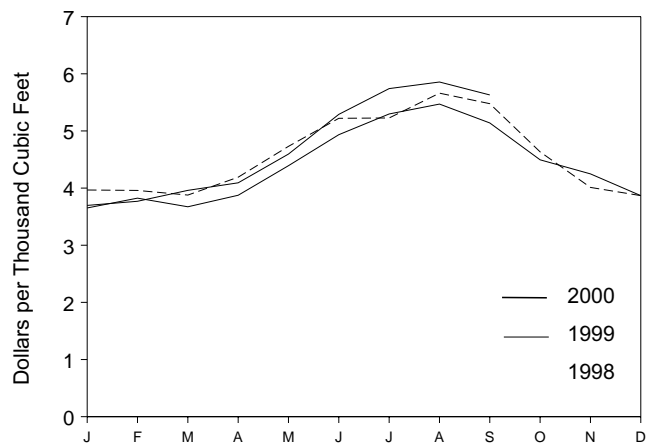
Motor Gasoline (All Types), Monthly



Residential Heating Oil, Monthly



Residential Natural Gas, Monthly



^aResidential.

^bAll types.

NA=Not available.

Note: Because vertical scales differ, graphs should not be compared.

Table 1.7 Cost of Fuels to End Users in Constant (1982-84) Dollars

	Consumer Price Index (Urban) ^a	Motor Gasoline (All Types)		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatt-hour	Dollars per Million Btu
1973 Average	44.4	NA	NA	NA	NA	290.5	2.85	5.6	16.50
1974 Average	49.3	NA	NA	NA	NA	290.1	2.83	6.3	18.43
1975 Average	53.8	NA	NA	NA	NA	317.8	3.12	6.5	19.07
1976 Average	56.9	NA	NA	NA	NA	348.0	3.41	6.5	19.06
1977 Average	60.6	NA	NA	NA	NA	387.8	3.81	6.8	19.83
1978 Average	65.2	100.0	8.00	75.2	5.42	392.6	3.86	6.6	19.33
1979 Average	72.6	121.5	9.71	97.0	6.99	410.5	4.03	6.3	18.57
1980 Average	82.4	148.2	11.85	118.2	8.52	446.6	4.36	6.6	19.21
1981 Average	90.9	148.8	11.90	131.4	9.47	471.9	4.60	6.8	19.99
1982 Average	96.5	132.7	10.61	120.2	8.67	535.8	5.22	7.2	20.96
1983 Average	99.6	123.0	9.83	108.2	7.80	608.4	5.90	7.2	21.19
1984 Average	103.9	115.3	9.22	105.0	7.57	589.0	5.72	6.88	20.17
1985 Average	107.6	111.2	8.89	97.9	7.06	568.8	5.52	6.87	20.13
1986 Average	109.6	84.9	6.79	76.3	5.50	531.9	5.17	6.77	19.84
1987 Average	113.6	84.2	6.74	70.7	5.10	487.7	4.73	6.56	19.22
1988 Average	118.3	81.4	6.51	68.7	4.96	462.4	4.49	6.32	18.53
1989 Average	124.0	85.5	6.83	72.6	5.23	454.8	4.41	6.17	18.08
1990 Average	130.7	93.1	7.44	81.3	5.86	443.8	4.31	5.99	17.56
1991 Average	136.2	87.8	7.02	74.8	5.39	427.3	4.14	5.90	17.30
1992 Average	140.3	84.8	6.78	66.6	4.80	419.8	4.07	5.85	17.15
1993 Average	144.5	81.2	6.49	63.0	4.55	426.3	4.15	5.76	16.88
1994 Average	148.2	79.2	6.36	59.6	4.30	432.5	4.20	5.65	16.57
1995 Average	152.4	79.1	6.37	56.9	4.10	397.6	3.87	5.51	16.15
1996 Average	156.9	82.1	6.61	63.0	4.54	404.1	3.93	5.33	15.62
1997 Average	160.5	80.4	6.48	61.3	4.42	432.4	4.21	5.25	15.39
1998 January	161.6	73.4	5.91	57.2	4.13	396.7	3.84	4.87	14.27
February	161.9	70.2	5.66	56.6	4.08	395.9	3.83	4.92	14.43
March	162.2	67.6	5.45	55.2	3.98	387.8	3.75	4.94	14.47
April	162.5	68.1	5.48	54.0	3.89	419.1	4.06	5.06	14.84
May	162.8	70.4	5.67	52.1	3.76	473.0	4.58	5.21	15.28
June	163.0	70.4	5.68	49.8	3.59	522.1	5.05	5.23	15.34
July	163.2	69.5	5.60	47.6	3.43	522.7	5.06	5.26	15.41
August	163.4	67.8	5.46	46.2	3.33	566.1	5.48	5.24	15.37
September	163.6	66.7	5.37	47.1	3.39	547.7	5.30	5.15	15.10
October	164.0	67.0	5.40	47.9	3.46	463.4	4.49	5.03	14.74
November	164.0	66.2	5.34	48.7	3.51	401.2	3.88	4.90	14.37
December	163.9	63.8	5.14	48.1	3.47	386.8	3.74	4.83	14.16
Average	163.0	68.4	5.51	52.3	3.77	418.4	4.05	5.07	14.85
1999 January	164.3	62.8	5.06	49.0	3.53	365.2	3.55	4.61	13.52
February	164.5	61.6	4.97	48.6	3.51	382.4	3.72	4.81	14.11
March	165.0	63.5	5.12	49.1	3.54	367.3	3.57	4.79	14.03
April	166.2	74.1	5.97	49.9	3.60	387.5	3.77	4.87	14.27
May	166.2	74.2	5.98	49.3	3.56	439.2	4.27	4.98	14.58
June	166.2	72.4	5.84	48.6	3.50	493.4	4.80	5.07	14.87
July	166.7	74.6	6.01	48.9	3.53	529.7	5.15	5.09	14.93
August	167.1	78.3	6.31	50.0	3.60	547.0	5.32	5.04	14.77
September	167.9	79.5	6.40	53.7	3.87	514.0	5.00	4.98	14.59
October	168.2	79.0	6.37	56.4	4.07	449.5	4.37	4.98	14.58
November	168.3	78.4	6.32	59.5	4.29	424.8	4.13	4.81	14.09
December	168.3	80.4	6.48	62.1	4.48	386.8	3.76	4.72	13.83
Average	166.6	73.3	5.91	52.6	3.79	401.6	3.91	4.90	14.36
2000 January	168.8	80.3	6.47	74.5	5.37	369.7	3.58	4.51	13.21
February	169.8	83.7	6.75	83.7	6.04	376.9	3.67	4.52	13.26
March	171.2	93.1	7.50	72.4	5.22	396.0	3.85	4.69	13.75
April	171.3	91.1	7.34	68.7	4.95	409.2	3.98	4.75	13.91
May	171.5	90.5	7.29	68.2	4.91	459.5	4.47	4.85	14.22
June	172.4	96.6	7.79	67.5	4.86	529.0	5.15	4.94	14.47
July	172.8	95.0	7.66	66.7	4.81	574.1	5.58	4.96	14.54
August	172.8	90.2	7.27	68.9	4.97	585.6	5.70	4.98	14.60
September	173.7	94.1	7.59	76.1 ^R	5.48	563.0	5.48	4.89	14.33
October	174.0	92.7	7.47	78.6	5.67	NA	NA	NA	NA

^a Consumer Price Index, All Urban Consumers, All Items, 1982-1984 = 100.0.

R=Revised. NA=Not available.

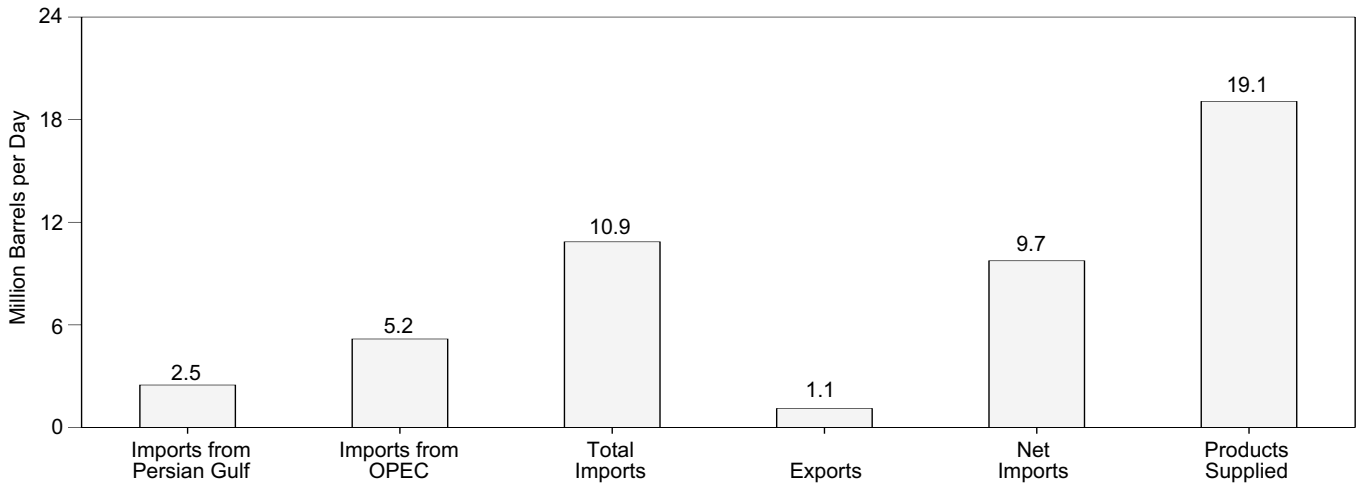
Notes: Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. Annual averages may not equal average of months due to independent rounding.

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

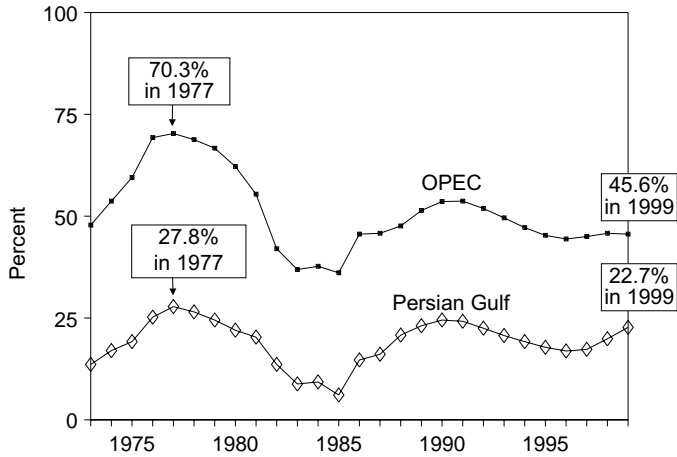
Sources: **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.11, and 9.9, adjusted by the CPI. **CPI: 1973-1995—***Economic Report of the President*, February 2000, Table B-60. **1996 forward—**Council of Economic Advisers, *Economic Indicators*, December 2000, "Consumer Prices - All Urban Consumers." **Conversion Factors:** Tables A1, A3, A4, and A6.

Figure 1.7 Overview of U.S. Petroleum Trade

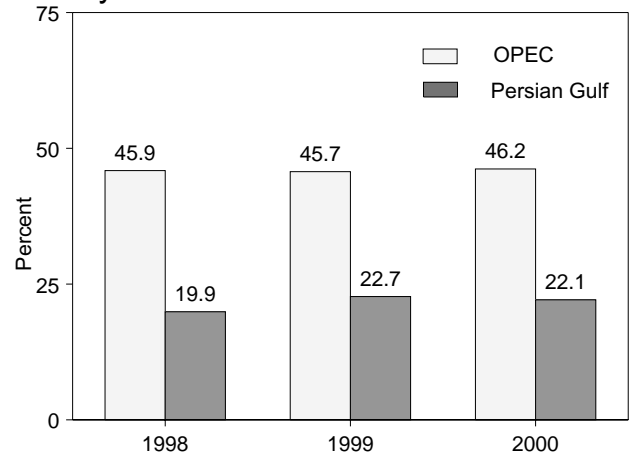
Overview, November 2000



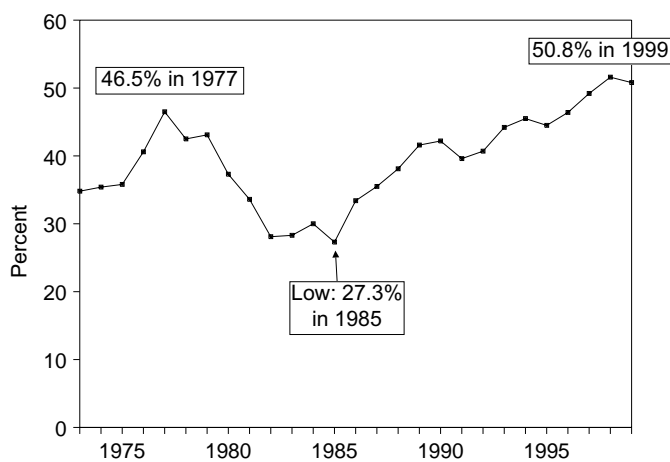
Imports from OPEC and the Persian Gulf as a Share of Total Imports
1973-1999



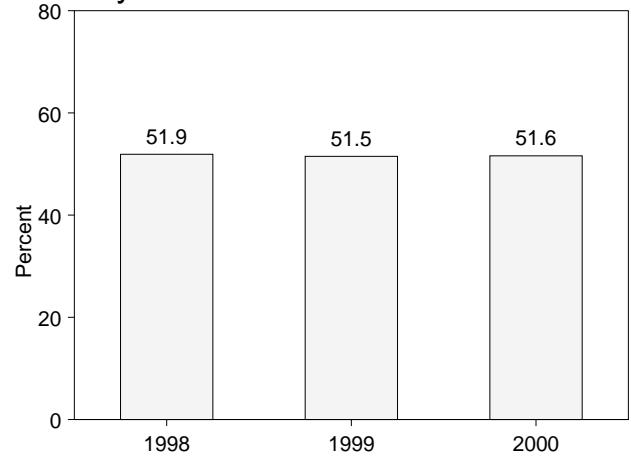
January-November



Net Imports as Share of Products Supplied
1973-1999



January-November



OPEC=Organization of Petroleum Exporting Countries.
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.8, 3.1a, and 3.1b.

Figure 1.8 Energy Consumption per Dollar of Gross Domestic Product
(Thousand Btu per Chained (1996) Dollar)

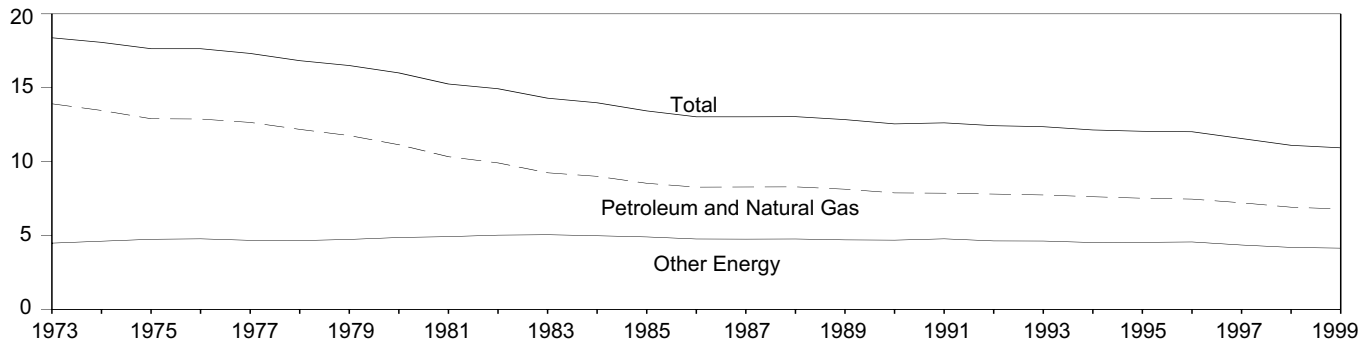


Table 1.9 Energy Consumption per Dollar of Gross Domestic Product
(Seasonally Adjusted at Annual Rates)

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Dollar of GDP		
	Petroleum and Natural Gas	Other Energy ^a	Total		Petroleum and Natural Gas	Other Energy ^a	Total
	Quadrillion Btu				Billion Chained (1996) Dollars	Thousand Btu per Chained (1996) Dollar	
1973 Year	57.352	R 18.456	R 75.808	4,123.4	13.91	R 4.48	R 18.38
1974 Year	55.187	R 18.893	R 74.080	4,099.0	13.46	R 4.61	R 18.07
1975 Year	52.678	R 19.364	R 72.042	4,084.4	12.90	R 4.74	R 17.64
1976 Year	55.520	R 20.552	R 76.072	4,311.7	12.88	R 4.77	R 17.64
1977 Year	57.053	R 21.069	R 78.122	4,511.8	12.65	R 4.67	R 17.32
1978 Year	57.966	R 22.158	R 80.123	4,760.6	12.18	R 4.65	R 16.83
1979 Year	57.789	R 23.255	R 81.044	4,912.1	11.76	R 4.73	R 16.50
1980 Year	54.596	R 23.839	R 78.435	4,900.9	11.14	R 4.86	R 16.00
1981 Year	51.859	R 24.710	R 76.569	5,021.0	10.33	R 4.92	R 15.25
1982 Year	48.736	R 24.704	R 73.440	4,919.3	9.91	R 5.02	R 14.93
1983 Year	47.411	R 25.906	R 73.317	5,132.3	9.24	R 5.05	R 14.29
1984 Year	49.558	R 27.413	R 76.972	5,505.2	9.00	R 4.98	R 13.98
1985 Year	48.756	R 28.022	R 76.778	5,717.1	8.53	R 4.90	R 13.43
1986 Year	48.904	R 28.161	R 77.065	5,912.4	8.27	R 4.76	R 13.03
1987 Year	50.609	R 29.024	R 79.633	6,113.3	8.28	R 4.75	R 13.03
1988 Year	52.774	R 30.294	R 83.068	6,368.4	8.29	R 4.76	R 13.04
1989 Year	53.595	b c R 31.012	b c R 84.607	6,591.8	8.13	R 4.70	R 12.84
1990 Year	52.849	R 31.365	R 84.214	6,707.9	7.88	R 4.68	R 12.55
1991 Year	52.452	R 31.819	R 84.271	6,676.4	7.86	R 4.77	R 12.62
1992 Year	53.657	R 31.834	R 85.491	6,880.0	7.80	R 4.63	R 12.43
1993 Year	54.668	R 32.613	R 87.281	7,062.6	7.74	R 4.62	R 12.36
1994 Year	55.958	R 33.231	R 89.189	7,347.7	7.62	R 4.52	R 12.14
1995 Year	56.717	R 34.207	R 90.924	7,543.8	7.52	R 4.53	R 12.05
1996 Year	58.316	R 35.585	R 93.902	7,813.2	7.46	R 4.56	R 12.02
1997 Year	58.795	R 35.512	R 94.307	8,159.5	7.21	R 4.35	R 11.56
1998 1 st Quarter	57.846	NA	NA	8,404.9	6.88	NA	NA
2 nd Quarter	59.616	NA	NA	8,465.6	7.04	NA	NA
3 rd Quarter	60.043	NA	NA	8,537.6	7.03	NA	NA
4 th Quarter	57.898	NA	NA	8,654.5	6.69	NA	NA
Year	58.855	R 35.683	R 94.537	8,515.7	6.91	R 4.19	R 11.10
1999 1 st Quarter	60.773	NA	NA	8,730.0	6.96	NA	NA
2 nd Quarter	60.295	NA	NA	8,783.2	6.86	NA	NA
3 rd Quarter	60.280	NA	NA	8,905.8	6.77	NA	NA
4 th Quarter	59.634	NA	NA	9,084.1	6.56	NA	NA
Year	60.248	R 36.743	R 96.991	8,875.8	6.79	R 4.14	R 10.93
2000 1 st Quarter	60.666	NA	NA	9,191.8	6.60	NA	NA
2 nd Quarter	61.564	NA	NA	9,318.9	6.61	NA	NA
3 rd Quarter	60.768	NA	NA	R 9,369.5	6.48	NA	NA

^a Coal, nuclear electric power, renewable energy, and pumped storage hydroelectric generation.

^b Beginning in 1989, includes electricity generated by nonutility nuclear units.

^c Beginning in 1989, includes coal consumed by "Other Power Producers." See Table 6.2.

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

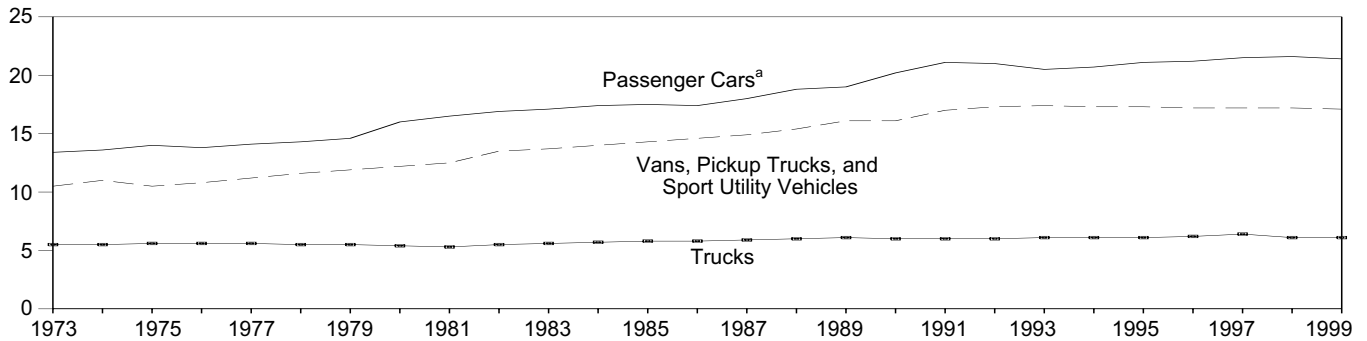
Notes: Quarterly data are seasonally adjusted and shown at annual rates. Yearly data may not equal average of quarters due to seasonality

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

Sources: **Energy Consumption:** Table 1.4. **Gross Domestic Product: 1973-1997**—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, November 1999, Table 3B. **1998 forward**—U.S. Department of Commerce, Bureau of Economic Analysis, *BEA News Release*, December 21, 2000, Table 3, which is available at website www.bea.doc.gov/bea/newsrel/gdp100p.htm.

Revised data reflect the incorporation of additional renewable energy data. See Table 1.4 and Appendix E for further information.

Figure 1.9 Motor Vehicle Fuel Rates
(Miles per Gallon)



^a Includes motorcycles through 1989.

Table 1.10 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates

	Passenger Cars			Vans, Pickup Trucks, and Sport Utility Vehicles ^a			Trucks ^b			All Motor Vehicles ^c		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	^d 9,884	^d 737	^d 13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	^d 9,221	^d 677	^d 13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	^d 9,309	^d 665	^d 14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	^d 9,418	^d 681	^d 13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	^d 9,517	^d 676	^d 14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	^d 9,500	^d 665	^d 14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	^d 9,062	^d 620	^d 14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	^d 8,813	^d 551	^d 16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	^d 8,873	^d 538	^d 16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	^d 9,050	^d 535	^d 16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	^d 9,118	^d 534	^d 17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	^d 9,248	^d 530	^d 17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	^d 9,419	^d 538	^d 17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	^d 9,464	^d 543	^d 17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	^d 9,720	^d 539	^d 18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	^d 9,972	^d 531	^d 18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	^d 10,157	^d 533	^d 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 ^e	11,850	552	21.4	11,958	700	17.1	26,015	4,282	6.1	12,208	729	16.8

^a Includes a small number of trucks with 2 axles and 4 tires, such as step vans.

^b Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.

^c Includes buses and motorcycles, which are not shown separately.

^d Includes motorcycles.

^e Preliminary.

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

Web Page: <http://www.fhwa.dot.gov/ohim>.

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, Table VM-1.

Table 1.11 Heating Degree-Days by Census Division

Census Divisions	December 1 through December 31					Cumulative July 1 through December 31				
	Normal ^a	1999	2000	Percent Change		Normal ^a	1999	2000	Percent Change	
				Normal to 2000	1999 to 2000				Normal to 2000	1999 to 2000
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	1,110	980	1,221	10	25	2,439	2,212	2,612	7	18
Middle Atlantic New Jersey, New York, Pennsylvania	1,012	900	1,180	17	31	2,131	1,881	2,332	9	24
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	1,143	1,051	1,442	26	37	2,402	2,184	2,708	13	24
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	1,247	1,063	1,559	25	47	2,596	2,222	2,969	14	34
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	571	530	736	29	39	1,084	1,010	1,327	22	31
East South Central Alabama, Kentucky, Mississippi, Tennessee	718	666	977	36	47	1,380	1,248	1,684	22	35
West South Central Arkansas, Louisiana, Oklahoma, Texas	523	460	709	36	54	877	764	1,202	37	57
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	950	881	931	-2	6	2,145	1,868	2,293	7	23
Pacific^b California, Oregon, Washington	564	513	526	-7	2	1,227	1,033	1,264	3	22
U.S. Average^b	836	755	999	20	32	1,724	1,532	1,953	13	28

^a "Normal" is based on calculations of data from 1961 through 1990.

^b Excludes Alaska and Hawaii.

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).

Sources: See end of section.

Table 1.12 Cooling Degree-Days by Census Division

Census Divisions	December 1 through December 31					Cumulative January 1 through December 31				
	Normal ^a	1999	2000	Percent Change		Normal ^a	1999	2000	Percent Change	
				Normal to 2000	1999 to 2000				Normal to 2000	1999 to 2000
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	0	0	(^c)	(^c)	420	588	369	-12	-37
Middle Atlantic New Jersey, New York, Pennsylvania	0	0	0	(^c)	(^c)	675	823	622	-8	-24
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	0	0	0	(^c)	(^c)	736	803	662	-10	-18
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	0	0	0	(^c)	(^c)	981	925	997	2	8
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	30	25	23	(^c)	(^c)	1,927	2,039	1,953	1	-4
East South Central Alabama, Kentucky, Mississippi, Tennessee	3	1	0	(^c)	(^c)	1,565	1,747	1,780	14	2
West South Central Arkansas, Louisiana, Oklahoma, Texas	10	10	0	(^c)	(^c)	2,460	2,653	2,862	16	8
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	0	0	0	(^c)	(^c)	1,173	1,235	1,440	23	17
Pacific^b California, Oregon, Washington	0	0	0	(^c)	(^c)	694	655	736	6	12
U.S. Average^b	7	5	4	(^c)	(^c)	1,192	1,280	1,252	5	-2

^a "Normal" is based on calculations of data from 1961 through 1990.

^b Excludes Alaska and Hawaii.

^c Percent change is not meaningful: 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).

Sources: See end of section.

Energy Overview Notes

1. Energy Production: Includes production of fossil fuels (coal, dry natural gas, crude oil and lease condensate, and natural gas plant liquids), nuclear electric power, pumped-storage hydroelectric power, and renewable energy. Renewable energy production is assumed to be equivalent to: end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use energy; and electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Appendix E for further information on renewable energy.

2. Energy Consumption: Includes consumption of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels, coal coke net imports, and electricity net imports from fossil fuels), nuclear electric power, pumped-storage hydroelectric power, and renewable energy. Renewable energy consumption includes: end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use energy; electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind; and net imports of electricity from hydroelectric power and geothermal energy. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Appendix E for further information on renewable energy.

3. Energy Imports: Includes imports of fossil fuels (coal, natural gas, and petroleum, including crude oil imported for the Strategic Petroleum Reserve), some secondary energy derived from fossil fuels (coal coke imports, and electricity imports from fossil fuels), and renewable energy (electricity imports derived from hydroelectric power and geothermal energy). Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Appendix E for further information on renewable energy.

4. Energy Exports: Includes exports of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (coal coke exports, and electricity exports from fossil fuels), and renewable energy (electricity exports derived from hydroelectric power). Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Appendix E for further information on renewable energy.

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

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

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

Sources for Table 1.6

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

Petroleum Exports

1974-1987: “U.S. Exports,” FT410, December issues.
1988: “Report on U.S. Merchandise Trade, 1988 Final Revisions.”
1989: “Report on U.S. Merchandise Trade, 1989 Revisions.”
1990: “U.S. Merchandise Trade, 1990 Final Report.”
1991: “U.S. Merchandise Trade, 1991 Final Report,” May 13, 1992.
1992: “U.S. Merchandise Trade, 1992 Final Report,” May 12, 1993.
1993: “U.S. International Trade in Goods and Services, Annual Revision for 1993.”
1994: “U.S. International Trade in Goods and Services, Annual Revision for 1994.”
1995: “U.S. International Trade in Goods and Services, Annual Revision for 1995.”
1996: “U.S. International Trade in Goods and Services, Annual Revision for 1996.”
1997: “U.S. International Trade in Goods and Services, Annual Revision for 1997.”
1998: “U.S. International Trade in Goods and Services, Annual Revision for 1998.”
1999 and 2000: “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: "Report on U.S. Merchandise Trade, 1988 Final Revisions."

1989: "Report on U.S. Merchandise Trade, 1989 Revisions."

1990: "U.S. Merchandise Trade, 1990 Final Report."

1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.

1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

1993: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1994.

1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."

1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."

1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."

1997: "U.S. International Trade in Goods and Services, Annual Revision for 1997."

1998: "U.S. International Trade in Goods and Services, Annual Revision for 1998."

1999 and 2000: "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: "U.S. Merchandise Trade, 1990 Final Report."

1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.

1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

1993: "U.S. International Trade in Goods and Services, Annual Revision for 1993."

1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."

1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."

1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."

1997: "U.S. International Trade in Goods and Services, Annual Revision for 1997."

1998: "U.S. International Trade in Goods and Services,

Annual Revision for 1998."

1999 and 2000: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum, Energy, and Non-Energy Balances

Calculated by the Energy Information Administration.

Total Merchandise

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.

1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.

1989: "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.

1990: "U.S. Merchandise Trade, 1990 Final Report," May 10, 1991, and "U.S. Merchandise Trade, December 1992," February 18, 1993, page 3.

1991: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

1992: "U.S. International Trade in Goods and Services, Annual Revision for 1994."

1993 and 1994: "U.S. International Trade in Goods and Services, Annual Revision for 1995."

1995 and 1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."

1997 and 1998: "U.S. International Trade in Goods and Services, Annual Revision for 1998."

1999 and 2000: "U.S. International Trade in Goods and Services," FT-900, monthly.

Sources for Tables 1.11 and 1.12

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 Analysis 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 1990 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) and 5-2 (cooling degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Section 2. Energy Consumption by Sector

U.S. total energy consumption in October 2000 was 7.8 quadrillion Btu, slightly less than in October 1999.

Residential sector consumption was 1.3 quadrillion Btu in October 2000, 2 percent lower than the October 1999 level. The sector accounted for 16 percent of total consumption.

Commercial sector consumption was 1.2 quadrillion Btu in October 2000, 1 percent lower than the October 1999 level. The sector accounted for 15 percent of total consumption.

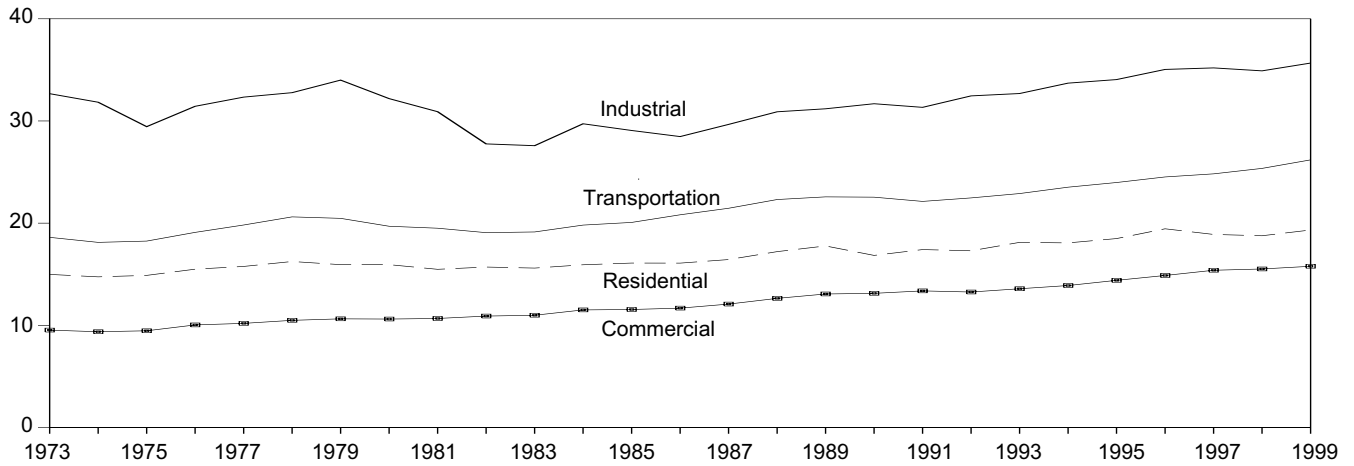
Industrial sector consumption was 3.1 quadrillion Btu in October 2000, slightly higher than the October 1999 level. The industrial sector accounted for 39 percent of total consumption.

Transportation sector consumption of energy was 2.3 quadrillion Btu in October 2000, up slightly from the October 1999 level. The sector accounted for 29 percent of total consumption.

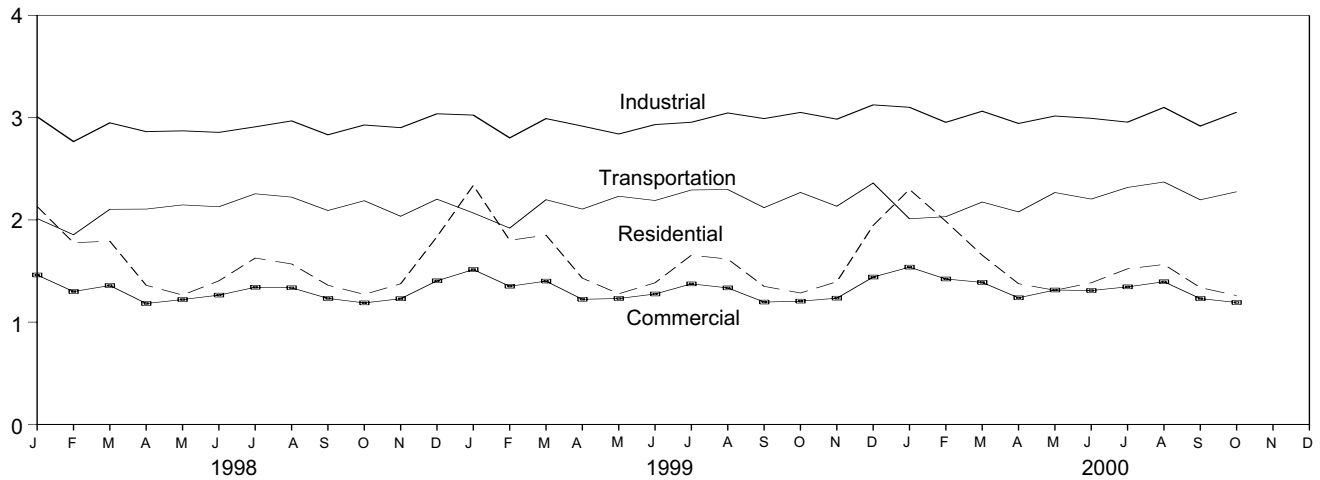
Electric power sector consumption of primary energy totaled 2.8 quadrillion Btu in October 2000, slightly lower than the October 1999 level. Fossil fuels accounted for 69 percent of the total; nuclear electric power 21 percent; and renewable energy 10 percent.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

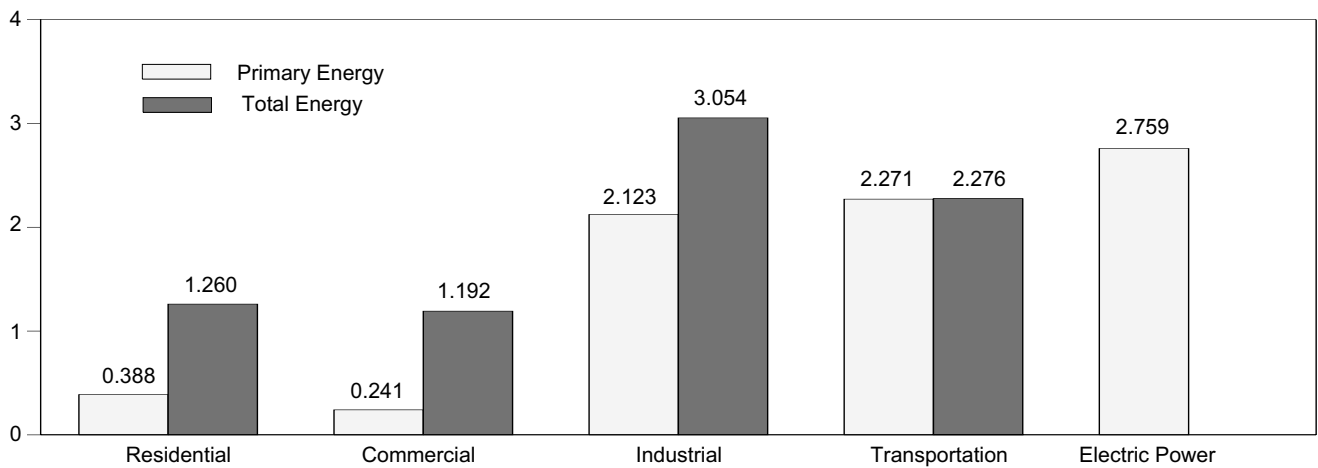
By End Use, 1973-1999



By End Use, Monthly



By Sector, October 2000



ote: Because vertical scales differ, graphs should not be compared.
Source: Table 2.1.

Table 2.1 Energy Consumption by Sector
(Quadrillion Btu)

	End-Use Sectors ^a								Electric Power Sector ^a	Total ^b
	Residential		Commercial		Industrial		Transportation			
	Primary	Total	Primary	Total	Primary	Total	Primary	Total	Primary	
1973 Total	8.258	14.983	4.373	9.534	24.706	R 32.672	18.576	18.612	19.887	R 75.808
1974 Total	7.948	14.745	4.201	9.374	23.783	R 31.835	18.086	18.119	20.055	R 74.080
1975 Total	8.027	14.888	4.002	9.465	21.422	R 29.445	18.209	18.244	20.382	R 72.042
1976 Total	8.431	15.493	4.310	10.038	22.652	R 31.434	19.065	19.099	21.607	R 76.072
1977 Total	8.232	15.765	4.193	10.194	23.160	R 32.336	19.784	19.820	22.746	R 78.122
1978 Total	8.309	16.249	4.233	10.489	23.245	R 32.770	20.580	20.615	23.755	R 80.123
1979 Total	7.971	15.937	4.296	10.635	24.177	R 33.999	20.436	20.471	24.162	R 81.044
1980 Total	7.533	15.938	4.068	10.613	22.640	R 32.189	19.658	19.696	24.538	R 78.435
1981 Total	7.142	15.482	3.791	10.672	21.371	R 30.906	19.469	19.506	24.793	R 77.659
1982 Total	7.206	15.704	3.816	10.906	19.079	R 27.756	19.032	R 19.070	24.303	R 73.440
1983 Total	6.879	15.603	3.783	10.989	18.565	R 27.580	19.098	19.141	24.989	R 73.317
1984 Total	7.036	15.927	3.945	11.510	20.175	R 29.724	19.761	R 19.809	26.053	R 76.972
1985 Total	7.024	16.095	3.676	11.550	19.507	R 29.067	20.023	20.071	26.552	R 76.778
1986 Total	6.842	16.087	3.617	11.684	19.100	R 28.474	20.768	20.818	26.735	R 77.065
1987 Total	6.874	16.437	3.710	12.078	20.013	R 29.664	21.405	21.456	27.633	R 79.633
1988 Total	7.280	17.213	3.918	12.640	20.926	R 30.899	22.261	22.313	28.681	R 83.068
1989 Total	7.522	17.769	3.892	13.067	20.716	R 31.191	22.517	R 22.571	29.950	R 84.607
1990 Total	6.494	16.843	3.742	13.130	21.097	R 31.687	22.488	R 22.541	30.380	R 84.271
1991 Total	6.723	17.415	3.800	13.371	20.741	R 31.333	22.077	R 22.130	30.908	R 84.214
1992 Total	6.916	17.297	3.834	13.262	21.666	R 32.456	22.419	R 22.471	30.651	R 85.491
1993 Total	7.156	18.121	3.828	13.580	21.916	R 32.687	22.844	R 22.896	31.541	R 87.281
1994 Total	6.991	18.070	3.865	13.896	22.628	R 33.701	23.467	R 23.522	32.239	R 89.189
1995 Total	7.063	18.489	3.958	14.404	22.951	R 34.050	23.921	R 23.975	33.024	R 90.924
1996 Total	7.563	19.448	4.121	14.881	23.728	R 35.041	24.469	R 24.523	34.013	R 93.902
1997 Total	7.114	18.898	4.146	15.390	23.881	R 35.193	24.771	R 24.825	34.393	R 94.307
1998 January	1.024	2.132	.548	1.461	2.121	R 3.010	2.009	2.014	2.914	R 8.614
February .....	.875	1.777	.478	1.299	1.909	R 2.767	1.851	1.855	2.585	R 7.694
March .....	.840	1.792	.454	1.358	2.018	R 2.950	2.100	2.104	2.793	R 8.201
April .....	.562	1.360	.326	1.182	1.961	R 2.864	2.102	2.106	2.559	R 7.506
May .....	.373	1.265	.239	1.221	1.848	R 2.872	2.142	R 2.147	2.901	R 7.503
June .....	.293	1.404	.200	1.264	1.849	R 2.857	2.125	2.129	3.187	R 7.657
July .....	.269	1.627	.203	1.341	1.923	R 2.911	2.251	2.256	3.488	R 8.140
August .....	.257	1.569	.206	1.336	1.957	R 2.969	2.218	2.223	3.458	R 8.101
September .....	.250	1.361	.196	1.232	1.905	R 2.833	2.087	2.092	3.081	R 7.522
October .....	.358	1.271	.242	1.188	2.009	R 2.929	2.184	2.188	2.784	R 7.576
November .....	.559	1.375	.336	1.229	1.983	R 2.903	2.032	2.036	2.633	R 7.541
December .....	.813	1.836	.454	1.404	2.081	R 3.039	2.198	2.203	2.934	R 8.478
Total	6.474	18.768	3.881	15.514	23.565	R 34.903	25.304	R 25.358	35.319	R 94.537
1999 January	1.129	2.338	.572	1.514	2.152	R 3.026	2.063	2.068	3.030	R 8.947
February .....	.869	1.800	.485	1.351	1.956	R 2.803	1.915	R 1.920	2.649	R 7.872
March .....	.862	1.851	.481	1.401	2.074	R 2.992	2.194	2.198	2.831	R 8.440
April .....	.578	1.430	.327	1.223	2.002	R 2.918	2.101	2.106	2.667	R 7.675
May .....	.393	1.277	.254	1.231	1.850	R 2.841	2.227	R 2.232	2.857	R 7.580
June .....	.302	1.385	.208	1.275	1.947	R 2.933	2.185	2.190	3.141	R 7.788
July .....	.275	1.655	.194	1.374	1.952	R 2.956	2.288	2.293	3.569	R 8.285
August .....	.261	1.617	.204	1.335	2.065	R 3.047	2.293	2.298	3.474	R 8.303
September .....	.279	1.350	.197	1.196	2.090	R 2.992	2.115	2.120	2.977	R 7.661
October .....	.398	1.285	.253	1.205	2.124	R 3.052	2.265	2.269	2.772	R 7.813
November .....	.537	1.395	.320	1.234	2.050	R 2.986	2.129	2.134	2.711	R 7.748
December .....	.878	1.946	.467	1.441	2.190	R 3.126	2.356	2.361	2.983	R 8.875
Total	6.761	19.333	3.961	15.778	24.451	R 35.667	26.138	R 26.194	35.662	R 96.991
2000 January	1.115	2.299	.571	1.538	2.165	R 3.102	2.006	2.011	3.093	R 8.953
February .....	.974	1.986	.534	1.422	2.079	R 2.955	2.028	2.032	2.781	R 8.397
March .....	.733	1.655	.458	1.389	2.105	R 3.064	2.171	2.175	2.816	R 8.284
April .....	.555	1.376	.337	1.238	2.018	R 2.944	2.075	2.079	2.653	R 7.636
May .....	.389	1.311	.280	1.314	2.020	R 3.017	2.263	R 2.268	2.958	R 7.911
June .....	.298	1.385	.234	1.309	2.034	R 2.994	2.199	2.204	3.128	R 7.898
July .....	.275	1.522	.227	1.345	2.009	R 2.957	2.314	2.318	3.319	R 8.149
August .....	.268	1.564	.226	1.395	2.104	R 3.101	2.366	R 2.371	3.468	R 8.439
September .....	.287	1.338	.224	1.230	2.012	R 2.919	2.193	R 2.197	2.968	R 7.688
October .....	.388	1.260	.241	1.192	2.123	R 3.054	2.271	2.276	2.759	R 7.784
10-Month Total ...	5.280	15.697	3.334	13.373	20.667	30.107	21.885	21.932	29.943	81.139
1999 10-Month Total ...	5.346	15.989	3.174	13.104	20.210	29.558	21.646	21.693	29.967	80.363
1998 10-Month Total ...	5.101	15.558	3.092	12.881	19.500	28.961	21.069	21.114	29.752	78.513

^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.

^b 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 exactly equal the sum of the sectoral components due to independent rounding and the use of sector-specific conversion factors for natural gas and coal.

R=Revised.

Notes: Primary consumption includes coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity. Total consumption includes primary consumption; electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; and electrical system energy losses. Geographic coverage is the 50 States and the District of Columbia.

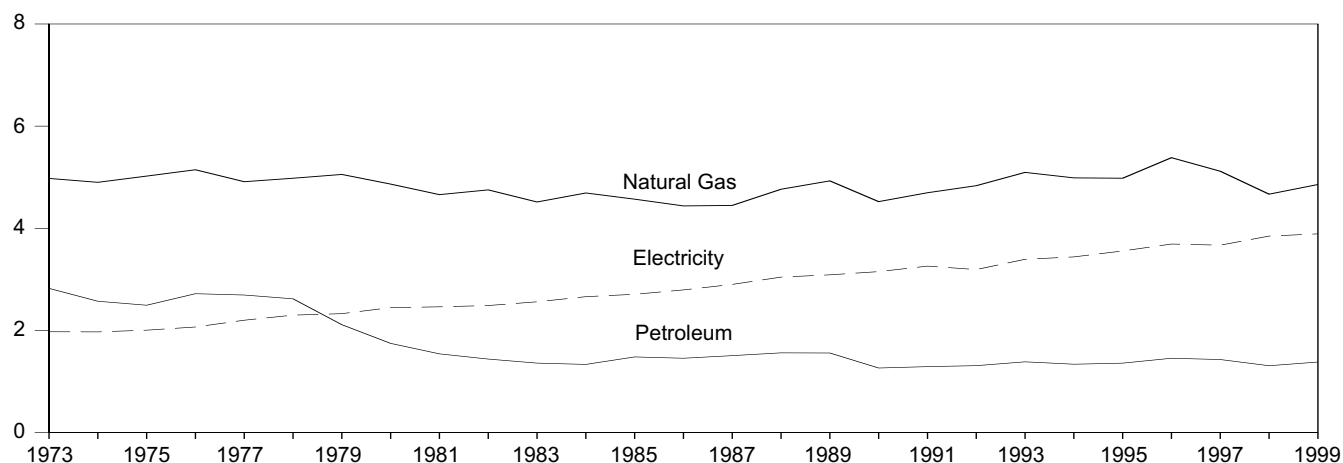
Additional Notes and Sources: See Tables 2.2-2.6 and end of section.

This table is redesigned to incorporate additional renewable energy data. See Appendix E for further information.

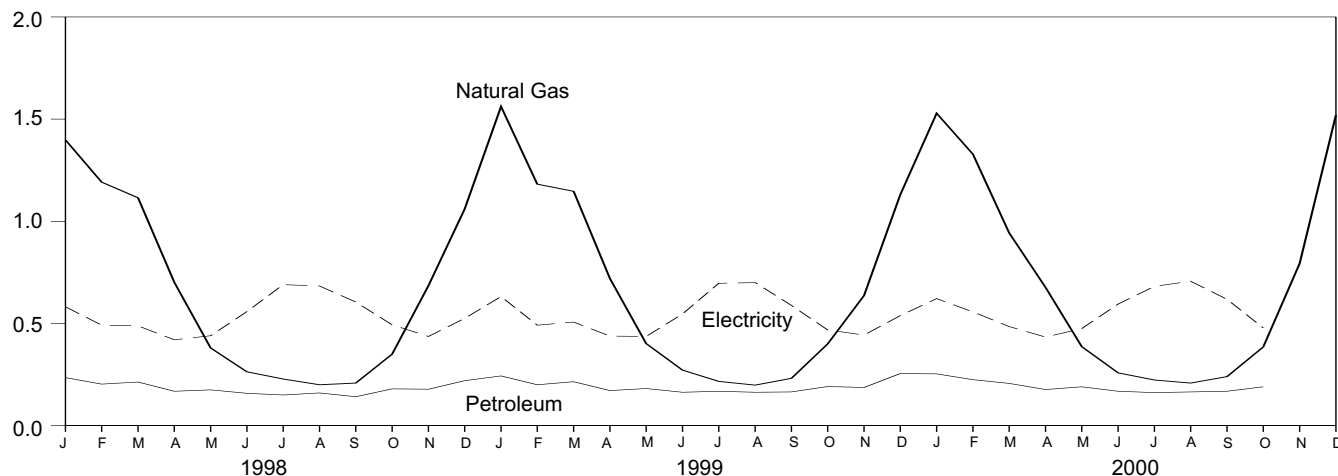
Figure 2.2 Residential Sector Energy Consumption

(Quadrillion Btu)

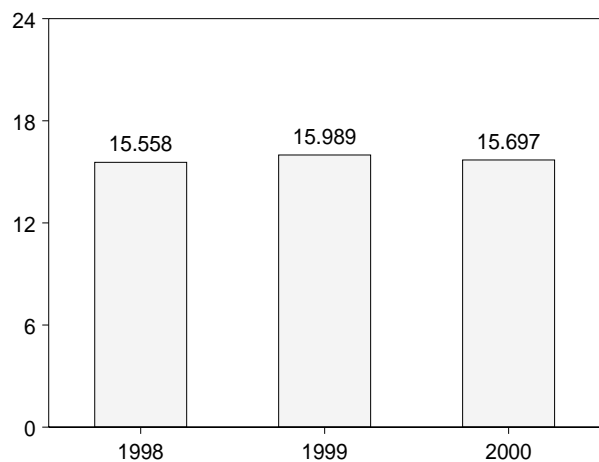
By Major Sources, 1973-1999



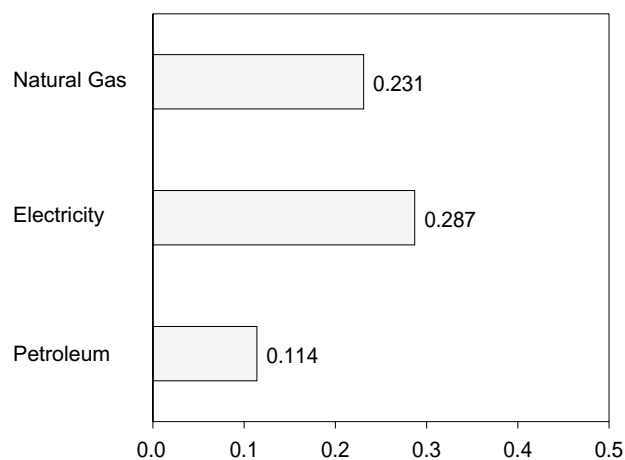
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2000



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.2.

Table 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption									Electricity ^f	Electrical System Energy Losses ^g	Total
	Fossil Fuels ^a				Renewable Energy				Total Primary			
	Coal	Natural Gas ^b	Petroleum	Total	Wood ^c	Geo-thermal ^d	Solar ^e	Total				
1973 Total	0.102	4.977	2.825	7.904	0.354	NA	NA	0.354	8.258	1.976	4.749	14.983
1974 Total	.103	4.901	2.573	7.577	.371	NA	NA	.371	7.948	1.973	4.824	14.745
1975 Total	.084	5.023	2.495	7.601	.425	NA	NA	.425	8.027	2.007	4.855	14.888
1976 Total	.081	5.147	2.720	7.949	.482	NA	NA	.482	8.431	2.069	4.994	15.493
1977 Total	.082	4.913	2.695	7.690	.542	NA	NA	.542	8.232	2.202	5.331	15.765
1978 Total	.085	4.981	2.620	7.687	.622	NA	NA	.622	8.309	2.301	5.639	16.249
1979 Total	.075	5.055	2.114	7.243	.728	NA	NA	.728	7.971	2.330	5.636	15.937
1980 Total	.060	4.866	1.748	6.674	.859	NA	NA	.859	7.533	2.448	5.958	15.938
1981 Total	.070	4.660	1.543	6.273	.869	NA	NA	.869	7.142	2.464	5.876	15.482
1982 Total	.075	4.753	1.441	6.269	.937	NA	NA	.937	7.206	2.489	6.008	15.704
1983 Total	.075	4.516	1.362	5.954	.925	NA	NA	.925	6.879	2.562	6.162	15.603
1984 Total	.083	4.692	1.337	6.113	.923	NA	NA	.923	7.036	2.662	6.229	15.927
1985 Total	.070	4.571	1.483	6.125	.899	NA	NA	.899	7.024	2.709	6.362	16.095
1986 Total	.070	4.439	1.457	5.966	.876	NA	NA	.876	6.842	2.795	6.450	16.087
1987 Total	.065	4.449	1.508	6.022	.852	NA	NA	.852	6.874	2.902	6.662	16.437
1988 Total	.067	4.765	1.563	6.395	.885	NA	NA	.885	7.280	3.046	6.887	17.213
1989 Total	.058	4.929	1.560	6.547	.918	.005	.053	.976	7.522	3.090	7.157	17.769
1990 Total	.062	4.523	1.266	5.852	.581	.006	.056	.642	6.494	3.153	7.196	16.843
1991 Total	.056	4.697	1.293	6.047	.613	.006	.058	.677	6.723	3.260	7.432	17.415
1992 Total	.057	4.835	1.312	6.205	.645	.006	.060	.711	6.916	3.193	7.188	17.297
1993 Total	.057	5.095	1.387	6.540	.548	.007	.062	.616	7.156	3.394	7.571	18.121
1994 Total	.056	4.988	1.340	6.384	.537	.006	.064	.607	6.991	3.441	7.638	18.070
1995 Total	.054	4.981	1.361	6.396	.596	.007	.065	.667	7.063	3.557	7.868	18.489
1996 Total	.055	5.383	1.457	6.896	.595	.007	.066	.668	7.563	3.693	8.192	19.448
1997 Total	.058	5.118	1.432	6.608	.433	.007	.065	.506	7.114	3.671	8.113	18.898
1998 January	.005	.839	.141	.985	A .032	A .001	A .005	A .038	1.024	.349	.759	2.132
February	.004	.715	.122	.841	A .029	A .001	A .005	A .034	.875	.295	.608	1.777
March	.004	.669	.128	.801	A .032	A .001	A .005	A .038	.840	.293	.660	1.792
April	.004	.421	.101	.526	A .031	A .001	A .005	A .037	.562	.252	.545	1.360
May	.002	.228	.105	.335	A .032	A .001	A .005	A .038	.373	.264	.628	1.265
June	.003	.158	.095	.256	A .031	A .001	A .005	A .037	.293	.335	.775	1.404
July	.003	.137	.090	.230	A .032	A .001	A .005	A .038	.269	.414	.944	1.627
August	.003	.120	.096	.219	A .032	A .001	A .005	A .038	.257	.410	.902	1.569
September	.002	.125	.085	.213	A .031	A .001	A .005	A .037	.250	.363	.748	1.361
October	.003	.210	.108	.320	A .032	A .001	A .005	A .038	.358	.296	.617	1.271
November	.004	.411	.107	.522	A .031	A .001	A .005	A .037	.559	.262	.554	1.375
December	.006	.636	.132	.775	A .032	A .001	A .005	A .038	.813	.315	.707	1.836
Total	.044	4.669	1.311	6.024	.377	.008	.065	.449	6.474	3.848	8.446	18.768
1999 January	.005	.937	.146	1.088	A .034	A .001	A .005	A .040	1.129	.379	.831	2.338
February	.004	.709	.120	.833	A .031	A .001	A .005	A .037	.869	.295	.636	1.800
March	.004	.688	.129	.821	A .034	A .001	A .005	A .040	.862	.304	.685	1.851
April	.004	.432	.103	.539	A .033	A .001	A .005	A .039	.578	.263	.589	1.430
May	.002	.241	.109	.353	A .034	A .001	A .005	A .040	.393	.262	.622	1.277
June	.002	.163	.098	.263	A .033	A .001	A .005	A .039	.302	.328	.755	1.385
July	.004	.130	.101	.235	A .034	A .001	A .005	A .040	.275	.418	.961	1.655
August	.003	.119	.098	.221	A .034	A .001	A .005	A .040	.261	.420	.936	1.617
September	.002	.139	.099	.240	A .033	A .001	A .005	A .039	.279	.353	.718	1.350
October	.003	.240	.115	.358	A .034	A .001	A .005	A .040	.398	.281	.606	1.285
November	.004	.382	.112	.498	A .033	A .001	A .005	A .039	.537	.266	.592	1.395
December	.006	.678	.153	.837	A .034	A .001	A .005	A .040	.878	.323	.745	1.946
Total	.044	4.858	1.383	6.285	.404	.009	.063	.476	6.761	3.892	8.680	19.333
2000 January	.006	.917	.152	1.075	A .034	A .001	A .005	A .040	1.115	.373	.811	2.299
February	.004	.797	.135	.936	A .032	A .001	A .005	A .038	.974	.334	.678	1.986
March	.003	.566	.124	.693	A .034	A .001	A .005	A .040	.733	.291	.631	1.655
April	.004	.406	.106	.516	A .033	A .001	A .005	A .039	.555	.260	.562	1.376
May	.003	.232	.114	.349	A .034	A .001	A .005	A .040	.389	.285	.637	1.311
June	.003	.155	.101	.259	A .033	A .001	A .005	A .039	.298	.357	.731	1.385
July	F .003	F .134	F .097	E .234	A .034	A .001	A .005	A .040	.275	.409	.839	1.522
August	F .003	F .125	F .099	E .227	A .034	A .001	A .005	A .040	.268	.424	.872	1.564
September	F .003	F .144	F .101	E .248	A .033	A .001	A .005	A .039	.287	.371	.680	1.338
October	F .002	F .231	F .114	E .347	A .034	A .001	A .005	A .040	.388	F .287	.585	1.260
10-Month Total	E .033	E 3.709	E 1.142	E 4.884	A .337	A .007	A .053	A .397	5.280	E 3.390	7.027	15.697
1999 10-Month Total	.034	3.798	1.118	4.950	A .336	A .007	A .053	A .396	5.346	3.303	7.339	15.989
1998 10-Month Total	.034	3.622	1.071	4.727	A .314	A .006	A .054	A .374	5.101	3.270	7.186	15.558

^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.

^b Includes supplemental gaseous fuels.

^c Wood only.

^d Geothermal heat pump and direct use energy.

^e Solar thermal direct use energy. Includes small amounts of commercial sector use.

^f Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users.

^g See Note 12 at end of section.

NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1998 and 1999 are created by dividing the annual value by 365 and then multiplying by the number of days in the month; temporary 2000 monthly estimates are created by dividing the 1999 annual value by 366 and multiplying by the number of days in the month.

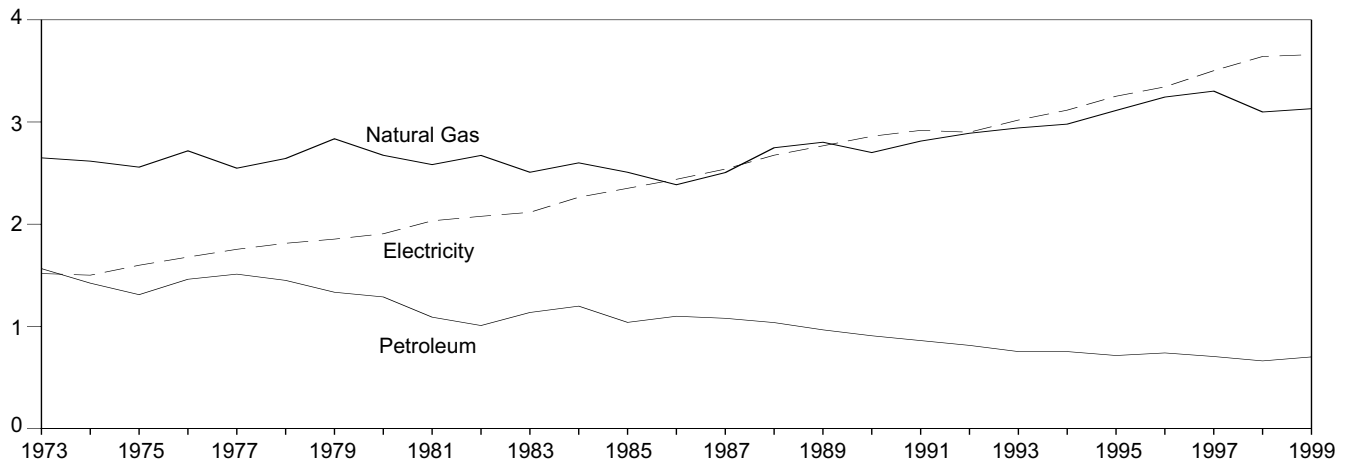
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

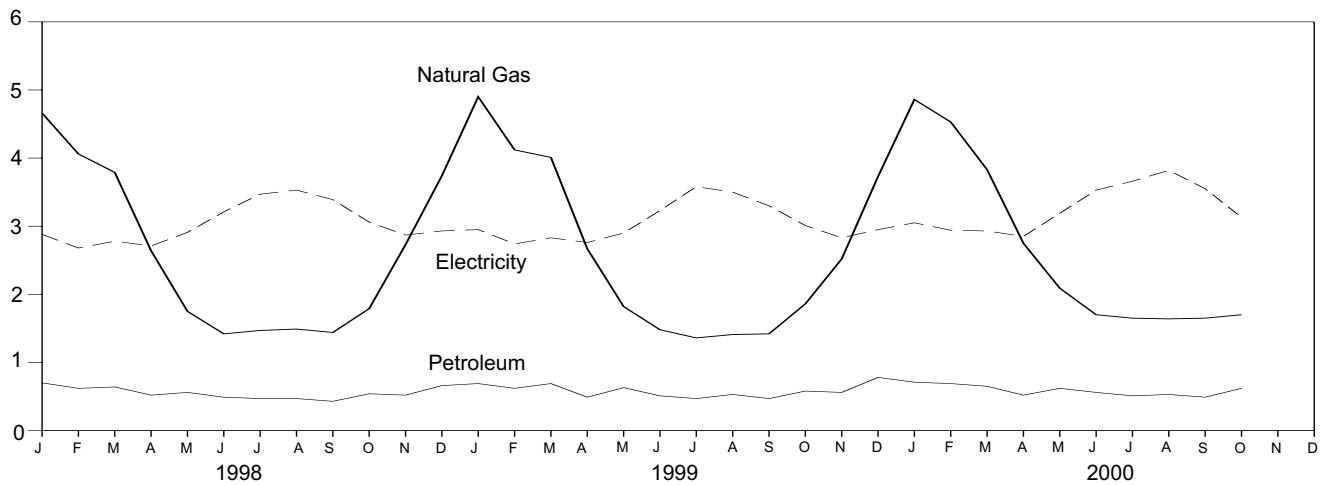
This table is redesigned to incorporate additional renewable energy data. See Appendix E for further information.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

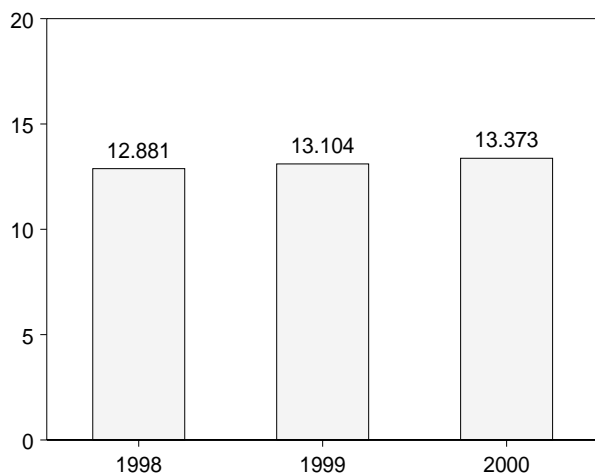
By Major Sources, 1973-1999



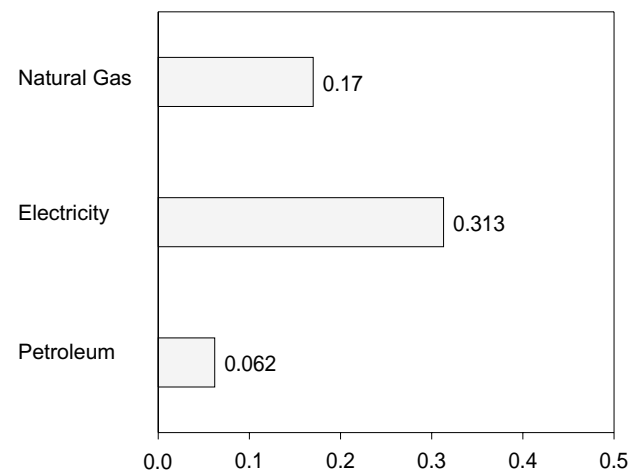
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2000



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption							Total Primary	Electricity ^e	Electrical System Energy Losses ^f	Total
	Fossil Fuels ^a				Renewable Energy						
	Coal	Natural Gas ^b	Petroleum	Total	Wood ^c	Geo-thermal ^d	Total				
1973 Total	0.152	2.649	1.565	4.367	0.007	NA	0.007	4.373	1.517	3.644	9.534
1974 Total	.154	2.617	1.423	4.194	.007	NA	.007	4.201	1.501	3.672	9.374
1975 Total	.126	2.558	1.310	3.994	.008	NA	.008	4.002	1.598	3.865	9.465
1976 Total	.122	2.718	1.461	4.301	.009	NA	.009	4.310	1.678	4.049	10.038
1977 Total	.123	2.548	1.511	4.182	.010	NA	.010	4.193	1.754	4.247	10.194
1978 Total	.128	2.643	1.450	4.221	.012	NA	.012	4.233	1.813	4.443	10.489
1979 Total	.112	2.836	1.334	4.282	.014	NA	.014	4.296	1.854	4.485	10.635
1980 Total	.086	2.674	1.288	4.047	.021	NA	.021	4.068	1.906	4.639	10.613
1981 Total	.097	2.583	1.090	3.770	.021	NA	.021	3.791	2.033	4.848	10.672
1982 Total	.112	2.673	1.008	3.794	.022	NA	.022	3.816	2.077	5.014	10.906
1983 Total	.117	2.508	1.136	3.761	.022	NA	.022	3.783	2.116	5.090	10.989
1984 Total	.125	2.600	1.198	3.923	.022	NA	.022	3.945	2.264	5.300	11.510
1985 Total	.106	2.508	1.039	3.652	.024	NA	.024	3.676	2.351	5.522	11.550
1986 Total	.106	2.386	1.099	3.590	.027	NA	.027	3.617	2.439	5.628	11.684
1987 Total	.097	2.505	1.079	3.681	.029	NA	.029	3.710	2.539	5.829	12.078
1988 Total	.101	2.748	1.037	3.886	.032	NA	.032	3.918	2.675	6.047	12.640
1989 Total	.088	2.802	.966	3.855	.034	.003	.037	3.892	2.767	6.409	13.067
1990 Total	.093	2.701	.908	3.702	.037	.003	.040	3.742	2.860	6.528	13.130
1991 Total	.085	2.813	.861	3.758	.039	.003	.042	3.800	2.918	6.652	13.371
1992 Total	.085	2.890	.814	3.788	.042	.003	.045	3.834	2.900	6.528	13.262
1993 Total	.086	2.942	.753	3.780	.044	.003	.047	3.828	3.019	6.734	13.580
1994 Total	.083	2.979	.753	3.816	.045	.004	.049	3.865	3.116	6.916	13.896
1995 Total	.081	3.113	.715	3.908	.045	.005	.050	3.958	3.252	7.194	14.404
1996 Total	.083	3.244	.740	4.067	.049	.005	.054	4.121	3.344	7.416	14.881
1997 Total	.087	3.302	.705	4.094	.047	.006	.053	4.146	3.502	7.741	15.390
1998 January	.008	.466	.070	.543	A .004	A .001	A .005	.548	.288	.626	1.461
February	.006	.406	.062	.474	A .004	A .001	A .004	.478	.268	.553	1.299
March	.006	.379	.064	.449	A .004	A .001	A .005	.454	.278	.627	1.358
April	.005	.264	.052	.322	A .004	A .001	A .004	.326	.271	.585	1.182
May	.004	.175	.056	.235	A .004	A .001	A .005	.239	.291	.691	1.221
June	.004	.142	.049	.196	A .004	A .001	A .004	.200	.321	.742	1.264
July	.005	.147	.047	.199	A .004	A .001	A .005	.203	.347	.791	1.341
August	.005	.149	.047	.201	A .004	A .001	A .005	.206	.353	.777	1.336
September	.004	.144	.043	.191	A .004	A .001	A .004	.196	.339	.698	1.232
October	.004	.179	.054	.237	A .004	A .001	A .005	.242	.306	.640	1.188
November	.006	.273	.052	.331	A .004	A .001	A .004	.336	.287	.606	1.229
December	.010	.374	.066	.449	A .004	A .001	A .005	.454	.293	.657	1.404
Total	.066	3.098	.662	3.827	.047	.007	.054	3.881	3.641	7.992	15.514
1999 January	.008	.490	.069	.567	A .005	A .001	A .005	.572	.295	.647	1.514
February	.006	.412	.062	.480	A .004	A .001	A .005	.485	.274	.591	1.351
March	.006	.401	.069	.475	A .005	A .001	A .005	.481	.283	.637	1.401
April	.006	.267	.049	.322	A .005	A .001	A .005	.327	.276	.619	1.223
May	.004	.182	.063	.248	A .005	A .001	A .005	.254	.290	.687	1.231
June	.003	.148	.051	.202	A .005	A .001	A .005	.208	.323	.745	1.275
July	.006	.136	.047	.189	A .005	A .001	A .005	.194	.358	.822	1.374
August	.004	.141	.053	.198	A .005	A .001	A .005	.204	.350	.781	1.335
September	.003	.142	.047	.191	A .005	A .001	A .005	.197	.330	.670	1.196
October	.004	.186	.058	.248	A .005	A .001	A .005	.253	.301	.651	1.205
November	.006	.252	.056	.315	A .005	A .001	A .005	.320	.283	.630	1.234
December	.010	.373	.078	.461	A .005	A .001	A .005	.467	.295	.680	1.441
Total	.066	3.130	.701	3.897	.057	.007	.064	3.961	3.659	8.159	15.778
2000 January	.009	.486	.071	.566	A .005	A .001	A .005	.571	.305	.662	1.538
February	.006	.453	.069	.529	A .004	A .001	A .005	.534	.294	.595	1.422
March	.005	.383	.065	.453	A .005	A .001	A .005	.458	.293	.637	1.389
April	.006	.275	.052	.332	A .005	A .001	A .005	.337	.285	.616	1.238
May	.004	.209	.062	.275	A .005	A .001	A .005	.280	.319	.714	1.314
June	.004	.170	.056	.229	A .005	A .001	A .005	.234	.353	.722	1.309
July	F .004	.165	.051	E .221	A .005	A .001	A .005	.227	.366	.752	1.345
August	F .004	.164	.053	E .221	A .005	A .001	A .005	.226	.382	.787	1.395
September	F .004	.165	.049	E .219	A .005	A .001	A .005	.224	.355	.650	1.230
October	F .003	F .170	.062	E .236	A .005	A .001	A .005	.241	F .313	.638	1.192
10-Month Total	E .049	E 2.640	.591	E 3.280	A .047	A .006	A .053	3.334	E 3.265	6.774	13.373
1999 10-Month Total	.050	2.504	.566	3.121	A .047	A .006	A .053	3.174	3.080	6.849	13.104
1998 10-Month Total	.050	2.452	.545	3.047	A .039	A .006	A .045	3.092	3.061	6.729	12.881

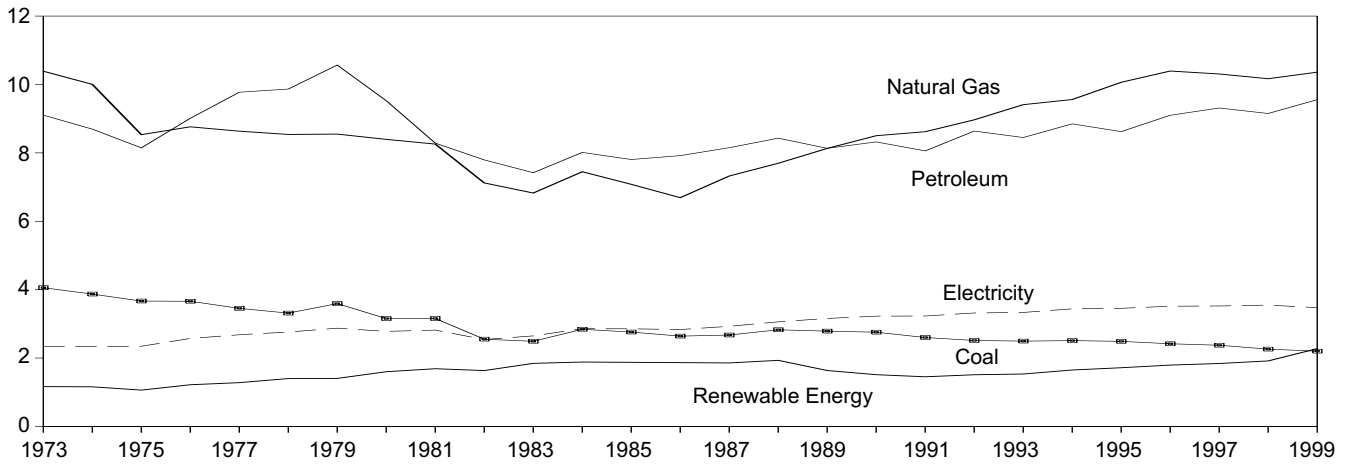
^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
^b Includes supplemental gaseous fuels.
^c Wood only.
^d Geothermal heat pump and direct use energy.
^e Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users.
^f See Note 12 at end of section.

NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1998 and 1999 are created by dividing the annual value by 365 and then multiplying by the number of days in the month; temporary 2000 monthly estimates are created by dividing the 1999 annual value by 366 and multiplying by the number of days in the month.
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Additional Notes and Sources: See end of section.

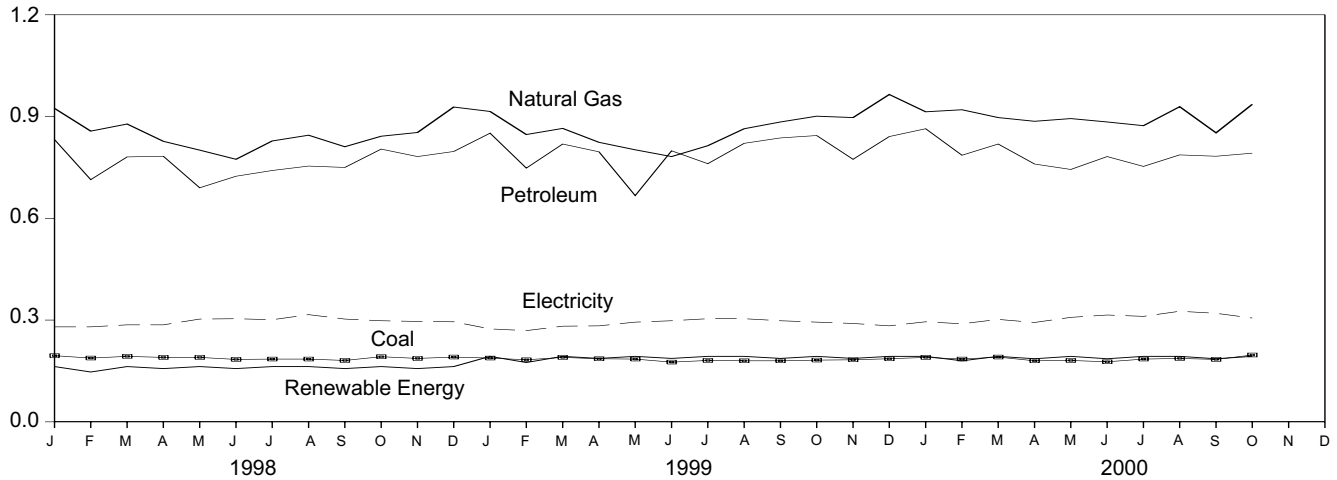
This table is redesigned to incorporate additional renewable energy data.
See Appendix E for further information.

Figure 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

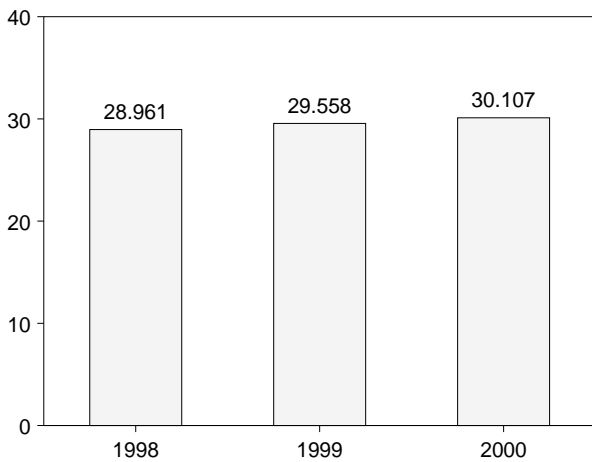
By Major Sources, 1973-1999



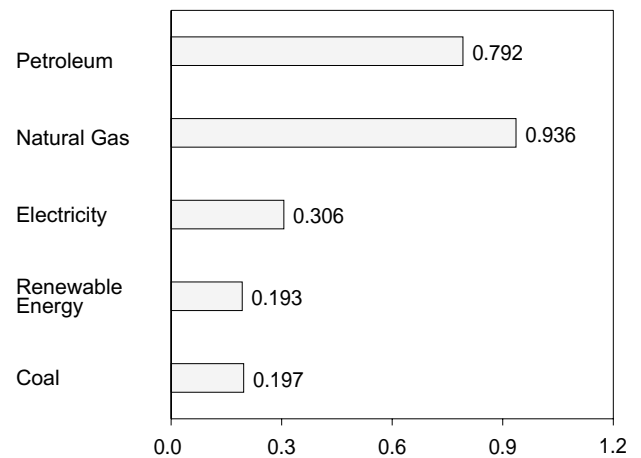
By Major Sources, Monthly



Total, January-October



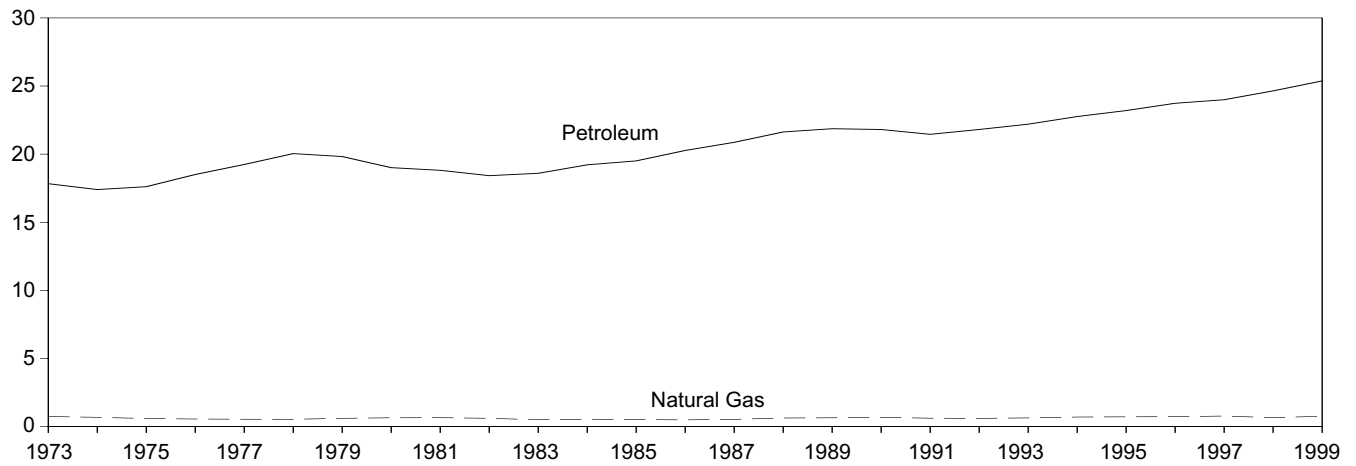
By Major Sources, October 2000



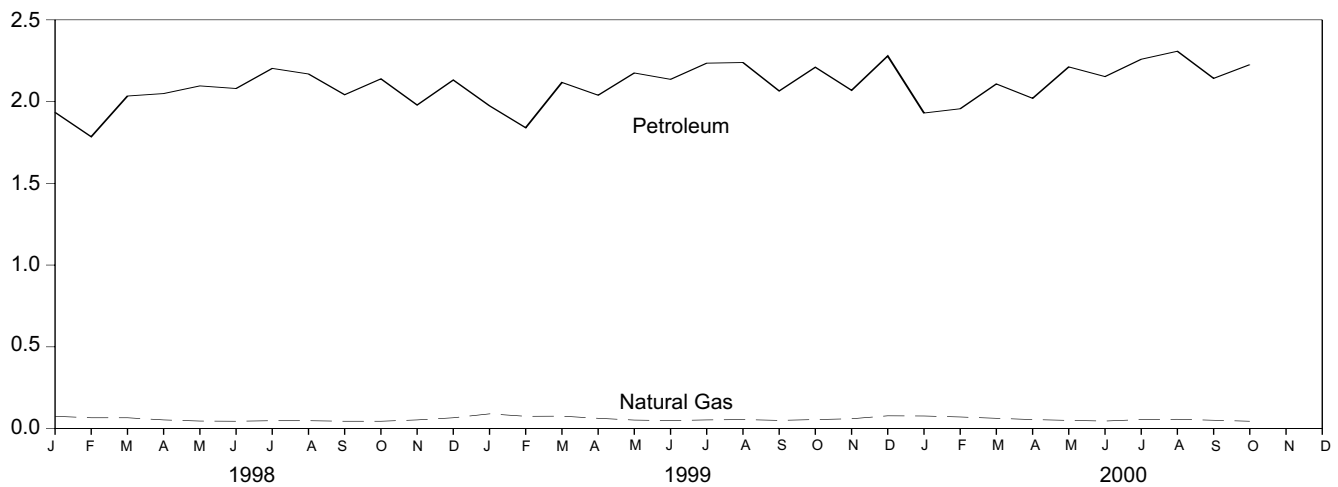
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.4.

Figure 2.5 Transportation Energy Consumption (Quadrillion Btu)

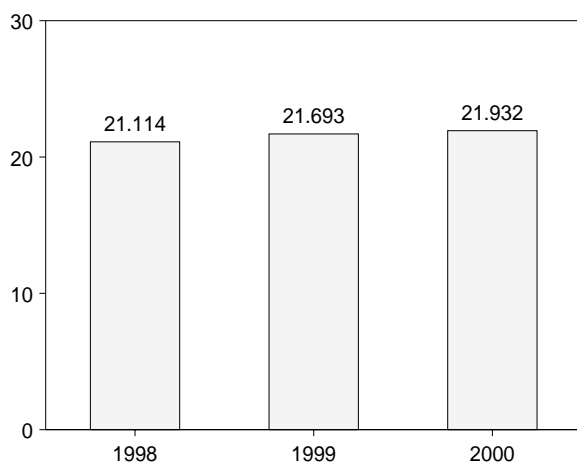
By Major Sources, 1973-1999



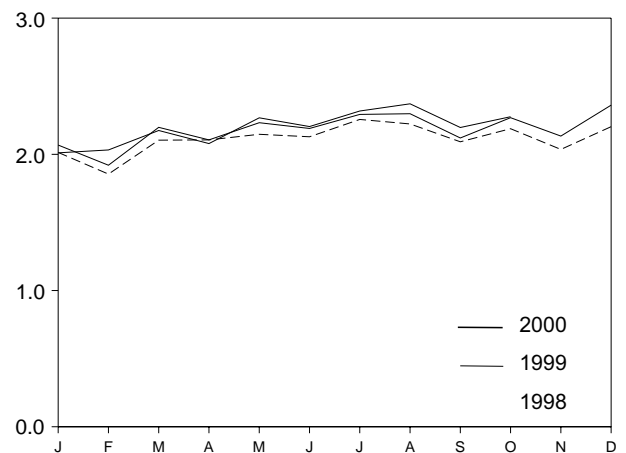
By Major Sources, Monthly



Total, January-October



Total, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.5.

Table 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption						Electricity ^d	Electrical System Energy Losses ^e	Total ^c
	Fossil Fuels ^a				Renewable Energy				
	Coal	Natural Gas ^b	Petroleum	Total	Alcohol Fuels ^c	Total Primary			
1973 Total	0.003	0.743	17.831	18.576	NA	18.576	0.011	0.025	18.612
1974 Total	.002	.685	17.399	18.086	NA	18.086	.010	.024	18.119
1975 Total	.001	.595	17.614	18.209	NA	18.209	.010	R .025	18.244
1976 Total	(s)	.559	18.506	19.065	NA	19.065	.010	.024	19.099
1977 Total	(s)	.543	19.241	19.784	NA	19.784	.010	.025	19.820
1978 Total	(f)	.539	20.041	20.580	NA	20.580	.010	.025	20.615
1979 Total	(f)	.612	19.825	20.436	NA	20.436	.010	.024	20.471
1980 Total	(f)	.650	19.008	19.658	NA	19.658	.011	.027	19.696
1981 Total	(f)	.658	18.811	19.469	.007	19.469	.011	.026	19.506
1982 Total	(f)	.612	18.420	19.032	.019	19.032	.011	R .027	R 19.070
1983 Total	(f)	.505	18.593	19.098	.035	19.098	.013	.030	19.141
1984 Total	(f)	.545	19.216	19.761	.043	19.761	.014	.033	R 19.809
1985 Total	(f)	.519	19.504	20.023	.052	20.023	.014	.033	20.071
1986 Total	(f)	.499	20.269	20.768	.060	20.768	.015	.035	20.818
1987 Total	(f)	.535	20.870	21.405	.069	21.405	.016	.036	21.456
1988 Total	(f)	.632	21.629	22.261	.070	22.261	.016	.036	22.313
1989 Total	(f)	.649	21.868	22.517	.071	22.517	.016	R .038	R 22.571
1990 Total	(f)	.680	21.808	22.488	.063	22.488	.016	R .037	R 22.541
1991 Total	(f)	.620	21.456	22.077	.073	22.077	.016	R .037	R 22.130
1992 Total	(f)	.606	21.812	22.419	.083	22.419	.016	R .036	R 22.471
1993 Total	(f)	.643	22.201	22.844	.097	22.844	.016	R .036	R 22.896
1994 Total	(f)	.707	22.760	23.467	.109	23.467	.017	R .038	R 23.522
1995 Total	(f)	.722	23.199	23.921	.117	23.921	.017	R .038	R 23.975
1996 Total	(f)	.734	23.735	24.469	.084	24.469	.017	R .037	R 24.523
1997 Total	(f)	.776	23.995	24.771	.106	24.771	.017	R .037	R 24.825
1998 January	(f)	.075	1.934	2.009	.011	2.009	.001	.003	2.014
February	(f)	.066	1.785	1.851	.009	1.851	.001	.003	1.855
March	(f)	.066	2.034	2.100	.010	2.100	.001	.003	2.104
April	(f)	.053	2.049	2.102	.009	2.102	.001	.003	2.106
May	(f)	.046	2.096	2.142	.008	2.142	.001	.003	R 2.147
June	(f)	.045	2.080	2.125	.008	2.125	.001	.003	2.129
July	(f)	.048	2.203	2.251	.009	2.251	.001	.003	2.256
August	(f)	.048	2.169	2.218	.009	2.218	.002	.003	2.223
September	(f)	.045	2.042	2.087	.010	2.087	.002	.003	2.092
October	(f)	.045	2.139	2.184	.011	2.184	.001	.003	2.188
November	(f)	.053	1.979	2.032	.010	2.032	.001	.003	2.036
December	(f)	.066	2.132	2.198	.013	2.198	.001	.003	2.203
Total	(f)	.662	24.643	25.304	.117	25.304	.017	R .037	R 25.358
1999 January	(f)	.090	1.974	2.063	.011	2.063	.001	.003	2.068
February	(f)	.075	1.840	1.915	.009	1.915	.001	.003	R 1.920
March	(f)	.076	2.117	2.194	.010	2.194	.001	.003	2.198
April	(f)	.063	2.039	2.101	.009	2.101	.001	.003	2.106
May	(f)	.052	2.175	2.227	.009	2.227	.001	.003	R 2.232
June	(f)	.049	2.136	2.185	.010	2.185	.001	.003	2.190
July	(f)	.053	2.235	2.288	.008	2.288	.002	.004	2.293
August	(f)	.055	2.239	2.293	.010	2.293	.002	.003	2.298
September	(f)	.050	2.065	2.115	.010	2.115	.002	.003	2.120
October	(f)	.055	2.210	2.265	.012	2.265	.001	.003	2.269
November	(f)	.060	2.069	2.129	.012	2.129	.001	.003	2.134
December	(f)	.078	2.279	2.356	.014	2.356	.001	.003	2.361
Total	(f)	.762	25.376	26.138	.122	26.138	.017	R .039	R 26.194
2000 January	(f)	.077	1.930	2.006	.012	2.006	.001	.003	2.011
February	(f)	.071	1.956	2.028	.009	2.028	.001	.003	2.032
March	(f)	.063	2.108	2.171	.012	2.171	.001	.003	2.175
April	(f)	.055	2.020	2.075	.010	2.075	.001	.003	2.079
May	(f)	.050	2.212	2.263	.012	2.263	.002	.003	R 2.268
June	(f)	.046	2.153	2.199	.007	2.199	.002	.003	2.204
July	(f)	.055	2.259	2.314	.013	2.314	.002	.003	2.318
August	(f)	R .057	2.308	2.366	.012	2.366	.002	R .004	R 2.371
September	(f)	R .051	2.142	2.193	.011	2.193	.002	.003	R 2.197
October	(f)	F .045	2.226	E 2.271	.013	2.271	F .002	.003	2.276
10-Month Total	(f)	E .571	21.314	E 21.885	.112	21.885	E .015	.032	21.932
1999 10-Month Total	(f)	.618	21.028	21.646	.096	21.646	.015	.032	21.693
1998 10-Month Total	(f)	.537	20.532	21.069	.094	21.069	.014	.031	21.114

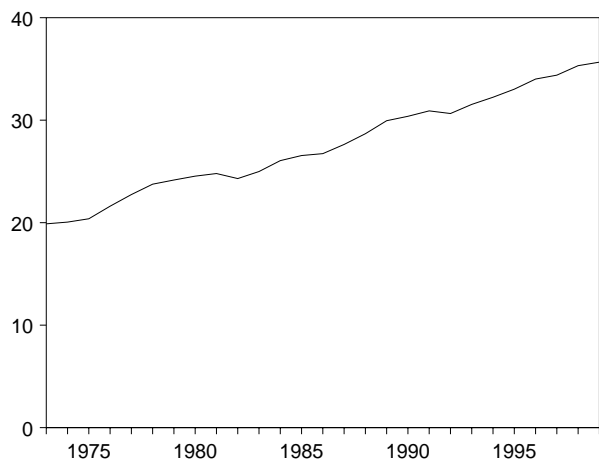
^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
^b Natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel. See Table 4.4.
^c Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol Fuels," but is counted only once in total transportation sector energy consumption.
^d Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite

electricity generation or electricity sold by nonutilities directly to end users.
^e See Note 12 at end of Section.
^f Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.
R=Revised. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 0.5 trillion Btu.
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Additional Notes and Sources: See end of section.

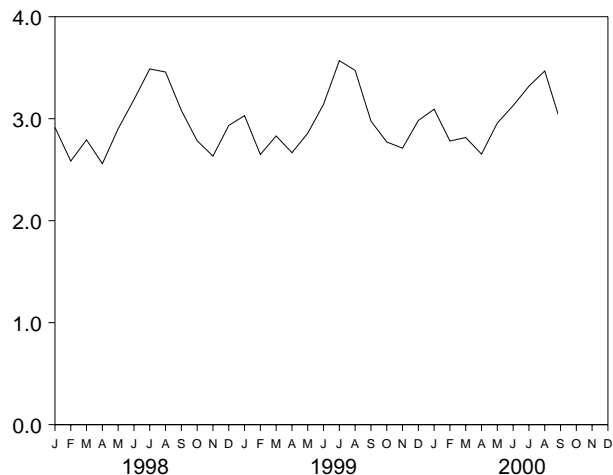
This table is redesigned to incorporate additional renewable energy data.
See Appendix E for further information.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

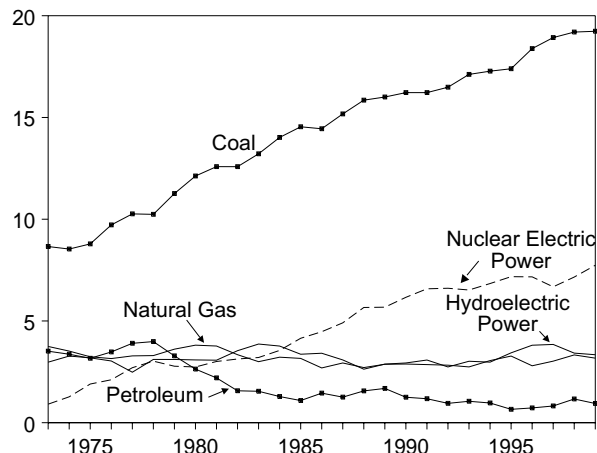
Total, 1973-1999



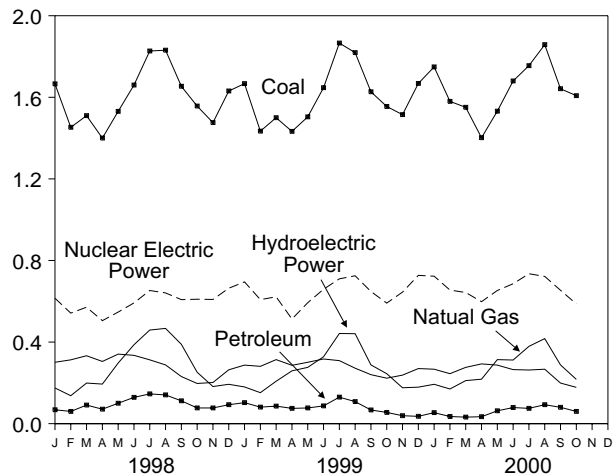
Total, Monthly



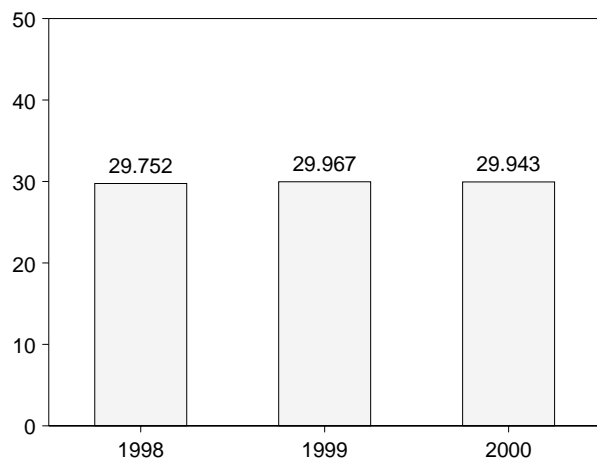
By Major Sources, 1973-1999



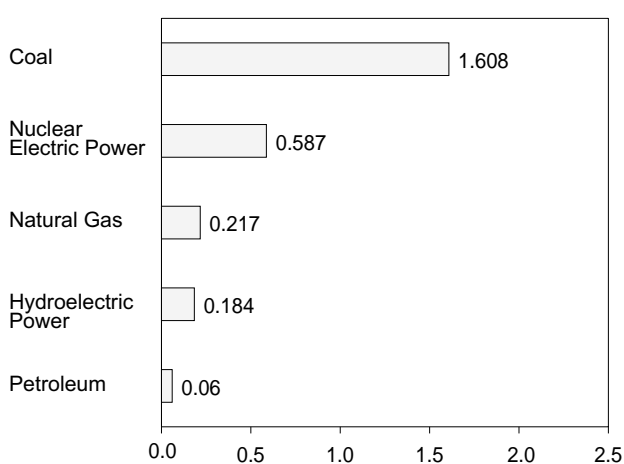
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2000



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.6.

Energy Consumption by Sector Notes and Sources

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

Users of EIA’s energy consumption statistics should be aware of a second group of energy-related surveys, typically called “consumption surveys.” Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the Manufacturing Energy Consumption Survey belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see *Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533, Energy Information Administration, Washington, DC, April 6, 1990.

The following notes provide details about the data in Section 2.

1. Primary and Total Energy Consumption: Primary consumption includes coal, natural gas, petroleum products, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity. Total consumption includes primary consumption, electric utility retail sales of electricity, and electrical system energy losses.

2. Energy-Use Sectors: Energy use is assigned to the major economic sectors according to the following guidelines as closely as possible:

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.

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. 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.

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; agriculture, forestry, and fisheries; mining; and construction. 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.

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.

Electric Power Sector—An energy-consuming sector that consists of all utility and nonutility facilities and equipment used to generate, transmit, and/or distribute electricity.

Although the energy-use allocations are made according to these aggregations as closely as possible, some data are collected by using different classifications. For example, electric utilities may classify commercial and industrial users by the quantity of electricity purchased rather than by the business activity of the purchaser. Natural gas used in agriculture, forestry, and fisheries was collected and reported in the commercial sector through 1995. Beginning with 1996 data, deliveries of natural gas for agriculture, forestry, and fisheries are reported in the industrial sector instead. Another example is master-metered condominiums and apartments, and buildings with a combination of residential and commercial units. In many cases, the metering and billing practices cause residential energy usage of electricity, natural gas, or fuel oil to be included in the commercial sector. No adjustments for these discrepancies were made.

3. Conversion Factors: See Appendix A.

4. Coal: See Tables 6.2 and A5.

5. Coal Coke Net Imports: Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports. Sources:
1973-1975: DOI, BOM, *Minerals Yearbook*, “Coke and Coal Chemicals” chapter.
1976-1980: EIA, *Energy Data Report*, “Coke and Coal Chemicals” annual.
1981: EIA, *Energy Data Report*, “Coke Plant Report,” quarterly.
1982 forward: *Quarterly Coal Report*.

6. Natural Gas: See Tables 4.4 and A4. For Section 2 calculations, lease and plant fuel consumption are included in the industrial sector, and pipeline fuel use of natural gas is included in the transportation sector.

Note: Residential and commercial monthly sales data for 1973-1979, which are used to estimate monthly consumption values from EIA annual consumption values, are from the American Gas Association, “Monthly Gas Utility Statistical Report.”

7. Petroleum: Petroleum consumption in this section of the *Monthly Energy Review (MER)* is the series called “petroleum product supplied” from Section 3. The sources for petroleum product supplied by product are:
1973-1975: DOI, BOM, *Mineral Industry Surveys*, “Petroleum Statement, Annual.”
1976-1980: EIA, *Energy Data Reports*, “Petroleum Statement, Annual.”
1981-1999: EIA, *Petroleum Supply Annual*.
2000 forward: EIA, *Petroleum Supply Monthly*.

Energy-use allocation procedures by individual product are described below.

Aviation Gasoline—All aviation gasoline use is assigned to the transportation sector.

Asphalt—All asphalt use is assigned to the industrial sector.

Distillate Fuel—Distillate fuel use is assigned to the energy-use sectors as described below.

Distillate Fuel Used by Electric Utilities, All Time Periods—For 1973-1979, consumption of distillate fuel 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 forward, consumption of distillate fuel is assumed to be the amount of light oil (minus small amounts of kerosene deliveries through 1982) consumed at electric utilities. Source: Table 7.7.

Distillate Fuel Used by Nonutility Sectors, Annually Through 1997—The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual consumption totals are allocated to the individual

nonutility sectors (residential, commercial, industrial, and transportation) in proportion to the share of “adjusted sales” of each end-use sector, as reported in EIA’s *Fuel Oil and Kerosene Sales* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. “Adjusted sales” are sales that have been adjusted at the PAD district level to equal EIA volume estimates of petroleum products supplied in the U.S. market. Following are notes on the individual sector groupings:

Since 1979, the residential sector adjusted 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 adjusted 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 adjusted sales total is the sum of the adjusted 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 adjusted sales total is the sum of the adjusted sales for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

Distillate Fuel Used by Nonutility Sectors, Monthly Through 1997—Residential and commercial 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. The years’ 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 1983-1997, 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. The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is

evenly distributed over the months, adjusted for the number of days per month.

Industrial monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel consumption.

Distillate Fuel Used by Nonutility Sectors, 1998 Forward—Each month's nonutility consumption subtotal is disaggregated into sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1997.

Jet Fuel—Through 1982, small amounts of kerosene-type jet fuel were consumed by electric utilities. Kerosene-type jet fuel deliveries to electric utilities as reported on the Form FERC-423 (formerly Form FPC-423) were used as estimates of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.

Kerosene—Kerosene use is allocated to the sectors in proportion to annual sales grouped into sectors from EIA's *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172).

Residential deliveries are taken directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Commercial sales are directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Industrial sales are directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

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

Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thou-

sand barrels per year and are assumed to be the annual consumption of LPG by the sector.

The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 36 percent (in 1996) to a high of 73 percent (in 1994).

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

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

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

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.

1984-1996: 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.

1997 forward: The 1996 source is used to estimate succeeding periods.

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—A portion of petroleum coke is consumed by electric utilities, as reported on Form EIA-759, “Monthly Power Plant Report” (formerly Form FPC-4). The remaining petroleum coke is assigned to the industrial sector.

Residual Fuel—Residual fuel use is assigned to the sectors as described below.

Residual Fuel Used by Electric Utilities, All Time Periods—For 1973-1979, consumption of residual fuel is assumed to be the amount of petroleum consumed in steam-electric power plants. For 1980 forward, consumption of residual fuel is assumed to be the amount of heavy oil consumed at electric utilities. Source: Table 7.7.

Residual Fuel Used by Nonutility Sectors, Annually Through 1997—The aggregate nonutility use of residual fuel is total residual fuel consumption minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel sold to end users, grouped into sectors from EIA’s *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172), as follows:

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

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

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

Residual Fuel Used by Nonutility Sectors, Monthly Through 1997—Commercial 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. The years’ sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales*; and for 1983-1996, EIA, Form EIA-782A, “Refiners’/Gas Plant Operators’ Monthly Petroleum Product Sales Report,” No. 2 Fuel Oil Sales to End Users and for Resale.

Transportation monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusting for the number of days per month.

Industrial monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month’s total residual fuel supplied.

Residual Fuel Used by Nonutility Sectors, 1998 Forward—Each month’s nonutility consumption subtotal is disaggregated into the sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1997.

Road Oil—Road oil use is assigned to the industrial sector.

All Other Petroleum Products—Consumption of all remaining petroleum products is assigned to the industrial sector.

8. Nuclear Electric Power—See Tables 7.2 and A6.

9. Hydroelectric Pumped Storage—See Tables 7.2 and A6.

10. Renewable Energy—See Tables E2, E3a, and E3b.

11. Electricity: End-use consumption of electricity is based on electric utility retail sales data from Table 7.5. “Other,” which is primarily for use in government buildings, is added to the commercial sector, except for approximately 5 percent used by railroads and railways and attributed to the transportation sector. Kilowatthours are converted to Btu at the rate of 3,412 Btu per kilowatthour.

12. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total energy input at electric utilities and the total energy content of electricity sold to end-use consumers. Most of those 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, approximately 67 percent of total energy input is lost in conversion; of electricity generated, approximately 5 percent is lost in plant use and 9 percent is lost in trans-

mission and distribution. Calculated electrical system energy losses may be less than actual losses, because primary consumption does not include the energy equivalent of utility purchases of electricity from non-electric utilities and from Canada and Mexico, although they are included in electricity sales.

Section 3. Petroleum

Total petroleum imports¹ averaged 11.4 million barrels per day in December 2000, 5 percent higher than the previous month's rate and 14 percent higher than the December 1999 rate.

In December 2000, 20.7 million barrels per day of petroleum products were supplied for domestic use, 1 percent higher than the December 1999 rate. Motor gasoline accounted for 41 percent of the total; distillate fuel oil, 20 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline supplied during December 2000 averaged 8.5 million barrels per day, 2 percent higher than the previous month's rate but 4 percent lower than the December 1999 rate. Total motor gasoline stocks were 195 million barrels at the end of December 2000, 4 million barrels below the stock level in the previous

month but 2 million barrels above the level 1 year earlier.

Distillate fuel oil supplied during December 2000 averaged 4.2 million barrels per day, 12 percent higher than the previous month's rate and 8 percent higher than the December 1999 rate. Distillate fuel oil ending stocks for December 2000 were 116 million barrels, 5 million barrels below the stock level in the previous month and 9 million barrels below the level 1 year earlier.

Kerosene-type jet fuel supplied in December 2000 averaged 1.7 million barrels per day, 1 percent higher than the previous month's rate and the same as the December 1999 rate. Kerosene-type jet fuel stocks measured 44 million barrels at the end of December 2000, 2 million barrels above the stock level in the previous month and 4 million barrels above the level 1 year earlier.

Estimates (except of crude production) for the most current month are based on Energy Information Administration (EIA) weekly data and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent month, crude production is an EIA estimate based on historical and provisional data through September 2000.

¹Total import data include imports into the Strategic Petroleum Reserve.

Table 3.1a Petroleum Overview: Field Production, Stock Change, Petroleum Products Supplied, and Stocks

	Field Production			Stock Change ^a		Petroleum Products Supplied	Stocks ^b
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products		Crude Oil ^d and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	10,975	9,208	1,738	-11	146	17,308	1,008
1974 Average	10,498	8,774	1,688	62	117	16,653	^e 1,074
1975 Average	10,045	8,375	1,633	^e 17	^e 15	16,322	1,133
1976 Average	9,774	8,132	^f 1,604	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	^e 1,392
1981 Average	10,230	8,572	1,609	^e 290	^e -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	^e 1,430
1983 Average	10,299	8,688	1,559	^e 214	^e -234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 Average	9,818	8,140	1,625	1	-29	17,283	1,597
1989 Average	9,219	7,613	1,546	86	-129	17,325	1,581
1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
1991 Average	9,168	7,417	1,659	-42	32	16,714	1,617
1992 Average	8,996	7,171	1,697	-1	-68	17,033	^e 1,592
1993 Average	^g 8,836	6,847	1,736	81	^e 70	17,237	^e 1,647
1994 Average	8,645	6,662	1,727	18	-2	17,718	1,653
1995 Average	8,626	6,560	1,762	-93	-153	17,725	1,563
1996 Average	^E 8,607	^E 6,465	1,830	-124	-28	18,309	1,507
1997 Average	8,611	6,452	1,817	51	93	18,620	1,560
1998							
January	8,781	6,541	1,805	389	-66	18,362	1,570
February	8,731	6,476	1,857	37	-79	18,316	1,569
March	8,590	6,408	1,853	538	54	18,685	1,587
April	8,685	6,483	1,869	556	349	19,044	1,614
May	8,529	6,347	1,835	-9	1,232	18,375	1,652
June	8,460	6,267	1,748	-620	577	19,182	1,651
July	8,155	6,194	1,586	187	162	19,466	1,661
August	8,301	6,203	1,722	-293	530	19,347	1,669
September	7,878	5,789	1,716	-641	95	18,895	1,652
October	8,257	6,143	1,744	677	-776	19,188	1,649
November	8,294	6,140	1,768	321	425	18,673	1,672
December	8,066	6,043	1,620	-285	-515	19,419	1,647
Average	8,392	6,252	1,759	74	165	18,917	1,647
1999							
January	8,001	5,963	1,656	297	-454	19,029	1,642
February	8,068	5,966	1,722	50	-291	19,107	1,635
March	8,023	5,883	1,787	367	-859	19,497	1,620
April	8,015	5,887	1,806	-301	433	19,152	1,624
May	8,091	5,875	1,790	182	897	18,705	1,658
June	7,997	5,760	1,874	-235	-273	19,836	1,642
July	8,013	5,798	1,902	34	10	19,820	1,644
August	8,069	5,780	1,874	-566	-145	20,093	1,622
September	8,127	5,804	1,917	-368	142	19,483	1,615
October	8,283	5,947	1,953	-85	-875	19,868	1,585
November	8,275	5,960	1,949	-297	-188	19,087	1,571
December	8,320	5,959	1,957	-507	-1,995	20,498	1,493
Average	8,107	5,881	1,850	-118	-304	19,519	1,493
2000							
January	^E 8,153	^E 5,833	1,942	91	-321	18,592	1,479
February	^E 8,301	^E 5,889	1,981	120	-424	19,296	1,470
March	^E 8,219	^E 5,873	1,983	270	-29	19,064	1,478
April	^E 8,243	^E 5,850	1,966	207	796	18,590	1,508
May	^E 8,174	^E 5,836	1,942	-117	693	19,345	1,526
June	^E 8,124	^E 5,824	1,922	-189	427	19,833	1,533
July	^E 8,117	^E 5,792	1,923	-238	607	19,584	1,544
August	^E 8,117	^E 5,813	1,944	193	-410	20,224	1,537
September	^E 8,085	^E 5,767	1,925	-377	177	19,741	1,531
October	^E 8,163	^E 5,820	1,919	-169	-508	19,701	1,510
November	^{RE} 8,147	^{RE} 5,868	^R 1,876	^R -288	^R 301	^R 19,064	^R 1,511
December	^E 8,220	^{PE} 5,899	^E 1,925	^E -497	^E -697	^E 20,742	^E 1,470
Average	^E 8,172	^{PE} 5,839	^E 1,937	^E -83	^E 49	^E 19,484	^E 1,470

^a A negative number indicates a decrease in stocks and a positive number indicates an increase. Distillate stocks in the "Northeast Heating Oil Reserve" are not included.

^b Stocks are at end of period. Distillate stocks in the "Northeast Heating Oil Reserve" are not included.

^c Includes crude oil, natural gas plant liquids, and other liquids.

^d Includes stocks located in the Strategic Petroleum Reserve.

^e See Note 4 at end of section.

^f See Note 6 at end of section.

^g Beginning in 1993, includes fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE (methyl tertiary butyl ether) plants.

PE=Preliminary estimate. R=Revised. E=Estimate.

Notes: Crude oil includes lease condensate. Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S1. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S1.

Table 3.1b Petroleum Overview: Imports, Exports, and Net Imports

	Imports			Exports			Net Imports ^b
	Total	Crude Oil ^a	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	^c 471	235	^c 236	^c 7,985
1980 Average	6,909	5,263	1,646	544	287	258	6,365
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 Average	7,402	5,107	2,295	815	155	661	6,587
1989 Average	8,061	5,843	2,217	859	142	717	7,202
1990 Average	8,018	5,894	2,123	857	109	748	7,161
1991 Average	7,627	5,782	1,844	1,001	116	885	6,626
1992 Average	7,888	6,083	1,805	950	89	861	6,938
1993 Average	8,620	6,787	1,833	1,003	98	904	7,618
1994 Average	8,996	7,063	1,933	942	99	843	8,054
1995 Average	8,835	7,230	1,605	949	95	855	7,886
1996 Average	9,478	7,508	1,971	981	110	871	8,498
1997 Average	10,162	8,225	1,936	1,003	108	896	9,158
1998 January	10,127	8,339	1,788	1,133	231	902	8,994
February	9,991	8,045	1,946	1,003	197	806	8,988
March	10,034	8,124	1,911	948	99	848	9,087
April	11,105	8,985	2,120	1,048	163	885	10,057
May	11,104	8,987	2,117	1,053	144	909	10,051
June	10,926	8,795	2,132	987	63	924	9,939
July	11,649	9,507	2,142	998	104	894	10,651
August	11,032	9,177	1,855	780	51	729	10,252
September	10,499	8,500	1,998	863	34	828	9,636
October	10,861	8,667	2,194	851	87	763	10,011
November	10,860	8,940	1,920	782	60	721	10,078
December	10,258	8,352	1,906	893	90	803	9,365
Average	10,708	8,706	2,002	945	110	835	9,764
1999 January	10,424	8,393	2,031	896	107	788	9,529
February	10,650	8,468	2,182	756	119	636	9,894
March	10,658	8,739	1,919	764	95	669	9,894
April	11,618	9,256	2,362	1,196	332	864	10,422
May	11,511	9,098	2,412	915	88	826	10,596
June	11,160	8,888	2,272	907	123	784	10,253
July	11,697	9,391	2,306	918	120	798	10,779
August	11,142	8,908	2,234	902	132	769	10,240
September	10,657	8,527	2,130	889	27	862	9,768
October	10,595	8,613	1,983	944	56	888	9,651
November	10,033	8,224	1,809	950	83	866	9,083
December	10,065	8,234	1,830	1,230	133	1,096	8,835
Average	10,852	8,731	2,122	940	118	822	9,912
2000 January	9,795	7,719	2,076	1,006	176	830	8,789
February	10,396	8,096	2,300	870	30	840	9,526
March	10,768	8,661	2,107	1,159	144	1,015	9,609
April	11,091	9,088	2,003	1,131	124	1,007	9,960
May	10,981	8,912	2,069	856	34	822	10,125
June	11,681	9,455	2,225	925	9	915	10,756
July	11,344	9,320	2,024	900	15	885	10,444
August	11,849	9,858	1,991	1,073	17	1,056	10,776
September	11,512	9,281	2,230	1,059	23	1,036	10,453
October	11,018	8,866	2,151	1,292	9	1,283	9,726
November	^R 10,857	^R 8,708	^R 2,149	^R 1,108	^R 2	^R 1,106	^R 9,749
December	^E 11,424	^E 8,983	^E 2,442	^E 992	^E 104	^E 888	^E 10,433
Average	^E 11,061	^E 8,914	^E 2,146	^E 1,031	^E 58	^E 974	^E 10,029

^a Includes crude oil for storage in the Strategic Petroleum Reserve.

^b Net imports equals imports minus exports.

^c See Note 6 at end of section.

R=Revised. E=Estimate.

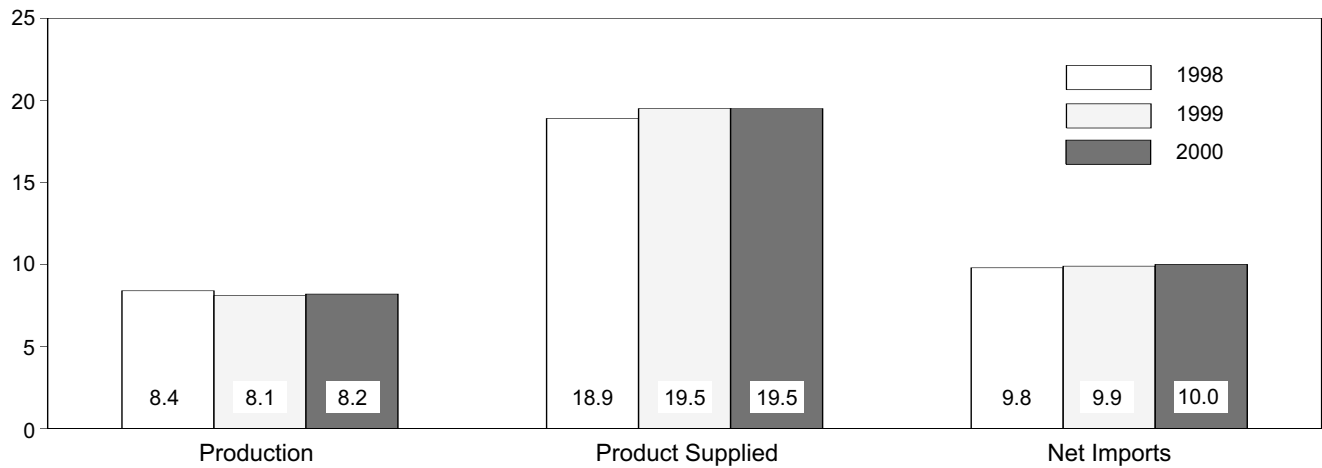
Notes: Crude oil includes lease condensate. Totals may not equal sum

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

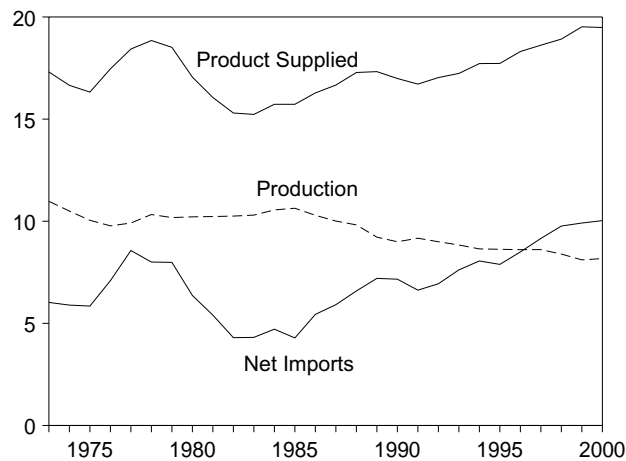
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S1. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S1.

Figure 3.1a Petroleum Overview
(Million Barrels per Day)

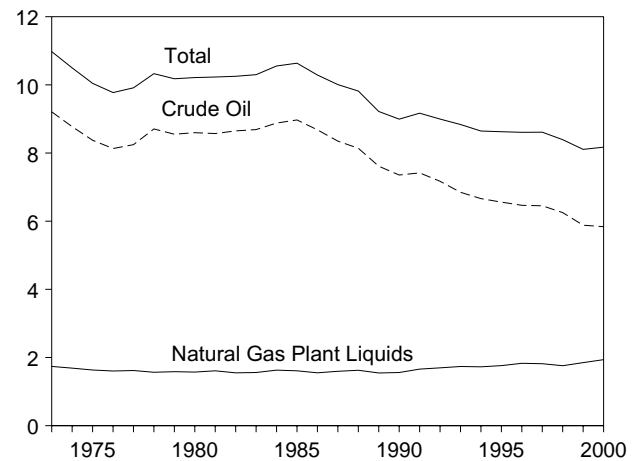
Overview, January-December



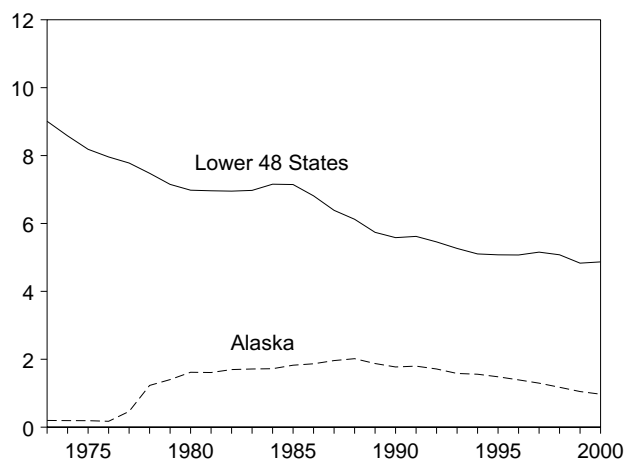
Overview, 1973-2000



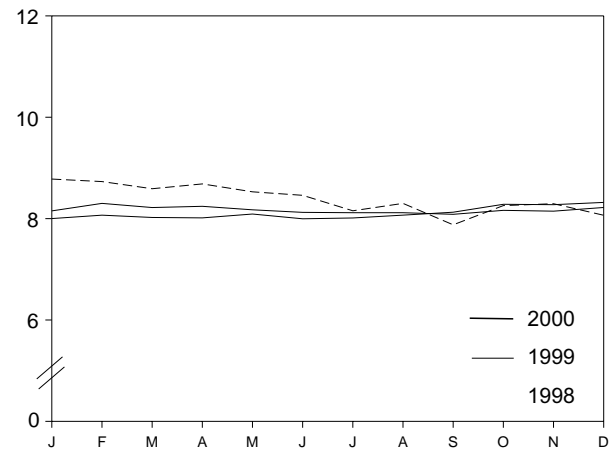
Production, 1973-2000



Crude Oil Production, 1973-2000



Total Production, Monthly

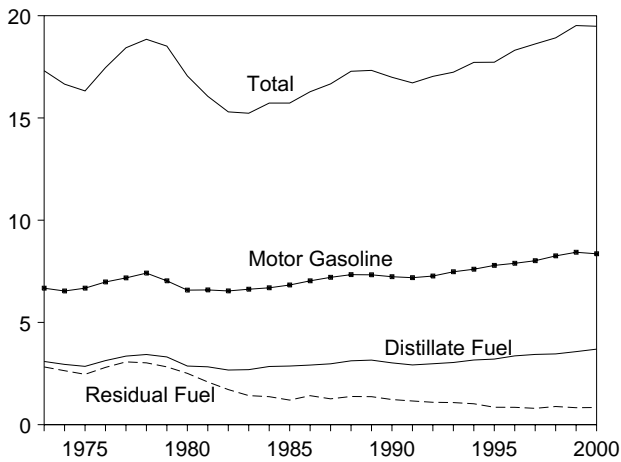


Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 3.1a, 3.1b, and 3.2a.

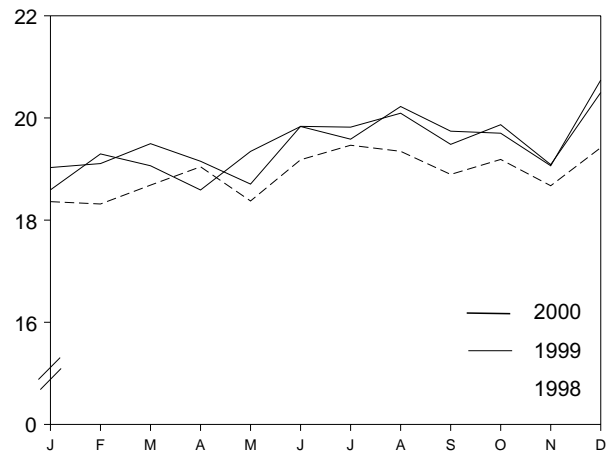
Figure 3.1b Petroleum Overview

(Million Barrels per Day, Except as Noted)

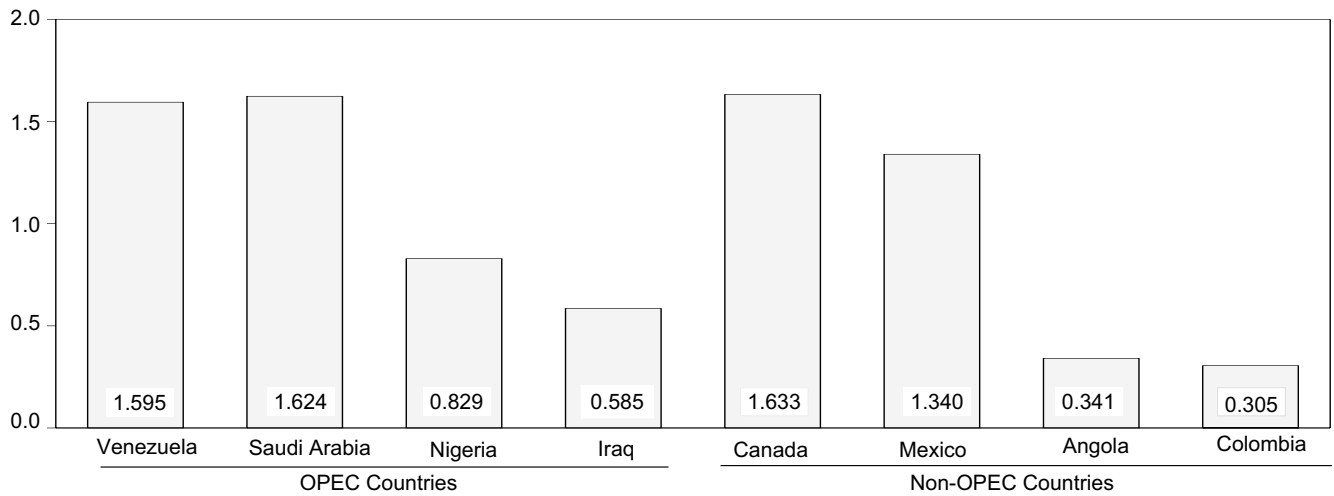
Product Supplied, 1973-2000



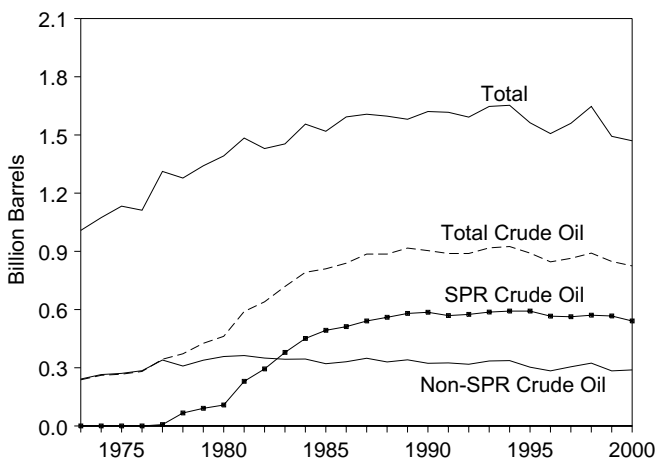
Product Supplied, Monthly



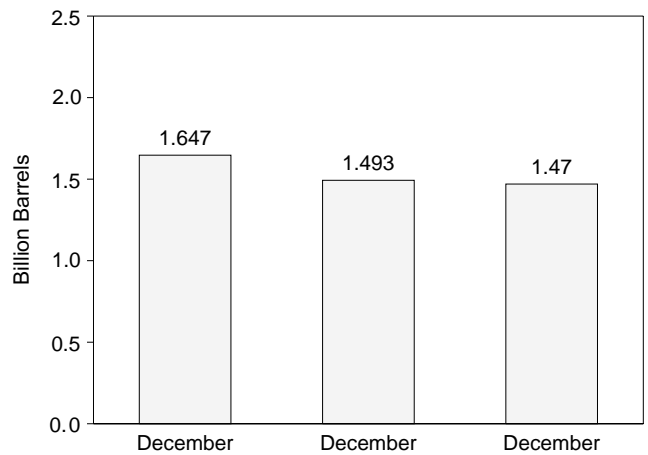
Imports from Selected Countries, November 2000



Stocks, End of Year, 1973-2000



Total Stocks, End of Month



Notes: • OPEC = Organization of Petroleum Exporting Countries. • SPR = Strategic Petroleum Reserve. • Because vertical scales differ, graphs should not be compared.

Sources: Tables 3.1a, 3.2b, 3.3a, 3.3b, 3.3d, 3.3e, 3.3f, 3.3h, 3.4, 3.5, and 3.6.

Table 3.2a Crude Oil Supply and Disposition: Supply

	Supply						Unaccounted- for Crude Oil ^b	Crude Oil Used Directly ^c
	Field Production		Imports					
	Total Domestic	Alaskan	Total	SPR ^a	Other			
	Thousand Barrels per Day							
1973 Average	9,208	198	3,244	-	3,244	3	-19	
1974 Average	8,774	193	3,477	-	3,477	-25	-15	
1975 Average	8,375	191	4,105	-	4,105	17	-17	
1976 Average	8,132	173	5,287	-	5,287	77	^d -19	
1977 Average	8,245	464	6,615	21	6,594	-6	-14	
1978 Average	8,707	1,229	6,356	^d 161	6,195	-57	^d -15	
1979 Average	8,552	1,401	6,519	67	6,452	-11	^d -14	
1980 Average	8,597	1,617	5,263	44	5,219	34	^d -14	
1981 Average	8,572	1,609	4,396	256	4,141	83	-58	
1982 Average	8,649	1,696	3,488	165	3,323	71	-59	
1983 Average	8,688	1,714	3,329	234	3,096	114	-	
1984 Average	8,879	1,722	3,426	197	3,229	185	-	
1985 Average	8,971	1,825	3,201	118	3,083	145	-	
1986 Average	8,680	1,867	4,178	48	4,130	139	-	
1987 Average	8,349	1,962	4,674	73	4,601	145	-	
1988 Average	8,140	2,017	5,107	51	5,055	196	-	
1989 Average	7,613	1,874	5,843	56	5,787	200	-	
1990 Average	7,355	1,773	5,894	27	5,867	258	-	
1991 Average	7,417	1,798	5,782	0	5,782	195	-	
1992 Average	7,171	1,714	6,083	10	6,073	258	-	
1993 Average	6,847	1,582	6,787	15	6,772	168	-	
1994 Average	6,662	1,559	7,063	12	7,051	266	-	
1995 Average	6,560	1,484	7,230	0	7,230	193	-	
1996 Average	6,465	1,393	7,508	0	7,508	215	-	
1997 Average	6,452	1,296	8,225	0	8,225	145	-	
1998 January	6,541	1,229	8,339	0	8,339	60	-	
February	6,476	1,238	8,045	0	8,045	-264	-	
March	6,408	1,221	8,124	0	8,124	745	-	
April	6,483	1,200	8,985	0	8,985	336	-	
May	6,347	1,173	8,987	0	8,987	122	-	
June	6,267	1,135	8,795	0	8,795	-135	-	
July	6,194	1,155	9,507	0	9,507	144	-	
August	6,203	1,133	9,177	0	9,177	96	-	
September	5,789	1,093	8,500	0	8,500	-44	-	
October	6,143	1,197	8,667	0	8,667	-52	-	
November	6,140	1,168	8,940	0	8,940	74	-	
December	6,043	1,160	8,352	0	8,352	250	-	
Average	6,252	1,175	8,706	0	8,706	115	-	
1999 January	5,963	1,164	8,393	0	8,393	490	-	
February	5,966	1,104	8,468	0	8,468	45	-	
March	5,883	1,134	8,739	0	8,739	338	-	
April	5,887	1,056	9,256	0	9,256	-18	-	
May	5,875	1,088	9,098	0	9,098	270	-	
June	5,760	967	8,888	0	8,888	198	-	
July	5,798	990	9,391	0	9,391	202	-	
August	5,780	1,011	8,908	31	8,877	177	-	
September	5,804	933	8,527	17	8,509	436	-	
October	5,947	1,068	8,613	17	8,595	(s)	-	
November	5,960	1,023	8,224	17	8,207	306	-	
December	5,959	1,058	8,234	16	8,218	-156	-	
Average	5,881	1,050	8,731	8	8,722	191	-	
2000 January	^E 5,833	^E 1,024	7,719	3	7,716	503	-	
February	^E 5,889	^E 1,031	8,096	17	8,079	211	-	
March	^E 5,873	^E 1,011	8,661	0	8,661	508	-	
April	^E 5,850	^E 1,008	9,088	0	9,088	451	-	
May	^E 5,836	^E 966	8,912	0	8,912	680	-	
June	^E 5,824	^E 925	9,455	16	9,439	220	-	
July	^E 5,792	^E 913	9,320	15	9,305	491	-	
August	^E 5,813	^E 914	9,858	0	9,858	183	-	
September	^E 5,767	^E 892	9,281	0	9,281	6	-	
October	^E 5,820	^E 966	8,866	32	8,835	189	-	
November	^{RE} 5,868	^{RE} 986	^R 8,708	^R 17	^R 8,691	^R 166	-	
December	^{PE} 5,899	^{PE} 1,013	^E 8,983	^E 0	^E 8,983	^E -46	-	
Average	^E 5,839	^E 971	^E 8,914	^E 8	^E 8,906	^E 298	-	

^a Strategic Petroleum Reserve.
^b A balancing item.
^c Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
^d See Note 6 at end of section.
PE=Preliminary estimate. R=Revised. - =Not applicable. E=Estimate.

Notes: Crude oil includes lease condensate. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S2. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S2.

Table 3.2b Crude Oil Supply and Disposition: Disposition and Stocks

	Disposition						Stocks ^a		
	Crude Losses	Stock Change ^b		Refinery Inputs	Exports	Product Supplied ^d	Total	SPR ^c	Other Primary
		SPR ^c	Other						
Thousand Barrels per Day						Million Barrels			
1973 Average	13	—	-11	12,431	2	—	242	—	242
1974 Average	13	—	62	12,133	3	—	265	—	265
1975 Average	13	—	17	12,442	6	—	271	—	271
1976 Average	^e 14	—	39	13,416	8	—	285	—	285
1977 Average	16	20	150	14,602	50	—	348	7	340
1978 Average	16	163	-84	14,739	158	—	376	67	309
1979 Average	16	67	81	14,648	235	—	430	91	339
1980 Average	^e 14	45	52	13,481	287	—	^f 466	108	^f 358
1981 Average	5	336	^f -46	12,470	228	—	594	230	363
1982 Average	3	174	-38	11,774	236	—	^g 644	294	^g 350
1983 Average	2	234	^g -20	11,685	164	66	723	379	344
1984 Average	2	195	4	12,044	181	64	796	451	345
1985 Average	1	117	-67	12,002	204	60	814	493	321
1986 Average	(s)	50	28	12,716	154	49	843	512	331
1987 Average	(s)	80	49	12,854	151	34	890	541	349
1988 Average	(s)	52	-51	13,246	155	40	890	560	330
1989 Average	(s)	56	30	13,401	142	28	921	580	341
1990 Average	(s)	16	-51	13,409	109	24	908	586	323
1991 Average	(s)	-47	5	13,301	116	18	893	569	325
1992 Average	(s)	17	-18	13,411	89	13	893	575	318
1993 Average	(s)	34	47	13,613	98	10	922	587	335
1994 Average	(s)	13	5	13,866	99	9	929	592	337
1995 Average	(s)	(s)	-93	13,973	95	7	895	592	303
1996 Average	(s)	-71	-53	14,195	110	6	850	566	284
1997 Average	0	-7	57	14,662	108	2	868	563	305
1998 January	0	(s)	389	14,319	231	0	880	563	317
February	0	(s)	38	14,023	197	0	881	563	318
March	0	0	538	14,639	99	0	898	563	334
April	0	0	556	15,085	163	0	915	563	351
May	0	(s)	-9	15,321	144	0	914	563	351
June	0	(s)	-620	15,485	63	0	896	563	332
July	(s)	(s)	187	15,554	104	0	901	563	338
August	0	0	-293	15,717	51	0	892	563	329
September	(s)	0	-641	14,851	34	0	873	563	310
October	(s)	19	658	13,994	87	0	894	564	330
November	0	150	170	14,772	60	0	904	569	335
December	0	93	-378	14,840	90	0	895	571	324
Average	(s)	22	52	14,889	110	0	895	571	324
1999 January	0	18	280	14,442	107	0	904	572	332
February	(s)	(s)	50	14,309	119	0	906	572	334
March	(s)	0	367	14,498	95	0	917	572	345
April	0	17	-317	15,094	332	0	908	572	335
May	0	37	145	14,973	88	0	914	574	340
June	0	40	-276	14,959	123	0	907	575	332
July	0	29	5	15,237	120	0	908	576	332
August	0	-27	-539	15,299	132	0	890	575	315
September	0	20	-388	15,107	27	0	879	575	304
October	0	-103	18	14,589	56	0	876	572	304
November	0	-105	-191	14,704	83	0	867	569	298
December	0	-60	-447	14,410	133	0	852	567	284
Average	(s)	-11	-107	14,804	118	0	852	567	284
2000 January	0	41	50	13,789	176	0	854	568	286
February	0	30	90	14,046	30	0	858	569	289
March	0	1	269	14,629	144	0	866	569	297
April	0	0	207	15,059	124	0	873	569	303
May	0	0	-117	15,512	34	0	869	569	299
June	0	-17	-172	15,680	9	0	863	569	294
July	0	47	-285	15,825	15	0	856	570	286
August	0	33	160	15,645	17	0	862	571	290
September	0	-34	-343	15,408	23	0	851	570	280
October	0	-189	20	15,035	9	0	845	564	281
November	^E 0	^R -566	^R 278	^R 15,027	^R 2	0	^R 837	^R 548	^R 289
December	^E 0	^E -382	^E -115	^E 15,230	^E 104	^E 0	^E 829	^E 541	^E 289
Average	^E 0	^E -86	3	15,077	58	0	E 829	541	289

^a Stocks are at end of period.
^b A negative number indicates a decrease in stocks and a positive number indicates an increase.
^c Strategic Petroleum Reserve. Crude oil stocks in the SPR include non-U.S. stocks held under foreign or commercial storage agreements.
^d Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
^e See Note 6 at end of section.
^f Stocks of Alaskan crude oil in transit are included from January 1981 forward. See Note 5 at end of section.
^g See Note 4 at end of section.
^h R=Revised. —=Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.
Notes: Crude oil includes lease condensate. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S2. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S2.

Table 3.3a Petroleum Imports From Bahrain, Iran, Iraq, and Kuwait
(Thousand Barrels per Day)

	Persian Gulf ^a							
	Bahrain		Iran		Iraq		Kuwait ^b	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	11	0	223	216	4	4	47	42
1974 Average	12	0	469	463	0	0	5	5
1975 Average	16	0	280	278	2	2	16	4
1976 Average	3	0	298	298	26	26	5	1
1977 Average	10	0	535	530	74	74	48	42
1978 Average	3	0	555	554	62	62	6	5
1979 Average	1	0	304	297	88	88	8	5
1980 Average	(s)	0	9	8	28	28	27	27
1981 Average	1	0	0	0	(s)	0	0	0
1982 Average	1	0	35	35	3	3	5	2
1983 Average	2	0	48	48	10	10	14	7
1984 Average	1	0	10	10	12	12	36	24
1985 Average	4	0	27	27	46	46	21	4
1986 Average	2	0	19	19	81	81	68	28
1987 Average	0	0	98	98	83	82	84	70
1988 Average	2	0	^c (s)	^c (s)	345	343	92	80
1989 Average	0	0	0	0	449	441	157	155
1990 Average	1	0	0	0	518	514	86	79
1991 Average	2	0	32	32	0	0	6	6
1992 Average	0	0	0	0	0	0	51	39
1993 Average	1	0	0	0	0	0	353	344
1994 Average	1	0	0	0	0	0	312	307
1995 Average	1	0	0	0	0	0	218	213
1996 Average	1	0	0	0	1	1	236	235
1997 Average	0	0	0	0	89	89	253	253
1998 January	0	0	0	0	36	36	252	252
February	0	0	0	0	0	0	338	338
March	0	0	0	0	127	127	374	374
April	0	0	0	0	254	254	311	311
May	17	0	0	0	137	137	399	399
June	0	0	0	0	270	270	275	275
July	0	0	0	0	286	286	435	435
August	0	0	0	0	713	713	273	273
September	0	0	0	0	517	517	259	259
October	0	0	0	0	636	636	241	227
November	0	0	0	0	542	542	224	224
December	0	0	0	0	486	486	228	228
Average	1	0	0	0	336	336	301	300
1999 January	0	0	0	0	485	485	132	132
February	0	0	0	0	681	681	205	205
March	0	0	0	0	791	791	324	324
April	0	0	0	0	829	829	286	279
May	0	0	0	0	750	750	227	227
June	0	0	0	0	773	773	259	259
July	0	0	0	0	680	680	311	311
August	0	0	0	0	672	672	348	348
September	0	0	0	0	741	741	261	261
October	0	0	0	0	922	922	205	205
November	0	0	0	0	713	713	216	216
December	0	0	0	0	668	668	200	186
Average	0	0	0	0	725	725	248	246
2000 January	0	0	0	0	254	254	239	218
February	0	0	0	0	719	719	267	264
March	0	0	0	0	468	468	162	162
April	0	0	0	0	640	640	258	247
May	0	0	0	0	438	438	170	166
June	0	0	0	0	847	847	210	210
July	0	0	0	0	747	747	252	252
August	0	0	0	0	749	749	383	383
September	0	0	0	0	752	747	352	338
October	0	0	0	0	653	653	337	337
November	0	0	0	0	585	585	248	237
11-Month Average	0	0	0	0	621	621	262	256
1999 11-Month Average	0	0	0	0	731	731	253	252
1998 11-Month Average	2	0	0	0	322	322	308	306

^a 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.

^b Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia.

^c A small amount of Iranian crude oil entered the United States in January 1988 from the Virgin Islands. The oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on November 29, 1987.

(s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **Bahrain:** Energy Information Administration (EIA), Form EIA-814, "Monthly Imports Report." **All Other Data: 1973-1980—EIA, Petroleum Supply Monthly, February 1993, Table S3. 1981 forward—EIA, Petroleum Supply Monthly, January 2001, Table S3.**

Table 3.3b Petroleum Imports From Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf
(Thousand Barrels per Day)

	Persian Gulf ^a							
	Qatar		Saudi Arabia ^b		United Arab Emirates		Total ^a	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	7	7	486	462	71	71	848	802
1974 Average	17	17	461	438	74	69	1,039	992
1975 Average	18	18	715	701	117	117	1,165	1,121
1976 Average	24	24	1,230	1,222	254	254	1,840	1,825
1977 Average	67	67	1,380	1,373	335	333	2,448	2,418
1978 Average	64	64	1,144	1,142	385	385	2,219	2,212
1979 Average	31	31	1,356	1,347	281	281	2,069	2,049
1980 Average	22	22	1,261	1,250	172	172	1,519	1,508
1981 Average	7	7	1,129	1,112	81	77	1,219	1,196
1982 Average	7	7	552	530	92	81	696	659
1983 Average	(s)	0	337	321	30	18	442	405
1984 Average	5	4	325	309	117	90	506	450
1985 Average	(s)	0	168	132	45	35	311	244
1986 Average	13	12	685	618	44	38	912	796
1987 Average	0	0	751	642	61	56	1,077	949
1988 Average	0	0	1,073	911	29	23	1,541	1,357
1989 Average	2	2	1,224	1,116	28	21	1,861	1,734
1990 Average	4	4	1,339	1,195	17	9	1,966	1,801
1991 Average	0	0	1,802	1,703	3	2	1,845	1,743
1992 Average	1	0	1,720	1,597	6	0	1,778	1,636
1993 Average	1	0	1,414	1,282	14	12	1,782	1,637
1994 Average	0	0	1,402	1,297	13	11	1,728	1,615
1995 Average	0	0	1,344	1,260	10	5	1,573	1,479
1996 Average	0	0	1,363	1,248	3	3	1,604	1,488
1997 Average	4	0	1,407	1,293	2	0	1,755	1,635
1998 January	0	0	1,515	1,438	0	0	1,804	1,726
February	18	18	1,470	1,360	0	0	1,826	1,716
March	0	0	1,552	1,406	13	13	2,066	1,920
April	0	0	1,527	1,348	20	20	2,111	1,933
May	0	0	1,362	1,279	0	0	1,915	1,815
June	15	0	1,647	1,566	0	0	2,207	2,111
July	15	0	1,615	1,575	0	0	2,351	2,296
August	0	0	1,500	1,468	0	0	2,486	2,453
September	0	0	1,606	1,532	0	0	2,383	2,308
October	0	0	1,316	1,228	0	0	2,194	2,092
November	0	0	1,386	1,323	0	0	2,153	2,089
December	0	0	1,402	1,326	0	0	2,116	2,040
Average	4	1	1,491	1,404	3	3	2,136	2,044
1999 January	0	0	1,511	1,410	0	0	2,129	2,027
February	0	0	1,497	1,417	0	0	2,383	2,303
March	34	0	1,652	1,584	0	0	2,801	2,698
April	31	0	1,482	1,417	5	0	2,633	2,526
May	0	0	1,502	1,406	0	0	2,479	2,383
June	0	0	1,539	1,438	19	0	2,590	2,470
July	0	0	1,436	1,296	0	0	2,427	2,287
August	18	0	1,474	1,373	3	0	2,514	2,392
September	14	0	1,441	1,330	0	0	2,457	2,333
October	0	0	1,353	1,251	0	0	2,480	2,378
November	11	11	1,396	1,334	0	0	2,336	2,274
December	8	0	1,455	1,391	0	0	2,331	2,245
Average	10	1	1,478	1,387	2	0	2,464	2,360
2000 January	4	0	1,539	1,483	0	0	2,036	1,955
February	2	0	1,268	1,228	0	0	2,256	2,210
March	9	0	1,533	1,474	17	0	2,189	2,104
April	11	0	1,456	1,442	0	0	2,365	2,329
May	9	0	1,566	1,510	34	0	2,218	2,115
June	10	0	1,496	1,436	24	0	2,586	2,493
July	8	0	1,556	1,505	24	15	2,588	2,519
August	6	0	1,649	1,587	0	0	2,787	2,719
September	10	0	1,674	1,645	31	0	2,819	2,731
October	7	0	1,514	1,477	9	0	2,519	2,467
November	15	0	1,624	1,567	9	0	2,482	2,389
11-Month Average	8	0	1,535	1,488	14	1	2,440	2,366
1999 11-Month Average	10	1	1,480	1,387	3	0	2,476	2,370
1998 11-Month Average	4	2	1,499	1,411	3	3	2,138	2,044

^a 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.

^b Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia.

(s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: 1973-1980: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. 1981 forward: EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3c Petroleum Imports From Algeria, Ecuador, Gabon, Indonesia, and Libya
(Thousand Barrels per Day)

	Other OPEC ^a									
	Algeria		Ecuador ^b		Gabon ^c		Indonesia		Libya	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	136	120	48	47	0	0	213	200	164	133
1974 Average	190	180	42	42	23	23	300	284	4	4
1975 Average	282	264	57	57	27	27	390	379	232	223
1976 Average	432	408	51	51	28	26	539	537	453	444
1977 Average	559	544	57	55	42	35	541	507	723	704
1978 Average	649	634	54	38	41	38	573	533	654	638
1979 Average	636	608	42	30	42	42	420	380	658	642
1980 Average	488	456	27	17	26	25	348	314	554	548
1981 Average	311	261	48	38	35	35	366	318	319	317
1982 Average	170	90	42	32	40	40	248	226	26	23
1983 Average	240	176	61	56	59	59	338	315	0	0
1984 Average	323	194	55	47	58	57	343	304	1	0
1985 Average	187	84	67	56	52	51	314	292	4	0
1986 Average	271	78	77	64	26	25	318	297	0	0
1987 Average	295	115	29	23	35	35	285	262	0	0
1988 Average	300	58	47	33	16	15	205	186	0	0
1989 Average	269	60	89	80	50	49	183	158	0	0
1990 Average	280	63	49	38	64	64	114	98	0	0
1991 Average	253	44	63	53	84	84	111	102	0	0
1992 Average	196	24	65	62	124	123	78	70	0	0
1993 Average	220	24	(b)	(b)	152	151	81	65	0	0
1994 Average	243	21	(b)	(b)	194	194	111	92	0	0
1995 Average	234	27	(b)	(b)	(c)	(c)	88	64	0	0
1996 Average	256	8	(b)	(b)	(c)	(c)	59	44	0	0
1997 Average	285	6	(b)	(b)	(c)	(c)	58	51	0	0
1998 January	316	0	(b)	(b)	(c)	(c)	36	33	0	0
February	295	0	(b)	(b)	(c)	(c)	24	24	0	0
March	255	0	(b)	(b)	(c)	(c)	50	47	0	0
April	336	0	(b)	(b)	(c)	(c)	44	26	0	0
May	330	0	(b)	(b)	(c)	(c)	21	21	0	0
June	362	21	(b)	(b)	(c)	(c)	0	0	0	0
July	308	20	(b)	(b)	(c)	(c)	96	84	0	0
August	264	0	(b)	(b)	(c)	(c)	59	41	0	0
September	306	0	(b)	(b)	(c)	(c)	73	54	0	0
October	289	21	(b)	(b)	(c)	(c)	102	89	0	0
November	219	22	(b)	(b)	(c)	(c)	183	138	0	0
December	200	31	(b)	(b)	(c)	(c)	102	43	0	0
Average	290	10	(b)	(b)	(c)	(c)	66	50	0	0
1999 January	246	20	(b)	(b)	(c)	(c)	100	75	0	0
February	209	6	(b)	(b)	(c)	(c)	66	66	0	0
March	285	6	(b)	(b)	(c)	(c)	43	40	0	0
April	321	80	(b)	(b)	(c)	(c)	98	94	0	0
May	303	107	(b)	(b)	(c)	(c)	105	98	0	0
June	255	7	(b)	(b)	(c)	(c)	66	52	0	0
July	302	48	(b)	(b)	(c)	(c)	19	14	0	0
August	249	0	(b)	(b)	(c)	(c)	95	85	0	0
September	255	4	(b)	(b)	(c)	(c)	95	63	0	0
October	183	0	(b)	(b)	(c)	(c)	98	79	0	0
November	211	11	(b)	(b)	(c)	(c)	74	68	0	0
December	279	15	(b)	(b)	(c)	(c)	118	99	0	0
Average	259	25	(b)	(b)	(c)	(c)	81	70	0	0
2000 January	226	3	(b)	(b)	(c)	(c)	31	22	0	0
February	153	0	(b)	(b)	(c)	(c)	32	28	0	0
March	199	0	(b)	(b)	(c)	(c)	45	45	0	0
April	195	(s)	(b)	(b)	(c)	(c)	91	70	0	0
May	270	0	(b)	(b)	(c)	(c)	34	30	0	0
June	222	0	(b)	(b)	(c)	(c)	46	42	0	0
July	205	0	(b)	(b)	(c)	(c)	17	14	0	0
August	236	0	(b)	(b)	(c)	(c)	80	76	0	0
September	216	0	(b)	(b)	(c)	(c)	6	6	0	0
October	210	0	(b)	(b)	(c)	(c)	37	34	0	0
November	208	0	(b)	(b)	(c)	(c)	60	29	0	0
11-Month Average	213	(s)	(b)	(b)	(c)	(c)	43	36	0	0
1999 11-Month Average	257	26	(b)	(b)	(c)	(c)	78	67	0	0
1998 11-Month Average	298	8	(b)	(b)	(c)	(c)	63	51	0	0

^a 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.

^b Ecuador withdrew from OPEC on December 31, 1992. As of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC."

^c Gabon withdrew from OPEC on December 31, 1994. As of January

1995, imports from Gabon appear on Table 3.3f under "Non-OPEC."

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3d Petroleum Imports From Nigeria, Venezuela, Total Other OPEC, and Total OPEC
(Thousand Barrels per Day)

	Other OPEC ^a						Total OPEC ^b	
	Nigeria		Venezuela		Total		Total	Crude Oil
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil		
1973 Average	459	448	1,135	344	2,156	1,293	2,993	2,095
1974 Average	713	697	979	319	2,253	1,549	3,280	2,540
1975 Average	762	746	702	395	2,452	2,091	3,601	3,211
1976 Average	1,025	1,014	700	241	3,229	2,721	5,066	4,545
1977 Average	1,143	1,130	690	250	3,754	3,225	6,193	5,643
1978 Average	919	910	646	181	3,536	2,972	5,751	5,184
1979 Average	1,080	1,069	690	293	3,569	3,063	5,637	5,112
1980 Average	857	841	481	156	2,781	2,356	4,300	3,864
1981 Average	620	611	406	147	2,106	1,726	3,323	2,922
1982 Average	514	510	412	155	1,451	1,075	2,146	1,734
1983 Average	302	301	422	164	1,422	1,072	1,862	1,477
1984 Average	216	207	548	253	1,544	1,062	2,049	1,512
1985 Average	293	280	605	306	1,522	1,069	1,830	1,312
1986 Average	440	437	793	416	1,926	1,317	2,837	2,113
1987 Average	535	529	804	488	1,983	1,451	3,060	2,400
1988 Average	618	607	794	439	1,981	1,339	3,520	2,696
1989 Average	815	800	873	495	2,279	1,642	4,140	3,376
1990 Average	800	784	1,025	666	2,332	1,713	4,296	3,514
1991 Average	703	683	1,035	668	2,249	1,634	4,092	3,377
1992 Average	681	665	1,170	826	2,313	1,770	4,092	3,406
1993 Average	740	722	1,300	1,010	2,493	1,972	4,273	3,609
1994 Average	637	624	1,334	1,034	2,520	1,965	4,247	3,580
1995 Average	627	621	1,480	1,151	2,430	1,862	4,002	3,341
1996 Average	617	595	1,676	1,303	2,609	1,950	4,211	3,438
1997 Average	698	689	1,773	1,394	2,814	2,140	4,569	3,775
1998 January	630	625	1,597	1,319	2,578	1,977	4,382	3,703
February	560	560	1,764	1,357	2,643	1,941	4,469	3,657
March	845	845	1,698	1,313	2,848	2,205	4,915	4,126
April	822	822	1,743	1,423	2,945	2,272	5,056	4,205
May	899	892	1,911	1,549	3,160	2,463	5,058	4,278
June	771	755	1,616	1,374	2,749	2,150	4,956	4,261
July	873	871	1,779	1,445	3,055	2,420	5,407	4,716
August	736	726	1,703	1,349	2,762	2,116	5,247	4,569
September	502	496	1,490	1,199	2,370	1,749	4,753	4,057
October	633	626	1,963	1,548	2,988	2,284	5,181	4,376
November	574	545	1,708	1,367	2,684	2,072	4,837	4,161
December	490	483	1,651	1,271	2,443	1,828	4,560	3,868
Average	696	689	1,719	1,377	2,771	2,125	4,905	4,169
1999 January	702	686	1,641	1,243	2,690	2,024	4,819	4,051
February	701	661	1,751	1,298	2,727	2,030	5,110	4,334
March	650	613	1,331	1,001	2,308	1,659	5,109	4,358
April	890	848	1,737	1,420	3,046	2,443	5,679	4,968
May	617	572	1,574	1,213	2,599	1,991	5,079	4,374
June	703	667	1,426	1,047	2,451	1,773	5,040	4,243
July	666	645	1,602	1,222	2,589	1,930	5,016	4,216
August	800	766	1,480	1,183	2,623	2,035	5,137	4,427
September	535	505	1,484	1,138	2,368	1,711	4,825	4,044
October	543	522	1,340	1,041	2,164	1,642	4,645	4,020
November	588	548	1,222	942	2,095	1,569	4,431	3,843
December	490	450	1,346	1,069	2,233	1,633	4,564	3,878
Average	657	623	1,493	1,150	2,489	1,869	4,953	4,228
2000 January	490	439	1,333	1,051	2,079	1,515	4,115	3,470
February	663	642	1,550	1,183	2,397	1,854	4,653	4,064
March	1,027	994	1,553	1,209	2,824	2,248	5,013	4,353
April	927	909	1,491	1,169	2,702	2,148	5,067	4,477
May	909	898	1,413	1,102	2,626	2,031	4,843	4,146
June	1,175	1,122	1,489	1,226	2,931	2,391	5,517	4,883
July	910	891	1,424	1,159	2,556	2,065	5,143	4,584
August	1,122	1,108	1,627	1,429	3,064	2,613	5,851	5,332
September	958	947	1,358	1,075	2,538	2,027	5,357	4,758
October	946	943	1,618	1,307	2,812	2,283	5,331	4,750
November	829	814	1,595	1,338	2,692	2,181	5,174	4,570
11-Month Average	906	883	1,495	1,205	2,657	2,124	5,097	4,490
1999 11-Month Average	672	639	1,506	1,158	2,513	1,890	4,989	4,261
1998 11-Month Average	715	708	1,725	1,387	2,801	2,153	4,937	4,197

^a 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.

^b OPEC includes the Persian Gulf nations that are displayed on Tables 3.3a and 3.3b except Bahrain, which is not a member of OPEC, and the nations displayed under "Other OPEC" on Tables 3.3c and 3.3d. Ecuador withdrew from OPEC on December 31, 1992; as of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC." Gabon withdrew on December 31, 1994; as of January 1995, imports from Gabon appear on

Table 3.3f under "Non-OPEC." Imports from Bahrain are accounted for under "Other Non-OPEC" on Table 3.3h.

Notes: Beginning in November 1977, Strategic Petroleum Reserve imports are included. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3e Petroleum Imports From Angola, Australia, Bahamas, Brazil, Canada, and China

(Thousand Barrels per Day)

	Non-OPEC ^a											
	Angola		Australia		Bahamas		Brazil		Canada		China	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	49	49	2	0	174	0	9	0	1,325	1,001	(s)	0
1974 Average	49	48	1	0	164	0	2	0	1,070	791	0	0
1975 Average	75	71	5	0	152	0	5	0	846	600	0	0
1976 Average	12	7	2	0	118	0	0	0	599	371	0	0
1977 Average	24	17	3	0	171	0	0	0	517	279	0	0
1978 Average	20	6	5	0	160	0	0	0	467	248	0	0
1979 Average	43	39	6	0	147	0	1	0	538	271	13	13
1980 Average	42	37	1	0	78	0	3	1	455	199	(s)	0
1981 Average	49	45	5	0	74	0	23	14	447	164	18	0
1982 Average	44	42	5	(s)	65	0	47	19	482	214	40	8
1983 Average	78	71	4	0	125	0	41	2	547	274	34	6
1984 Average	90	85	38	25	88	0	60	(s)	630	341	46	15
1985 Average	110	104	37	21	40	0	61	0	770	468	59	36
1986 Average	112	102	41	30	37	0	50	0	807	570	90	68
1987 Average	192	180	58	49	37	0	84	0	848	608	82	63
1988 Average	212	203	64	59	32	0	98	0	999	681	88	82
1989 Average	284	279	36	31	34	0	82	0	931	630	80	76
1990 Average	237	236	53	47	37	0	49	0	934	643	80	77
1991 Average	254	254	26	21	35	0	22	0	1,033	743	91	87
1992 Average	336	336	19	17	36	0	20	0	1,069	797	90	84
1993 Average	336	336	19	18	28	0	33	0	1,181	900	51	50
1994 Average	331	322	17	16	29	0	31	1	1,272	983	65	64
1995 Average	367	360	16	16	2	0	8	0	1,332	1,040	53	53
1996 Average	351	344	31	25	1	0	9	0	1,424	1,075	57	57
1997 Average	427	425	48	31	1	0	5	0	1,563	1,198	49	48
1998 January	430	427	10	0	0	0	6	0	1,703	1,336	15	14
February	434	434	57	48	4	0	2	0	1,738	1,366	41	41
March	353	351	44	30	0	0	27	0	1,464	1,132	64	63
April	457	452	68	14	0	0	11	0	1,586	1,241	62	62
May	516	508	82	60	21	0	42	0	1,600	1,302	70	70
June	399	399	77	33	11	0	55	0	1,688	1,404	81	81
July	591	591	69	48	0	0	29	0	1,669	1,364	73	73
August	427	427	42	21	0	0	38	0	1,564	1,248	57	57
September	506	502	77	23	10	0	33	0	1,575	1,227	20	20
October	470	457	71	30	0	0	29	0	1,570	1,202	25	24
November	524	520	31	31	0	0	19	0	1,495	1,199	0	0
December	509	505	57	36	0	0	22	0	1,542	1,184	1	0
Average	468	465	57	31	4	0	26	0	1,598	1,266	42	42
1999 January	421	421	0	0	0	0	3	0	1,600	1,196	(s)	0
February	380	364	73	49	0	0	22	0	1,459	1,081	2	0
March	270	270	53	53	0	0	15	0	1,365	1,056	31	30
April	401	393	19	19	7	0	26	0	1,373	1,057	21	21
May	407	400	55	37	23	0	47	0	1,523	1,104	2	0
June	334	334	56	34	0	0	48	0	1,477	1,159	67	19
July	349	349	30	30	8	0	31	0	1,694	1,354	19	19
August	309	309	65	47	0	0	30	0	1,653	1,263	72	33
September	465	465	110	65	0	0	16	0	1,407	1,067	37	34
October	444	444	0	0	0	0	18	0	1,627	1,229	0	0
November	307	307	22	22	0	0	37	0	1,592	1,264	1	0
December	244	227	23	23	0	0	18	0	1,684	1,291	1	0
Average	361	357	42	31	3	0	26	0	1,539	1,178	21	13
2000 January	217	215	21	21	0	0	39	0	1,718	1,314	7	0
February	186	177	8	0	0	0	2	0	1,677	1,215	22	21
March	312	308	44	44	0	0	9	0	1,571	1,209	91	37
April	332	319	97	70	0	0	29	0	1,628	1,250	57	18
May	378	366	94	65	0	0	14	0	1,771	1,395	34	28
June	360	343	56	56	0	0	32	19	1,712	1,354	55	54
July	310	310	84	84	0	0	38	11	1,667	1,302	44	39
August	279	279	45	45	0	0	45	17	1,677	1,278	33	32
September	266	266	42	22	0	0	9	0	1,650	1,251	40	40
October	266	254	29	29	0	0	27	0	1,635	1,238	76	75
November	341	329	22	22	0	0	52	13	1,633	1,255	21	20
11-Month Average ...	296	288	49	42	0	0	27	6	1,667	1,279	44	33
1999 11-Month Average ...	371	369	44	32	3	0	27	0	1,526	1,167	23	14
1998 11-Month Average ...	464	461	57	31	4	0	27	0	1,604	1,274	46	46

^a 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.

(s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports

are included. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: 1973-1980: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. 1981 forward: EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3f Petroleum Imports From Colombia, Ecuador, Gabon, Italy, Malaysia, and Mexico
(Thousand Barrels per Day)

	Non-OPEC ^a											
	Colombia		Ecuador ^b		Gabon ^c		Italy		Malaysia		Mexico	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	9	2	-	-	-	-	125	0	12	1	16	1
1974 Average	5	0	-	-	-	-	74	0	12	1	8	2
1975 Average	9	0	-	-	-	-	27	0	8	5	71	70
1976 Average	21	6	-	-	-	-	39	0	18	16	87	87
1977 Average	17	0	-	-	-	-	51	0	66	55	179	177
1978 Average	20	0	-	-	-	-	38	0	42	37	318	316
1979 Average	18	0	-	-	-	-	30	0	66	52	439	437
1980 Average	4	0	-	-	-	-	4	0	70	61	533	507
1981 Average	1	0	-	-	-	-	11	0	36	33	522	469
1982 Average	5	0	-	-	-	-	18	(s)	20	18	685	645
1983 Average	10	0	-	-	-	-	18	(s)	4	3	826	766
1984 Average	8	0	-	-	-	-	45	(s)	1	0	748	659
1985 Average	23	0	-	-	-	-	60	(s)	3	1	816	715
1986 Average	87	57	-	-	-	-	76	0	12	11	699	621
1987 Average	148	115	-	-	-	-	54	1	13	12	655	602
1988 Average	134	106	-	-	-	-	65	5	19	19	747	674
1989 Average	172	136	-	-	-	-	34	3	39	39	767	716
1990 Average	182	140	-	-	-	-	58	2	41	40	755	689
1991 Average	163	123	-	-	-	-	47	3	24	24	807	759
1992 Average	126	102	-	-	-	-	55	0	10	10	830	787
1993 Average	171	141	81	78	-	-	31	0	11	10	919	863
1994 Average	161	146	91	91	-	-	22	0	10	6	984	939
1995 Average	219	207	97	96	229	229	5	0	8	6	1,068	1,027
1996 Average	234	226	104	96	184	184	8	0	11	6	1,244	1,207
1997 Average	271	270	115	114	230	230	7	0	23	8	1,385	1,360
1998 January	345	345	89	89	277	277	26	0	17	11	1,444	1,432
February	301	294	103	103	278	278	6	0	64	49	1,250	1,233
March	296	296	75	75	235	235	17	0	10	10	1,272	1,248
April	358	358	88	81	244	244	2	0	82	66	1,538	1,507
May	401	385	125	116	194	194	35	0	95	87	1,361	1,343
June	321	313	75	67	126	126	18	0	35	19	1,400	1,379
July	238	229	89	89	211	211	8	0	46	38	1,416	1,389
August	367	363	158	158	118	118	10	0	11	4	1,153	1,139
September	363	362	107	96	202	202	0	0	16	0	1,417	1,367
October	411	409	130	125	115	115	18	0	9	0	1,179	1,163
November	352	352	134	134	270	270	0	0	25	16	1,417	1,357
December	488	479	41	38	220	220	6	0	19	10	1,371	1,301
Average	354	349	101	98	207	207	12	0	35	26	1,351	1,321
1999 January	445	440	70	66	194	194	0	0	28	13	1,337	1,254
February	480	458	51	45	175	175	17	0	20	0	1,279	1,231
March	592	572	131	123	111	111	10	0	0	0	1,490	1,434
April	435	425	67	61	269	269	19	0	27	14	1,403	1,315
May	458	443	145	128	190	190	30	0	67	56	1,333	1,246
June	370	351	112	112	92	92	8	0	31	22	1,355	1,297
July	600	572	88	88	140	140	0	0	30	17	1,379	1,310
August	547	521	133	133	95	95	0	0	64	49	1,339	1,225
September	406	388	136	136	159	159	8	0	44	22	1,282	1,219
October	432	432	163	163	186	186	7	0	39	36	1,189	1,131
November	416	396	185	179	190	190	6	0	30	10	1,230	1,165
December	433	421	128	128	216	216	13	0	32	13	1,272	1,217
Average	468	452	118	114	168	168	10	0	35	21	1,324	1,254
2000 January	452	426	95	95	139	139	16	0	78	65	1,340	1,256
February	370	353	102	102	155	155	48	0	64	36	1,219	1,140
March	453	450	145	145	136	128	29	0	34	15	1,342	1,246
April	368	336	114	114	172	172	8	0	34	25	1,412	1,354
May	327	320	91	91	155	155	13	0	35	20	1,331	1,284
June	283	265	106	96	88	88	27	0	29	14	1,491	1,431
July	237	199	112	112	105	105	18	0	55	42	1,298	1,228
August	275	262	190	184	106	106	20	0	21	0	1,416	1,381
September	365	337	194	192	182	182	24	0	15	0	1,494	1,437
October	207	180	166	160	164	164	8	0	86	66	1,252	1,238
November	305	264	129	123	181	181	36	0	21	11	1,340	1,290
11-Month Average	331	308	131	129	144	143	22	0	43	27	1,358	1,299
1999 11-Month Average	472	455	117	113	163	163	10	0	35	22	1,329	1,257
1998 11-Month Average	342	337	107	103	206	206	13	0	37	27	1,349	1,323

^a 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.

^b Through 1992, Ecuador was a member of OPEC. See Table 3.3c.

^c Through December 1994, Gabon was a member of OPEC. See Table 3.3c.

— =Not applicable. (s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3g Petroleum Imports From Netherlands, Netherlands Antilles, Norway, Puerto Rico, Russia, and Spain
(Thousand Barrels per Day)

	Non-OPEC ^a											
	Netherlands		Netherlands Antilles		Norway		Puerto Rico		Russia ^b		Spain	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	53	0	585	0	1	0	99	0	26	0	26	0
1974 Average	43	0	511	0	1	1	90	0	20	0	12	0
1975 Average	19	4	332	0	17	12	90	0	14	0	1	0
1976 Average	8	0	275	0	36	35	88	0	11	2	1	0
1977 Average	31	4	211	0	50	48	105	0	12	2	10	0
1978 Average	5	2	229	0	104	104	94	0	8	1	3	0
1979 Average	23	7	231	0	75	75	92	0	1	0	4	0
1980 Average	2	(s)	225	0	144	144	88	0	1	0	1	0
1981 Average	30	(s)	197	0	119	114	62	0	5	(s)	1	(s)
1982 Average	35	(s)	175	0	102	102	50	0	1	0	3	(s)
1983 Average	65	3	189	0	66	65	40	0	1	(s)	2	(s)
1984 Average	65	3	188	0	114	112	42	0	13	(s)	11	0
1985 Average	58	0	40	0	32	31	28	0	8	(s)	29	1
1986 Average	54	0	25	0	60	53	21	0	18	(s)	53	0
1987 Average	60	0	29	0	80	70	21	0	11	0	55	0
1988 Average	61	0	36	0	67	62	22	0	29	0	68	0
1989 Average	49	0	42	0	138	127	32	0	48	0	67	0
1990 Average	55	0	31	0	102	96	32	0	45	1	47	0
1991 Average	29	0	81	0	82	74	27	0	29	1	33	0
1992 Average	26	0	65	0	127	119	26	0	18	5	32	0
1993 Average	10	0	82	0	142	137	29	0	55	36	37	0
1994 Average	32	0	98	0	202	190	22	0	30	27	37	0
1995 Average	15	0	52	0	273	258	15	0	25	14	16	1
1996 Average	19	0	64	0	313	293	20	0	25	18	29	1
1997 Average	25	0	74	0	309	288	16	0	13	3	21	0
1998 January	10	0	97	0	217	208	18	0	0	0	22	0
February	25	0	101	0	169	169	21	0	12	0	13	0
March	5	0	80	0	210	198	5	0	3	0	4	0
April	40	0	73	0	232	232	7	0	(s)	0	9	0
May	36	0	67	0	196	172	18	0	0	0	14	0
June	31	0	103	0	283	252	13	0	34	34	26	0
July	59	0	84	0	369	361	21	0	69	69	34	0
August	21	0	45	0	287	260	23	0	1	0	17	0
September	26	0	69	0	201	162	12	0	34	0	16	0
October	49	0	95	0	199	186	20	0	15	0	4	0
November	53	0	124	0	262	252	12	0	54	0	28	0
December	14	0	46	0	202	199	15	0	63	0	33	0
Average	31	0	82	0	236	221	15	0	24	9	18	0
1999 January	21	0	95	0	216	179	18	0	28	0	4	0
February	7	0	160	0	203	157	0	0	28	0	0	0
March	20	0	58	0	248	199	3	0	26	0	5	0
April	34	0	76	0	265	192	15	0	75	43	13	0
May	65	0	81	0	293	244	10	0	109	45	26	0
June	44	0	31	0	524	497	15	0	149	22	0	0
July	37	0	83	0	408	396	13	0	139	32	8	0
August	35	0	58	0	244	222	12	0	138	14	13	0
September	2	0	30	0	235	195	22	0	142	39	(s)	0
October	17	0	49	0	341	292	13	0	110	31	22	0
November	24	0	44	0	288	255	12	0	94	16	23	0
December	11	0	24	0	371	326	15	0	31	12	9	0
Average	27	0	65	0	304	263	13	0	89	21	10	0
2000 January	12	0	74	0	314	262	14	0	29	0	37	0
February	45	0	41	0	381	328	15	0	108	0	30	0
March	37	0	74	0	346	305	13	0	61	17	23	0
April	21	0	37	0	327	278	14	0	83	25	31	0
May	16	0	58	0	287	279	20	0	27	13	8	0
June	37	0	81	0	274	240	17	0	75	0	15	0
July	8	0	58	0	545	482	13	0	78	0	23	0
August	13	0	138	0	377	334	11	0	60	6	36	0
September	30	0	48	0	362	322	16	0	85	8	12	0
October	40	0	115	0	273	251	16	0	111	13	20	0
November	34	0	79	0	282	241	8	0	50	0	6	0
11-Month Average ...	27	0	73	0	343	302	14	0	69	8	22	0
1999 11-Month Average ...	28	0	69	0	297	258	12	0	95	22	10	0
1998 11-Month Average ...	32	0	85	0	239	223	15	0	20	9	17	0

^a 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.

^b Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1973 through 1992.

(s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: 1973-1980: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. 1981 forward: EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Table 3.3h Petroleum Imports From Trinidad and Tobago, United Kingdom, U.S. Virgin Islands, Other Non-OPEC, Total Non-OPEC, and Total Imports
(Thousand Barrels per Day)

	Non-OPEC ^a											
	Trinidad and Tobago		United Kingdom		U.S. Virgin Islands		Other Non-OPEC ^b		Total		Total Imports	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	255	60	15	0	329	0	153	36	3,263	1,149	6,256	3,244
1974 Average	251	63	8	0	391	0	122	30	2,832	937	6,112	3,477
1975 Average	242	115	14	(s)	406	0	120	14	2,454	893	6,056	4,105
1976 Average	274	104	31	13	422	0	203	101	2,247	742	7,313	5,287
1977 Average	289	134	126	97	466	0	287	157	2,614	971	8,807	6,615
1978 Average	253	142	180	169	428	0	239	146	2,612	1,172	8,363	6,356
1979 Average	190	123	202	197	431	0	269	192	2,819	1,407	8,456	6,519
1980 Average	176	115	176	173	388	0	219	162	2,609	1,399	6,909	5,263
1981 Average	133	102	375	369	327	0	236	163	2,672	1,474	5,996	4,396
1982 Average	112	92	456	441	316	0	306	174	2,968	1,754	5,113	3,488
1983 Average	96	83	382	365	282	0	378	215	3,189	1,853	5,051	3,329
1984 Average	94	87	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985 Average	113	98	310	278	247	0	394	137	3,237	1,888	5,067	3,201
1986 Average	125	93	350	317	244	0	426	144	3,387	2,065	6,224	4,178
1987 Average	106	75	352	304	272	0	459	196	3,617	2,274	6,678	4,674
1988 Average	97	71	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989 Average	94	73	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990 Average	96	76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991 Average	88	72	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992 Average	95	70	230	200	249	0	335	149	3,796	2,676	7,888	6,083
1993 Average	74	55	350	312	254	0	452	240	4,347	3,178	8,620	6,787
1994 Average	77	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995 Average	70	62	383	341	278	0	302	181	4,833	3,889	8,835	7,230
1996 Average	76	58	308	216	313	0	440	265	5,267	4,070	9,478	7,508
1997 Average	61	56	226	169	300	0	422	250	5,593	4,450	10,162	8,225
1998 January	64	54	249	166	283	0	424	276	5,745	4,636	10,127	8,339
February	60	60	170	89	296	0	378	224	5,522	4,388	9,991	8,045
March	63	53	95	70	334	0	464	236	5,119	3,998	10,034	8,124
April	78	48	309	221	272	0	533	254	6,048	4,780	11,105	8,985
May	69	53	248	133	292	0	561	287	6,046	4,709	11,104	8,987
June	64	56	231	125	310	0	589	245	5,970	4,533	10,926	8,795
July	90	56	171	36	360	0	545	235	6,242	4,791	11,649	9,507
August	79	53	384	295	281	0	703	466	5,785	4,607	11,032	9,177
September	44	38	154	109	277	0	589	335	5,746	4,443	10,499	8,500
October	65	57	384	278	268	0	554	245	5,680	4,291	10,861	8,667
November	38	38	400	283	266	0	520	327	6,023	4,779	10,860	8,940
December	79	72	199	119	274	0	498	321	5,698	4,484	10,258	8,352
Average	66	53	250	161	293	0	531	288	5,803	4,537	10,708	8,706
1999 January	52	34	242	160	300	0	529	386	5,605	4,342	10,424	8,393
February	48	38	260	165	295	0	583	372	5,540	4,134	10,650	8,468
March	28	18	314	261	319	0	460	254	5,549	4,382	10,658	8,739
April	49	37	319	143	271	0	756	300	5,939	4,288	11,618	9,256
May	41	18	569	471	298	0	659	344	6,432	4,725	11,511	9,098
June	52	33	373	317	290	0	689	357	6,119	4,645	11,160	8,888
July	57	31	644	537	278	0	646	300	6,681	5,175	11,697	9,391
August	53	36	321	256	206	0	617	278	6,005	4,481	11,142	8,908
September	83	67	445	366	305	16	499	244	5,831	4,483	10,657	8,527
October	75	66	344	267	284	0	592	318	5,951	4,593	10,595	8,613
November	66	42	336	281	277	0	421	254	5,602	4,381	10,033	8,224
December	92	64	198	174	236	0	450	244	5,501	4,357	10,065	8,234
Average	58	40	365	284	280	1	575	304	5,899	4,502	10,852	8,731
2000 January	89	71	240	171	252	0	496	216	5,680	4,249	9,795	7,719
February	71	52	229	149	298	0	669	304	5,743	4,032	10,396	8,096
March	60	37	243	216	223	0	506	150	5,755	4,309	10,768	8,661
April	91	70	420	348	308	0	441	232	6,024	4,611	11,091	9,088
May	77	51	517	449	304	0	581	252	6,138	4,767	10,981	8,912
June	100	52	343	282	353	0	631	278	6,164	4,572	11,681	9,455
July	93	54	470	458	264	0	682	309	6,201	4,736	11,344	9,320
August	72	55	387	340	292	0	506	208	5,998	4,526	11,849	9,858
September	92	58	239	206	321	0	669	203	6,155	4,523	11,512	9,281
October	88	56	325	218	234	0	549	175	5,687	4,116	11,018	8,866
November	80	56	212	160	293	0	557	174	5,683	4,138	10,857	8,708
11-Month Average	83	56	330	273	285	0	571	227	5,930	4,418	11,027	8,908
1999 11-Month Average	55	38	380	294	284	1	586	309	5,936	4,516	10,925	8,777
1998 11-Month Average	65	51	254	165	295	0	534	285	5,812	4,542	10,750	8,739

^a 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.

^b Includes Bahrain, which is shown on Table 3.3a.

^c As of January 1993, includes petroleum imported from Ecuador, which withdrew from OPEC on December 31, 1992. As of January 1995, includes petroleum imported from Gabon, which withdrew from OPEC on December 31, 1994.

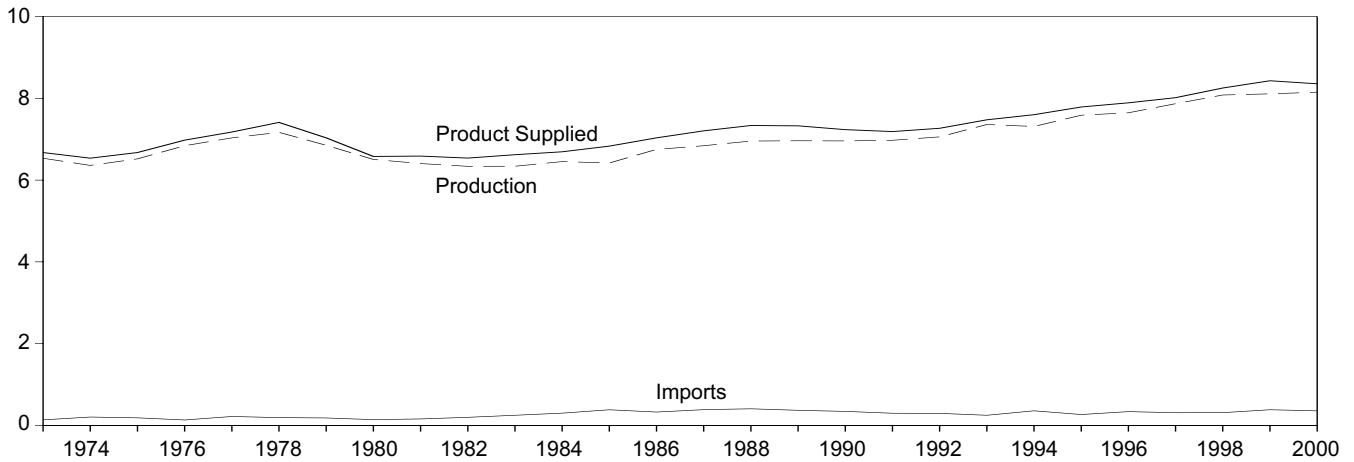
(s)=Less than 500 barrels per day.

Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

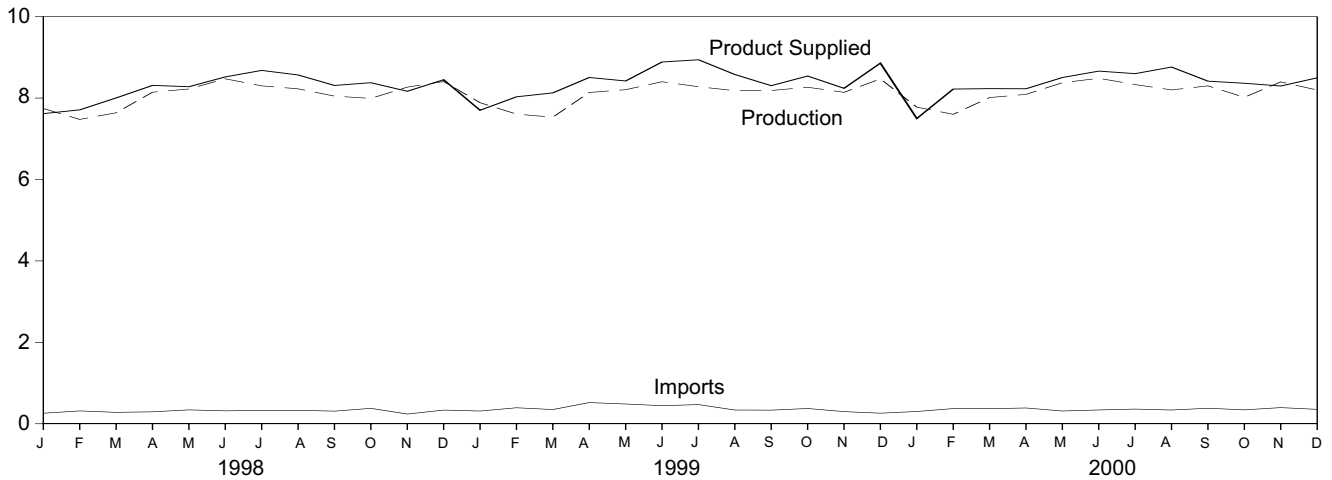
Sources: 1973-1980: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. 1981 forward: EIA, *Petroleum Supply Monthly*, January 2001, Table S3.

Figure 3.2 Finished Motor Gasoline
(Million Barrels per Day, Except as Noted)

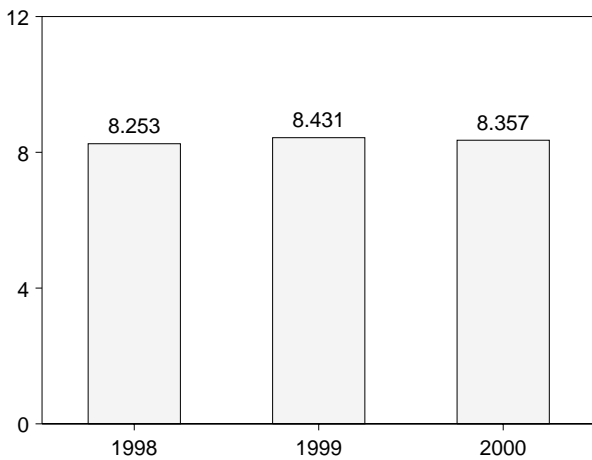
Overview, 1973-2000



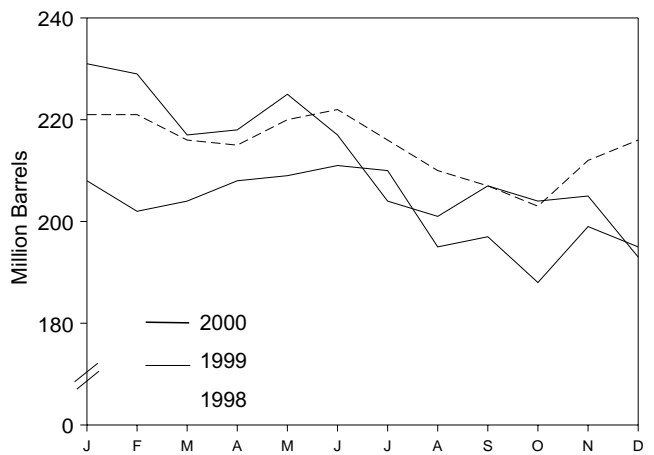
Overview, Monthly



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Tables 3.4

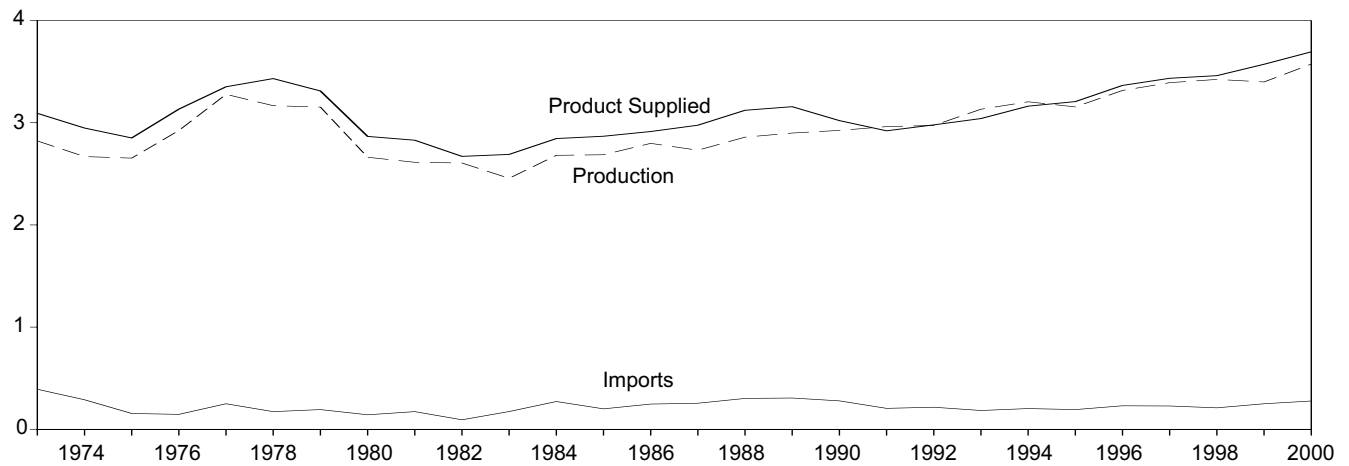
Table 3.4 Finished Motor Gasoline Supply and Disposition

	Supply		Disposition			Motor Gasoline Stocks ^a		Oxygenates Stocks ^a
	Total Production	Imports ^b	Stock Change ^{b,c}	Exports	Product Supplied	Total ^d	Finished	
	Thousand Barrels per Day					Million Barrels		
1973 Average	6,535	134	-9	4	6,674	209	NA	NA
1974 Average	6,360	204	24	2	6,537	^e 218	NA	NA
1975 Average	6,520	184	^e 28	2	6,675	235	NA	NA
1976 Average	6,841	131	-10	3	6,978	231	NA	NA
1977 Average	7,033	217	72	2	7,177	258	NA	NA
1978 Average	7,169	190	-54	1	7,412	238	NA	NA
1979 Average	6,852	181	-2	(s)	7,034	237	NA	NA
1980 Average	6,506	140	66	1	6,579	^e 261	NA	NA
1981 Average ^f	6,405	157	^e -28	2	6,588	253	203	NA
1982 Average	6,338	197	-25	20	6,539	^e 235	^e 194	NA
1983 Average	6,340	247	^e -45	10	6,622	222	186	NA
1984 Average	6,453	299	54	6	6,693	243	205	NA
1985 Average	6,419	381	-41	10	6,831	223	190	NA
1986 Average	6,752	326	11	33	7,034	233	194	NA
1987 Average	6,841	384	-15	35	7,206	226	189	NA
1988 Average	6,956	405	3	22	7,336	228	190	NA
1989 Average	6,963	369	-35	39	7,328	213	177	NA
1990 Average	6,959	342	10	55	7,235	220	181	NA
1991 Average	6,975	297	3	82	7,188	219	182	NA
1992 Average	7,058	294	-11	96	7,268	216	178	NA
1993 Average	^g 7,360	247	26	105	^g 7,476	226	187	^h 13
1994 Average	7,312	356	-31	97	7,601	215	176	17
1995 Average	7,588	265	-40	104	7,789	202	161	12
1996 Average	7,647	336	-12	104	7,891	195	157	13
1997 Average	7,870	309	26	137	8,017	210	166	12
1998 January	7,744	259	256	128	7,618	221	174	13
February	7,476	316	-43	124	7,711	221	173	14
March	7,640	281	-203	121	8,004	216	167	14
April	8,144	294	45	81	8,312	215	168	14
May	8,224	342	185	103	8,279	220	174	13
June	8,474	318	113	159	8,520	222	177	14
July	8,300	328	-169	117	8,680	216	172	14
August	8,228	331	-151	141	8,568	210	167	13
September	8,048	310	-116	163	8,310	207	164	13
October	7,992	379	-128	121	8,378	203	160	12
November	8,269	239	253	89	8,167	212	168	13
December	8,406	336	137	153	8,451	216	172	14
Average	8,082	311	15	125	8,253	216	172	14
1999 January	7,886	313	368	130	7,701	231	183	14
February	7,607	393	-136	105	8,031	229	179	16
March	7,531	350	-328	81	8,128	217	169	15
April	8,138	521	68	85	8,506	218	171	13
May	8,207	485	173	100	8,420	225	177	15
June	8,402	444	-111	71	8,886	217	173	14
July	8,280	471	-280	89	8,942	204	165	13
August	8,183	338	-160	101	8,579	201	160	14
September	8,187	335	90	128	8,305	207	162	15
October	8,266	375	-31	130	8,542	204	161	15
November	8,142	299	72	128	8,240	205	164	13
December	8,471	260	-305	177	8,859	193	154	14
Average	8,111	382	-49	111	8,431	193	154	14
2000 January	7,778	302	454	127	7,498	208	166	14
February	7,602	373	-330	83	8,222	202	156	15
March	8,013	371	44	108	8,232	204	157	14
April	8,091	388	139	111	8,229	208	162	13
May	8,378	314	61	126	8,505	209	163	14
June	8,486	339	63	100	8,663	211	165	14
July	8,332	361	-17	110	8,600	210	165	14
August	8,201	338	-417	194	8,762	195	152	13
September	8,300	381	82	184	8,416	197	154	13
October	8,019	341	-221	217	8,364	188	148	14
November	^R 8,398	^R 397	^R 329	^R 170	^R 8,297	^R 199	^R 157	14
December	^E 8,198	^E 354	^E -60	^E 114	^E 8,498	^E 195	^E 153	NA
Average	^E 8,151	^E 355	^E 11	^E 137	^E 8,357	^E 195	^E 153	NA

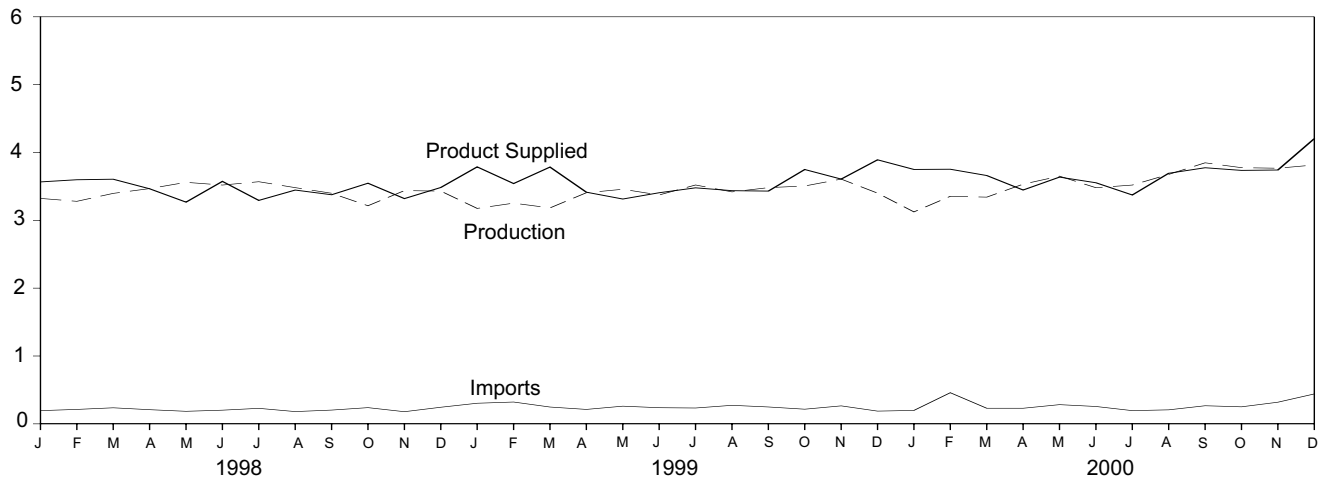
^a Stocks are at end of period.
^b From 1981 forward, blending components are excluded.
^c A negative number indicates a decrease in stocks and a positive number indicates an increase.
^d Includes motor gasoline blending components and gasohol, but excludes oxygenates, which are reported separately.
^e See Note 4 at end of section.
^f See Note 2 at end of section.
^g Beginning in 1993, motor gasoline production and product supplied include blending of fuel ethanol and an adjustment to correct for the imbalance of motor gasoline blending components. See Note 2 at end of section.
^h See Note 1 at end of section.
R=Revised. NA=Not available. E=Estimate. (s)=Less than 500 barrels per day.
Note: Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S4. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S4.

Figure 3.3 Distillate Fuel
(Million Barrels per Day, Except as Noted)

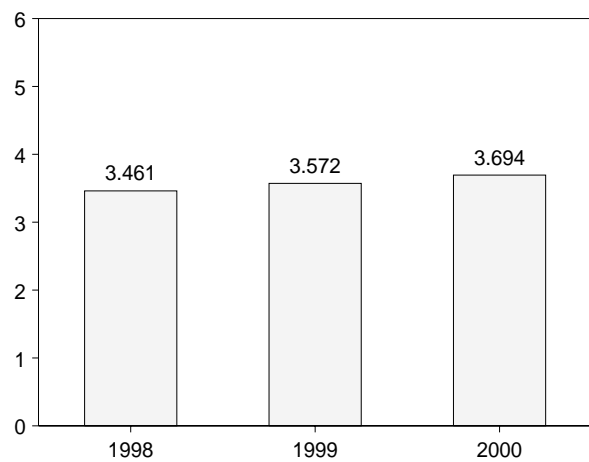
Overview, 1973-2000



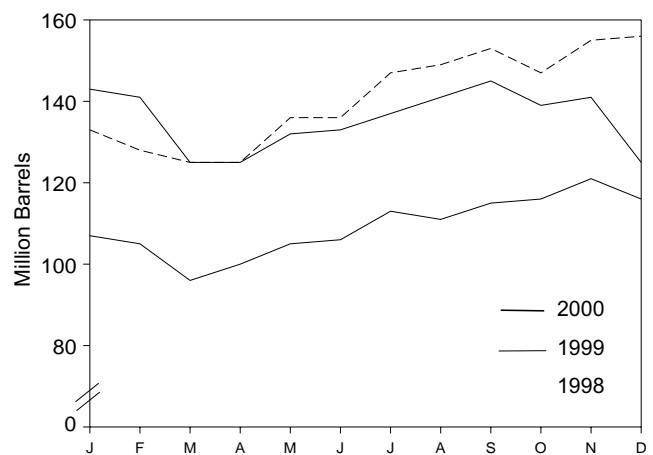
Overview, Monthly



Product Supplied, January-December



Stocks, End of Month



Source: Table 3.5.

Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^a		
	Total Production	Imports	Crude Oil Used Directly ^b	Stock Change ^c	Exports	Product Supplied ^b	Total	Sulfur Content	
								0.05 Percent or Less ^d	Greater Than 0.05 Percent ^d
Thousand Barrels per Day							Million Barrels		
1973 Average	2,822	392	2	115	9	3,092	196	NA	NA
1974 Average	2,669	289	2	^e 10	2	2,948	^f 200	NA	NA
1975 Average	2,654	155	2	^{e,f} -41	1	2,851	209	NA	NA
1976 Average	2,924	146	1	-62	1	3,133	186	NA	NA
1977 Average	3,278	250	1	176	1	3,352	250	NA	NA
1978 Average	3,167	173	1	-93	3	3,432	216	NA	NA
1979 Average	3,153	193	1	34	3	3,311	229	NA	NA
1980 Average	2,662	142	1	-64	3	2,866	^f 205	NA	NA
1981 Average ^g	2,613	173	10	^f -38	5	2,829	192	NA	NA
1982 Average	2,606	93	10	-35	74	2,671	^f 179	NA	NA
1983 Average	2,456	174	-	^f -124	64	2,690	140	NA	NA
1984 Average	2,681	272	-	57	51	2,845	161	NA	NA
1985 Average	2,687	200	-	-48	67	2,868	144	NA	NA
1986 Average	2,798	247	-	31	100	2,914	155	NA	NA
1987 Average	2,731	255	-	-56	66	2,976	134	NA	NA
1988 Average	2,859	302	-	-30	69	3,122	124	NA	NA
1989 Average	2,899	306	-	-49	97	3,157	106	NA	NA
1990 Average	2,925	278	-	73	109	3,021	132	NA	NA
1991 Average	2,962	205	-	31	215	2,921	144	NA	NA
1992 Average	2,974	216	-	-8	219	2,979	141	NA	NA
1993 Average	3,132	184	-	1	274	3,041	141	⁹⁶⁴	⁹⁷⁷
1994 Average	3,205	203	-	12	234	3,162	145	73	73
1995 Average	3,155	193	-	-41	183	3,207	130	67	63
1996 Average	3,316	230	-	-10	190	3,365	127	68	58
1997 Average	3,392	228	-	32	152	3,435	138	68	70
1998 January	3,323	195	-	-182	133	3,566	133	68	65
February	3,280	213	-	-184	79	3,598	128	65	63
March	3,397	237	-	-100	129	3,606	125	64	61
April	3,468	209	-	26	186	3,465	125	63	63
May	3,560	185	-	355	121	3,268	136	68	68
June	3,520	202	-	(s)	149	3,574	136	68	68
July	3,569	229	-	343	161	3,294	147	73	74
August	3,482	181	-	67	150	3,446	149	72	77
September	3,399	203	-	118	107	3,377	153	73	80
October	3,215	239	-	-169	75	3,547	147	69	79
November	3,438	179	-	242	54	3,320	155	74	81
December	3,431	245	-	47	145	3,484	156	77	79
Average	3,424	210	-	48	124	3,461	156	77	79
1999 January	3,176	304	-	-426	117	3,788	143	74	69
February	3,253	322	-	-83	116	3,542	141	73	67
March	3,183	248	-	-513	159	3,785	125	69	56
April	3,407	213	-	14	191	3,415	125	68	57
May	3,458	261	-	219	187	3,314	132	70	62
June	3,374	238	-	25	180	3,407	133	68	65
July	3,521	234	-	153	123	3,479	137	71	66
August	3,419	273	-	126	130	3,437	141	69	73
September	3,482	249	-	139	162	3,431	145	73	72
October	3,506	216	-	-219	192	3,749	139	69	69
November	3,608	265	-	94	170	3,608	141	72	69
December	3,401	188	-	-514	212	3,892	125	69	56
Average	3,399	250	-	-84	162	3,572	125	69	56
2000 January	3,124	198	-	-560	132	3,750	107	66	41
February	3,354	459	-	-53	112	3,753	105	64	42
March	3,342	230	-	-298	211	3,660	96	60	36
April	3,533	230	-	138	178	3,447	100	66	34
May	3,651	283	-	170	127	3,637	105	67	39
June	3,481	256	-	34	149	3,554	106	68	38
July	3,520	195	-	210	132	3,373	113	71	41
August	3,677	207	-	-63	253	3,694	111	66	44
September	3,848	267	-	146	194	3,775	115	68	47
October	3,776	251	-	37	255	3,736	116	68	48
November	^R 3,768	^R 319	-	^R 154	^R 191	^R 3,742	^R 121	^R 71	50
December	^E 3,816	^E 441	-	^E -119	^E 172	^E 4,204	^E 116	^E 69	^E 47
Average	^E 3,574	^E 277	-	^E -18	^E 176	^E 3,694	^E 116	^E 69	^E 47

^a Stocks are at end of period. Distillate fuel oil stocks in the "Northeast Heating Oil Reserve" are not included.

^b Beginning in January 1983, crude oil used directly as distillate fuel oil is reported as crude oil product supplied on Table 3.2b rather than as distillate fuel oil product supplied.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase.

^d By weight.

^e See Note 6 at end of section.

^f See Note 4 at end of section.

^g See Note 3 at end of section.

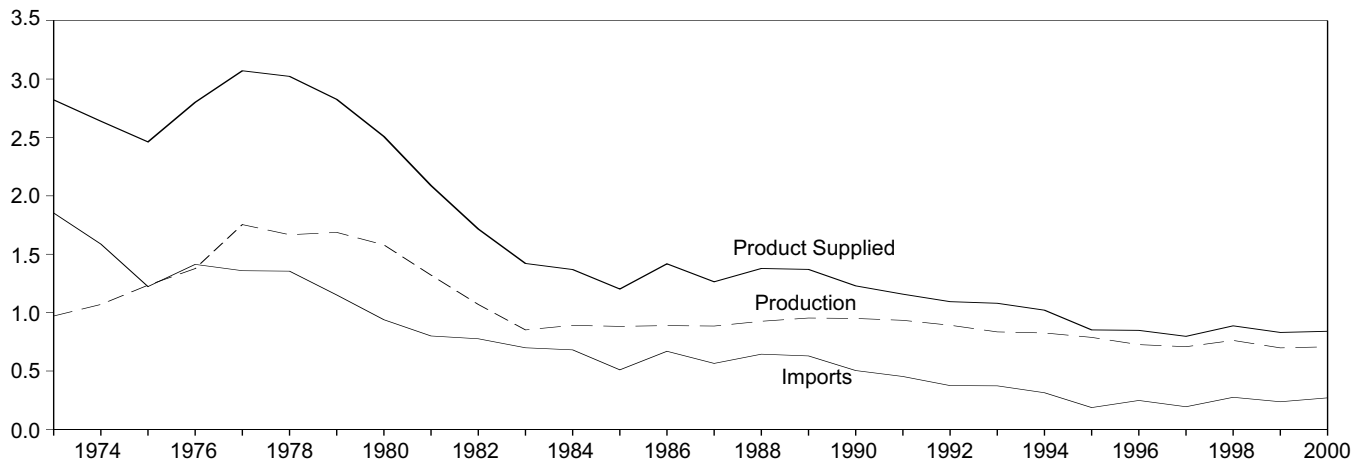
R=Revised. NA=Not available. --=Not applicable. E=Estimate.

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

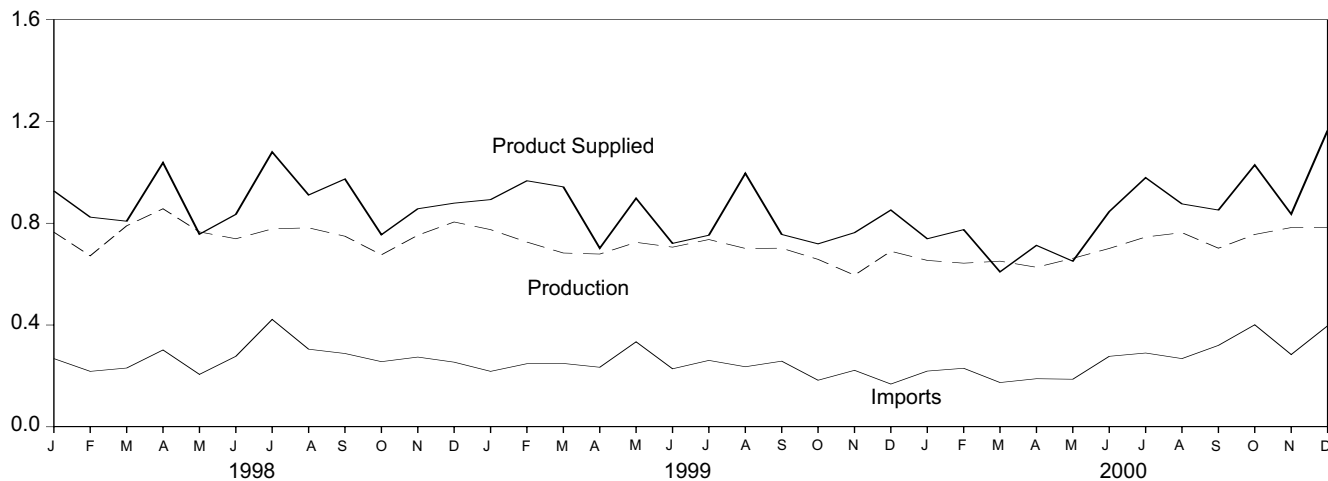
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S5. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S5.

Figure 3.4 Residual Fuel
(Million Barrels per Day, Except as Noted)

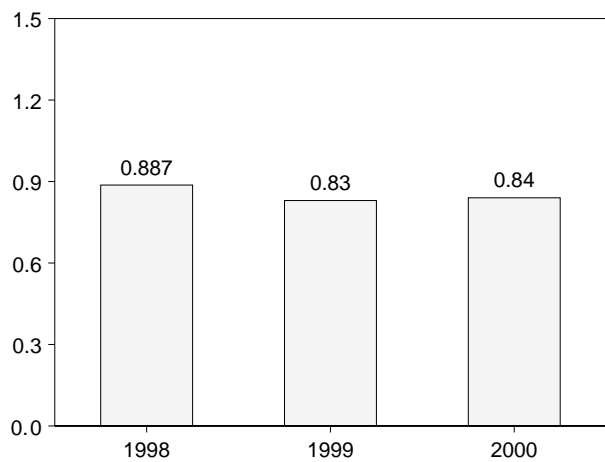
Overview, 1973-2000



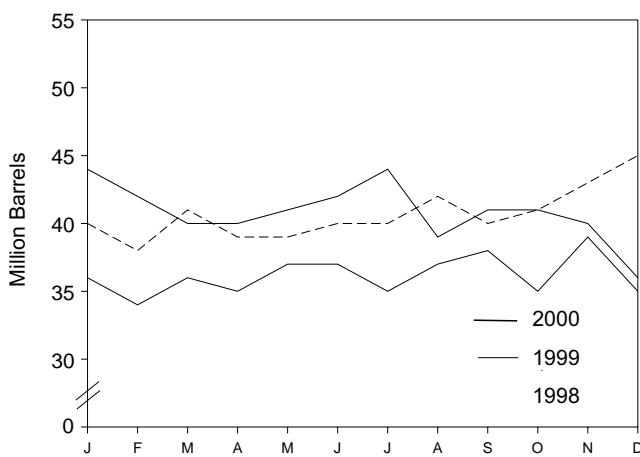
Overview, Monthly



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.6.

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^c
	Total Production	Imports	Crude Oil Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	
	Thousand Barrels per Day							Million Barrels
1973 Average	971	1,853	17	-5	23	2,822	53
1974 Average	1,070	1,587	13	17	14	2,639	^d 60
1975 Average	1,235	1,223	15	^d -2	15	2,462	74
1976 Average	1,377	1,413	17	-5	12	2,801	72
1977 Average	1,754	1,359	13	48	6	3,071	90
1978 Average	1,667	1,355	13	1	13	3,023	90
1979 Average	1,687	1,151	12	15	9	2,826	96
1980 Average	1,580	939	12	-10	33	2,508	^d 92
1981 Average ^e	1,321	800	48	^d -37	118	2,088	78
1982 Average	1,070	776	48	-32	209	1,716	^d 66
1983 Average	852	699	-	^d -55	185	1,421	49
1984 Average	891	681	-	12	190	1,369	53
1985 Average	882	510	-	-7	197	1,202	50
1986 Average	889	669	-	-8	147	1,418	47
1987 Average	885	565	-	(s)	186	1,264	47
1988 Average	926	644	-	-8	200	1,378	45
1989 Average	954	629	-	-2	215	1,370	44
1990 Average	950	504	-	13	211	1,229	49
1991 Average	934	453	-	4	226	1,158	50
1992 Average	892	375	-	-20	193	1,094	43
1993 Average	835	373	-	4	123	1,080	44
1994 Average	826	314	-	-6	125	1,021	42
1995 Average	788	187	-	-13	136	852	37
1996 Average	726	248	-	24	102	848	46
1997 Average	708	194	-	-15	120	797	40
1998 January	765	268	-	-25	131	927	40
February	672	218	-	-53	120	824	38
March	790	231	-	79	135	808	41
April	857	302	-	-47	168	1,038	39
May	766	206	-	-13	227	757	39
June	739	277	-	30	152	835	40
July	778	422	-	-4	124	1,080	40
August	782	305	-	71	105	911	42
September	749	288	-	-70	133	974	40
October	676	256	-	38	139	755	41
November	753	274	-	61	110	857	43
December	805	254	-	72	108	879	45
Average	762	275	-	12	138	887	45
1999 January	775	218	-	-33	133	893	44
February	726	248	-	-62	70	967	42
March	683	249	-	-84	72	943	40
April	679	234	-	26	185	702	40
May	725	334	-	9	153	898	41
June	706	228	-	63	151	721	42
July	736	261	-	62	182	753	44
August	701	236	-	-183	124	996	39
September	702	258	-	68	136	756	41
October	658	183	-	-7	130	719	41
November	596	222	-	-5	60	763	40
December	690	168	-	-147	154	852	36
Average	698	237	-	-25	129	830	36
2000 January	654	219	-	-3	137	739	36
February	643	230	-	-51	149	775	34
March	651	174	-	50	167	609	36
April	627	189	-	-36	139	713	35
May	662	187	-	75	123	651	37
June	701	277	-	1	133	846	37
July	746	290	-	-56	113	979	35
August	763	268	-	61	94	876	37
September	702	320	-	22	148	852	38
October	756	401	-	-93	221	1,029	35
November	^R 783	^R 284	-	^R 130	^R 100	^R 836	^R 39
December	^E 784	^E 397	-	^E -110	^E 127	^E 1,165	^E 35
Average	^E 707	^E 270	-	^E -1	^E 138	^E 840	^E 35

^a Beginning in January 1983, crude oil used directly as residual fuel oil is reported as crude oil product supplied on Table 3.2b rather than as residual fuel oil product supplied.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase.

^c Stocks are at end of period.

^d See Note 4 at end of section.

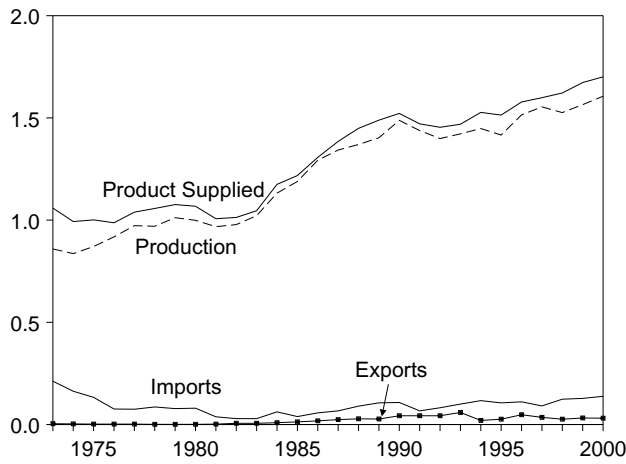
^e See Note 3 at end of section.

R=Revised. - =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

Note: Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S6. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S6.

Figure 3.5 Jet Fuel
(Million Barrels per Day, Except as Noted)

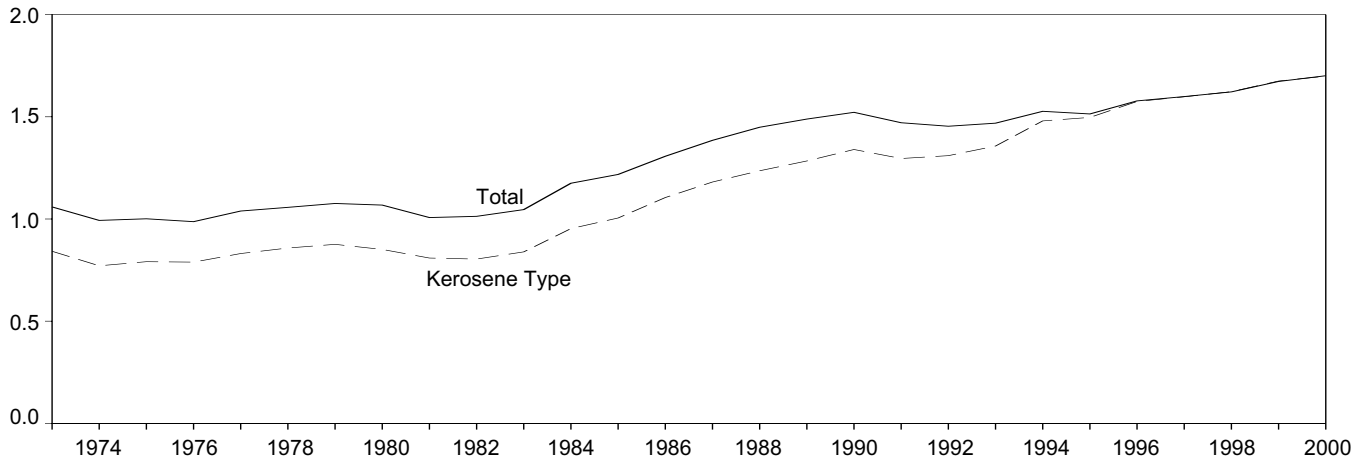
Overview, 1973-2000



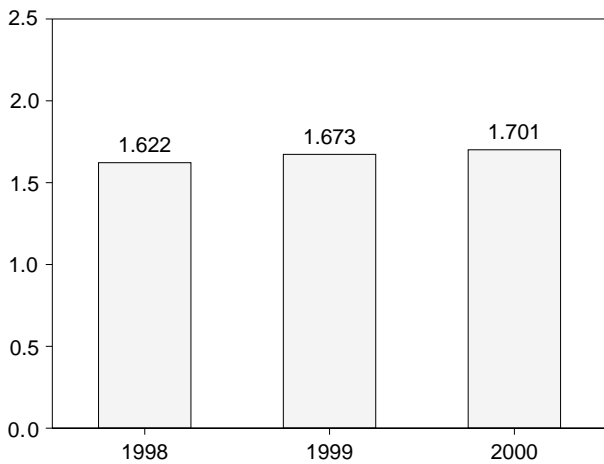
Overview, Monthly



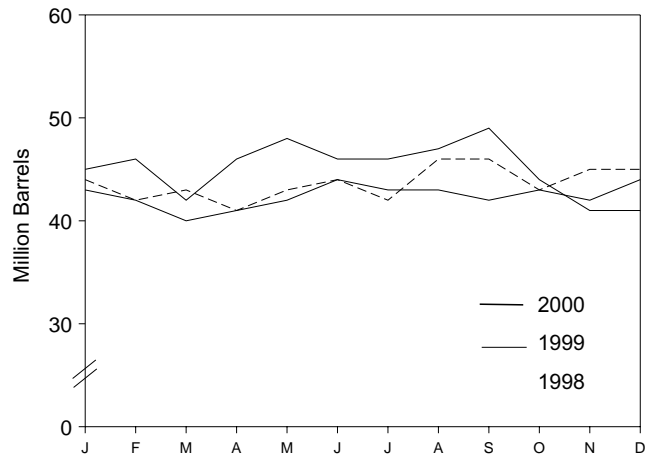
Product Supplied by Type, 1973-2000



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.7.

Table 3.7 Jet Fuel Supply and Disposition

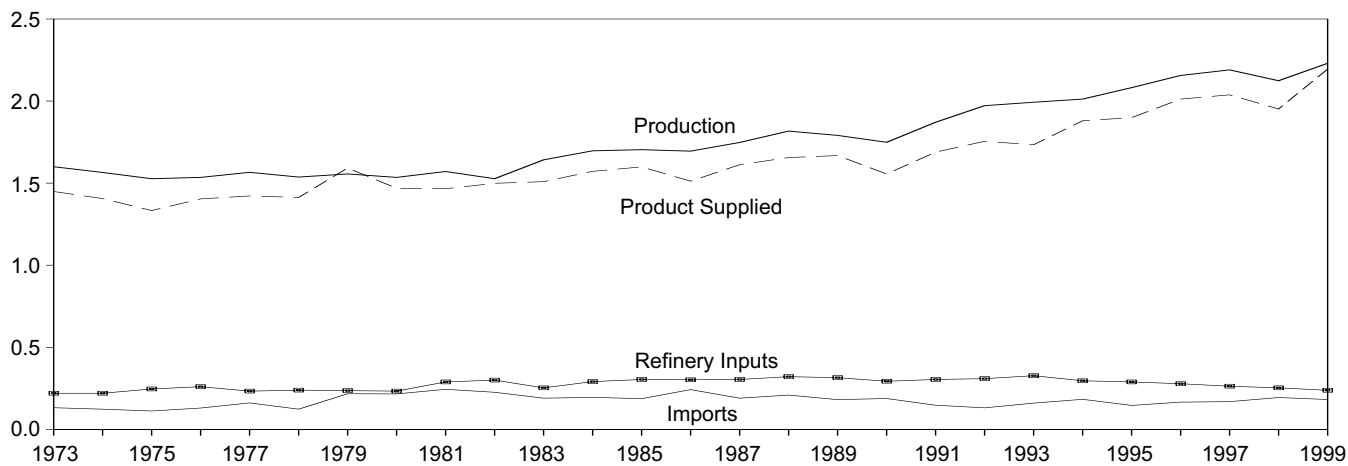
	Supply			Disposition				Stocks ^a	
	Production		Imports	Stock Change ^b	Exports	Product Supplied			
	Total	Kerosene Type				Total	Kerosene Type	Total	Kerosene Type
	Thousand Barrels per Day							Million Barrels	
1973 Average	859	679	212	8	4	1,059	842	29	23
1974 Average	836	641	163	2	3	993	771	^c 29	^c 24
1975 Average	871	691	133	^c 2	2	1,001	791	30	25
1976 Average	918	731	76	5	2	987	789	32	26
1977 Average	973	787	75	7	2	1,039	831	35	28
1978 Average	970	791	86	-2	1	1,057	858	34	28
1979 Average	1,012	835	78	13	1	1,076	876	39	33
1980 Average	999	811	80	10	1	1,068	851	^c 42	^c 36
1981 Average	968	775	38	^c -4	2	1,007	809	41	34
1982 Average	978	778	29	-12	6	1,013	804	^c 37	^c 31
1983 Average	1,022	817	29	^c (s)	6	1,046	839	39	32
1984 Average	1,132	919	62	9	9	1,175	953	42	35
1985 Average	1,189	983	39	-4	13	1,218	1,005	40	34
1986 Average	1,293	1,097	57	25	18	1,307	1,105	50	43
1987 Average	1,343	1,138	67	(s)	24	1,385	1,181	50	42
1988 Average	1,370	1,164	90	-17	28	1,449	1,236	44	38
1989 Average	1,403	1,197	106	-8	27	1,489	1,284	41	34
1990 Average	1,488	1,311	108	31	43	1,522	1,340	52	46
1991 Average	1,438	1,274	67	-9	43	1,471	1,296	49	44
1992 Average	1,399	1,254	82	-16	43	1,454	1,310	43	39
1993 Average	1,422	1,309	100	-7	59	1,469	1,357	40	38
1994 Average	1,448	1,410	117	18	20	1,527	1,480	47	46
1995 Average	1,416	1,407	106	-19	26	1,514	1,497	40	39
1996 Average	1,515	1,513	111	(s)	48	1,578	1,575	40	40
1997 Average	1,554	1,554	91	11	35	1,599	1,598	44	44
1998 January	1,513	1,512	85	3	37	1,559	1,558	44	44
February	1,443	1,443	127	-61	25	1,606	1,605	42	42
March	1,504	1,503	144	23	36	1,589	1,596	43	43
April	1,524	1,523	106	-56	32	1,654	1,654	41	41
May	1,494	1,493	151	54	25	1,567	1,568	43	43
June	1,555	1,554	116	35	25	1,611	1,611	44	44
July	1,504	1,503	117	-65	28	1,658	1,659	42	42
August	1,608	1,608	146	141	8	1,605	1,605	46	46
September	1,482	1,482	91	-17	26	1,564	1,565	46	46
October	1,448	1,447	140	-102	22	1,667	1,668	43	43
November	1,617	1,617	131	89	25	1,634	1,634	45	45
December	1,611	1,611	130	-26	17	1,749	1,750	45	45
Average	1,526	1,525	124	2	26	1,622	1,623	45	45
1999 January	1,594	1,594	132	3	26	1,697	1,698	45	45
February	1,567	1,566	157	26	9	1,689	1,689	46	45
March	1,521	1,520	85	-109	23	1,691	1,692	42	42
April	1,642	1,641	162	126	29	1,647	1,652	46	46
May	1,545	1,545	148	51	33	1,609	1,609	48	47
June	1,542	1,541	65	-60	36	1,631	1,640	46	46
July	1,551	1,550	155	22	39	1,644	1,648	46	46
August	1,575	1,575	176	3	9	1,739	1,739	47	46
September	1,600	1,600	152	74	34	1,643	1,645	49	49
October	1,501	1,500	97	-154	28	1,724	1,725	44	44
November	1,530	1,530	82	-89	64	1,637	1,640	41	41
December	1,616	1,615	128	-25	53	1,717	1,717	41	40
Average	1,565	1,565	128	-11	32	1,673	1,675	41	40
2000 January	1,599	1,599	116	110	13	1,591	1,586	43	43
February	1,450	1,450	148	-51	17	1,632	1,628	42	42
March	1,561	1,561	101	-53	33	1,682	1,679	40	40
April	1,615	1,615	112	36	37	1,654	1,653	41	41
May	1,589	1,589	130	21	35	1,663	1,663	42	42
June	1,604	1,603	167	67	27	1,677	1,677	44	44
July	1,650	1,649	121	-34	21	1,785	1,784	43	43
August	1,636	1,636	197	-8	19	1,822	1,822	43	43
September	1,643	1,643	114	-9	34	1,732	1,732	42	42
October	1,646	1,645	151	6	42	1,748	1,748	43	43
November	^R 1,620	^R 1,620	^R 130	^R -10	^R 64	^R 1,696	^R 1,697	42	42
December	^E 1,649	^E 1,649	^E 171	^E 70	^E 33	^E 1,717	^E 1,717	^E 44	^E 44
Average	^E 1,606	^E 1,606	^E 138	^E 12	^E 31	^E 1,701	^E 1,699	^E 44	^E 44

^a Stocks are at end of period.
^b A negative number indicates a decrease in stocks and a positive number indicates an increase.
^c See Note 4 at end of section.
^R=Revised. ^E=Estimate. (s)=Less than +500 barrels per day and greater

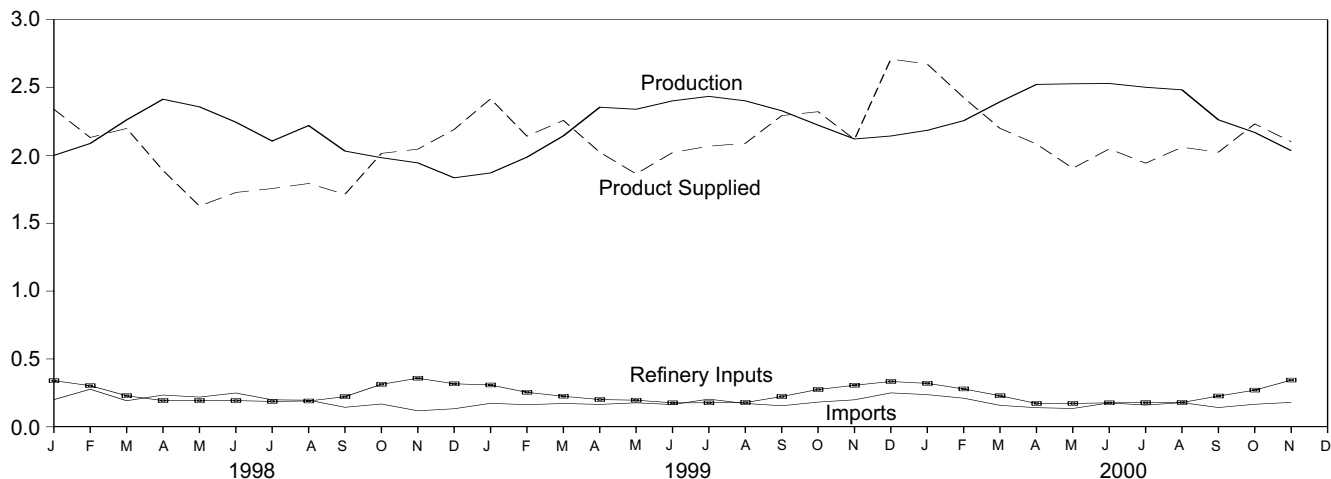
than -500 barrels per day.
 Note: Geographic coverage is the 50 States and the District of Columbia.
 Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S7. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S7.

Figure 3.6 Liquefied Petroleum Gases
(Million Barrels per Day, Except as Noted)

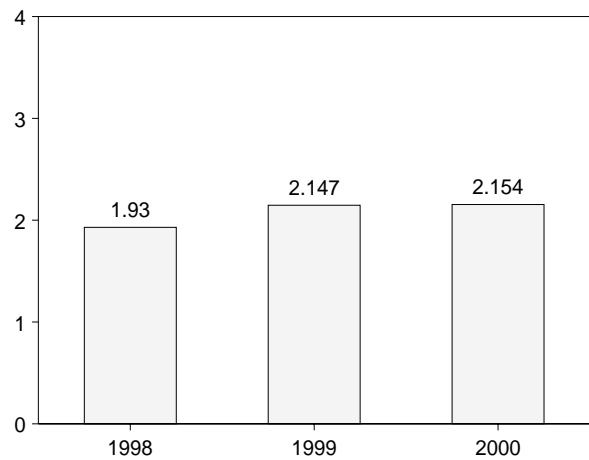
Overview, 1973-1999



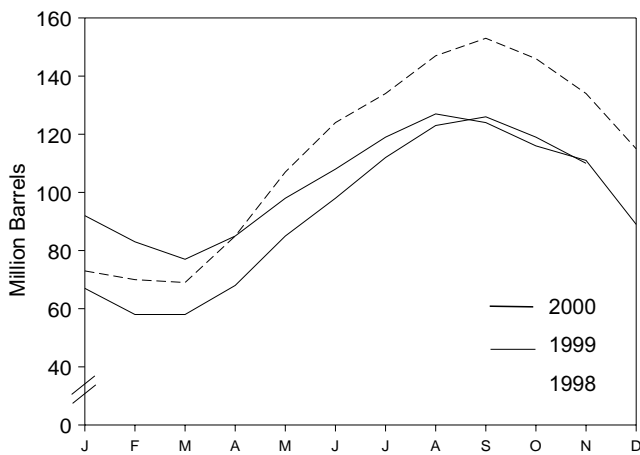
Overview, Monthly



Product Supplied, January-November



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.8.

Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	1,600	132	35	220	27	1,449	99
1974 Average	1,565	123	38	220	25	1,406	^c 113
1975 Average	1,527	112	^c 35	246	26	1,333	125
1976 Average	1,535	130	-24	260	25	1,404	116
1977 Average	1,566	161	55	233	18	1,422	136
1978 Average	1,537	123	-12	239	20	1,413	^c 132
1979 Average	1,556	217	^c -70	236	15	1,592	111
1980 Average	1,535	216	27	233	21	1,469	^c 120
1981 Average	1,571	244	^c 18	289	42	1,466	135
1982 Average	^d 1,527	226	-111	300	65	1,499	^c 94
1983 Average	1,642	190	^c -4	253	73	1,509	^c 101
1984 Average	1,697	195	^c -19	291	48	1,572	101
1985 Average	1,704	187	-75	304	62	1,599	74
1986 Average	1,695	242	80	302	42	1,512	103
1987 Average	1,748	190	-15	304	38	1,612	97
1988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
1990 Average	1,749	188	48	293	40	1,556	98
1991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
1993 Average	1,993	160	49	327	43	1,734	106
1994 Average	2,012	183	-19	296	38	1,880	99
1995 Average	2,082	146	-17	289	58	1,899	93
1996 Average	2,156	166	-19	278	51	2,012	86
1997 Average	2,190	169	9	263	50	2,038	89
1998 January	2,000	200	-534	340	53	2,340	73
February	2,088	277	-122	303	52	2,132	70
March	2,262	192	-14	229	41	2,199	69
April	2,414	234	527	193	39	1,889	85
May	2,358	219	726	193	31	1,627	107
June	2,245	249	546	193	28	1,727	124
July	2,106	199	328	187	34	1,756	134
August	2,220	196	407	190	25	1,793	147
September	2,032	144	212	222	28	1,713	153
October	1,983	168	-225	313	49	2,015	146
November	1,945	118	-402	358	61	2,046	134
December	1,835	133	-608	317	67	2,191	115
Average	2,124	194	70	253	42	1,952	115
1999 January	1,871	173	-757	308	75	2,417	92
February	1,987	163	-311	254	64	2,142	83
March	2,144	172	-200	225	32	2,258	77
April	2,355	165	276	201	21	2,023	85
May	2,340	177	424	196	33	1,864	98
June	2,402	164	331	177	37	2,021	108
July	2,435	204	354	177	39	2,068	119
August	2,402	172	259	179	47	2,089	127
September	2,329	155	-89	223	58	2,293	124
October	2,223	182	-273	275	81	2,322	116
November	2,121	199	-151	306	47	2,118	111
December	2,143	250	-712	334	61	2,710	89
Average	2,230	182	-71	238	50	2,195	89
2000 January	2,185	237	-673	320	101	2,673	67
February	2,256	211	-318	279	81	2,426	58
March	2,395	158	15	229	109	2,199	58
April	2,523	141	333	172	75	2,084	68
May	2,528	135	548	172	38	1,905	85
June	2,530	176	411	177	69	2,048	98
July	2,502	160	478	178	63	1,943	112
August	2,483	178	345	179	76	2,060	123
September	2,262	142	90	227	62	2,024	126
October	2,169	166	-231	270	65	2,232	119
November	2,035	180	-303	344	72	2,101	110
11-Month Average	2,352	171	65	231	74	2,154	110
1999 11-Month Average	2,238	175	-11	229	49	2,147	111
1998 11-Month Average	2,151	199	133	247	40	1,930	134

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are at end of period.

^c See Note 4 at end of section.

^d See Note 6 at end of section.

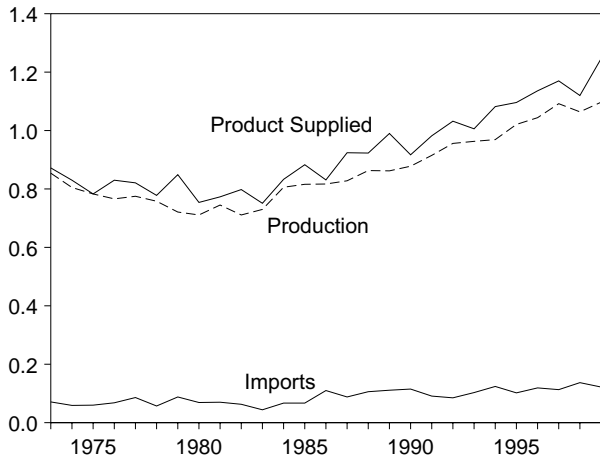
Notes: Liquefied petroleum gases include ethane, ethylene, propane,

propylene, normal butane, butylene, isobutane and isobutylene. Geographic coverage is the 50 States and the District of Columbia.

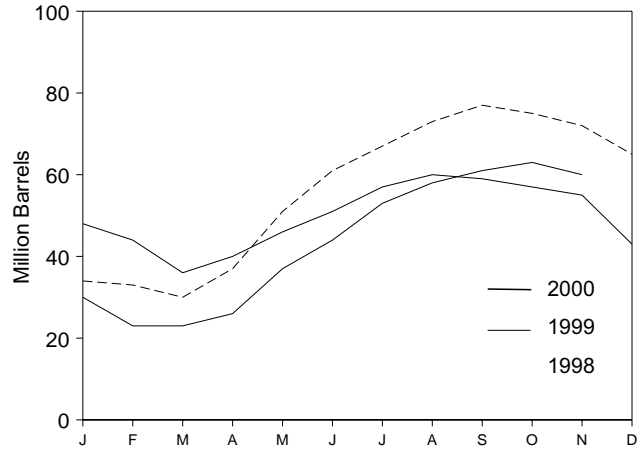
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S8. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S9.

Figure 3.7 Propane and Propylene
(Million Barrels per Day, Except as Noted)

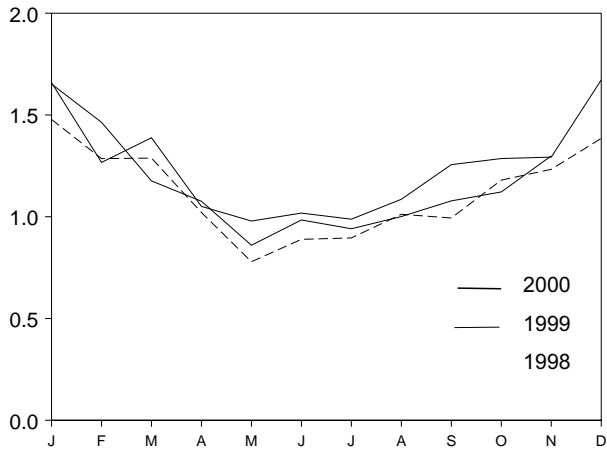
Overview, 1973-1999



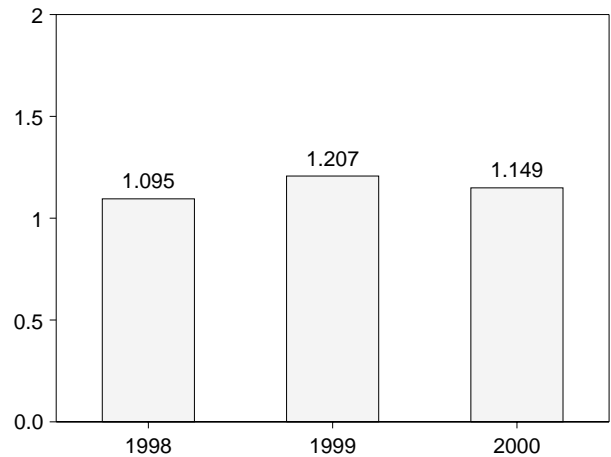
Stocks, End of Month



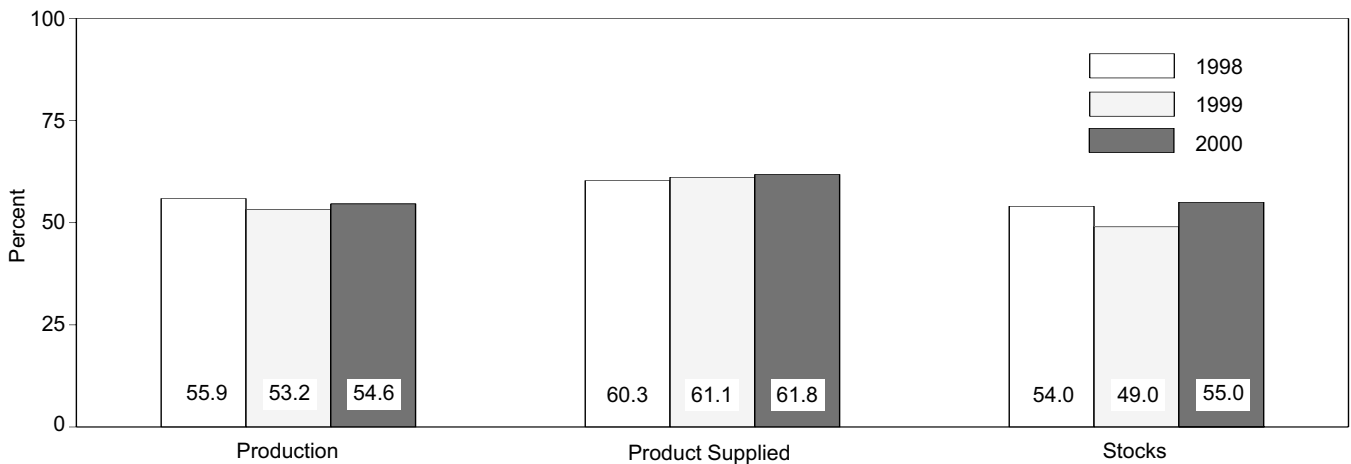
Product Supplied, Monthly



Product Supplied, January-November



Share of Liquefied Petroleum Gases, November



Note: Because vertical scales differ, graphs should not be compared.
Sources: Table 3.9 and, for calculation of shares, data prior to rounding for publication in Tables 3.8 and 3.9.

Table 3.9 Propane and Propylene Supply and Disposition (A Subset of Table 3.8)

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	854	71	30	8	15	872	65
1974 Average	805	59	11	9	14	830	69
1975 Average	783	60	36	11	13	783	82
1976 Average	766	68	-22	12	13	830	74
1977 Average	775	86	21	10	10	821	81
1978 Average	758	57	15	13	9	778	^c 87
1979 Average	721	88	^c -61	14	8	849	64
1980 Average	711	69	4	12	10	754	^c 65
1981 Average	745	70	^c 18	5	18	773	76
1982 Average	711	63	-59	4	31	798	^c 54
1983 Average	730	44	^c -24	4	43	751	^c 48
1984 Average	806	67	^c 7	4	30	833	58
1985 Average	816	67	-50	3	48	883	39
1986 Average	817	110	64	4	28	831	63
1987 Average	828	88	-41	8	24	924	48
1988 Average	863	106	7	8	31	923	50
1989 Average	862	111	-52	11	24	990	32
1990 Average	878	115	48	(s)	28	917	49
1991 Average	915	91	-3	(s)	28	982	48
1992 Average	956	85	-24	(s)	33	1,032	39
1993 Average	963	103	34	(s)	26	1,006	51
1994 Average	969	124	-13	0	24	1,082	46
1995 Average	1,021	102	-10	0	38	1,096	43
1996 Average	1,044	119	(s)	0	28	1,136	43
1997 Average	1,092	113	3	0	32	1,170	44
1998 January	1,060	137	-310	0	29	1,478	34
February	1,052	204	-58	0	28	1,286	33
March	1,086	132	-98	0	28	1,288	30
April	1,112	183	252	0	22	1,021	37
May	1,093	136	428	0	22	779	51
June	1,059	179	336	0	13	889	61
July	1,004	124	215	0	17	896	67
August	1,056	157	186	0	15	1,012	73
September	1,047	81	118	0	15	994	77
October	1,047	123	-45	0	35	1,180	75
November	1,086	92	-96	0	41	1,233	72
December	1,060	108	-250	0	32	1,385	65
Average	1,064	137	56	0	25	1,120	65
1999 January	1,041	118	-550	0	50	1,659	48
February	1,050	125	-133	0	41	1,267	44
March	1,031	135	-240	0	19	1,388	36
April	1,073	116	126	0	13	1,051	40
May	1,085	98	183	0	20	979	46
June	1,105	92	156	0	23	1,018	51
July	1,107	122	213	0	27	988	57
August	1,112	113	108	0	32	1,086	60
September	1,134	108	-34	0	20	1,256	59
October	1,132	125	-93	0	65	1,286	57
November	1,127	136	-64	0	34	1,293	55
December	1,169	178	-375	0	49	1,672	43
Average	1,097	122	-59	0	33	1,246	43
2000 January	1,145	176	-425	0	94	1,652	30
February	1,137	157	-223	0	53	1,464	23
March	1,133	110	-18	0	84	1,176	23
April	1,143	98	103	0	62	1,076	26
May	1,152	84	350	0	27	860	37
June	1,164	116	256	0	40	984	44
July	1,130	107	267	0	28	941	53
August	1,124	110	178	0	55	1,001	58
September	1,113	94	88	0	41	1,078	61
October	1,103	135	74	0	41	1,122	63
November	1,112	151	-91	0	55	1,299	60
11-Month Average	1,132	122	52	0	53	1,149	60
1999 11-Month Average	1,091	117	-30	0	31	1,207	55
1998 11-Month Average	1,064	140	85	0	24	1,095	72

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are at end of period.

^c See Note 4 at end of section.

(s)=Less than 500 barrels per day.

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

Sources: **1973 through 1975:** U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual." **1976 through 1980:** Energy Information Administration (EIA), *Energy Data Reports*, Petroleum Statement, Annual." **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	2,833	290	1	750	162	2,211	179
1974 Average	2,722	269	25	665	172	2,129	^c 188
1975 Average	2,547	144	^c -6	537	158	2,001	188
1976 Average	2,725	129	(s)	524	172	2,158	188
1977 Average	2,939	130	20	514	164	2,371	195
1978 Average	3,076	80	-12	492	165	2,511	191
1979 Average	3,141	116	24	352	208	2,673	200
1980 Average	2,957	130	15	310	197	2,566	^c 205
1981 Average	2,771	188	^c -42	723	197	2,081	241
1982 Average	2,475	305	-68	787	205	^d 1,857	^c 216
1983 Average	2,437	382	^c -6	712	236	1,877	^c 217
1984 Average	2,500	503	^c -32	791	236	2,007	198
1985 Average	2,532	550	22	886	227	1,947	206
1986 Average	2,704	504	-15	888	291	2,045	201
1987 Average	2,737	543	-1	829	264	2,187	200
1988 Average	2,773	645	22	799	294	2,303	208
1989 Average	2,771	627	12	797	305	2,285	213
1990 Average	2,842	705	-32	887	289	2,402	201
1991 Average	2,826	675	18	936	277	2,269	208
1992 Average	2,928	707	-3	906	263	2,470	^c 207
1993 Average	^e 3,035	770	^c -2	1,081	^e 300	^e 2,426	206
1994 Average	2,973	761	24	861	329	2,518	215
1995 Average	3,031	708	-23	958	348	2,457	206
1996 Average	3,108	879	-11	1,014	376	2,608	202
1997 Average	3,204	945	30	985	402	2,733	213
1998 January	3,108	782	415	702	420	2,352	226
February	3,100	794	384	659	406	2,446	236
March	3,081	825	269	770	387	2,481	245
April	3,153	975	-145	1,209	378	2,686	240
May	3,285	1,014	-75	1,095	402	2,876	238
June	3,365	969	-147	1,155	412	2,914	234
July	3,492	847	-271	1,182	431	2,998	225
August	3,575	697	-5	953	300	3,023	225
September	3,344	962	-33	1,012	370	2,957	224
October	3,240	1,012	-190	1,259	357	2,825	218
November	3,234	978	181	1,000	382	2,649	224
December	3,043	808	-138	1,012	312	2,665	219
Average	3,253	888	18	1,002	380	2,741	219
1999 January	3,097	891	390	759	307	2,532	232
February	3,159	900	276	775	272	2,736	239
March	3,145	815	375	593	302	2,691	251
April	3,108	1,067	-76	1,041	352	2,859	249
May	3,363	1,007	21	1,427	321	2,602	249
June	3,216	1,132	-520	1,387	311	3,170	234
July	3,271	981	-302	1,295	325	2,935	224
August	3,465	1,040	-190	1,083	359	3,253	218
September	3,373	981	-139	1,094	345	3,054	214
October	3,124	929	-192	1,105	327	2,812	208
November	3,120	743	-110	856	396	2,722	205
December	3,083	835	-292	1,300	439	2,470	196
Average	3,211	943	-64	1,061	338	2,819	196
2000 January	2,847	1,004	351	842	319	2,339	206
February	3,029	877	379	643	397	2,487	217
March	3,015	1,072	213	806	387	2,682	223
April	3,212	943	187	1,038	468	2,463	229
May	3,277	1,019	-181	1,123	372	2,982	223
June	3,501	1,010	-149	1,177	438	3,045	219
July	3,442	896	25	962	446	2,904	220
August	3,397	803	-328	1,099	421	3,008	210
September	3,372	1,007	-152	1,176	415	2,940	205
October	3,221	842	-5	990	484	2,593	205
November	3,188	839	1	1,126	509	2,392	205
11-Month Average	3,228	938	29	999	423	2,714	205
1999 11-Month Average	3,223	953	-43	1,039	329	2,851	205
1998 11-Month Average	3,272	896	33	1,002	386	2,748	224

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are at end of period.

^c See Note 4 at end of section.

^d See Note 6 at end of section.

^e Beginning in 1993, other petroleum products production, exports, and products supplied include an adjustment to oxygenates and motor gasoline blending components.

(s)=Less than +500 barrels per day and greater than -500 barrels per day.

Notes: Other petroleum products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, and crude oil that is used as fuel. Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S9. **1981 forward:** EIA, *Petroleum Supply Monthly*, January 2001, Table S10.

Petroleum Notes

1. Survey Respondents: The Energy Information Administration (EIA) uses a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review such industry publications as the *Oil and 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, letters 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, the EIA conducted a frame identifier survey of companies that produce, blend, store, or import oxygenates. A summary of the results from the identification survey was published in the *Weekly Petroleum Status Report* dated February 12, 1992, and in the February 1992 issue of the *Petroleum Supply Monthly*. In order to continue to provide relevant information about U.S. and regional gasoline supply, the 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 Explanatory Note 7 in the *Petroleum Supply Monthly*.

2. Motor Gasoline: Beginning in January 1981, the 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, the EIA made adjustments to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by the 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 has prepared a table of 1992 data adjusted according to the 1993 basis. See *Petroleum Supply Monthly*, March 1993, Table H3.

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 has been 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, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

Beginning in January 1993, the end-of-month stocks of distillate fuel oil are split into two sulfur categories (0.05 percent sulfur or less and greater than 0.05 percent sulfur) to meet Environmental Protection Agency requirements effective in October 1992. For further details, see the EIA, *Petroleum Supply Monthly*.

4. 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 (Other Primary).

Crude Oil and Petroleum Products: 1974—1,121; 1980—1,425; and 1982—1,461.

Motor Gasoline: 1974—225; 1980—263 (Total) and 214 (Finished); 1982—244 (Total) and 202 (Finished).

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

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

Jet Fuel: 1974—30 (Total) and 24 (Kerosene Type); 1980—42 (Total) and 36 (Kerosene Type); and 1982—39 (Total) and 32 (Kerosene Type).

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

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

Other Petroleum Products: 1974—190; 1980—207; and 1982—219.

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, which was formerly included in the "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks now

appear in the “Liquefied Petroleum Gases Supply and Disposition” table. This change affects stocks reported and stock change calculations in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been: 108 for liquefied petroleum gases, 55 for propane and propylene, and 210 for other petroleum products.

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.

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 (Other Primary).

6. Data Discrepancies: Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review (MER)* and the *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables and summarized here.

Table	Data Series	Year Average	MER Data	PSA and PSM Data
3.1a	Natural Gas Plant Production	1976	1,604	1,603
3.1b	Exports, Total	1979	471	472
3.1b	Exports, Petroleum Products	1979	236	237
3.1b	Net Imports	1979	7,985	7,984
3.2a	Crude Used Directly	1976	-19	-18
3.2a	Imports, SPR	1978	161	162
3.2a	Crude Used Directly	1978	-15	-14
3.2a	Crude Used Directly	1979	-14	-13
3.2a	Crude Used Directly	1980	-14	-13
3.2b	Crude Losses	1976	14	15
3.2b	Crude Losses	1980	14	15
3.5	Stock Change	1974	10	9
3.5	Stock Change	1975	-41	-40
3.8	Total Production	1982	1,527	1,525
3.10	Products Supplied	1982	1,857	1,856

Section 4. Natural Gas

Total dry natural gas production in the United States during December 2000 was forecast as 1.7 trillion cubic feet, 11 percent higher than production during December 1999.

Consumption of natural and supplemental gas in December 2000 was forecast as 2.6 trillion cubic feet, 16 percent higher than the level in December 1999.

Deliveries to residential consumers in December 2000 were forecast as 888 billion cubic feet, 35 percent higher than the previous December's deliveries. Total deliveries to industrial consumers during December 2000 were forecast as 867 billion cubic feet, 2 percent higher than the previous December's level.

Net imports of natural gas in December 2000 were forecast as 332 billion cubic feet, 8 percent higher than net imports in the previous December.

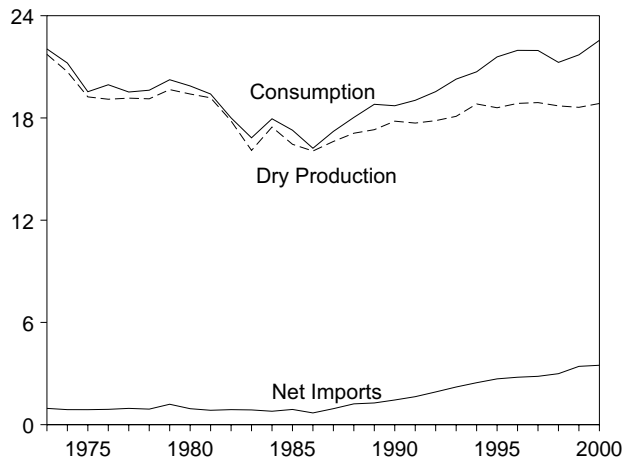
Stocks of working gas¹ in underground natural gas storage reservoirs at the end of December 2000 were forecast as 1.7 trillion cubic feet, 32 percent lower than the level of stocks available 1 year earlier.

Net withdrawals from underground storage during December 2000 were forecast as 771 billion cubic feet, 42 percent higher than the amount of net withdrawals during December 1999.

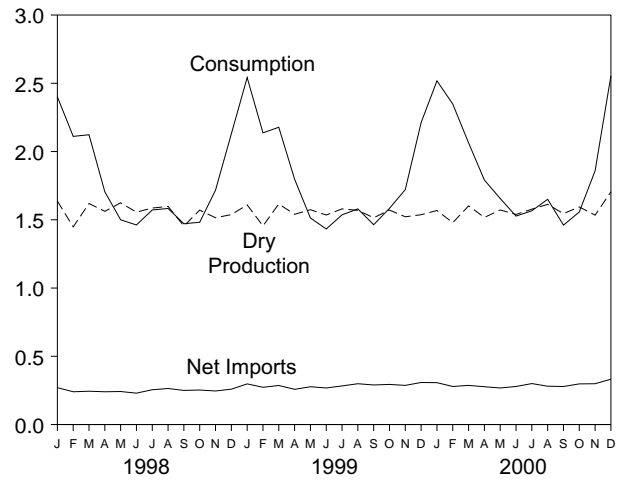
¹Gas available for withdrawal.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

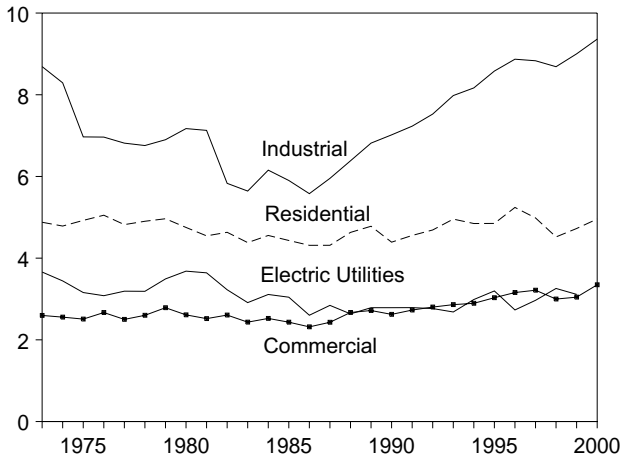
Overview, 1973-2000



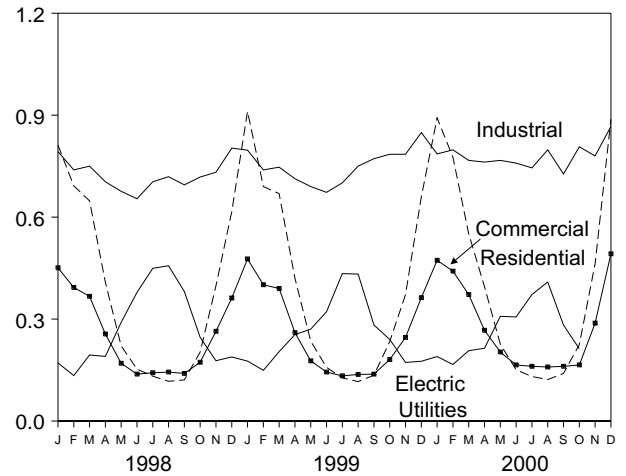
Overview, Monthly



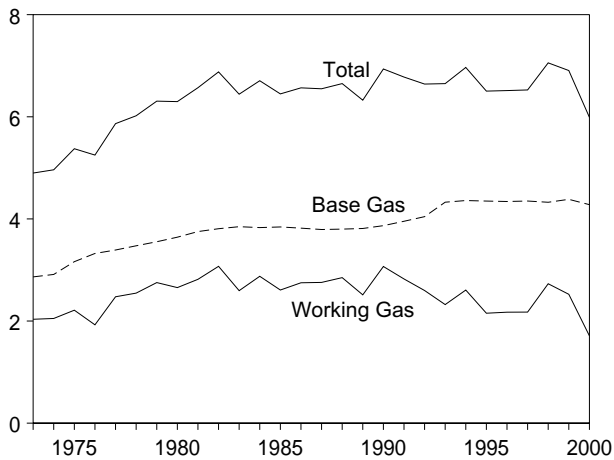
Consumption by Sector, 1973-2000



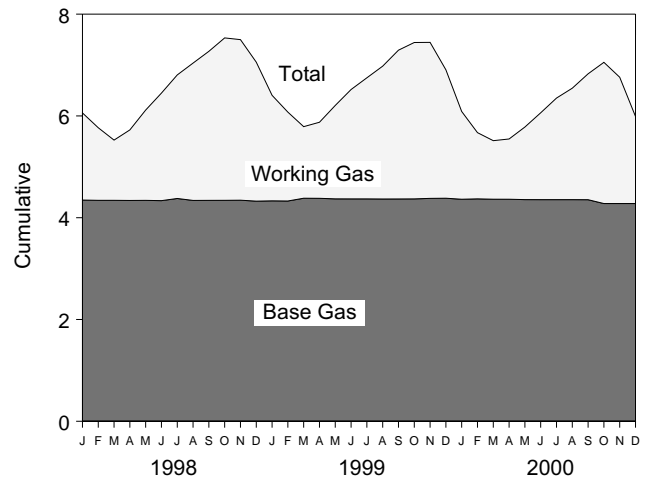
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2000



Underground Storage, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 4.1, 4.4, and 4.5.

Table 4.1 Natural Gas Overview
(Billion Cubic Feet)

	Dry Gas Production ^a	Supplemental Gaseous Fuels ^b	Net Imports ^c	Net Withdrawals From Storage ^d	Balancing Item ^e	Consumption ^f
1973 Total	921,731	NA	956	-442	-196	22,049
1974 Total	920,713	NA	882	-84	-289	21,223
1975 Total	919,236	NA	880	-344	-235	19,538
1976 Total	919,098	NA	899	165	-216	19,946
1977 Total	919,163	NA	955	-557	-41	19,521
1978 Total	919,122	NA	913	-120	-287	19,627
1979 Total	919,663	NA	1,198	-248	-372	20,241
1980 Total	19,403	155	936	23	-640	19,877
1981 Total	19,181	176	845	-297	-500	19,404
1982 Total	17,820	145	882	-308	9-537	18,001
1983 Total	16,094	132	864	447	9-703	16,835
1984 Total	17,466	110	788	-197	-217	17,951
1985 Total	16,454	126	894	235	-428	17,281
1986 Total	16,059	113	689	-147	-493	16,221
1987 Total	16,621	101	939	-6	-444	17,211
1988 Total	17,103	101	1,220	59	-453	18,030
1989 Total	17,311	107	1,275	326	-218	18,801
1990 Total	17,810	123	1,447	-513	-150	18,716
1991 Total	17,698	113	1,644	80	-500	19,035
1992 Total	17,840	118	1,921	173	-508	19,544
1993 Total	18,095	119	2,210	-36	-110	20,279
1994 Total	18,821	111	2,462	-286	-400	20,708
1995 Total	18,599	110	2,687	415	-230	21,581
1996 Total	18,854	109	2,784	2	217	21,966
1997 Total	18,902	103	2,837	24	92	21,959
1998 January	1,637	11	270	486	-2	2,401
February	1,448	9	240	301	114	2,111
March	1,619	10	244	255	-4	2,123
April	1,562	8	240	-206	102	1,705
May	1,624	7	242	-402	29	1,500
June	1,556	6	230	-336	6	1,462
July	1,586	8	255	-326	49	1,572
August	1,598	8	264	-286	-1	1,583
September	1,454	7	250	-231	-10	1,471
October	1,571	8	253	-269	-81	1,482
November	1,515	10	246	32	-85	1,717
December	1,538	11	259	452	-131	2,129
Total	18,708	102	2,993	-530	-11	21,262
1999 January	1,609	10	298	659	-35	2,542
February	1,455	8	273	339	61	2,137
March	1,616	9	286	314	-46	2,178
April	1,540	8	258	-96	87	1,797
May	1,574	8	277	-358	11	1,513
June	1,535	6	268	-327	-49	1,433
July	1,580	8	283	-231	-103	1,536
August	1,569	8	299	-236	-60	1,580
September	1,515	7	290	-335	-12	1,464
October	1,571	8	294	-165	-124	1,584
November	1,522	8	287	34	-130	1,721
December	1,537	10	308	573	-216	2,212
Total	18,623	98	3,422	171	-612	21,703
2000 January	E 1,568	E 10	307	780	-148	2,518
February	E 1,479	E 9	279	454	127	2,348
March	E 1,602	E 8	287	162	4	2,063
April	E 1,517	E 7	277	-36	25	1,791
May	E 1,572	E 7	268	-232	41	1,656
June	E 1,539	E 6	279	-272	-25	1,527
July	E 1,578	E 8	E 300	-290	-30	1,566
August	RE 1,613	E 8	E 281	-193	R -58	R 1,650
September	E 1,545	E 7	RE 279	-282	R -88	R 1,461
October	RE 1,594	RE 8	RE 298	R -227	RE -116	RF 1,557
November	F 1,534	F 10	F 299	F 293	RF -278	RF 1,859
December	F 1,705	F 12	F 332	F 771	F -265	F 2,555
Total	E 18,848	E 101	E 3,486	E 927	E -807	E 22,555

^a "Marketed Production (Wet)" minus "Extraction Loss." See Table 4.2.

^b See Note 4 at end of section.

^c "Imports" minus "Exports." See Table 4.3.

^d "Withdrawals" minus "Injections." Data for 1980-1999 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See also Note 8 at end of section.

^e See Note 7 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).

^f See Note 6 at end of section.

^g May include unknown quantities of nonhydrocarbon gases.

R=Revised. NA=Not available. 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.

Sources: 1973-1993: Energy Information Administration (EIA), *Natural Gas Annual 1999*, Table 93. 1994 forward: EIA, *Natural Gas Monthly*, December 2000, Table 2, except for Balancing Item and Consumption, which incorporate the most current electric utilities data from Table 4.4 of this report.

Forecast values: Derived from EIA's Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.2 Natural Gas Production
(Billion Cubic Feet)

	Gross Withdrawals ^a	Repressuring ^b	Nonhydrocarbon Gases Removed ^c	Vented and Flared ^d	Marketed Production ^e	Extraction Loss ^f	Dry Gas Production ^g
1973 Total	24,067	1,171	NA	248	^h 22,648	917	^h 21,731
1974 Total	22,850	1,080	NA	169	^h 21,601	887	^h 20,713
1975 Total	21,104	861	NA	134	^h 20,109	872	^h 19,236
1976 Total	20,944	859	NA	132	^h 19,952	854	^h 19,098
1977 Total	21,097	935	NA	137	^h 20,025	863	^h 19,163
1978 Total	21,309	1,181	NA	153	^h 19,974	852	^h 19,122
1979 Total	21,883	1,245	NA	167	^h 20,471	808	^h 19,663
1980 Total	21,870	1,365	199	125	20,180	777	19,403
1981 Total	21,587	1,312	222	98	19,956	775	19,181
1982 Total	20,272	1,388	208	93	18,582	762	17,820
1983 Total	18,659	1,458	222	95	16,884	790	16,094
1984 Total	20,267	1,630	224	108	18,304	838	17,466
1985 Total	19,607	1,915	326	95	17,270	816	16,454
1986 Total	19,131	1,838	337	98	16,859	800	16,059
1987 Total	20,140	2,208	376	124	17,433	812	16,621
1988 Total	20,999	2,478	460	143	17,918	816	17,103
1989 Total	21,074	2,475	362	142	18,095	785	17,311
1990 Total	21,523	2,489	289	150	18,594	784	17,810
1991 Total	21,750	2,772	276	170	18,532	835	17,698
1992 Total	22,132	2,973	280	168	18,712	872	17,840
1993 Total	22,726	3,103	414	227	18,982	886	18,095
1994 Total	23,581	3,231	412	228	19,710	889	18,821
1995 Total	23,744	3,565	388	284	19,506	908	18,599
1996 Total	24,114	3,511	518	272	19,812	958	18,854
1997 Total	24,213	3,492	599	256	19,866	964	18,902
1998 January	2,093	307	48	19	1,719	82	1,637
February	1,877	291	49	17	1,520	73	1,448
March	2,081	310	51	20	1,700	81	1,619
April	1,994	284	50	20	1,640	78	1,562
May	2,035	266	47	16	1,705	81	1,624
June	1,975	271	49	21	1,634	78	1,556
July	2,002	265	51	20	1,666	80	1,586
August	2,024	273	53	20	1,678	80	1,598
September	1,874	276	51	20	1,527	73	1,454
October	2,026	297	58	21	1,650	79	1,571
November	1,954	292	52	20	1,591	76	1,515
December	1,988	302	51	20	1,615	77	1,538
Total	23,924	3,433	611	234	19,646	938	18,708
1999 January	2,064	296	54	21	1,693	84	1,609
February	1,878	280	49	19	1,531	76	1,455
March	2,070	298	51	20	1,701	84	1,616
April	1,964	274	50	20	1,620	80	1,540
May	1,984	255	53	20	1,657	82	1,574
June	1,945	262	48	20	1,615	80	1,535
July	1,988	253	52	21	1,663	83	1,580
August	1,984	263	50	21	1,651	82	1,569
September	1,931	265	50	23	1,594	79	1,515
October	2,012	286	53	21	1,653	82	1,571
November	1,953	282	49	20	1,601	79	1,522
December	1,982	293	52	20	1,618	80	1,537
Total	23,755	3,305	610	245	19,596	973	18,623
2000 January	^E 2,041	^E 336	^E 42	^E 20	^E 1,644	^E 76	^E 1,568
February	^E 1,935	^E 320	^E 42	^E 22	^E 1,551	^E 71	^E 1,479
March	^E 2,069	^E 319	^E 46	^E 23	^E 1,680	^E 77	^E 1,602
April	^E 1,977	^E 324	^E 43	^E 20	^E 1,590	^E 73	^E 1,517
May	^E 2,032	^E 320	^E 43	^E 21	^E 1,648	^E 76	^E 1,572
June	^E 1,974	^E 293	^E 44	^E 23	^E 1,613	^E 74	^E 1,539
July	^E 2,009	^E 292	^E 43	^E 20	^E 1,654	^E 76	^E 1,578
August	^{RE} 2,054	^{RE} 302	^{RE} 42	^{RE} 19	^{RE} 1,691	^{RE} 78	^{RE} 1,613
September	^E 1,977	^E 293	^E 43	^E 21	^E 1,620	^E 75	^E 1,545
October	^E 2,025	^E 290	^E 43	^E 21	^E 1,671	^{RE} 77	^{RE} 1,594
November	NA	NA	NA	NA	^F 1,612	^F 78	^F 1,534
December	NA	NA	NA	NA	^F 1,790	^F 85	^F 1,705
Total	NA	NA	NA	NA	^E 19,764	^E 916	^E 18,848

^a Gas withdrawn from gas and oil wells.
^b The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.
^c See Note 1 at end of section.
^d Vented: Natural gas released into the air on the base site or at processing plants. Flared: Natural gas burned in flares on the base site or at gas processing plants.
^e "Gross Withdrawals" minus "Repressuring," "Nonhydrocarbon Gases Removed," and "Vented and Flared." See Note 2 at end of section.
^f See Note 3 at end of section.

^g "Marketed Production (Wet)" minus "Extraction Loss."
^h May include unknown quantities of nonhydrocarbon gases.
R=Revised; NA=Not available; 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.
Sources: **1973-1993:** Energy Information Administration (EIA), *Natural Gas Annual 1999*, Table 92. **1994 forward:** EIA, *Natural Gas Monthly*, December 2000, Table 1. **Forecast values:** Derived from EIA's Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.3 Natural Gas Trade by Country
(Billion Cubic Feet)

	Imports							Exports				
	Algeria ^a	Australia ^a	Canada ^b	Mexico ^b	Qatar ^a	Trinidad and Tobago ^a	United Arab Emirates ^a	Total	Canada ^b	Japan ^a	Mexico ^b	Total
1973 Total	3	0	1,028	2	0	0	0	1,033	15	48	14	77
1974 Total	0	0	959	(s)	0	0	0	959	13	50	13	77
1975 Total	5	0	948	0	0	0	0	953	10	53	9	73
1976 Total	10	0	954	0	0	0	0	964	8	50	7	65
1977 Total	11	0	997	2	0	0	0	1,011	(s)	52	4	56
1978 Total	84	0	881	0	0	0	0	966	(s)	48	4	53
1979 Total	253	0	1,001	0	0	0	0	1,253	(s)	51	4	56
1980 Total	86	0	797	102	0	0	0	985	(s)	45	4	49
1981 Total	37	0	762	105	0	0	0	904	(s)	56	3	59
1982 Total	55	0	783	95	0	0	0	933	(s)	50	2	52
1983 Total	131	0	712	75	0	0	0	918	(s)	53	2	55
1984 Total	36	0	755	52	0	0	0	843	(s)	53	2	55
1985 Total	24	0	926	0	0	0	0	950	(s)	53	2	55
1986 Total	0	0	749	0	0	0	0	^c 750	9	50	2	61
1987 Total	0	0	993	0	0	0	0	993	3	49	2	54
1988 Total	17	0	1,276	0	0	0	0	1,294	20	52	2	74
1989 Total	42	0	1,339	0	0	0	0	1,382	38	51	17	107
1990 Total	84	0	1,448	0	0	0	0	1,532	17	53	16	86
1991 Total	64	0	1,710	0	0	0	0	1,773	15	54	60	129
1992 Total	43	0	2,094	0	0	0	0	2,138	68	53	96	216
1993 Total	82	0	2,267	2	0	0	0	2,350	45	56	40	140
1994 Total	51	0	2,566	7	0	0	0	2,624	53	63	47	162
1995 Total	18	0	2,816	7	0	0	0	2,841	28	65	61	154
1996 Total	35	0	2,883	14	0	0	5	2,937	52	68	34	153
1997 Total	66	10	2,899	17	0	0	2	2,994	56	62	38	157
1998 January	10	0	276	(s)	0	0	0	286	5	7	4	17
February	8	2	239	2	0	0	0	251	5	4	3	11
March	5	0	257	(s)	0	0	0	263	8	7	4	19
April	3	0	247	3	0	0	0	253	5	6	3	13
May	8	0	244	1	0	0	0	252	2	2	6	10
June	5	2	236	(s)	0	0	0	243	2	6	6	13
July	5	0	259	2	0	0	0	266	2	6	4	11
August	3	2	269	1	0	0	0	275	(s)	6	5	11
September	5	0	255	2	0	0	0	262	1	8	3	12
October	5	0	260	1	0	0	0	266	2	6	5	13
November	5	2	248	0	0	0	3	258	4	4	5	12
December	8	2	261	1	0	0	3	275	5	6	5	16
Total	69	12	3,052	15	0	0	5	3,152	40	66	53	159
1999 January	13	0	293	5	0	0	0	311	2	6	5	12
February	8	3	269	4	3	0	0	286	3	6	5	13
March	13	0	288	1	0	0	0	302	4	6	6	16
April	8	0	257	4	2	0	0	271	2	6	5	13
May	4	0	275	7	0	5	0	291	2	6	6	14
June	3	2	260	5	2	7	0	279	2	4	5	11
July	5	0	278	4	2	7	0	296	2	6	6	13
August	3	2	289	6	0	10	0	^d 312	2	6	5	13
September	8	0	281	5	5	4	0	302	2	6	5	13
October	5	2	287	4	0	6	0	305	2	4	4	10
November	2	0	285	6	2	7	3	305	8	6	5	19
December	5	2	306	3	2	5	0	324	6	6	4	16
Total	76	12	3,368	55	20	51	3	3,586	39	64	61	163
2000 January	5	0	310	3	0	8	0	326	7	6	6	19
February	5	0	289	1	0	5	0	300	9	6	6	21
March	4	0	292	(s)	2	8	0	307	9	4	8	21
April	3	2	274	1	7	7	0	294	3	6	9	18
May	2	0	275	0	0	11	0	288	4	6	10	20
June	3	0	279	0	2	7	3	^e 296	4	4	9	17
July	5	2	295	^e 0	5	10	0	^e E 319	^E 4	6	^E 9	^E 19
August	2	0	283	^E 0	7	7	0	^E 299	^E 4	6	^E 9	^E 19
September	3	1	^R 283	^E 0	5	5	0	^{RE} 297	^E 4	6	^E 9	^E 19
October	8	0	^E 293	^E 0	7	4	3	^f E 318	^E 4	6	^E 9	^E 19
10-Month Total	39	6	^E 2,873	^E 5	36	73	5	^E 3,045	^E 54	53	^E 83	^E 190
1999 10-Month Total	68	9	2,777	45	15	39	0	2,956	24	52	52	129
1998 10-Month Total	56	7	2,543	13	0	0	0	2,619	31	57	43	130

^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 5 at end of section.
^c Includes 2 billion cubic feet of liquefied natural gas from Indonesia.
^d Includes 3 billion cubic feet of liquefied natural gas from Malaysia.
^e Includes 2 billion cubic feet of liquefied natural gas from Nigeria.
^f Includes 3 billion cubic feet of liquefied natural gas from Nigeria.

R=Revised. E=Estimate. (s)=Less than 500 million cubic feet.
Notes: See Note 5 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.
Sources: 1973-1993: Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." 1994 forward: EIA, *Natural Gas Monthly*, December 2000, Tables 5 and 6.

Table 4.4 Natural Gas Consumption by End-Use Sector
(Billion Cubic Feet)

	Lease and Plant Fuel	Pipeline Fuel ^a	Delivered to Consumers						Total Consumption
			Residential	Commercial	Industrial ^b	Vehicles	Electric Utilities	Total	
1973 Total	1,496	728	4,879	2,597	8,689	NA	3,660	19,825	22,049
1974 Total	1,477	669	4,786	2,556	8,292	NA	3,443	19,077	21,223
1975 Total	1,396	583	4,924	2,508	6,968	NA	3,158	17,558	19,538
1976 Total	1,634	548	5,051	2,668	6,964	NA	3,081	17,764	19,946
1977 Total	1,659	533	4,821	2,501	6,815	NA	3,191	17,329	19,521
1978 Total	1,648	530	4,903	2,601	6,757	NA	3,188	17,449	19,627
1979 Total	1,499	601	4,965	2,786	6,899	NA	3,491	18,141	20,241
1980 Total	1,026	635	4,752	2,611	7,172	NA	3,682	18,216	19,877
1981 Total	928	642	4,546	2,520	7,128	NA	3,640	17,834	19,404
1982 Total	1,109	596	4,633	2,606	5,831	NA	3,226	16,295	18,001
1983 Total	978	490	4,381	2,433	5,643	NA	2,911	15,367	16,835
1984 Total	1,077	529	4,555	2,524	6,154	NA	3,111	16,345	17,951
1985 Total	966	504	4,433	2,432	5,901	NA	3,044	15,811	17,281
1986 Total	923	485	4,314	2,318	5,579	NA	2,602	14,814	16,221
1987 Total	1,149	519	4,315	2,430	5,953	NA	2,844	15,542	17,211
1988 Total	1,096	614	4,630	2,670	6,383	NA	2,636	16,320	18,030
1989 Total	1,070	629	4,781	2,718	6,816	NA	2,787	17,102	18,801
1990 Total	1,236	660	4,391	2,623	7,018	(s)	2,787	16,820	18,716
1991 Total	1,129	601	4,556	2,729	7,231	(s)	2,789	17,305	19,035
1992 Total	1,171	588	4,690	2,803	7,527	1	2,766	17,786	19,544
1993 Total	1,172	624	4,956	2,862	7,981	1	2,682	18,483	20,279
1994 Total	1,124	685	4,848	2,895	8,167	2	2,987	18,899	20,708
1995 Total	1,220	700	4,850	3,031	8,580	3	3,197	19,660	21,581
1996 Total	1,250	711	5,241	3,158	8,870	3	2,732	20,005	21,966
1997 Total	1,203	751	4,984	3,215	8,832	4	2,968	20,004	21,959
1998 January	101	73	812	451	793	NA	171	2,227	2,401
February	90	64	692	393	739	NA	134	1,957	2,111
March	101	64	648	367	750	NA	194	1,959	2,123
April	97	51	408	256	704	NA	190	1,558	1,705
May	99	44	221	170	676	NA	290	1,357	1,500
June	96	43	153	138	654	NA	379	1,323	1,462
July	97	47	132	142	704	NA	449	1,428	1,572
August	98	47	117	144	719	NA	457	1,438	1,583
September	90	44	121	140	695	NA	381	1,337	1,471
October	98	44	203	173	718	NA	246	1,340	1,482
November	94	51	398	264	732	NA	178	1,572	1,717
December	96	64	616	362	803	NA	189	1,969	2,129
Total	1,157	635	4,520	2,999	8,686	5	3,258	19,469	21,262
1999 January	93	87	911	477	797	NA	176	2,361	2,542
February	85	73	690	401	739	NA	149	1,979	2,137
March	94	74	669	390	747	NA	204	2,010	2,178
April	89	61	420	260	713	NA	254	1,647	1,797
May	90	51	235	177	690	NA	270	1,372	1,513
June	88	48	158	144	673	NA	322	1,297	1,433
July	91	52	127	133	701	NA	434	1,394	1,536
August	90	53	116	137	750	NA	432	1,436	1,580
September	88	49	135	138	772	NA	283	1,327	1,464
October	91	53	234	181	785	NA	240	1,440	1,584
November	88	58	372	246	785	NA	172	1,574	1,721
December	90	76	660	363	849	NA	176	2,047	2,212
Total	1,077	735	4,726	3,045	9,001	6	3,113	19,890	21,703
2000 January	E 103	75	892	473	786	NA	190	2,341	2,518
February	E 97	70	776	441	798	NA	166	2,181	2,348
March	E 105	61	551	372	767	NA	207	1,897	2,063
April	E 100	53	395	267	762	NA	214	1,638	1,791
May	E 103	49	226	203	767	NA	308	1,504	1,656
June	E 101	45	151	165	759	NA	306	1,381	1,527
July	E 104	53	131	161	745	NA	372	1,409	1,566
August	RE 106	RE 56	122	159	798	NA	409	1,489	R 1,650
September	E 101	R 49	R 140	R 161	R 727	NA	283	R 1,310	R 1,461
October	F 103	F 44	F 225	F 165	F 807	NA	R 213	RF 1,410	RF 1,557
November	F 102	F 55	F 463	F 288	F 780	NA	NA	F 1,703	RF 1,859
December	F 106	F 72	F 888	F 492	F 867	NA	NA	F 2,378	F 2,555
Total	E 1,231	E 682	E 4,958	E 3,348	E 9,362	NA	NA	E 20,643	E 22,555

^a Natural gas consumed in the operation of pipelines, primarily in compressors.

^b Most deliveries to nonutility power producers are included in the industrial sector. In instances where the nonutility is primarily a commercial establishment, deliveries are included in the commercial sector.

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

Notes: Natural gas includes supplemental gaseous fuels. Totals may

not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1993:** Energy Information Administration (EIA), *Natural Gas Annual 1999*, Table 94. **1994 forward:** EIA, *Natural Gas Monthly*, December 2000, Table 3, except for the electric utilities values, which come from Table 7.7 of this report, and the totals in this table, which incorporate the electric utilities data. **Forecast values:** Derived from EIA's Short-Term Integrated Forecasting System.

Table 4.5 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
1974 Total	2,912	2,050	4,962	16	.8	1,701	1,784	-84
1975 Total	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
1976 Total	3,323	1,926	5,250	-286	-12.9	1,921	1,756	165
1977 Total	3,391	2,475	5,866	549	28.5	1,750	2,307	-557
1978 Total	3,473	2,547	6,020	72	2.9	2,158	2,278	-120
1979 Total	3,553	2,753	6,306	207	8.1	2,047	2,295	-248
1980 Total	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
1981 Total	3,752	2,817	6,569	162	6.1	1,887	2,180	-293
1982 Total	3,808	3,071	6,879	255	9.0	2,094	2,399	-306
1983 Total	3,847	2,595	6,442	-476	-15.5	2,142	1,700	442
1984 Total	3,830	2,876	6,706	281	10.8	2,064	2,252	-188
1985 Total	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
1986 Total	3,819	2,749	6,567	142	5.5	1,812	1,952	-140
1987 Total	3,792	2,756	6,548	7	.3	1,881	1,887	-6
1988 Total	3,800	2,850	6,650	94	3.4	2,244	2,174	69
1989 Total	3,812	2,513	6,325	-337	-11.8	2,804	2,491	313
1990 Total	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
1991 Total	3,954	2,824	6,778	-244	-8.0	2,689	2,608	80
1992 Total	4,044	2,597	6,641	-227	-8.0	2,724	2,555	168
1993 Total	4,327	2,322	6,649	-275	-10.6	2,717	2,760	-43
1994 Total	4,360	2,606	6,966	284	12.2	2,508	2,796	-288
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 January	4,347	1,712	6,060	215	14.5	538	69	468
February	4,342	1,426	5,768	286	25.2	365	75	291
March	4,342	1,183	5,524	192	19.4	382	136	246
April	4,339	1,386	5,725	334	31.9	80	280	-200
May	4,341	1,774	6,114	407	29.9	42	433	-391
June	4,335	2,114	6,449	381	22.1	52	379	-327
July	4,378	2,428	6,806	409	20.4	54	371	-317
August	4,340	2,698	7,038	358	15.4	58	336	-278
September	4,341	2,928	7,269	253	9.6	74	298	-224
October	4,342	3,191	7,533	302	10.6	46	308	-262
November	4,344	3,155	7,499	453	16.9	168	137	31
December	4,326	2,730	7,056	554	25.5	519	83	436
Total	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
1999 January	4,332	2,073	6,404	361	21.1	682	58	624
February	4,329	1,746	6,075	319	22.4	385	63	321
March	4,383	1,406	5,789	223	18.9	384	87	297
April	4,381	1,495	5,876	109	7.9	120	210	-90
May	4,371	1,835	6,206	61	3.4	45	381	-337
June	4,370	2,149	6,519	36	1.7	42	349	-307
July	4,370	2,379	6,749	-41	-2.0	81	298	-217
August	4,368	2,610	6,978	-88	-3.3	90	311	-221
September	4,369	2,923	7,292	-5	-2	43	358	-315
October	4,370	3,073	7,443	-118	-3.7	92	247	-155
November	4,380	3,065	7,445	-90	-2.8	205	173	32
December	4,383	2,523	6,906	-207	-7.6	606	63	543
Total	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
2000 January	4,363	1,725	6,088	-370	-17.6	829	48	780
February	4,371	1,300	5,672	-491	-27.4	532	78	454
March	4,364	1,150	5,514	-280	-19.6	294	132	162
April	4,363	1,184	5,547	-329	-21.8	145	181	-36
May	4,356	1,426	5,782	-420	-22.8	75	308	-232
June	4,355	1,706	6,061	-450	-20.9	67	339	-272
July	4,355	1,996	6,351	-394	-16.5	77	368	-290
August	4,355	2,190	6,544	-442	-16.8	102	296	-193
September	4,354	2,473	6,827	-450	-15.4	72	354	-282
October	^R 4,279	^R 2,774	^R 7,053	^R -300	^R -9.8	87	313	^R 227
November	^{RF} 4,279	^{RF} 2,481	^{RF} 6,760	^{RF} -585	^{RF} -19.1	NA	NA	^F 293
December	^F 4,279	^F 1,710	^F 5,989	^F -814	^F -32.2	NA	NA	^F 771
Total	^F 4,279	^F 1,710	^F 5,989	^F -814	^F -32.2	NA	NA	^F 927

^a For total underground storage capacity at the end of each calendar year, see Note 8 at end of section.

^b For 1980-1998, 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 8 at end of section.

R=Revised. NA=Not available. 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.

Sources: See end of section.

Natural Gas Notes

1. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the Energy Information Administration (EIA) *Natural Gas Annual (NGA)*. Data are not available prior to 1980. Monthly data are reported by three States and computed for six States. Monthly data are preliminary until after publication of the EIA *NGA*. Differences between annual data published in the EIA *NGA* and the sum of the preliminary monthly data (January-December) are allocated proportionally to the months to create final monthly data. For further information on methods of estimating preliminary monthly data, see the EIA *Natural Gas Monthly (NGM)*.

2. Production.

Annual data—Final annual data are from the EIA *NGA*.

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

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

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

3. 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*.

4. Supplemental Gaseous Fuels: Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Annual data beginning with 1980 are from the EIA *NGA*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

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

5. 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, Qatar, Trinidad and Tobago, and United Arab Emirates. In addition, one shipment of LNG arrived from Indonesia in December 1986, a shipment arrived from Qatar in February 1999, and very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and exports LNG via tanker to Japan. Also, a small amount of LNG went to Mexico in 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*.

6. Consumption: Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

Final data 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*.

7. 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 which 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 *NGM*, which was published in July 1985.

8. Natural Gas Storage: 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	1984	8,043	1993	7,989
1976	6,544	1985	8,087	1994	8,043
1977	6,678	1986	8,145	1995	7,953
1978	6,890	1987	8,124	1996	7,980
1979	6,929	1988	8,124	1997	8,332
1980	7,434	1989	8,124	1998	8,179
1981	7,805	1990	8,125	1999	8,229
1982	7,915	1991	7,993		
1983	7,985	1992	7,932		

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Form FERC-8 (interstate data) and EIA Form EIA-191 (intra-state 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 1980-1998 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 addi-

tions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

9. Forecast Values: Data values preceded by "F" in this section are forecast values. They are derived from EIA's Short-Term Integrated Forecasting System (STIFS). The model is driven primarily by data and assumptions about key macroeconomic variables, the world oil price, and weather. The natural gas forecast relies on other variables as well, such as gas wellhead prices, electric power generation by other sources, and U.S. gas import capacity. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the natural gas industry.

The STIFS model results are published quarterly in EIA's *Short-Term Energy Outlook*, which is available from the National Energy Information Center (202-586-8800) and accessible on the world wide web at <http://www.eia.doe.gov>. Documentation for the model and instructions for downloading and operating it on a personal computer are provided.

Sources for Table 4.5

Storage Activity

1973-1975: Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2*, Table 9.

1976-1979: EIA, *Natural Gas Production and Consumption 1979*, Table 1.

1980-1993: EIA, *Historical Natural Gas Annual 1930 Through 1999*, Table 11.

1994 forward: EIA, *Natural Gas Monthly*, December 2000, Table 9.

Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Other Data

1973 and 1974: American Gas Association (AGA), *Gas Facts, 1972 Data*, Table 57, *Gas Facts, 1973 Data*, Table 57, and *Gas Facts, 1974 Data*, Table 40.

1975 and 1976: Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."

1977 and 1978: EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report."

1979-1993: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."

1994 forward: EIA, *Natural Gas Monthly*, December 2000, Table 9.

Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Section 5. Oil and Gas Resource Development

The December 2000 rotary rig count was 1,097, 3 percent higher than the count in November 2000 and 37 percent higher than the count in December 1999. Of the total number of rigs in operation, 950 were onshore and 147 were offshore. For December 2000, the number of onshore rigs was up 41 percent, while the number of offshore rigs was up 20 percent from the December 1999 count.

The number of rotary rigs that drilled for natural gas in December 2000 reached 854, the highest level during the 13 years that gas rigs have been separately counted. Seventy-eight percent of all rotary rigs in operation during the month drilled for natural gas.

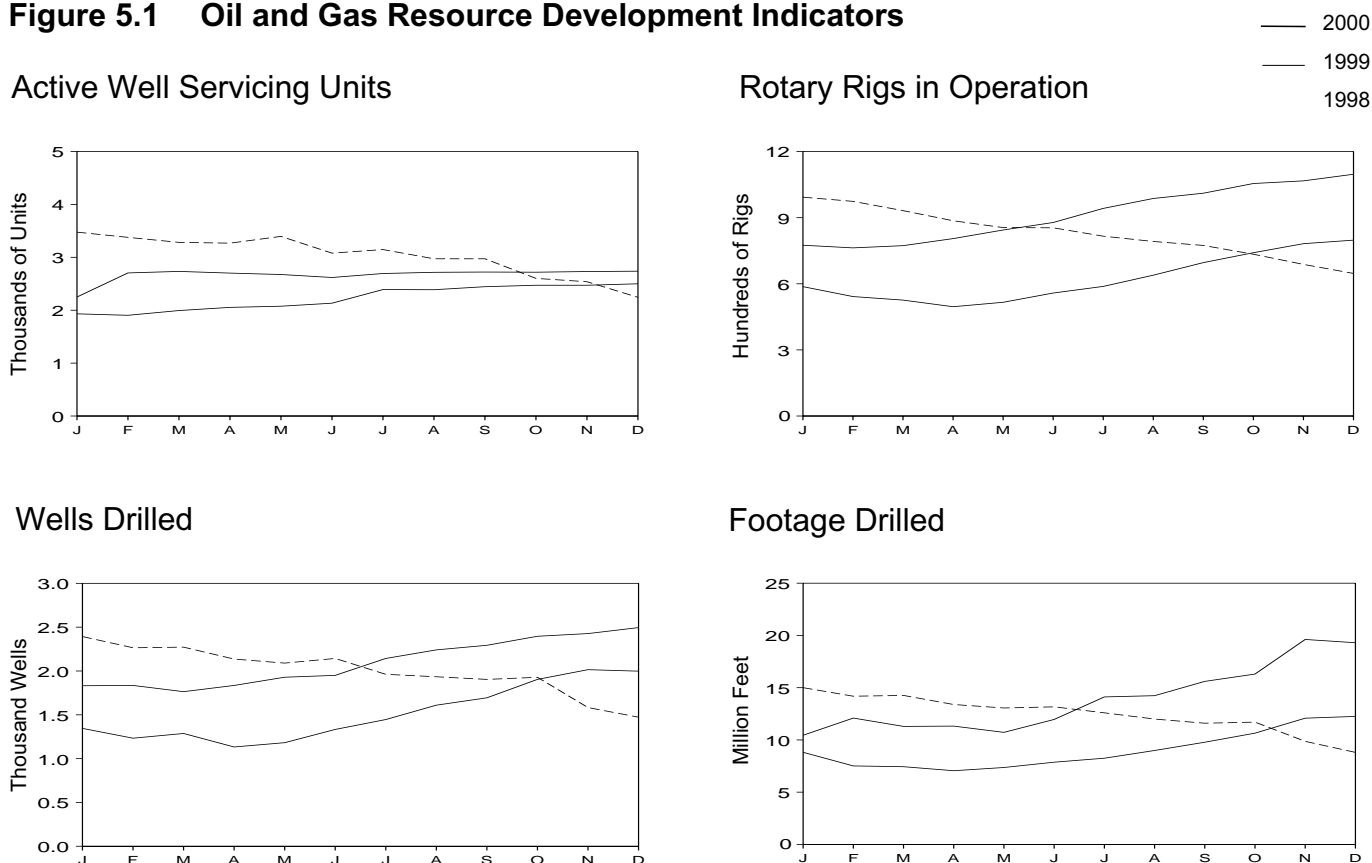
Total footage drilled in December 2000 was 19.3 million feet, down 2 percent from the footage drilled in November 2000 but up 58 percent from that drilled in December 1999.

The estimated number of exploratory and development oil and gas wells drilled during December 2000 was 1,981, 3 percent more than the number drilled in November 2000 and 27 percent higher than the number drilled in December 1999. The estimated number of oil wells drilled was 472, and the estimated number of gas wells was 1,509, 8 percent higher and 34 percent higher, respectively, than their December 1999 levels.

The estimated number of dry holes drilled in December 2000 was 514, up 3 percent from the number drilled in November 2000 and up 18 percent from the number drilled in December 1999.

There were an estimated 2.7 thousand well servicing units active in December 2000, 10 percent higher than in December 1999.

Figure 5.1 Oil and Gas Resource Development Indicators



Sources: Tables 5.1 and 5.2.

Table 5.1 Oil and Gas Drilling Activity Measurements

	Crews Engaged in Seismic Exploration			Rotary Rigs in Operation ^a					Total Footage Drilled ^c Thousand Feet	Active Well Servicing Units ^d Number
	Offshore	Onshore	Total	By Site		By Type		Total ^b		
				Offshore	Onshore	Oil	Gas			
	Monthly Average			Weekly Average						
1973 Average	23	227	250	84	1,110	NA	NA	1,194	138,223	NA
1974 Average	31	274	305	94	1,378	NA	NA	1,472	153,374	NA
1975 Average	30	254	284	106	1,554	NA	NA	1,660	180,494	NA
1976 Average	25	237	262	129	1,529	NA	NA	1,658	186,982	2,601
1977 Average	27	281	308	167	1,834	NA	NA	2,001	215,866	2,828
1978 Average	25	327	352	185	2,074	NA	NA	2,259	238,669	2,988
1979 Average	30	370	400	207	1,970	NA	NA	2,177	244,798	3,399
1980 Average	37	493	530	231	2,678	NA	NA	2,909	314,654	4,089
1981 Average	44	637	681	256	3,714	NA	NA	3,970	413,112	4,850
1982 Average	57	531	588	243	2,862	NA	NA	3,105	378,295	4,248
1983 Average	47	426	473	199	2,033	NA	NA	2,232	317,986	3,732
1984 Average	49	445	494	213	2,215	NA	NA	2,428	371,392	4,663
1985 Average	45	333	378	206	1,774	NA	NA	1,980	313,045	4,716
1986 Average	24	176	200	99	865	NA	NA	964	181,856	3,036
1987 Average	24	153	177	95	841	NA	NA	936	162,178	3,060
1988 Average	29	153	182	123	813	554	354	936	156,354	3,341
1989 Average	23	109	132	105	764	453	401	869	134,439	3,391
1990 Average	23	102	125	108	902	532	464	1,010	153,701	3,658
1991 Average	19	85	104	81	779	482	351	860	143,021	3,331
1992 Average	12	64	76	52	669	373	331	721	121,124	2,732
1993 Average	16	63	79	82	672	373	364	754	135,118	3,158
1994 Average	NA	NA	NA	102	673	335	427	775	124,809	2,961
1995 Average	NA	NA	NA	101	622	323	385	723	117,832	3,043
1996 Average	NA	NA	NA	108	671	306	464	779	129,045	3,425
1997 Average	NA	NA	NA	122	821	376	564	943	156,661	3,499
1998 January	NA	NA	NA	133	860	380	609	993	15,000	3,476
February	NA	NA	NA	139	835	380	589	974	14,185	3,378
March	NA	NA	NA	136	796	327	601	932	14,259	3,283
April	NA	NA	NA	138	748	291	591	886	13,389	3,268
May	NA	NA	NA	133	722	272	580	855	13,059	3,396
June	NA	NA	NA	128	726	267	585	854	13,165	3,079
July	NA	NA	NA	121	695	264	549	816	12,594	3,147
August	NA	NA	NA	118	674	226	565	792	11,998	2,973
September	NA	NA	NA	118	656	215	559	774	11,601	2,973
October	NA	NA	NA	111	623	214	519	734	11,703	2,602
November	NA	NA	NA	109	579	190	499	688	9,864	2,539
December	NA	NA	NA	102	545	155	491	647	8,810	2,244
Average	NA	NA	NA	123	703	264	560	827	149,627	3,030
1999 January	NA	NA	NA	104	483	125	461	587	8,817	1,932
February	NA	NA	NA	101	441	117	425	542	7,511	1,904
March	NA	NA	NA	106	420	114	412	526	7,438	1,994
April	NA	NA	NA	99	397	125	371	496	7,052	2,054
May	NA	NA	NA	102	414	136	380	516	7,362	2,076
June	NA	NA	NA	100	458	124	434	558	7,870	2,133
July	NA	NA	NA	99	489	108	478	588	8,250	2,391
August	NA	NA	NA	106	533	111	527	639	8,990	2,388
September	NA	NA	NA	109	587	130	565	696	9,781	2,445
October	NA	NA	NA	111	630	137	601	741	10,648	2,472
November	NA	NA	NA	119	663	145	635	782	12,082	2,472
December	NA	NA	NA	122	676	161	636	798	12,253	2,500
Average	NA	NA	NA	106	519	128	496	625	108,054	2,230
2000 January	NA	NA	NA	125	650	143	632	775	10,450	2,250
February	NA	NA	NA	122	641	147	616	763	12,094	2,705
March	NA	NA	NA	124	649	173	600	773	11,293	2,734
April	NA	NA	NA	125	680	196	609	805	11,324	2,702
May	NA	NA	NA	139	705	199	645	844	10,725	2,675
June	NA	NA	NA	139	739	201	677	878	11,959	2,619
July	NA	NA	NA	158	784	208	733	942	14,117	2,694
August	NA	NA	NA	159	828	206	779	987	14,236	2,717
September	NA	NA	NA	146	865	199	810	1,011	15,603	2,722
October	NA	NA	NA	147	908	212	842	1,055	16,306	2,719
November	NA	NA	NA	151	916	234	832	1,067	19,617	2,732
December	NA	NA	NA	147	950	242	854	1,097	19,303	2,738
Average	NA	NA	NA	140	778	197	720	918	167,027	2,667

^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 oil, gas, and miscellaneous other rigs (not shown).

^c Values shown are totals.

^d See Glossary.

NA=Not available.

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

Sources: **Crews Engaged in Seismic Exploration:** Society of

Exploration Geophysicists, Tulsa, Oklahoma, *Monthly Seismic Crew Count*. **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. **Total Footage Drilled:** Energy Information Administration computations, which are based on well reports submitted to the American Petroleum Institute by the Petroleum Information Corporation, Denver, Colorado. **Active Well Servicing Units: 1976 - July 1998—** Association of Energy Service Companies, Dallas, Texas, *Field Reports; August 1998 forward*—Guiberson Well Service Products, a Halliburton Company, Carrollton, Texas.

Table 5.2 Oil and Gas Wells Drilled
(Number of Wells)

	Exploratory				Development				Total			
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
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
1974 Total	859	1,190	6,833	8,882	12,788	5,948	5,283	24,019	13,647	7,138	12,116	32,901
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
1976 Total	1,086	1,346	6,772	9,204	16,602	8,063	6,986	31,651	17,688	9,409	13,758	40,855
1977 Total	1,164	1,548	7,283	9,995	17,581	10,574	7,702	35,857	18,745	12,122	14,985	45,852
1978 Total	1,171	1,771	7,965	10,907	18,010	12,642	8,586	39,238	19,181	14,413	16,551	50,145
1979 Total	1,321	1,907	7,437	10,665	19,530	13,347	8,662	41,539	20,851	15,254	16,099	52,204
1980 Total	1,764	2,081	9,039	12,884	30,875	15,252	11,599	57,726	32,639	17,333	20,638	70,610
1981 Total	2,636	2,514	12,349	17,499	40,962	17,652	15,440	74,054	43,598	20,166	27,789	91,553
1982 Total	2,431	2,125	11,247	15,803	36,768	16,854	14,972	68,594	39,199	18,979	26,219	84,397
1983 Total	2,023	1,593	10,148	13,764	35,097	12,971	14,005	62,073	37,120	14,564	24,153	75,837
1984 Total	2,198	1,521	11,278	14,997	40,407	15,606	14,403	70,416	42,605	17,127	25,681	85,413
1985 Total	1,679	1,190	8,924	11,793	33,439	12,978	12,132	58,549	35,118	14,168	21,056	70,342
1986 Total	1,084	793	5,549	7,426	18,013	7,723	7,129	32,865	19,097	8,516	12,678	40,291
1987 Total	925	754	5,049	6,728	15,239	7,301	6,063	28,603	16,164	8,055	11,112	35,331
1988 Total	855	732	4,693	6,280	12,781	7,823	5,348	25,952	13,636	8,555	10,041	32,232
1989 Total	607	705	3,924	5,236	9,597	8,834	4,264	22,695	10,204	9,539	8,188	27,931
1990 Total	654	689	3,715	5,058	11,544	10,355	4,598	26,497	12,198	11,044	8,313	31,555
1991 Total	592	534	3,314	4,440	11,178	8,992	4,282	24,452	11,770	9,526	7,596	28,892
1992 Total	493	423	2,513	3,429	8,264	7,786	3,605	19,655	8,757	8,209	6,118	23,084
1993 Total	502	548	2,469	3,519	7,905	9,469	3,859	21,233	8,407	10,017	6,328	24,752
1994 Total	570	726	2,405	3,701	6,151	8,812	2,902	17,865	6,721	9,538	5,307	21,566
1995 Total	542	570	2,198	3,310	7,085	7,784	2,877	17,746	7,627	8,354	5,075	21,056
1996 Total	483	570	2,136	3,189	7,831	8,732	3,146	19,709	8,314	9,302	5,282	22,898
1997 Total	428	536	2,110	3,074	10,008	10,791	3,592	24,391	10,436	11,327	5,702	27,465
1998 January	48	51	185	284	785	1,025	299	2,109	833	1,076	484	2,393
February	30	50	175	255	712	991	307	2,010	742	1,041	482	2,265
March	37	51	169	257	731	1,011	273	2,015	768	1,062	442	2,272
April	30	50	160	240	645	995	256	1,896	675	1,045	416	2,136
May	22	49	163	234	568	976	312	1,856	590	1,025	475	2,090
June	30	49	155	234	611	985	313	1,909	641	1,034	468	2,143
July	21	46	148	215	588	924	235	1,747	609	970	383	1,962
August	18	48	144	210	545	951	228	1,724	563	999	372	1,934
September	23	47	141	211	529	941	223	1,693	552	988	364	1,904
October	17	51	133	201	401	1,062	264	1,727	418	1,113	397	1,928
November	15	45	125	185	356	840	202	1,398	371	885	327	1,583
December	12	42	118	172	290	826	185	1,301	302	868	303	1,473
Total	303	579	1,816	2,698	6,761	11,527	3,097	21,385	7,064	12,106	4,913	24,083
1999 January	13	37	104	154	282	746	163	1,191	295	783	267	1,345
February	13	36	99	148	215	715	155	1,085	228	751	254	1,233
March	9	35	96	140	234	762	151	1,147	243	797	247	1,287
April	10	31	90	131	234	625	143	1,002	244	656	233	1,133
May	13	38	94	145	252	634	151	1,037	265	672	245	1,182
June	10	37	102	149	290	730	164	1,184	300	767	266	1,333
July	15	40	113	168	292	805	181	1,278	307	845	294	1,446
August	9	45	117	171	371	886	182	1,439	380	931	299	1,610
September	19	67	127	213	350	932	199	1,481	369	999	326	1,694
October	13	70	158	241	477	996	190	1,663	490	1,066	348	1,904
November	12	73	143	228	515	1,049	223	1,787	527	1,122	366	2,015
December	17	56	146	219	422	1,068	289	1,779	439	1,124	435	1,998
Total	153	565	1,389	2,107	3,934	9,948	2,191	16,073	4,087	10,513	3,580	18,180
2000 January	13	53	142	208	339	1,064	221	1,624	352	1,117	363	1,832
February	13	58	139	210	327	1,037	261	1,625	340	1,095	400	1,835
March	14	54	141	209	324	1,009	222	1,555	338	1,063	363	1,764
April	16	51	147	214	366	1,024	231	1,621	382	1,075	378	1,835
May	16	60	154	230	372	1,085	242	1,699	388	1,145	396	1,929
June	16	55	170	241	379	1,085	248	1,709	392	1,140	418	1,950
July	17	62	172	251	389	1,233	270	1,892	406	1,295	442	2,143
August	16	66	180	262	386	1,311	282	1,979	402	1,377	462	2,241
September	16	68	184	268	372	1,364	289	2,025	388	1,432	473	2,293
October	17	71	193	281	397	1,417	301	2,115	414	1,488	494	2,396
November	19	70	195	284	438	1,400	305	2,143	457	1,470	500	2,427
December	19	72	200	291	453	1,437	314	2,204	472	1,509	514	2,495
Total	192	740	2,017	2,949	4,539	14,466	3,186	22,191	4,731	15,206	5,203	25,140

Notes: These well counts include only the original drilling of a hole intended to discover or further develop already discovered oil or 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 oil or gas are excluded. 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 end

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

Sources: Energy Information Administration computations, which are based on well reports submitted by the Petroleum Information Corporation, Denver, Colorado.

Oil and Gas Resource Development Notes

Three well types are considered in the *Monthly Energy Review (MER)* drilling statistics: “completed for oil,” “completed for gas,” and “dry hole.” Wells that productively encounter both crude oil and natural gas are categorized as “completed for 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.

Prior to the March 1985 *MER*, drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration (EIA) estimates pro-

duced 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,” the feature article published in the March 1985 *MER*.

Users of the well completion and footage figures published by the Energy Information Administration (EIA) prior to August 1998 should be aware that these data have been revised. The published well completion and footage figures are produced by the Well Completion Estimation Procedure (WELCOM) based on drilling records provided under contract to the EIA. Problems in the files received by EIA necessitated revision of the historical series for well completions and footage drilled. Queries regarding this matter may be directed to William Trapmann (202-586-6408 or william.trapmann@eia.doe.gov).

Section 6. Coal

Coal production in December 2000 totaled 88 million short tons, 6 percent lower than in December 1999. Coal production during 2000 totaled 1,087 million short tons, 1 percent lower than production during 1999.

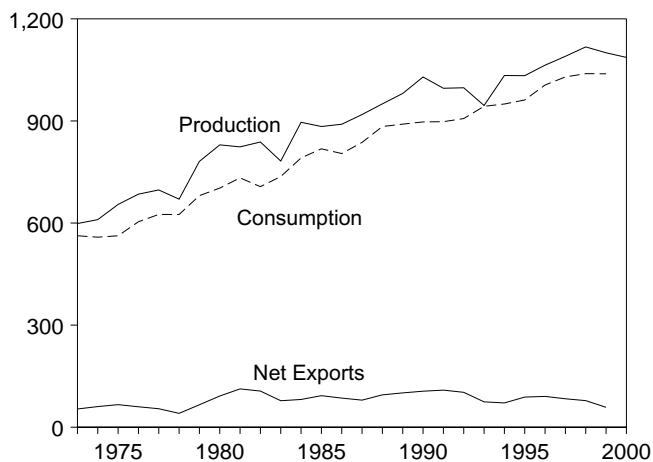
Coal consumed by the electric power sector in October 2000 totaled 79 million short tons, 4 percent higher than the level in October 1999.

Electric power sector coal stocks were 114 million short tons at the end of October 2000, 16 percent lower than the level a year earlier.

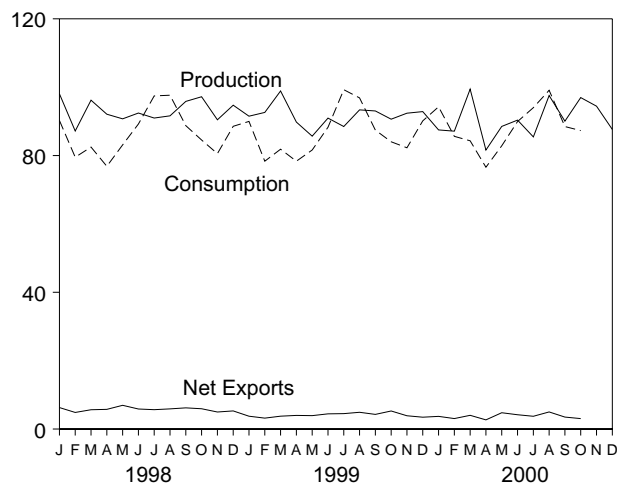
Coal exports in October 2000 totaled 4 million short tons, 25 percent lower than exports in October 1999. Coal imports in October 2000 totaled 1 million short tons, 111 percent higher than imports in October 1999.

Figure 6.1 Coal
(Million Short Tons)

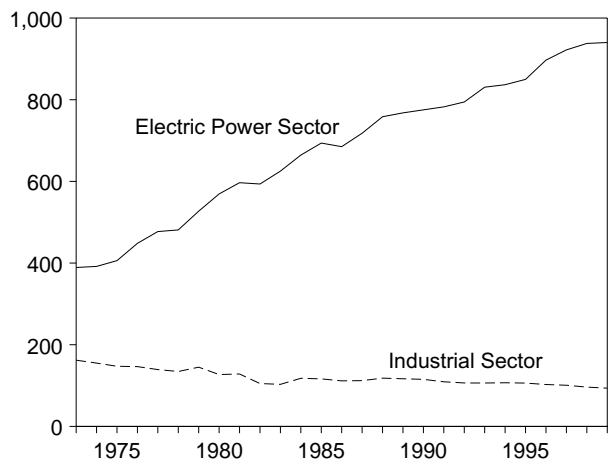
Overview, 1973-2000



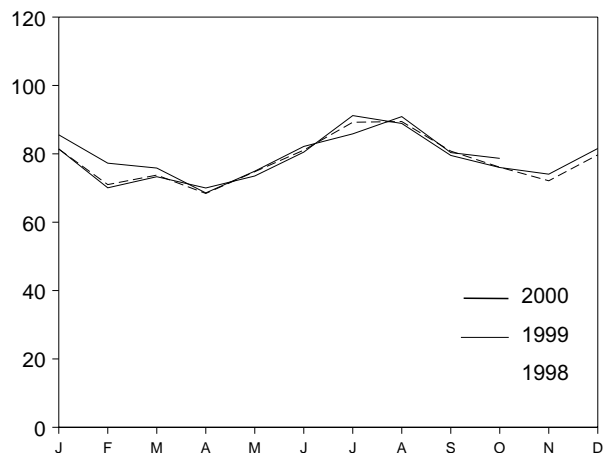
Overview, Monthly



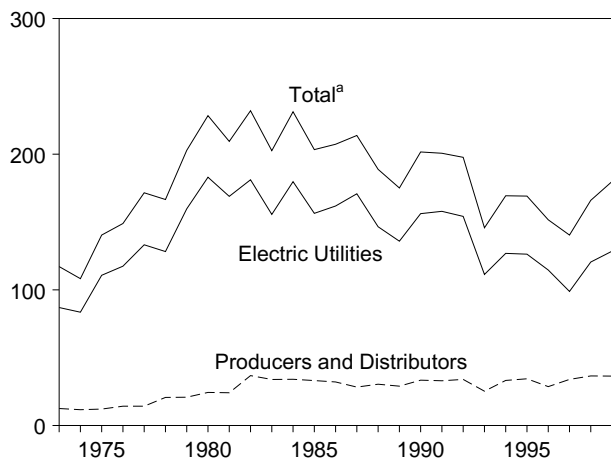
Consumption by Sector, 1973-1999



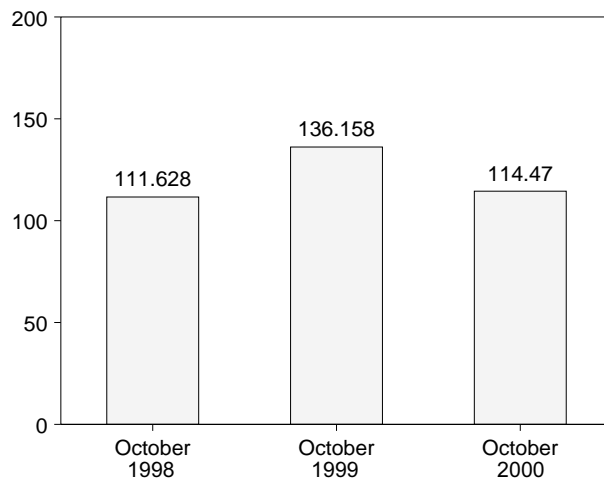
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-1999



Electric Power Sector Stocks, End of Month



^aOther power producers stocks are included beginning in 1998.
Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 6.1, 6.2, and 6.3.

Table 6.1 Coal Overview
(Thousand Short Tons)

	Production	Consumption	Imports ^a	Exports	Stocks ^b
1973 Total	598,568	562,584	127	53,587	117,155
1974 Total	610,023	558,402	2,080	60,661	108,237
1975 Total	654,641	562,640	940	66,309	140,391
1976 Total	684,913	603,790	1,203	60,021	148,899
1977 Total	697,205	625,291	1,647	54,312	171,543
1978 Total	670,164	625,225	2,953	40,714	166,606
1979 Total	781,134	680,524	2,059	66,042	202,812
1980 Total	829,700	702,730	1,194	91,742	228,407
1981 Total	823,775	732,627	1,043	112,541	209,423
1982 Total	838,112	706,911	742	106,277	232,038
1983 Total	782,091	736,672	1,271	77,772	202,584
1984 Total	895,921	791,296	1,286	81,483	231,300
1985 Total	883,638	818,049	1,952	92,680	203,367
1986 Total	890,315	804,231	2,212	85,518	207,319
1987 Total	918,762	836,941	1,747	79,607	213,780
1988 Total	950,265	883,642	2,134	95,023	188,831
1989 Total	980,729	^c 890,575	2,851	100,815	175,087
1990 Total	1,029,076	897,076	2,699	105,804	201,629
1991 Total	995,984	897,796	3,390	108,969	200,682
1992 Total	997,545	906,993	3,803	102,516	197,685
1993 Total	945,424	943,085	8,181	74,519	145,742
1994 Total	1,033,504	949,734	8,870	71,359	169,358
1995 Total	1,032,974	961,679	9,473	88,547	169,083
1996 Total	1,063,856	1,005,573	8,115	90,473	151,627
1997 Total	1,089,932	1,029,229	7,487	83,545	140,374
1998 January	98,054	90,258	705	6,984	^d 144,006
February	87,180	79,514	447	5,300	149,331
March	96,198	82,481	687	6,337	155,968
April	92,094	76,851	792	6,548	163,326
May	90,736	83,121	475	7,416	166,324
June	92,442	89,233	925	6,785	163,359
July	90,971	97,452	804	6,463	155,840
August	91,618	97,649	813	6,709	151,301
September	95,845	88,744	528	6,726	153,261
October	97,205	84,549	791	6,726	157,722
November	90,460	80,563	784	5,773	163,882
December	94,733	88,559	973	6,280	165,969
Total	1,117,535	1,038,972	8,724	78,048	165,969
1999 January	^R 91,518	89,987	739	4,492	166,415
February	^R 92,616	78,355	726	3,922	176,246
March	^R 98,891	81,860	782	4,548	185,658
April	^R 89,790	78,348	715	4,698	191,007
May	^R 85,667	81,629	421	4,345	195,232
June	^R 90,956	88,281	961	5,405	193,435
July	^R 88,493	99,271	670	5,175	180,780
August	^R 93,365	96,869	900	5,800	175,066
September	^R 93,045	87,443	818	5,100	174,726
October	^R 90,638	84,035	684	5,966	178,207
November	^R 92,394	82,281	1,097	4,986	182,391
December	^R 92,856	90,149	575	4,039	179,869
Total	^R 1,100,228	1,038,512	9,089	58,476	179,869
2000 January	87,493	94,258	1,002	4,710	174,636
February	87,129	85,622	698	3,765	181,321
March	99,434	84,317	1,115	5,123	181,048
April	81,610	76,582	823	3,503	182,864
May	88,517	82,852	770	5,536	181,862
June	90,369	89,952	1,152	5,339	174,810
July	^R 85,461	^R 94,017	1,212	4,948	^R 159,802
August	^R 97,562	^R 99,096	1,404	6,405	^R 153,888
September	^R 90,063	^R 88,483	946	4,447	^R 150,593
October	96,963	87,295	1,442	4,492	155,798
November	94,438	NA	NA	NA	NA
December	87,638	NA	NA	NA	NA
Total	1,086,677	NA	NA	NA	NA

^a Includes Puerto Rico.

^b Stocks held by electric utilities, other power producers, coke plants, general industry, and coal producers and distributors at end of period. Excludes stocks held at retail dealers for consumption by the residential and commercial sector.

^c Beginning in 1989, includes coal consumed by "Other Power Producers." See Table 6.2.

^d Beginning in 1998, includes coal stocks at "Other Power Producers." See

Table 6.3.

R=Revised. NA=Not available.

Notes: Data through 1997 are final. Subsequent data are preliminary. For methodology used to calculate production, consumption, and stocks, see Notes 1, 2, and 3 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.

Sources: See end of section for sources.

Table 6.2 Coal Consumption by Sector
(Thousand Short Tons)

	End-Use Sectors ^a					Electric Power Sector			Total
	Residential and Commercial	Industrial			Transportation	Electric Utilities	Other Power Producers ^{a,b}	Total	
		Coke Plants	Other	Total					
1973 Total	11,117	94,101	68,038	162,139	116	389,212	NA	^c 389,212	562,584
1974 Total	11,417	90,191	64,903	155,094	80	391,811	NA	^c 391,811	558,402
1975 Total	9,410	83,598	63,646	147,244	24	405,962	NA	^c 405,962	562,640
1976 Total	8,916	84,704	61,787	146,491	12	448,371	NA	^c 448,371	603,790
1977 Total	8,954	77,739	61,463	139,202	9	477,126	NA	^c 477,126	625,291
1978 Total	9,511	71,394	63,085	134,479	(d)	481,235	NA	^c 481,235	625,225
1979 Total	8,388	77,368	67,717	145,085	(d)	527,051	NA	^c 527,051	680,524
1980 Total	6,452	66,657	60,347	127,004	(d)	569,274	NA	^c 569,274	702,730
1981 Total	7,421	61,014	67,395	128,409	(d)	596,797	NA	^c 596,797	732,627
1982 Total	8,240	40,908	64,097	105,005	(d)	593,666	NA	^c 593,666	706,911
1983 Total	8,448	37,033	65,980	103,013	(d)	625,211	NA	^c 625,211	736,672
1984 Total	9,130	44,022	73,745	117,767	(d)	664,399	NA	^c 664,399	791,296
1985 Total	7,779	41,056	75,372	116,429	(d)	693,841	NA	^c 693,841	818,049
1986 Total	7,667	35,924	75,583	111,508	(d)	685,056	NA	^c 685,056	804,231
1987 Total	6,914	36,957	75,175	112,132	(d)	717,894	NA	^c 717,894	836,941
1988 Total	7,130	41,888	76,252	118,140	(d)	758,372	NA	^c 758,372	883,642
1989 Total	6,167	40,508	76,134	116,643	(d)	766,888	876	^e 767,764	^e 890,575
1990 Total	6,724	38,877	76,330	115,207	(d)	773,549	1,596	775,145	897,076
1991 Total	6,094	33,854	75,405	109,259	(d)	772,268	10,175	782,443	897,796
1992 Total	6,153	32,366	74,042	106,408	(d)	779,860	14,572	794,432	906,993
1993 Total	6,221	31,323	74,892	106,215	(d)	813,508	17,141	830,649	943,085
1994 Total	6,013	31,740	75,179	106,919	(d)	817,270	19,533	836,802	949,734
1995 Total	5,807	33,011	73,055	106,067	(d)	829,007	20,799	849,806	961,679
1996 Total	6,006	31,706	70,941	102,647	(d)	874,681	22,239	896,920	1,005,573
1997 Total	6,463	30,203	70,599	100,802	(d)	900,361	21,603	921,964	1,029,229
1998 January	553	2,345	5,977	8,322	(d)	79,520	^E 1,863	^E 81,383	90,258
February	452	2,097	5,965	8,062	(d)	69,097	^E 1,904	^E 71,001	79,514
March	452	2,293	5,950	8,243	(d)	71,817	^E 1,969	^E 73,786	82,481
April	387	2,456	5,598	8,054	(d)	66,474	^E 1,936	^E 68,410	76,851
May	268	2,508	5,571	8,079	(d)	72,867	^E 1,908	^E 74,775	83,121
June	316	2,275	5,565	7,840	(d)	79,016	^E 2,061	^E 81,077	89,233
July	359	2,403	5,451	7,855	(d)	87,189	^E 2,050	^E 89,239	97,452
August	344	2,453	5,411	7,864	(d)	87,064	^E 2,377	^E 89,441	97,649
September	269	2,316	5,368	7,684	(d)	78,078	^E 2,713	^E 80,791	88,744
October	281	2,454	5,727	8,181	(d)	73,407	^E 2,679	^E 76,086	84,549
November	470	2,207	5,763	7,970	(d)	69,452	^E 2,670	^E 72,122	80,563
December	705	2,381	5,774	8,154	(d)	76,887	^E 2,813	^E 79,700	88,559
Total	4,856	28,189	68,119	96,308	(d)	910,867	26,941	937,808	1,038,972
1999 January	553	2,287	5,720	8,007	(d)	78,574	^E 2,853	^E 81,427	89,987
February	452	2,122	5,722	7,844	(d)	67,220	^E 2,839	^E 70,059	78,355
March	452	2,387	5,716	8,103	(d)	70,641	^E 2,665	^E 73,306	81,860
April	442	2,496	5,397	7,892	(d)	66,961	^E 3,053	^E 70,014	78,348
May	274	2,448	5,389	7,838	(d)	70,283	^E 3,235	^E 73,518	81,629
June	256	2,128	5,389	7,517	(d)	76,509	^E 4,000	^E 80,509	88,281
July	405	2,363	5,314	7,677	(d)	87,018	^E 4,171	^E 91,189	99,271
August	327	2,351	5,301	7,652	(d)	84,731	^E 4,159	^E 88,890	96,869
September	239	2,310	5,358	7,668	(d)	75,523	^E 4,014	^E 79,537	87,443
October	281	2,389	5,357	7,746	(d)	71,943	^E 4,064	^E 76,007	84,035
November	470	2,352	5,415	7,767	(d)	69,352	^E 4,693	^E 74,045	82,281
December	705	2,476	5,400	7,876	(d)	75,366	^E 6,201	^E 81,567	90,149
Total	4,856	28,108	65,478	93,586	(d)	894,120	E 45,950	E 940,070	1,038,512
2000 January	627	2,511	5,559	8,070	(d)	76,957	^E 8,605	^E 85,562	94,258
February	467	2,299	5,584	7,883	(d)	69,327	^E 7,945	^E 77,272	85,622
March	363	2,508	5,599	8,108	(d)	67,818	^E 8,029	^E 75,847	84,317
April	414	2,498	5,098	7,596	(d)	61,074	^E 7,499	^E 68,573	76,582
May	277	2,546	5,101	7,646	(d)	67,260	^E 7,669	^E 74,929	82,852
June	280	2,397	5,112	7,509	(d)	73,720	^E 8,443	^E 82,163	89,952
July	F 325	R 2,506	F 5,335	RE 7,841	(d)	76,870	^E 8,981	^E 85,851	94,017
August	F 300	R 2,494	F 5,414	RE 7,908	(d)	79,813	^E 11,075	^E 90,888	^R 99,096
September	F 313	R 2,451	F 5,355	RE 7,806	(d)	70,591	^E 9,773	^E 80,364	^R 88,483
October	F 241	F 2,557	F 5,820	F 8,377	(d)	69,739	^E 8,938	^E 78,677	87,295
10-Month Total	E 3,607	E 24,766	E 53,976	E 78,742	(d)	713,167	E 86,957	E 800,124	882,473
1999 10-Month Total	3,681	23,280	54,663	77,943	(d)	749,402	E 35,053	E 784,455	866,079
1998 10-Month Total	3,681	23,601	56,583	80,183	(d)	764,528	E 21,460	E 785,988	869,852

^a Most of the coal consumption at nonutility cogeneration plants is included in the end-use sectors.

^b Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors. Only annual data are collected; prior to 1998, monthly estimates are derived from the annual total's daily rate; for 1998 forward, monthly estimates are developed from industry analysis.

^c Electric utilities only.

^d After 1977, small amounts of coal consumed by the Transportation Sector are included in "Other" under the Industrial Sector.

^e Beginning in 1989, includes coal consumed by "Other Power Producers."

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

Notes: For sector-specific reporting and estimating information, see Note 2 at end of section. Data through 1997 are final. Subsequent data are preliminary.

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

Sources: See end of section for sources. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See Note 4 at end of section.

Table 6.3 Coal Stocks
(Thousand Short Tons)

	Producers and Distributors	Residential and Commercial	Consumers							Total
			Industrial			Electric Power Sector				
			Coke Plants	Other	Total	Electric Utilities	Other Power Producers ^a	Total	Total	
1973 Year	12,530	290	6,998	10,370	17,368	86,967	NA	86,967	104,625	117,155
1974 Year	11,634	280	6,209	6,605	12,814	83,509	NA	83,509	96,603	108,237
1975 Year	12,108	233	8,797	8,529	17,326	110,724	NA	110,724	128,283	140,391
1976 Year	14,221	240	9,902	7,100	17,002	117,436	NA	117,436	134,678	148,899
1977 Year	14,225	220	12,816	11,063	23,879	133,219	NA	133,219	157,318	171,543
1978 Year	20,695	360	8,278	9,048	17,326	128,225	NA	128,225	145,911	166,606
1979 Year	20,826	340	10,155	11,777	21,932	159,714	NA	159,714	181,986	202,812
1980 Year	24,379	(^b)	9,067	11,951	21,018	183,010	NA	183,010	204,028	228,407
1981 Year	24,149	(^b)	6,475	9,906	16,381	168,893	NA	168,893	185,274	209,423
1982 Year	36,784	(^b)	4,642	9,479	14,121	181,132	NA	181,132	195,254	232,038
1983 Year	33,931	(^b)	4,346	8,710	13,056	155,598	NA	155,598	168,654	202,584
1984 Year	34,090	(^b)	6,166	11,317	17,483	179,727	NA	179,727	197,211	231,300
1985 Year	33,133	(^b)	3,420	10,438	13,857	156,376	NA	156,376	170,234	203,367
1986 Year	32,093	(^b)	2,992	10,429	13,420	161,806	NA	161,806	175,226	207,319
1987 Year	28,321	(^b)	3,884	10,777	14,662	170,797	NA	170,797	185,459	213,780
1988 Year	30,418	(^b)	3,137	8,768	11,906	146,507	NA	146,507	158,413	188,831
1989 Year	29,000	(^b)	2,864	7,363	10,227	135,860	NA	135,860	146,087	175,087
1990 Year	33,418	(^b)	3,329	8,716	12,044	156,166	NA	156,166	168,210	201,629
1991 Year	32,971	(^b)	2,773	7,061	9,835	157,876	NA	157,876	167,711	200,682
1992 Year	33,993	(^b)	2,597	6,965	9,562	154,130	NA	154,130	163,692	197,685
1993 Year	25,284	(^b)	2,401	6,716	9,117	111,341	NA	111,341	120,458	145,742
1994 Year	33,219	(^b)	2,657	6,585	9,243	126,897	NA	126,897	136,139	169,358
1995 Year	34,444	(^b)	2,632	5,702	8,334	126,304	NA	126,304	134,639	169,083
1996 Year	28,648	(^b)	2,667	5,688	8,355	114,623	NA	114,623	122,979	151,627
1997 Year	33,973	(^b)	1,978	5,597	7,576	98,826	NA	98,826	106,401	140,374
1998 January	36,313	(^b)	1,947	5,252	7,199	100,406	^E 88	^C E 100,494	^C 107,693	^C 144,006
February	38,653	(^b)	1,916	4,906	6,823	103,793	^E 63	^E 103,856	110,678	149,331
March	40,994	(^b)	1,885	4,561	6,446	108,101	^E 427	^E 108,528	114,974	155,968
April	40,105	(^b)	1,922	4,571	6,493	116,231	^E 497	^E 116,728	123,221	163,326
May	39,217	(^b)	1,958	4,582	6,540	119,936	^E 631	^E 120,567	127,107	166,324
June	38,331	(^b)	1,995	4,593	6,587	117,758	^E 683	^E 118,441	125,028	163,359
July	38,821	(^b)	2,010	4,810	6,821	109,540	^E 659	^E 110,199	117,019	155,840
August	39,312	(^b)	2,026	5,028	7,054	103,720	^E 1,215	^E 104,935	111,989	151,301
September	39,803	(^b)	2,042	5,246	7,288	104,552	^E 1,619	^E 106,171	113,458	153,261
October	38,712	(^b)	2,037	5,345	7,382	110,021	^E 1,607	^E 111,628	119,010	157,722
November	37,621	(^b)	2,031	5,445	7,477	117,225	^E 1,559	^E 118,784	126,261	163,882
December	36,530	(^b)	2,026	5,545	7,571	120,501	^E 1,367	^E 121,868	129,439	165,969
1999 January	38,216	(^b)	1,983	5,278	7,261	119,382	^E 1,556	^E 120,938	128,199	166,415
February	40,288	(^b)	1,941	5,010	6,951	127,428	^E 1,579	^E 129,007	135,958	176,246
March	42,361	(^b)	1,898	4,743	6,640	134,897	^E 1,760	^E 136,657	143,297	185,658
April	42,085	(^b)	1,957	4,716	6,673	139,495	^E 2,754	^E 142,249	148,922	191,007
May	41,809	(^b)	2,016	4,690	6,706	143,561	^E 3,156	^E 146,717	153,423	195,232
June	41,533	(^b)	2,075	4,663	6,739	141,267	^E 3,896	^E 145,163	151,902	193,435
July	39,377	(^b)	2,042	4,811	6,853	130,673	^E 3,877	^E 134,550	141,403	180,780
August	37,221	(^b)	2,009	4,959	6,968	127,633	^E 3,244	^E 130,877	137,845	175,066
September	35,064	(^b)	1,975	5,107	7,083	129,302	^E 3,277	^E 132,579	139,662	174,726
October	34,830	(^b)	1,965	5,255	7,219	132,608	^E 3,550	^E 136,158	143,377	178,207
November	34,595	(^b)	1,954	5,396	7,349	135,355	^E 5,092	^E 140,447	147,796	182,391
December	36,400	(^b)	1,943	5,537	7,479	128,493	^E 7,496	^E 135,989	143,469	179,869
2000 January	38,166	(^b)	1,938	5,168	7,106	122,472	^E 6,892	^E 129,364	136,470	174,636
February	39,708	(^b)	1,933	4,768	6,701	127,858	^E 7,054	^E 134,912	141,613	181,321
March	41,250	(^b)	1,929	4,367	6,295	125,869	^E 7,634	^E 133,503	139,798	181,048
April	41,453	(^b)	1,903	4,431	6,334	127,468	^E 7,609	^E 135,077	141,411	182,864
May	41,656	(^b)	1,877	4,495	6,372	125,957	^E 7,877	^E 133,834	140,206	181,862
June	41,858	(^b)	1,851	4,559	6,410	118,594	^E 7,948	^E 126,542	132,952	174,810
July	^F 35,732	(^b)	^R 1,755	^F 4,391	^{RE} 6,146	110,031	^E 7,893	^E 117,924	124,070	159,802
August	^F 35,606	(^b)	^R 1,671	^F 4,433	^{RE} 6,104	104,838	^{RE} 7,340	^{RE} 112,178	^R 118,282	^R 153,888
September	^F 35,479	(^b)	^R 1,587	^F 4,731	^{RE} 6,318	101,395	^E 7,401	^E 108,796	^R 115,114	^R 150,593
October	^F 35,191	(^b)	^F 1,645	^F 4,492	^F 6,137	102,836	^E 11,634	^E 114,470	120,607	155,798

^a Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the industrial or commercial sectors.

^b Beginning in 1980, the Energy Information Administration ceased collecting data on residential and commercial coal stocks.

^c Beginning in 1998, includes coal stocks at "Other Power Producers."

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

Notes: Stocks are at end of period. For sector-specific reporting and

estimating information, see Note 3 at end of section. Data through 1997 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section for sources. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See Note 4 at end of section.

Coal Notes

1. Production: Preliminary monthly estimates of national coal production are the sum of weekly estimates developed by the Energy Information Administration (EIA) and published in the *Weekly Coal Production* report. When a week extends into a new month, production is allocated on a daily basis and added to the appropriate month. Weekly estimates are based on Association of American Railroads data showing the number of railcars loaded with coal during the week by Class I and certain other railroads. This number is converted into tons of coal by EIA by using the average number of tons of coal per railcar loaded reported in the most recent "Quarterly Freight Commodity Statistics" from the Surface Transportation Board. If an average coal tonnage per railcar loaded is not available for a specific railroad, the national average is used. To derive the estimate of total weekly production, the total rail tonnage for the week is divided by the ratio of quarterly production shipped by rail and total quarterly production. Data for the corresponding quarter of previous years are used to derive this ratio. This method ensures that the seasonal variations are preserved in the production estimates.

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figure. 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 9 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.

2. Consumption: Coal consumption 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: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Prior to 1980, monthly consumption estimates for the residential and commercial sector were derived by using reported data to

modify baseline figures developed by the Bureau of Mines. From 1980-1987, monthly 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 on Form EIA-2. During 1981 and 1982, the estimates were also modified to reflect air temperature degree-days. Quarterly consumption data were taken directly from reported data and were defined as distribution to the residential and commercial sector as reported by coal producers and distributors on Form EIA-6. Beginning in January 1988, monthly residential and commercial consumption estimates are derived from reported quarterly data by using monthly national average population weighted heating/cooling degree-days obtained from the National Oceanic and Atmospheric Administration. The monthly ratios are the monthly national sum of heating and cooling degree-days as a proportion of the quarterly national sum. Quarterly consumption data are taken directly from reported data.

Industrial Coke Plants—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. From 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. From 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. Quarterly consumption data were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts were 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, mining, and construction consumption data were included where appropriate. Starting 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: foods, Standard Industrial

Classification (SIC) 20; paper and products, SIC 26; chemicals and products, SIC 28; petroleum products, SIC 29; clay, glass, and stone products, SIC 32; and primary metals, SIC 33. 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.

Electric Utilities—Monthly consumption data for electric utility plants are taken directly from reported data.

3. 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: Mid World Oil Price Case.” The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Producers and Distributors—Quarterly stocks at producers and distributors are taken directly from reported data. Monthly data are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks.

Residential and Commercial—Prior to 1980, stock estimates for the residential and commercial sector were taken directly from reported data. Beginning in 1980, stock estimates for the sector were considered to be statistically insignificant and are no longer collected.

Industrial Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. From 1980 forward, 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. From 1983 forward, 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 Utilities—Monthly stocks data at electric utility plants are taken directly from reported data.

Other Power Producers—Annual stocks data are taken directly from reported data. Monthly data are estimated by EIA based on industry analysis.

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

The STIFS model results are published semi-annually (April and October) in EIA’s *Short-Term Energy Outlook*, which is available from the National Energy Information Center (202-586-8800). Monthly updates are accessible on the world wide web at <http://www.eia.doe.gov>. Documentation for the model and instructions for downloading and operating it on a personal computer are provided.

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

Sources for Table 6.1

Production

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

October 1977 forward—Energy Information Administration, *Weekly Coal Production*.

Consumption—See Table 6.2.

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

Stocks—See Table 6.3.

Sources for Table 6.2

Residential and Commercial

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—Energy Information Administration (EIA), Form EIA-2, “Monthly Coal Report, Retail Dealers-Upper Lake Docks.”

1980-1997—EIA, Form EIA-6, “Coal Distribution Report,” quarterly.

1998 forward—DOI, Mine Safety and Health Administration, Form 7000-2, “Quarterly Mine Employment and Coal Production.”

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.”

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.”

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

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 Utilities

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977 forward—EIA, Form EIA-759 (formerly Form FPC-4), “Monthly Power Plant Report.”

Other Power Producers

Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), “Annual Electric Generator Report - Nonutility.”

Monthly Estimates—Through 1997, derived from the daily rate of each annual total. For 1998 forward, estimated by EIA from industry analysis.

Sources for Table 6.3

Producers and Distributors

1973-1979—DOI, BOM, Form 6-1419Q, “Distribution of Bituminous Coal and Lignite Shipments.”

1980 forward—Energy Information Administration (EIA), Form EIA-6, “Coal Distribution Report,” quarterly.

Residential and Commercial

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.”

Industrial Coke Plants

1973-September 1977—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977-1980—Energy Information Administration (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.”

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.”

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

Electric Utilities

See Table 7.9.

Other Power Producers

Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), “Annual Electric Generator Report - Nonutility.”

Section 7. Electricity

Overview. Electricity is produced by electric utilities, which are the traditional, regulated part of the industry, and nonutility power producers, which are expanding rapidly as the industry moves away from regulated entities.

In 1999, U.S. electricity net generation totaled 3.7 trillion kilowatthours. Electric utilities generated 3.2 trillion kilowatthours (86 percent of the total) and nonutility power producers generated 0.5 trillion kilowatthours (14 percent). The Nation imported 43 billion kilowatthours of electricity and exported 14 billion kilowatthours.

Net Generation. In October 2000, net generation of electricity totaled 302 billion kilowatthours, 3 percent more than in October 1999. At utilities, net generation was 228 billion kilowatthours, down 6 percent, while at nonutility power plants, net generation was 74 billion kilowatthours, up 48 percent, compared to 1 year earlier.

At utilities in October 2000, fossil fuels (primarily coal) accounted for 72 percent of net generation, nuclear 22 percent, and renewable resources 7 percent. At nonutility power plants, fossil fuels (primarily natural gas) accounted for 78 percent of net generation, renewable resources 12 percent, and other resources 10 percent.

Electric Utility Retail Sales. October 2000 total utility sales of electricity to end-users were forecast at 266 billion kilowatthours, 3 percent more than in October 1999. October 2000 electricity sales to residential consumers were forecast at 84 billion kilowatthours (32

percent of the month's total), commercial users 83 billion kilowatthours (31 percent), industrial consumers 90 billion kilowatthours of electricity (34 percent), and other users 9 billion kilowatthours (4 percent).

Consumption of Fossil Fuels. In October 2000, 83 million short tons of coal were consumed to generate electricity, 5 percent more than in October 1999. Of the total, 70 million short tons (3 percent less than a year earlier) were consumed at electric utilities and 14 million short tons (74 percent more than a year earlier) were consumed by nonutility power producers.

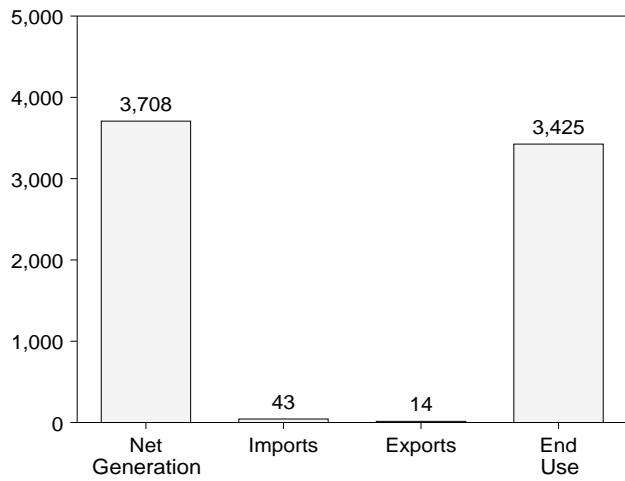
In October 2000, 525 billion cubic feet of natural gas was consumed to generate electricity, 6 percent more than in October 1999. Of the total, 213 billion cubic feet (11 percent less than a year earlier) was consumed by electric utilities and 313 billion cubic feet (21 percent more than a year earlier) was consumed by nonutility power plants.

Stocks of Coal and Petroleum. At the end of October 2000, 118 million short tons of coal were held in storage for electricity generation, 16 percent less than in October 1999. Of the total, 103 million short tons (22 percent less than a year earlier) were held at electric utilities and 15 million short tons (93 percent more than a year earlier) were held by nonutility power plants.

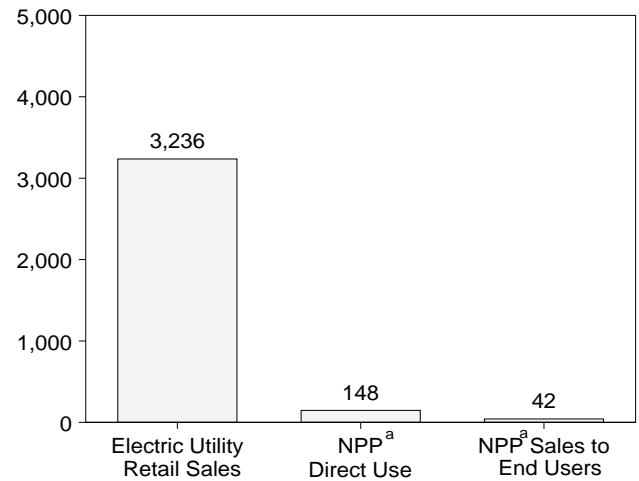
At the end of October 2000, 43 million barrels of petroleum liquids (i.e., heavy and light oil) were held in storage for electricity generation, 13 percent less than in October 1999. Of total liquids, 32 million barrels were held at electric utilities and 12 million barrels were held by nonutility power plants.

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

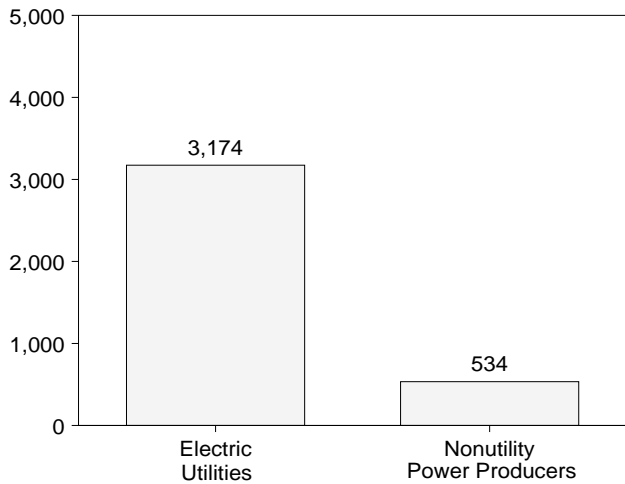
Overview, 1999



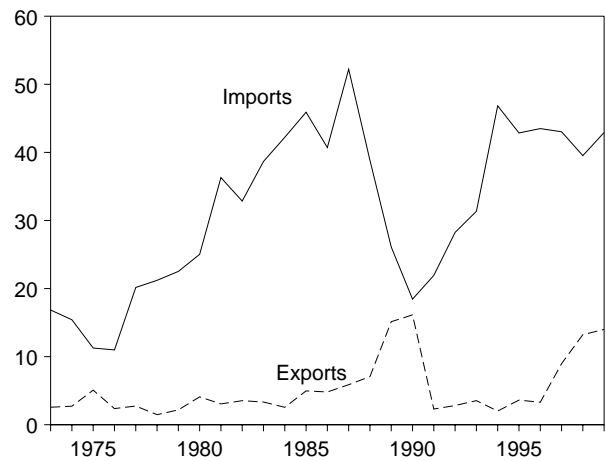
End Use, 1999



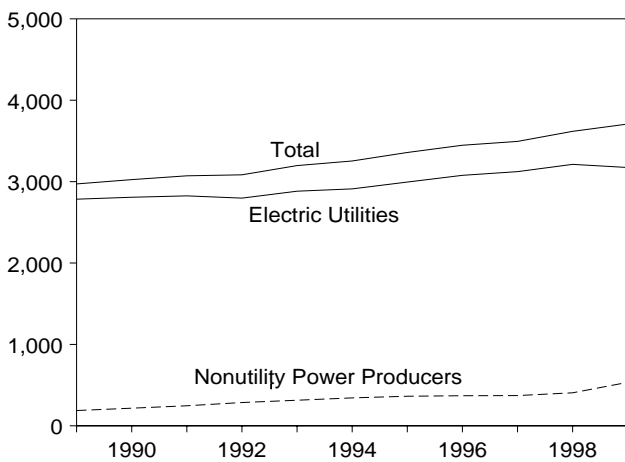
Net Generation, 1999



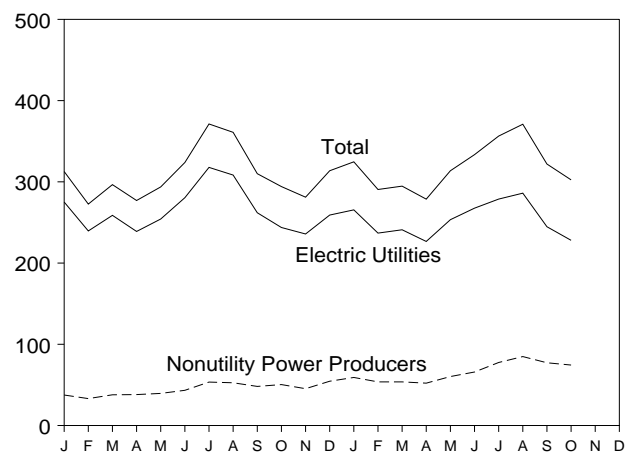
Trade, 1973-1999



Net Generation, 1989-1999



Net Generation, 1999 and 2000



^aNonutility power producers.
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 7.1.

Table 7.1 Electricity Overview
(Billion Kilowatthours)

	Net Generation ^a			Imports ^b	Exports ^b	Losses and Unaccounted for ^c	End Use			
	Electric Utilities	Nonutility Power Producers	Total				Electric Utility Retail Sales ^d	Nonutility Power Producers		Total ^d
							Direct Use ^e	Sales to End Users		
1973 Total	1,861	NA	1,861	17	3	NA	1,713	NA	NA	NA
1974 Total	1,867	NA	1,867	15	3	NA	1,706	NA	NA	NA
1975 Total	1,918	NA	1,918	11	5	NA	1,747	NA	NA	NA
1976 Total	2,038	NA	2,038	11	2	NA	1,855	NA	NA	NA
1977 Total	2,124	NA	2,124	20	3	NA	1,948	NA	NA	NA
1978 Total	2,206	NA	2,206	21	1	NA	2,018	NA	NA	NA
1979 Total	2,247	NA	2,247	23	2	NA	2,071	NA	NA	NA
1980 Total	2,286	NA	2,286	25	4	NA	2,094	NA	NA	NA
1981 Total	2,295	NA	2,295	36	3	NA	2,147	NA	NA	NA
1982 Total	2,241	NA	2,241	33	4	NA	2,086	NA	NA	NA
1983 Total	2,310	NA	2,310	39	3	NA	2,151	NA	NA	NA
1984 Total	2,416	NA	2,416	42	3	NA	2,286	NA	NA	NA
1985 Total	2,470	NA	2,470	46	5	NA	2,324	NA	NA	NA
1986 Total	2,487	NA	2,487	41	5	NA	2,369	NA	NA	NA
1987 Total	2,572	NA	2,572	52	6	NA	2,457	NA	NA	NA
1988 Total	2,704	NA	2,704	39	7	NA	2,578	NA	NA	NA
1989 Total	2,784	^f 188	2,972	26	15	236	2,647	^f 83	^f 18	2,747
1990 Total	2,808	^f 217	3,025	18	16	210	2,713	^f 84	^f 20	2,817
1991 Total	2,825	^f 246	3,071	22	2	218	2,762	^f 100	^f 11	2,873
1992 Total	2,797	286	3,083	28	3	224	2,763	111	11	2,885
1993 Total	2,883	314	3,197	31	4	236	2,861	111	16	2,988
1994 Total	2,911	343	3,254	47	2	223	2,935	123	18	3,075
1995 Total	2,995	363	3,358	43	4	235	3,013	134	16	3,162
1996 Total	3,077	370	3,447	43	3	240	3,098	135	14	3,247
1997 Total	3,123	372	3,494	43	9	240	3,140	131	18	3,289
1998										
January	265	NA	NA	3	1	NA	269	NA	NA	NA
February	235	NA	NA	2	1	NA	247	NA	NA	NA
March	257	NA	NA	3	1	NA	252	NA	NA	NA
April	232	NA	NA	3	1	NA	238	NA	NA	NA
May	265	NA	NA	3	1	NA	252	NA	NA	NA
June	291	NA	NA	3	1	NA	282	NA	NA	NA
July	318	NA	NA	5	1	NA	311	NA	NA	NA
August	313	NA	NA	5	1	NA	317	NA	NA	NA
September	279	NA	NA	4	1	NA	295	NA	NA	NA
October	251	NA	NA	3	2	NA	264	NA	NA	NA
November	239	NA	NA	2	1	NA	248	NA	NA	NA
December	267	NA	NA	3	1	NA	265	NA	NA	NA
Total	3,212	406	3,618	40	13	245	3,240	134	26	3,400
1999										
January	275	38	313	2	2	NA	278	NA	NA	NA
February	240	33	273	2	1	NA	246	NA	NA	NA
March	259	38	297	3	2	NA	255	NA	NA	NA
April	239	38	277	4	1	NA	241	NA	NA	NA
May	254	40	294	4	1	NA	248	NA	NA	NA
June	280	43	324	4	1	NA	278	NA	NA	NA
July	318	53	371	4	1	NA	317	NA	NA	NA
August	308	53	361	4	1	NA	315	NA	NA	NA
September	262	48	310	5	1	NA	288	NA	NA	NA
October	244	50	294	5	1	NA	257	NA	NA	NA
November	236	45	281	5	1	NA	246	NA	NA	NA
December	259	55	314	4	1	NA	265	NA	NA	NA
Total	3,174	534	3,708	43	14	311	3,236	148	42	3,425
2000										
January	265	59	325	4	1	NA	286	NA	NA	NA
February	237	54	291	4	(s)	NA	269	NA	NA	NA
March	241	54	295	4	1	NA	260	NA	NA	NA
April	227	52	279	4	1	NA	246	NA	NA	NA
May	253	60	314	4	1	NA	268	NA	NA	NA
June	268	66	333	5	2	NA	301	NA	NA	NA
July	279	78	356	5	2	NA	319	NA	NA	NA
August	286	85	371	7	1	NA	332	NA	NA	NA
September	245	77	322	5	1	NA	307	NA	NA	NA
October	228	74	302	3	1	NA	^F 266	NA	NA	NA
10-Month Total	2,528	659	3,187	44	11	NA	^F 2,854	NA	NA	NA
1999 10-Month Total	2,679	434	3,113	34	12	NA	2,725	NA	NA	NA
1998 10-Month Total	2,707	NA	NA	35	11	NA	2,726	NA	NA	NA

^a Gross output of electricity (measured at the generator terminals) minus power plant use.

^b Electricity transmitted across U.S. borders with Canada and Mexico.

^c Energy losses that occur between the point of generation and delivery to the customer, and data collection frame differences and nonsampling error. See Note 11 at end of Section 2 for discussion on electrical system energy losses.

^d Data do not include sales to ultimate consumers by power marketers in several State "retail wheeling" pilot programs. See box on Table 7.5 for additional information.

^e Facility use of onsite net electricity generation.

^f Data for 1989-1991 were collected for facilities with capacities of 5 megawatts

or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.

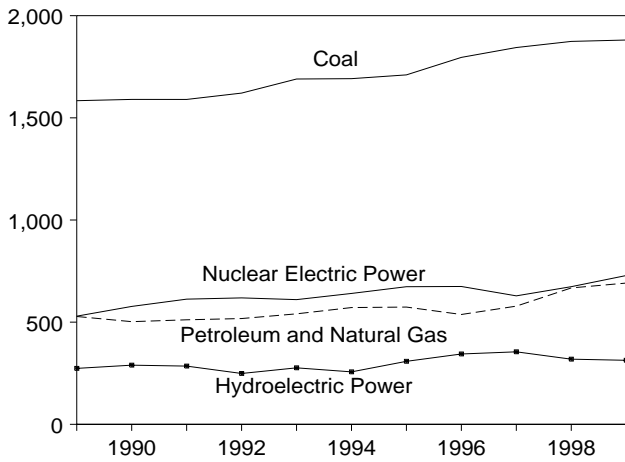
NA=Not available. F=Forecast. (s)=Less than 500 thousand kilowatthours.

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

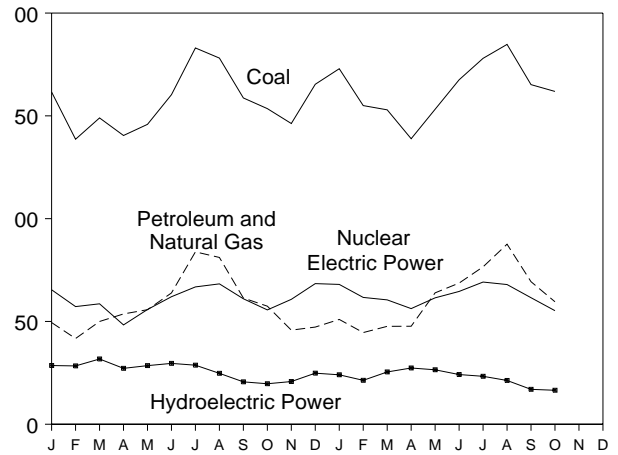
Sources: **Net Generation:** Tables 7.2-7.4. **Imports and Exports:** See end of section. **Losses and Unaccounted for:** Calculated. **End Use:** Table 7.5.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours, Except as Noted)

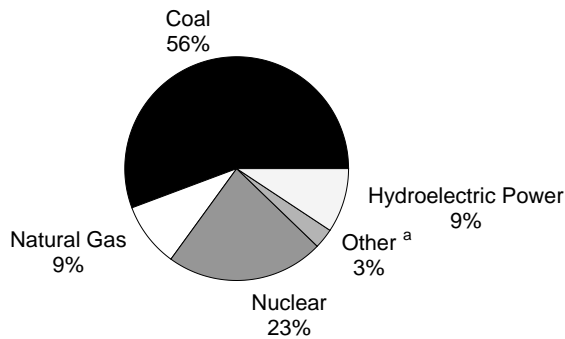
By Major Source, 1989-1999



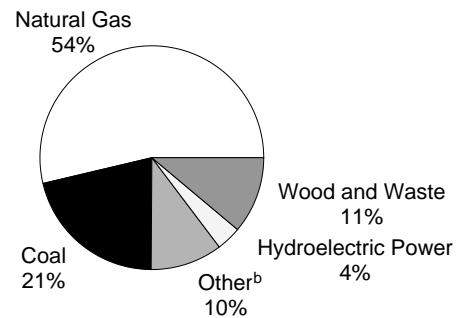
By Major Source, 1999 and 2000



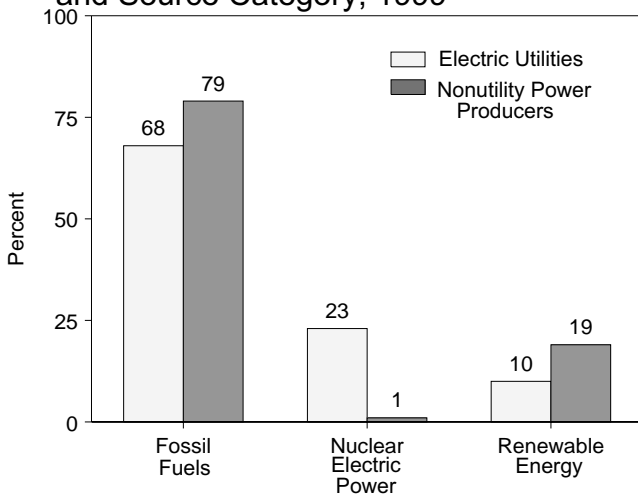
Electric Utility Sources, 1999



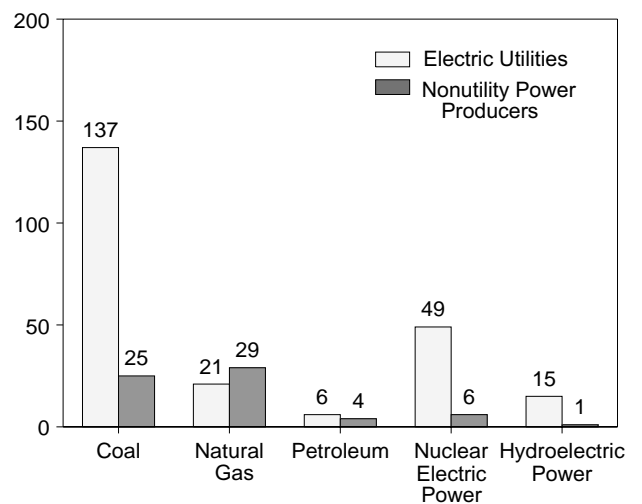
Nonutility Power Producer Sources, 1999



Shares of Net Generation by Producer Type and Source Category, 1999



By Selected Source, October 2000



^aPetroleum, geothermal, wood, waste, wind, and solar.

^bPetroleum, other gas, geothermal, wind, solar, hydrogen, sulfur, batteries, chemicals, and purchased steam.

Note: Because vertical scales differ, graphs should not be compared.

Source: Table 7.2-7.4.

Table 7.2 Electricity Net Generation
(Million Kilowatthours)

	Fossil Fuels			Other Gas ^d	Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy						Total ⁱ
	Coal ^a	Petro-leum ^b	Natural Gas ^c				Conventional Hydro-electric Power	Geo-thermal	Wood ^f	Waste ^g	Wind	Solar ^h	
1989 Total	1,583,824	163,861	363,942	(j)	529,402	(k)	273,665	14,879	27,728	9,958	2,280	623	2,971,863
1990 Total	1,590,305	124,048	378,342	(j)	576,974	-3,508	293,013	15,788	30,413	13,163	3,035	646	3,024,867
1991 Total	1,589,940	118,957	392,590	(j)	612,642	-4,541	289,506	16,040	33,165	15,750	3,019	759	3,071,329
1992 Total	1,621,085	99,424	418,301	(j)	618,841	-4,177	253,088	16,422	35,580	17,777	2,888	727	3,083,367
1993 Total	1,690,010	112,353	428,417	(j)	610,367	-4,036	280,494	17,025	36,788	18,520	3,022	874	3,196,924
1994 Total	1,691,690	105,503	465,928	12,110	640,492	-3,378	260,166	16,756	37,804	19,084	3,447	803	3,253,799
1995 Total	1,710,176	75,260	498,541	13,506	673,402	-2,725	311,004	14,359	36,396	20,279	3,164	803	3,357,837
1996 Total	1,795,710	81,683	455,835	14,169	674,729	-3,088	347,448	15,126	36,779	20,672	3,376	879	3,446,994
1997 Total	1,844,104	93,025	485,440	11,175	628,644	-4,041	358,946	14,569	34,231	20,585	3,222	870	3,494,222
1998 Total	1,873,946	126,932	540,638	8,514	673,702	-4,441	323,330	14,726	31,789	21,286	2,988	856	3,617,873
1999													
January	161,593	11,637	E 37,822	E 759	65,399	-557	29,120	1,216	3,202	2,264	177	NA	312,641
February	138,640	9,151	E 32,547	E 665	57,235	-357	28,730	1,072	2,611	2,120	199	NA	272,630
March	149,000	10,074	E 39,920	E 741	58,578	-381	32,124	1,190	2,815	2,181	280	NA	296,549
April	140,460	8,712	E 44,948	E 759	48,315	-465	27,662	1,133	2,770	2,290	391	NA	277,021
May	145,871	9,068	E 46,647	E 771	55,809	-678	29,195	1,264	2,811	2,305	606	NA	293,756
June	160,292	10,030	E 53,827	E 852	62,025	-576	30,164	1,465	2,725	2,257	602	NA	323,804
July	183,032	13,697	E 70,154	E 1,088	66,809	-611	29,347	1,592	3,139	2,269	591	NA	371,247
August	178,102	11,572	E 69,561	E 1,084	68,287	-767	25,519	1,646	3,041	2,251	499	NA	360,937
September	158,715	7,654	E 53,737	E 989	61,036	-432	21,046	1,579	3,102	2,146	363	NA	310,050
October	153,525	6,394	E 51,042	E 1,022	55,601	-480	20,173	1,639	2,921	1,984	294	NA	294,185
November	146,278	4,977	E 40,798	E 890	60,757	-456	21,225	1,510	2,730	2,146	220	NA	281,115
December	165,363	5,163	E 42,103	E 929	68,402	-401	25,239	1,506	2,802	2,248	265	NA	313,637
Total	1,880,871	108,128	E 583,108	E 10,549	728,254	-6,162	319,545	16,813	34,668	26,461	4,488	NA	3,707,571
2000													
January	172,925	9,522	E 41,453	E 859	68,013	-523	24,579	1,216	3,911	2,354	323	NA	324,636
February	155,002	6,691	E 37,895	E 801	61,688	-446	21,808	1,020	3,574	2,236	297	NA	290,573
March	152,925	5,714	E 41,905	E 801	60,494	-572	26,005	1,013	3,675	2,337	388	NA	294,703
April	138,874	5,606	E 42,059	E 778	56,252	-376	27,741	1,069	3,685	2,387	600	NA	278,701
May	153,211	8,498	E 55,409	E 968	61,479	-484	26,972	1,112	3,401	2,420	636	NA	313,658
June	167,538	10,962	E 57,701	E 1,051	64,595	-554	24,734	1,151	3,402	2,336	481	NA	333,457
July	177,986	10,408	E 66,154	E 1,147	69,171	-304	23,625	1,229	4,051	2,366	469	NA	356,359
August	184,758	13,465	E 74,111	E 1,319	67,954	-379	21,685	1,257	3,838	2,463	391	NA	370,920
September	165,197	11,083	E 58,253	E 1,140	61,550	-626	17,604	1,207	3,716	2,380	377	NA	321,933
October	161,887	10,202	E 49,371	E 1,059	55,240	-402	16,929	1,261	3,955	2,488	406	NA	302,415
10-Month Total	1,630,305	92,150	E 524,311	E 9,924	626,436	-4,665	231,682	11,535	37,207	23,766	4,368	NA	3,187,355
1999 10-Month Total	1,569,229	97,989	E 500,207	E 8,729	599,094	-5,304	273,081	13,797	29,136	22,067	4,003	NA	3,112,820

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, petroleum coke, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

^c Includes supplemental gaseous fuels, waste heat, and waste gas.

^d Butane gas, propane gas, blast furnace gas, coke oven gas, refinery gas, and process gas.

^e Pumped storage facility production minus energy used for pumping.

^f Wood, wood waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

^g Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile

waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

^h Solar thermal and photovoltaic energy.

ⁱ Data prior to 1999 include hydrogen, sulfur, batteries, chemicals, and purchased steam, which are not separately displayed on this table. Data for 1999 forward exclude these components.

^j Included in natural gas.

^k Included in conventional hydroelectric power.

NA=Not available. E=Estimate.

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

Sources: Tables 7.3 and 7.4.

This table represents the entire U.S. electric power sector. See Table 7.3 for electric utilities only. See Table 7.4 for nonutility power producers only.

Table 7.3 Electricity Net Generation at Electric Utilities

(Million Kilowatthours)

	Fossil Fuels			Nuclear Electric Power	Hydro-electric Pumped Storage ^c	Renewable Energy						Total
	Coal	Petro-leum ^a	Natural Gas ^b			Conven-tional Hydro-electric Power	Geo-thermal	Wood ^d	Waste ^e	Wind	Solar ^f	
1973 Total	847,651	314,343	340,858	83,479	(g)	272,083	1,966	130	198	0	0	1,860,710
1974 Total	828,433	300,931	320,065	113,976	(g)	301,032	2,453	68	182	0	0	1,867,140
1975 Total	852,786	289,095	299,778	172,505	(g)	300,047	3,246	18	174	0	0	1,917,649
1976 Total	944,391	319,988	294,624	191,104	(g)	283,707	3,616	84	182	0	0	2,037,696
1977 Total	985,219	358,179	305,505	250,883	(g)	220,475	3,582	308	173	0	0	2,124,323
1978 Total	975,742	365,060	305,391	276,403	(g)	280,419	2,978	197	140	0	0	2,206,331
1979 Total	1,075,037	303,525	329,485	255,155	(g)	279,783	3,889	300	198	0	0	2,247,372
1980 Total	1,161,562	245,994	346,240	251,116	(g)	276,021	5,073	275	158	0	0	2,286,439
1981 Total	1,203,203	206,421	345,777	272,674	(g)	260,684	5,686	245	123	0	0	2,294,812
1982 Total	1,192,004	146,797	305,260	282,773	(g)	309,213	4,843	196	125	0	0	2,241,323
1983 Total	1,259,424	144,499	274,098	293,677	(g)	332,130	6,075	216	163	3	0	2,310,285
1984 Total	1,341,681	119,808	297,394	327,634	(g)	321,150	7,741	461	425	12	0	2,416,304
1985 Total	1,402,128	100,202	291,946	383,691	(g)	281,149	9,325	743	640	16	0	2,469,841
1986 Total	1,385,831	136,585	248,508	414,038	(g)	290,844	10,308	492	685	18	0	2,487,310
1987 Total	1,463,781	118,493	272,621	455,270	(g)	249,695	10,775	783	694	14	0	2,572,127
1988 Total	1,540,653	148,900	252,801	526,973	(g)	222,940	10,300	936	738	10	0	2,704,250
1989 Total	1,553,661	158,318	266,598	529,355	(g)	265,063	9,342	972	993	(s)	3	2,784,304
1990 Total	1,559,606	117,017	264,089	576,862	-3,508	283,434	8,581	810	1,257	(s)	2	2,808,151
1991 Total	1,551,167	111,463	264,172	612,565	-4,541	280,061	8,087	732	1,314	(s)	3	2,825,023
1992 Total	1,575,895	88,916	263,872	618,776	-4,177	243,736	8,104	816	1,276	(s)	3	2,797,219
1993 Total	1,639,151	99,539	258,915	610,291	-4,036	269,098	7,571	890	1,100	(s)	4	2,882,525
1994 Total	1,635,493	91,039	291,115	640,440	-3,378	247,071	6,941	765	1,224	(s)	3	2,910,712
1995 Total	1,652,914	60,844	307,306	673,402	-2,725	296,378	4,745	633	1,016	11	4	2,994,529
1996 Total	1,737,453	67,346	262,730	674,729	-3,088	331,058	5,234	788	1,179	10	3	3,077,442
1997 Total	1,787,806	77,753	283,625	628,644	-4,041	341,273	5,469	739	1,244	6	3	3,122,522
1998 January	156,658	6,390	16,352	57,889	-44	27,527	491	78	93	(s)	(s)	265,435
1998 February	136,465	5,686	12,879	50,999	125	28,652	390	50	94	(s)	(s)	235,340
1998 March	144,487	8,682	18,787	53,711	-15	30,268	487	58	111	(s)	(s)	256,575
1998 April	132,282	6,817	18,479	47,503	-437	27,326	320	58	109	(s)	(s)	232,457
1998 May	145,357	9,534	27,238	51,496	-727	31,708	288	62	120	(s)	(s)	265,077
1998 June	157,403	12,140	35,055	55,732	-675	30,892	354	32	97	(s)	(s)	291,029
1998 July	172,895	13,611	42,186	61,499	-666	27,375	448	61	111	1	(s)	317,521
1998 August	172,348	13,042	42,837	60,369	-703	23,985	483	64	111	(s)	(s)	312,538
1998 September	155,068	10,539	36,120	57,206	-272	19,893	474	63	107	(s)	(s)	279,198
1998 October	144,436	7,339	23,927	57,429	-501	18,038	523	70	118	(s)	(s)	251,380
1998 November	137,915	7,401	17,187	57,372	-528	19,123	466	55	97	(s)	(s)	239,089
1998 December	152,166	8,977	18,175	62,497	4	24,058	451	68	136	(s)	(s)	266,532
1998 Total	1,807,480	110,158	309,222	673,702	-4,441	308,844	5,176	719	1,305	3	3	3,212,171
1999 January	155,032	9,748	17,201	65,399	-548	27,679	414	70	99	2	(s)	275,094
1999 February	133,064	7,700	14,483	57,235	-356	26,899	352	49	105	2	(s)	239,532
1999 March	141,905	8,239	19,786	58,578	-377	30,061	397	39	107	2	(s)	258,738
1999 April	133,566	6,947	24,327	48,315	-462	25,624	429	57	117	2	(s)	238,922
1999 May	138,727	7,247	25,684	55,809	-672	27,224	14	75	124	1	(s)	254,233
1999 June	151,548	7,955	30,659	62,025	-558	28,658	13	52	119	1	(s)	280,472
1999 July	171,684	11,562	40,575	66,519	-595	27,828	13	66	112	2	(s)	317,766
1999 August	167,065	9,727	40,101	67,842	-746	24,153	13	63	105	2	(s)	308,325
1999 September	148,887	6,112	26,865	60,666	-407	19,623	13	56	107	2	(s)	261,924
1999 October	141,966	5,060	23,250	55,099	-454	18,696	14	46	107	2	(s)	243,786
1999 November	135,783	3,492	16,610	60,285	-434	19,876	13	61	106	2	(s)	235,792
1999 December	148,453	3,141	16,841	67,265	-373	23,595	14	50	102	3	(s)	259,089
1999 Total	1,767,679	86,929	296,381	725,036	-5,982	299,914	1,698	684	1,307	23	3	3,173,674
2000 January	153,494	4,748	18,098	66,214	-504	23,265	14	44	105	2	(s)	265,478
2000 February	137,164	3,145	16,122	60,053	-430	20,637	13	59	107	2	(s)	236,873
2000 March	135,030	2,971	20,137	58,704	-559	24,499	13	61	121	2	(s)	240,979
2000 April	122,082	3,110	20,901	54,514	-376	26,145	13	58	122	1	(s)	226,572
2000 May	133,772	5,761	29,090	59,864	-465	25,165	13	55	131	2	(s)	253,389
2000 June	145,297	7,426	29,131	62,973	-531	23,103	13	48	107	2	(s)	267,569
2000 July	150,244	7,001	34,967	64,538	-286	22,129	13	59	112	2	(s)	278,779
2000 August	156,166	8,734	38,265	62,905	-358	20,166	13	61	107	2	(s)	286,061
2000 September	139,476	7,537	27,261	54,521	-608	16,344	11	55	102	1	(s)	244,702
2000 October	136,934	5,785	20,592	49,097	-386	15,787	12	67	110	2	(s)	228,001
2000 10-Month Total	1,409,660	56,219	254,564	593,385	-4,502	217,239	126	568	1,125	17	(s)	2,528,403
1999 10-Month Total	1,483,444	80,297	262,931	597,487	-5,175	256,444	1,671	573	1,100	19	3	2,678,792
1998 10-Month Total	1,517,398	93,780	273,861	553,833	-3,917	265,663	4,259	596	1,072	(s)	2	2,706,550

^a Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, and petroleum coke.
^b Includes supplemental gaseous fuels.
^c Pumped storage facility production minus energy used for pumping.
^d Wood, wood waste, wood liquors, pitch, wood sludge, peat, railroad ties, and utility poles.
^e Municipal solid waste, landfill gas, methane, digester gas, waste alcohol, sludge waste, solid byproducts, and tires.

^f Solar thermal and photovoltaic energy.
^g Included in conventional hydroelectric power.
 NA=Not available. (s)=Less than 500 thousand kilowatthours.
 Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 states and the District of Columbia.
 Sources: See end of section.

Table 7.4 Electricity Net Generation at Nonutility Power Producers
(Million Kilowatthours)

	Fossil Fuels			Other Gas ^d	Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy					Total ⁱ	
	Coal ^a	Petroleum ^b	Natural Gas ^c				Conventional Hydro-electric Power	Geo-thermal	Wood ^f	Waste ^g	Wind		Solar ^h
1989 Total ^j	30,163	5,543	97,343	(^k)	47	0	8,602	5,537	26,756	8,965	2,279	621	187,558
1990 Total ^j	30,699	7,031	114,253	(^k)	113	0	9,580	7,207	29,603	11,906	3,035	644	216,716
1991 Total ^j	38,773	7,494	128,419	(^k)	77	0	9,446	7,953	32,433	14,435	3,019	756	246,306
1992 Total	45,189	10,508	154,429	(^k)	65	0	9,352	8,318	34,764	16,500	2,887	724	286,148
1993 Total	50,859	12,814	169,502	(^k)	76	0	11,396	9,454	35,898	17,420	3,022	870	314,399
1994 Total	56,197	14,464	174,813	12,110	52	0	13,095	9,816	37,039	17,860	3,447	799	343,087
1995 Total	57,261	14,416	191,235	13,506	0	0	14,626	9,614	35,763	19,623	3,153	799	363,308
1996 Total	58,257	14,337	193,106	14,169	0	0	16,390	9,892	35,991	19,493	3,366	876	369,552
1997 Total	56,298	15,272	201,816	11,175	0	0	17,673	9,100	33,492	19,341	3,216	866	371,700
1998 Total	66,466	16,775	231,415	8,514	0	0	14,486	9,550	31,070	19,981	2,985	854	405,702
1999													
January	6,561	1,889	E 20,622	E 759	0	-8	1,441	802	3,132	2,165	175	NA	37,547
February	5,576	1,451	E 18,064	E 665	0	-1	1,831	720	2,562	2,015	197	NA	33,098
March	7,095	1,835	E 20,134	E 741	0	-5	2,063	793	2,776	2,074	278	NA	37,811
April	6,894	1,765	E 20,621	E 759	0	-3	2,038	704	2,713	2,173	389	NA	38,098
May	7,143	1,822	E 20,964	E 771	0	-6	1,822	1,250	2,735	2,181	604	NA	39,522
June	8,744	2,075	E 23,168	E 852	0	-18	1,507	1,452	2,673	2,138	601	NA	43,333
July	11,347	2,135	E 29,579	E 1,088	290	-16	1,519	1,579	3,072	2,157	589	NA	53,481
August	11,037	1,845	E 29,460	E 1,084	445	-21	1,366	1,633	2,978	2,146	497	NA	52,613
September	9,828	1,542	E 26,872	E 989	370	-25	1,424	1,566	3,046	2,039	361	NA	48,126
October	11,559	1,334	E 27,792	E 1,022	503	-26	1,477	1,626	2,875	1,878	292	NA	50,399
November	10,495	1,485	E 24,189	E 890	473	-22	1,349	1,497	2,669	2,041	218	NA	45,322
December	16,911	2,022	E 25,262	E 929	1,137	-28	1,644	1,492	2,752	2,146	263	NA	54,548
Total	113,191	21,199	E 286,727	E 10,549	3,218	-179	19,631	15,114	33,984	25,154	4,465	NA	533,897
2000													
January	19,431	4,774	E 23,355	E 859	1,799	-19	1,314	1,203	3,867	2,249	321	NA	59,158
February	17,838	3,545	E 21,773	E 801	1,635	-16	1,171	1,007	3,515	2,129	295	NA	53,700
March	17,895	2,743	E 21,768	E 801	1,790	-13	1,506	1,000	3,614	2,216	386	NA	53,725
April	16,791	2,495	E 21,158	E 778	1,737	(s)	1,596	1,055	3,626	2,264	598	NA	52,129
May	19,439	2,737	E 26,319	E 968	1,615	-19	1,807	1,099	3,345	2,289	634	NA	60,269
June	22,241	3,536	E 28,570	E 1,051	1,622	-23	1,632	1,139	3,353	2,229	479	NA	65,888
July	27,742	3,407	E 31,187	E 1,147	4,633	-18	1,496	1,216	3,991	2,254	467	NA	77,579
August	28,592	4,731	E 35,847	E 1,319	5,049	-21	1,519	1,244	3,777	2,356	389	NA	84,859
September	25,721	3,547	E 30,992	E 1,140	7,028	-18	1,260	1,196	3,661	2,278	376	NA	77,231
October	24,953	4,417	E 28,779	E 1,059	6,143	-16	1,142	1,249	3,888	2,378	404	NA	74,414
10-Month Total	220,644	35,931	E 269,747	E 9,924	33,051	-163	14,443	11,409	36,639	22,641	4,351	NA	658,951
1999 10-Month Total	85,785	17,692	E 237,276	E 8,729	1,608	-128	16,637	12,126	28,563	20,967	3,984	NA	434,028

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, petroleum coke, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

^c Includes waste heat and waste gas.

^d Butane gas, propane gas, blast furnace gas, coke oven gas, refinery gas, and process gas.

^e Pumped storage facility production minus energy used for pumping.

^f Wood, wood waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

^g Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

^h Solar thermal and photovoltaic energy.

ⁱ Data prior to 1999 include hydrogen, sulfur, batteries, chemicals, and purchased steam, which are not separately displayed on this table. Data for 1999 forward exclude these components.

^j Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.

^k Included in natural gas.

NA=Not available. E=Estimate. (s)=Less than +0.5 million kilowatthours and greater than -0.5 million kilowatthours.

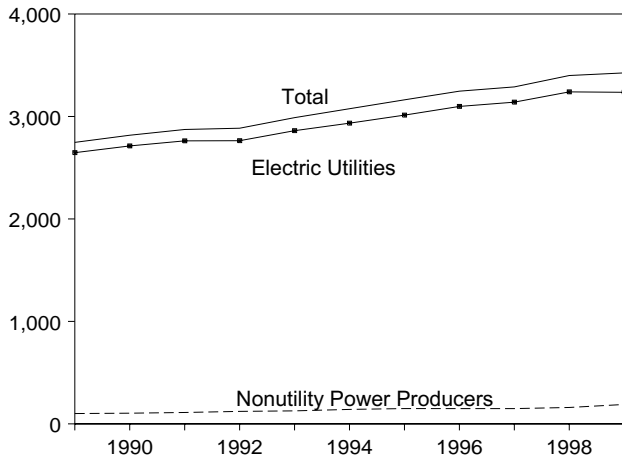
Notes: Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility plants. Totals may not equal sum of components due to independent rounding.

Geographic coverage is the 50 states and the District of Columbia.

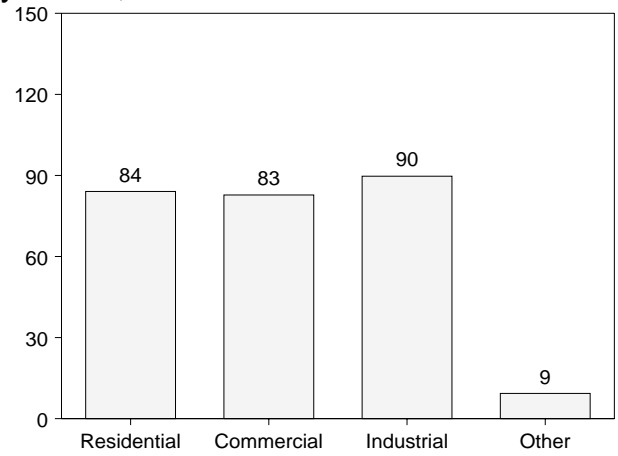
Sources: **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." **1998:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility" **1999 forward:** EIA, Form EIA-900, "Monthly Nonutility Power Report."

Figure 7.3 Electricity End Use
(Billion Kilowatthours)

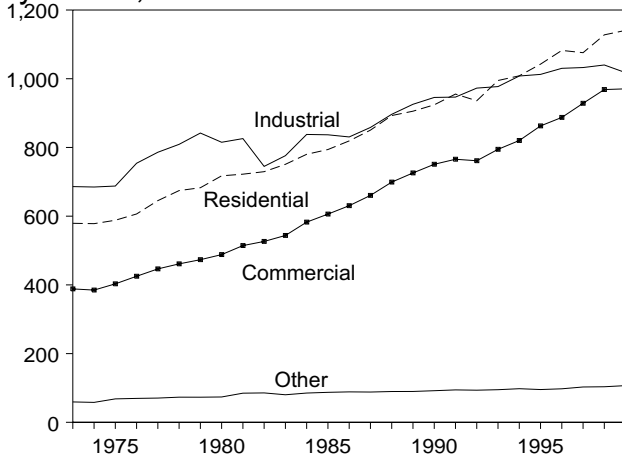
Electricity End Use Overview, 1989-1999



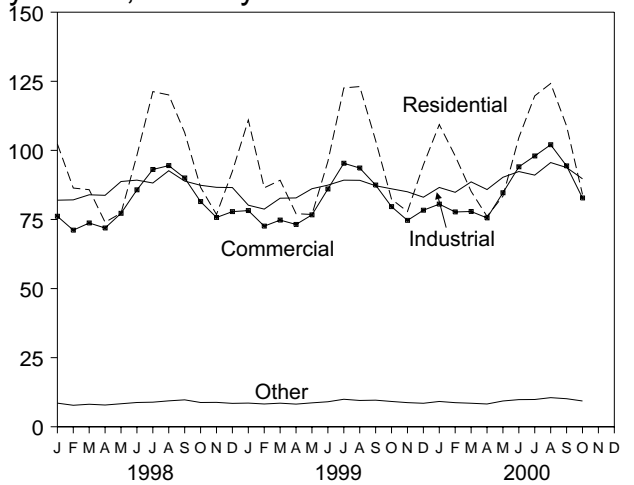
Electric Utility Retail Sales by Sector, October 2000



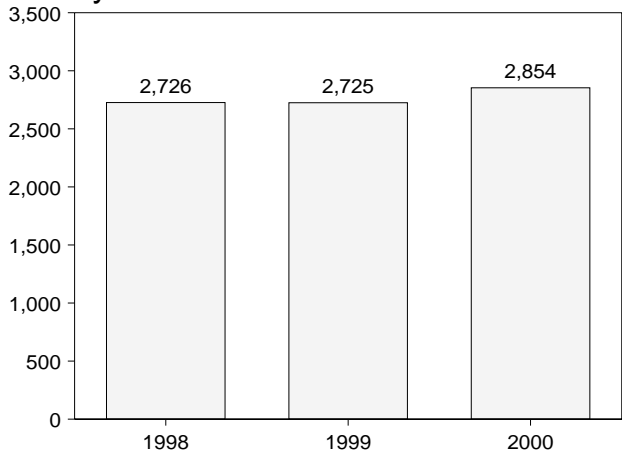
Electric Utility Retail Sales by Sector, 1973-1999



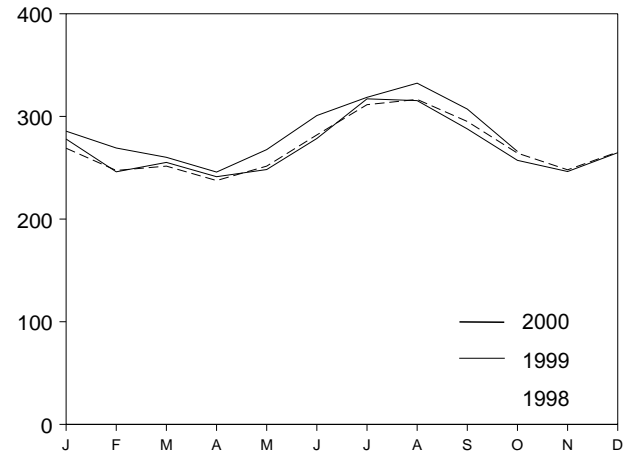
Electric Utility Retail Sales by Sector, Monthly



Electric Utility Retail Sales Total, January-October



Electric Utility Retail Sales Total, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 7.5.

Table 7.5 Electricity End Use
(Million Kilowatthours)

	Electric Utility Retail Sales					Nonutility Power Producers		Total
	Residential	Commercial	Industrial	Other ^a	Total	Direct Use ^b	Sales to End Users	
1973 Total	579,231	388,266	686,085	59,326	1,712,909	NA	NA	NA
1974 Total	578,184	384,826	684,875	58,039	1,705,924	NA	NA	NA
1975 Total	588,140	403,049	687,680	68,222	1,747,091	NA	NA	NA
1976 Total	606,452	425,094	754,069	69,631	1,855,246	NA	NA	NA
1977 Total	645,239	446,514	786,037	70,571	1,948,361	NA	NA	NA
1978 Total	674,466	461,163	809,078	73,215	2,017,922	NA	NA	NA
1979 Total	682,819	473,307	841,903	73,070	2,071,099	NA	NA	NA
1980 Total	717,495	488,155	815,067	73,732	2,094,449	NA	NA	NA
1981 Total	722,265	514,338	825,743	84,756	2,147,103	NA	NA	NA
1982 Total	729,520	526,397	744,949	85,575	2,086,441	NA	NA	NA
1983 Total	750,948	543,788	775,999	80,219	2,150,955	NA	NA	NA
1984 Total	780,092	582,621	837,836	85,248	2,285,796	NA	NA	NA
1985 Total	793,934	605,989	836,772	87,279	2,323,974	NA	NA	NA
1986 Total	819,088	630,520	830,531	88,615	2,368,753	NA	NA	NA
1987 Total	850,410	660,433	858,233	88,196	2,457,272	NA	NA	NA
1988 Total	892,866	699,100	896,498	89,598	2,578,062	NA	NA	NA
1989 Total	905,525	725,861	925,659	89,765	2,646,809	^C 82,742	^C 17,687	2,747,239
1990 Total	924,019	751,027	945,522	91,988	2,712,555	^C 84,367	^C 19,824	2,816,746
1991 Total	955,417	765,664	946,583	94,339	2,762,003	^C 99,623	^C 11,419	2,873,045
1992 Total	935,939	761,271	972,714	93,442	2,763,365	110,988	10,786	2,885,140
1993 Total	994,781	794,573	977,164	94,944	2,861,462	111,322	15,569	2,988,353
1994 Total	1,008,482	820,269	1,007,981	97,830	2,934,563	123,283	17,626	3,075,472
1995 Total	1,042,501	862,685	1,012,693	95,407	3,013,287	133,609	15,548	3,162,443
1996 Total	1,082,491	887,425	1,030,356	97,539	3,097,810	134,644	14,284	3,246,738
1997 Total	1,075,767	928,440	1,032,653	102,901	3,139,761	130,836	18,147	3,288,744
1998 January	102,339	76,163	81,978	8,546	269,026	NA	NA	NA
February	86,374	71,142	82,101	7,771	247,387	NA	NA	NA
March	85,784	73,732	83,934	8,152	251,602	NA	NA	NA
April	74,000	71,918	83,751	7,870	237,539	NA	NA	NA
May	77,317	77,229	88,744	8,317	251,607	NA	NA	NA
June	98,249	85,717	89,234	8,787	281,986	NA	NA	NA
July	121,271	93,083	88,199	8,896	311,449	NA	NA	NA
August	120,066	94,493	92,650	9,373	316,581	NA	NA	NA
September	106,446	90,010	88,893	9,742	295,091	NA	NA	NA
October	86,621	81,465	87,372	8,771	264,230	NA	NA	NA
November	76,823	75,729	86,625	8,831	248,008	NA	NA	NA
December	92,446	77,848	86,558	8,461	265,313	NA	NA	NA
Total	1,127,735	968,528	1,040,038	103,518	3,239,818	134,041	25,777	3,399,637
1999 January	110,982	78,223	80,173	8,576	277,955	NA	NA	NA
February	86,455	72,596	78,763	8,248	246,062	NA	NA	NA
March	89,191	74,781	82,694	8,536	255,202	NA	NA	NA
April	77,093	73,211	82,804	8,188	241,297	NA	NA	NA
May	76,822	76,668	86,134	8,659	248,283	NA	NA	NA
June	95,989	86,023	87,431	9,053	278,496	NA	NA	NA
July	122,610	95,342	89,229	9,953	317,134	NA	NA	NA
August	123,092	93,617	89,170	9,526	315,405	NA	NA	NA
September	103,556	87,462	87,215	9,625	287,858	NA	NA	NA
October	82,316	79,649	86,097	9,147	257,210	NA	NA	NA
November	77,889	74,676	85,021	8,741	246,328	NA	NA	NA
December	94,765	78,351	83,051	8,503	264,670	NA	NA	NA
Total	1,140,761	970,601	1,017,783	106,754	3,235,899	147,581	41,683	3,425,163
2000 January	109,341	80,554	86,583	9,159	285,637	NA	NA	NA
February	97,986	77,731	84,832	8,717	269,266	NA	NA	NA
March	85,193	77,883	88,609	8,508	260,193	NA	NA	NA
April	76,127	75,563	85,849	8,247	245,786	NA	NA	NA
May	83,445	84,661	90,270	9,336	267,712	NA	NA	NA
June	104,617	94,045	92,359	9,820	300,841	NA	NA	NA
July	119,730	97,972	91,049	9,871	318,621	NA	NA	NA
August	124,215	102,043	95,603	10,535	332,397	NA	NA	NA
September	108,837	94,390	93,800	10,150	307,177	NA	NA	NA
October	^F 84,075	^F 82,773	^F 89,720	^F 9,331	^F 265,899	NA	NA	NA
10-Month Total	^F 993,566	^F 867,615	^F 898,675	^F 93,672	^F 2,853,529	NA	NA	NA
1999 10-Month Total	968,107	817,574	849,711	89,511	2,724,902	NA	NA	NA
1998 10-Month Total	958,466	814,952	866,855	86,225	2,726,498	NA	NA	NA

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

^b Facility use of onsite net electricity generation.

^c Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line

before 1992.

F=Forecast.

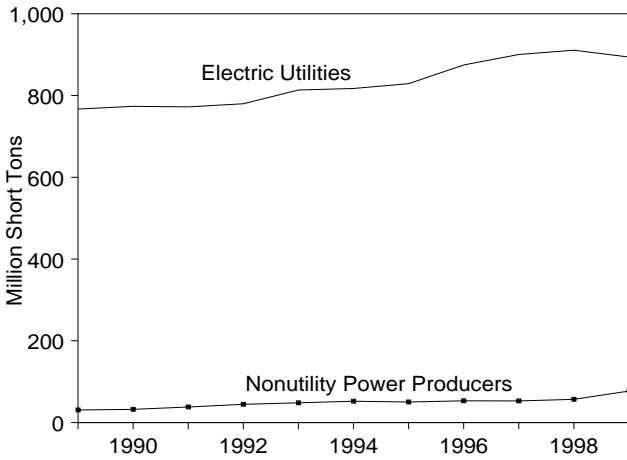
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See Note 4 at the end of the coal section for additional information.

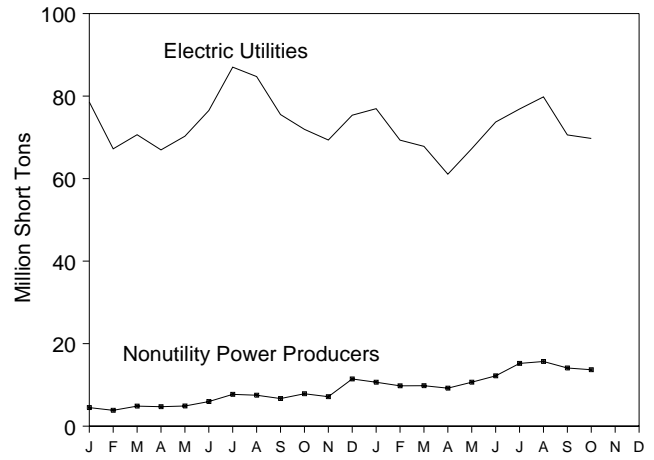
Data do not include sales to ultimate consumers by power marketers in several State "retail wheeling" pilot programs. In million kilowatthours, these were 3,300 in 1996; 5,800 in 1997; 24,400 in 1998; and 76,188 in 1999. Of these sales in 1999, in million kilowatthours, 4,162 were to the residential sector; 31,395 to the commercial sector; 40,434 to the industrial sector; and 198 to other. See EIA, *Electric Sales and Revenue 1999*, Appendix C, for more information.

Figure 7.4 Consumption of Fossil Fuels To Generate Electricity

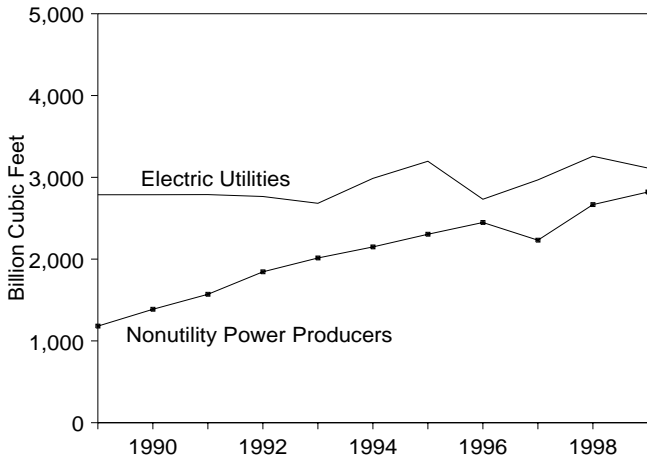
Coal Consumption, 1989-1999



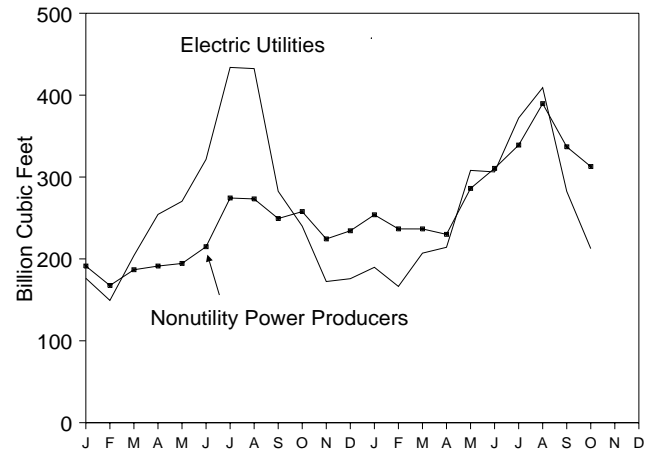
Coal Consumption, 1999 and 2000



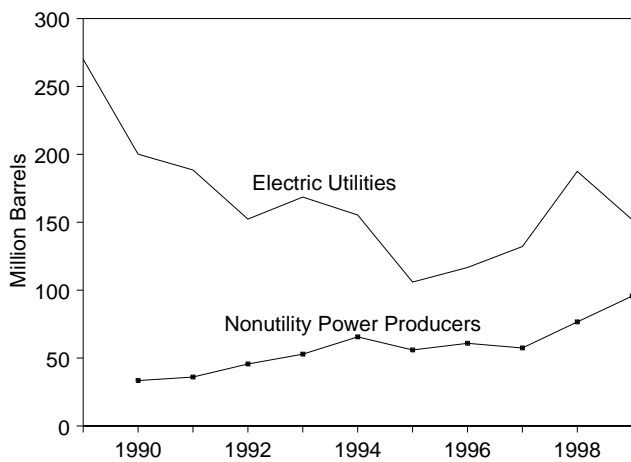
Natural Gas Consumption, 1989-1999



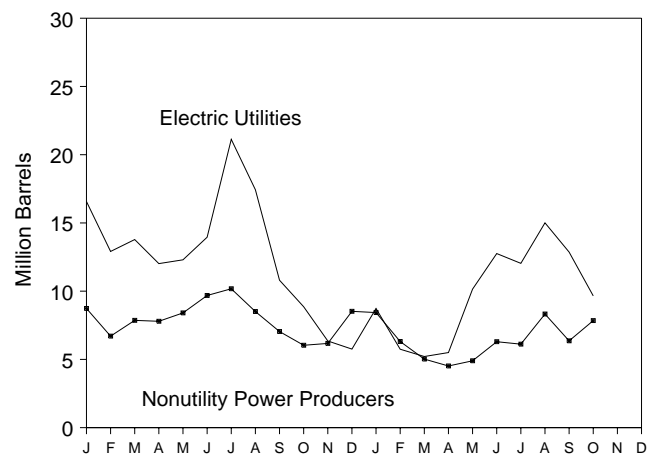
Natural Gas Consumption, 1999 and 2000



Petroleum Consumption, 1989-1999



Petroleum Consumption, 1999 and 2000



Note: • Petroleum includes petroleum coke, which is converted to liquid units at 5 barrels per short ton. • Because vertical scales differ, graphs should not be compared.
Sources: Tables 7.7 and 7.8.

Table 7.6 Consumption of Fossil Fuels To Generate Electricity

	Petroleum				Natural Gas ^d
	Coal ^a	Liquids ^b	Petroleum Coke	Total ^c	
1989 Total	797,650	295,828	NA	NA	3,968,027
1990 Total	805,860	223,932	1,927	233,570	4,174,073
1991 Total	810,387	212,768	2,351	224,521	4,358,864
1992 Total	824,467	179,211	3,749	197,955	4,610,465
1993 Total	861,851	199,414	4,402	221,426	4,696,228
1994 Total	869,531	192,893	5,615	220,966	5,136,392
1995 Total	879,336	137,181	4,949	161,927	5,500,451
1996 Total	927,880	151,718	5,165	177,544	5,179,827
1997 Total	953,274	160,740	5,764	189,561	5,199,816
1998 Total	967,716	232,889	6,239	264,086	5,924,484
1999					
January	83,074	23,009	459	25,306	^E 367,679
February	71,059	17,814	361	19,617	^E 316,901
March	75,499	18,514	626	21,645	^E 390,888
April	71,684	17,162	530	19,814	^E 445,622
May	75,174	18,414	458	20,706	^E 464,856
June	82,474	21,260	476	23,639	^E 536,553
July	94,730	29,010	459	31,304	^E 708,288
August	92,235	23,371	514	25,942	^E 705,674
September	82,216	15,816	406	17,847	^E 531,924
October	79,798	12,981	383	14,896	^E 497,810
November	76,493	9,748	555	12,523	^E 396,794
December	86,813	10,724	712	14,282	^E 410,212
Total	971,248	217,823	5,940	247,521	^E 5,933,937
2000					
January	87,611	14,975	438	17,164	^E 443,663
February	79,108	10,170	378	12,059	^E 403,086
March	77,630	8,286	390	10,237	^E 443,680
April	70,281	8,395	325	10,021	^E 444,200
May	77,918	13,584	293	15,051	^E 594,242
June	85,915	17,341	343	19,055	^E 616,808
July	92,081	16,471	337	18,158	^E 711,157
August	95,490	21,525	362	23,333	^E 798,794
September	84,694	17,385	368	19,226	^E 619,423
October	83,421	15,737	353	17,500	^E 525,433
10-Month Total	834,149	143,869	3,587	161,804	^E 5,600,486
1999 10-Month Total	807,943	197,351	4,672	220,716	^E 4,966,195

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

^c Petroleum coke is converted at 5 barrels per short ton.

^d Includes supplemental gaseous fuels.

NA=Not available. E=Estimate.

Notes: Electric utility data are for fuels consumed to produce electricity only. Nonutility data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; nonutility data for 1999 forward are for fuels consumed to produce electricity only. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: Tables 7.7 and 7.8.

This table represents the entire U.S. electric power sector. See Table 7.7 for electric utilities only. See Table 7.8 for nonutility power producers only.

Table 7.8 Consumption of Fossil Fuels To Generate Electricity at Nonutility Power Producers

	Petroleum				Natural Gas ^d
	Coal ^a	Liquids ^b	Petroleum Coke	Total ^c	
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	
1989 Total^e	30,762	28,377	NA	NA	1,181,015
1990 Total^e	32,311	27,878	1,108	33,418	1,386,741
1991 Total^e	38,119	27,882	1,629	36,027	1,569,850
1992 Total	44,607	31,876	2,750	45,626	1,844,857
1993 Total	48,343	36,960	3,182	52,870	2,013,788
1994 Total	52,261	41,889	4,740	65,589	2,149,246
1995 Total	50,329	35,031	4,188	55,971	2,303,944
1996 Total	53,199	38,444	4,484	60,864	2,447,720
1997 Total	52,913	35,594	4,364	57,414	2,231,363
1998 Total	56,849	54,275	4,470	76,625	2,666,430
1999 January	4,500	7,089	329	8,734	^E 191,295
February	3,839	5,442	253	6,707	^E 167,571
March	4,858	5,417	489	7,862	^E 186,775
April	4,723	5,759	407	7,794	^E 191,288
May	4,891	6,809	320	8,409	^E 194,466
June	5,965	7,999	337	9,684	^E 214,913
July	7,712	8,727	290	10,177	^E 274,384
August	7,504	6,869	328	8,509	^E 273,280
September	6,693	5,589	291	7,044	^E 249,278
October	7,855	4,702	267	6,037	^E 257,805
November	7,141	3,936	447	6,171	^E 224,383
December	11,447	5,655	574	8,525	^E 234,344
Total	77,128	73,993	4,332	95,653	^E 2,820,518
2000 January	10,654	7,053	276	8,433	^E 253,879
February	9,781	5,082	246	6,312	^E 236,677
March	9,812	3,509	303	5,024	^E 236,620
April	9,207	3,339	236	4,519	^E 229,992
May	10,658	3,839	212	4,899	^E 286,091
June	12,195	5,078	244	6,298	^E 310,558
July	15,211	4,724	279	6,119	^E 339,002
August	15,677	7,086	248	8,326	^E 389,655
September	14,103	4,956	281	6,361	^E 336,884
October	13,682	6,423	284	7,843	^E 312,832
10-Month Total	120,980	51,089	2,609	64,134	^E 2,932,190
1999 10-Month Total	58,540	64,402	3,311	80,957	^E 2,201,055

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

^c Petroleum coke is converted at 5 barrels per short ton.

^d Natural gas only.

^e Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more.

NA=Not available. E=Estimate.

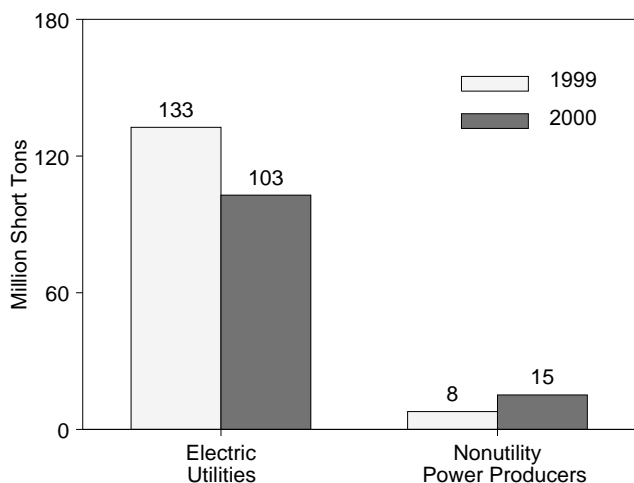
Notes: Data prior to 1999 are for fuels consumed to produce both electricity

and useful thermal output; data for 1999 forward are for fuels consumed to produce electricity only. Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility plants. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

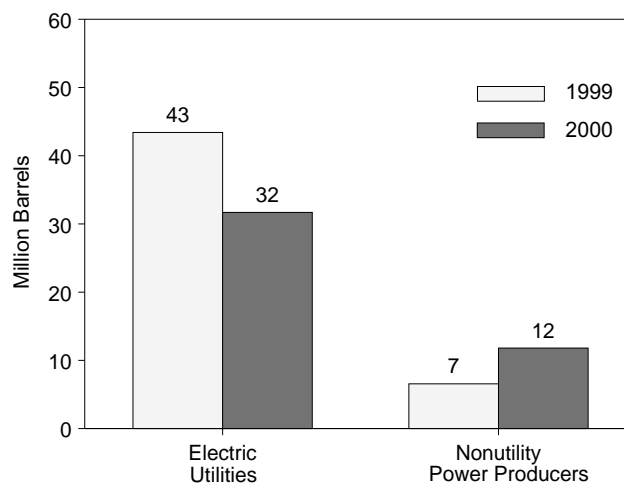
Source: **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." **1998:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility." **1999 forward:** EIA, Form EIA-900, "Monthly Nonutility Power Report."

Figure 7.5 Electric Power Sector Stocks of Coal and Petroleum

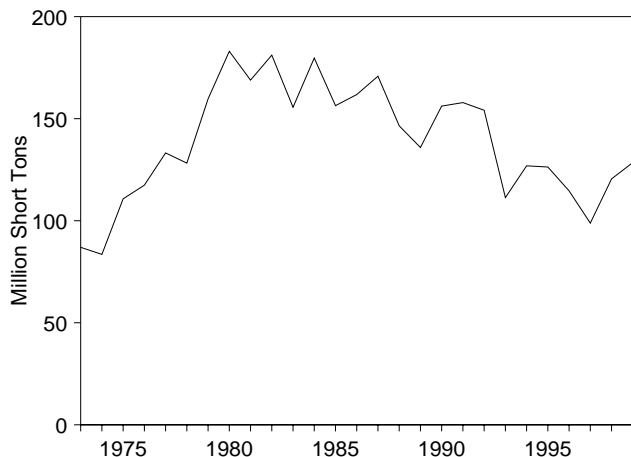
Coal Stocks, October



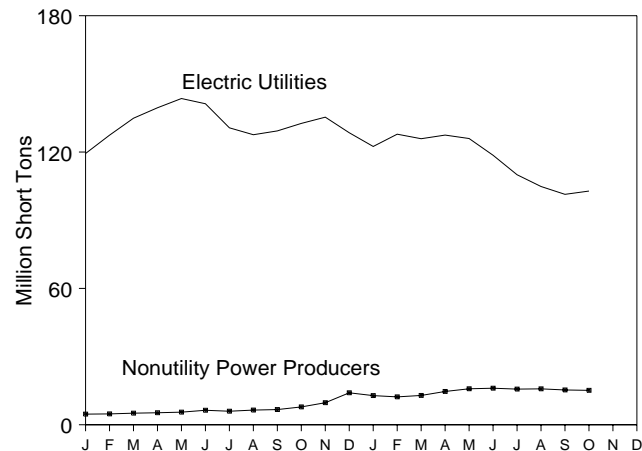
Petroleum Liquids Stocks, October



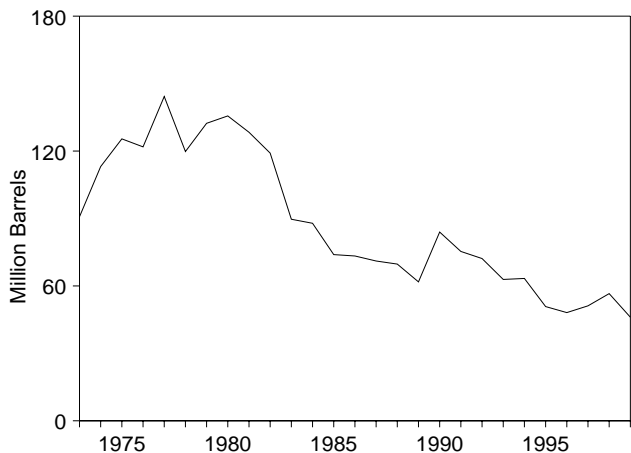
Coal Stocks at Electric Utilities, 1973-1999



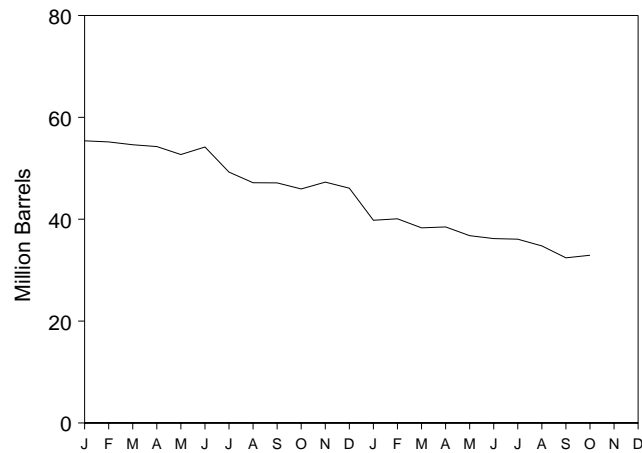
Coal Stocks, 1999 and 2000



Petroleum Stocks at Electric Utilities, 1973-1999



Petroleum Stocks at Electric Utilities, 1999 and 2000



Notes: • Petroleum includes petroleum coke, which is converted to liquid units at 5 barrels per short ton. • Because vertical scales differ, graphs should not be compared.

Table 7.9 Electric Power Sector Stocks of Coal and Petroleum

	Coal			Petroleum							Total Electric Power Sector
	Electric Utilities	Nonutility Power Producers	Total Electric Power Sector	Electric Utilities				Nonutility Power Producers			
				Heavy Oil ^a	Light Oil ^b	Petroleum Coke	Total ^c	Liquids	Petroleum Coke	Total ^c	
1973 Total	86,967	NA	NA	^d 79,121	^e 10,095	312	90,776	NA	NA	NA	NA
1974 Total	83,509	NA	NA	^d 97,718	^e 15,199	35	113,091	NA	NA	NA	NA
1975 Total	110,724	NA	NA	^d 108,825	^e 16,432	31	125,413	NA	NA	NA	NA
1976 Total	117,436	NA	NA	^d 106,993	^e 14,703	32	121,857	NA	NA	NA	NA
1977 Total	133,219	NA	NA	^d 124,750	^e 19,281	44	144,252	NA	NA	NA	NA
1978 Total	128,225	NA	NA	^d 102,402	^e 16,386	198	119,778	NA	NA	NA	NA
1979 Total	159,714	NA	NA	^d 111,121	^e 20,301	183	132,338	NA	NA	NA	NA
1980 Total	183,010	NA	NA	105,351	30,023	52	135,635	NA	NA	NA	NA
1981 Total	168,893	NA	NA	102,042	26,094	42	128,345	NA	NA	NA	NA
1982 Total	181,132	NA	NA	95,515	23,369	41	119,090	NA	NA	NA	NA
1983 Total	155,598	NA	NA	70,573	18,801	55	89,652	NA	NA	NA	NA
1984 Total	179,727	NA	NA	68,503	19,116	50	87,870	NA	NA	NA	NA
1985 Total	156,376	NA	NA	57,304	16,386	49	73,933	NA	NA	NA	NA
1986 Total	161,806	NA	NA	56,841	16,269	40	73,313	NA	NA	NA	NA
1987 Total	170,797	NA	NA	55,069	15,759	51	71,084	NA	NA	NA	NA
1988 Total	146,507	NA	NA	54,187	15,099	86	69,714	NA	NA	NA	NA
1989 Total	135,860	NA	NA	47,446	13,824	105	61,795	NA	NA	NA	NA
1990 Total	156,166	NA	NA	67,030	16,471	94	83,970	NA	NA	NA	NA
1991 Total	157,876	NA	NA	58,636	16,357	70	75,343	NA	NA	NA	NA
1992 Total	154,130	NA	NA	56,135	15,714	67	72,183	NA	NA	NA	NA
1993 Total	111,341	NA	NA	46,769	15,674	89	62,889	NA	NA	NA	NA
1994 Total	126,897	NA	NA	46,342	16,644	69	63,331	NA	NA	NA	NA
1995 Total	126,304	NA	NA	35,102	15,392	65	50,821	NA	NA	NA	NA
1996 Total	114,623	NA	NA	32,473	15,216	91	48,146	NA	NA	NA	NA
1997 Total	98,826	NA	NA	33,336	15,456	469	51,138	NA	NA	NA	NA
1998 January	100,406	NA	NA	33,871	15,627	403	51,512	NA	NA	NA	NA
February	103,793	NA	NA	33,872	15,953	358	51,615	NA	NA	NA	NA
March	108,101	NA	NA	31,180	15,481	418	48,753	NA	NA	NA	NA
April	116,231	NA	NA	35,021	16,029	498	53,542	NA	NA	NA	NA
May	119,936	NA	NA	32,911	14,802	501	50,218	NA	NA	NA	NA
June	117,758	NA	NA	30,036	14,559	683	48,011	NA	NA	NA	NA
July	109,540	NA	NA	31,638	15,220	577	49,743	NA	NA	NA	NA
August	103,720	NA	NA	32,605	15,118	623	50,839	NA	NA	NA	NA
September	104,552	NA	NA	31,258	14,793	562	48,863	NA	NA	NA	NA
October	110,021	NA	NA	35,409	15,881	588	54,231	NA	NA	NA	NA
November	117,225	NA	NA	37,059	16,162	602	56,233	NA	NA	NA	NA
December	120,501	NA	NA	37,447	16,343	559	56,586	NA	NA	NA	NA
1999 January	119,382	4,678	124,060	35,449	17,204	548	55,392	3,258	NA	NA	NA
February	127,428	4,777	132,205	35,276	17,060	568	55,175	2,957	NA	NA	NA
March	134,897	5,098	139,995	35,080	16,841	540	54,619	3,042	NA	NA	NA
April	139,495	5,282	144,777	33,849	17,458	592	54,270	3,319	NA	NA	NA
May	143,561	5,546	149,108	32,695	17,046	592	52,700	4,579	NA	NA	NA
June	141,267	6,374	147,641	33,465	17,264	690	54,181	4,504	NA	NA	NA
July	130,673	5,948	136,621	30,268	15,811	633	49,246	5,353	NA	NA	NA
August	127,633	6,462	134,095	28,011	16,300	570	47,163	5,129	NA	NA	NA
September	129,302	6,677	135,979	27,867	16,501	553	47,136	5,453	NA	NA	NA
October	132,608	7,848	140,456	26,675	16,736	507	45,945	6,561	NA	NA	NA
November	135,355	9,694	145,049	28,704	16,412	435	47,288	6,185	NA	NA	NA
December	128,493	14,050	142,543	27,763	16,549	355	46,089	8,666	NA	NA	NA
2000 January	122,472	12,830	135,302	23,468	14,841	297	39,791	6,325	NA	NA	NA
February	127,858	12,256	140,115	23,982	15,129	195	40,084	6,181	NA	NA	NA
March	125,869	12,899	138,768	22,741	14,710	171	38,305	6,023	NA	NA	NA
April	127,468	14,644	142,112	22,981	14,755	150	38,486	6,536	NA	NA	NA
May	125,957	15,831	141,788	21,848	14,359	113	36,774	7,214	NA	NA	NA
June	118,594	16,080	134,673	20,927	14,835	87	36,198	8,704	NA	NA	NA
July	110,031	15,689	125,720	21,074	14,466	108	36,078	11,881	NA	NA	NA
August	104,838	15,803	120,641	19,637	14,338	157	34,761	10,916	NA	NA	NA
September	101,395	15,301	116,696	17,969	13,457	199	32,420	11,088	NA	NA	NA
October	102,836	15,141	117,977	18,096	13,596	247	32,929	11,803	NA	NA	NA

^a Fuel oil nos. 4, 5, and 6, and residual fuel oils.
^b Fuel oil nos. 1 and 2, kerosene, and jet fuel.
^c Petroleum coke is converted at 5 barrels per short ton.
^d For 1973-1979, stocks held at steam plants are used as estimates for heavy oil stocks.
^e For 1973-1979, stocks held at gas turbine and internal combustion plants are used as estimates for light oil stocks.
 NA=Not available.
 Notes: Stocks are at end of period. Data are for fuels available to produce electricity; they may include some fuels available to produce useful thermal output at cogeneration plants. Nonutility facilities that are not required to report on Form EIA-900 are not included. Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility plants. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
 Sources: See end of section.

Sources for Table 7.1, Imports and Exports of Electricity

1973-September 1977: Unpublished Federal Power Commission data.

October 1977-1980: Unpublished Economic Regulatory Administration (ERA) data.

1981: 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."

1990-1998: Mexico's data: DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Annual Report of International Electrical Export/Import Data." Canada's data (metered energy, firm and interruptible): the National Energy Board of Canada.

1999 forward: EIA estimates based on preliminary data from DOE, Fossil Energy, and actual data from the National Energy Board of Canada.

Sources for Table 7.3

1973-September 1977—Federal Power Commission Form FPC-4, "Monthly Power Plant Report."

October 1977-1979—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."

1980—Energy Information Administration (EIA), *Electric Power Monthly*, March 1991, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report."

1981—EIA, *Electric Power Monthly*, March 1992, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report."

1982—EIA, *Electric Power Monthly*, March 1993, Table 4, and (for geothermal energy and other) EIA, Form EIA-759, "Monthly Power Plant Report."

1983-1989—EIA, *Electric Power Monthly*, March 1994, Table 4, and (for small components) EIA, Form

EIA-759, "Monthly Power Plant Report." 1990 forward—EIA, *Electric Power Monthly*, January 2001, Tables 4 and 5, and (for small components) EIA, Form EIA-759, "Monthly Power Plant Report."

Sources for Table 7.5

Electric Utilities

1973-September 1977—Federal Power Commission (FPC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

March 1980-1982—FERC, Form FPC-5, "Electric Utility Company Monthly Statement."

1983—Energy Information Administration (EIA), Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions" (formerly "Electric Utility Company Monthly Statement").

1984-1989—EIA, Form EIA-861, "Annual Electric Utility Report."

1990-September 2000—EIA, *Electric Power Monthly*, January 2001, Table 44.

Nonutility Power Producers

1989-1997—EIA, Form EIA-867, "Annual Nonutility Power Producer Report."

1998 forward—EIA, Form EIA-860B, "Annual Electric Generator Report--Nonutility."

Sources for Table 7.9

Electric Utilities

1973-September 1977—FPC, Form FPC-4, "Monthly Power Plant Report."

October 1977-1979—FERC, Form FPC-4 "Monthly Power Plant Report."

1980-1989—EIA, *Electric Power Monthly*, March issues.

1990 forward—EIA, *Electric Power Monthly*, January 2001, Table 21.

Nonutility Power Producers

EIA, Form EIA-900, "Monthly Nonutility Power Report."

Section 8. Nuclear Energy

In October 2000, U.S. nuclear generating units produced a total of 55 net terawatthours (billion kilowatthours) of electricity, 1 percent lower than in October 1999. Nuclear units generated at an average capacity factor of 76.2 percent, 0.5-percentage point lower than the capacity factor in October 1999.

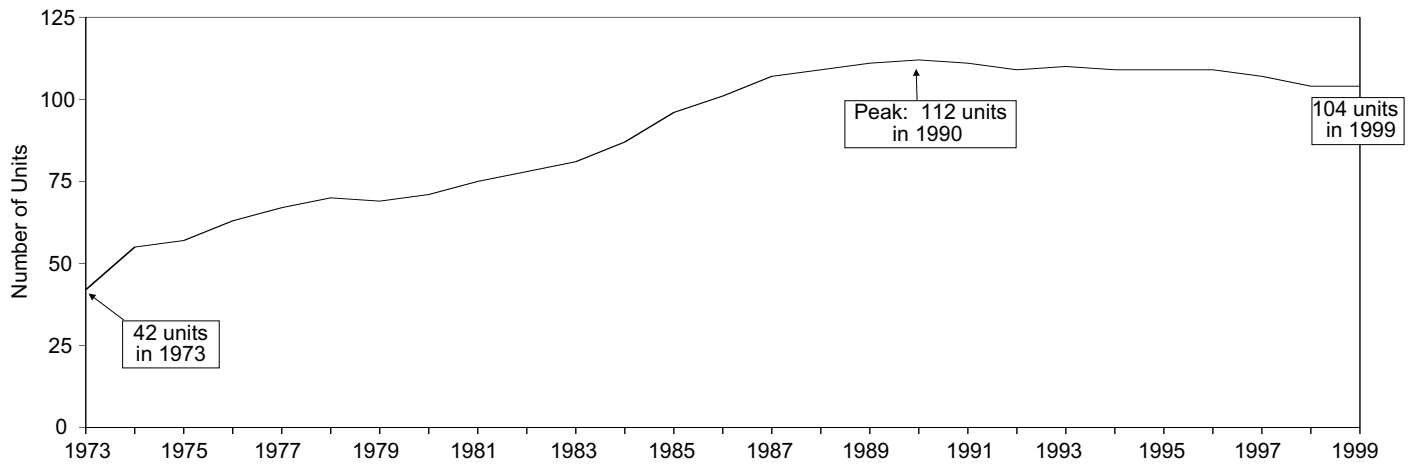
On October 31, 2000, there were 104 operable nuclear generating units in the United States, with a collective net summer capability of 97.5 million kilowatts of electricity. Of the 104 operable units, 3 units generated

no electricity during the month because of maintenance, refueling, or repair outage, and 69 units reported operating at 90 percent of capacity or more. Of these 69 units, 25 operated at 100 percent or greater (based on net summer capability).

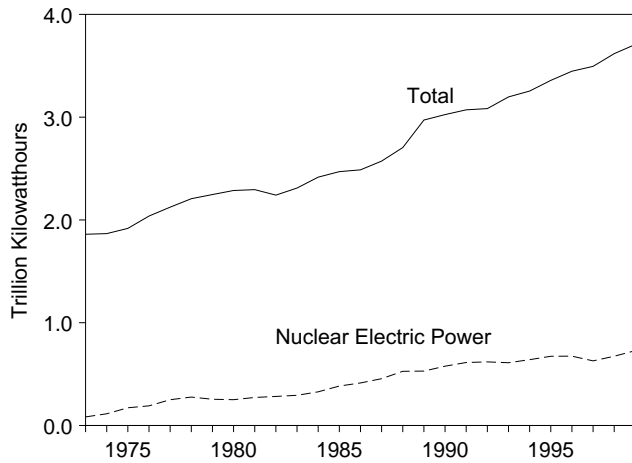
In addition, there were three other units with construction permits, but construction for all three units has been halted. Their combined design capacity is 3.6 million kilowatts.

Figure 8.1 Nuclear Power Plant Operations

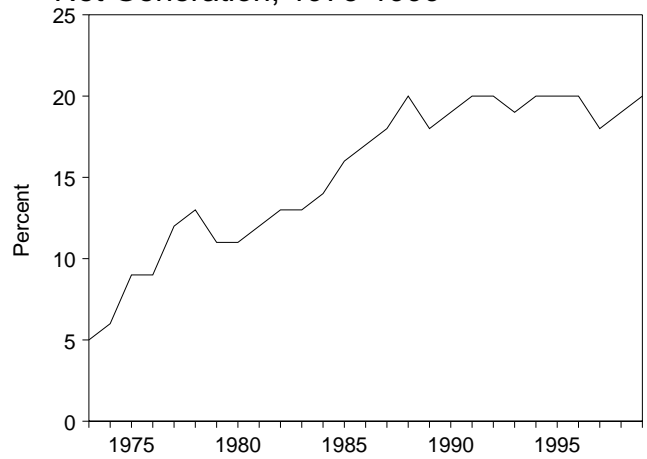
Operable Units, End of Year, 1973-1999



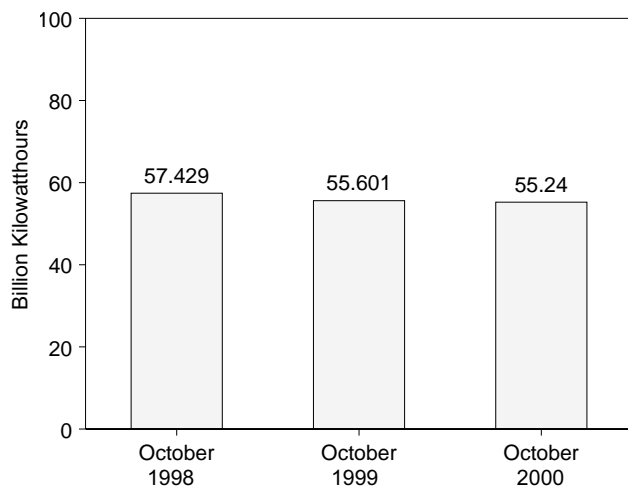
Electricity Net Generation, 1973-1999



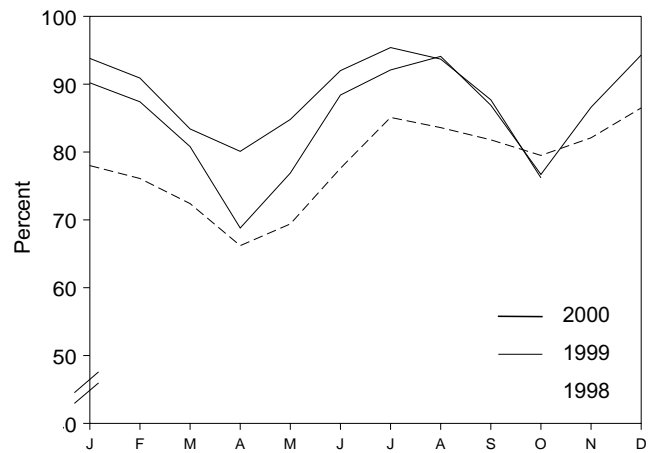
Nuclear Share of Electricity Net Generation, 1973-1999



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Notes: • Includes all units that contributed power to the commercial grid whether they were owned by an electric utility or a nonutility power plant. See

Note 1 at end of section for additional information. • Because vertical scales differ, graphs should not be compared.

Table 8.1 Nuclear Power Plant Operations

	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Net Summer Capability of Operable Units ^{a,b}	Capacity Factor ^c
	Million Kilowatthours	Percent	Million Kilowatts	Percent
1973 Year	83,479	4.5	22.683	53.5
1974 Year	113,976	6.1	31.867	47.8
1975 Year	172,505	9.0	37.267	55.9
1976 Year	191,104	9.4	43.822	54.7
1977 Year	250,883	11.8	46.303	63.3
1978 Year	276,403	12.5	50.824	64.5
1979 Year	255,155	11.4	49.747	58.4
1980 Year	251,116	11.0	51.810	56.3
1981 Year	272,674	11.9	56.042	58.2
1982 Year	282,773	12.6	60.035	56.6
1983 Year	293,677	12.7	63.009	54.4
1984 Year	327,634	13.6	69.652	56.3
1985 Year	383,691	15.5	79.397	58.0
1986 Year	414,038	16.6	85.241	56.9
1987 Year	455,270	17.7	93.583	57.4
1988 Year	526,973	19.5	94.695	63.5
1989 Year	^d 529,402	^d 17.8	^d 98.179	^d 62.2
1990 Year	576,974	19.1	99.642	66.0
1991 Year	612,642	19.9	99.608	70.2
1992 Year	618,841	20.1	99.004	70.9
1993 Year	610,367	19.1	99.060	70.5
1994 Year	640,492	19.7	99.148	73.8
1995 Year	673,402	20.1	99.515	77.4
1996 Year	674,729	19.6	100.784	76.2
1997 Year	628,644	18.0	99.716	71.1
1998 January	57,889	NA	99.716	78.0
February	50,999	NA	99.716	76.1
March	53,711	NA	99.716	72.4
April	47,503	NA	99.716	66.2
May	51,496	NA	99.716	69.4
June	55,732	NA	99.716	77.6
July	61,499	NA	97.070	85.1
August	60,369	NA	97.070	83.6
September	57,206	NA	97.070	81.8
October	57,429	NA	97.070	79.5
November	57,372	NA	97.070	82.1
December	62,497	NA	97.070	86.5
Year	673,702	18.6	97.070	78.2
1999 January	65,399	20.9	97.502	90.2
February	57,235	21.0	97.502	87.4
March	58,578	19.8	97.502	80.8
April	48,315	17.4	97.502	68.8
May	55,809	19.0	97.502	76.9
June	62,025	19.2	97.502	88.4
July	66,809	18.0	97.502	^R 92.1
August	68,287	18.9	97.502	^R 94.1
September	61,036	19.7	97.502	^R 86.9
October	55,601	18.9	97.502	^R 76.7
November	60,757	21.6	97.502	^R 86.6
December	68,402	21.8	97.502	^R 94.3
Year	728,254	19.6	97.502	^R 85.3
2000 January	68,013	21.0	97.502	^R 93.8
February	61,688	21.2	97.502	^R 90.9
March	60,494	20.5	97.502	^R 83.4
April	56,252	20.2	97.502	80.1
May	61,479	19.6	97.502	84.8
June	64,595	19.4	97.502	92.0
July	69,171	19.4	97.502	95.4
August	67,954	18.3	97.502	^R 93.7
September	61,550	19.1	97.502	^R 87.7
October	55,240	18.3	97.502	76.2
10-Month Total	626,436	19.7	97.502	87.8
1999 10-Month Total	599,094	19.2	97.502	84.2
1998 10-Month Total	553,833	NA	97.070	77.0

^a At end of period.
^b For the definition of "Net Summer Capability," see Note 2(a) at end of section.
^c For an explanation of the method of calculating the capacity factor, see Note 2 at end of section.
^d Beginning in 1989, includes nonutility facilities.
R=Revised. NA=Not available.

Notes: The performance data shown in this table are based on a universe of reactor units that differs in some respects from the reactor universe used to profile the nuclear power industry in Table 8.2. See Note 1 at end of section for further discussion. 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.

Table 8.2 Nuclear Generating Units

	Orders ^a	Construction Permits ^b	Low Power Operating Licenses ^c	New Operable Units ^d	Shutdowns ^e	Total Operable Units ^f	Cancellations ^g	Cumulative Cancellations
1973 Year	42	14	12	15	0	42	0	7
1974 Year	28	23	14	15	2	55	9	16
1975 Year	4	9	3	2	0	57	13	29
1976 Year	3	9	7	7	1	63	1	30
1977 Year	4	15	4	4	0	67	10	40
1978 Year	2	13	3	4	1	70	13	53
1979 Year	0	2	0	0	1	69	6	59
1980 Year	0	0	5	2	0	71	15	74
1981 Year	0	0	3	4	0	75	9	83
1982 Year	0	0	6	4	1	78	18	101
1983 Year	0	0	3	3	0	81	6	107
1984 Year	0	0	7	6	0	87	6	113
1985 Year	0	0	7	9	0	96	2	115
1986 Year	0	0	7	5	0	101	2	117
1987 Year	0	0	6	8	2	107	0	117
1988 Year	0	0	1	2	0	109	3	120
1989 Year	0	0	3	4	2	111	0	120
1990 Year	0	0	1	2	1	112	1	121
1991 Year	0	0	0	0	1	111	0	121
1992 Year	0	0	0	0	2	109	0	121
1993 Year	0	0	1	1	0	110	0	121
1994 Year	0	0	0	0	1	109	1	122
1995 Year	0	0	1	0	0	109	2	124
1996 Year	0	0	0	1	1	109	0	124
1997 Year	0	0	0	0	2	107	0	124
1998 January	0	0	0	0	2	105	0	124
February	0	0	0	0	0	105	0	124
March	0	0	0	0	0	105	0	124
April	0	0	0	0	0	105	0	124
May	0	0	0	0	0	105	0	124
June	0	0	0	0	0	105	0	124
July	0	0	0	0	1	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124
November	0	0	0	0	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	0	0	0	0	3	104	0	124
1999 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124
November	0	0	0	0	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	0	0	0	0	0	104	0	124
2000 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124

^a Placement of an order by a utility or government agency for a nuclear steam supply system.

^b Issuance by regulatory authority of a permit, or equivalent permission, to begin construction. Numbers reflect permits issued in a given year, not extant permits.

^c Issuance by regulatory authority of license, or equivalent permission, to conduct testing but not to operate at full power.

^d Issuance by regulatory authority of full-power operating license, or equivalent permission. Units generally did not begin immediate operation. See Note 1 at end of section.

^e Ceased operating permanently, irrespective of intent.

^f Total of units holding full-power licenses, or equivalent permission to operate, at the end of the period. See Note 1 at end of section.

^g Cancellation by utilities of ordered units. Does not include three units (Bellefonte 1 and 2 and Watts Bar 2) where construction has been stopped indefinitely.

Note: This table covers all units that contributed power to the commercial grid whether or not they were owned by an electric utility. See Note 1 at end of section for additional information.

Sources: See end of section.

Nuclear Energy Notes

1. In 1998 EIA undertook a major revision of the data categories in Table 8.2 to make them more relevant to current conditions and trends in the U.S. commercial nuclear electric power industry. To acquire the data for the revised categories it was necessary to develop a reactor unit database employing different sources than those used previously for Table 8.2 and still used for Table 8.1. Because of differences in definitions and tally protocols, the year-by-year tallies of operable reactors in the two databases diverge in some years, although this divergence does not change the overall trends.

The data in Table 8.2 apply to commercial nuclear power units, which means that the units contributed power to the commercial electricity grid whether or not they were owned by an electric utility. A total of 259 units ever ordered was identified. (Many of the orders were placed before 1973 and thus do not appear in the table. Annual data on orders and other characteristics from 1953 forward can be found in EIA's *Annual Energy Review 1998*, Tables 9.1 and 9.2.) Although most orders were placed by electric utilities, several units are or were ordered, owned, and operated wholly or in part by the Federal government, including BONUS (Boiling Nuclear Superheater Power Station), Elk River, Experimental Breeder Reactor 2, Hallam, Hanford N, Piqua, and Shippingport.

A reactor is generally defined as operable in Table 8.2 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 units (Browns Ferry 1, 2, and 3 and Sequoyah 1 and 2) were shut down under a regulatory forced outage. Browns Ferry 1 remains shut down and has been defueled, while the other units were idle for several years, restarting in 1991, 1995, 1988, and 1988, respectively. All five units are 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 treated as operable during 1989 and shut down in 1990, because counting it as operable and shut down in the same year would introduce a statistical discrepancy in the tallies. 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.

2. Capacity: Nuclear generating units may have more than one type of net capacity rating, including the following:

- (a) Net Summer Capability—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 computed as the actual monthly generation divided by the maximum possible generation for that month. The maximum possible generation is the number of hours in the month multiplied by the net summer capability at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

Sources for Table 8.1

Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation— See Tables 7.2 and 7.3.
Net Summer Capability of Operable Units— 1973-1982—Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones." 1983 forward—Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate.
Capacity Factor—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels.

Sources for Table 8.2

Orders—Energy Information Administration, *Commercial Nuclear Power 1991*, Appendix E, September 1991; Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition; U.S. Atomic Energy Commission, *1973 Annual Report to Congress, Volume 2, Regulatory Activities*; various utilities.

Construction Permits—Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Appendix A; Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition; various utility, Federal, and contractor officials.

Low-Power Operating Licenses—Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition; U.S. Department of Energy, *Nuclear Reactors Built, Being Built, and Planned: 1995*; various utility, Federal, and contractor officials.

New Operable Units—Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Table 11 and Appendices A and B; various utility, Federal, and contractor officials.

Shutdowns—Energy Information Administration,

Commercial Nuclear Power 1991, Appendix E; Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Appendix B; U.S. Department of Energy, *Nuclear Reactors Built, Being Built, and Planned: 1995*; Tennessee Valley Authority officials; various Nuclear Regulatory Commission documents.

Total Operable Units—Running sum of new operable units minus permanent shutdowns.

Cancellations—Energy Information Administration, *Commercial Nuclear Power 1991*, Appendix E, September 1991; Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Appendix C; and Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition.

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil at the wellhead was \$29.57 per barrel in October 2000, 50 percent above the level of October 1999. The refiner acquisition cost of imported crude oil in October 2000 was \$29.68 per barrel, 37 percent above the October 1999 level. The average cost of domestic crude oil in October 2000 was \$32.03, 43 percent more than the October 1999 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was \$1.56 per gallon in November 2000, 23 percent higher than the price in November 1999. The price of unleaded premium gasoline averaged \$1.74 in November 2000, 20 percent higher than the price in November 1999.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in October 2000 was 68 cents per gallon, 10 percent higher than the previous month's price and 38 percent above the October 1999 average. The average resale price, excluding taxes, of residual fuel oil in October 2000 was 64 cents, 1 percent below September 2000 but 43 percent above the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in October 2000 was \$1.35, 2 percent lower than the previous month's average price but 15 percent higher than the October 1999 average. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in October 2000 was \$1.05 per gallon, 1 percent lower than the previous month's average price but 61 percent higher than the October 1999 average price.

No. 2 Distillate Fuel Oil. The October 2000 national average price, excluding taxes, of heating oil sold to residential customers was \$1.37 per gallon, 4 percent higher than the September 2000 price and 44 percent higher than the October 1999 price. The average price of No. 2 fuel oil sold to all end users was \$1.05 per gallon in October 2000, 1 percent lower than September 2000 but 59 percent higher than October 1999.

Electricity. The average price of electricity sold by electric utilities to all ultimate consumers in the United States in September 2000 was 6.91 cents per kilowatthour, 1 percent higher than the September 1999 mean price. The price of electricity sold to residential consumers in September 2000 averaged 8.49 cents per kilowatthour, 2 percent higher than the September 1999 price. The price of electricity sold to commercial consumers averaged 7.42 cents per kilowatthour in September 2000, slightly lower than the September 1999 price. The price of electricity sold to other consumers was 6.54 cents per kilowatthour, 2 percent higher than the September 1999 price. The price of electricity sold to industrial users in September 2000 averaged 4.61 cents per kilowatthour, 1 percent higher than the price 1 year earlier.

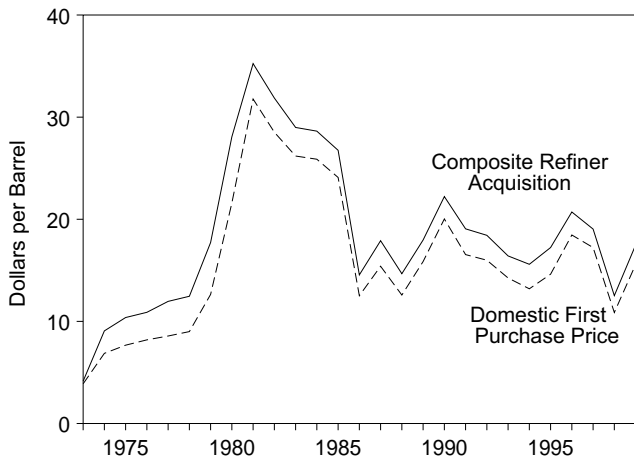
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The estimated average wellhead price of natural gas for November 2000 was \$4.62 per thousand cubic feet, 89 percent higher than the November 1999 price.

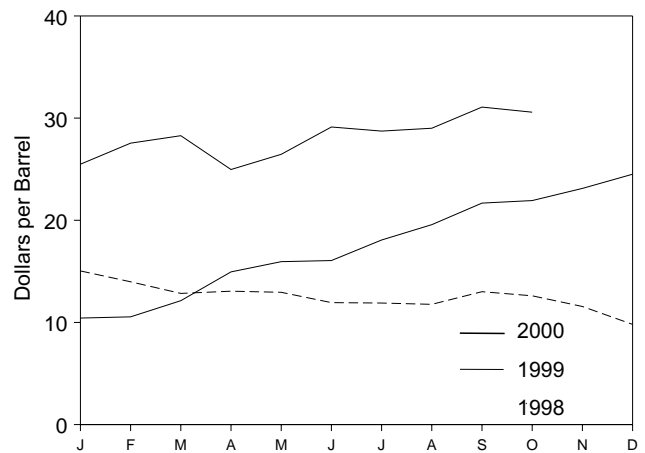
The average price of natural gas delivered to electric utility plants was \$4.30 per thousand cubic feet in August 2000 (latest date for which data are available), 50 percent higher than the August 1999 price. The average price of natural gas used by residential consumers in September 2000 was \$9.78 per thousand cubic feet, 13 percent higher than the September 1999 price. The average price of natural gas used by commercial consumers in September 2000 was \$7.03 per thousand cubic feet, 27 percent higher than the September 1999 price. The average price of natural gas used by industrial consumers in September 2000 was \$4.81 per thousand cubic feet, 41 percent above the September 1999 price.

Figure 9.1 Petroleum Prices

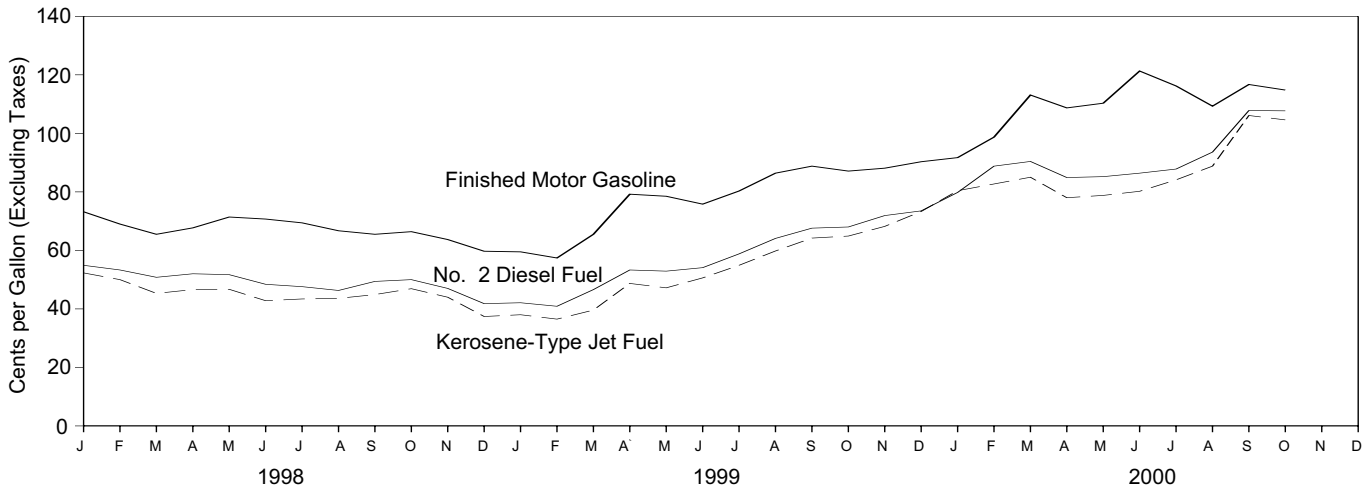
Crude Oil Prices, 1973-1999



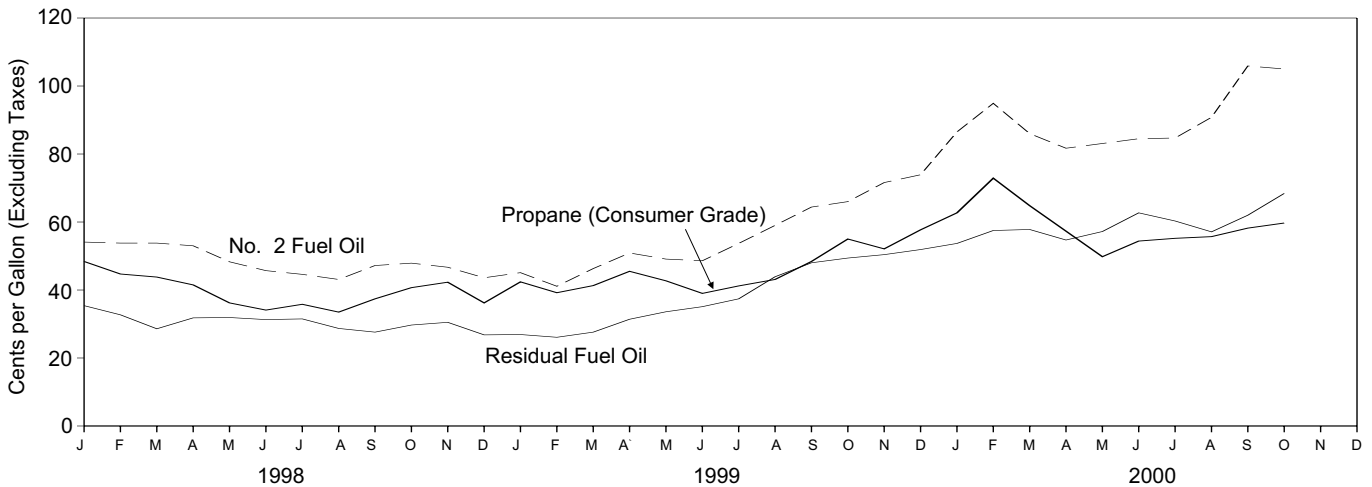
Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel, Monthly



Refiner Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel, Monthly



Sources: Tables 9.1, 9.5, and 9.7.

Table 9.1 Crude Oil Price Summary
(Dollars per Barrel)

	Domestic First Purchase Price ^b	F.O.B. Cost of Imports ^c	Landed Cost of Imports ^d	Refiner Acquisition Cost ^a		
				Domestic	Imported	Composite
1973 Average	3.89	^e 5.21	^e 6.41	^E 4.17	^E 4.08	^E 4.15
1974 Average	6.87	10.91	12.32	7.18	12.52	9.07
1975 Average	7.67	11.18	12.70	8.39	13.93	10.38
1976 Average	8.19	12.15	13.32	8.84	13.48	10.89
1977 Average	8.57	13.24	14.36	9.55	14.53	11.96
1978 Average	9.00	13.29	14.35	10.61	14.57	12.46
1979 Average	12.64	20.07	21.45	14.27	21.67	17.72
1980 Average	21.59	32.37	33.67	24.23	33.89	28.07
1981 Average	31.77	35.15	36.47	34.33	37.05	35.24
1982 Average	28.52	32.02	33.18	31.22	33.55	31.87
1983 Average	26.19	27.81	28.93	28.87	29.30	28.99
1984 Average	25.88	27.60	28.54	28.53	28.88	28.63
1985 Average	24.09	25.84	26.67	26.66	26.99	26.75
1986 Average	12.51	12.52	13.49	14.82	14.00	14.55
1987 Average	15.40	16.69	17.65	17.76	18.13	17.90
1988 Average	12.58	13.25	14.08	14.74	14.56	14.67
1989 Average	15.86	16.89	17.68	17.87	18.08	17.97
1990 Average	20.03	20.37	21.13	22.59	21.76	22.22
1991 Average	16.54	16.89	18.02	19.33	18.70	19.06
1992 Average	15.99	16.77	17.75	18.63	18.20	18.43
1993 Average	14.25	14.71	15.72	16.67	16.14	16.41
1994 Average	13.19	14.18	15.18	15.67	15.51	15.59
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 January	13.45	12.78	14.12	15.85	14.33	15.04
February	12.17	11.69	13.08	14.74	13.32	13.98
March	11.15	11.08	12.40	13.48	12.34	12.84
April	11.28	11.17	12.33	13.42	12.81	13.06
May	11.13	11.33	12.26	13.42	12.61	12.95
June	10.00	10.12	11.25	12.38	11.61	11.94
July	10.44	10.37	11.41	12.36	11.55	11.90
August	10.20	10.21	11.32	12.44	11.34	11.77
September	11.29	11.70	12.44	13.35	12.77	13.01
October	11.32	10.99	11.96	13.39	12.11	12.61
November	9.64	9.37	10.47	12.47	10.99	11.56
December	8.03	8.18	9.30	10.48	9.39	9.81
Average	10.87	10.76	11.84	13.18	12.04	12.52
1999 January	8.57	9.17	10.18	10.89	10.16	10.43
February	8.60	9.34	10.59	10.92	10.33	10.55
March	10.76	11.83	12.90	12.19	12.10	12.13
April	12.82	14.14	15.05	15.17	14.82	14.95
May	13.92	14.43	15.50	16.55	15.57	15.95
June	14.39	15.13	16.08	16.30	15.91	16.06
July	16.12	17.30	18.13	18.10	18.05	18.07
August	17.58	19.10	19.75	19.57	19.56	19.57
September	20.03	21.04	21.70	21.75	21.64	21.68
October	19.71	20.89	21.78	22.40	21.62	21.93
November	21.35	22.46	23.06	23.08	23.14	23.12
December	22.55	22.91	23.83	24.73	24.35	24.51
Average	15.56	16.47	17.23	17.90	17.26	17.51
2000 January	23.53	24.56	25.60	25.79	25.29	25.49
February	25.48	26.54	27.15	27.80	27.39	27.55
March	26.19	25.77	27.22	29.25	27.70	28.28
April	23.19	23.41	24.74	26.07	24.29	24.97
May	25.46	25.95	26.69	26.62	26.35	26.46
June	27.88	27.71	28.71	29.46	28.91	29.13
July	26.83	26.53	28.29	29.91	28.02	28.73
August	28.13	^R 27.89	^R 29.02	29.36	28.80	29.01
September	^R 29.71	^R 28.73	^R 30.43	31.95	^R 30.52	31.08
October	29.57	27.83	29.62	32.03	29.68	30.58

^a See Note 4 at end of section.

^b See Note 1 at end of section.

^c See Note 2 at end of section.

^d See Note 3 at end of section.

^e Based on October, November, and December data only.

R=Revised. E=Estimate.

Notes: Values for Domestic First Purchase Price and Refiner Acquisition

Cost for the current month and for F.O.B. and Landed Costs of Imports for the current 2 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.

Sources: See end of section.

Table 9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries
(Dollars per Barrel)

	Selected Countries							Persian Gulf Nations ^a	Total OPEC ^b	Total Non-OPEC
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average^c	W	W	NA	7.81	3.25	NA	5.39	3.68	5.43	4.80
1974 Average	11.87	W	W	12.44	10.17	NA	10.71	10.60	11.33	9.59
1975 Average	10.97	(^d)	11.44	11.82	10.87	NA	11.04	10.88	11.34	10.62
1976 Average	12.02	(^d)	12.22	13.08	11.62	W	11.39	11.65	12.23	11.70
1977 Average	13.29	(^d)	13.42	14.44	12.38	14.11	12.63	12.56	13.29	12.97
1978 Average	13.32	(^d)	13.24	14.05	12.70	13.82	12.38	12.77	13.31	13.23
1979 Average	19.85	(^d)	20.27	21.69	17.28	21.70	16.90	18.77	19.88	20.92
1980 Average	33.45	W	31.06	35.93	28.17	34.36	24.81	28.92	32.21	32.85
1981 Average	35.55	(^d)	33.01	38.31	32.60	36.06	28.95	33.00	35.17	35.12
1982 Average	31.86	(^d)	28.08	35.13	33.73	33.42	23.74	33.55	33.48	30.58
1983 Average	28.14	(^d)	25.20	29.81	27.53	29.91	21.48	27.70	28.46	27.20
1984 Average	27.46	(^d)	26.39	29.51	27.67	28.87	24.23	27.48	27.79	27.45
1985 Average	26.30	(^d)	25.33	28.04	22.04	27.64	23.64	23.31	25.67	25.96
1986 Average	13.30	12.34	11.84	14.35	11.36	13.84	10.92	11.35	12.21	12.87
1987 Average	17.27	17.84	16.36	18.47	15.12	18.28	15.08	15.97	16.43	16.99
1988 Average	13.70	13.61	12.18	15.16	12.16	14.80	12.96	12.38	13.43	13.05
1989 Average	17.66	17.89	15.96	18.31	16.29	17.89	16.09	16.61	17.06	16.72
1990 Average	20.23	20.75	19.26	22.46	20.36	23.43	19.55	18.54	20.40	20.32
1991 Average	18.47	18.49	15.37	20.29	14.62	20.81	14.91	15.22	16.99	16.77
1992 Average	18.41	18.02	15.26	19.98	15.85	19.61	14.39	16.35	16.87	16.66
1993 Average	16.23	15.87	13.74	17.79	13.77	16.64	12.46	14.21	14.78	14.65
1994 Average	15.40	14.99	13.68	16.32	14.12	15.66	12.21	13.97	14.00	14.34
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 January	14.52	15.36	12.08	15.21	W	W	11.26	W	12.26	13.14
February	13.13	14.27	11.47	13.77	W	W	10.24	W	11.35	12.10
March	12.53	13.10	9.77	13.56	W	W	9.70	W	10.93	11.22
April	12.93	13.48	11.01	13.86	W	W	10.32	7.80	10.58	11.63
May	13.85	13.08	11.25	14.13	7.62	W	9.78	7.86	10.58	11.97
June	11.82	11.85	9.96	11.57	8.25	W	9.16	8.50	9.73	10.44
July	11.14	12.24	10.44	11.77	9.06	W	8.99	8.95	9.76	10.83
August	11.37	12.12	9.87	12.23	9.77	11.13	8.54	9.68	9.69	10.60
September	12.59	13.20	11.13	13.92	W	W	10.52	W	11.35	11.95
October	11.67	13.37	11.05	12.58	10.19	W	9.43	10.19	10.22	11.66
November	10.82	11.29	9.71	10.64	9.07	10.85	6.62	8.76	8.03	10.32
December	9.33	9.58	7.82	10.29	7.69	W	6.51	7.57	7.52	8.69
Average	12.11	12.56	10.49	12.97	8.87	12.52	9.31	9.09	10.20	11.21
1999 January	10.75	10.96	8.67	10.78	9.36	(^d)	6.33	8.97	8.26	9.81
February	10.16	10.47	8.52	10.50	11.59	W	7.06	11.18	8.93	9.57
March	11.92	13.33	10.92	13.67	13.26	W	10.70	12.97	12.04	11.69
April	15.06	15.95	13.77	16.12	W	W	12.53	13.64	13.68	14.51
May	14.88	15.87	14.05	15.46	W	15.39	12.26	15.11	13.99	14.75
June	15.56	16.43	14.40	16.50	W	16.03	13.82	16.61	15.11	15.13
July	19.10	18.27	16.99	18.81	W	16.96	15.80	17.41	16.93	17.55
August	20.31	19.88	18.74	20.69	W	19.79	17.55	19.00	18.73	19.32
September	22.48	23.12	20.52	22.68	20.64	21.97	19.18	20.21	20.29	21.57
October	21.65	22.39	20.08	22.19	22.15	20.65	18.82	21.60	20.56	21.07
November	24.90	24.95	21.94	W	22.33	22.62	19.84	22.43	21.71	22.96
December	24.73	25.89	22.42	W	23.57	24.89	20.21	23.05	21.86	23.50
Average	17.46	17.20	15.89	17.32	17.65	19.14	14.33	17.15	15.90	16.84
2000 January	25.99	27.12	23.31	W	25.49	24.47	23.36	25.33	24.44	24.64
February	27.71	29.56	26.25	29.07	23.72	26.22	25.02	24.47	25.96	26.98
March	28.29	29.43	25.48	27.39	23.40	27.76	24.21	23.00	24.30	26.79
April	22.72	25.40	21.95	24.34	28.28	23.62	22.73	25.46	23.89	23.10
May	28.36	26.50	25.27	28.85	24.31	25.91	25.12	24.53	25.71	26.07
June	29.15	29.98	26.85	30.04	24.82	29.09	26.26	24.54	26.84	28.22
July	28.48	27.50	24.89	28.93	26.84	26.92	23.29	26.24	25.77	27.13
August	30.40	30.47	26.66	31.06	^R 26.41	26.41	26.45	^R 26.66	^R 27.74	28.01
September	30.16	32.66	28.00	^R 30.44	26.53	^R 29.91	^R 26.04	26.20	^R 27.52	^R 29.64
October	W	32.46	27.38	30.53	27.06	W	26.92	26.88	27.24	28.24

^a Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

^b Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. Ecuador withdrew at the end of 1992 and Gabon withdrew at the end of 1994.

^c Based on October, November, and December data only.

^d No data reported.

^R=Revised. NA=Not available. 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 Note 2 at end of

section. Values for the current 2 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.

Sources: See end of section.

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries
(Dollars per Barrel)

	Selected Countries								Persian Gulf Nations ^a	Total OPEC ^b	Total Non-OPEC
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average ^c	W	5.33	W	NA	9.08	5.37	NA	5.99	5.91	6.85	5.64
1974 Average	12.48	11.48	W	W	13.16	11.63	NA	11.25	12.21	12.49	11.81
1975 Average	11.81	12.84	(^d)	12.61	12.70	12.50	NA	12.36	12.64	12.70	12.70
1976 Average	12.71	13.36	(^d)	12.64	13.81	13.06	W	11.89	13.03	13.32	13.35
1977 Average	14.04	14.13	(^d)	13.82	15.29	13.69	14.83	13.11	13.85	14.35	14.42
1978 Average	14.07	14.41	(^d)	13.56	14.88	13.94	14.53	12.84	14.01	14.34	14.38
1979 Average	21.06	20.22	(^d)	20.77	22.97	18.95	22.97	17.65	20.42	21.29	22.10
1980 Average	34.76	30.11	W	31.77	37.15	29.80	35.68	25.92	30.59	33.56	33.99
1981 Average	36.84	32.32	(^d)	33.70	39.66	34.20	37.29	29.91	34.61	36.60	36.14
1982 Average	33.08	27.15	(^d)	28.63	36.16	34.99	34.25	24.93	34.94	34.81	31.47
1983 Average	29.31	25.63	(^d)	25.78	30.85	29.27	30.87	22.94	29.37	29.84	28.08
1984 Average	28.49	26.56	(^d)	26.85	30.36	29.20	29.45	25.19	29.07	29.06	28.14
1985 Average	27.39	25.71	(^d)	25.63	28.96	24.72	28.36	24.43	25.50	26.86	26.53
1986 Average	14.09	13.43	12.85	12.17	15.29	12.84	14.63	11.52	12.92	13.46	13.52
1987 Average	18.20	17.04	18.43	16.69	19.32	16.81	18.78	15.76	17.47	17.64	17.66
1988 Average	14.48	13.50	14.47	12.58	15.88	13.37	15.82	13.66	13.51	14.18	13.96
1989 Average	18.36	16.81	18.10	16.35	19.19	17.34	18.74	16.78	17.37	17.78	17.54
1990 Average	21.51	20.48	22.34	19.64	23.33	21.82	22.65	20.31	20.55	21.23	20.98
1991 Average	19.90	17.16	19.55	15.89	21.39	17.22	21.37	15.92	17.34	18.08	17.93
1992 Average	19.36	17.04	18.46	15.60	20.78	17.48	20.63	15.13	17.58	17.81	17.67
1993 Average	17.40	15.27	16.54	14.11	18.73	15.40	17.92	13.39	15.26	15.68	15.78
1994 Average	16.36	14.83	15.80	14.09	17.21	15.11	16.64	13.12	15.00	15.08	15.29
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 January	16.15	13.25	16.39	12.67	16.98	13.41	W	12.26	13.48	13.89	14.30
February	14.57	12.18	15.37	12.11	15.30	13.05	15.63	11.17	13.01	12.93	13.24
March	14.06	11.58	13.84	10.37	14.71	12.31	14.82	10.66	12.40	12.45	12.36
April	14.16	11.58	14.07	11.37	14.67	11.45	15.19	11.23	11.63	12.04	12.58
May	15.16	11.47	13.53	11.48	14.91	10.83	14.52	10.64	10.85	11.75	12.73
June	12.98	10.73	12.45	10.52	13.31	10.66	12.58	9.93	10.64	11.07	11.41
July	12.44	11.28	12.73	10.95	12.88	11.02	W	9.78	10.94	11.06	11.74
August	12.65	11.16	12.84	10.34	13.20	11.29	12.89	9.33	11.22	11.06	11.61
September	13.59	12.75	13.79	11.60	14.60	11.71	13.43	11.12	11.76	12.07	12.83
October	12.87	12.53	13.81	11.58	13.97	10.64	13.14	10.32	11.19	11.34	12.63
November	11.88	10.97	11.81	10.22	12.03	9.81	12.96	7.83	10.04	9.73	11.20
December	10.48	9.90	10.05	8.31	11.21	8.94	10.89	7.63	9.00	8.87	9.77
Average	13.37	11.62	13.26	11.04	14.14	11.16	13.55	10.16	11.18	11.46	12.22
1999 January	11.77	10.66	11.49	9.27	11.32	10.17	11.34	7.93	10.08	9.75	10.66
February	11.33	10.97	11.15	8.86	11.21	11.98	11.47	8.16	11.53	10.72	10.46
March	13.42	12.81	13.83	11.20	13.98	14.17	11.76	11.57	13.77	13.22	12.53
April	16.06	15.20	16.62	14.26	15.72	15.33	15.17	13.79	15.16	14.89	15.23
May	16.25	15.84	16.30	14.45	16.27	16.32	16.18	13.62	15.98	15.40	15.61
June	16.66	15.68	16.67	14.71	16.80	17.38	16.67	14.90	16.98	16.32	15.87
July	20.01	17.80	18.78	17.32	19.16	18.90	18.00	16.96	18.33	18.09	18.17
August	21.26	19.22	20.43	19.10	20.84	19.82	20.12	18.55	19.84	19.69	19.80
September	22.82	21.63	23.10	21.05	23.01	21.40	22.81	20.45	21.19	21.28	22.11
October	22.52	21.91	22.84	20.42	23.30	22.44	22.06	19.95	21.99	21.67	21.88
November	25.71	22.06	24.95	22.28	25.02	22.99	23.64	21.09	22.99	22.76	23.29
December	25.53	23.32	26.08	22.78	26.92	24.20	25.89	21.95	24.00	23.65	23.99
Average	18.37	17.54	18.09	16.12	17.63	17.48	18.26	15.58	17.37	16.94	17.51
2000 January	27.21	24.63	27.39	23.77	26.99	26.77	25.86	24.31	26.46	25.85	25.36
February	28.77	26.14	29.74	26.52	29.05	25.81	27.48	25.96	26.30	26.85	27.45
March	29.47	27.35	29.64	26.39	29.64	25.70	28.99	25.85	26.09	26.74	27.73
April	24.50	24.97	26.34	22.57	25.78	25.76	25.60	23.72	25.19	24.95	24.51
May	29.43	25.27	27.40	25.66	27.93	26.50	26.79	26.19	26.53	26.81	26.60
June	30.79	28.18	30.60	27.57	31.06	27.25	30.61	27.81	27.20	28.30	29.11
July	30.74	27.98	29.40	25.75	31.14	27.81	30.57	25.21	27.68	27.96	28.69
August	32.41	28.09	30.34	27.25	31.59	^R 28.29	^R 29.27	^R 28.16	^R 28.11	^R 28.98	29.06
September	32.46	^R 29.95	33.84	^R 28.94	^R 32.64	^R 29.48	^R 31.97	^R 28.33	^R 29.46	^R 29.99	^R 30.87
October	31.67	28.19	33.81	28.17	33.28	29.18	30.58	28.55	29.02	29.50	29.74

^a Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

^b Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. Ecuador withdrew at the end of 1992 and Gabon withdrew at the end of 1994.

^c Based on October, November, and December data only.

^d No data reported.

^R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: See Note 3 at end of section. Values for the current 2 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.

Sources: **October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

October 1977-December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." **1978 forward:** EIA, *Petroleum Marketing Monthly*, January 2001, Table 25.

Table 9.4 Motor Gasoline Retail Prices, U.S. City Average
(Cents per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium	All Types ^a
1973 Average	38.8	NA	NA	NA
1974 Average	53.2	NA	NA	NA
1975 Average	56.7	NA	NA	NA
1976 Average	59.0	61.4	NA	NA
1977 Average	62.2	65.6	NA	NA
1978 Average	62.6	67.0	NA	65.2
1979 Average	85.7	90.3	NA	88.2
1980 Average	119.1	124.5	NA	122.1
1981 Average ^b	131.1	137.8	^c 147.0	135.3
1982 Average	122.2	129.6	141.5	128.1
1983 Average	115.7	124.1	138.3	122.5
1984 Average	112.9	121.2	136.6	119.8
1985 Average	111.5	120.2	134.0	119.6
1986 Average	85.7	92.7	108.5	93.1
1987 Average	89.7	94.8	109.3	95.7
1988 Average	89.9	94.6	110.7	96.3
1989 Average	99.8	102.1	119.7	106.0
1990 Average	114.9	116.4	134.9	121.7
1991 Average	NA	114.0	132.1	119.6
1992 Average	NA	112.7	131.6	119.0
1993 Average	NA	110.8	130.2	117.3
1994 Average	NA	111.2	130.5	117.4
1995 Average	NA	114.7	133.6	120.5
1996 Average	NA	123.1	141.3	128.8
1997 Average	NA	123.4	141.6	129.1
1998 January	NA	113.1	131.9	118.6
February	NA	108.2	127.1	113.7
March	NA	104.1	122.9	109.7
April	NA	105.2	123.7	110.6
May	NA	109.2	127.5	114.6
June	NA	109.4	127.9	114.8
July	NA	107.9	126.8	113.4
August	NA	105.2	124.4	110.8
September	NA	103.3	123.0	109.1
October	NA	104.2	123.6	109.9
November	NA	102.8	122.5	108.6
December	NA	98.6	118.7	104.6
Average	NA	105.9	125.0	111.5
1999 January	NA	97.2	117.1	103.1
February	NA	95.5	115.5	101.4
March	NA	99.1	118.6	104.8
April	NA	117.7	136.7	123.2
May	NA	117.8	137.0	123.3
June	NA	114.8	133.9	120.4
July	NA	118.9	137.8	124.4
August	NA	125.5	144.1	130.9
September	NA	128.0	146.8	133.4
October	NA	127.4	146.4	132.9
November	NA	126.4	145.4	131.9
December	NA	129.8	148.6	135.3
Average	NA	116.5	135.7	122.1
2000 January	NA	130.1	148.6	135.6
February	NA	136.9	155.1	142.2
March	NA	154.1	172.3	159.4
April	NA	150.6	169.8	156.1
May	NA	149.8	168.2	155.2
June	NA	161.7	178.6	166.6
July	NA	159.3	177.3	164.2
August	NA	151.0	168.9	155.9
September	NA	158.2	176.4	163.5
October	NA	155.9	174.4	161.3
November	NA	155.5	173.8	160.8

^a Also includes types of motor gasoline not shown separately.

^b 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.

^c Based on September through December data only.

NA=Not available.

Notes: See Note 5 at end of section. Geographic coverage for

1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

Sources: **Monthly Data:** U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Prices: Energy*. **Annual Data: 1973—Platt's Oil Price Handbook and Oilmanac**, 1974, 51st Edition. **1974 forward**—calculated by the Energy Information Administration as the simple averages of monthly data.

Table 9.5 Refiner Prices of Residual Fuel Oil
(Cents per Gallon, Excluding Taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average	29.3	31.4	24.5	27.5	26.3	29.8
1979 Average	45.0	46.8	36.6	38.9	39.9	43.6
1980 Average	60.8	67.5	47.9	52.3	52.8	60.7
1981 Average	74.8	82.9	62.2	67.3	66.3	75.6
1982 Average	69.5	74.7	57.2	61.1	61.2	67.6
1983 Average	64.3	69.5	59.1	61.1	60.9	65.1
1984 Average	68.5	72.0	63.9	65.9	65.4	68.7
1985 Average	61.0	64.4	56.0	58.2	57.7	61.0
1986 Average	32.8	37.2	28.9	31.7	30.5	34.3
1987 Average	41.2	44.7	36.2	39.6	38.5	42.3
1988 Average	33.3	37.2	27.1	30.0	30.0	33.4
1989 Average	40.7	43.6	33.1	34.4	36.0	38.5
1990 Average	47.2	50.5	37.2	40.0	41.3	44.4
1991 Average	36.4	40.2	29.2	30.6	31.4	34.0
1992 Average	35.1	38.9	28.6	31.2	30.8	33.6
1993 Average	33.7	39.7	25.6	30.3	29.3	33.7
1994 Average	34.5	40.1	28.7	33.0	31.7	35.2
1995 Average	38.3	43.6	33.8	37.7	36.3	39.2
1996 Average	45.6	52.6	38.9	43.3	42.0	45.5
1997 Average	41.5	48.8	36.6	40.3	38.7	42.3
1998 January	35.2	44.7	28.9	32.6	31.1	35.4
February	30.7	39.6	26.7	30.6	28.3	32.7
March	29.4	35.6	24.1	26.0	26.4	28.6
April	32.9	35.9	28.7	30.5	30.3	31.8
May	31.9	37.6	28.3	30.1	29.5	31.9
June	29.3	36.1	27.0	29.6	27.9	31.3
July	30.7	35.1	28.7	30.0	29.6	31.5
August	26.9	32.3	26.1	27.4	26.5	28.7
September	29.9	32.4	27.0	26.0	27.9	27.6
October	31.0	33.6	27.0	28.1	28.2	29.7
November	27.3	33.6	25.1	28.9	26.0	30.5
December	24.0	31.9	23.0	24.5	23.3	26.8
Average	29.9	35.4	26.9	28.7	28.0	30.5
1999 January	27.5	32.4	23.9	25.2	25.6	26.9
February	21.8	30.6	21.9	24.5	21.9	26.1
March	27.2	31.4	24.0	26.2	25.1	27.6
April	30.9	32.9	30.0	30.8	30.4	31.4
May	34.6	36.6	29.5	32.0	32.5	33.6
June	35.0	37.5	31.2	34.0	32.6	35.1
July	38.6	40.9	34.5	35.7	36.1	37.4
August	44.8	45.7	40.1	43.1	42.7	43.9
September	49.8	47.1	43.6	48.2	46.7	48.0
October	47.3	52.5	43.1	48.4	44.8	49.4
November	48.5	54.4	44.2	49.1	46.8	50.4
December	50.3	56.9	44.0	49.9	47.2	51.9
Average	38.2	40.5	32.9	36.2	35.4	37.4
2000 January	57.2	64.5	44.3	49.3	49.2	53.7
February	61.1	67.3	48.6	53.6	54.6	57.5
March	53.2	66.5	50.4	55.9	51.7	57.8
April	52.3	65.1	44.3	52.5	47.9	54.7
May	58.9	63.2	51.4	54.8	54.5	57.2
June	65.8	70.2	54.3	59.7	59.6	62.7
July	65.1	69.7	50.8	57.5	58.2	60.3
August	61.5	67.0	46.7	53.6	53.9	57.1
September	71.9	75.8	58.6	59.2	64.5	62.0
October	73.7	80.3	57.6	65.4	64.1	68.4

Notes: Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. Values for the current month are preliminary. Prices prior to 1983 are Energy Information Administration

(EIA) estimates. See Note 6 at end of section. Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 19.

Table 9.6 Refiner Prices of Petroleum Products for Resale
(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline ^a	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1979 Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
1980 Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1981 Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
1982 Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
1983 Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
1984 Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
1985 Average	83.5	113.0	79.4	87.4	77.6	77.2	39.8
1986 Average	53.1	91.2	49.5	60.6	48.6	45.2	29.0
1987 Average	58.9	85.9	53.8	59.2	52.7	53.4	25.2
1988 Average	57.7	85.0	49.5	54.9	47.3	47.3	24.0
1989 Average	65.4	95.0	58.3	66.9	56.5	56.7	24.7
1990 Average	78.6	106.3	77.3	83.9	69.7	69.4	38.6
1991 Average	69.9	100.1	65.0	72.2	62.2	61.5	34.9
1992 Average	67.7	99.1	60.5	63.2	57.9	59.1	32.8
1993 Average	62.6	96.5	57.7	60.4	54.4	57.0	35.1
1994 Average	59.9	93.3	53.4	61.8	50.6	52.9	32.4
1995 Average	62.6	97.5	53.9	58.0	51.1	53.8	34.4
1996 Average	71.3	105.5	64.6	71.4	63.9	65.9	46.1
1997 Average	70.0	106.5	61.3	65.3	59.0	60.6	41.6
1998 January	57.6	96.2	52.9	52.8	48.9	49.6	35.4
February	55.1	92.1	50.3	51.6	47.7	48.3	33.1
March	52.3	88.4	45.9	47.5	44.9	45.9	31.1
April	54.9	92.8	46.7	46.1	44.9	48.2	30.3
May	57.9	97.3	47.0	45.6	43.3	47.0	29.3
June	55.7	94.1	43.2	43.0	39.9	43.5	26.7
July	54.3	93.4	43.4	41.7	38.8	42.6	25.7
August	50.6	91.6	42.9	40.7	36.9	41.4	25.7
September	50.9	89.8	44.6	45.9	41.8	45.6	26.3
October	52.4	90.7	45.9	46.6	41.2	45.5	27.6
November	47.8	83.6	42.9	44.2	38.9	41.4	27.7
December	42.6	79.8	36.3	38.7	34.6	35.4	25.7
Average	52.6	91.2	45.0	46.5	42.2	44.4	28.8
1999 January	44.5	81.2	37.3	42.0	36.3	36.2	26.5
February	42.9	79.2	35.2	37.8	33.1	35.1	26.1
March	52.1	86.3	39.5	43.7	39.8	43.2	26.8
April	62.8	98.9	46.6	47.3	44.7	48.8	28.7
May	62.1	99.2	46.8	43.8	43.8	47.9	29.1
June	61.5	94.8	48.6	45.4	44.7	50.4	29.1
July	68.6	103.6	53.7	53.0	51.2	56.4	34.7
August	74.1	107.6	59.1	59.6	56.2	61.6	38.3
September	75.9	111.7	62.7	66.0	60.9	64.9	42.6
October	72.4	109.3	63.8	64.7	61.0	65.0	43.7
November	75.2	108.1	66.5	72.8	66.2	69.9	42.6
December	76.0	110.2	72.1	76.5	67.8	70.5	41.8
Average	64.5	100.7	53.3	55.0	49.3	54.6	34.2
2000 January	78.6	111.4	79.8	94.3	82.8	77.4	49.2
February	88.2	118.9	83.6	103.0	91.8	85.2	60.3
March	98.7	130.6	83.6	83.7	79.6	85.2	52.8
April	88.3	124.8	77.7	77.3	76.4	79.9	48.8
May	97.7	130.1	78.0	79.0	78.4	81.6	49.4
June	109.2	142.1	79.9	80.4	80.3	82.5	53.8
July	99.1	139.3	83.6	83.1	81.0	83.5	54.9
August	96.8	133.8	88.0	89.8	88.3	92.1	60.2
September	104.7	^R 142.5	^R 105.2	107.7	100.9	105.0	66.0
October	102.1	138.1	104.1	108.2	98.8	104.0	64.3

^a See Note 5 at end of section.

R=Revised.

Notes: Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial

consumers. Values for the current month are preliminary. Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users
(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline ^a	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1979 Average	71.3	68.9	54.7	58.5	51.6	58.5	35.7
1980 Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1981 Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
1982 Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
1983 Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
1984 Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
1985 Average	91.2	120.1	79.6	103.0	84.9	78.9	71.7
1986 Average	62.4	101.1	52.9	79.0	56.0	47.8	74.5
1987 Average	66.9	90.7	54.3	77.0	58.1	55.1	70.1
1988 Average	67.3	89.1	51.3	73.8	54.4	50.0	71.4
1989 Average	75.6	99.5	59.2	70.9	58.7	58.5	61.5
1990 Average	88.3	112.0	76.6	92.3	73.4	72.5	74.5
1991 Average	79.7	104.7	65.2	83.8	66.5	64.8	73.0
1992 Average	78.7	102.7	61.0	78.8	62.7	61.9	64.3
1993 Average	75.9	99.0	58.0	75.4	60.2	60.2	67.3
1994 Average	73.8	95.7	53.4	66.0	57.2	55.4	53.0
1995 Average	76.5	100.5	54.0	58.9	56.2	56.0	49.2
1996 Average	84.7	111.6	65.1	74.0	67.3	68.1	60.5
1997 Average	83.9	112.8	61.3	74.5	63.6	64.2	55.2
1998 January	73.2	104.3	52.3	71.8	54.1	54.9	48.4
February	69.0	100.8	50.0	68.2	53.8	53.3	44.7
March	65.5	98.4	45.3	65.3	53.8	50.8	43.8
April	67.7	99.3	46.6	56.7	53.0	52.0	41.5
May	71.4	101.1	46.7	56.0	48.3	51.7	36.2
June	70.7	99.1	42.8	44.7	45.7	48.4	34.1
July	69.4	98.5	43.4	47.4	44.6	47.6	35.8
August	66.7	95.9	43.6	41.5	43.1	46.3	33.5
September	65.5	94.1	44.9	46.2	47.2	49.4	37.4
October	66.4	95.1	46.9	50.9	47.9	50.0	40.7
November	63.7	93.3	44.0	44.4	46.7	47.0	42.3
December	59.7	88.7	37.4	42.4	43.6	41.8	36.2
Average	67.3	97.5	45.2	50.1	48.2	49.4	40.5
1999 January	59.5	87.1	38.0	51.5	45.1	42.1	42.4
February	57.4	85.1	36.5	49.9	41.1	40.9	39.2
March	65.5	90.1	39.6	53.6	46.3	46.6	41.3
April	79.2	101.4	48.7	51.4	50.9	53.3	45.5
May	78.5	104.2	47.2	53.7	49.1	52.9	42.7
June	75.8	104.1	50.6	50.4	48.6	54.1	39.0
July	80.3	107.9	54.9	60.4	53.7	58.8	41.2
August	86.4	113.2	59.8	63.9	59.0	64.1	43.1
September	88.8	115.4	64.2	70.4	64.4	67.6	48.4
October	87.1	117.6	64.9	79.2	66.0	68.0	55.0
November	88.1	116.4	68.2	84.8	71.6	71.9	52.1
December	90.3	119.6	73.3	89.1	73.9	73.5	57.7
Average	78.1	105.9	54.3	60.5	55.8	58.4	45.8
2000 January	91.7	119.6	80.4	106.6	86.5	79.8	62.7
February	98.7	123.8	82.7	126.2	94.9	88.8	72.9
March	113.1	133.8	85.0	107.9	86.0	90.4	64.8
April	108.7	130.7	78.0	99.6	81.7	84.9	NA
May	110.3	133.6	78.8	86.8	83.1	85.2	49.8
June	121.3	140.8	80.2	88.4	84.5	86.4	54.4
July	116.2	142.1	84.1	90.1	84.7	87.8	55.2
August	109.3	NA	88.8	96.5	90.8	93.6	55.7
September	116.7	138.2	106.1	116.2	105.9	107.8	58.2
October	114.8	134.9	104.6	116.0	105.0	107.7	59.7

^a See Note 5 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 Energy Information Administration (EIA) estimates. See Note 6 at end of section. Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 2.

Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States
(Cents per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average	48.6	50.3	50.8	48.8	50.7	50.1	50.1	49.6	48.8
1979 Average	68.8	72.5	72.5	70.9	72.8	72.0	71.2	71.0	69.8
1980 Average	96.3	100.4	101.5	97.8	101.1	98.3	98.2	97.9	96.4
1981 Average	120.4	123.7	125.4	121.3	123.8	121.7	123.2	121.5	118.1
1982 Average	115.5	117.4	120.1	117.6	120.1	118.3	120.5	117.4	113.7
1983 Average	102.8	104.1	112.9	109.1	110.5	109.1	112.1	107.9	105.8
1984 Average	103.9	108.4	111.9	111.6	111.4	112.1	115.5	111.0	107.9
1985 Average	99.7	102.4	107.7	107.0	106.7	108.0	111.3	105.9	102.3
1986 Average	74.4	75.9	86.6	82.1	82.8	89.0	91.1	90.2	81.4
1987 Average	74.7	76.5	81.1	80.6	82.5	83.4	85.2	84.3	76.9
1988 Average	77.7	78.2	82.6	82.1	83.6	85.3	86.3	84.8	77.8
1989 Average	89.4	89.3	90.5	92.6	93.9	92.9	95.8	91.8	85.1
1990 Average	98.9	102.8	107.0	108.4	108.6	109.8	112.5	108.7	102.6
1991 Average	96.0	91.6	101.9	103.0	99.9	106.2	111.3	104.0	99.7
1992 Average	87.1	85.6	92.1	92.5	91.2	94.7	102.8	93.9	89.0
1993 Average	82.6	82.8	90.4	89.7	89.3	91.9	100.1	92.4	86.3
1994 Average	81.8	79.2	87.6	87.0	88.5	89.0	96.6	89.5	85.7
1995 Average	78.7	77.9	85.3	84.4	87.4	86.4	95.5	88.8	82.6
1996 Average	97.2	94.0	96.9	97.6	98.6	98.6	106.3	102.4	95.3
1997 Average	94.2	94.2	98.7	96.0	98.9	96.3	106.5	103.3	95.0
1998 January	88.0	86.6	92.5	88.8	93.3	90.7	101.4	96.5	89.2
February	85.1	86.7	91.6	87.7	92.6	90.1	101.0	95.8	88.5
March	82.3	84.1	92.1	86.7	90.1	88.0	98.3	92.9	86.2
April	81.6	81.3	89.1	83.5	88.9	85.8	97.1	91.7	84.0
May	80.3	79.4	86.7	81.9	87.2	83.2	95.0	89.6	82.1
June	78.6	75.6	84.3	78.5	84.4	78.1	92.2	83.9	75.7
July	76.0	70.5	81.4	76.2	83.3	74.4	89.0	79.0	70.1
August	74.3	68.5	80.9	74.0	78.6	71.4	83.7	77.1	69.9
September	74.4	70.8	80.5	74.2	78.8	72.4	85.2	80.3	71.7
October	74.1	71.1	82.4	75.3	81.7	75.5	88.0	82.3	74.1
November	73.3	72.3	82.0	74.7	80.4	77.0	89.3	83.5	76.6
December	70.9	71.4	81.7	74.3	79.9	77.1	88.5	82.6	76.0
Average	78.8	78.8	87.3	81.8	86.8	83.1	94.8	89.2	81.4
1999 January	72.0	70.8	80.6	76.1	79.9	78.6	90.3	83.5	77.8
February	71.6	70.4	79.7	75.6	79.4	77.3	89.6	83.4	77.3
March	74.3	70.4	79.5	76.1	79.3	77.9	90.6	83.6	77.3
April	79.3	70.2	80.4	76.9	79.2	79.6	94.2	88.6	75.4
May	79.2	69.0	79.8	77.6	79.5	76.7	95.6	87.0	75.0
June	77.5	68.5	78.5	76.1	78.2	74.6	96.2	84.4	73.3
July	79.9	69.7	80.1	77.6	79.0	77.3	95.5	86.1	72.8
August	83.1	74.5	82.4	80.4	81.2	79.5	NA	88.0	73.9
September	89.0	82.0	88.2	86.1	90.6	85.2	98.6	94.9	81.1
October	91.4	87.8	92.4	91.0	93.0	90.9	105.6	100.8	86.0
November	97.2	92.0	95.7	96.5	96.8	95.8	111.0	105.7	91.3
December	100.4	99.0	99.6	100.0	101.6	100.9	114.7	111.8	95.4
Average	81.3	77.0	85.4	83.6	85.8	85.2	96.9	91.3	81.5
2000 January	127.1	120.9	117.0	123.7	118.7	124.6	142.0	134.8	117.6
February	140.5	140.3	133.1	139.6	132.8	141.5	162.8	154.8	133.3
March	120.8	123.0	118.4	116.5	114.8	121.3	135.8	131.7	114.8
April	113.5	116.4	113.5	111.6	112.2	114.0	127.4	124.9	108.7
May	115.1	118.0	112.2	114.4	114.2	114.4	127.8	125.3	107.3
June	115.9	117.0	116.9	112.9	113.9	113.9	128.3	125.2	107.0
July	118.9	117.1	119.1	111.7	111.5	114.0	128.0	125.0	104.9
August	124.9	121.5	121.9	117.4	115.1	115.8	129.0	128.2	110.4
September	^R 135.6	^R 132.3	^R 133.6	^R 128.7	^R 132.5	^R 129.4	140.9	^R 139.9	123.8
October	138.1	131.5	131.1	131.8	133.9	134.4	147.5	144.4	128.0

R=Revised. NA=Not available.

Notes: States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. Values for the current month are preliminary.

Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 18.

Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States

(Cents per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average	47.8	50.7	49.2	49.1	46.2	47.4	47.9	48.5	46.5	44.7	47.8
1979 Average	68.2	74.2	70.1	70.4	65.1	68.6	70.9	72.7	68.8	67.3	72.4
1980 Average	95.4	102.6	97.9	98.5	92.2	91.9	97.8	99.6	95.8	91.5	99.9
1981 Average	117.3	127.4	121.4	120.5	115.0	113.2	118.3	118.5	114.9	109.1	118.4
1982 Average	111.3	124.5	117.1	117.7	109.3	110.2	113.9	114.3	110.9	107.8	115.1
1983 Average	106.0	117.0	110.3	108.7	101.0	101.3	106.4	100.7	100.4	101.2	103.1
1984 Average	109.6	118.7	113.5	110.5	102.1	102.1	105.0	103.1	100.1	101.0	104.1
1985 Average	104.6	114.3	108.8	106.3	98.0	99.7	102.1	99.1	97.5	98.3	101.9
1986 Average	85.0	93.1	91.4	86.6	74.6	77.7	81.0	74.8	NA	75.6	79.2
1987 Average	79.3	91.8	86.6	79.5	76.4	74.7	77.5	75.4	79.8	75.1	74.6
1988 Average	80.1	91.6	87.0	80.5	74.2	74.7	77.5	75.4	77.6	73.9	73.5
1989 Average	88.2	98.6	93.8	87.0	83.0	81.6	85.3	83.2	80.9	81.1	82.4
1990 Average	105.8	107.8	111.9	110.6	99.1	98.1	100.9	99.3	96.1	94.2	101.4
1991 Average	99.7	112.2	108.4	101.1	93.4	91.0	94.2	91.8	92.7	89.5	91.1
1992 Average	92.3	105.7	100.0	92.8	86.4	83.6	87.2	81.2	87.7	81.6	82.6
1993 Average	89.9	104.5	98.1	89.3	85.6	84.0	87.2	81.0	84.4	82.3	83.2
1994 Average	89.4	100.0	95.0	85.3	80.9	81.2	86.3	81.2	78.4	81.1	80.6
1995 Average	87.0	101.0	93.6	84.4	81.5	80.8	86.0	81.6	78.5	81.2	80.1
1996 Average	98.4	117.8	106.3	95.2	96.0	92.1	97.7	91.2	89.3	89.9	90.9
1997 Average	98.4	117.4	105.7	94.8	96.2	91.3	94.2	86.5	87.0	93.3	89.9
1998											
January	92.4	111.0	100.4	92.1	91.1	82.2	85.9	79.9	80.4	85.4	81.5
February	91.9	110.0	98.8	91.4	88.9	80.9	84.2	78.9	79.7	83.6	78.1
March	90.6	104.9	96.8	89.6	88.5	79.5	83.3	77.9	77.2	83.0	77.2
April	88.5	100.3	93.1	88.4	86.8	79.5	81.8	77.0	74.4	81.6	77.8
May	82.3	NA	89.0	83.8	82.1	78.8	81.5	73.2	70.0	80.5	72.6
June	79.8	89.8	85.8	82.4	79.8	75.1	79.3	72.1	63.6	78.8	68.8
July	74.1	84.0	81.2	81.4	73.3	72.7	76.5	69.7	70.7	77.8	69.4
August	74.5	85.6	79.4	79.0	72.6	70.1	74.5	71.0	NA	75.5	68.2
September	73.0	84.6	81.7	80.1	72.6	72.3	75.9	72.5	66.2	74.9	70.5
October	76.4	W	80.3	80.3	76.9	74.4	77.3	73.0	69.8	76.8	70.7
November	82.4	W	82.1	81.2	76.8	73.4	77.9	71.9	70.8	76.6	70.3
December	80.9	W	80.3	79.9	73.8	71.6	77.9	69.3	66.6	74.6	67.9
Average	85.8	102.2	90.2	85.6	81.8	76.7	80.4	74.8	73.5	80.1	73.8
1999											
January	82.1	W	85.7	81.2	74.6	72.9	76.2	71.4	68.6	75.0	68.0
February	80.4	W	86.1	81.4	72.6	71.9	76.5	71.0	65.9	73.9	67.0
March	82.9	W	86.8	81.6	78.4	76.4	77.7	73.7	67.8	76.4	69.5
April	88.7	W	86.9	85.8	71.9	76.0	81.5	75.6	63.4	77.8	73.5
May	NA	W	84.5	83.5	71.2	76.1	NA	72.9	60.2	77.3	72.5
June	77.0	W	81.8	82.6	66.2	77.3	NA	74.0	W	76.4	72.4
July	76.0	W	84.4	83.0	69.7	78.8	NA	76.3	62.8	79.8	74.0
August	78.1	W	85.9	84.8	75.8	80.3	NA	84.5	80.6	86.7	81.5
September	85.0	W	92.4	88.8	79.4	86.9	NA	91.7	85.7	91.6	85.3
October	90.3	W	95.7	92.9	NA	89.9	NA	90.9	89.2	95.3	89.7
November	97.0	W	102.2	99.2	NA	96.2	NA	96.8	92.6	99.0	93.9
December	104.2	W	107.9	103.7	NA	97.5	NA	99.3	95.7	101.1	99.1
Average	88.4	101.1	90.7	87.0	78.9	82.0	88.3	79.3	71.6	84.7	77.4
2000											
January	124.2	W	123.6	121.1	NA	110.5	NA	109.5	100.3	105.6	101.9
February	137.3	W	141.5	131.9	NA	119.7	NA	116.1	109.2	110.1	109.9
March	120.6	W	126.3	122.5	NA	116.8	NA	117.8	108.0	112.0	109.6
April	NA	W	119.9	114.5	NA	111.2	NA	112.5	104.4	109.9	107.5
May	NA	W	119.6	112.0	NA	111.8	NA	109.5	98.5	111.0	110.3
June	103.7	W	115.1	109.3	NA	112.4	NA	115.1	95.8	111.3	111.7
July	104.4	W	115.6	108.9	102.9	110.4	NA	111.5	NA	107.9	110.8
August	112.6	W	120.4	117.8	117.4	111.8	NA	118.6	106.2	115.9	108.6
September	125.1	W	133.3	^R 130.2	^R 130.3	^R 129.5	NA	^R 133.6	^R 122.8	^R 128.2	123.7
October	129.9	W	141.2	133.1	132.9	133.6	NA	135.0	122.2	131.4	130.8

R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. Values for the current month are preliminary.

Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 18.

Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average

(Cents per Gallon, Excluding Taxes)

	Idaho	Washington	Oregon	Alaska	U.S. Average
1978 Average	43.6	48.6	45.8	53.2	49.0
1979 Average	62.1	69.7	68.0	68.2	70.4
1980 Average	91.6	100.8	97.3	97.8	97.4
1981 Average	110.4	116.5	111.4	118.0	119.4
1982 Average	110.4	117.6	111.6	117.4	116.0
1983 Average	101.8	109.0	103.6	108.8	107.8
1984 Average	98.5	102.6	99.3	106.9	109.1
1985 Average	97.2	101.1	97.1	108.3	105.3
1986 Average	73.8	77.5	70.4	94.9	83.6
1987 Average	68.8	79.5	72.5	86.5	80.3
1988 Average	68.8	78.5	70.9	86.9	81.3
1989 Average	77.8	87.4	80.2	96.4	90.0
1990 Average	97.4	102.9	97.0	110.1	106.3
1991 Average	95.1	101.6	93.3	105.0	101.9
1992 Average	85.7	94.0	87.6	94.1	93.4
1993 Average	86.2	99.9	91.8	96.1	91.1
1994 Average	78.9	95.0	88.7	86.5	88.4
1995 Average	83.9	96.2	89.4	83.4	86.7
1996 Average	93.3	108.0	98.9	90.9	98.9
1997 Average	95.3	113.9	103.1	97.3	98.4
1998 January	84.9	104.6	93.6	NA	92.5
February	80.8	100.8	89.3	87.4	91.6
March	78.6	98.9	85.8	86.5	89.6
April	79.6	98.8	86.2	86.8	87.7
May	78.1	97.3	85.2	86.2	84.9
June	74.9	89.9	82.2	85.8	81.2
July	72.2	86.5	82.2	81.8	77.7
August	79.6	87.7	84.4	82.5	75.5
September	78.4	90.2	83.7	83.4	77.0
October	78.8	94.9	84.1	84.4	78.6
November	76.4	97.1	82.4	82.7	79.9
December	71.1	95.0	81.9	82.6	78.9
Average	78.4	97.8	86.1	85.2	85.2
1999 January	68.5	93.1	82.1	80.5	80.5
February	67.8	93.6	80.5	81.8	80.0
March	70.9	101.6	88.4	84.8	81.0
April	74.1	111.6	98.1	NA	83.0
May	75.4	107.6	95.8	96.0	82.0
June	75.7	110.3	105.2	96.8	80.7
July	78.2	110.3	103.6	99.2	81.5
August	81.6	107.9	102.9	NA	83.5
September	89.7	111.3	100.6	103.9	90.1
October	87.5	114.0	102.2	108.6	94.9
November	89.7	116.8	104.8	111.7	100.1
December	92.7	118.5	106.0	117.1	104.5
Average	76.2	106.5	93.8	96.6	87.6
2000 January	93.7	127.0	115.6	123.5	125.8
February	97.7	134.1	124.9	127.8	142.2
March	109.2	145.4	136.1	131.3	124.0
April	105.9	133.7	127.7	130.3	117.6
May	98.1	132.0	121.2	124.7	116.9
June	NA	128.1	122.8	120.7	116.3
July	110.6	NA	126.4	121.8	115.2
August	114.6	134.3	131.3	130.8	119.0
September	^R 133.4	^R 156.6	^R 154.4	^R 140.8	^R 132.1
October	140.9	162.8	156.0	NA	136.8

R=Revised. NA=Not available.

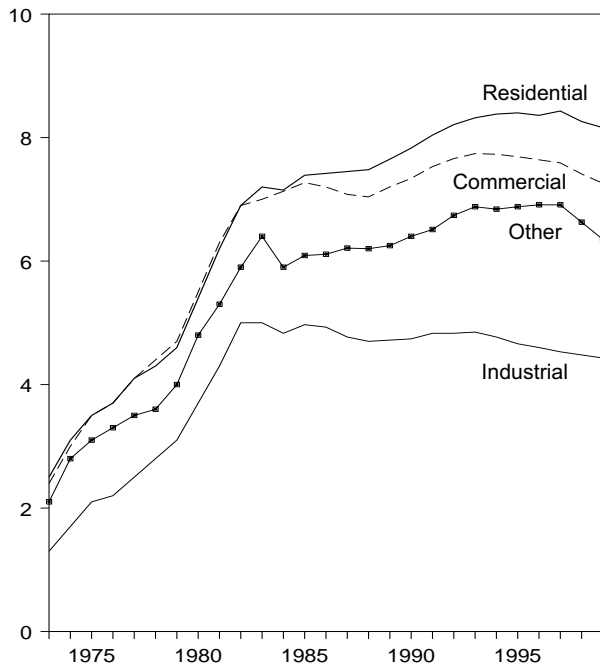
Notes: States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. Values for the current month are preliminary.

Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

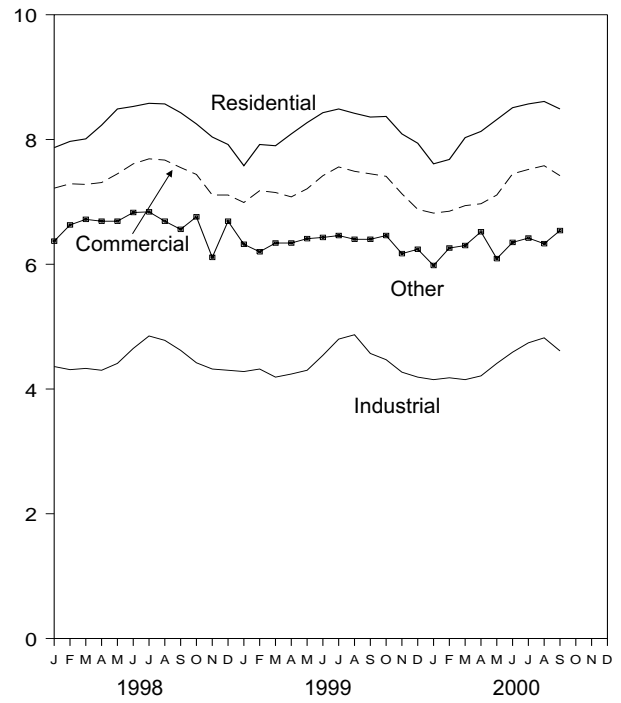
Source: EIA, *Petroleum Marketing Monthly*, January 2001, Table 18.

Figure 9.2 Retail Prices of Electricity Sold by Electric Utilities
(Cents per Kilowatthour)

By Sector, 1973-1999



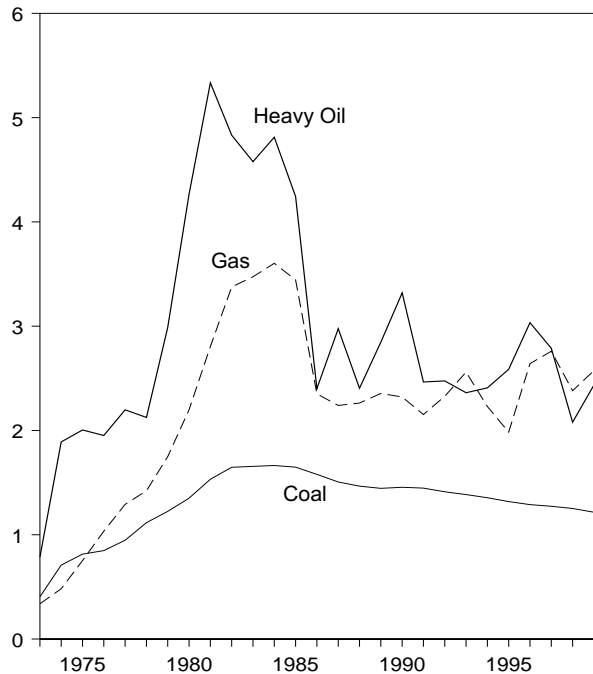
By Sector, Monthly



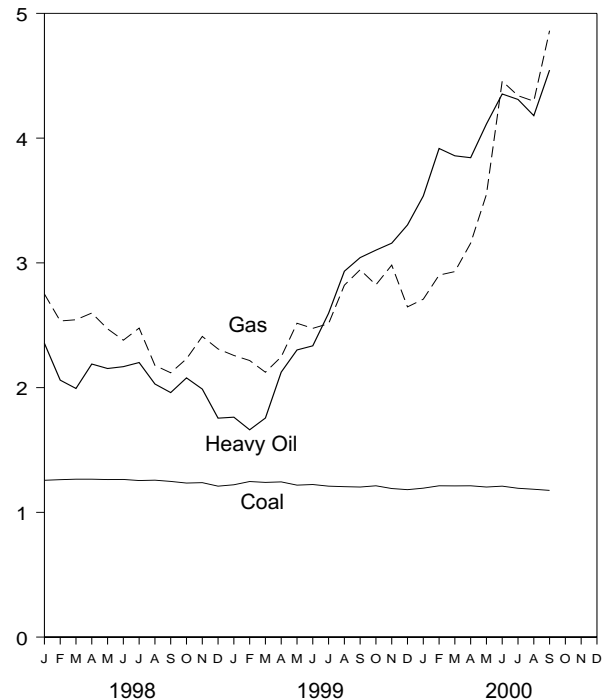
Source: Table 9.9.

Figure 9.3 Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants
(Dollars per Million Btu)

Costs, 1973-1999



Costs, Monthly



Source: Table 9.10.

Table 9.9 Retail Prices of Electricity Sold by Electric Utilities
(Cents per Kilowatthour)

	Residential	Commercial	Industrial	Other ^a	Total
1973 Average	2.5	2.4	1.3	2.1	2.0
1974 Average	3.1	3.0	1.7	2.8	2.5
1975 Average	3.5	3.5	2.1	3.1	2.9
1976 Average	3.7	3.7	2.2	3.3	3.1
1977 Average	4.1	4.1	2.5	3.5	3.4
1978 Average	4.3	4.4	2.8	3.6	3.7
1979 Average	4.6	4.7	3.1	4.0	4.0
1980 Average	5.4	5.5	3.7	4.8	4.7
1981 Average	6.2	6.3	4.3	5.3	5.5
1982 Average	6.9	6.9	5.0	5.9	6.1
1983 Average	7.2	7.0	5.0	6.4	6.3
1984 Average	7.15	7.13	4.83	5.90	6.25
1985 Average	7.39	7.27	4.97	6.09	6.44
1986 Average	7.42	7.20	4.93	6.11	6.44
1987 Average	7.45	7.08	4.77	6.21	6.37
1988 Average	7.48	7.04	4.70	6.20	6.35
1989 Average	7.65	7.20	4.72	6.25	6.45
1990 Average	7.83	7.34	4.74	6.40	6.57
1991 Average	8.04	7.53	4.83	6.51	6.75
1992 Average	8.21	7.66	4.83	6.74	6.82
1993 Average	8.32	7.74	4.85	6.88	6.93
1994 Average	8.38	7.73	4.77	6.84	6.91
1995 Average	8.40	7.69	4.66	6.88	6.89
1996 Average	8.36	7.64	4.60	6.91	6.86
1997 Average	8.43	7.59	4.53	6.91	6.85
1998 January	7.87	7.22	4.36	6.37	6.57
February	7.97	7.29	4.31	6.63	6.52
March	8.01	7.28	4.33	6.72	6.53
April	8.23	7.31	4.30	6.69	6.51
May	8.49	7.45	4.41	6.69	6.67
June	8.53	7.61	4.65	6.83	6.97
July	8.58	7.69	4.85	6.84	7.21
August	8.57	7.67	4.78	6.69	7.14
September	8.43	7.55	4.62	6.56	6.95
October	8.25	7.44	4.42	6.76	6.69
November	8.04	7.11	4.32	6.11	6.39
December	7.92	7.11	4.30	6.69	6.46
Average	8.26	7.41	4.48	6.63	6.74
1999 January	7.58	6.99	4.28	6.32	6.42
February	7.92	7.18	4.32	6.20	6.50
March	7.90	7.15	4.19	6.34	6.43
April	8.09	7.08	4.24	6.34	6.40
May	8.27	7.21	4.30	6.41	6.50
June	8.43	7.42	4.54	6.43	6.83
July	8.49	7.56	4.80	6.46	7.11
August	8.42	7.49	4.87	6.40	7.08
September	8.36	7.45	4.57	6.40	6.87
October	8.37	7.41	4.47	6.46	6.70
November	8.09	7.13	4.27	6.17	6.41
December	7.94	6.88	4.19	6.24	6.39
Average	8.16	7.26	4.43	6.35	6.66
2000 January	7.61	6.82	4.15	5.98	6.29
February	7.68	6.85	4.18	6.26	6.29
March	8.03	6.94	4.15	6.30	6.33
April	8.13	6.97	4.21	6.52	6.35
May	8.32	7.11	4.41	6.09	6.54
June	8.51	7.45	4.59	6.35	6.90
July	8.57	7.52	4.74	6.42	7.09
August	8.61	7.58	4.82	6.33	7.13
September	8.49	7.42	4.61	6.54	6.91
9-Month Average	8.24	7.21	4.44	6.31	6.68
1999 9-Month Average	8.18	7.30	4.46	6.37	6.71
1998 9-Month Average	8.32	7.47	4.52	6.67	6.81

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

Notes: Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of electric utility billing and accounting procedures. That lack of correspondence could result

in uncharacteristic increases or decreases in the monthly prices. See Note 7 at end of section. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

An update to Table 9.9 was not available.

Table 9.10 Quantity and Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants

	Coal		Petroleum				Natural Gas ^a		All Fossil Fuels ^b
	Quantity (thousand short tons)	Cost (cents per million Btu)	Heavy Oil ^b		Total ^{b,c}		Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
			Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)			
1973 Year	374,842	40.5	512,650	78.5	535,859	80.0	3,382,677	33.8	47.6
1974 Year	384,868	70.9	479,166	189.0	515,217	191.0	3,225,203	48.2	91.4
1975 Year	431,527	81.4	457,582	200.5	510,352	202.3	3,034,808	75.2	104.4
1976 Year	454,858	84.8	495,363	195.2	549,973	199.0	2,962,811	103.4	111.9
1977 Year	490,415	94.7	563,685	219.8	635,556	224.9	3,106,403	129.1	129.7
1978 Year	476,169	111.6	546,197	212.5	616,040	219.1	3,140,654	142.2	141.1
1979 Year	556,558	122.4	479,705	298.8	515,695	307.2	3,368,976	174.9	163.9
1980 Year	593,995	135.1	394,159	426.7	419,140	435.1	3,588,814	219.9	192.8
1981 Year	579,374	153.2	327,477	533.4	345,544	542.5	3,573,558	280.5	225.6
1982 Year	601,427	164.7	228,200	483.2	239,111	492.2	3,161,348	337.6	224.9
1983 Year	592,728	165.6	211,705	457.8	219,652	462.8	2,732,248	347.4	220.6
1984 Year	684,111	166.4	193,832	481.2	202,372	486.3	2,878,808	360.3	219.1
1985 Year	666,743	164.8	156,410	424.4	164,947	431.7	2,808,921	344.4	209.4
1986 Year	686,964	157.9	220,585	240.1	228,522	243.7	2,387,622	235.1	175.0
1987 Year	721,298	150.6	187,300	297.6	194,578	301.1	2,605,191	224.0	170.6
1988 Year	727,775	146.6	230,234	240.5	236,924	243.9	2,362,721	226.3	164.3
1989 Year	753,217	144.5	237,668	284.6	246,422	289.3	2,472,506	235.5	167.5
1990 Year	786,627	145.5	202,281	331.9	209,350	338.4	2,490,979	232.1	168.9
1991 Year	769,923	144.7	163,106	246.5	169,625	254.8	2,630,818	215.3	160.3
1992 Year	775,963	141.2	138,537	247.5	144,390	255.1	2,637,678	232.8	159.0
1993 Year	769,152	138.5	141,719	236.2	147,902	243.3	2,574,523	256.0	159.5
1994 Year	831,929	135.5	135,184	240.9	142,940	248.8	2,863,904	223.0	152.6
1995 Year	826,860	131.8	78,216	258.6	84,292	267.9	3,023,327	198.4	145.3
1996 Year	862,701	128.9	98,926	303.4	106,629	315.7	2,604,663	264.1	151.9
1997 Year	880,588	127.3	110,906	278.8	117,789	288.0	2,764,734	276.0	152.2
1998 January	79,212	125.7	9,569	235.5	10,105	242.4	165,869	275.0	143.3
February	70,353	126.2	8,736	206.0	9,255	214.0	124,584	253.4	139.2
March	75,678	126.6	10,676	199.3	11,133	204.6	181,034	254.4	142.5
April	74,848	126.6	11,749	218.9	12,289	225.0	186,127	259.8	144.7
May	75,980	126.3	11,554	215.3	12,185	221.5	252,869	247.1	146.7
June	76,605	126.4	13,350	216.8	14,164	222.6	331,124	238.0	149.6
July	79,676	125.5	21,016	220.1	21,877	223.9	389,405	247.7	154.5
August	82,057	125.8	19,262	202.9	20,107	207.2	389,961	217.8	147.2
September	78,854	124.8	12,919	196.0	13,602	202.1	331,911	211.9	142.6
October	79,399	123.5	14,952	207.8	15,683	213.7	230,952	223.1	140.1
November	77,087	123.8	10,569	198.8	11,192	205.1	164,341	241.0	137.8
December	79,700	121.0	12,500	175.5	13,599	183.5	174,780	231.0	134.3
Total	929,448	125.2	156,852	207.9	165,191	213.6	2,922,957	238.1	143.8
1999 January	76,346	122.1	13,215	176.3	14,028	181.9	163,114	225.8	134.7
February	73,956	124.7	10,013	166.2	10,417	171.5	138,852	221.7	134.5
March	76,771	124.0	11,001	175.6	11,471	180.6	187,369	212.3	135.4
April	71,933	124.4	10,647	212.4	11,099	217.6	229,069	224.7	141.3
May	74,458	121.8	10,701	230.2	11,289	236.0	253,352	251.6	144.3
June	74,427	122.3	11,176	233.5	11,959	240.5	278,473	247.5	146.0
July	76,496	121.0	13,249	259.6	14,198	267.9	367,060	251.3	151.9
August	81,351	120.6	12,129	293.3	13,203	303.7	379,367	282.1	157.2
September	76,745	120.3	9,557	304.2	10,126	312.0	262,342	294.5	151.4
October	77,114	121.3	8,052	310.2	8,636	320.9	220,823	282.4	146.7
November	73,998	119.1	7,449	315.8	8,035	329.0	164,874	298.2	142.7
December	74,638	118.2	6,030	330.4	6,946	353.9	164,761	264.7	138.5
Total	908,232	121.6	123,219	243.6	131,407	252.7	2,809,455	257.4	144.1
2000 January	70,017	119.4	2,668	353.6	3,037	378.6	170,117	270.9	138.8
February	66,992	121.3	3,846	391.7	4,271	419.6	151,115	290.2	143.3
March	69,703	121.2	3,764	385.8	4,066	402.7	191,465	293.0	146.0
April	63,275	121.3	4,621	384.3	4,909	394.3	199,665	315.8	152.9
May	67,178	120.3	7,578	411.3	8,188	424.3	268,904	354.9	167.4
June	65,080	121.0	10,034	435.4	10,636	444.2	268,618	445.7	187.4
July	68,229	119.3	11,394	431.0	12,024	439.8	321,994	434.0	191.3
August	69,160	118.5	10,992	418.0	11,406	426.4	330,155	429.6	189.0
September	64,081	117.6	8,481	454.5	8,939	467.8	236,112	486.1	186.3
9 Months	603,715	120.0	63,378	418.5	67,477	430.5	2,138,144	383.8	167.7
1999 9 Months	682,481	122.3	101,688	227.9	107,790	235.1	2,258,997	251.4	144.5
1998 9 Months	693,262	126.0	118,830	212.1	124,717	217.6	2,352,884	239.9	145.9

^a Includes supplemental gaseous fuels.

^b Heavy oil includes fuel oil nos. 4, 5, and 6, and topped crude oil. The weighted averages for petroleum and all fossil fuels include both heavy and light oil (fuel oil nos. 1 and 2, kerosene, and jet fuel) prices. Data do not include petroleum coke.

^c Data for 1973-1982 do not include small quantities of rerefined motor oil,

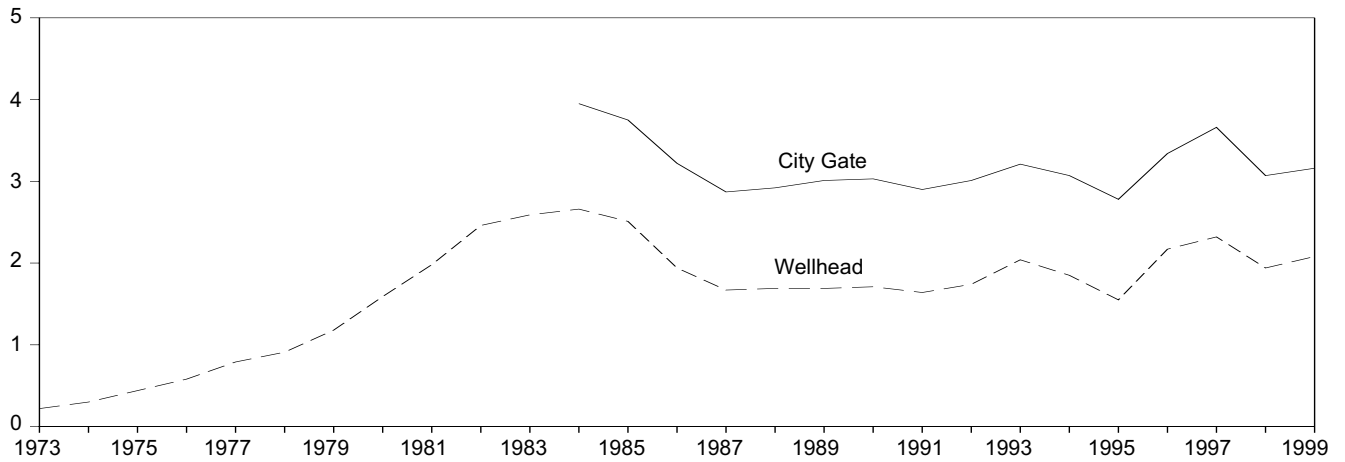
bunker oil, and liquefied petroleum gas.

Notes: Receipts are purchases of fuel. Yearly costs are averages of monthly values, weighted by quantities in Btu. See Note 8 at end of section. Geographic coverage is the 50 States and the District of Columbia.

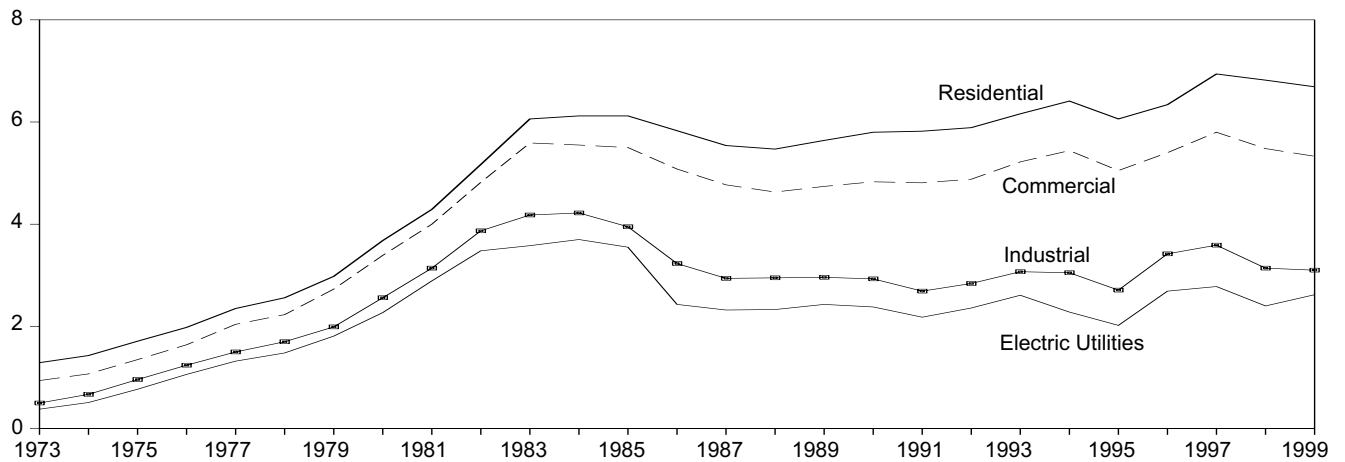
Sources: See end of section.

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

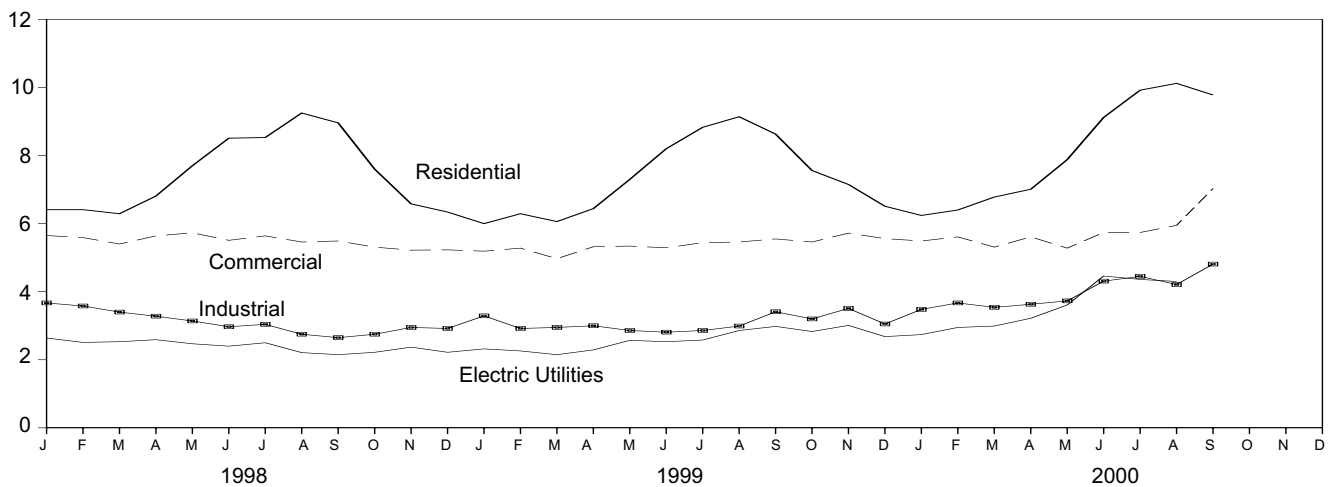
Selected Prices, 1973-1999



Delivered to Consumers, 1973-1999



Delivered to Consumers, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 9.11.

Table 9.11 Natural Gas Prices

(Prices: Dollars per Thousand Cubic Feet; Share of Volume Delivered: Percentage)

	Wellhead	City Gate	Delivered to Consumers ^{a,b}						Electric Utilities ^c
			Residential	Commercial		Industrial			
				Price	Share of Total Volume Delivered	Price	Share of Total Volume Delivered		
1973 Average	0.22	NA	1.29	0.94	NA	0.50	NA	0.38	
1974 Average .....	.30	NA	1.43	1.07	NA	.67	NA	.51
1975 Average .....	.44	NA	1.71	1.35	NA	.96	NA	.77
1976 Average .....	.58	NA	1.98	1.64	NA	1.24	NA	1.06
1977 Average .....	.79	NA	2.35	2.04	NA	1.50	NA	1.32
1978 Average .....	.91	NA	2.56	2.23	NA	1.70	NA	1.48
1979 Average	1.18	NA	2.98	2.73	NA	1.99	NA	1.81	
1980 Average	1.59	NA	3.68	3.39	NA	2.56	NA	2.27	
1981 Average	1.98	NA	4.29	4.00	NA	3.14	NA	2.89	
1982 Average	2.46	NA	5.17	4.82	NA	3.87	85.1	3.48	
1983 Average	2.59	NA	6.06	5.59	NA	4.18	80.7	3.58	
1984 Average	2.66	3.95	6.12	5.55	NA	4.22	74.7	3.70	
1985 Average	2.51	3.75	6.12	5.50	NA	3.95	68.8	3.55	
1986 Average	1.94	3.22	5.83	5.08	NA	3.23	59.8	2.43	
1987 Average	1.67	2.87	5.54	4.77	93.1	2.94	47.4	2.32	
1988 Average	1.69	2.92	5.47	4.63	90.8	2.95	42.6	2.33	
1989 Average	1.69	3.01	5.64	4.74	89.1	2.96	36.9	2.43	
1990 Average	1.71	3.03	5.80	4.83	86.6	2.93	35.2	2.38	
1991 Average	1.64	2.90	5.82	4.81	85.1	2.69	32.7	2.18	
1992 Average	1.74	3.01	5.89	4.88	83.2	2.84	30.3	2.36	
1993 Average	2.04	3.21	6.16	5.22	83.9	3.07	29.7	2.61	
1994 Average	1.85	3.07	6.41	5.44	79.3	3.05	25.5	2.28	
1995 Average	1.55	2.78	6.06	5.05	76.7	2.71	24.5	2.02	
1996 Average	2.17	3.34	6.34	5.40	77.6	3.42	19.4	2.69	
1997 Average	2.32	3.66	6.94	5.80	70.8	3.59	18.1	2.78	
1998 January	1.95	3.08	6.41	5.65	73.2	3.67	16.8	2.64	
February	1.95	3.08	6.41	5.59	72.9	3.58	16.7	2.51	
March	2.05	3.06	6.29	5.40	73.6	3.40	17.3	2.53	
April	2.15	3.23	6.81	5.64	67.7	3.28	15.8	2.59	
May	2.04	3.12	7.70	5.73	62.6	3.14	14.9	2.47	
June	1.90	2.98	8.51	5.51	62.9	2.97	15.1	2.40	
July	2.08	3.31	8.53	5.64	56.0	3.04	13.1	2.50	
August	1.81	3.01	9.25	5.46	53.3	2.75	13.8	2.21	
September	1.69	2.78	8.96	5.49	57.0	2.65	14.2	2.15	
October	1.85	2.99	7.60	5.31	59.2	2.75	14.8	2.22	
November	1.93	2.99	6.58	5.22	64.5	2.95	15.7	2.37	
December	1.94	3.10	6.34	5.23	68.3	2.92	17.2	2.22	
Average	1.94	3.07	6.82	5.48	67.0	3.14	16.1	2.40	
1999 January	RE 1.80	2.87	6.00	5.19	73.1	3.29	16.9	2.32	
February	RE 1.73	2.93	6.29	5.28	69.7	2.92	16.8	2.26	
March	RE 1.70	2.69	6.06	4.97	69.3	2.95	17.4	2.15	
April	RE 1.93	2.94	6.44	5.32	65.4	3.00	16.6	2.29	
May	RE 2.10	3.41	7.30	5.34	61.1	2.86	16.0	2.57	
June	RE 2.09	3.28	8.20	5.29	61.1	2.81	15.8	2.53	
July	RE 2.07	3.23	8.83	5.44	58.2	2.86	15.7	2.58	
August	RE 2.34	3.53	9.14	5.46	56.6	2.99	18.8	2.86	
September	RE 2.42	3.72	8.63	5.55	60.0	3.41	17.5	2.98	
October	RE 2.31	3.31	7.56	5.46	61.7	3.20	17.5	2.83	
November	RE 2.44	3.76	7.15	5.72	63.0	3.51	17.7	3.01	
December	RE 2.03	3.24	6.51	5.56	67.6	3.05	21.3	2.68	
Average	RE 2.08	3.16	6.69	5.33	66.2	3.10	18.8	2.62	
2000 January	E 2.12	3.33	6.24	5.49	66.8	3.48	17.1	2.74	
February	E 2.30	3.50	6.40	5.61	68.0	3.67	16.6	2.95	
March	E 2.36	3.57	6.78	5.31	64.2	3.54	15.8	2.99	
April	E 2.55	3.72	7.01	5.61	64.3	3.63	15.5	3.22	
May	E 2.90	4.00	7.88	5.28	63.6	3.73	14.6	3.61	
June	E 3.73	5.21	9.12	5.74	61.0	4.31	15.4	4.46	
July	E 3.70	5.13	9.92	5.74	59.3	4.45	15.9	4.36	
August	E 3.67	4.03	10.12	5.95	56.8	4.21	15.1	4.30	
September	E 4.26	5.71	9.78	7.03	58.9	4.81	13.5	NA	
October	F 4.61	NA	NA	NA	NA	NA	NA	NA	
November	F 4.62	NA	NA	NA	NA	NA	NA	NA	
Year-to-Date Avg. ^d ...	E 3.35	3.97	7.13	5.64	64.0	3.96	15.5	3.76	
1999 Year-to-Date Avg. ^d ...	2.08	3.06	6.62	5.25	66.6	3.02	16.9	2.51	
1998 Year-to-Date Avg. ^d ...	1.95	3.08	6.90	5.57	67.7	3.20	15.3	2.44	

^a Includes supplemental gaseous fuels.

^b See Note 9 at end of section.

^c See Note 8 at end of section.

^d Based on number of months with data in the current year.

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

Notes: Prices shown on this page are intended to include all taxes. See Note 9 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.

Energy Prices Notes

1. 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.”

2. 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.

3. 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 March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

4. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on Energy Information Administration (EIA) Form EIA-14, “Refiners’ Monthly Cost Report.” Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, “Domestic Crude Oil Entitlements Program Refiners Monthly Report.” Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

The refiner acquisition cost of crude oil is the average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1331. Imported crude oil is either that oil reported on Form ERA-51, “Transfer Pricing Report,” or any crude oil that is not domestic oil. The composite cost is the weighted average of domestic and imported crude oil costs.

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on Federal Energy Administration (FEA) Form FEA-P110-M-1, “Refiners’ Monthly Cost Allocation

Report,” included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-14 include either unfinished oils or SPR.

5. 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 were 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.

6. 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 com-

pany-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 reprinted from the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

7. Preliminary monthly data are based on submissions from over 250 publicly and privately owned electric utilities reporting on Form EIA-826, "Monthly Electric Utility Sales and Revenue Report With State Distributions." These utilities are statistically chosen as a cutoff sample from more than 3,000 electric utilities that report annually on Form EIA-861, "Annual Electric Utility Report." Preliminary annual values are the sum of the monthly revenues divided by the sum of the monthly sales. When final Form EIA-861 annual data become available each year, their ratios to the preliminary Form EIA-826 values are used to derive adjusted final monthly values. Prior to January 1986, only privately owned electric utilities were included in the monthly survey and the sample was chosen using stratification techniques through December 1992.

8. Data for 1973-1982 cover all 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 electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991 forward cover all electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater.

9. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, and electric utility consumers. They do not include the price of natural gas delivered to industrial and commercial consumers on behalf of third parties. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.4. Additional information is available in the EIA *Natural Gas Monthly*, Appendix C.

Sources for Table 9.1

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 (FEA), based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."

1978 forward—Energy Information Administration (EIA), *Petroleum Marketing Monthly*, January 2001, Table 1.

F.O.B. and Landed Cost of Imports

December 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 forward—EIA, *Petroleum Marketing Monthly*, January 2001, 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 forward—EIA, *Petroleum Marketing Monthly*, January 2001, Table 1.

Sources for Table 9.2

October 1973-September 1977—Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

October 1977-December 1977—Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report."

1978 forward—EIA, *Petroleum Marketing Monthly*, January 2001, Table 24.

Sources for Table 9.9

1973-September 1977—Federal Power Commission (FPC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income."

October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income."

March 1980-1982—FERC, Form FERC-5, "Electric Utility Company Monthly Statement."

1983—Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement."

1984-1989—EIA, Form EIA-861, "Annual Electric Utility Report."

1990 forward—EIA, *Electric Power Monthly*, January 2001, Table 52.

Sources for Table 9.10

1973-June 1977—Federal Power Commission, Form FPC-423, “Monthly Report on Cost and Quality of Fuels for Electric Utility Plants.”

June 1977-December 1977—Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report on Cost and Quality of Fuels for Electric Utility Plants.”
1978 and 1979—Energy Information Administration (EIA), Form FERC-423, “Monthly Report on Cost and Quality of Fuels for Electric Utility Plants.”

1980-1989—EIA, *Electric Power Monthly*, April issues.

1990 forward—EIA, *Electric Power Monthly*, January 2001, Table 26.

Sources for Table 9.11

Prices, 1973-1993

Wellhead—Energy Information Administration (EIA), *Natural Gas Annual 1999*, Table 92.

City Gate, 1984-1987—EIA, *Natural Gas Monthly*, March 1990, Table 4.

City Gate, 1988-1992—EIA, *Natural Gas Monthly*, March 1995, Table 4.

City Gate, 1993—EIA, *Natural Gas Monthly*, December 2000, Table 4.

Delivered to Consumers, 1973-1993—EIA, *Natural Gas Annual 1999*, Table 95.

Prices, 1994 forward

EIA, *Natural Gas Monthly*, December 2000, Table 4.

Share of Total Volume Delivered, Annual

Calculated from EIA, *Natural Gas Annual, Volume 1*, report series, Table 1, “Summary Statistics for Natural Gas in the United States,” as total amount of natural gas delivered to the sector’s consumers minus the amount delivered for the account of others (to derive the amount on system) divided by the total amount delivered to the sector.

Share of Total Volume Delivered, Monthly

EIA, table titled, “Percentage of Total Deliveries Represented by Onsystem Sales, by State,” in the *Natural Gas Monthly* issues as follows:

April 1988-March 1989	- Table C-1
April 1989-December 1991	- Table 33
January 1992-February 1993	- Table 32
March 1993-October 1995	- Table 28
November 1995-December 1997	- Table 24
January 1998-Present	- Table 25

Section 10. International Energy

Crude Oil Production. World crude oil production during October 2000 was 69 million barrels per day, up by 0.4 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during October 2000 averaged 30 million barrels per day, down 0.3 million barrels per day from the level during the previous month. During October 2000, production decreased in Saudi Arabia by 175 thousand barrels per day and Indonesia by 30 thousand barrels per day. Production increased in Iraq by 130 thousand barrels per day; Nigeria by 100 thousand barrels per day; Iran by 80 thousand barrels per day; Venezuela by 70 thousand barrels per day; both the United Arab Emirates and Algeria by 20 thousand barrels per day; Libya by 10 thousand barrels per day; and both Qatar and Kuwait by 3 thousand barrels per day.

Among the non-OPEC nations, production during October 2000 increased in Norway by 235 thousand barrels per day; the United Kingdom by 136 thousand barrels per day; the United States by 53 thousand barrels per day; and Russia by 43 thousand barrels per day. Production decreased in Mexico by 312 thousand barrels per day; Canada by 30 thousand barrels per day; and China by 5 thousand barrels per day. Production remained unchanged in Egypt.

Petroleum Consumption. In August 2000, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 43.7 million barrels per day, 3 percent higher than the August 1999 rate. Comparing August rates in 2000 and 1999, consumption was higher in 2000 in Germany (+12 percent); Italy (+6 percent); Japan and France (both +4 percent); Canada (+3 percent); and the United States (+1 percent). The August 2000 consumption rate was lower in the United Kingdom (-1 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of August 2000 totaled 3.6 billion barrels, 6 percent lower than the ending stock level in August 1999. Stock levels were lower in August 2000 in Germany (-11 percent); the United Kingdom (-6 percent); the United States (-5 percent); France (-4 percent); Japan (-3 percent); and Canada (-2 percent). Stock levels were higher in Italy (+1 percent), compared with levels 1 year earlier.

Nuclear Electricity Generation. Based on *Nucleonics Week*² information for October 2000, all reporting countries with nuclear capacity generated 206.7 gross terawatt-hours (one terawatt-hour equals 1 billion kilowatt-hours) of nuclear-generated electricity.

As of October 31, 2000, there were 434 operable nuclear generating units in the world.

¹ Percentage changes are based on unrounded data.

² A copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.1a World Oil Production: OPEC Members
(Thousand Barrels per Day)

	Algeria	Indonesia	Iran	Iraq	Kuwait ^a	Libya	Nigeria	Qatar	Saudi Arabia ^a	United Arab Emirates	Venezuela	OPEC ^b
1973 Average	1,097	1,339	5,861	2,018	3,020	2,175	2,054	570	7,596	1,533	3,366	30,629
1974 Average	1,009	1,375	6,022	1,971	2,546	1,521	2,255	518	8,480	1,679	2,976	30,351
1975 Average	983	1,307	5,350	2,262	2,084	1,480	1,783	438	7,075	1,664	2,346	26,771
1976 Average	1,075	1,504	5,883	2,415	2,145	1,933	2,067	497	8,577	1,936	2,294	30,327
1977 Average	1,152	1,686	5,663	2,348	1,969	2,063	2,085	445	9,245	1,999	2,238	30,893
1978 Average	1,231	1,635	5,242	2,563	2,131	1,983	1,897	487	8,301	1,831	2,165	29,464
1979 Average	1,224	1,591	3,168	3,477	2,500	2,092	2,302	508	9,532	1,831	2,356	30,581
1980 Average	1,106	1,577	1,662	2,514	1,656	1,787	2,055	472	9,900	1,709	2,168	26,606
1981 Average	1,002	1,605	1,380	1,000	1,125	1,140	1,433	405	9,815	1,474	2,102	22,481
1982 Average	987	1,339	2,214	1,012	823	1,150	1,295	330	6,483	1,250	1,895	18,778
1983 Average	968	1,343	2,440	1,005	1,064	1,105	1,241	295	5,086	1,149	1,801	17,497
1984 Average	1,014	1,412	2,174	1,209	1,157	1,087	1,388	394	4,663	1,146	1,798	17,442
1985 Average	1,037	1,325	2,250	1,433	1,023	1,059	1,495	301	3,388	1,193	1,677	16,181
1986 Average	945	1,390	2,035	1,690	1,419	1,034	1,467	308	4,870	1,330	1,787	18,275
1987 Average	1,048	1,343	2,298	2,079	1,585	972	1,341	293	4,265	1,541	1,752	18,517
1988 Average	1,040	1,342	2,240	2,685	1,492	1,175	1,450	346	5,086	1,565	1,903	20,324
1989 Average	1,095	1,409	2,810	2,897	1,783	1,150	1,716	380	5,064	1,860	1,907	22,071
1990 Average	1,175	1,462	3,088	2,040	1,175	1,375	1,810	406	6,410	2,117	2,137	23,195
1991 Average	1,230	1,592	3,312	305	190	1,483	1,892	395	8,115	2,386	2,375	23,275
1992 Average	1,214	1,504	3,429	425	1,058	1,433	1,943	423	8,332	2,266	2,371	24,398
1993 Average	1,162	1,511	3,540	512	1,852	1,361	1,960	413	8,198	2,159	2,450	25,119
1994 Average	1,180	1,510	3,618	553	2,025	1,378	1,931	415	8,120	2,193	2,588	25,510
1995 Average	1,202	1,503	3,643	560	2,057	1,390	1,993	442	8,231	2,233	2,750	26,004
1996 Average	1,242	1,547	3,686	579	2,062	1,401	2,001	510	8,218	2,278	2,938	26,461
1997 Average	1,277	1,520	3,664	1,155	2,083	1,446	2,332	649	8,562	2,316	3,315	28,320
1998												
January	1,290	1,520	3,635	1,261	2,215	1,463	2,218	715	8,765	2,435	3,440	28,957
February	1,290	1,520	3,635	1,703	2,210	1,463	2,263	735	8,760	2,435	3,410	29,424
March	1,290	1,520	3,635	1,825	2,210	1,463	2,380	735	8,460	2,480	3,410	29,408
April	1,270	1,520	3,835	1,985	2,115	1,412	2,238	705	8,585	2,420	3,240	29,325
May	1,250	1,520	3,635	2,245	2,105	1,372	2,230	705	8,625	2,330	3,240	29,257
June	1,240	1,490	3,835	1,920	2,105	1,372	2,210	705	8,325	2,300	3,210	28,712
July	1,230	1,490	3,585	2,355	2,075	1,372	2,160	685	8,275	2,280	3,070	28,577
August	1,220	1,510	3,435	2,555	2,025	1,352	2,010	675	8,225	2,300	2,990	28,297
September	1,220	1,510	3,685	2,555	1,972	1,347	2,010	665	8,173	2,300	2,940	28,377
October	1,220	1,540	3,485	2,555	1,970	1,347	1,960	670	8,220	2,290	2,990	28,247
November	1,220	1,540	3,635	2,505	2,020	1,362	2,060	675	8,170	2,290	3,040	28,517
December	1,220	1,540	3,585	2,305	2,010	1,362	2,110	680	8,110	2,290	3,040	28,252
Average	1,246	1,518	3,634	2,150	2,085	1,390	2,153	696	8,389	2,345	3,167	28,774
1999												
January	1,230	1,540	3,665	2,515	1,995	1,360	2,080	695	8,065	2,240	3,020	28,405
February	1,240	1,520	3,925	2,655	2,005	1,360	2,010	695	8,165	2,330	3,000	28,905
March	1,250	1,530	3,795	2,430	2,020	1,360	2,160	775	8,220	2,235	2,960	28,735
April	1,210	1,530	3,485	2,655	1,785	1,320	2,160	705	7,665	2,180	2,800	27,495
May	1,190	1,530	3,435	2,705	1,815	1,300	2,190	685	7,665	2,130	2,780	27,425
June	1,180	1,510	3,415	2,355	1,830	1,290	2,150	655	7,610	2,110	2,760	26,865
July	1,180	1,490	3,515	2,805	1,830	1,290	2,130	685	7,610	2,130	2,760	27,425
August	1,190	1,480	3,535	2,855	1,860	1,290	2,140	685	7,710	2,140	2,760	27,645
September	1,190	1,480	3,485	2,855	1,885	1,300	2,150	685	7,735	2,145	2,760	27,670
October	1,190	1,480	3,535	2,670	1,925	1,310	2,170	685	7,845	2,145	2,760	27,715
November	1,190	1,480	3,485	2,205	1,905	1,320	2,160	685	7,865	2,105	2,780	27,180
December	1,190	1,480	3,435	1,405	1,922	1,330	2,050	695	7,863	2,155	2,780	26,305
Average	1,202	1,504	3,557	2,508	1,898	1,319	2,130	694	7,833	2,169	2,826	27,641
2000												
January	1,190	1,460	3,465	2,215	1,962	1,330	2,010	695	7,863	2,245	2,780	27,215
February	1,190	1,430	3,525	2,595	2,015	1,380	2,060	705	7,865	2,250	2,840	27,855
March	1,190	1,430	3,735	2,215	2,040	1,390	2,080	705	7,865	2,300	2,840	27,790
April	1,230	1,460	3,675	2,655	2,100	1,400	2,140	715	8,100	2,380	2,890	28,745
May	1,240	1,490	3,685	3,055	2,100	1,400	2,110	735	8,200	2,380	2,920	29,315
June	1,250	1,490	3,705	2,565	2,150	1,420	2,140	735	8,250	2,280	2,940	28,925
July	1,250	1,490	3,750	2,525	2,170	1,425	2,180	755	8,390	2,320	2,960	29,215
August	1,260	1,490	3,750	2,995	2,173	1,420	2,160	755	8,823	2,380	2,970	30,175
September	1,250	1,490	3,755	2,875	2,170	1,430	2,110	755	8,975	2,390	2,970	30,170
October	1,270	1,460	3,835	3,005	2,210	1,440	2,210	760	8,800	2,410	3,040	30,440
10-Mo. Avg.	1,232	1,469	3,689	2,670	2,109	1,404	2,120	732	8,315	2,334	2,915	28,989
1999 10-Mo. Avg.	1,205	1,509	3,577	2,650	1,895	1,318	2,135	695	7,827	2,177	2,835	27,823
1998 10-Mo. Avg.	1,252	1,514	3,639	2,099	2,099	1,396	2,167	699	8,439	2,356	3,193	28,853

^a Includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone from 1973 through July 1990 and in June 1991. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In October 2000, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 595 thousand barrels per day.

^b Current members of OPEC are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Ecuador and Gabon, which withdrew from OPEC membership at the end of 1992 and 1994, respectively, are excluded from all OPEC totals.

Notes: Crude oil includes lease condensate but excludes 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.

Sources: See end of section.

Table 10.1b World Oil Production: Persian Gulf Nations, Non-OPEC, and World

(Thousand Barrels per Day)

	Persian Gulf Nations ^a	Selected Non-OPEC Producers									Total Non-OPEC	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	25,050	55,679
1974 Average	21,282	1,551	1,315	150	571	35	8,912	NA	2	8,774	25,366	55,716
1975 Average	18,934	1,430	1,490	235	705	189	9,523	NA	12	8,375	26,058	52,828
1976 Average	21,514	1,314	1,670	330	831	279	10,060	NA	245	8,132	27,018	57,344
1977 Average	21,725	1,321	1,874	415	981	280	10,603	NA	768	8,245	28,814	59,707
1978 Average	20,606	1,316	2,082	485	1,209	356	11,105	NA	1,082	8,707	30,694	60,158
1979 Average	21,066	1,500	2,122	525	1,461	403	11,384	NA	1,568	8,552	32,094	62,674
1980 Average	17,961	1,435	2,114	595	1,936	528	11,706	NA	1,622	8,597	32,994	59,600
1981 Average	15,245	1,285	2,012	598	2,313	501	11,850	NA	1,811	8,572	33,595	56,076
1982 Average	12,156	1,271	2,045	670	2,748	520	11,912	NA	2,065	8,649	34,703	53,481
1983 Average	11,081	1,356	2,120	727	2,689	614	11,972	NA	2,291	8,688	35,759	53,256
1984 Average	10,784	1,438	2,296	822	2,780	697	11,861	NA	2,480	8,879	37,047	54,489
1985 Average	9,630	1,471	2,505	887	2,745	788	11,585	NA	2,530	8,971	37,801	53,982
1986 Average	11,696	1,474	2,620	813	2,435	870	11,895	NA	2,539	8,680	37,952	56,227
1987 Average	12,103	1,535	2,690	896	2,548	1,022	12,050	NA	2,406	8,349	38,149	56,666
1988 Average	13,457	1,616	2,730	848	2,512	1,158	12,053	NA	2,232	8,140	38,413	58,737
1989 Average	14,837	1,560	2,757	865	2,520	1,554	11,715	NA	1,802	7,613	37,792	59,863
1990 Average	15,278	1,553	2,774	873	2,553	1,704	10,975	NA	1,820	7,355	37,371	60,566
1991 Average	14,741	1,548	2,835	874	2,680	1,890	9,992	NA	1,797	7,417	36,932	60,207
1992 Average	15,970	1,605	2,845	881	2,669	2,229	-	7,632	1,825	7,171	35,815	60,213
1993 Average	16,715	1,679	2,890	890	2,673	2,350	-	6,730	1,915	6,847	35,117	60,236
1994 Average	16,964	1,746	2,939	896	2,685	2,521	-	6,135	2,375	6,662	35,481	60,991
1995 Average	17,208	1,805	2,990	920	2,618	2,768	-	5,995	2,489	6,560	36,331	62,335
1996 Average	17,367	1,837	3,131	922	2,855	3,104	-	5,850	2,568	6,465	37,250	63,711
1997 Average	18,470	1,922	3,200	856	3,023	3,143	-	5,920	2,518	6,452	38,100	66,420
1998 January	19,064	1,912	3,240	828	3,085	3,293	-	5,894	2,597	6,541	38,699	67,656
February	19,516	1,944	3,155	828	3,140	3,230	-	5,912	2,583	6,476	38,597	68,020
March	19,383	1,952	3,170	828	3,160	3,123	-	5,877	2,600	6,408	38,490	67,897
April	19,683	1,988	3,140	828	3,140	3,160	-	5,792	2,602	6,483	38,437	67,762
May	19,683	1,943	3,210	838	3,149	2,917	-	5,707	2,499	6,347	37,963	67,220
June	19,228	1,932	3,260	838	3,050	3,140	-	5,843	2,495	6,267	38,241	66,953
July	19,293	2,045	3,200	847	3,120	3,120	-	5,839	2,525	6,194	38,245	66,822
August	19,253	2,016	3,180	838	3,055	2,440	-	5,826	2,536	6,203	37,510	65,807
September	19,388	2,064	3,216	838	2,906	2,863	-	5,852	2,690	5,789	37,527	65,904
October	19,228	2,024	3,150	838	2,792	2,920	-	5,894	2,718	6,143	37,778	66,025
November	19,333	1,989	3,240	828	3,147	2,978	-	5,860	2,720	6,140	38,353	66,870
December	19,018	1,962	3,215	828	3,107	3,045	-	5,954	2,821	6,043	38,445	66,697
Average	19,337	1,981	3,198	834	3,070	3,017	-	5,854	2,616	6,252	38,188	66,962
1999 January	19,210	1,892	3,230	860	3,144	3,002	-	5,962	2,721	5,963	38,298	66,703
February	19,810	1,878	3,235	860	3,020	3,004	-	5,897	2,728	5,966	38,122	67,027
March	19,510	1,835	3,215	870	3,053	2,975	-	6,024	2,708	5,883	37,967	66,702
April	18,510	1,832	3,190	870	2,893	2,953	-	6,021	2,746	5,887	37,762	65,257
May	18,470	1,882	3,190	860	2,926	2,948	-	6,036	2,597	5,875	37,639	65,064
June	18,010	1,936	3,190	850	2,801	2,727	-	6,026	2,429	5,760	37,146	64,011
July	18,610	1,959	3,261	840	2,920	3,094	-	6,148	2,672	5,798	38,108	65,533
August	18,820	1,906	3,170	840	2,848	2,868	-	6,139	2,699	5,780	37,763	65,408
September	18,825	1,857	3,145	850	2,861	2,864	-	6,141	2,670	5,804	37,778	65,448
October	18,840	1,892	3,177	840	2,766	3,070	-	6,153	2,762	5,947	38,244	65,959
November	18,285	2,006	3,245	840	2,852	3,300	-	6,153	2,782	5,960	38,768	65,948
December	17,510	2,002	3,225	840	2,793	3,404	-	6,230	2,697	5,959	38,833	65,138
Average	18,695	1,907	3,206	852	2,906	3,018	-	6,079	2,684	5,881	38,037	65,678
2000 January	18,480	1,979	3,250	840	3,032	3,233	-	6,239	2,721	5,833	38,881	66,096
February	18,990	1,991	3,280	830	2,897	3,348	-	6,248	2,644	5,889	38,851	66,706
March	18,895	1,892	3,280	830	2,998	3,248	-	6,321	2,678	5,873	38,875	66,665
April	19,660	1,894	3,300	830	3,041	3,052	-	6,308	2,549	5,850	38,561	67,306
May	20,190	1,990	3,250	820	3,040	3,149	-	6,352	2,311	5,836	38,498	67,813
June	19,720	2,020	3,295	810	3,056	2,984	-	6,421	2,446	5,824	38,738	67,663
July	19,945	1,986	3,280	800	2,876	3,398	-	6,494	2,535	5,792	39,113	68,328
August	20,910	1,955	3,205	790	3,162	3,025	-	6,546	2,370	5,813	38,883	69,058
September	20,955	R 2,007	R 3,220	R 790	3,173	R 3,012	-	6,590	R 2,315	5,767	R 38,813	R 68,983
October	21,055	1,977	3,215	790	2,861	3,247	-	6,633	2,451	5,820	38,985	69,425
10-Mo. Avg.	19,884	1,969	3,257	813	3,014	3,170	-	6,416	2,502	5,830	38,821	67,810
1999 10-Mo. Avg.	18,856	1,887	3,200	854	2,923	2,951	-	6,056	2,673	5,866	37,884	65,706
1998 10-Mo. Avg.	19,370	1,982	3,192	835	3,059	3,018	-	5,843	2,584	6,284	38,145	66,998

^a 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."

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

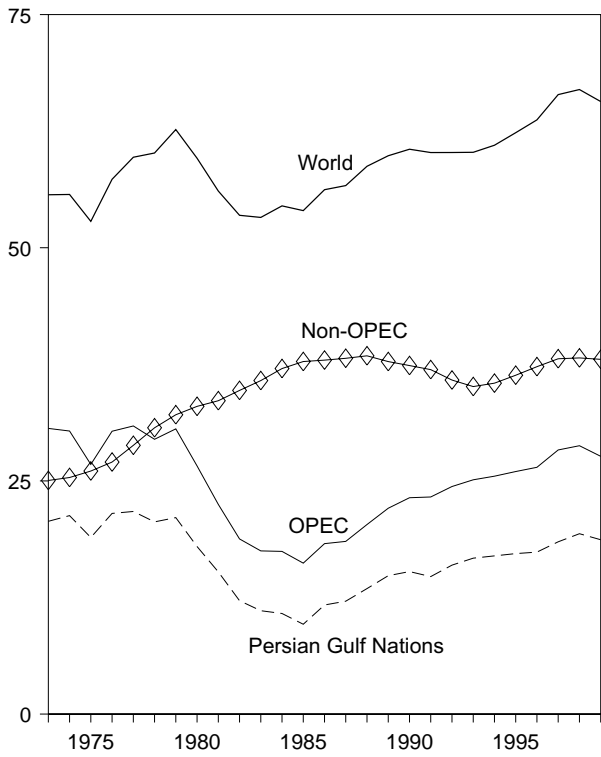
Notes: Crude oil includes lease condensate but excludes natural gas plant liquids. Monthly data are often preliminary figures and may not

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.

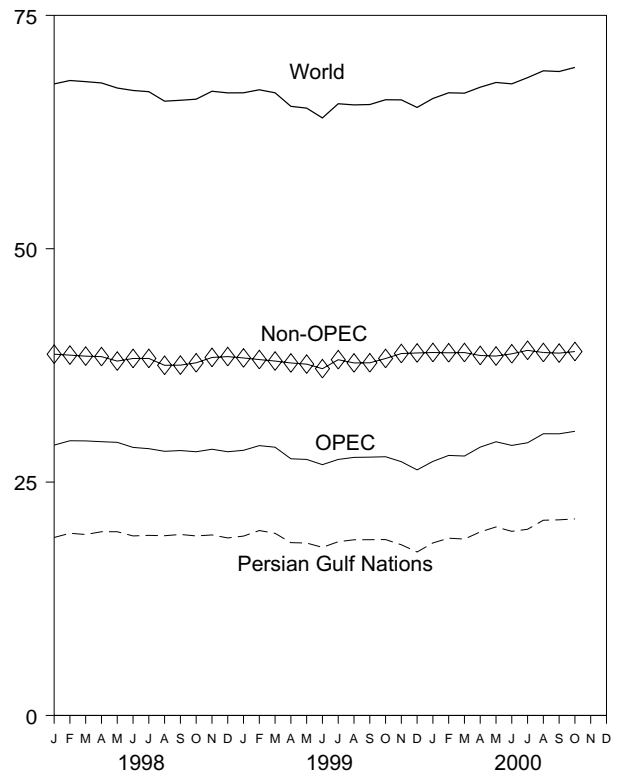
Sources: See end of section.

Figure 10.1 Crude Oil Production
(Million Barrels per Day)

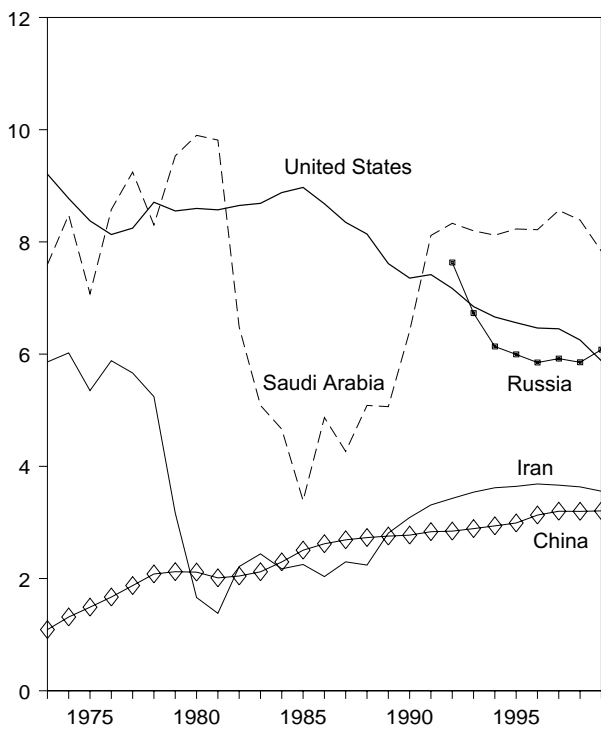
World Production, 1973-1999



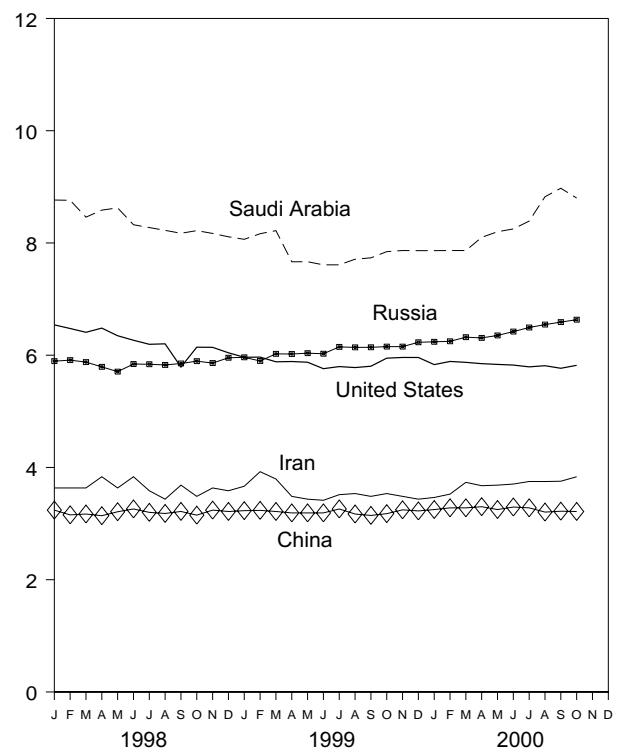
World Production, Monthly



Selected Producers, 1973-1999

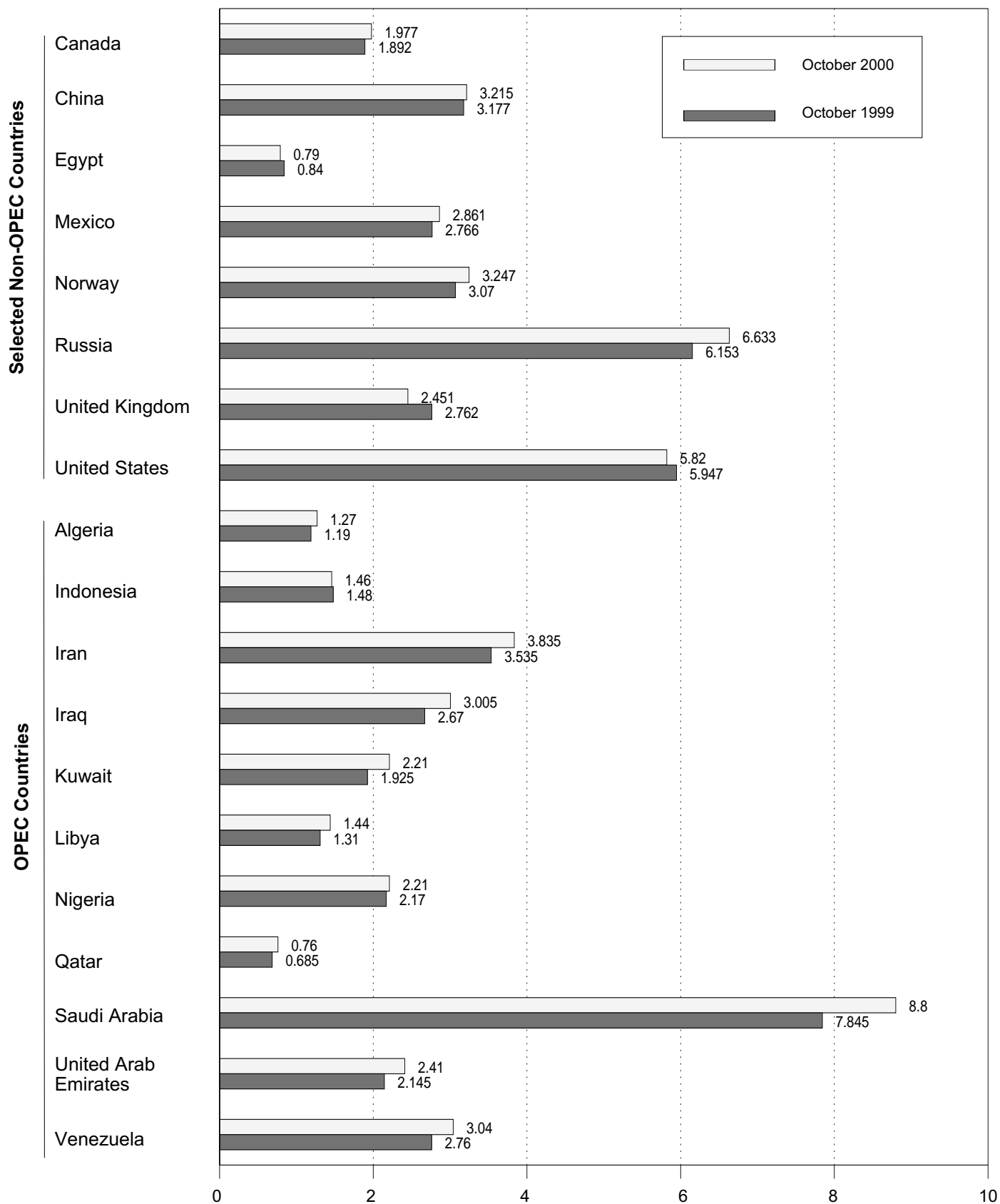


Selected Producers, Monthly



Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

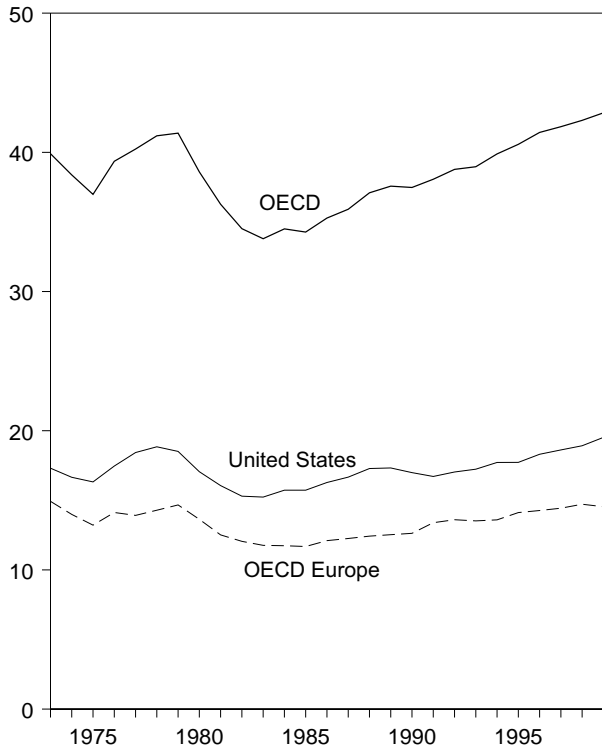
Figure 10.2 Crude Oil Production by Selected Country
(Million Barrels per Day)



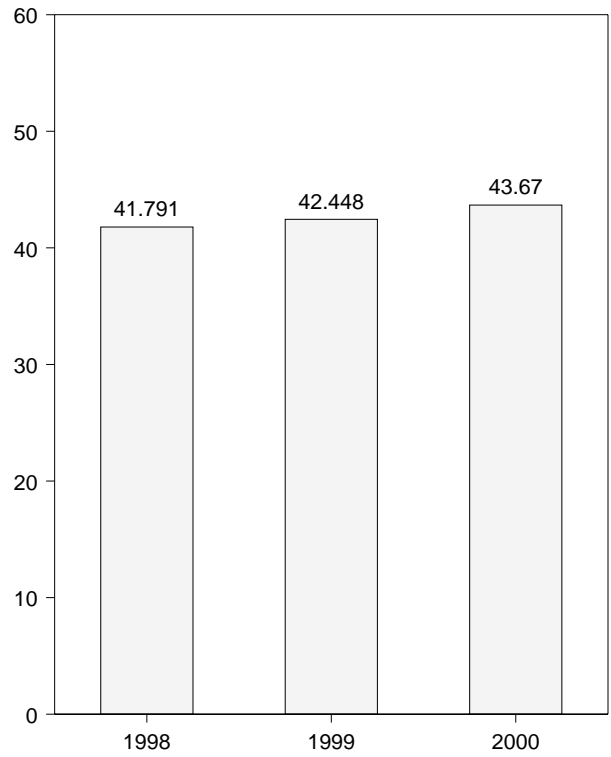
Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

Figure 10.3 Petroleum Consumption in OECD Countries
(Million Barrels per Day)

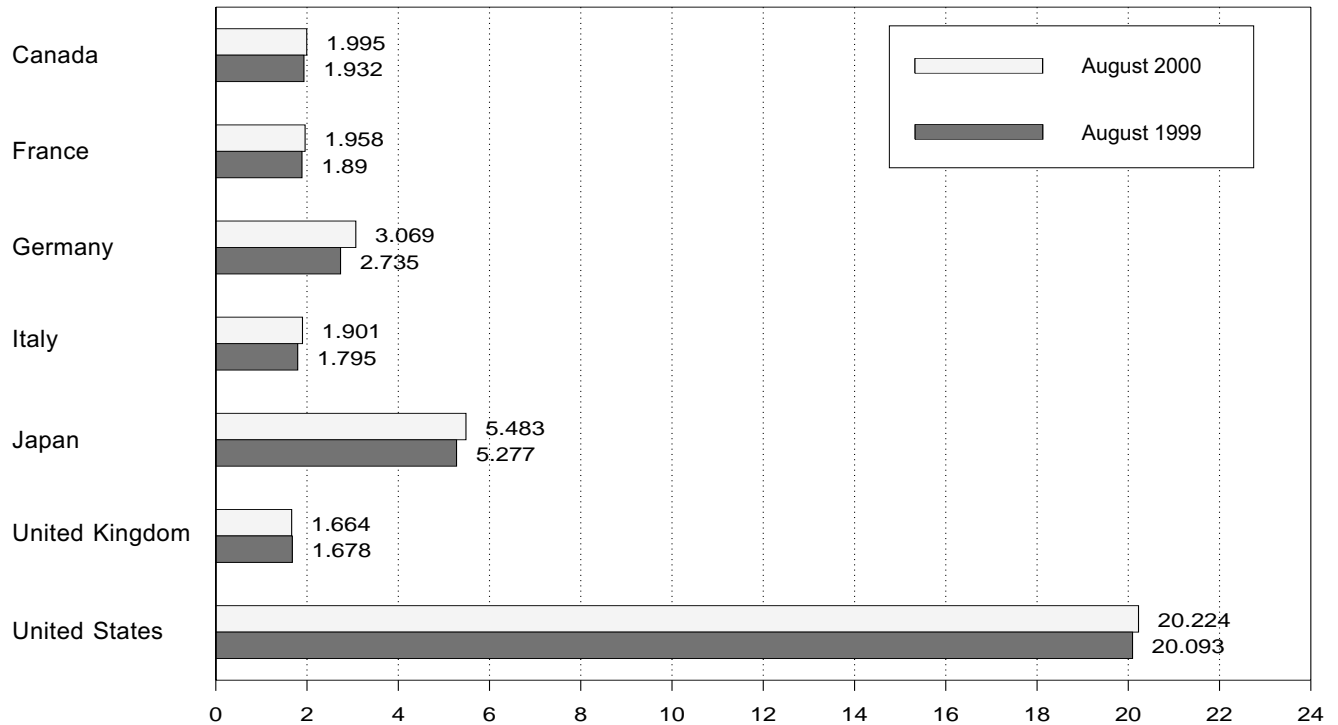
Overview, 1973-1999



OECD Total, August



By Selected OECD Country



Note: OECD is the Organization for Economic Cooperation and Development. • Because vertical scales differ, graphs should not be compared.
Source: Table 10.2.

Table 10.2 Petroleum Consumption in OECD Countries
(Thousand Barrels per Day)

	Canada	France	Germany ^a	Italy	Japan	United Kingdom	United States	OECD Europe ^b	Other OECD ^c	OECD ^d
1973 Average	1,729	2,601	3,055	2,068	4,949	2,341	17,308	14,925	988	39,900
1974 Average	1,779	2,447	2,748	2,004	4,864	2,210	16,653	13,988	1,095	38,379
1975 Average	1,779	2,252	2,650	1,855	4,621	1,911	16,322	13,217	1,041	36,980
1976 Average	1,818	2,420	2,877	1,971	4,837	1,892	17,461	14,124	1,119	39,358
1977 Average	1,850	2,294	2,865	1,897	4,880	1,905	18,431	13,916	1,160	40,237
1978 Average	1,902	2,408	2,927	1,952	4,945	1,938	18,847	14,290	1,204	41,187
1979 Average	1,971	2,463	3,003	2,039	5,050	1,971	18,513	14,667	1,178	41,379
1980 Average	1,873	2,256	2,707	1,934	4,960	1,725	17,056	13,634	1,072	38,595
1981 Average	1,768	2,023	2,449	1,874	4,848	1,590	16,058	12,515	1,080	36,269
1982 Average	1,578	1,880	2,372	1,781	4,582	1,590	15,296	12,053	1,008	34,517
1983 Average	1,448	1,835	2,324	1,750	4,395	1,531	15,231	11,765	954	33,793
1984 Average	1,472	1,754	2,322	1,646	4,576	1,849	15,726	11,736	989	34,500
1985 Average	1,504	1,775	2,338	1,717	4,384	1,634	15,726	11,681	976	34,271
1986 Average	1,506	1,772	2,498	1,738	4,439	1,649	16,281	12,102	951	35,279
1987 Average	1,548	1,789	2,424	1,855	4,484	1,603	16,665	12,255	959	35,911
1988 Average	1,693	1,797	2,422	1,836	4,752	1,783	17,283	12,427	939	37,093
1989 Average	1,733	1,857	2,280	1,930	4,983	1,738	17,325	12,531	998	37,570
1990 Average	1,690	1,818	2,382	1,872	5,140	1,752	16,988	12,629	1,027	37,475
1991 Average	1,622	1,935	2,828	1,863	5,284	1,801	16,714	13,391	1,056	38,067
1992 Average	1,643	1,926	2,843	1,937	5,446	1,803	17,033	13,605	1,051	38,778
1993 Average	1,688	1,875	2,900	1,852	5,401	1,815	17,237	13,523	1,117	38,966
1994 Average	1,727	1,833	2,879	1,841	5,674	1,837	17,718	13,597	1,171	39,887
1995 Average	1,755	1,896	2,875	2,048	5,711	1,845	17,725	14,120	1,265	40,575
1996 Average	1,797	1,935	2,911	2,058	5,867	1,845	18,309	14,269	1,190	41,432
1997 Average	1,842	1,954	2,903	2,045	5,711	1,781	18,620	14,412	1,221	41,807
1998										
January	1,835	2,058	2,742	2,041	6,110	1,765	18,362	14,281	1,186	41,774
February	1,820	2,167	2,960	2,160	6,467	1,813	18,316	15,170	1,280	43,053
March	1,815	2,006	3,161	2,121	5,906	1,836	18,685	15,156	1,364	42,926
April	1,782	1,997	2,848	2,027	5,087	1,688	19,044	14,261	1,203	41,377
May	1,723	1,814	2,603	1,900	4,807	1,669	18,375	13,461	1,275	39,642
June	1,872	2,030	2,937	2,102	5,017	1,770	19,182	14,780	1,299	42,150
July	1,938	2,106	3,028	2,106	5,320	1,754	19,466	14,866	1,256	42,847
August	1,895	1,857	2,844	1,886	5,286	1,738	19,347	13,996	1,267	41,791
September	1,922	2,073	3,027	2,044	5,102	1,767	18,895	14,887	1,213	42,019
October	1,917	2,008	2,873	2,032	5,094	1,785	19,188	14,728	1,333	42,260
November	1,888	2,082	2,995	2,219	5,617	1,829	18,673	15,338	1,360	42,876
December	1,897	2,188	2,987	2,241	6,384	1,774	19,419	15,525	1,261	44,487
Average	1,859	2,031	2,916	2,072	5,512	1,765	18,917	14,699	1,275	42,262
1999										
January	1,853	2,022	2,561	2,047	5,887	1,670	19,029	^R 14,106	1,144	42,019
February	1,975	2,218	3,171	2,108	6,471	1,865	19,107	^R 15,659	1,278	^R 44,490
March	1,871	2,123	3,549	2,003	6,192	1,838	19,497	15,911	1,435	44,906
April	^R 1,814	2,004	2,431	1,886	5,323	1,685	19,152	13,900	1,336	^R 41,524
May	^R 1,899	1,728	2,472	1,764	4,788	1,619	18,705	^R 13,150	1,271	^R 39,813
June	^R 1,903	2,007	2,687	1,953	4,968	1,683	19,836	^R 14,261	1,390	^R 42,357
July	^R 1,967	1,998	2,587	1,948	5,091	1,674	19,820	^R 13,950	1,260	^R 42,089
August	^R 1,932	1,890	2,735	1,795	5,277	1,678	20,093	13,759	1,388	^R 42,448
September	^R 2,010	1,988	2,876	2,060	5,359	1,703	19,483	^R 14,486	1,254	^R 42,592
October	^R 1,932	2,015	2,925	1,976	5,088	1,700	19,868	^R 14,413	1,387	^R 42,689
November	^R 2,021	2,155	2,968	2,067	5,732	1,784	19,087	15,233	1,290	^R 43,363
December	^R 2,020	2,196	2,929	2,111	6,744	1,716	20,498	15,379	1,486	^R 46,127
Average	1,933	2,027	2,822	1,975	5,572	1,717	19,519	14,508	1,327	42,859
2000										
January	1,816	2,144	2,394	1,911	5,404	1,631	18,592	^R 13,981	1,371	^R 41,163
February	2,012	2,120	2,707	2,077	6,347	1,757	19,296	^R 14,964	1,298	^R 43,918
March	1,845	2,101	2,733	1,982	6,211	1,774	19,064	^R 14,678	1,396	^R 43,193
April	^R 1,788	1,925	2,630	1,863	5,196	1,635	18,590	^R 13,680	1,240	^R 40,494
May	^R 2,008	1,837	2,676	1,835	4,871	1,620	19,345	^R 13,894	1,299	^R 41,416
June	^R 1,979	1,945	2,701	1,997	4,880	1,639	19,833	^R 14,153	1,275	^R 42,119
July	^R 1,982	1,947	2,746	1,898	5,230	1,562	19,584	^R 13,885	1,272	^R 41,954
August	1,995	1,958	3,069	1,901	5,483	1,664	20,224	14,564	1,405	43,670
8-Mo. Avg.	1,928	1,997	2,707	1,932	5,449	1,660	19,317	14,221	1,320	42,235
1999 8-Mo. Avg.	1,901	1,996	2,771	1,936	5,490	1,712	19,408	14,323	1,313	42,435
1998 8-Mo. Avg.	1,835	2,002	2,890	2,041	5,492	1,754	18,851	14,488	1,266	41,933

^a Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, 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.

^c "Other OECD" consists of Australia, New Zealand, and the U.S. Territories.

^d The Organization for Economic Cooperation and Development (OECD)

consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

R=Revised.

Notes: Data through 1996 are final. Subsequent data are preliminary.

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

U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **United States:** Table 3.1a. **All Other Data: 1973-1979**—International Energy Agency (IEA), *Annual Oil and Gas Statistics of OECD Countries*. **1980 forward**—IEA, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances*.

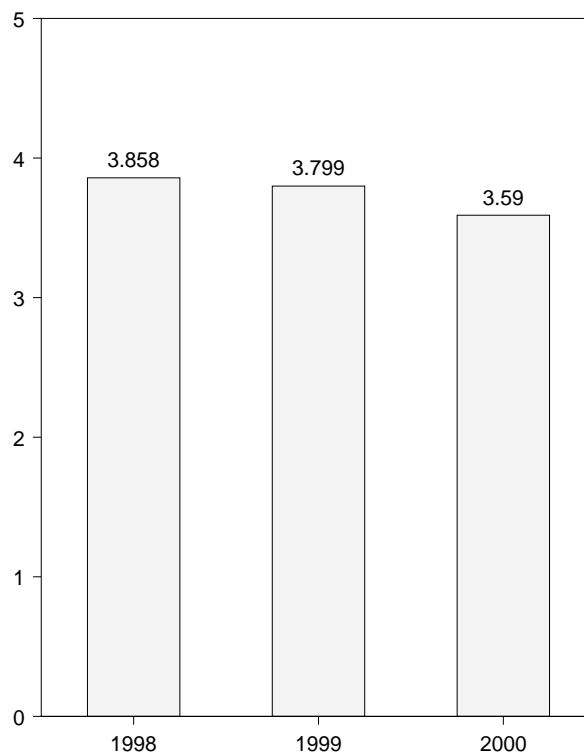
Figure 10.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

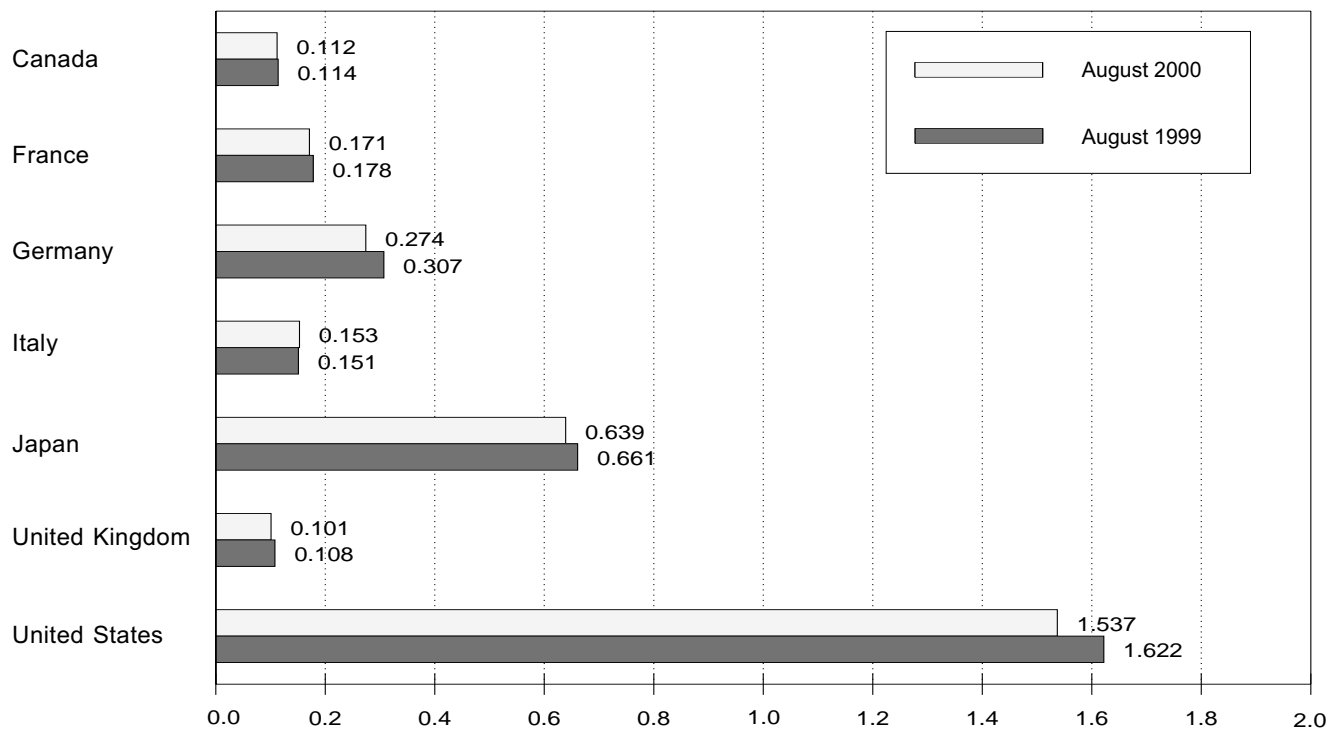
Overview, End of Year, 1973-1999



OECD Stocks, End of Month, August



By Selected Country, End of Month



Notes: • OECD is the Organization for Economic Cooperation and Development. • Because vertical scales differ, graphs should not be compared.
Source: Table 10.3.

Table 10.3 Petroleum Stocks in OECD Countries
(Million Barrels)

	Canada	France	Germany ^a	Italy	Japan	United Kingdom	United States	OECD Europe ^b	Other OECD ^c	OECD ^d
1973 Year	140	201	181	152	303	156	1,008	1,070	67	2,588
1974 Year	145	249	213	167	370	191	1,074	1,227	64	2,880
1975 Year	174	225	187	143	375	165	1,133	1,154	67	2,903
1976 Year	153	234	208	143	380	165	1,112	1,205	68	2,918
1977 Year	167	239	225	161	409	148	1,312	1,268	68	3,224
1978 Year	144	201	238	154	413	157	1,278	1,219	68	3,122
1979 Year	150	226	272	163	460	169	1,341	1,353	75	3,379
1980 Year	164	243	319	170	495	168	1,392	1,464	72	3,587
1981 Year	161	214	297	167	482	143	1,484	1,337	67	3,531
1982 Year	136	193	272	179	484	125	1,430	1,258	68	3,376
1983 Year	121	153	249	149	470	118	1,454	1,142	68	3,255
1984 Year	128	152	239	159	479	112	1,556	1,130	69	3,362
1985 Year	113	139	233	157	494	123	1,519	1,092	66	3,284
1986 Year	111	127	252	155	509	124	1,593	1,133	72	3,418
1987 Year	126	127	259	169	540	121	1,607	1,130	71	3,474
1988 Year	116	140	266	155	538	112	1,597	1,118	71	3,440
1989 Year	114	138	271	164	577	118	1,581	1,133	71	3,476
1990 Year	121	140	265	172	590	112	1,621	1,163	73	3,568
1991 Year	119	153	288	160	606	119	1,617	1,181	65	3,588
1992 Year	107	146	310	174	603	113	1,592	1,219	67	3,588
1993 Year	105	158	309	163	618	118	1,647	1,221	69	3,661
1994 Year	119	158	312	164	645	115	1,653	1,240	69	3,726
1995 Year	109	159	301	162	630	107	1,563	1,228	71	3,601
1996 Year	103	158	300	152	651	108	1,507	1,256	74	3,591
1997 Year	115	164	298	147	685	104	1,560	1,255	74	3,689
1998 January	118	163	298	154	673	111	1,570	1,277	75	3,712
February	117	161	290	155	664	108	1,569	1,272	72	3,693
March	123	155	285	146	655	108	1,587	1,245	74	3,683
April	120	163	292	161	658	105	1,614	1,274	76	3,741
May	118	171	306	168	667	111	1,652	1,336	79	3,853
June	116	164	308	164	658	109	1,651	1,311	82	3,818
July	115	164	313	157	660	108	1,661	1,301	76	3,813
August	118	168	319	161	672	105	1,669	1,322	77	3,858
September	119	170	317	158	676	107	1,652	1,324	79	3,852
October	120	170	321	162	676	109	1,649	1,346	70	3,861
November	121	161	320	157	675	99	1,672	1,314	71	3,852
December	118	161	321	153	649	108	1,647	1,303	66	3,784
1999 January	118	181	329	154	645	110	1,642	1,364	72	3,841
February	118	175	320	146	633	109	1,635	1,323	74	R 3,783
March	120	179	306	149	634	109	1,620	1,308	71	3,754
April	119	173	316	153	636	110	1,624	1,333	75	3,787
May	R 120	182	317	154	637	106	1,658	1,342	74	3,829
June	118	177	310	146	638	102	1,642	1,304	73	3,776
July	115	174	313	145	645	103	1,644	1,310	76	R 3,790
August	114	178	307	151	661	108	1,622	1,324	78	3,799
September	114	173	300	150	652	105	1,615	1,289	77	3,747
October	R 118	169	295	151	658	105	1,585	1,288	73	R 3,723
November	R 116	169	290	150	659	103	1,571	1,257	76	R 3,678
December	108	163	287	148	629	104	1,493	1,232	69	3,530
2000 January	R 112	166	297	153	622	104	1,479	1,253	69	R 3,535
February	108	167	289	149	613	106	1,470	R 1,245	72	3,508
March	107	170	284	154	606	106	1,478	1,242	66	3,498
April	R 113	171	280	152	618	104	1,508	1,223	69	R 3,531
May	109	172	279	148	634	97	1,526	R 1,208	72	R 3,549
June	108	174	277	152	632	99	1,533	1,229	71	3,572
July	R 112	171	281	150	639	105	1,544	R 1,245	R 77	R 3,617
August	112	171	274	153	639	101	1,537	1,236	66	3,590

^a Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, 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.

^c "Other OECD" consists of Australia, New Zealand, and the U.S. Territories.

^d The Organization for Economic Cooperation and Development (OECD) consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

R=Revised.

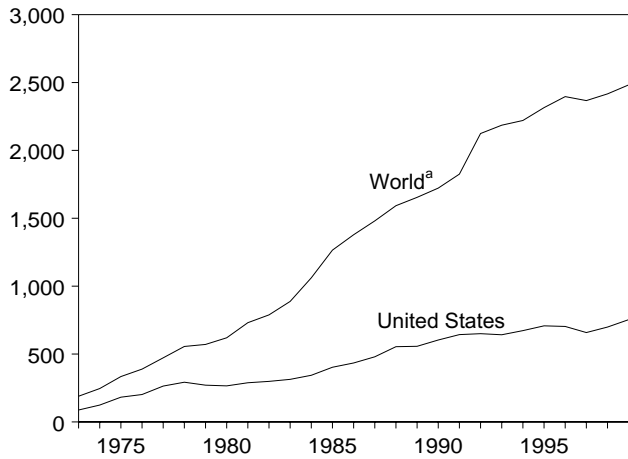
Notes: Stocks are at end of period. Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for

storage, regardless of ownership, within each country in bulk terminals, refinery tanks, pipeline tankage, intercoastal tankers, tankers in port, and inland ship bunkers. Data exclude oil held in pipelines (except for those in the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea. 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. Data through 1996 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **United States:** Table 3.1a. **All Other Data:** International Energy Agency, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances*.

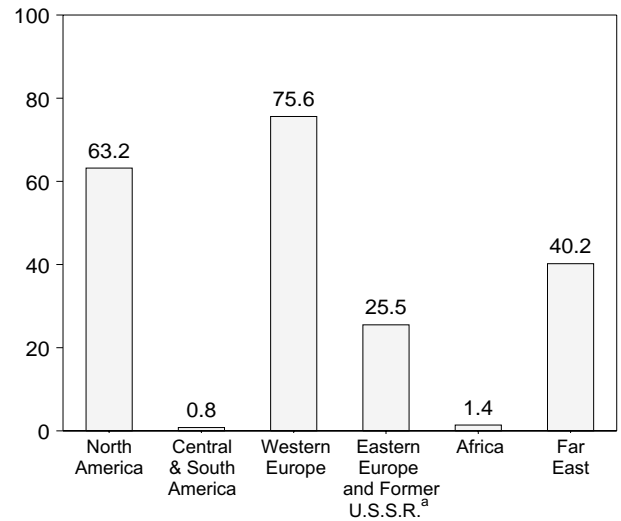
Figure 10.5 Nuclear Electricity Gross Generation
(Billion Kilowatthours)

U.S. and World, 1973-1999



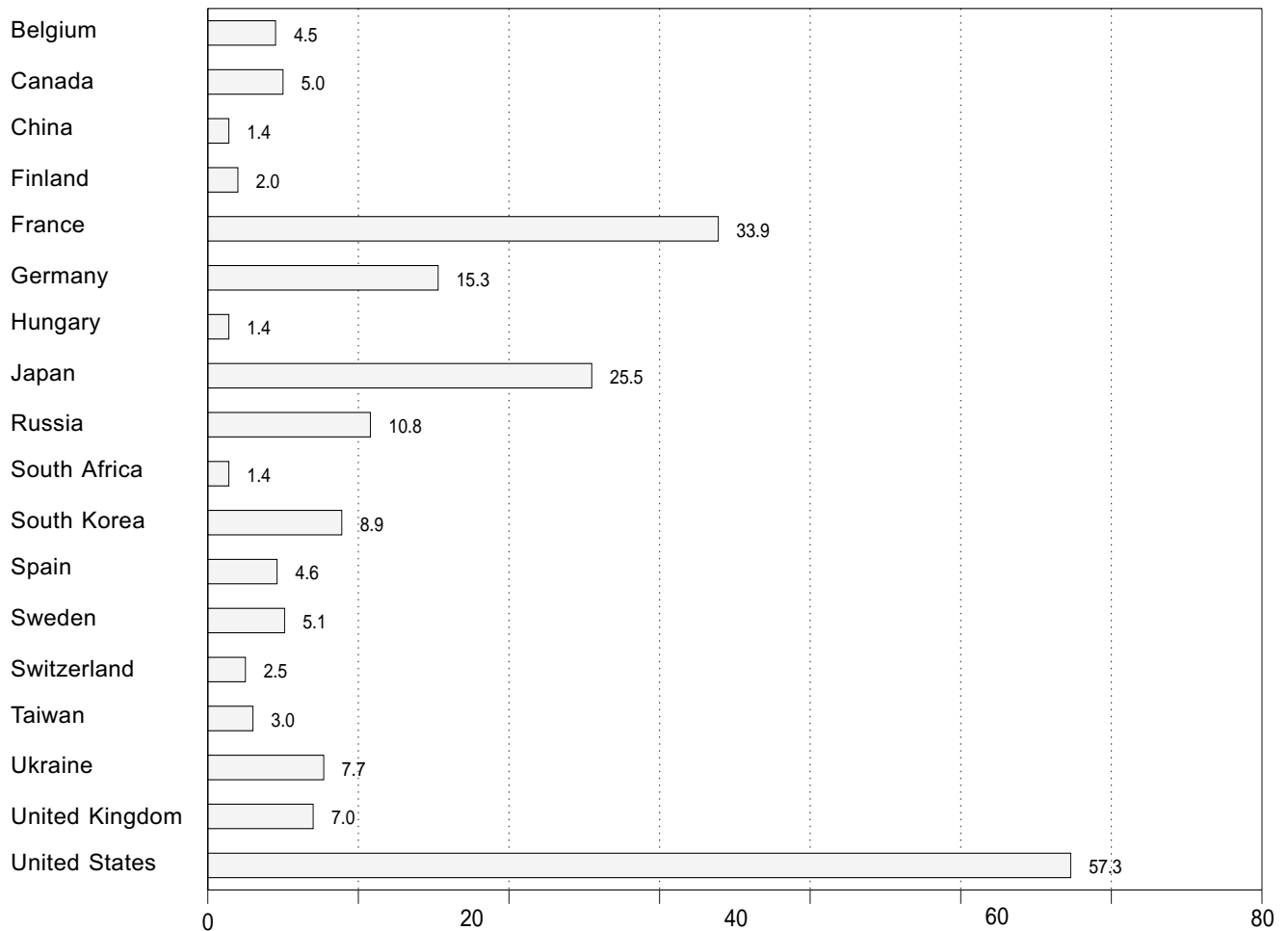
^aEastern Europe and the Former U.S.S.R. are included beginning in 1992.

By Region, October 2000



^aDoes not include Kazakhstan. See Table 10.4d.

By Selected Country, October 2000



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 10.4a-10.4e.

Table 10.4a Nuclear Electricity Gross Generation: Regions and World
(Billion Kilowatthours)

	North America	Central and South America	Western Europe ^a	Eastern Europe and Former U.S.S.R. ^a	Africa	Far East ^a	World ^{a,b}
1973 Total	103.1	—	73.9	NA	—	12.3	189.3
1974 Total	139.7	1.0	83.9	NA	—	21.4	246.0
1975 Total	195.5	2.5	111.7	NA	—	24.4	334.1
1976 Total	219.8	2.6	126.2	NA	—	40.3	388.9
1977 Total	290.8	1.6	148.1	NA	—	31.5	472.0
1978 Total	325.4	2.9	166.9	NA	—	60.6	555.9
1979 Total	309.0	2.7	184.3	NA	—	74.7	570.7
1980 Total	305.8	2.3	214.2	NA	—	97.4	619.8
1981 Total	331.8	2.8	293.4	NA	—	102.9	730.9
1982 Total	341.2	1.9	321.8	NA	—	123.6	788.5
1983 Total	366.6	3.6	377.2	NA	—	140.1	887.5
1984 Total	397.6	6.6	485.4	NA	4.2	167.7	1,061.5
1985 Total	465.6	9.1	582.8	NA	5.9	202.0	1,265.4
1986 Total	508.8	5.8	631.5	NA	9.3	223.6	1,378.9
1987 Total	560.1	6.2	648.3	NA	6.6	259.5	1,480.7
1988 Total	639.7	5.5	688.1	NA	11.1	248.5	1,592.8
1989 Total	640.2	6.6	732.2	NA	11.7	263.4	1,654.1
1990 Total	681.3	9.4	738.6	NA	8.9	284.3	1,722.5
1991 Total	733.4	9.2	769.7	NA	9.7	303.3	1,825.2
1992 Total	735.2	8.8	787.8	^E 267.5	9.9	315.2	^{bE} 2,124.5
1993 Total	744.6	8.1	820.9	^E 259.0	7.7	^E 345.2	^E 2,185.6
1994 Total	787.3	8.2	820.2	^E 227.8	10.3	^E 366.7	^E 2,220.4
1995 Total	816.1	9.6	^E 835.7	^E 234.9	11.9	^E 407.0	^E 2,315.1
1996 Total	806.4	9.8	^E 879.5	^E 261.6	12.5	^E 426.4	^E 2,396.3
1997 Total	^E 752.8	11.1	^E 886.5	^E 247.1	13.3	^E 456.2	^E 2,367.0
1998 January	^E 66.1	1.0	^E 84.2	^E 24.0	1.3	^E 38.4	^E 214.9
February	^E 60.2	.9	^E 77.1	^E 23.3	1.2	^E 31.8	^E 194.6
March	^E 63.8	1.1	^E 79.6	^E 24.6	1.4	^E 39.3	^E 209.8
April	^E 56.0	1.1	^E 72.2	^E 21.1	1.2	^E 40.1	^E 191.7
May	^E 59.4	1.0	^E 69.7	^E 18.9	.7	^E 40.2	^E 189.8
June	^E 63.9	1.0	^E 66.5	^E 17.3	1.2	^E 38.6	^E 188.4
July	^E 71.1	.8	^E 65.4	^E 16.8	1.4	^E 43.5	^E 199.0
August	^E 70.2	.7	^E 62.5	^E 18.4	1.2	^E 44.4	^E 197.5
September	^E 65.7	1.1	^E 69.2	^E 17.5	.9	^E 39.3	^E 193.6
October	^E 65.4	.9	^E 75.2	^E 19.8	1.4	^E 39.0	^E 201.6
November	^E 66.7	.3	^E 78.2	^E 21.5	1.2	^E 39.6	^E 207.5
December	^E 72.7	.9	^E 84.4	^E 25.8	1.1	^E 43.0	^E 227.9
Total	^E 781.0	10.8	^E 884.2	^E 248.9	14.3	^E 477.2	^E 2,416.4
1999 January	^E 74.4	^E 1.2	^E 84.7	^E 27.4	.9	^E 40.7	^E 229.3
February	^E 66.2	1.1	^E 75.0	^E 24.8	.8	^E 35.7	^E 203.5
March	^E 69.0	1.1	^E 79.0	^E 26.8	1.4	^E 40.6	^E 218.0
April	^E 59.9	1.1	^E 71.8	^E 22.6	1.4	^E 39.2	^E 195.9
May	^E 63.2	.8	^E 66.5	^E 20.2	1.2	^E 37.7	^E 189.7
June	^E 68.6	.7	^E 67.1	^E 18.7	1.3	^E 36.2	^E 192.6
July	^E 74.5	^E .7	^E 66.3	^E 19.2	1.3	^E 41.3	^E 203.3
August	^E 76.9	.8	^E 66.6	^E 19.2	1.2	^E 43.3	^E 208.0
September	^E 70.9	.7	^E 68.1	^E 19.5	.9	^E 40.1	^E 200.3
October	^E 66.1	.8	^E 74.1	^E 19.8	.7	^E 40.6	^E 202.1
November	^E 69.6	1.0	^E 77.1	^E 21.6	1.2	^E 41.4	^E 212.0
December	^E 78.0	1.1	^E 81.7	^E 24.6	1.3	^E 41.1	^E 228.0
Total	^E 837.3	^E 11.1	^E 878.1	^E 264.7	13.5	^E 478.0	^E 2,482.6
2000 January	^E 77.7	1.2	^E 80.0	^E 27.3	1.3	^E 40.8	^E 228.3
February	^E 70.4	1.1	^E 74.7	^E 25.8	1.3	^E 37.9	^E 211.1
March	^E 69.7	.9	^E 78.5	^E 26.5	1.1	^E 42.9	^E 219.6
April	^E 63.6	^E .8	^E 70.8	^E 21.7	.8	^E 41.6	^E 199.4
May	^E 69.9	.5	^E 67.8	^E 20.9	.7	^E 41.5	^E 201.4
June	^E 73.8	.7	^E 66.9	^E 22.0	1.2	^E 40.5	^E 205.1
July	^E 79.1	.8	^E 64.8	^E 20.7	1.3	^E 43.7	^E 210.4
August	^E 76.5	^E 1.0	^E 64.8	^E 19.3	1.1	^E 43.4	^E 206.2
September	^E 69.2	.8	^E 68.3	^E 23.9	1.2	^E 39.6	^E 203.0
October	^E 63.2	.8	^E 75.6	^E 25.5	1.4	^E 40.2	^E 206.7
10-Month Total	^E 713.2	^E 8.5	^E 712.4	^E 233.7	11.4	^E 412.1	^E 2,091.3
1999 10-Month Total	^E 689.7	9.0	^E 719.3	^E 218.4	10.9	^E 395.5	^E 2,042.7
1998 10-Month Total	^E 641.7	9.6	^E 721.5	^E 201.7	11.9	^E 394.6	^E 1,981.0

^a Sum of available data only.

^b There is a discontinuity in this time series between 1991 and 1992; beginning in 1992, includes data for Eastern Europe and the Former U.S.S.R.

NA=Not available. — =Not applicable. E=Estimate.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants

themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for regions may not sum to totals due to independent rounding.

Source: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4b Nuclear Electricity Gross Generation: North, Central, and South America
(Billion Kilowatthours)

	North America				Central and South America		
	Canada	Mexico	United States	Total	Argentina	Brazil	Total
1973 Total	15.3	—	87.8	103.1	—	—	—
1974 Total	15.4	—	124.3	139.7	1.0	—	1.0
1975 Total	13.2	—	182.3	195.5	2.5	—	2.5
1976 Total	18.0	—	201.8	219.8	2.6	—	2.6
1977 Total	26.6	—	264.2	290.8	1.6	—	1.6
1978 Total	33.0	—	292.4	325.4	2.9	—	2.9
1979 Total	38.4	—	270.6	309.0	2.7	—	2.7
1980 Total	40.4	—	265.4	305.8	2.3	—	2.3
1981 Total	43.3	—	288.5	331.8	2.8	—	2.8
1982 Total	42.6	—	298.6	341.2	1.9	0.1	1.9
1983 Total	53.0	—	313.6	366.6	3.4	.2	3.6
1984 Total	53.8	—	343.8	397.6	4.5	2.1	6.6
1985 Total	62.9	—	402.7	465.6	5.8	3.4	9.1
1986 Total	74.6	—	434.1	508.8	5.7	.1	5.8
1987 Total	80.6	—	479.5	560.1	5.2	1.0	6.2
1988 Total	85.6	—	554.1	639.7	5.1	.3	5.5
1989 Total	83.2	—	557.0	640.2	5.0	1.6	6.6
1990 Total	75.8	2.1	603.4	681.3	7.4	2.0	9.4
1991 Total	86.1	4.2	643.0	733.4	7.7	1.4	9.2
1992 Total	81.3	3.9	650.0	735.2	7.1	1.8	8.8
1993 Total	97.6	4.9	642.0	744.6	7.7	.4	8.1
1994 Total	110.7	4.2	672.4	787.3	8.2	.0	8.2
1995 Total	100.4	7.9	707.7	816.1	7.1	2.5	9.6
1996 Total	95.2	7.9	703.3	806.4	7.4	2.4	9.8
1997 Total	84.1	10.4	^E 658.3	^E 752.8	8.0	3.2	11.1
1998 January	6.1	.9	^E 59.1	^E 66.1	.7	.2	1.0
February	5.5	.8	^E 53.9	^E 60.2	.7	.2	.9
March	7.2	.9	^E 55.6	^E 63.8	.7	.4	1.1
April	6.0	.5	^E 49.5	^E 56.0	.7	.4	1.1
May	4.7	.8	^E 53.9	^E 59.4	.7	.3	1.0
June	5.6	.9	^E 57.4	^E 63.9	.7	.3	1.0
July	6.6	.9	^E 63.6	^E 71.1	.5	.3	.8
August	7.3	.9	^E 61.9	^E 70.2	.4	.3	.7
September	5.7	.9	^E 59.1	^E 65.7	.7	.4	1.1
October	^E 4.7	.9	^E 59.8	^E 65.4	.7	.2	.9
November	^E 6.2	.6	^E 59.9	^E 66.7	.3	.0	.3
December	^E 7.1	.5	^E 65.1	^E 72.7	.7	.2	.9
Total	^E 72.7	9.5	^E 698.7	^E 781.0	7.5	3.3	10.8
1999 January	6.3	.9	^E 67.2	^E 74.4	^E .7	.4	^E 1.2
February	^E 5.7	.8	^E 59.6	^E 66.2	.7	.4	1.1
March	7.2	.9	^E 60.9	^E 69.0	.7	.4	1.1
April	6.1	.9	^E 52.9	^E 59.9	.7	.3	1.1
May	4.7	.9	^E 57.6	^E 63.2	.5	.3	.8
June	5.5	.9	^E 62.2	^E 68.6	.5	.2	.7
July	6.1	1.0	^E 67.4	^E 74.5	.5	^E .2	^E .7
August	6.8	.6	^E 69.5	^E 76.9	.5	.3	.8
September	6.6	.5	^E 63.8	^E 70.9	.4	.3	.7
October	6.1	.7	^E 59.3	^E 66.1	.5	.3	.8
November	6.1	.9	^E 62.7	^E 69.6	.7	.3	1.0
December	6.7	1.0	^E 70.3	^E 78.0	.7	.4	1.1
Total	^E 73.9	10.0	^E 753.4	^E 837.3	^E 7.1	^E 4.0	^E 11.1
2000 January	7.1	.7	^E 69.9	^E 77.7	.7	.4	1.2
February	6.3	.6	^E 63.6	^E 70.4	.7	.4	1.1
March	6.2	.6	^E 63.0	^E 69.7	.5	.4	.9
April	5.2	.5	^E 57.9	^E 63.6	^E .5	.4	^E .8
May	6.0	.5	^E 63.4	^E 69.9	.5	.0	.5
June	6.1	.6	^E 67.0	^E 73.8	.7	.0	.7
July	7.2	.8	^E 71.1	^E 79.1	.7	(s)	.8
August	6.8	.5	^E 69.2	^E 76.5	^E .7	.2	^E 1.0
September	5.1	.5	^E 63.6	^E 69.2	.4	.4	.8
October	5.0	1.0	^E 57.3	^E 63.2	.3	.5	.8
10-Month Total	60.9	6.3	^E 646.0	^E 713.2	^E 5.6	2.9	^E 8.5
1999 10-Month Total	61.1	8.2	^E 620.4	^E 689.7	5.7	3.3	9.0
1998 10-Month Total	59.4	8.5	^E 573.8	^E 641.7	6.5	3.1	9.6

— =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in

some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Source: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4c Nuclear Electricity Gross Generation: Western Europe
(Billion Kilowatthours)

	Western Europe											Total ^d
	Belgium	Finland	France	Germany ^a	Italy ^b	Nether-lands	Slovenia	Spain	Sweden	Switzer-land	United Kingdom ^c	
1973 Total	0.0	—	14.7	11.9	3.1	1.1	—	6.5	2.1	6.2	28.2	73.9
1974 Total	.1	—	14.7	12.0	3.4	3.3	—	7.2	2.3	7.0	33.8	83.9
1975 Total	6.8	—	18.3	21.7	3.8	3.3	—	7.5	12.0	7.7	30.5	111.7
1976 Total	10.0	—	15.8	24.5	3.8	3.9	—	7.6	16.0	7.9	36.8	126.2
1977 Total	11.9	2.7	17.9	36.0	3.4	3.7	—	6.5	19.9	8.1	38.1	148.1
1978 Total	12.5	3.3	30.6	35.7	4.5	4.1	—	7.6	23.8	8.3	36.6	166.9
1979 Total	11.4	6.7	39.9	42.2	2.6	3.5	—	6.7	21.0	11.8	38.5	184.3
1980 Total	12.5	7.0	61.2	43.7	2.2	4.2	—	5.2	26.7	14.3	37.2	214.2
1981 Total	12.8	14.5	105.2	53.4	2.7	3.7	—	9.4	37.7	15.2	38.9	293.4
1982 Total	15.6	16.5	108.9	63.4	6.8	3.9	—	8.8	38.8	15.0	44.1	321.8
1983 Total	24.1	17.4	144.2	65.8	5.8	3.6	NA	10.7	40.4	15.5	49.6	377.2
1984 Total	27.7	18.5	191.2	92.6	6.9	3.8	NA	23.1	51.3	16.3	54.1	485.4
1985 Total	34.5	18.8	224.0	125.8	7.0	3.9	NA	28.0	58.6	22.4	59.7	582.8
1986 Total	38.6	18.8	254.3	118.9	8.7	4.2	NA	37.5	69.9	22.5	58.2	631.5
1987 Total	41.9	19.4	265.5	130.2	.2	3.6	NA	41.2	67.2	23.0	56.2	648.3
1988 Total	43.1	19.3	274.9	145.2	.0	3.7	NA	50.4	69.4	22.7	59.4	688.1
1989 Total	41.2	18.8	302.5	149.6	.0	4.0	NA	56.1	65.6	22.8	71.6	732.2
1990 Total	42.7	18.9	314.1	147.2	.0	3.4	NA	54.3	68.2	23.6	66.1	738.6
1991 Total	42.9	19.2	331.4	147.3	.0	3.3	NA	55.6	76.8	22.9	70.4	769.7
1992 Total	43.5	19.0	337.6	158.8	.0	3.8	4.0	55.8	63.5	23.4	78.5	787.8
1993 Total	41.9	19.6	366.7	153.5	.0	3.9	4.0	56.1	61.4	23.3	90.4	820.9
1994 Total	40.6	19.1	359.1	151.1	.0	4.0	4.6	55.1	72.8	24.2	89.5	820.2
1995 Total	41.4	18.9	377.6	154.3	.0	4.0	4.8	54.5	69.9	24.8	E 85.5	E 835.7
1996 Total	43.3	19.5	397.0	161.7	.0	4.2	4.6	59.1	76.2	25.0	E 88.8	E 879.5
1997 Total	47.4	20.9	389.3	170.4	.0	3.1	5.4	55.4	E 70.6	25.3	E 98.8	E 886.5
1998 January	4.4	2.0	37.5	15.9	.0	.3	.5	5.1	7.6	2.4	E 8.4	E 84.2
February	4.0	1.8	34.7	14.0	.0	.3	.4	5.1	6.7	2.2	E 8.0	E 77.1
March	3.7	2.0	34.7	14.0	.0	.4	.5	4.6	7.3	2.4	E 10.1	E 79.6
April	3.3	1.9	31.2	14.1	.0	(s)	.3	4.4	7.2	2.1	E 7.4	E 72.2
May	4.0	1.4	29.9	12.2	.0	.3	.3	4.8	6.9	2.1	E 7.6	E 69.7
June	3.5	1.6	28.7	10.8	.0	.1	.4	5.1	5.0	1.7	E 9.5	E 66.5
July	2.9	1.9	29.4	12.5	.0	.3	.5	E 5.1	4.1	1.9	E 6.9	E 65.4
August	3.8	1.6	26.0	12.9	.0	.4	.5	E 5.1	3.3	1.4	E 7.6	E 62.5
September	4.1	1.6	29.0	12.0	.0	.3	.5	E 5.1	4.7	2.3	E 9.7	E 69.2
October	3.9	2.0	33.2	14.0	.0	.4	.5	E 4.4	6.2	2.4	E 8.2	E 75.2
November	4.1	2.0	34.2	14.0	.0	.3	.5	E 4.6	7.1	2.4	E 9.0	E 78.2
December	4.5	2.1	36.0	14.6	.0	.4	.5	E 5.0	7.6	2.5	E 11.3	E 84.4
Total	46.1	21.9	384.4	161.0	.0	3.8	5.3	E 58.6	73.8	25.7	E 103.7	E 884.2
1999 January	4.5	2.1	38.0	15.1	.0	.4	.5	5.4	7.6	2.4	E 8.8	E 84.7
February	4.0	1.9	33.6	13.1	.0	.3	.4	4.1	6.9	2.2	E 8.3	E 75.0
March	4.4	2.1	34.3	14.2	.0	.4	.4	4.2	E 7.5	2.3	9.3	E 79.0
April	3.8	2.0	31.5	14.0	.0	.3	.0	3.7	6.7	2.1	E 7.7	E 71.8
May	4.2	1.6	26.6	12.8	.0	.4	.1	5.1	5.9	2.3	7.6	66.5
June	3.9	1.9	E 26.6	13.4	.0	.3	.4	4.7	E 5.2	2.0	8.8	E 67.1
July	3.8	1.9	30.0	E 13.4	.0	.3	.5	4.9	3.7	1.2	6.5	E 66.3
August	3.8	1.7	29.1	13.5	.0	.3	.5	5.5	4.3	1.1	E 7.0	E 66.6
September	3.5	1.7	29.5	E 13.5	.0	.1	.5	4.9	4.8	1.9	7.7	E 68.1
October	4.3	2.1	31.7	E 13.5	.0	.4	.5	5.3	7.0	2.3	7.1	E 74.1
November	4.3	2.0	32.4	15.1	.0	.3	.5	5.5	7.3	2.4	7.3	E 77.1
December	4.5	2.1	34.2	16.2	.0	.4	.5	5.6	7.7	2.5	E 8.1	E 81.7
Total	49.0	23.0	E 377.4	E 167.8	.0	3.8	4.7	58.9	E 74.5	24.8	E 94.1	E 878.1
2000 January	4.3	2.1	E 34.2	15.8	.0	.4	.5	E 5.6	7.1	2.5	7.5	E 80.0
February	3.2	1.9	E 33.4	13.9	.0	.3	.5	5.3	6.8	2.3	7.0	E 74.7
March	4.1	2.1	E 35.4	13.3	.0	.3	.5	5.2	6.5	2.5	8.6	E 78.5
April	3.7	1.9	32.1	12.9	.0	.3	E .5	4.7	5.3	2.4	E 6.9	E 70.8
May	3.9	1.5	31.1	13.9	.0	.4	.0	5.1	3.3	E 2.4	E 6.4	E 67.8
June	E 3.6	1.8	E 31.1	12.3	.0	.3	.2	5.5	3.0	2.3	7.0	E 66.9
July	3.5	1.8	E 29.3	14.0	.0	.4	.5	5.6	2.1	1.4	6.2	E 64.8
August	4.0	1.5	30.0	13.2	.0	.3	.5	5.2	2.6	1.1	6.5	E 64.8
September	E 4.1	1.7	31.4	E 13.2	.0	.3	.4	4.2	4.1	2.1	6.9	E 68.3
October	4.5	2.0	33.9	15.3	.0	.2	.5	4.6	5.1	2.5	7.0	E 75.6
10-Month Total	E 38.9	18.4	E 321.8	E 137.7	.0	3.2	E 4.0	E 51.0	45.9	E 21.4	E 70.0	E 712.4
1999 10-Month Total	40.2	18.9	310.7	136.6	.0	3.1	3.7	47.8	59.5	19.9	78.7	E 719.3
1998 10-Month Total	37.5	17.8	314.2	132.3	.0	3.1	4.4	48.9	59.1	20.9	83.4	E 721.5

^a Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

^b In 1987, Italy's citizens voted for a nuclear power moratorium, which shut down their nuclear power plants indefinitely.

^c Monthly data for the United Kingdom are totals for 4- or 5-week reporting periods, not calendar months.

^d Sum of available data only.

NA=Not available. —=Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves.

Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Table 10.4d Nuclear Electricity Gross Generation: Eastern Europe and Former U.S.S.R.

(Billion Kilowatthours)

	Eastern Europe and Former U.S.S.R.										
	Armenia ^a	Bulgaria	Czech Republic ^b	Hungary	Kazakhstan ^b	Lithuania ^b	Romania	Russia	Slovakia ^b	Ukraine	Total ^c
1973 Total	-	-	-	-	NA	-	-	NA	NA	-	NA
1974 Total	-	NA	-	-	NA	-	-	NA	NA	-	NA
1975 Total	-	NA	-	-	NA	-	-	NA	NA	-	NA
1976 Total	-	NA	-	-	NA	-	-	NA	NA	-	NA
1977 Total	-	NA	-	-	NA	-	-	NA	NA	-	NA
1978 Total	-	NA	-	-	NA	-	-	NA	NA	NA	NA
1979 Total	-	NA	-	-	NA	-	-	NA	NA	NA	NA
1980 Total	-	NA	-	-	NA	-	-	NA	NA	NA	NA
1981 Total	-	NA	-	-	NA	-	-	NA	NA	NA	NA
1982 Total	-	NA	-	-	NA	-	-	NA	NA	NA	NA
1983 Total	-	NA	-	NA	NA	-	-	NA	NA	NA	NA
1984 Total	-	NA	-	NA	NA	-	-	NA	NA	NA	NA
1985 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1986 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1987 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1988 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1989 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1990 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1991 Total	-	NA	NA	NA	NA	NA	-	NA	NA	NA	NA
1992 Total	-	E 12.2	E 12.9	E 13.8	E .5	E 16.4	-	E 125.6	E 11.7	E 74.6	E 267.5
1993 Total	-	14.0	E 13.2	13.8	E .4	E 12.9	-	120.4	E 11.6	E 72.7	E 259.0
1994 Total	-	14.9	E 12.7	14.0	E .4	E 7.0	-	97.7	E 12.7	68.4	E 227.8
1995 Total	-	17.2	E 12.8	14.0	E .4	E 9.7	-	98.3	E 12.0	70.4	E 234.9
1996 Total	NA	18.7	E 13.5	14.2	E .1	E 13.6	E 1.0	108.8	E 11.8	80.0	E 261.6
1997 Total	1.4	E 15.5	NA	14.0	E .3	12.1	3.9	108.1	11.0	80.8	E 247.1
1998 January	.3	1.1	NA	1.3	NA	1.3	.5	11.6	1.1	6.6	E 24.0
February	.3	1.9	NA	1.2	NA	1.2	.4	10.6	.9	6.7	E 23.3
March	.2	2.2	NA	1.1	NA	1.3	.5	11.1	.9	7.2	E 24.6
April	.1	2.2	NA	.9	NA	1.0	.4	8.5	.9	7.1	E 21.1
May	.1	2.2	NA	1.0	NA	1.1	.0	8.1	.8	5.6	E 18.9
June	.1	1.0	NA	1.0	NA	.9	.3	7.4	.8	E 5.0	E 17.3
July	.1	1.0	NA	1.0	NA	.9	.3	6.7	.8	E 5.0	E 16.8
August	.1	1.6	NA	1.1	NA	.9	.5	5.5	.8	6.8	E 18.4
September	.1	1.0	NA	1.3	NA	.9	.5	5.8	.8	6.0	E 17.5
October	.0	E 1.6	NA	1.4	NA	1.2	.5	7.5	.9	5.6	E 19.8
November	.0	E 1.6	NA	1.3	NA	1.3	.5	9.2	.8	5.5	E 21.5
December	.0	1.9	NA	1.4	NA	1.4	.5	11.6	.9	6.8	E 25.8
Total	1.6	E 19.2	NA	13.9	NA	13.5	5.1	103.7	10.3	E 74.0	E 248.9
1999 January	.2	E 1.9	NA	1.3	NA	1.3	.5	12.3	.9	7.7	E 27.4
February	.3	E 1.9	NA	1.2	NA	1.1	.5	10.7	.8	7.2	E 24.8
March	.3	E 1.9	NA	1.1	NA	1.0	.5	11.7	.9	8.0	E 26.8
April	.3	E 1.9	NA	1.1	NA	.5	.5	10.2	.8	6.4	E 22.6
May	E .3	E 1.9	1.0	1.1	.0	.6	.5	8.1	.9	5.8	E 20.2
June	E .3	E 1.9	1.0	1.0	.0	.3	.5	7.6	.8	5.2	E 18.7
July	.2	1.9	1.0	1.0	.0	.7	E .5	8.8	.8	4.4	E 19.2
August	.2	E 1.0	.9	1.0	.0	.8	.5	8.9	.8	5.1	E 19.2
September	.1	E 1.0	1.0	1.1	.0	.9	.5	8.7	.9	5.4	E 19.5
October	.0	E 1.0	1.2	1.4	.0	1.0	(s)	8.7	1.0	5.6	E 19.8
November	.0	E 1.0	1.3	E 1.4	.0	.9	.1	10.9	.9	5.1	E 21.6
December	.2	E 1.5	1.2	1.4	.0	.9	.5	11.4	1.1	6.3	E 24.6
Total	E 2.4	E 19.0	13.4	E 14.2	NA	9.9	E 5.2	118.0	10.5	72.2	E 264.7
2000 January	.3	E 1.5	E 1.2	1.4	.0	.9	.5	13.2	1.1	7.2	E 27.3
February	.3	E 1.5	1.2	1.3	.0	.6	.5	12.3	1.3	6.7	E 25.8
March	.3	E 1.8	1.1	1.1	.0	.7	.5	12.9	1.3	6.7	E 26.5
April	.3	E 1.8	1.0	1.0	.0	.5	.5	9.8	1.0	5.8	E 21.7
May	.3	E 1.8	1.0	1.0	.0	.5	.5	9.2	1.1	5.4	E 20.9
June	.3	E 1.8	1.0	1.0	.0	.7	.5	9.5	1.4	5.9	E 22.0
July	E .0	E 1.8	1.1	1.0	.0	.6	.4	8.5	1.3	6.0	E 20.7
August	.0	E 1.8	E 1.1	.9	.0	.7	.4	9.8	1.3	E 3.2	E 19.3
September	.0	E 1.8	E 1.1	1.3	.0	.9	E .5	10.1	1.5	6.7	E 23.9
October	.0	E 1.8	1.2	1.4	.0	.8	.1	10.8	1.6	7.7	E 25.5
10-Month Total	E 1.6	E 17.6	E 11.2	11.4	.0	7.0	E 4.6	106.1	12.8	E 61.4	E 233.7
1999 10-Month Total	2.1	16.5	10.8	11.4	.0	8.0	4.6	95.6	8.6	60.7	E 218.4
1998 10-Month Total	E 1.6	15.7	NA	E 11.2	.0	10.8	E 4.1	82.9	8.6	61.7	E 201.7

^a According to EIA's *Nuclear Power Generation and Fuel Cycle Report 1996*, Armenia has two units; one came on line in November 1995 but no data are available prior to 1997, and the other is projected to come on line in 2001.

^b The total gross generation estimates for Czech Republic, Kazakhstan, Lithuania, and Slovakia are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency and published in the Energy Information Administration annual reports—1992 and 1993: *World Nuclear Outlook 1994*, December 1994, Table 1. 1994: *Nuclear Power Generation and Fuel Cycle Report 1996*, October 1996, Table 1. 1995 and 1996: *Nuclear Power Generation and Fuel Cycle Report 1997*, September 1997, Table D4. 1997 forward: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

^c Sum of available data only.

NA=Not available. --=Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Source: Czech Republic, Kazakhstan, Lithuania, Slovakia, and Eastern European Countries: See footnote b. All Other: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4e Nuclear Electricity Gross Generation: Africa and Far East
(Billion Kilowatthours)

	Africa	Far East						Total ^c
	South Africa ^a	China ^b	India	Japan	Pakistan	South Korea	Taiwan	
1973 Total	—	—	2.5	9.4	0.5	—	—	12.3
1974 Total	—	—	1.9	18.9	.6	—	—	21.4
1975 Total	—	—	2.5	21.3	.5	—	—	24.4
1976 Total	—	—	3.2	36.6	.5	—	—	40.3
1977 Total	—	—	2.8	28.2	.3	0.1	0.1	31.5
1978 Total	—	—	2.3	53.1	.2	2.3	2.7	60.6
1979 Total	—	—	3.2	62.0	(s)	3.2	6.3	74.7
1980 Total	—	—	2.9	82.8	.1	3.5	8.2	97.4
1981 Total	—	—	3.1	86.0	.2	2.9	10.7	102.9
1982 Total	—	—	2.2	104.5	.1	3.8	13.1	123.6
1983 Total	—	—	2.9	109.1	.2	9.0	18.9	140.1
1984 Total	4.2	—	4.1	127.2	.3	11.8	24.3	167.7
1985 Total	5.9	—	4.5	152.0	.3	16.5	28.7	202.0
1986 Total	9.3	—	5.1	164.8	.5	26.1	26.9	223.6
1987 Total	6.6	—	5.5	182.8	.3	37.8	33.1	259.5
1988 Total	11.1	—	6.1	173.6	.2	38.7	29.9	248.5
1989 Total	11.7	—	4.0	183.7	.1	47.2	28.3	263.4
1990 Total	8.9	—	6.3	191.9	.4	52.8	32.9	284.3
1991 Total	9.7	—	5.4	205.8	.4	56.3	35.3	303.3
1992 Total	9.9	—	6.3	218.0	.6	56.4	33.8	315.2
1993 Total	7.7	E 2.6	6.2	243.5	.4	58.1	34.3	E 345.2
1994 Total	10.3	E 14.2	5.0	253.8	.6	58.3	34.8	E 366.7
1995 Total	11.9	E 13.0	8.0	286.1	.5	64.0	35.3	E 407.0
1996 Total	12.5	E 14.3	8.3	293.2	.4	72.5	37.8	E 426.4
1997 Total	13.3	E 11.4	E 11.0	318.0	.4	78.9	E 36.6	E 456.2
1998 January	1.3	E 1.1	E 1.0	25.2	(s)	7.3	3.7	E 38.4
February	1.2	E .6	E 1.0	21.6	(s)	5.6	3.0	E 31.8
March	1.4	.9	E 1.0	27.3	.0	6.7	3.4	E 39.3
April	1.2	1.3	E 1.0	28.2	.0	6.7	2.9	E 40.1
May	.7	E 1.3	E .8	28.7	(s)	6.5	3.0	E 40.2
June	1.2	1.4	E .8	26.6	.1	6.4	3.3	E 38.6
July	1.4	E 1.4	E .8	29.7	.1	7.9	3.7	E 43.5
August	1.2	1.4	E .8	30.4	.1	8.1	3.6	E 44.4
September	.9	1.4	E .9	26.5	.1	7.5	3.0	E 39.3
October	1.4	E 1.3	E .9	25.7	.1	8.4	2.6	E 39.0
November	1.2	E 1.3	1.0	27.1	(s)	7.9	2.3	E 39.6
December	1.1	1.2	1.2	29.9	(s)	8.3	2.4	E 43.0
Total	14.3	E 14.5	E 11.2	326.9	.4	87.3	36.9	E 477.2
1999 January	.9	1.2	1.2	27.4	.0	7.6	3.3	E 40.7
February	.8	E .6	1.0	23.8	.0	7.0	3.3	E 35.7
March	1.4	1.0	1.1	27.7	.0	7.9	2.9	E 40.6
April	1.4	E 1.4	1.0	26.1	.0	7.9	2.7	E 39.2
May	1.2	E 1.5	1.2	24.0	.0	7.8	3.2	E 37.7
June	1.3	E 1.4	1.2	23.1	.0	7.3	3.3	E 36.2
July	1.3	E 1.4	1.2	28.2	.0	7.2	3.3	E 41.3
August	1.2	E 1.4	.9	29.1	.0	8.2	3.7	E 43.3
September	.9	E 1.3	1.1	26.5	.0	8.2	3.0	E 40.1
October	.7	E 1.3	.9	26.5	.0	8.7	3.2	E 40.6
November	1.2	E .9	1.2	27.5	(s)	8.7	3.1	E 41.4
December	1.3	E 1.1	1.1	27.6	(s)	8.2	3.1	E 41.1
Total	13.5	E 14.6	13.2	317.4	.1	94.6	38.2	E 478.0
2000 January	1.3	E .9	1.2	25.6	(s)	9.4	3.6	E 40.8
February	1.3	E .7	1.2	24.2	(s)	8.6	3.2	E 37.9
March	1.1	E 1.3	1.2	28.3	.1	8.9	3.1	E 42.9
April	.8	E 1.4	E 1.2	28.0	.1	8.3	2.6	E 41.6
May	.7	E 1.4	E 1.2	27.0	.1	8.8	3.1	E 41.5
June	1.2	E 1.4	1.2	25.9	.1	8.4	3.6	E 40.5
July	1.3	E 1.4	E 1.2	28.2	(s)	9.3	3.6	E 43.7
August	1.1	E 1.5	E 1.2	27.5	.1	9.8	3.5	E 43.4
September	1.2	E 1.4	1.2	24.5	(s)	9.6	2.9	E 39.6
October	1.4	E 1.4	1.4	25.5	.0	8.9	3.0	E 40.2
10-Month Total	11.4	E 12.9	E 11.9	264.7	.4	90.0	32.3	E 412.1
1999 10-Month Total	10.9	E 12.5	10.8	262.4	.0	77.7	32.0	E 395.5
1998 10-Month Total	11.9	E 12.0	8.9	269.9	.4	71.1	32.2	E 394.6

^a South Africa possesses all of Africa's nuclear electricity generation.

^b The total gross generation estimates for China are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and are published in the Energy Information Administration annual reports—1993: *World Nuclear Outlook 1994*, December 1994, Table 1. 1994: *Nuclear Power Generation and Fuel Cycle Report 1996*, October 1996, Table 1. 1995 and 1996: *Nuclear Power Generation and Fuel Cycle Report 1997*, September 1997, Table D4. 1997 forward: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

^c Sum of available data only.

NA=Not available. — =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Source: China: See footnote b. All Other: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Sources for Tables 10.1a and 10.1b

United States—See Table 3.1a.

All Other Countries: Monthly Data

1998-forward: *Petroleum Intelligence Weekly, Oil and Gas Journal*, and other industry sources.

All Other Countries: Annual Data

1973-1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.

1980-1998: Office of Energy Markets and End Use, International Energy Database, December 1999.

1999: Average of monthly data.

World: Monthly Data

1998-forward: EIA, *International Petroleum Monthly*, sum of all countries' monthly data.

World: Annual Data

1973-1979: EIA, *International Energy Annual 1981*, Table 8.

1980-1998: Office of Energy Markets and End Use, International Energy Database, December 1999.

1999: Average of monthly data.

Appendix A. Thermal Conversion Factors

The heat content rates (i.e., thermal conversion factors) provided in this section represent the gross (or upper) energy content of the fuels. Gross heat content rates are applied in all British thermal unit (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.

In general, the annual thermal conversion factors presented in Tables A1 through A6 are computed from final annual data. However, if current year final data are not

available, thermal conversion factors for the current year are computed from the best available data and labeled “preliminary.” Usually, 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.

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 more heavily than the thermal conversion factor for propane.

Table A1. Approximate Heat Content of Petroleum Products
(Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Natural Gasoline and Isopentane	4.620
Aviation Gasoline	5.048	Pentanes Plus	4.620
Butane	4.326	Petrochemical Feedstocks	
Butane Propane Mixture ^a	4.130	Naptha Less Than 401° F	5.248
Distillate Fuel Oil	5.825	Other Oils Equal to or Greater Than 401° F	5.825
Ethane	3.082	Still Gas	6.000
Ethane-Propane Mixture ^b	3.308	Petroleum Coke	6.024
Isobutane	3.974	Plant Condensate	5.418
Jet Fuel, Kerosene Type	5.670	Propane	3.836
Jet Fuel, Naphtha Type	5.355	Residual Fuel Oil	6.287
Kerosene	5.670	Road Oil	6.636
Lubricants	6.065	Special Naphthas	5.248
Motor Gasoline		Still Gas	6.000
Conventional ^c	5.253	Unfinished Oils	5.825
Reformulated ^c	5.150	Unfractionated Stream	5.418
Oxygenated ^c	5.150	Waxes	5.537
Fuel Ethanol ^d	3.539	Miscellaneous	5.796

^a 60 percent butane and 40 percent propane.

^b 70 percent ethane and 30 percent propane.

^c See Table A3 for motor gasoline annual weighted averages beginning in 1994.

^d Fuel ethanol, which is derived from agricultural feedstocks (primarily corn), is not a petroleum product but is blended into motor gasoline. Its gross heat content (3.539 million Btu per barrel) is used in *Monthly Energy Review* calculations; its net heat content (3.192 million Btu per barrel) is used in the Energy Information Administration’s *Renewable Energy Annual* calculations.

Source: See “Thermal Conversion Factor Source Documentation,” which follows Table A6.

Table A2. Approximate Heat Content of Crude Oil, Crude Oil and Products, and Natural Gas Plant Liquids
(Million Btu per Barrel)

	Crude Oil			Crude Oil and Products		Natural Gas Plant Liquids Production
	Production	Imports	Exports	Imports	Exports	
1973	5.800	5.817	5.800	5.897	5.752	4.049
1974	5.800	5.827	5.800	5.884	5.774	4.011
1975	5.800	5.821	5.800	5.858	5.748	3.984
1976	5.800	5.808	5.800	5.856	5.745	3.964
1977	5.800	5.810	5.800	5.834	5.797	3.941
1978	5.800	5.802	5.800	5.839	5.808	3.925
1979	5.800	5.810	5.800	5.810	5.832	3.955
1980	5.800	5.812	5.800	5.796	5.820	3.914
1981	5.800	5.818	5.800	5.775	5.821	3.930
1982	5.800	5.826	5.800	5.775	5.820	3.872
1983	5.800	5.825	5.800	5.774	5.800	3.839
1984	5.800	5.823	5.800	5.745	5.850	3.812
1985	5.800	5.832	5.800	5.736	5.814	3.815
1986	5.800	5.903	5.800	5.808	5.832	3.797
1987	5.800	5.901	5.800	5.820	5.858	3.804
1988	5.800	5.900	5.800	5.820	5.840	3.800
1989	5.800	5.906	5.800	5.833	5.857	3.826
1990	5.800	5.934	5.800	5.849	5.833	3.822
1991	5.800	5.948	5.800	5.873	5.823	3.807
1992	5.800	5.953	5.800	5.877	5.777	3.804
1993	5.800	5.954	5.800	5.883	5.779	3.801
1994	5.800	5.950	5.800	5.861	5.779	3.794
1995	5.800	5.924	5.800	5.848	5.747	3.796
1996	5.800	5.935	5.800	5.842	5.741	3.777
1997	5.800	5.954	5.800	5.862	5.729	3.762
1998	5.800	5.953	5.800	5.862	5.715	3.769
1999 ^a	5.800	5.942	5.800	5.845	5.715	3.744
2000 ^a	5.800	5.942	5.800	5.845	5.715	3.744

^a Preliminary.

Note: Crude oil includes lease condensate.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A3. Approximate Heat Content of Petroleum Products, Weighted Averages
(Million Btu per Barrel)

	Consumption						Imports	Exports	Liquefied Petroleum Gases Consumption	Motor Gasoline Consumption
	Residential	Commercial	Industrial	Transportation	Electric Utilities	Total				
1973	5.205	5.749	5.568	5.395	6.245	5.515	5.983	5.752	3.746	5.253
1974	5.196	5.740	5.538	5.394	6.238	5.504	5.959	5.773	3.730	5.253
1975	5.192	5.704	5.528	5.392	6.250	5.494	5.935	5.747	3.715	5.253
1976	5.215	5.726	5.538	5.395	6.251	5.504	5.980	5.743	3.711	5.253
1977	5.213	5.733	5.555	5.400	6.249	5.518	5.908	5.796	3.677	5.253
1978	5.213	5.716	5.553	5.404	6.251	5.519	5.955	5.814	3.669	5.253
1979	5.298	5.769	5.418	5.428	6.258	5.494	5.811	5.864	3.680	5.253
1980	5.245	5.803	5.376	5.440	6.254	5.479	5.748	5.841	3.674	5.253
1981	5.191	5.751	5.313	5.432	6.258	5.448	5.659	5.837	3.643	5.253
1982	5.167	5.751	5.263	5.422	6.258	5.415	5.664	5.829	3.615	5.253
1983	5.022	5.642	5.273	5.415	6.255	5.406	5.677	5.800	3.614	5.253
1984	5.129	5.700	5.223	5.422	6.251	5.395	5.613	5.867	3.599	5.253
1985	5.115	5.660	5.221	5.423	6.247	5.387	5.572	5.819	3.603	5.253
1986	5.130	5.691	5.286	5.427	6.257	5.418	5.624	5.839	3.640	5.253
1987	5.095	5.659	5.253	5.430	6.249	5.403	5.599	5.860	3.659	5.253
1988	5.118	5.657	5.248	5.434	6.250	5.410	5.618	5.842	3.652	5.253
1989	5.057	5.615	5.233	5.440	6.241	5.410	5.641	5.869	3.683	5.253
1990	4.952	5.612	5.272	5.445	6.247	5.411	5.614	5.838	3.625	5.253
1991	4.912	5.591	5.192	5.442	6.248	5.384	5.636	5.827	3.614	5.253
1992	4.943	5.579	5.188	5.445	6.243	5.378	5.623	5.774	3.624	5.253
1993	4.943	5.573	5.200	5.438	6.241	5.379	5.620	5.777	3.606	5.253
1994	4.940	5.584	5.170	5.427	6.231	5.361	5.534	5.777	^b 3.635	5.230
1995	4.928	5.550	5.139	5.419	6.210	5.341	5.504	5.741	3.623	5.215
1996	4.912	5.522	5.125	5.421	6.212	5.336	5.489	5.733	3.613	5.216
1997	4.899	5.480	5.134	5.417	6.220	5.336	5.472	5.720	3.616	5.213
1998 ^a	4.860	5.457	5.154	5.415	6.220	5.349	5.465	5.704	3.614	5.212
1999 ^a	4.810	5.442	5.098	5.419	6.207	5.328	5.447	5.703	3.616	5.211
2000 ^a	4.810	5.442	5.098	5.419	6.207	5.328	5.447	5.703	3.616	5.211

^a Preliminary.

^b Beginning in 1994, the single constant factor is replaced with a quantity-weighted average of motor gasoline's major components. See Table A1.

Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A4. Approximate Heat Content of Natural Gas
(Btu per Cubic Foot)

	Production		Consumption			Imports	Exports
	Dry	Marketed	Sectors Other Than Electric Utilities	Electric Utilities	Total		
1973	1,021	1,093	1,020	1,024	1,021	1,026	1,023
1974	1,024	1,097	1,024	1,022	1,024	1,027	1,016
1975	1,021	1,095	1,020	1,026	1,021	1,026	1,014
1976	1,020	1,093	1,019	1,023	1,020	1,025	1,013
1977	1,021	1,093	1,019	1,029	1,021	1,026	1,013
1978	1,019	1,088	1,016	1,034	1,019	1,030	1,013
1979	1,021	1,092	1,018	1,035	1,021	1,037	1,013
1980	1,026	1,098	1,024	1,035	1,026	1,022	1,013
1981	1,027	1,103	1,025	1,035	1,027	1,014	1,011
1982	1,028	1,107	1,026	1,036	1,028	1,018	1,011
1983	1,031	1,115	1,031	1,030	1,031	1,024	1,010
1984	1,031	1,109	1,030	1,035	1,031	1,005	1,010
1985	1,032	1,112	1,031	1,038	1,032	1,002	1,011
1986	1,030	1,110	1,029	1,034	1,030	997	1,008
1987	1,031	1,112	1,031	1,032	1,031	999	1,011
1988	1,029	1,109	1,029	1,028	1,029	1,002	1,018
1989	1,031	1,107	1,031	1,030	1,031	1,004	1,019
1990	1,031	1,105	1,030	1,034	1,031	1,012	1,018
1991	1,030	1,108	1,031	1,024	1,030	1,014	1,022
1992	1,030	1,110	1,031	1,022	1,030	1,011	1,018
1993	1,027	1,106	1,028	1,022	1,027	1,020	1,016
1994	1,028	1,105	1,029	1,022	1,028	1,022	1,011
1995	1,027	1,106	1,027	1,025	1,027	1,021	1,011
1996	1,027	1,109	1,027	1,024	1,027	1,022	1,011
1997	1,026	1,107	1,027	1,019	1,026	1,023	1,011
1998	1,031	1,110	1,033	1,022	1,031	1,023	1,011
1999 ^a	1,027	1,111	1,028	1,019	1,027	1,022	1,006
2000 ^a	1,027	1,111	1,028	1,019	1,027	1,022	1,006

^a Preliminary.

R=Revised.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A5. Approximate Heat Content of Coal and Coal Coke
(Million Btu per Short Ton)

	Coal									Coal Coke
	Production	Consumption						Imports	Exports	Imports and Exports
		End-Use Sectors			Electric Power Sector					
		Residential and Commercial	Industrial		Electric Utilities	Other Power Producers ^b	Total			
Coke Plants	Other ^a									
1973	23.376	22.831	26.780	22.586	22.246	NA	23.057	25.000	26.596	24.800
1974	23.072	22.479	26.778	22.419	21.781	NA	22.677	25.000	26.700	24.800
1975	22.897	22.261	26.782	22.436	21.642	NA	22.506	25.000	26.562	24.800
1976	22.855	22.774	26.781	22.530	21.679	NA	22.498	25.000	26.601	24.800
1977	22.597	22.919	26.787	22.322	21.508	NA	22.265	25.000	26.548	24.800
1978	22.248	22.466	26.789	22.207	21.275	NA	22.017	25.000	26.478	24.800
1979	22.454	22.242	26.788	22.452	21.364	NA	22.100	25.000	26.548	24.800
1980	22.415	22.543	26.790	22.690	21.295	NA	21.947	25.000	26.384	24.800
1981	22.308	22.474	26.794	22.585	21.085	NA	21.713	25.000	26.160	24.800
1982	22.239	22.695	26.797	22.712	21.194	NA	21.674	25.000	26.223	24.800
1983	22.052	22.775	26.798	22.691	21.133	NA	21.576	25.000	26.291	24.800
1984	22.010	22.844	26.799	22.543	21.101	NA	21.573	25.000	26.402	24.800
1985	21.870	22.646	26.798	22.020	20.959	NA	21.366	25.000	26.307	24.800
1986	21.913	22.947	26.798	22.198	21.084	NA	21.462	25.000	26.292	24.800
1987	21.922	23.404	26.799	22.381	21.136	NA	21.517	25.000	26.291	24.800
1988	21.823	23.571	26.799	22.360	20.900	NA	21.328	25.000	26.299	24.800
1989	21.765	23.650	26.800	22.347	20.848	E 18.928	21.272	25.000	26.160	24.800
1990	21.822	23.137	26.799	22.457	20.929	E 18.928	21.331	25.000	26.202	24.800
1991	21.681	23.114	26.799	22.460	20.755	E 18.928	21.146	25.000	26.188	24.800
1992	21.682	23.105	26.799	22.250	20.787	18.928	21.107	25.000	26.161	24.800
1993	21.418	22.994	26.800	22.123	20.639	18.995	20.947	25.000	26.335	24.800
1994	21.394	23.112	26.800	22.068	20.673	19.450	20.978	25.000	26.329	24.800
1995	21.326	23.118	26.800	21.950	20.495	19.417	20.814	25.000	26.180	24.800
1996	21.322	23.011	26.800	22.105	20.525	19.391	20.824	25.000	26.174	24.800
1997	21.296	22.494	26.800	22.172	20.548	19.596	20.835	25.000	26.251	24.800
1998	21.224	22.783	26.800	22.104	20.479	20.143	20.760	25.000	26.243	24.800
1999	21.224	22.783	26.800	22.104	20.479	20.143	20.760	25.000	26.243	24.800
2000 ^c	21.224	22.783	26.800	22.104	20.479	20.143	20.760	25.000	26.243	24.800

^a Includes transportation.

^b Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors.

^c Preliminary.

E=Estimate.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A6. Approximate Heat Rates for Electricity
(Btu per Kilowatthour)

	Electricity Net Generation			Electricity Consumption
	Fossil-Fueled Steam-Electric Plants ^a	Nuclear Steam-Electric Plants	Geothermal Energy Plants ^b	
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	10,813	21,263	3,412
1986	10,446	10,799	21,263	3,412
1987	10,419	10,776	21,263	3,412
1988	10,324	10,743	21,096	3,412
1989	10,432	10,724	21,096	3,412
1990	10,402	10,680	21,096	3,412
1991	10,436	10,740	20,997	3,412
1992	10,342	10,678	20,914	3,412
1993	10,309	10,682	20,914	3,412
1994	10,316	10,676	20,914	3,412
1995	10,312	10,658	20,914	3,412
1996	10,340	10,623	20,960	3,412
1997	10,357	10,623	20,960	3,412
1998	10,346	10,623	21,017	3,412
1999	10,346	10,623	21,017	3,412
2000 ^c	10,346	10,623	21,017	3,412

^a Used as the thermal conversion factor for hydroelectric power generation, and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

^b Used as the thermal conversion factor for geothermal energy consumed at electric utilities.

^c Preliminary.

Source: See "Thermal Conversion Factor Source Documentation," which follows this table.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

Aviation Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.048 million Btu per barrel for "Gasoline, Aviation" 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.

Butane. EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel 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 and Lease Condensate, Production**.

Crude Oil, Imports. Calculated annually by EIA by weighting the thermal conversion factor of each type of crude oil imported by the quantity imported. Thermal conversion factors for each type were calculated on a foreign country basis through 1996, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977, or for 1997 and later, by determining the weighted average API gravity from the Form EIA-814, 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 and Lease Condensate, 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."

Crude Oil and Petroleum Products, Exports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported and crude oil exported weighted by the quantity of each petroleum product and crude oil exported. See **Crude Oil, Exports** and **Petroleum Products, Exports**.

Crude Oil and Petroleum Products, Imports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product and each type of crude oil imported weighted by the quantity of each petroleum product and each type of crude oil imported. See **Crude Oil, Imports** and **Petroleum Products, Imports**.

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 Value of Various Fuels, Adopted January 3, 1950."

Ethane. EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Ethane-Propane Mixture. EIA calculated 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

Fuel Ethanol Blended Into Motor Gasoline. 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.

Isobutane. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel 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 Appendix V of *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 Appendix V of *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. • 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Crude Petroleum and Petroleum Products, 1956*, Table 4 footnote, constant value of 4.011 million Btu per barrel. • 1967 forward: Calculated annually by EIA as a weighted average by multiplying the quantity consumed of each of the component products by each product's conversion factor, listed in this appendix, and dividing the sum of those heat contents by the sum of the quantities consumed.

The component products are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. Quantities consumed are from: 1967 through 1980: EIA, Energy Data Reports, *Petroleum Statement, Annual*, Table 1. 1981 forward: 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. • 1960 through 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 (shown in appendix Table C1). 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 the 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.

Natural Gas Plant Liquids, Production. Calculated annually by EIA as the average of the thermal conversion factors of each natural gas plant liquid produced weighted by the quantity of each natural gas plant liquid 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 per barrel or equal to that for natural gasoline. See **Natural Gasoline**.

Petrochemical Feedstocks, Naphtha Less Than 401 Degrees Fahrenheit. 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, Oils Equal to or Greater Than 401 Degrees Fahrenheit. 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 Value 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 Products, Total Consumption. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed, weighted by the quantity of each petroleum product consumed.

Petroleum Products, Consumption by Electric Utilities. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Consumption by Industrial Users. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Consumption by Residential and Commercial Users. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Consumption by Transportation Users. Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Exports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product, weighted by the quantity of each petroleum product exported.

Petroleum Products, Imports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported, weighted by the quantity of each petroleum product 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 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 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 and first published in the *Petroleum Statement, Annual, 1970*.

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 in the *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 in the *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 Natural Gas

Natural Gas, Total Consumption. 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 of natural gas consumed. The heat content and quantity consumed are from Form EIA-176. Published sources are: 1980-1989: EIA, *Natural Gas Annual 1992, Volume 2, Table 15*. 1990-1992: EIA, *Natural Gas Annual 1992, Volume 2, Table 16*. 1993 forward: 1992 value used as an estimate.

Natural Gas, Consumption by Electric Utilities. Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from Form FERC-423 and predecessor forms.

Natural Gas, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed at electric utilities by the quantity of all natural gas consumed less the quantity of natural gas consumed at electric utilities. Data are from Forms EIA-176, FERC-423, EIA-759, and predecessor forms.

Natural Gas, Exports. Calculated annually by EIA by dividing the heat content of exported natural gas by the quantity of natural gas exported, both reported on Form FPC-14.

Natural Gas, Imports. Calculated annually by EIA by dividing the heat content of imported natural gas by the quantity of natural gas imported, both reported on Form FPC-14.

Natural Gas Production, Dry. Assumed by EIA to be equal to the thermal conversion factor for the consumption of dry natural gas. See **Natural Gas Total Consumption**.

Natural Gas Production, Marketed (Wet). Calculated annually by EIA by adding the heat content of dry natural gas production and the total heat content of natural gas plant liquids production and dividing this sum by the total quantity of marketed (wet) natural gas production.

Approximate Heat Content of Coal and Coal Coke

Coal, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) consumption by the total tonnage.

Coal, Consumption by Electric Utilities. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) received at electric utilities by the sum of the tonnage received.

Coal, Consumption by Other Power Producers. Calculated annually by dividing the total heat content of coal (including anthracite culm and waste coal) consumed by other power producers by their total consumption tonnage.

Coal, Consumption by the Electric Power Sector. Calculated annually by dividing the total heat content of coal (including anthracite culm and waste coal) by total consumption tonnage of the electric power sector.

Coal, Consumption by End-Use Sectors. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) consumed by the end-use sectors by the sum of the total tonnage.

Coal, Exports. Calculated annually by EIA by dividing the sum of the heat content of coal exported by the sum of the total tonnage.

Coal, Imports. Calculated annually by EIA by dividing the sum of the heat content of coal imported by the sum of the total tonnage.

Coal, Production. Calculated annually by EIA by dividing the sum of the total heat content of coal (including some anthracite culm) produced by the sum of the total tonnage.

Coal Coke, Imports and Exports. EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

Approximate Heat Rates for Electricity

Fossil-Fueled Steam-Electric Plant Generation. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA uses data from Form EIA-767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric 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 per kilowatthour. 1973-1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as

published by EIA in *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

Geothermal Energy Plant Generation. 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. 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

Nuclear Steam-Electric Plant Generation. 1973-1991: Calculated annually by EIA 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 are reported on Form FERC-1, "Annual Report of Major Electric Utilities, Licenses, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. The factors, beginning with 1982 data, are published in the following EIA reports—1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. 1983-1991: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1992 forward: Calculated annually by EIA by dividing the total heat content of the steam leaving the nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in Nuclear Regulatory Commission, *Licensed Operating Reactors—Status Summary Report*.

Appendix B. Metric and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94-168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100-418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. customary units. For example, 500 short tons are the equivalent of 453.6 metric

tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

Table B1. Metric Conversion Factors

Type of Unit	U.S. Unit	multiplied by	Conversion Factor	equals	Metric Unit
Mass	short tons (2,000 lb)	x	0.907 184 7	=	metric tons (t)
	long tons	x	1.016 047	=	metric tons (t)
	pounds (lb)	x	.453 592 37 ^a	=	kilograms (kg)
	pounds uranium oxide (lb U ₃ O ₈)	x	0.384 647 ^b	=	kilograms uranium (kgU)
	ounces, avoirdupois (avdp oz)	x	28.349 52	=	grams (g)
Volume	barrels of oil (bbl)	x	0.158 987 3	=	cubic meters (m ³)
	cubic yards (yd ³)	x	0.764 555	=	cubic meters (m ³)
	cubic feet (ft ³)	x	0.028 316 85	=	cubic meters (m ³)
	U.S. gallons (gal)	x	3.785 412	=	liters (L)
	ounces, fluid (fl oz)	x	29.573 53	=	milliliters (mL)
	cubic inches (in ³)	x	16.387 06	=	milliliters (mL)
Length	miles (mi)	x	1.609 344 ^a	=	kilometers (km)
	yards (yd)	x	0.914 4 ^a	=	meters (m)
	feet (ft)	x	0.304 8 ^a	=	meters (m)
	inches (in)	x	2.54 ^b	=	centimeters (cm)
Area	acres	x	0.404 69	=	hectares (ha)
	square miles (mi ²)	x	2.589 988	=	square kilometers (km ²)
	square yards (yd ²)	x	0.836 127 4	=	square meters (m ²)
	square feet (ft ²)	x	0.092 903 04 ^a	=	square meters (m ²)
	square inches (in ²)	x	6.451 6 ^b	=	square centimeters (cm ²)
Temperature	degrees Fahrenheit (°F)	x	5/9 (after subtracting 32) ^{a,c}	=	degrees Celsius (°C)
Energy	British thermal units (Btu)	x	1,055.055 852 62 ^{a,d}	=	joules (J)
	calories (cal)	x	4.186 8 ^a	=	joules (J)
	Kilowatthours (kWh)	x	3.6 ^a	=	megajoules (MJ)

^aExact conversion.

^bCalculated by the Energy Information Administration.

^cTo convert degrees Celsius (°C) to degrees Fahrenheit (°F) exactly, multiply by 9/5, then add 32.

^dThe Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

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, contact Dr. Barry Taylor at Building 221, Room B610, National Institute of Standards and Technology, Gaithersburg, MD 20899, or on telephone number 301-975-4220.

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9-11, 13, and 16. • 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	
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

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	<i>multiplied by</i>	Conversion Factor	<i>equals</i>	Final Unit
Petroleum	barrels (bbl)	x	42 ^a	=	U.S. gallons (gal)
Coal	short tons	x	2,000 ^a	=	pounds (lb)
	long tons	x	2,240 ^a	=	pounds (lb)
	metric tons (t)	x	1,000 ^a	=	kilograms (kg)
Wood	ords (cd)	x	1.25 ^b	=	shorts tons
	ords (cd)	x	128 ^a	=	cubic feet (ft ³)

^aExact conversion.

^bCalculated by the Energy Information Administration.

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.

Appendix C. Carbon Dioxide Emission Factors for Coal

Table C1 presents U.S. average carbon dioxide emission factors for coal by sector. The factors measure the emissions produced during the combustion of coal and were derived by the Energy Information Administration (EIA) from 5,426 sample analyses in EIA's Coal Analysis File. The factors are ratios of the carbon dioxide emitted to the heat content of the coal burned, assuming complete combustion. Factors vary according to the rank and geographic origin of the coal. Sectoral factors reflect the rank and origin of the coal consumed in the sector.

Factors differ among sectors and within a sector over time for several reasons:

1. A higher average emission factor in the residential and commercial sector can be attributed to the steady consumption of bituminous coal and anthracite (presumably for home heating).
2. Virtually all of the coal consumed by coke plants comes from only a few States in the Appalachian Coal Basin (West Virginia, Virginia, and eastern Kentucky). Hence, the emission factors for this sector have remained fairly constant.
3. Other industrial users of coal (not coke plants) increased consumption of low-rank, high-emission western coals, which has contributed to a rise in their average emission factor.
4. Electric utilities, which account for most U.S. coal consumption, have shifted over time away from high-rank, low-emission bituminous coal to low-rank, high-emission subbituminous coal and lignite as reflected in a gradually rising weighted-average carbon dioxide emission factor.

Table C1. Average Carbon Dioxide Emission Factors for Coal by Sector
(Pounds of Carbon Dioxide per Million Btu)

Year	Residential and Commercial	Industrial		Electric Utilities	U.S. Average ^b
		Coke Plants ^a	Other Coal		
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	209.5	206.2	206.8	207.6	207.4
1991	210.2	206.2	206.9	207.7	207.5
1992	211.2	206.2	207.1	207.7	207.6
1993	209.9	206.2	207.0	207.8	207.7
1994	209.8	206.3	207.2	207.9	207.8
1995	210.2	206.4	207.2	208.1	207.9
1996	209.5	206.5	207.0	208.1	208.0
1997	210.2	206.6	207.2	208.2	208.0

^aNo allowances have been made for carbon retained in non-energy coal chemical byproducts from the carbonization process.

^bWeighted average. The weights used are consumption values by sector.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Appendix D. List of Features

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are several categories of features on the list: “Energy Plugs” are 1-page descriptions of recently released EIA products. “Articles” cover a wide range of energy-related subjects in depth; “Highlights” summarize the most important information presented in the subject Energy

Information Administration (EIA) report; “Energy Previews” provide brief overviews of EIA preliminary energy data on a given topic; “EIA Data News” items present information on recent changes in the scope, design, methodology, and findings of EIA’s energy surveys and databases; and “Energy Snapshots” use graphics to set off key data from EIA survey reports.

Feature	Cover Date
2000	
Energy Plug: <i>Inventory of Nonutility Electric Power Plants in the United States 1998</i>	January 2000
Energy Plug: <i>The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations</i>	January 2000
Energy Plug: <i>International Energy Annual 1998</i>	February 2000
Energy Plug: <i>Performance Profiles of Major Energy Producers 1998</i>	February 2000
Energy Plug: OPEC Revenues Fact Sheet	March 2000
Energy Plug: Country Analysis Brief: Iran	March 2000
Energy Plug: <i>International Energy Outlook 2000</i>	April 2000
Energy Plug: <i>Outlook for Biomass Ethanol Production and Demand</i>	April 2000
Energy Plug: <i>Summer 2000 Motor Gasoline Outlook</i>	May 2000
Energy Plug: <i>State Energy Price and Expenditure Report 1997</i>	June 2000
Energy Plug: <i>Energy Consumption and Renewable Energy Development Potential on Indian Lands</i>	June 2000
Energy Plug: <i>Annual Energy Review 1999</i>	July 2000
Energy Plug: <i>A Primer on Gasoline Prices</i>	August 2000
Energy Plug: <i>Long-Term World Oil Supply: A Resource Base/Production Path Analysis</i>	August 2000
Energy Plug: <i>Propane Prices: What Consumers Should Know</i>	October 2000
Energy Plug: <i>Winter Fuels Outlook: 2000-2001</i>	October 2000
Energy Plug: <i>Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report</i>	October 2000
Energy Plug: <i>Residential Natural Gas Prices: What Consumers Should Know</i>	November 2000
Energy Plug: <i>The Changing Structure of the Electric Power Industry 2000: An Update</i>	November 2000
Energy Plug: <i>Annual Energy Outlook 2001 Early Release</i>	December 2000
Energy Plug: <i>Residential Heating Oil Prices: What Consumers Should Know</i>	December 2000
1999	
Energy Plug: <i>Performance Profiles of Major Energy Producers 1997</i>	January 1999
Energy Plug: <i>State Energy Data Report 1996</i>	February 1999
Energy Plug: <i>State Electricity Profiles</i>	March 1999
Energy Plug: <i>International Energy Annual 1997</i>	April 1999
Energy Plug: <i>International Energy Outlook 1999</i>	April 1999
Energy Plug: <i>Natural Gas 1998: Issues and Trends</i>	May 1999
Energy Plug: <i>Electric Power Annual 1998, Volume I</i>	June 1999
Energy Plug: <i>Annual Energy Review 1998</i>	July 1999
Energy Plug: <i>Energy in the Americas</i>	August 1999
Energy Plug: <i>State Energy Data Report 1997</i>	September 1999
Energy Plug: <i>The U.S. Coal Industry in the 1990s: Low Prices and Record Production</i>	September 1999
Energy Plug: <i>Issues in Midterm Analysis and Forecasting 1999</i>	October 1999
Energy Plug: <i>1999-2000 Winter Fuels Outlook</i>	November 1999
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1998</i>	November 1999
Energy Plug: <i>Annual Energy Outlook 2000</i>	December 1999
Energy Plug: <i>Energy in Africa</i>	December 1999

1998

Energy Plug: <i>Performance Profiles of Major Energy Producers 1996</i>	January 1998
Energy Plug: <i>International Energy Annual 1996</i>	February 1998
Energy Plug: <i>Assessment of Summer 1997 Motor Gasoline Price Increase</i>	April 1998
Energy Plug: <i>Deliverability on the Interstate Natural Gas Pipeline System</i>	May 1998
Energy Plug: <i>The Changing Structure of the Electric Power Industry: Selected Issues, 1998</i>	June 1998
Energy Plug: <i>Annual Energy Review 1997</i>	July 1998
Energy Plug: <i>State Energy Price and Expenditure Report 1995</i>	August 1998
Energy Plug: <i>A View of the Forest Products Industry From a Wood Energy Perspective</i>	August 1998
Energy Plug: <i>25th Anniversary of the 1973 Oil Embargo: Energy Trends Since the First Major U.S. Energy Crisis</i>	September 1998
Energy Plug: <i>Energy Education Resources: Kindergarten Through 12th Grade</i>	September 1998
Energy Plug: <i>Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity</i>	October 1998
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1997</i>	October 1998
Energy Plug: <i>Wind Energy Developments: Incentives in Selected Countries</i>	November 1998
Energy Plug: <i>Annual Energy Outlook 1999</i>	November 1998

1997

Energy Plug: <i>Annual Energy Outlook 1997</i>	January 1997
Energy Plug: <i>The Changing Structure of the Electric Power Industry: An Update</i>	January 1997
Energy Plug: <i>Performance Profiles of Major Energy Producers 1995</i>	January 1997
Energy Plug: <i>The Effects of Title IV of the Clean Air Act Amendments of 1990 on Electric Utilities: An Update</i>	March 1997
Energy Plug: <i>International Energy Outlook 1997</i>	April 1997
Energy Plug: <i>Restructuring Energy Industries: Lessons From Natural Gas</i>	May 1997
Energy Plug: <i>An Analysis of U.S. Propane Markets: Winter 1996-97</i>	June 1997
Energy Plug: <i>State Energy Price and Expenditure Report 1994</i>	June 1997
Energy Plug: <i>Annual Energy Review 1996</i>	July 1997
Energy Plug: <i>Motor Gasoline Assessment 1997</i>	July 1997
Energy Plug: <i>Commercial Buildings Characteristics 1995</i>	July 1997
Energy Plug: <i>Household Vehicles Energy Consumption 1994</i>	August 1997
Energy Plug: <i>Electricity Prices in a Competitive Environment</i>	August 1997
Energy Plug: <i>Petroleum 1996: Issues and Trends</i>	September 1997
Energy Plug: <i>The Intricate Puzzle of Oil and Gas "Reserves Growth"</i>	September 1997
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1996</i>	October 1997
Energy Plug: <i>Electricity Reform Abroad and U.S. Investment</i>	October 1997
Energy Plug: <i>Annual Energy Outlook 1998</i>	November 1997
Energy Plug: <i>Winter Heating Fuels Assessments</i>	December 1997
Energy Plug: <i>Oil and Gas Resources of the West Siberian Basin, Russia</i>	December 1997

1996

Energy Plug: <i>Renewable Energy Annual 1995</i>	January 1996
Energy Plug: <i>State Energy Price and Expenditure Report 1993</i>	January 1996
Energy Plug: <i>Annual Energy Outlook 1996</i>	February 1996
Energy Plug: <i>Alternatives to Traditional Transportation Fuels 1994, Volume 1</i>	February 1996
Energy Snapshot: <i>Describing Current and Potential Markets for Alternative-Fuel Vehicles</i>	March 1996
Article: <i>Energy Equipment Choices: Fuel Costs and Other Determinants</i>	April 1996
Energy Plug: <i>International Energy Outlook 1996</i>	May 1996
Energy Plug: <i>U.S. Electric Utility Demand-Side Management: Trends and Analysis</i>	May 1996
Energy Plug: <i>Country Analysis Brief: Iraq</i>	June 1996
Energy Plug: <i>Annual Energy Review 1995</i>	July 1996
Energy Plug: <i>Voluntary Reporting of Greenhouse Gases 1995</i>	July 1996
Energy Plug: <i>Residential Lighting: Use and Potential Savings</i>	August 1996
Energy Plug: <i>EIA Electronic Media Meet Customer Needs</i>	August 1996
Energy Plug: <i>Alternatives to Traditional Transportation Fuels, Volume 2: Greenhouse Gas Emissions</i>	September 1996
Energy Plug: <i>State Energy Data Report 1994</i>	October 1996
Energy Plug: <i>Privatization and the Globalization of Energy Markets</i>	October 1996
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1995</i>	October 1996
Energy Plug: <i>Nuclear Power Generation and Fuel Cycle Report 1996</i>	November 1996
Energy Plug: <i>Country Analysis Brief: Algeria</i>	November 1996
Energy Plug: <i>Denver Clean-City Fleets Survey</i>	November 1996
Energy Plug: <i>Natural Gas 1996: Issues and Trends</i>	December 1996

1995

Highlights: <i>Manufacturing Consumption of Energy 1991</i>	January 1995
Article: <i>U.S. Wind Energy Potential: The Effect of the Proximity of Wind Resources to Transmission Lines</i>	February 1995
EIA Data News: <i>The Response Analysis Survey: Evaluating Manufacturing Energy Consumption Survey Methodology</i>	March 1995

1995 (Continued)

Energy Preview: Electric Utility Fleet Survey 1993, Preliminary Estimates: Assessing the Market for Alternative-Fuel Vehicles	April 1995
Highlights: <i>Commercial Buildings Energy Consumption and Expenditures 1992</i>	April 1995
Article: Measuring Dependence on Imported Oil	August 1995
Energy Preview: Household Energy Consumption and Expenditures 1993, Preliminary Estimates	August 1995
Energy Snapshot: Housing Characteristics 1993	September 1995
Highlights: <i>State Energy Data Report 1993, Consumption Estimates</i>	October 1995
Special Communication: Results of the <i>Monthly Energy Review</i> Features Readership Survey	November 1995
Highlights: <i>Annual Energy Review 1994</i>	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	November 1995
Article: Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	December 1995

1994

Energy Preview: Commercial Buildings Energy Consumption Survey, Preliminary Estimates, 1992	January 1994
Highlights: <i>Household Vehicles Energy Consumption 1991</i>	February 1994
Highlights: <i>Energy Use and Carbon Emissions: Some International Comparisons</i>	April 1994
Highlights: <i>Commercial Buildings Characteristics 1992</i>	June 1994
Article: Demand, Supply, and Price Outlook for Reformulated Motor Gasoline 1995	July 1994
Article: Commercial Nuclear Electric Power in the United States: Problems and Prospects	August 1994
Article: The Impact of Flow Control and Tax Reform on Ownership and Growth in the U.S.	August 1994
Highlights: <i>Reducing Home Heating and Cooling Costs</i>	September 1994
Energy Preview: Commercial Buildings Energy Consumption and Expenditures 1992, Preliminary Estimates	September 1994
Article: Carbon Dioxide Emission Factors for Coal: A Summary Waste-to-Energy Industry	September 1994
EIA Data News: Data Collection on Alternative-Fuel Vehicles	October 1994
Highlights: <i>Energy End-Use Intensities in Commercial Buildings</i>	October 1994
Article: Change in Method for Estimating Fuel Economy for the Residential Transportation Energy Consumption Survey	October 1994
Article: Comparability of Supply- and Consumption-Derived Estimates of Manufacturing Energy Consumption	October 1994
Energy Preview: Housing Characteristics 1993, Selected Preliminary Estimates	November 1994
Energy Preview: Propane-Provider Fleet Survey 1993, Preliminary Estimates	November 1994
Energy Preview: Atlanta Private Fleet Survey 1994, Preliminary Estimates	December 1994

1993

Energy Preview: Residential Transportation Energy Consumption Survey, Preliminary Estimates, 1991	January 1993
EIA Data News: Natural Gas Transported for the Account of Others	February 1993
Highlights: <i>Federal Energy Subsidies: Direct and Indirect Interventions in Energy Markets</i>	July 1993
Highlights: <i>Household Energy Consumption and Expenditures 1990</i>	August 1993
Article: Demand, Supply, and Price Outlook for Low-Sulfur Diesel Fuel	August 1993
Energy Preview: Manufacturing Energy Consumption Survey, Preliminary Estimates, 1991	September 1993
Highlights: <i>Natural Gas 1992: Issues and Trends</i>	September 1993
Highlights: <i>International Energy Outlook 1993</i>	October 1993
Highlights: <i>The Changing Structure of the U.S. Coal Industry: An Update</i>	November 1993
Highlights: <i>Emissions of Greenhouse Gases in the United States 1985-1990</i>	December 1993
Highlights: <i>Assessment of Energy Use in Multibuilding Facilities</i>	December 1993

1992

Energy Preview: Residential Energy Consumption and Expenditures Preliminary Estimates, 1990	April 1992
EIA Data News: Oxygenate Data Collection Begins	May 1992
Highlights: <i>Lighting in Commercial Buildings</i>	June 1992
Article: Demand, Supply, and Price Outlook for Oxygenated Gasoline, Winter 1992-1993	August 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management	September 1992
EIA Data News: EIA Statistics on Nonutility Power Producers	October 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management	November 1992
Article: Energy Efficiency in the Manufacturing Sector	December 1992

1991

Highlights: <i>U.S. Energy Industry Financial Developments, 1990 Fourth Quarter</i>	March 1991
Article: U.S. Wholesale Electricity Transactions	April 1991

1990

Article: Refining Results Highlight Energy Companies' First-Half Profit Performance	June 1990
Highlights: <i>U.S. Oil and Gas Reserves by Year of Field Discovery</i>	August 1990

1989

Article: A Review of Valdez Oil Spill Market Impacts	March 1989
Article: Monthly U.S. Crude Oil Production Estimates	March 1989
Article: Superconductivity and Energy Production and Consumption	May 1989

1989 (Continued)

Highlights: <i>Commercial Buildings Consumption and Expenditures 1986</i>	May 1989
Article: Higher Prices Yield Improved Energy Industry Financial Results in the First Half of 1989	June 1989
Article: The Future Structure of the U.S. Commercial Nuclear Power Equipment Manufacturing Industry	July 1989
Highlights: <i>Potential Costs of Restricting Chlorofluorocarbon Use</i>	September 1989
Highlights: <i>Manufacturing Energy Consumption Survey: Changes in Energy Efficiency, 1980-1985</i>	October 1989
Highlights: <i>Household Energy Consumption and Expenditures 1987, Part 1: National Data</i>	November 1989
Article: Improved Energy Profits Offset by Refining Results in 1989	December 1989

1988

Article: Measures of Energy Consumption, Expenditures, and Prices	May 1988
Article: The U.S. Energy Industry's Financial Recovery Continued in the First Half of 1988	June 1988
Article: A U.S. Perspective on Condensate	June 1988
Highlights: <i>Characteristics of Commercial Buildings 1986</i>	June 1988
Article: State Energy Severance Taxes, 1972-1987	July 1988
Highlights: <i>Manufacturing Energy Consumption Survey: Consumption of Energy, 1985</i>	September 1988
Highlights: <i>Profiles of Foreign Direct Investment in U.S. Energy 1987</i>	October 1988
Highlights: <i>Manufacturing Energy Consumption Survey: Fuel Switching, 1985</i>	November 1988
Article: Increased Refining Income Led U.S. Energy Industry Financial Recovery in 1988	December 1988

1987

Article: Manufacturing Sector Energy Consumption, 1985 Provisional Estimates	January 1987
Highlights: <i>Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data</i>	April 1987
Highlights: <i>Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data</i>	May 1987
Article: U.S. Energy Industry Financial Developments, 1987 Second Quarter	June 1987
Article: End-Use Consumption of Residential Energy	July 1987
Highlights: <i>Uranium Industry Annual 1986</i>	September 1987
Highlights: <i>Potential Oil Production from ANWR</i>	October 1987
Highlights: <i>Profiles of Foreign Direct Investment in U.S. Energy 1986</i>	November 1987
Article: The U.S. Energy Industry in 1987: A Slow Recovery	December 1987

1986

Article: State Motor Gasoline Taxes, 1960-1985	March 1986
Article: The Impact of Low Oil Prices on Electric Utility Fuel Choice	June 1986
Article: U.S. Energy Industry Financial Developments, 1986 Second Quarter	June 1986
Highlights: <i>International Energy Annual 1985</i>	September 1986
Article: U.S. Energy Industry Financial Developments, 1986	December 1986

1985

Highlights: <i>Annual Energy Review 1984</i>	January 1985
Highlights: <i>Performance Profiles of Major Energy Producers 1983</i>	February 1985
Article: Estimating Well Completions	March 1985
Highlights: <i>State Energy Price and Expenditure Report 1970-1982</i>	March 1985
Highlights: <i>State Energy Data Report, Consumption Estimates, 1960-1983</i>	April 1985
Highlights: <i>Annual Outlook for U.S. Electric Power 1985</i>	June 1985
Highlights: <i>Short-Term Energy Outlook, Volume 1, October 1985</i>	August 1985
Highlights: Analysis of Growth in Electricity Demand, 1980-1984	August 1985
Highlights: <i>Profiles of Foreign Direct Investment in U.S. Energy 1984</i>	November 1985
Highlights: <i>Performance Profiles of Major Energy Producers 1984</i>	December 1985

1984

Highlights: <i>Annual Energy Review 1983</i>	February 1984
Highlights: <i>Annual Energy Outlook 1983</i>	March 1984
Highlights: <i>State Energy Data Report, Consumption Estimates, 1960-1982</i>	March 1984
Highlights: State Energy Price and Expenditure Report, 1970-1981	May 1984
Highlights: Solar Collector Manufacturing Activity 1983	June 1984
Highlights: <i>International Energy Annual 1983</i>	September 1984
Highlights: <i>Estimates of U.S. Wood Energy Consumption, 1980-1983</i>	September 1984
Highlights: <i>Energy Conservation Indicators 1983 Annual Report</i>	November 1984
Highlights: <i>Annual Energy Outlook 1984</i>	December 1984

1983

Highlights: <i>Residential Energy Consumption Survey: Consumption and Expenditures</i>	January 1983
Highlights: <i>Residential Energy Consumption Survey: Housing Characteristics</i>	February 1983
Article: The Effect of Weather on Energy Use	April 1983
Article: Trends in U.S. Energy Since 1973	May 1983

1983 (Continued)

Article: Data Series on Petroleum Use at Electric Utilities	July 1983
Highlights: <i>Energy Price and Expenditure Data Report, 1970-1980</i>	July 1983
Highlights: <i>Railroad Deregulation: Impact on Coal</i>	August 1983
Highlights: <i>Port Deepening and User Fees: Impact on U.S. Coal Exports</i>	August 1983
Highlights: <i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report</i>	September 1983
Article: Residential Energy Consumption, 1978 Through 1981	September 1983
Article: Exploring for Oil and Gas	November 1983
Article: The Influence of Federal Actions on Petroleum Exploration	December 1983[2]
Article: Aggregate Statistics: Accurate or Misleading?	December 1983[3]

1982

Article: The Interstate and Intrastate Natural Gas Markets	January 1982
Article: Natural Gas Drilling and Production Under the Natural Gas Policy Act	February 1982
Highlights: <i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report</i>	September 1982
Article: Impacts of Financial Constraints on the Electric Utility Industry	October 1982
Highlights: <i>Energy Company Development Patterns in the Postembargo Era</i>	November 1982

1981

Article: Changes in 1981 Petroleum Data Series	May 1981
Article: Information Services of the Energy Information Administration	September 1981
Article: An Overview of Natural Gas Markets	December 1981

1980

Article: The Solar Collector Industry and Solar Energy	February 1980
Article: Trends in the Installation of Energy Using Equipment in New Residential Buildings	March 1980
Article: The Energy Information Administration's Oil and Gas Reserves Program—The First Year's Report	June 1980
Article: Energy From Urban Waste	August 1980
Article: Natural Gas Liquids: Revisions to 1979 Data	October 1980
Article: EIA Weekly Petroleum Data: Data Collection and Methods of Estimation	November 1980
Article: The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration	December 1980

1979

Article: The Energy Requirements of U.S. Agriculture	July 1979
Article: Three Mile Island—Possible Regulatory Responses and Their Impacts on the Nation's Short-Term Electric Utility Fuel Outlook	October 1979
Article: Reduction in Natural Gas Requirements Due to Fuel Switching	December 1979

1978

Article: Short-Term Petroleum Supply and Demand	May 1978
---	----------

1977

Article: Crude Oil Entitlements Program	January 1977
Article: Motor Gasoline Supply and Demand	July 1977

1976

Article: Curtailments of Natural Gas Service	January 1976
Article: Home Heating Conservation Alternatives and the Solar Collector Industry	March 1976
Article: Trends in United States Petroleum Imports	September 1976

1975

Article: Energy Consumption	March 1975
Article: Nuclear Power	April 1975
Article: The Price of Crude Oil	June 1975
Article: U.S. Coal Resources and Reserves	July 1975
Article: Propane—A National Energy Resource	September 1975
Article: Short-Term Energy Supply and Demand Forecasting at FEA	October 1975

Appendix E. Renewable Energy

Beginning with the January 2001 issue of the *Monthly Energy Review (MER)*, previously uncounted portions of renewable energy data (including renewable nonutility generation and all nonelectric energy) are fully incorporated into the *MER* summaries in Sections 1 and 2. The inclusion of these data into the summaries has the effect of raising the U.S. energy consumption total by 3 to 4 quadrillion Btu per year in recent years.

The 4 newly-developed tables presented in this appendix organize and summarize the renewable energy data and estimates that are now used in Sections 1 and 2 summary tables. Caution is warranted in using some of the monthly values; in particular, monthly data on Table E2 and 1998 monthly data for nonutility power producers on Table E3b are not available from data collection systems but are estimated instead from daily rates of the annual data.

Table E3a. Renewable Energy Consumption by the Electric Power Sector
(Trillion Btu)

	Electric Power Sector						
	Electric Utilities						
	Conventional Hydroelectric Power ^a	Wood ^b	Waste ^c	Geothermal ^d	Solar ^e	Wind ^f	Total
1973 Total	2,827	1	2	43	0	NA	2,873
1974 Total	3,143	1	2	53	0	NA	3,199
1975 Total	3,122	(s)	2	70	0	NA	3,194
1976 Total	2,943	1	2	78	0	NA	3,024
1977 Total	2,301	3	2	77	0	NA	2,383
1978 Total	2,905	2	1	64	0	NA	2,973
1979 Total	2,897	3	2	84	0	NA	2,986
1980 Total	2,867	3	2	110	0	NA	2,982
1981 Total	2,725	3	1	123	0	NA	2,852
1982 Total	3,233	2	1	105	0	NA	3,341
1983 Total	3,494	2	2	129	0	(s)	3,627
1984 Total	3,353	5	4	165	0	(s)	3,527
1985 Total	2,937	8	7	198	0	(s)	3,150
1986 Total	3,038	5	7	219	0	(s)	3,270
1987 Total	2,602	8	7	229	0	(s)	2,846
1988 Total	2,302	10	8	217	0	(s)	2,536
1989 Total	2,765	10	10	197	(s)	(s)	2,983
1990 Total	2,948	8	13	181	(s)	(s)	3,151
1991 Total	2,923	8	14	170	(s)	(s)	3,114
1992 Total	2,521	8	13	169	(s)	(s)	2,712
1993 Total	2,774	9	11	158	(s)	(s)	2,953
1994 Total	2,549	8	13	145	(s)	(s)	2,714
1995 Total	3,056	7	10	99	(s)	(s)	3,173
1996 Total	3,423	8	12	110	(s)	(s)	3,553
1997 Total	3,535	8	13	115	(s)	(s)	3,670
1998 January	285	1	1	10	(s)	(s)	297
February	296	1	1	8	(s)	(s)	306
March	313	1	1	10	(s)	(s)	325
April	283	1	1	7	(s)	(s)	291
May	328	1	1	6	(s)	(s)	336
June	320	(s)	1	7	(s)	(s)	328
July	283	1	1	9	(s)	(s)	294
August	248	1	1	10	(s)	(s)	260
September	206	1	1	10	(s)	(s)	218
October	187	1	1	11	(s)	(s)	200
November	198	1	1	10	(s)	(s)	209
December	249	1	1	9	(s)	(s)	260
Total	3,195	7	14	109	(s)	(s)	3,325
1999 January	286	1	1	9	(s)	(s)	297
February	278	1	1	7	(s)	(s)	287
March	311	(s)	1	8	(s)	(s)	321
April	265	1	1	9	(s)	(s)	276
May	282	1	1	(s)	(s)	(s)	284
June	296	1	1	(s)	(s)	(s)	299
July	288	1	1	(s)	(s)	(s)	290
August	250	1	1	(s)	(s)	(s)	252
September	203	1	1	(s)	(s)	(s)	205
October	193	(s)	1	(s)	(s)	(s)	195
November	206	1	1	(s)	(s)	(s)	208
December	244	1	1	(s)	(s)	(s)	246
Total	3,103	7	14	36	(s)	(s)	3,159
2000 January	241	(s)	1	(s)	(s)	(s)	243
February	214	1	1	(s)	(s)	(s)	216
March	253	1	1	(s)	(s)	(s)	256
April	270	1	1	(s)	(s)	(s)	273
May	260	1	1	(s)	(s)	(s)	263
June	239	1	1	(s)	(s)	(s)	241
July	229	1	1	(s)	(s)	(s)	231
August	209	1	1	(s)	(s)	(s)	211
September	169	1	1	(s)	(s)	(s)	171
October	163	1	1	(s)	(s)	(s)	165
10-Month Total	2,248	6	12	3	(s)	(s)	2,268
1999 10-Month Total	2,653	6	11	35	(s)	(s)	2,706
1998 10-Month Total	2,749	6	11	90	(s)	(s)	2,855

^a Through 1989, includes hydroelectricity generated by both conventional and pumped storage facilities; from 1990, includes only conventional hydroelectric generation.

^b Wood, wood waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

^c Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid

byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

^d Geothermal electricity net generation.

^e Solar thermal and photovoltaic electricity net generation.

^f Wind electricity net generation.

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

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

Sources for Table E2

Wood, Residential

1973-1979—Energy Information Administration (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—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6.

1994-1997—EIA, *Renewable Energy Annual 1999*, Table 6.

1998 forward—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

Wood, Commercial

1973-1979—EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980-1983—EIA, *Estimates of U.S. Wood Energy Consumption 1980-1983*, Table ES1.

1984—EIA, CNEAF, estimate.

1985-1992—Values interpolated.

1993—EIA, *Renewable Energy Annual 1995*, Table 6.

1994-1996—EIA, *Renewable Energy Annual 1999*, Table 6.

1997 forward—EIA, CNEAF, estimates.

Wood, Industrial

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—American Paper Institute, *Fact Sheet on 1990 Energy Use in the U.S. Pulp and Paper Industry* (July 1991), total pulp and paper industry wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).

1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6, total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).

1994-1998—EIA, *Renewable Energy Annual 1999*, Table 6, total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).

1999 forward—EIA, CNEAF, estimates for total indus-

trial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).

Waste, Industrial

1981—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).

1982 and 1983—EIA, CNEAF, estimates for total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).

1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).

1985 and 1986—Values interpolated.

1987—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).

1988—Value interpolated.

1989—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables E3a and E3b).

1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6, total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables E3a and E3b).

1994-1997—EIA, *Renewable Energy Annual 1999*, Table 6, total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables E3a and E3b).

1998 forward—EIA, CNEAF, estimates for total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables E3a and E3b).

Alcohol Fuels

1981—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1982 and 1983—EIA, CNEAF, estimates.

1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1985 and 1986—Values interpolated.

1987—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1988—Value interpolated.

1989—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1990—EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D1.

1991—Value interpolated.

1992—EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D1.

1993 forward—EIA, *Petroleum Supply Monthly*, Tables 2 and 28; and Table A1.

Geothermal

1989 forward—John Lund, Oregon Institute of Technology Geoheat Center, unpublished data.

Solar

1989-1991—EIA, CNEAF, estimates.

1992 and 1993—EIA *Renewable Energy Annual 1997*, Table 2.

1994-1998—EIA *Renewable Energy Annual 1999*, Table 2.

1999 forward—EIA, CNEAF, estimates.

Sources for Table E3b**Nonutility Power Producers, Hydropower**

1973-1978—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; and Table A6.

1979—FPC, Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and EIA estimates for all other plants; and Table A6.

1980-1988—Estimated by EIA as the average generation over the 6-year period of 1974-1979; and Table A6.

1989 forward—Tables 7.4 and A6.

Nonutility Power Producers, All Other Fuels

1989 forward—Tables 7.4 and A6.

Electricity Trade

1973-1988—Tables 7.1 and A6.

1989-1991—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

1992 and 1993—EIA, *Renewable Energy Annual 1997*, Table 3.

1994-1996—EIA, *Renewable Energy Annual 1999*, Table 3.

1997 forward—EIA, CNEAF, estimates.

Glossary

Alcohol Fuels: See **Fuel Ethanol**.

Anthracite: The highest rank of coal. 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. It is used primarily for residential and commercial space heating. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980s 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.

Anthracite Culm: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton.

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 are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols and ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: All special grades of gasoline used in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. gallons.

Base (Cushion) 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.

Bituminous Coal: A dense, black coal, often with well-defined bands of bright and dull material. Bitumi-

nous coal is the most abundant coal in active U.S. mining regions. It is 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. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1° F at or near 39.2° F. See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Bunker Oil: Fuels supplied to ships and aircraft in international transportation, irrespective of the flag of the carrier, consisting primarily of residual, distillate, and jet fuel oils.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C₄H₈) recovered from refinery processes.

Capacity Factor: The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

Chained Dollars: A measure used to express real prices. Real prices are those that have been adjusted to remove the effect of changes in the purchasing power of the dollar; they usually reflect buying power relative to a reference year. Prior to 1996, real prices were expressed in constant dollars, a measure based on the weights of goods and services in a single year, usually a recent year. In 1996, the U.S. Department of Commerce introduced the chained-dollar measure. The new measure is based on the average weights of goods and services in successive pairs of years. It is "chained" because the second year in each pair, with its weights,

becomes the first year of the next pair. The advantage of using the chained-dollar measure is that it is more closely related to any given period and is therefore subject to less distortion over time.

CIF: See **Cost, Insurance, Freight**.

City Gate: A point or measuring station at which a distribution gas utility receives gas from a natural gas pipeline company or transmission system.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Coal Coke: See **Coke, Coal**.

Coal Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the U.S. classification, the ranks include lignite, subbituminous coal, bituminous coal, and anthracite, and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

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.

Cogenerator: A generating facility that produces electricity and another form of useful energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes. See **Nonutility Power Producers**.

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

Commercial Sector: An energy-consuming sector that consists of service-providing facilities 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**. 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.

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.

Constant Dollars: See **Chained Dollars**.

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 that is not generated by **pumped storage**.

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors can be used to translate physical units of measure for various fuels into Btu equivalents. See **British Thermal Unit**.

Cost, Insurance, Freight (CIF): A type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Lading and Quality Report) rather than paying on the basis of the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

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. Crude oil may also include: (1) Small amounts of hydrocarbons that exist in the gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and that subsequently are commingled with the crude stream without being separately measured. (2) Small amounts of nonhydrocarbons produced with the oil, such as sulfur and other compounds. Note: In reporting crude oil data at various stages of the petroleum supply stream, EIA survey programs have definitional variations due to whether associated products or materials are counted with crude oil. Some products and other materials are either mixed with the crude oil and cannot be separately measured or they are logically associated with crude oil for accounting purposes. Crude oil reserves data contain separate estimates for lease condensate, whereas crude oil supply data include lease condensate. Crude oil supply data also include liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

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.

Cubic Foot (natural gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

Degree-Day Normals: Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days, Cooling (CDD): The number of degrees per day that the daily average temperature is above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Heating (HDD): The number of degrees per day that the daily average temperature is below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Population-Weighted: Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then

summed to arrive at the national population-weighted degree-day figure.

Design Electrical Rating, Net: The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

Development Well: A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power 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.

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 Capacity: The maximum load of electric power, commonly expressed in megawatts (MW), by which generators, turbines, transformers, transmission circuits, stations, and systems are rated.

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 the electrical energy consumed at the generating station(s) for station service or auxiliaries. *Note:* Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Electricity Sales: The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Electric Power: The rate at which electric energy is transferred. Electric power is measured by capacity and is commonly expressed in megawatts (MW).

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 all utility and nonutility facilities and equipment used to generate, transmit, and/or distribute electricity. See **electric utility** and **nonutility power producer**.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy for use primarily by the public. Utilities provide electricity within a designated franchised service area and file forms listed in the *Code of Federal Regulations*, Title 18, Part 141. *Note:* Facilities that qualify as **cogenerators** or **small power producers** under the Public Utility Regulatory Policies Act (PURPA) are not considered electric utilities. See **nonutility power producer**.

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-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 (C₂H₆). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol: See **Fuel Ethanol**.

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 unproved area, to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir, or to extend the limit of a known oil or gas reservoir.

Exports: Shipments of goods from the 50 States and the District of Columbia to foreign countries and to Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas constituents, such as ethane, propane, and butane, at natural gas processing plants.

f.a.s.: See **Free Alongside Ship**.

Federal Energy Administration (FEA): A predecessor of the Energy Information Administration.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

Federal Power Commission (FPC): The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

First Purchase Price: The marketed first sales price of domestic crude oil, consistent with the removal price defined by the provisions of the Windfall Profits Tax on Domestic Crude Oil (Public Law 96-223, Sec. 4998 (c)).

Flared Natural Gas: Natural gas burned in flares on the base site or at gas processing plants.

f.o.b.: See **Free on Board**.

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 **U.S.S.R.**

Fossil Fuel: Any naturally occurring organic fuel, 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.

Free Alongside Ship (f.a.s.): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation.

Free on Board (f.o.b.): A transaction whereby the seller makes the product available within an agreed-on period at a given port at a given price. It is the responsibility of the buyer to arrange for the transportation and insurance.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C₂H₅OH) intended for motor gasoline blending. See **Oxygenates**.

Full-Power Operation: Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

Gasohol: A blend of finished motor gasoline containing 10 percent or less alcohol (generally ethanol but sometimes methanol). See **Motor Gasoline, Oxygenated**.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

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. Water or steam extracted from geothermal reservoirs can be used for geothermal heat pumps, water heating, or electricity generation.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

GT/IC: Gas turbine and internal combustion plants.

Heat Content of a Quantity of Fuel, Gross: The total amount of heat released when a fuel is burned. Coal, crude oil, and natural gas all include chemical compounds of carbon and hydrogen. When those fuels are burned, the carbon and hydrogen combine with oxygen in the air to produce carbon dioxide and water. Some of the energy released in burning goes into transforming the water into steam and is usually lost. The amount of heat spent in transforming the water into steam is counted as part of gross heat content but is not counted as part of net heat content. It is also referred to as the higher heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heat Content of a Quantity of Fuel, Net: The amount of usable heat energy released when a fuel is burned under conditions similar to those in which it is normally used. Also referred to as the lower heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heavy Oil: The fuel oils remaining after the lighter oils have been distilled off during the refining process. Except for start-up and flame stabilization, virtually all petroleum used in steam-electric power plants is heavy oil.

Household: A family, an individual, or a group of up to nine unrelated persons occupying the same housing unit. "Occupy" means that the housing unit is the person's usual or permanent place of residence.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon com-

pounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

Hydroelectric Power: The production of electricity from the kinetic energy of falling water.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

Hydroelectric Pumped Storage: Hydroelectricity that is generated during peak load periods by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

Imports: Receipts of goods into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality which is a wholesale electricity producer that operates within the franchised service territory of a host **electric utility** and is usually authorized to sell at market-based rates. Unlike traditional electric utilities, independent power producers do not possess transmission facilities, unless authorized by law, nor do they sell electricity in the retail market. Independent power producers are considered to be **nonutility power producers**.

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; agriculture, forestry, and fisheries; mining; and construction. 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.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Institutional Living Quarters: Space provided by a business or organization for long-term housing of individuals whose reason for shared residence is their association with the business or organization. Such quarters commonly have both individual and group living spaces, and the business or organization is responsible for some aspects of resident life beyond the simple provision of living quarters. Examples include prisons; nursing homes and other long-term medical care facilities; military barracks; college dormitories; and convents and monasteries.

Internal Combustion Electric Power Plant: A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

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, 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 D910 and Military Specification MIL-G-5572. Note: Data on blending components are not counted in data on finished aviation gasoline.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290 to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate having a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Kilowatt: A unit of electrical power equal to 1,000 watts.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 kilowatt (1,000 watts) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu.

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.

Light Oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

Lignite: The lowest rank of coal. Often referred to as brown coal, it is used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 14 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Liquefied Natural Gas (LNG): Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

Low-Power Testing: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

Marketed Production: 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.

Metallurgical Coal: Coking coal and pulverized coal consumed in making steel.

Methane: A hydrocarbon gas (CH₄) that is the principal constituent of natural gas.

Methyl Tertiary Butyl Ether (MTBE): An ether, (CH₃)₃COCH₃, intended for motor gasoline blending. See **Oxygenates**.

Methanol: A light, volatile alcohol (CH₃OH) 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 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. "Motor gasoline" includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: Data on blending components, as well as oxygenates, are not counted in data on finished motor 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**.

Nameplate Capacity: The maximum design production capacity specified by the manufacturer of a processing unit or the maximum amount of a product that can be produced running the manufacturing unit at full capacity.

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

Natural Gas: A mixture of hydrocarbons (principally methane) and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas, Dry: The marketable portion of natural gas production, which is obtained by subtracting extraction losses, including natural gas liquids removed at natural gas processing plants, from total production.

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 Capability: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand. 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.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for electric generation and is not an **electric utility**. Nonutility power producers include qualifying **cogenerators**, qualifying **small power producers**, and other nonutility generators (including **independent power producers**). Nonutility power producers are without a designated, franchised service area and do not file forms listed in the Code of Federal Regulations, Title 18, Part 141.

Nuclear Electric Power: Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

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 the nuclear fission chain can be initiated, maintained, and controlled so that energy is released at a specific rate. The reactor includes fissionable material (fuel), such as uranium or plutonium; fertile material; moderating material (unless it is a fast reactor); a heavy-walled pressure vessel; shielding to protect personnel; provision for heat removal; and control elements and instrumentation.

Octane Rating: A number used to indicate gasoline's antiknock performance in motor vehicle engines. The two recognized laboratory engine test methods for determining the antiknock rating of gasolines are the Research method and the Motor method. To provide a single number as guidance to the consumer, the

antiknock index $(R + M)/2$, which is the average of the Research and Motor octane numbers, was developed.

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**.

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.

Operable Unit (Nuclear): In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

Organization for Economic Cooperation and Development (OECD): Members are Australia, Austria, Belgium, Canada, Denmark, Faeroe Islands, Finland, France, Germany, Greece, Greenland, Hawaiian Trade Zone, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and its territories (Guam, Puerto Rico, and the Virgin Islands). In addition, Czech Republic, Hungary, Poland, and South Korea joined the OECD in 1996.

Organization of Petroleum Exporting Countries (OPEC): Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, MTBE, 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 generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke: See **Coke, Petroleum**.

Petroleum Coke, Catalyst: The carbonaceous residue that is deposited on and deactivates the catalyst used in

many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

Petroleum Coke, Marketable: Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or may be further purified by calcining.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

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 Products Supplied: An approximate measure of consumption. It measures the disappearance of the products from primary sources, i.e., refineries, blending plants, and bulk terminals. In general, products supplied in any given period is computed as follows: field 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. See also **Petroleum Consumption**.

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.

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.

Primary Consumption: Primary consumption includes coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity.

Propane: A normally gaseous straight-chain hydrocarbon (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C₃H₆) recovered from refinery or petrochemical processes.

Pumped Storage: See **Hydroelectric Pumped Storage**.

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 (Petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

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, wood, waste, 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**.

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: See **Standard Industrial Classification**.

Small Power Producer: Under the Public Utility Regulatory Policies Act, a small power production facility (small power producer) generates electricity by using waste or renewable energy (biomass, conventional hydroelectric, wind, solar, and geothermal) as a primary energy source. Fossil fuels can be used, but renewable resources must provide at least 75 percent of the total energy input. See **Nonutility Power Producer**.

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**. Electricity produced from solar energy heats a medium that powers an electricity-generating device.

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.

Spent Liquor: The liquid residue left after an industrial process; can be a component of waste materials used as fuel.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and Budget which categorizes industries into groups with similar economic activities.

Startup Test Phase of Nuclear Power Plant: A nuclear power plant that has been licensed by the Nuclear Regulatory Commission to operate but is still in the initial testing phase, during which the production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer and places it in commercial operation status. A request is then submitted to the appropriate utility rate commission to include the power plant in the rate base calculation.

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.

Strategic Petroleum Reserve (SPR): Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Subbituminous Coal: A coal that ranges in properties from those of lignite to those of bituminous coal. It may be dull, dark brown or black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. It is used primarily as fuel for steam-electric power generation. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

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

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons. It may easily be substituted for, or interchanged with, pipeline quality natural gas. Also referred to as substitute natural gas.

Thermal Conversion Factor: See **Conversion Factor**.

Transportation Sector: An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use.

Unaccounted-for Crude Oil: Arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports, less changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

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.

Underground Storage: The storage of natural gas in underground reservoirs at a different location from which it was produced.

United States: Unless otherwise noted, "United States" in this publication means 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.

Useful Thermal Output: The thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: The Union of Soviet Socialist Republics consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. As a political entity, the U.S.S.R. ceased to exist as of December 31, 1991.

Vented Natural Gas: Gas released into the air on the base 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 Energy: Industrial, agricultural, and urban refuse used to generate electricity, such as municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

Watt (W): The unit of electrical power equal to 1 ampere under a pressure of 1 volt. A watt is equal to 1/746 horsepower.

Watt-hour (Wh): The electrical energy unit of measure equal to 1 watt of power supplied to, or taken from, an electric circuit steadily for 1 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.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (e.g., blades rotating from a hub) that drive generators to produce electricity.

Withdrawals (Natural Gas): Total volume of gas withdrawn during the applicable reporting period.

Wood Energy: Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

Working Gas: The gas in a reservoir that is in addition to the base (cushion) 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 given season.

Integrated Historical Energy Data Reports

...from the Energy Information Administration

Monthly Energy Review

(www.eia.doe.gov/emeu/mer/contents.html)

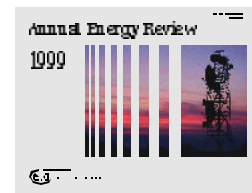
Recent monthly data on production, consumption, stocks, trade, and prices of the principal energy commodities in the United States.



Annual Energy Review

(www.eia.doe.gov/emeu/aer/contents.html)

Long-term historical annual data on U.S. energy production, consumption, stocks, trade, and prices. Most series begin in 1949.



State Energy Data Report

(www.eia.doe.gov/emeu/sedr/contents.html)

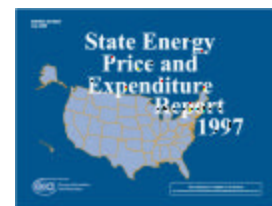
Annual energy consumption estimates at the State and national levels by energy source and by major sector (i.e., residential, commercial, industrial, transportation, and electric utilities), beginning with 1960.



State Energy Price and Expenditure Report

(www.eia.doe.gov/emeu/seper/contents.html)

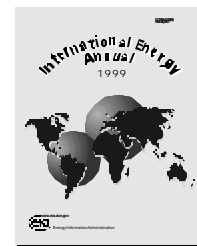
Annual energy price and expenditure estimates at the State and national levels by energy source and by major sector (i.e., residential, commercial, industrial, transportation, and electric utilities), beginning with 1970.



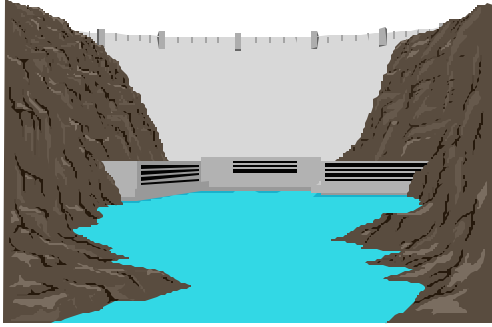
International Energy Annual

(www.eia.doe.gov/emeu/iea/contents.html)

Annual data for production, consumption, and trade of primary energy commodities in more than 220 countries, dependencies, and areas of special sovereignty. Also included are prices of crude oil and petroleum products in selected countries.



EIA also publishes many other reports. For more information, contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov, or access EIA's Home Page (www.eia.doe.gov).



Renewable Energy Data

...from the Energy Information Administration

The publications listed below all include data on renewable energy and are available in hard copy and in electronic form on the EIA Website at <http://www.eia.doe.gov>. EIA also makes available a wide variety of other energy-related resources. For more information, contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov

Renewable Energy Annual 2000

In two volumes. *REA2000: Issues and Trends*, profiled in an Energy Plug in the March 2001 *Monthly Energy Review*, discusses four topics: government incentives, mandates, and programs; photovoltaic industry trends; environmental regulations and waste combustion facility costs; and wind energy developments. *REA2000 With Data for 1999* contains data on U.S. renewable energy consumption, solar thermal and photovoltaic collector manufacturing activity, and geothermal heat pump shipments.

Annual Energy Review

U.S. consumption of renewable energy by source from 1989 through 1999, plus data on solar thermal collector and photovoltaic module shipments and alternative fuel vehicles.

International Energy Annual

World (and often country-specific) production and consumption of renewable energy from hydroelectric, geothermal, solar, and wind sources.

State Data

State Energy Data Report includes State-level renewable energy data by source and sector for selected years from 1960 through 1997. *State Energy Price and Expenditure Report* includes price and expenditure estimates for wood and waste from 1990 through 1997.

Short-Term Energy Outlook

Summarizes most recent 2 years and projects next 2 years of U.S. renewable energy use by major consuming sector (electric utilities, nonutility power generators, residential and commercial users, industry, and transportation).

Annual Energy Outlook

Projections through 2020 of U.S. renewable electricity generation from hydroelectric power, municipal solid waste, biomass, wind, solar photovoltaic, solar thermal, and geothermal sources.

International Energy Outlook

Projections through 2020 of world consumption of renewable energy.