Monthly Energy Review

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May 2003

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Energy Information Administration

Energy Plug:
International Energy Outlook 2003

Monthly Energy Review

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- Database Files (unrounded monthly data 1973 forward): Excel (XLS) files.
- Graph pages, MER sections, and complete MER: PDF files.

Also available are ASCII comma delimited data files at: http://www.eia.doe.gov/emeu/mer/datafile.html.

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.

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May 2003

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Energy Plug

International Energy Outlook 2003

World energy consumption is projected to increase by 58 percent from 2001 to 2025 in the *International Energy Outlook 2003* (*IEO2003*) reference case. As in past editions, the *IEO2003* continues to show robust growth in energy consumption among the developing nations, especially Asia, where energy demand is expected to more than double over the forecast period. Expectations for growth in Central and South America have been lowered substantially since last year in light of political and economic problems in the region that have led to lower mid-term projections for development and energy demand.

The *IEO2003* reference case expects world oil prices to remain high and volatile throughout 2003; subsequently, prices are expected to return to the mid-term price trajectory anticipated in last year's outlook. World oil prices are projected to reach $27 per barrel in 2001 dollars ($48 per barrel in nominal dollars) at the end of the projection period.

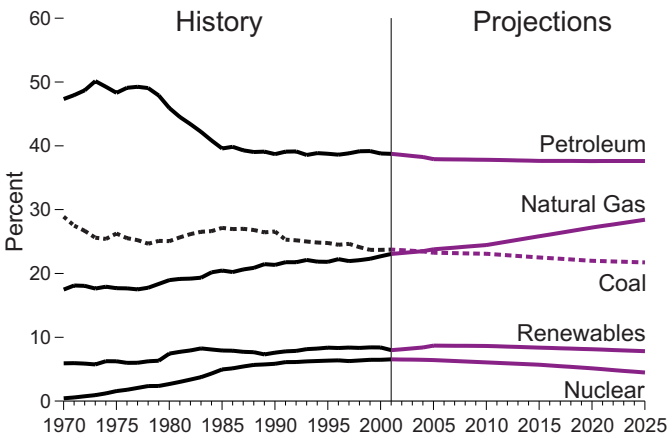
Outlook for World Energy Demand. World oil consumption is projected to grow 1.8 percent annually over the projection period, from 77 million barrels per day in 2001 to 119 million barrels per day in 2025. OPEC producers are expected to be the major beneficiaries of increased demand, but increased supply is also expected from non-OPEC producers, especially from offshore resources in the Caspian Basin, Latin America, and deepwater West Africa. Oil is expected to remain the world's foremost source of primary energy through 2025, its share of world energy dropping slightly, from 39 percent in 2001 to 38 percent in 2025.

The fastest growing source of primary energy is projected to be natural gas; consumption of natural gas is projected to surpass coal use (on a Btu basis) by 2005 and nearly double over the forecast period. Much of the growth is in response to demand for natural gas to fuel new gas turbine power plants because of its environmental and economic advantages, as well as the expectation that the relatively immature gas markets of emerging countries will develop quickly in the coming years. World coal use will account for a shrinking share of world energy consumption even though coal use is expected to grow 1.5 percent per year through 2025.

The *IEO2003* projects a drop in the nuclear share of electricity, from 19 percent of the world's total electricity supply in 2001 to 12 percent by 2025 as older plants are retired. Some future capacity additions are expected in China, India, Japan, and South Korea. Consumption of hydroelectricity and other renewable resources is projected to increase only moderately, at an average annual rate of 1.9 percent per year between 2001 and 2025. Renewable energy sources are not expected to be competitive with fossil fuels in the mid-term.

Carbon Dioxide Emissions. World carbon dioxide emissions are projected to rise from 6.5 billion metric tons carbon equivalent in 2001 to 10.4 billion metric tons in 2025. Much of this increase is expected in the developing world, accompanying the large increases in fossil fuel use projected for the region's emerging economies.

World Share of Energy Consumption by Energy Source, 1970-2025



Source: Energy Information Administration.

Energy Intensity. In the *IEO2003* forecast, energy intensity—the ratio of energy consumption to gross domestic product (GDP)—in the industrialized countries is expected to improve (decrease) by 1.3 percent per year between 2001 and 2025. Energy intensity is expected to decline more rapidly in the developing countries, by 1.7 percent per year on average, as a result of improving standards of living that accompany economic expansion. In Eastern Europe and the Former Soviet Union (EE/FSU), energy intensity is expected to improve by 2.1 percent per year on average, but will still be five times as high as in the industrialized world.

Carbon Intensity. World carbon intensity is projected to decline from 202 metric tons per million 1997 dollars of GDP in 2001 to 154 metric tons per million 1997 dollars of GDP in 2025. The most rapid rates of improvement are projected for the EE/FSU, through the replacement of inefficient equipment and the use of natural gas for new electricity generation capacity instead of oil or coal, and in China and India along with rapid economic growth.

International Energy Outlook 2003 DOE/EIA-0484(2003); 261 pages, 86 tables, 87 figures. The publication is available on the EIA Web site at http://www.eia.doe.gov/oiaf/ieo. Contact the webmaster at wmaster@eia.doe.gov or call 202–586–8959 if you have problems. Questions about the contents of the report should be directed to Linda Doman, Office of Integrated Analysis and Forecasting, at linda.doman@eia.doe.gov or 202–586–1041. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202–586–8800.

Section 1. Energy Overview

Energy production during February 2003 totaled 5.5 quadrillion Btu, a 2.2-percent decrease compared with the level of production during February 2002. Production of hydro- electric power increased 17.0 percent; coal decreased 10.2 percent; crude oil decreased slightly; and natural gas (dry) increased 2.5 percent, compared with the level of production during February 2002.

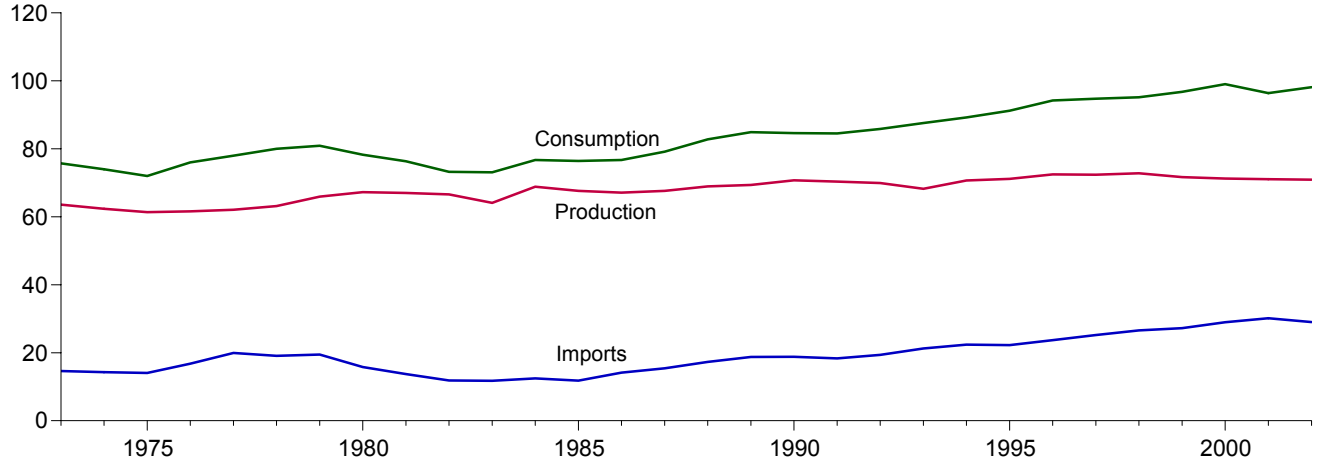
Energy consumption during February 2003 totaled 8.4 quadrillion Btu, 6.1 percent above the level of consumption during February 2002. Consumption of coal increased 7.5 percent; petroleum increased 4.7 percent; natural gas increased 7.6 percent; and nuclear electric power decreased slightly, compared with the level 1 year earlier.

Net imports of energy during February 2003 totaled 1.8 quadrillion Btu, the same level of net imports 1 year earlier. Net imports of petroleum products increased 41.4 percent but crude oil decreased 4.0 percent; natural gas net imports decreased 11.0 percent; and coal net exports decreased 52.6 percent, compared with the level in February 2002.

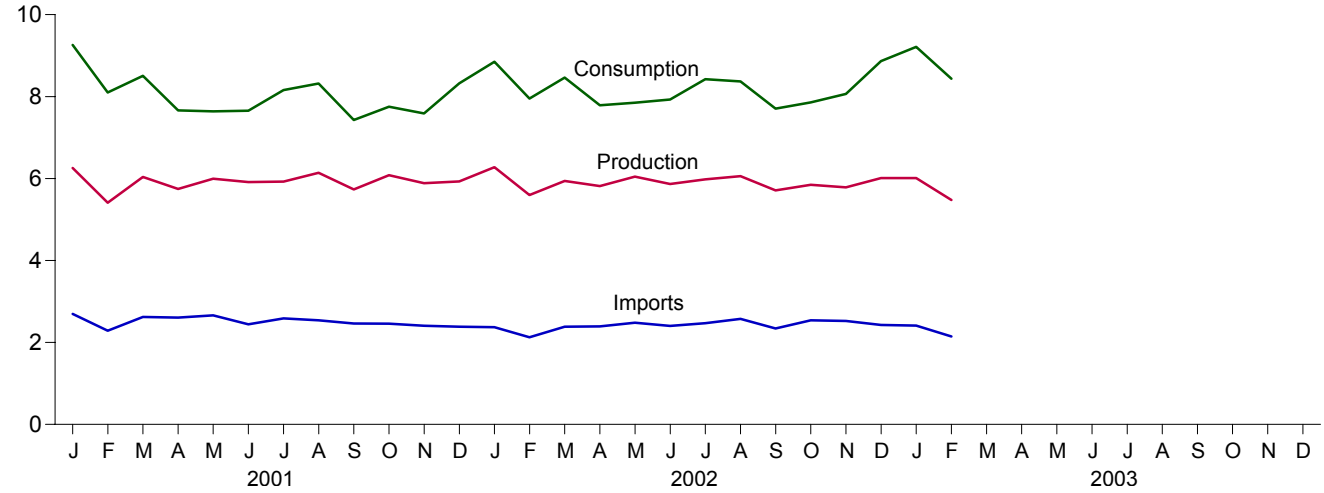
In the April 2003 *Monthly Energy Review*, the "Energy Summary" table that had previously appeared on this page was discontinued and the remaining tables in Section 1 were renumbered.

Figure 1.1 Energy Overview
(Quadrillion Btu)

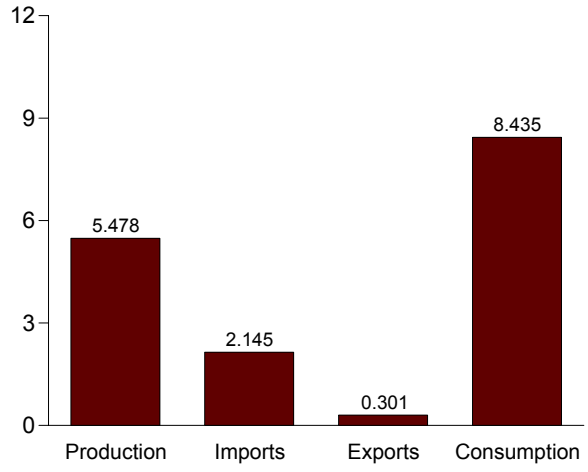
Consumption, Production, and Imports, 1973-2002



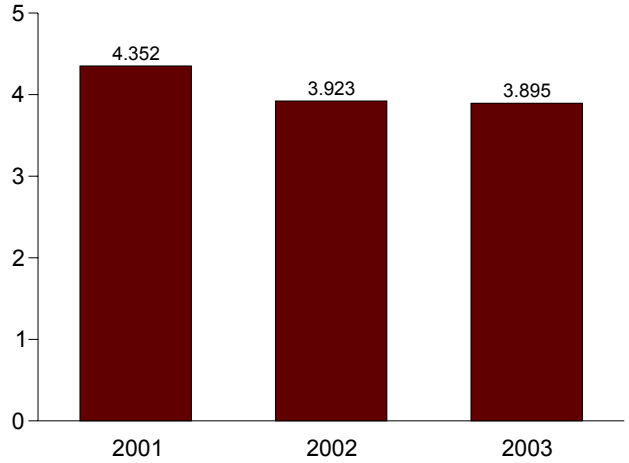
Consumption, Production, and Imports, Monthly



Overview, February 2003



Net Imports, January-February



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Sources: Tables 1.1 and 1.4.

Table 1.1 Energy Overview

(Quadrillion Btu)

	Production	Imports	Exports	Adjustments[a]	Consumption
1973 Total	**63.585**	**14.613**	**2.033**	**-0.456**	**75.708**
1974 Total	**62.372**	**14.304**	**2.203**	**-.482**	**73.991**
1975 Total	**61.357**	**14.032**	**2.323**	**-1.067**	**71.999**
1976 Total	**61.602**	**16.760**	**2.172**	**-.178**	**76.012**
1977 Total	**62.052**	**19.948**	**2.052**	**-1.948**	**78.000**
1978 Total	**63.137**	**19.106**	**1.920**	**-.337**	**79.986**
1979 Total	**65.948**	**19.460**	**2.855**	**-1.649**	**80.903**
1980 Total	**67.241**	**15.796**	**3.695**	**-1.054**	**78.289**
1981 Total	**67.007**	**13.719**	**4.307**	**-.084**	**76.335**
1982 Total	**66.574**	**11.861**	**4.608**	**-.594**	**73.234**
1983 Total	**64.106**	**11.752**	**3.693**	**.900**	**73.066**
1984 Total	**68.832**	**12.471**	**3.786**	**-.824**	**76.693**
1985 Total	**67.647**	**11.781**	**4.196**	**1.186**	**76.417**
1986 Total	**67.087**	**14.151**	**4.021**	**-.495**	**76.722**
1987 Total	**67.608**	**15.398**	**3.812**	**-.037**	**79.156**
1988 Total	**68.951**	**17.296**	**4.366**	**.894**	**82.774**
1989 Total	**69.364**	**18.766**	**4.661**	R **1.416**	R **84.886**
1990 Total	**70.729**	**18.817**	**4.752**	R **-.189**	R **84.605**
1991 Total	**70.362**	**18.335**	**5.141**	**.967**	**84.522**
1992 Total	**69.933**	**19.372**	**4.937**	**1.498**	**85.866**
1993 Total	**68.260**	**21.273**	**4.258**	**2.303**	**87.578**
1994 Total	**70.676**	**22.390**	**4.061**	**.243**	**89.248**
1995 Total	**71.156**	**22.260**	**4.511**	**2.315**	**91.221**
1996 Total	**72.472**	**23.702**	**4.633**	**2.683**	**94.224**
1997 Total	**72.389**	**25.215**	**4.514**	**1.637**	**94.727**
1998 Total	**72.787**	**26.581**	R **4.299**	**.078**	R **95.146**
1999 Total	**71.652**	R **27.252**	R **3.715**	**1.585**	**96.774**
2000 Total	**71.249**	**28.974**	**4.006**	**2.830**	**99.047**
2001 January	6.256	2.697	R .346	R .652	R 9.259
February	5.409	2.285	R .284	R .690	R 8.100
March	6.040	2.623	R .288	R .131	R 8.505
April	5.745	2.605	R .313	R -.374	R 7.663
May	5.995	2.663	R .355	R -.663	R 7.639
June	5.912	2.440	R .302	R -.395	R 7.655
July	5.927	2.588	.278	R -.078	R 8.160
August	6.142	2.541	R .336	R -.029	R 8.317
September	5.735	2.460	R .290	R -.475	R 7.430
October	6.083	2.459	.313	R -.477	R 7.753
November	5.887	2.408	.328	R -.377	R 7.591
December	5.931	2.383	R .329	R .338	R 8.323
Total	**71.062**	**30.152**	R **3.764**	R **-1.056**	R **96.395**
2002 January	R 6.277	2.370	.292	R .493	R 8.849
February	R 5.599	2.126	R .281	R .508	R 7.952
March	5.941	2.384	R .266	R .403	R 8.462
April	R 5.816	2.392	R .290	R -.128	R 7.789
May	6.047	2.481	.294	R -.383	R 7.852
June	5.866	2.404	.308	R -.035	R 7.927
July	5.981	2.469	R .270	R .245	R 8.425
August	6.056	2.576	.344	R .083	R 8.371
September	5.710	2.342	.301	R -.046	R 7.705
October	5.847	2.539	R .332	R -.196	R 7.858
November	R 5.785	2.525	.313	R .069	R 8.067
December	R 6.013	2.427	.359	R .785	R 8.866
Total	R **70.939**	**29.035**	R **3.651**	R **1.799**	R **98.122**
2003 January	R 6.011	2.412	.362	R 1.153	R 9.214
February	5.478	2.145	.301	1.113	8.435
2-Month Total	**11.489**	**4.557**	**.662**	**2.265**	**17.649**
2002 2-Month Total	**11.876**	**4.496**	**.573**	**1.002**	**16.801**
2001 2-Month Total	**11.665**	**4.982**	**.630**	**1.342**	**17.358**

[a] A balancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted-for supply.

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.

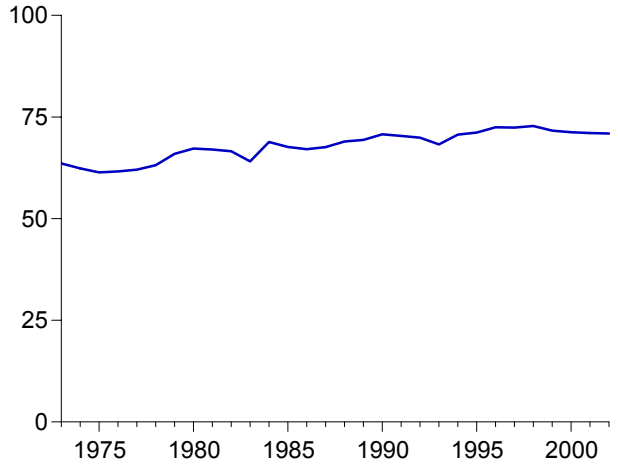
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.

Sources: • **Production:** Table 1.2. • **Consumption:** Table 1.3. • **Imports and Exports:** Tables 3.1b, 4.3, 6.1, 7.1, A2-A6, and Section 2, "Energy Consumption Notes and Sources," Note 5.

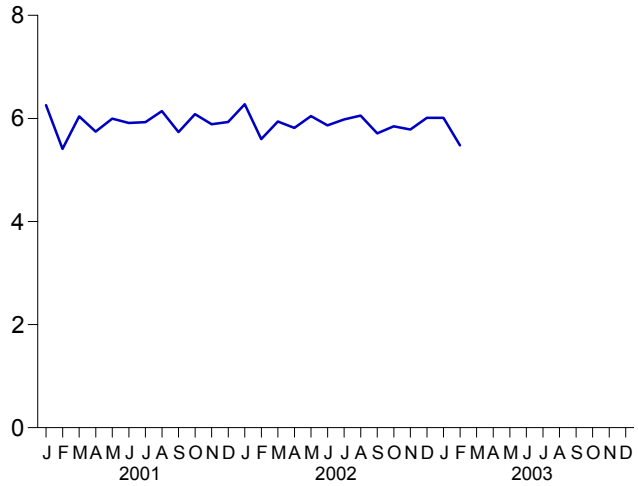
Table 1.1 was redesigned in the April 2003 *Monthly Energy Review*: columns reordered; a new "Adjustments" column; and "Net Imports" no longer shown on this table (but continued on Table 1.4). See Tables 1.2-1.4 for more information about revised data.

Figure 1.2 Energy Production
(Quadrillion Btu)

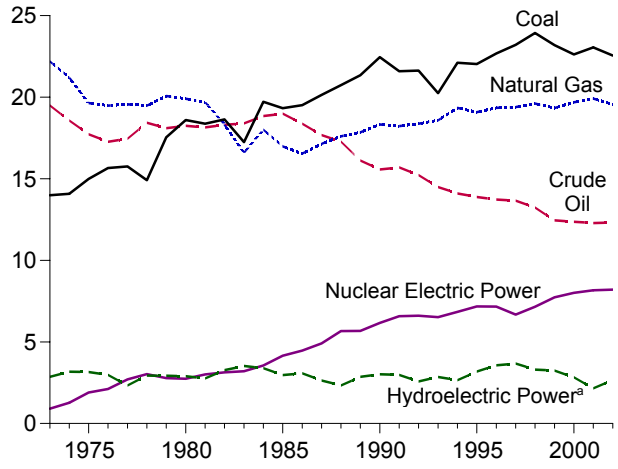
Total, 1973-2002



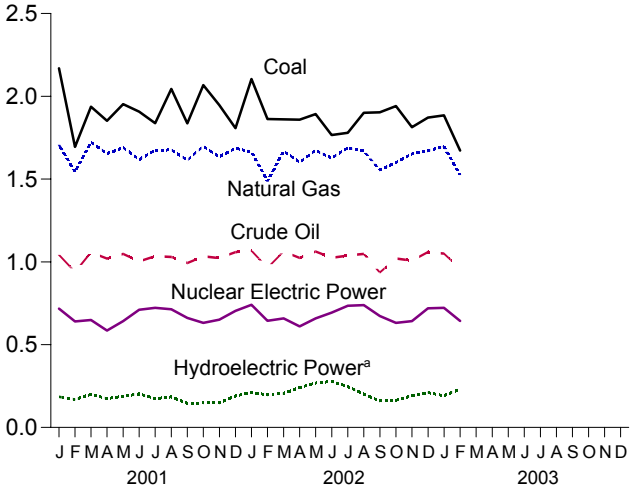
Total, Monthly



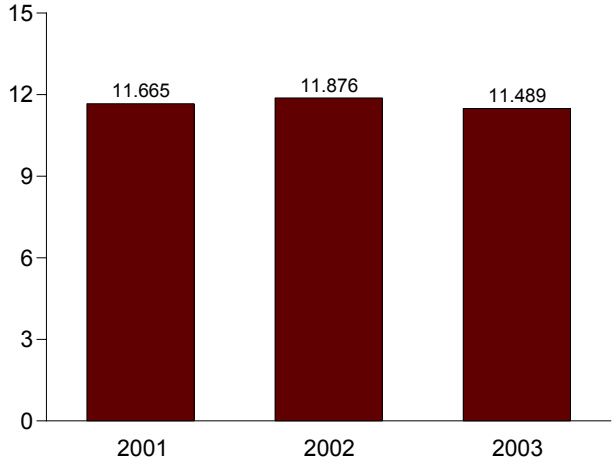
By Major Sources, 1973-2002



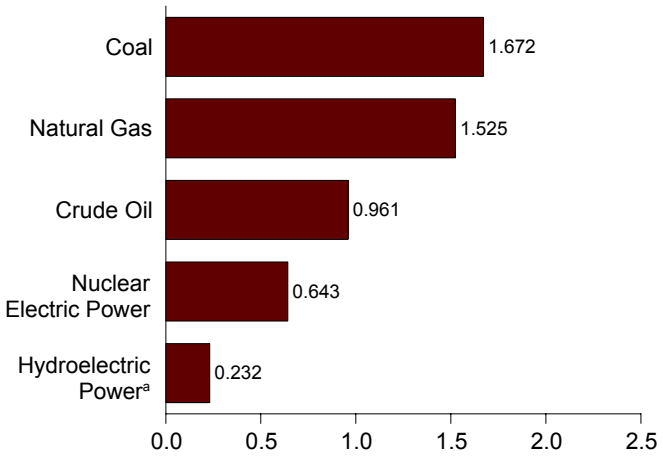
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



[a]Conventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.2.

Table 1.2 Energy Production by Source

(Quadrillion Btu)

	Fossil Fuels					Nuclear Electric Power	Hydroelectric Pumped Storage[c]	Renewable Energy[a]					Total
	Coal	Natural Gas (Dry)	Crude Oil[b]	Natural Gas Plant Liquids	Total			Conventional Hydroelectric Power	Wood, Waste, Alcohol[d]	Geothermal	Solar and Wind	Total	
1973 Total	**13.992**	**22.187**	**19.493**	**2.569**	**58.241**	**0.910**	**([e])**	**2.861**	**1.529**	**0.043**	**NA**	**4.433**	**63.585**
1974 Total	**14.074**	**21.210**	**18.575**	**2.471**	**56.331**	**1.272**	**([e])**	**3.177**	**1.540**	**.053**	**NA**	**4.769**	**62.372**
1975 Total	**14.989**	**19.640**	**17.729**	**2.374**	**54.733**	**1.900**	**([e])**	**3.155**	**1.499**	**.070**	**NA**	**4.723**	**61.357**
1976 Total	**15.654**	**19.480**	**17.262**	**2.327**	**54.723**	**2.111**	**([e])**	**2.976**	**1.713**	**.078**	**NA**	**4.768**	**61.602**
1977 Total	**15.755**	**19.565**	**17.454**	**2.327**	**55.101**	**2.702**	**([e])**	**2.333**	**1.838**	**.077**	**NA**	**4.249**	**62.052**
1978 Total	**14.910**	**19.485**	**18.434**	**2.245**	**55.074**	**3.024**	**([e])**	**2.937**	**2.038**	**.064**	**NA**	**5.039**	**63.137**
1979 Total	**17.540**	**20.076**	**18.104**	**2.286**	**58.006**	**2.776**	**([e])**	**2.931**	**2.152**	**.084**	**NA**	**5.166**	**65.948**
1980 Total	**18.598**	**19.908**	**18.249**	**2.254**	**59.008**	**2.739**	**([e])**	**2.900**	**2.485**	**.110**	**NA**	**5.494**	**67.241**
1981 Total	**18.377**	**19.699**	**18.146**	**2.307**	**58.529**	**3.008**	**([e])**	**2.758**	**2.590**	**.123**	**NA**	**5.471**	**67.007**
1982 Total	**18.639**	**18.319**	**18.309**	**2.191**	**57.458**	**3.131**	**([e])**	**3.266**	**2.615**	**.105**	**NA**	**5.985**	**66.574**
1983 Total	**17.247**	**16.593**	**18.392**	**2.184**	**54.416**	**3.203**	**([e])**	**3.527**	**2.831**	**.129**	**(s)**	**6.488**	**64.106**
1984 Total	**19.719**	**18.008**	**18.848**	**2.274**	**58.849**	**3.553**	**([e])**	**3.386**	**2.880**	**.165**	**(s)**	**6.431**	**68.832**
1985 Total	**19.325**	**16.980**	**18.992**	**2.241**	**57.539**	**4.076**	**([e])**	**2.970**	**2.864**	**.198**	**(s)**	**6.033**	**67.647**
1986 Total	**19.509**	**16.541**	**18.376**	**2.149**	**56.575**	**4.380**	**([e])**	**3.071**	**2.841**	**.219**	**(s)**	**6.132**	**67.087**
1987 Total	**20.141**	**17.136**	**17.675**	**2.215**	**57.167**	**4.754**	**([e])**	**2.635**	**2.823**	**.229**	**(s)**	**5.687**	**67.608**
1988 Total	**20.738**	**17.599**	**17.279**	**2.260**	**57.875**	**5.587**	**([e])**	**2.334**	**2.937**	**.217**	**(s)**	**5.489**	**68.951**
1989 Total	**21.346**	**17.847**	**16.117**	**2.158**	**57.468**	**5.602**	**([e])**	**2.837**	**3.062**	**.317**	**.077**	**6.294**	**69.364**
1990 Total	**22.456**	**18.326**	**15.571**	**2.175**	**58.529**	**6.104**	**-.036**	**3.046**	**2.662**	**.336**	**.089**	**6.133**	**70.729**
1991 Total	**21.594**	**18.229**	**15.701**	**2.306**	**57.829**	**6.422**	**-.047**	**3.016**	**2.702**	**.346**	**.093**	**6.158**	**70.362**
1992 Total	**21.629**	**18.375**	**15.223**	**2.363**	**57.590**	**6.479**	**-.043**	**2.617**	**2.847**	**.349**	**.094**	**5.907**	**69.933**
1993 Total	**20.249**	**18.584**	**14.494**	**2.408**	**55.736**	**6.410**	**-.042**	**2.892**	**2.803**	**.364**	**.097**	**6.156**	**68.260**
1994 Total	**22.111**	**19.348**	**14.103**	**2.391**	**57.952**	**6.694**	**-.035**	**2.683**	**2.939**	**.338**	**.104**	**6.065**	**70.676**
1995 Total	**22.029**	**19.082**	**13.887**	**2.442**	**57.440**	**7.075**	**-.028**	**3.205**	**3.068**	**.294**	**.102**	**6.669**	**71.156**
1996 Total	**22.684**	**19.344**	**13.723**	**2.530**	**58.281**	**7.087**	**-.032**	**3.590**	**3.127**	**.316**	**.104**	**7.137**	**72.472**
1997 Total	**23.211**	**19.394**	**13.658**	**2.495**	**58.758**	**6.597**	**-.041**	**3.640**	**3.006**	**.325**	**.104**	**7.075**	**72.389**
1998 Total	**23.935**	**19.613**	**13.235**	**2.420**	**59.204**	**7.068**	**-.046**	**3.297**	**2.835**	**.328**	**.101**	**6.561**	**72.787**
1999 Total	**23.186**	**19.341**	**12.451**	**2.528**	**57.505**	**7.610**	**-.062**	**3.268**	**2.885**	**.331**	**.115**	**6.599**	**71.652**
2000 Total	**22.623**	**19.693**	**12.358**	**2.611**	**57.285**	**7.862**	**-.057**	**2.811**	**2.907**	**.317**	**.123**	**6.158**	**71.249**
2001 January	2.169	1.707	1.043	.162	5.081	.717	-.006	.191	.236	.028	.009	.464	6.256
February	1.695	1.544	.939	.181	4.358	.640	-.007	.177	.207	.024	.009	.418	5.409
March	1.937	1.722	1.057	.212	4.929	.649	-.008	.207	.225	.027	.011	.470	6.040
April	1.852	1.654	1.020	.205	4.730	.585	-.008	.182	.218	.025	.012	.438	5.745
May	1.952	1.689	1.048	.221	4.911	.642	-.006	.194	.216	.024	.012	.447	5.995
June	1.908	1.618	1.003	.214	4.743	.710	-.008	.210	.220	.025	.013	.467	5.912
July	1.837	1.674	1.034	.220	4.765	.722	-.009	.183	.227	.027	.012	.449	5.927
August	2.044	1.676	1.029	.226	4.976	.714	-.007	.192	.229	.026	.012	.459	6.142
September	1.837	1.615	.993	.228	4.673	.662	-.009	.154	.219	.026	.011	.410	5.735
October	2.068	1.697	1.033	.234	5.032	.631	-.006	.154	.234	.026	.011	.426	6.083
November	1.947	1.635	1.023	.224	4.830	.651	-.008	.156	.223	.026	.010	.415	5.887
December	1.807	1.686	1.059	.219	4.770	.704	-.006	.196	.229	.027	.011	.463	5.931
Total	**23.053**	**19.917**	**12.282**	**2.547**	**57.799**	**8.028**	**-.089**	**2.197**	**2.682**	**.311**	**.134**	**5.324**	**71.062**
2002 January	2.105	[E] 1.664	[E] 1.067	.212	5.048	.741	-.008	.219	.236	.027	.013	[R] .496	[R] 6.277
February	1.862	[E] 1.488	[E] .964	.198	4.513	.644	-.006	.204	.210	.024	.012	.449	[R] 5.599
March	1.860	[E] 1.669	[E] 1.063	.219	4.812	.658	-.007	[R] .213	.225	.026	.014	.478	5.941
April	1.859	[E] 1.602	[E] 1.024	.215	4.700	.610	-.006	.248	.225	.024	.016	[R] .512	[R] 5.816
May	1.893	[E] 1.673	[E] 1.062	.224	4.852	.658	-.006	.273	.226	.026	.017	.542	6.047
June	1.766	[E] 1.626	[E] 1.024	.209	4.626	.693	-.009	.287	.228	.024	.017	.556	5.866
July	1.779	[E] 1.688	[E] 1.038	.214	4.719	.735	-.010	.257	.238	.026	.015	[R] .536	5.981
August	1.900	[E] 1.671	[E] 1.048	.223	4.842	.739	-.009	.210	.233	.026	[R] .016	.484	6.056
September	1.904	[E] 1.555	[E] .936	.213	4.607	.673	-.008	.168	[R] .230	.025	.013	.437	5.710
October	1.941	[E] 1.599	[E] 1.020	.217	4.777	.632	-.007	.171	[R] .236	.026	.013	.445	5.847
November	1.813	[E] 1.652	[E] 1.008	.212	4.686	.642	-.007	.198	[R] .229	.025	.012	[R] .464	[R] 5.785
December	1.871	[E] 1.671	[E] 1.060	.204	4.806	.720	-.007	.217	[R] .238	.026	.013	[R] .494	[R] 6.013
Total	**22.554**	**[E] 19.559**	**[E] 12.314**	**2.561**	**56.989**	**8.145**	**-.089**	**2.664**	**[R] 2.755**	**.304**	**[R] .170**	**[R] 5.894**	**[R] 70.939**
2003 January	1.885	[RE] 1.695	[E] 1.050	.203	[R] 4.834	[R] .723	[R] -.008	[R] .199	[R] .226	[R] .026	[R] .011	[R] .462	[R] 6.011
February	1.672	[E] 1.525	[E] .961	.189	4.347	.643	-.007	.239	.221	.023	.012	.495	5.478
2-Month Total	**3.558**	**[E] 3.220**	**[E] 2.011**	**.392**	**9.181**	**1.365**	**-.015**	**.438**	**.447**	**.049**	**.023**	**.957**	**11.489**
2002 2-Month Total	**3.967**	**[E] 3.152**	**[E] 2.031**	**.410**	**9.561**	**1.384**	**-.014**	**.422**	**.446**	**.051**	**.025**	**.945**	**11.876**
2001 2-Month Total	**3.864**	**3.251**	**1.981**	**.343**	**9.439**	**1.357**	**-.013**	**.368**	**.443**	**.052**	**.018**	**.881**	**11.665**

[a] End-use consumption and electricity net generation.
[b] Includes lease condensate.
[c] Pumped storage facility production minus energy used for pumping.
[d] Alcohol is ethanol blended into motor gasoline.
[e] Included in conventional hydroelectric power.

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

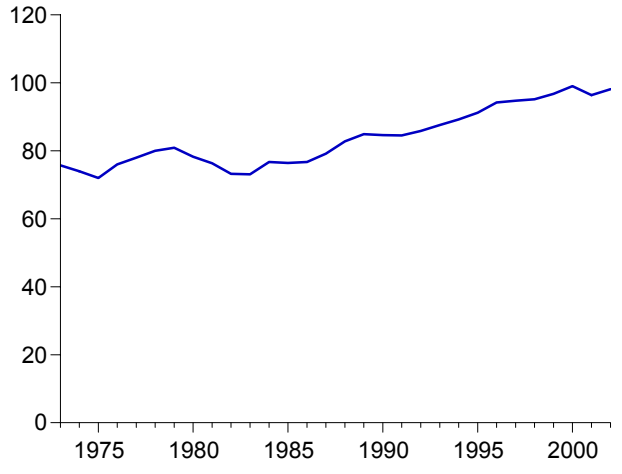
Notes: • See Note 1 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

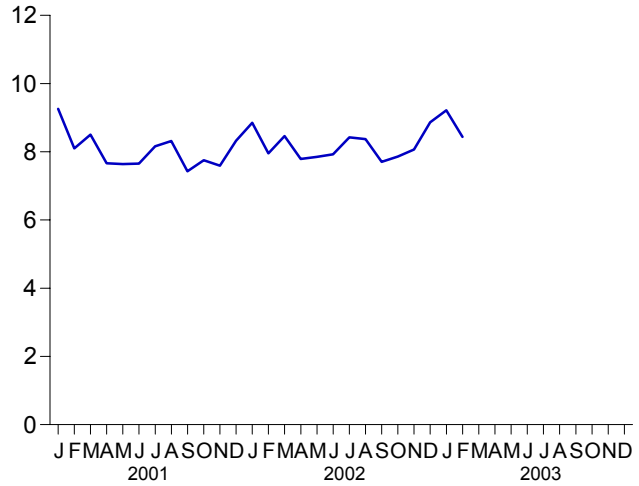
Sources: • **Coal:** Tables 6.1 and A5. • **Natural Gas (Dry):** Tables 4.1 and A4. • **Crude Oil and Natural Gas Plant Liquids:** Tables 3.1a and A2. • **Nuclear Electric Power:** Tables 8.1 and A6. • **Hydroelectric Pumped Storage:** Tables 7.2a and A6. • **Renewable Energy:** Table 10.1.

Figure 1.3 Energy Consumption
(Quadrillion Btu)

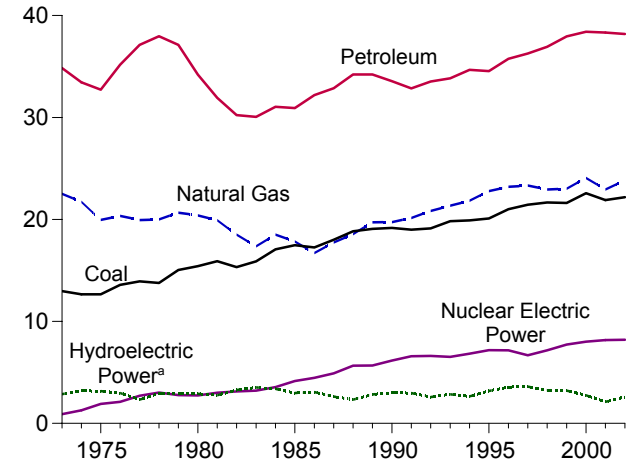
Total, 1973-2002



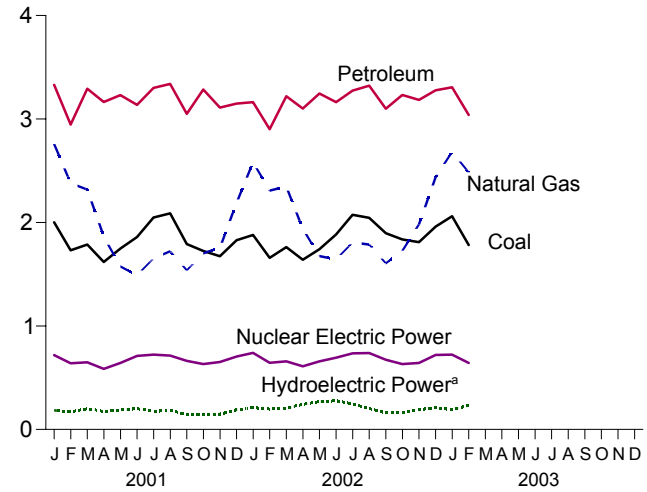
Total, Monthly



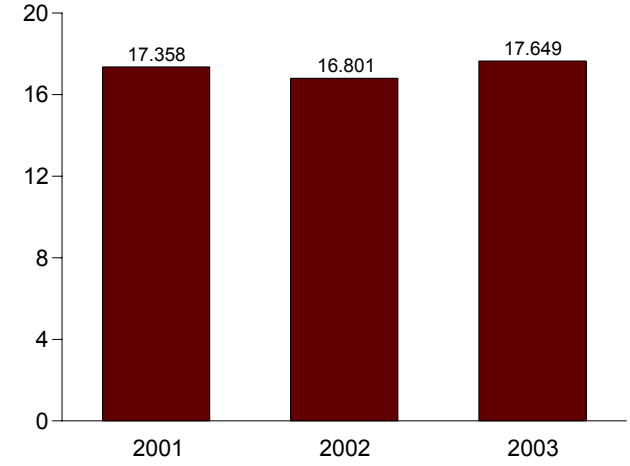
By Major Sources, 1973-2002



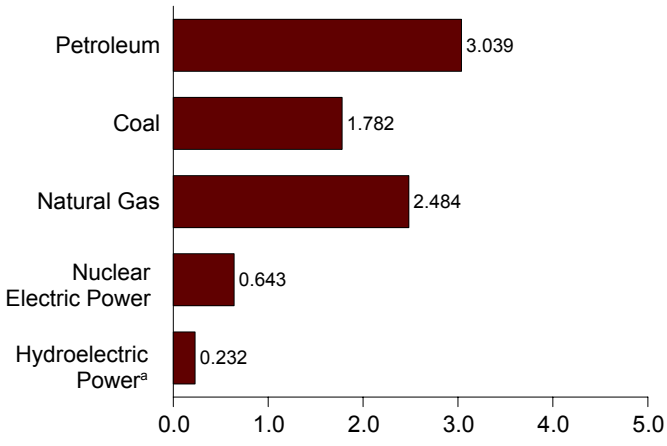
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



[a]Conventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.3.

Table 1.3 Energy Consumption by Source

(Quadrillion Btu)

	Fossil Fuels						Renewable Energy[a]					
	Coal	Natural Gas[b]	Petroleum[c]	Total[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power	Wood, Waste, Alcohol[f]	Geothermal	Solar and Wind	Total	Total[f,g]
1973 Total	**12.971**	**22.512**	**34.840**	**70.316**	**0.910**	**([h])**	**2.861**	**1.529**	**0.043**	**NA**	**4.433**	**75.708**
1974 Total	**12.663**	**21.732**	**33.455**	**67.906**	**1.272**	**([h])**	**3.177**	**1.540**	**.053**	**NA**	**4.769**	**73.991**
1975 Total	**12.663**	**19.948**	**32.731**	**65.355**	**1.900**	**([h])**	**3.155**	**1.499**	**.070**	**NA**	**4.723**	**71.999**
1976 Total	**13.584**	**20.345**	**35.175**	**69.104**	**2.111**	**([h])**	**2.976**	**1.713**	**.078**	**NA**	**4.768**	**76.012**
1977 Total	**13.922**	**19.931**	**37.122**	**70.989**	**2.702**	**([h])**	**2.333**	**1.838**	**.077**	**NA**	**4.249**	**78.000**
1978 Total	**13.766**	**20.000**	**37.965**	**71.856**	**3.024**	**([h])**	**2.937**	**2.038**	**.064**	**NA**	**5.039**	**79.986**
1979 Total	**15.040**	**20.666**	**37.123**	**72.892**	**2.776**	**([h])**	**2.931**	**2.152**	**.084**	**NA**	**5.166**	**80.903**
1980 Total	**15.423**	**20.394**	**34.202**	**69.984**	**2.739**	**([h])**	**2.900**	**2.485**	**.110**	**NA**	**5.494**	**78.289**
1981 Total	**15.908**	**19.928**	**31.931**	**67.750**	**3.008**	**([h])**	**2.758**	**2.590**	**.123**	**NA**	**5.471**	**76.335**
1982 Total	**15.322**	**18.505**	**30.231**	**64.036**	**3.131**	**([h])**	**3.266**	**2.615**	**.105**	**NA**	**5.985**	**73.234**
1983 Total	**15.894**	**17.357**	**30.054**	**63.290**	**3.203**	**([h])**	**3.527**	**2.831**	**.129**	**(s)**	**6.488**	**73.066**
1984 Total	**17.071**	**18.507**	**31.051**	**66.617**	**3.553**	**([h])**	**3.386**	**2.880**	**.165**	**(s)**	**6.431**	**76.693**
1985 Total	**17.478**	**17.834**	**30.922**	**66.221**	**4.076**	**([h])**	**2.970**	**2.864**	**.198**	**(s)**	**6.033**	**76.417**
1986 Total	**17.260**	**16.708**	**32.196**	**66.148**	**4.380**	**([h])**	**3.071**	**2.841**	**.219**	**(s)**	**6.132**	**76.722**
1987 Total	**18.008**	**17.744**	**32.865**	**68.626**	**4.754**	**([h])**	**2.635**	**2.823**	**.229**	**(s)**	**5.687**	**79.156**
1988 Total	**18.846**	**18.552**	**34.222**	**71.660**	**5.587**	**([h])**	**2.334**	**2.937**	**.217**	**(s)**	**5.489**	**82.774**
1989 Total	**[R] 19.070**	**19.712**	**34.211**	**[R] 73.023**	**5.602**	**([h])**	**2.837**	**3.062**	**.317**	**.077**	**6.294**	**[R] 84.886**
1990 Total	**[R] 19.173**	**19.730**	**33.553**	**[R] 72.460**	**6.104**	**-.036**	**3.046**	**2.662**	**.336**	**.089**	**6.133**	**[R] 84.605**
1991 Total	**18.992**	**20.149**	**32.845**	**71.996**	**6.422**	**-.047**	**3.016**	**2.702**	**.346**	**.093**	**6.158**	**84.522**
1992 Total	**19.122**	**20.835**	**33.527**	**73.519**	**6.479**	**-.043**	**2.617**	**2.847**	**.349**	**.094**	**5.907**	**85.866**
1993 Total	**19.835**	**21.351**	**33.841**	**75.055**	**6.410**	**-.042**	**2.892**	**2.803**	**.364**	**.097**	**6.156**	**87.578**
1994 Total	**19.909**	**21.842**	**34.670**	**76.480**	**6.694**	**-.035**	**2.683**	**2.939**	**.338**	**.104**	**6.065**	**89.248**
1995 Total	**20.089**	**22.784**	**34.553**	**77.488**	**7.075**	**-.028**	**3.205**	**3.068**	**.294**	**.102**	**6.669**	**91.221**
1996 Total	**21.002**	**23.197**	**35.757**	**79.978**	**7.087**	**-.032**	**3.590**	**3.127**	**.316**	**.104**	**7.137**	**94.224**
1997 Total	**21.445**	**23.329**	**36.266**	**81.086**	**6.597**	**-.041**	**3.640**	**3.006**	**.325**	**.104**	**7.075**	**94.727**
1998 Total	**21.656**	**22.936**	**36.934**	**81.592**	**7.068**	**-.046**	**3.297**	**2.835**	**.328**	**.101**	**6.561**	**[R] 95.146**
1999 Total	**21.623**	**23.010**	**37.960**	**82.650**	**7.610**	**-.062**	**3.268**	**2.885**	**.331**	**.115**	**6.599**	**96.774**
2000 Total	**22.580**	**24.057**	**38.404**	**85.106**	**7.862**	**-.057**	**2.811**	**2.907**	**.317**	**.123**	**6.158**	**99.047**
2001 January	[R] 2.002	2.758	3.329	[R] 8.092	.717	-.006	.191	.236	.028	.009	.464	[R] 9.259
February	[R] 1.730	2.381	2.947	[R] 7.060	.640	-.007	.177	.207	.024	.009	.418	[R] 8.100
March	[R] 1.787	2.318	3.293	[R] 7.401	.649	-.008	.207	.225	.027	.011	.470	[R] 8.505
April	[R] 1.619	1.863	3.164	[R] 6.651	.585	-.008	.182	.218	.025	.012	.438	[R] 7.663
May	[R] 1.748	1.575	3.231	[R] 6.557	.642	-.006	.194	.216	.024	.012	.447	[R] 7.639
June	[R] 1.860	1.490	3.137	[R] 6.489	.710	-.008	.210	.220	.025	.013	.467	[R] 7.655
July	[R] 2.048	1.651	3.301	[R] 7.001	.722	-.009	.183	.227	.027	.012	.449	[R] 8.160
August	[R] 2.088	1.721	3.339	[R] 7.153	.714	-.007	.192	.229	.026	.012	.459	[R] 8.317
September	[R] 1.791	1.537	3.049	[R] 6.378	.662	-.009	.154	.219	.026	.011	.410	[R] 7.430
October	[R] 1.725	1.701	3.285	[R] 6.714	.631	-.006	.154	.234	.026	.011	.426	[R] 7.753
November	[R] 1.673	1.756	3.110	[R] 6.542	.651	-.008	.156	.223	.026	.010	.415	[R] 7.591
December	[R] 1.828	2.189	3.149	[R] 7.166	.704	-.006	.196	.229	.027	.011	.463	[R] 8.323
Total	**[R] 21.898**	**22.941**	**38.333**	**[R] 83.204**	**8.028**	**-.089**	**2.197**	**2.682**	**.311**	**.134**	**5.324**	**[R] 96.395**
2002 January	[R] 1.880	[R] 2.583	3.163	[R] 7.624	.741	-.008	.219	.236	.027	.013	[R] .496	[R] 8.849
February	[R] 1.658	2.308	2.902	[R] 6.871	.644	-.006	.204	.210	.024	.012	.449	[R] 7.952
March	[R] 1.762	2.348	3.220	[R] 7.338	.658	-.007	[R] .213	.225	.026	.014	.478	[R] 8.462
April	[R] 1.639	1.938	3.100	[R] 6.679	.610	-.006	.248	.225	.024	.016	[R] .512	[R] 7.789
May	[R] 1.742	1.675	3.246	[R] 6.668	.658	-.006	.273	.226	.026	.017	.542	[R] 7.852
June	[R] 1.885	1.643	3.163	[R] 6.693	.693	-.009	.287	.228	.024	.017	.556	[R] 7.927
July	[R] 2.074	1.807	3.274	[R] 7.165	.735	-.010	.257	.238	.026	.015	[R] .536	[R] 8.425
August	[R] 2.046	1.786	3.322	[R] 7.161	.739	-.009	.210	.233	.026	[R] .016	.484	[R] 8.371
September	[R] 1.896	1.606	3.100	[R] 6.611	.673	-.008	.168	[R] .230	.025	.013	.437	[R] 7.705
October	[R] 1.836	1.725	3.233	[R] 6.800	.632	-.007	.171	[R] .236	.026	.013	.445	[R] 7.858
November	[R] 1.809	1.982	3.184	[R] 6.983	.642	-.007	.198	[R] .229	.025	.012	[R] .464	[R] 8.067
December	[R] 1.959	2.437	3.276	[R] 7.676	.720	-.007	.217	[R] .238	.026	.013	[R] .494	[R] 8.866
Total	**[R] 22.184**	**[E] 23.838**	**38.183**	**[R] 84.268**	**8.145**	**-.089**	**2.664**	**[R] 2.755**	**.304**	**[R] .170**	**[R] 5.894**	**[R] 98.122**
2003 January	[R] 2.060	[RF] 2.682	3.307	[R] 8.050	[R] .723	[R] -.008	[R] .199	[R] .226	[R] .026	[R] .011	[R] .462	[R] 9.214
February	1.782	[F] 2.484	3.039	7.319	.643	-.007	.239	.221	.023	.012	.495	8.435
2-Month Total	**3.842**	**[E] 5.167**	**6.346**	**15.369**	**1.365**	**-.015**	**.438**	**.447**	**.049**	**.023**	**.957**	**17.649**
2002 2-Month Total	**3.538**	**4.890**	**6.065**	**14.495**	**1.384**	**-.014**	**.422**	**.446**	**.051**	**.025**	**.945**	**16.801**
2001 2-Month Total	**3.732**	**5.139**	**6.276**	**15.152**	**1.357**	**-.013**	**.368**	**.443**	**.052**	**.018**	**.881**	**17.358**

[a] End-use consumption and electricity net generation.
[b] Includes supplemental gaseous fuels.
[c] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.
[d] Includes coal coke net imports. See Table 1.4.
[e] Pumped storage facility production minus energy used for pumping.
[f] Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol," but is counted only once in total energy consumption.
[g] Includes coal coke net imports and electricity net imports, which are not separately displayed. See Table 1.4.
[h] Included in conventional hydroelectric power.

R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • See Note 2 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

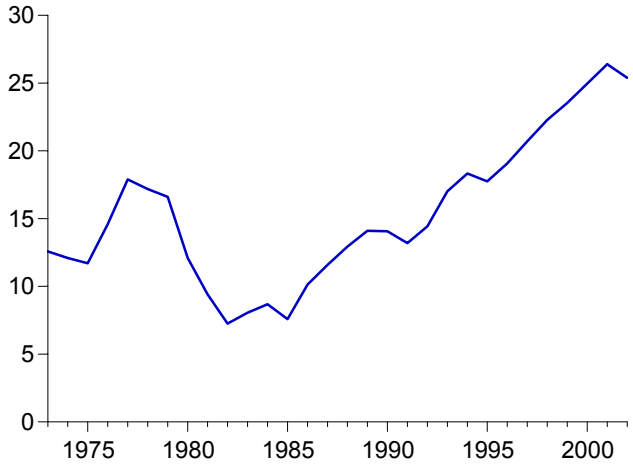
Sources: • **Coal:** Tables 6.1 and A5. • **Natural Gas:** Tables 4.1 and A4. • **Petroleum:** Tables 3.1a and A3. • **Nuclear Electric Power:** Tables 8.1 and A6. • **Hydroelectric Pumped Storage:** Tables 7.2a and A6. • **Renewable Energy:** Table 10.1. • **Net Imports of Coal Coke and Electricity:** Table 1.4.

In the April 2003 *Monthly Energy Review*, data were revised for several consumption series, including: "Nuclear Electric Power" due to revised heat rates (see Table A6); "Natural Gas" due to a change in the source for natural gas used by the electric power sector (see Table 4.4); coal (see Table 6.2); and renewable energy (see Table 10.1).

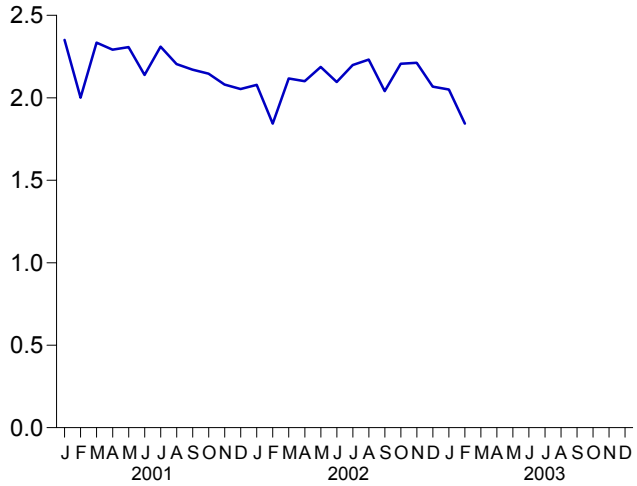
Figure 1.4 Energy Net Imports

(Quadrillion Btu, Except as noted)

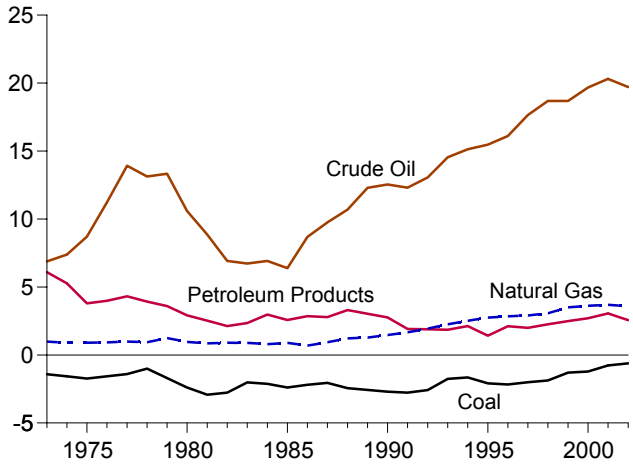
Total, 1973-2002



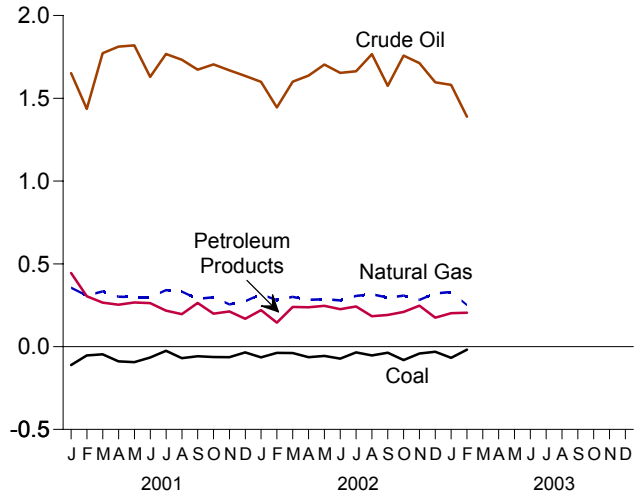
Total, Monthly



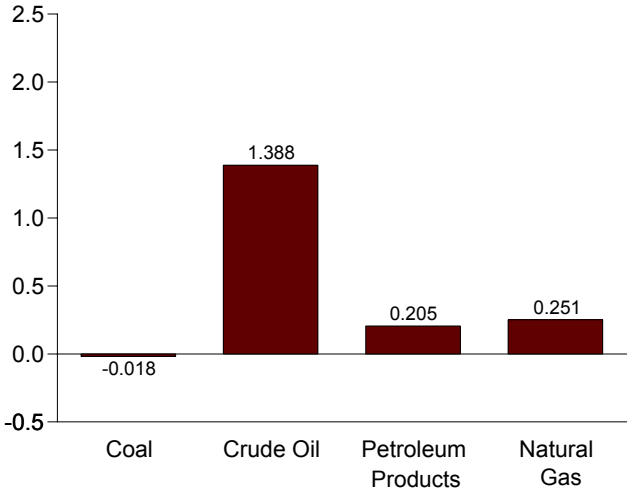
By Major Sources, 1973-2002



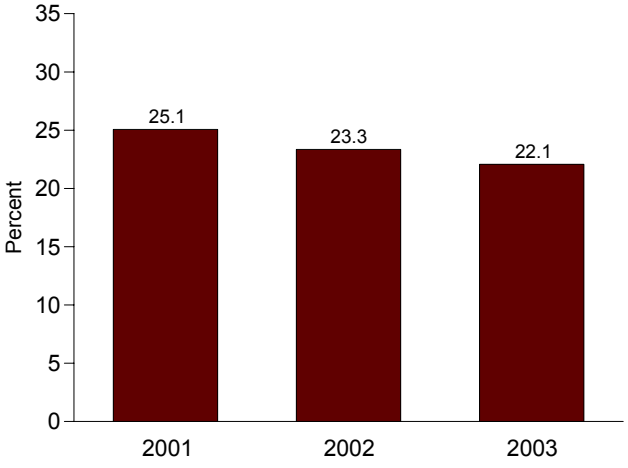
By Major Sources, Monthly



By Major Sources, February 2003



As Share of Consumption, January-February



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Sources: Tables 1.3 and 1.4.

Table 1.4 Energy Net Imports by Source

(Quadrillion Btu)

	Coal	Coal Coke	Natural Gas	Crude Oil[a]	Petroleum Products[b]	Electricity	Total
1973 Total	**-1.422**	**-0.007**	**0.981**	**6.883**	**6.097**	**0.049**	**12.580**
1974 Total	**-1.568**	**.056**	**.907**	**7.389**	**5.273**	**.043**	**12.101**
1975 Total	**-1.738**	**.014**	**.904**	**8.708**	**3.800**	**.021**	**11.709**
1976 Total	**-1.567**	**(s)**	**.922**	**11.221**	**3.982**	**.029**	**14.588**
1977 Total	**-1.401**	**.015**	**.981**	**13.921**	**4.321**	**.059**	**17.896**
1978 Total	**-1.004**	**.125**	**.941**	**13.125**	**3.932**	**.067**	**17.186**
1979 Total	**-1.702**	**.063**	**1.243**	**13.328**	**3.603**	**.069**	**16.605**
1980 Total	**-2.391**	**-.035**	**.957**	**10.586**	**2.912**	**.071**	**12.101**
1981 Total	**-2.918**	**-.016**	**.857**	**8.854**	**2.522**	**.113**	**9.412**
1982 Total	**-2.768**	**-.022**	**.898**	**6.917**	**2.128**	**.100**	**7.253**
1983 Total	**-2.013**	**-.016**	**.885**	**6.731**	**2.351**	**.121**	**8.059**
1984 Total	**-2.119**	**-.011**	**.792**	**6.918**	**2.970**	**.135**	**8.685**
1985 Total	**-2.389**	**-.013**	**.896**	**6.381**	**2.570**	**.140**	**7.584**
1986 Total	**-2.193**	**-.017**	**.686**	**8.676**	**2.855**	**.122**	**10.130**
1987 Total	**-2.049**	**.009**	**.937**	**9.748**	**2.784**	**.158**	**11.586**
1988 Total	**-2.446**	**.040**	**1.221**	**10.698**	**3.308**	**.108**	**12.929**
1989 Total	**-2.566**	**.030**	**1.278**	**12.296**	**3.029**	**.037**	**14.105**
1990 Total	**-2.705**	**.005**	**1.464**	**12.536**	**2.757**	**.008**	**14.065**
1991 Total	**-2.769**	**.010**	**1.666**	**12.308**	**1.912**	**.067**	**13.194**
1992 Total	**-2.587**	**.035**	**1.941**	**13.065**	**1.895**	**.087**	**14.435**
1993 Total	**-1.758**	**.027**	**2.255**	**14.542**	**1.854**	**.095**	**17.014**
1994 Total	**-1.657**	**.058**	**2.518**	**15.131**	**2.126**	**.153**	**18.329**
1995 Total	**-2.081**	**.061**	**2.745**	**15.469**	**1.422**	**.134**	**17.750**
1996 Total	**-2.165**	**.023**	**2.847**	**16.108**	**2.119**	**.137**	**19.069**
1997 Total	**-2.006**	**.046**	**2.904**	**17.648**	**1.993**	**.116**	**20.701**
1998 Total	**-1.874**	**.067**	**3.064**	**18.684**	**2.252**	R **.088**	R **22.281**
1999 Total	**-1.298**	**.058**	**3.500**	**18.686**	**2.493**	**.099**	**23.537**
2000 Total	**-1.215**	**.065**	**3.623**	**19.676**	**2.701**	**.116**	**24.968**
2001 January	-.111	.003	.356	1.652	.444	E .006	R 2.351
February	-.053	.002	.309	1.437	.305	RE .002	R 2.001
March	-.047	.003	.334	1.772	.266	RE .006	2.334
April	-.089	.005	.302	1.812	.253	E .008	R 2.292
May	-.093	.004	.300	1.820	.267	RE .010	2.307
June	-.066	.003	.300	1.630	.263	E .008	2.138
July	-.025	(s)	.341	1.768	.218	RE .008	2.310
August	-.069	.004	.332	1.733	.196	RE .009	R 2.205
September	-.058	.001	.288	1.673	.264	E .002	2.170
October	-.063	.004	.299	1.704	.199	E .003	2.146
November	-.063	.002	.255	1.669	.213	RE .004	2.080
December	-.035	.001	.275	1.635	.168	RE .009	2.053
Total	**-.771**	**.032**	**3.691**	**20.305**	**3.056**	R **.075**	R **26.388**
2002 January	-.065	-.001	.316	1.599	.221	RE .009	R 2.079
February	-.038	.003	.282	1.445	.145	RE .007	1.844
March	-.038	.008	.301	1.601	.239	RE .006	2.117
April	-.063	.001	.282	1.637	.238	E .006	2.101
May	-.056	.005	.286	1.704	.246	RE .003	R 2.188
June	-.072	.003	.279	1.653	.226	RE .007	2.096
July	-.035	.009	.306	1.663	.242	RE .013	2.199
August	-.053	.008	.317	1.766	.184	RE .011	2.232
September	-.037	.009	.296	1.575	.192	E .006	R 2.041
October	-.081	.006	.308	1.758	.210	RE .005	R 2.207
November	-.042	.008	.282	1.712	.247	RE .004	2.212
December	-.031	.003	.322	1.596	.175	RE .002	2.068
Total	**-.610**	**.062**	**3.578**	**19.710**	**2.566**	R **.078**	R **25.385**
2003 January	-.068	(s)	E .330	1.581	.202	E .005	2.051
February	-.018	.014	E .251	1.388	.205	E .004	1.844
2-Month Total	**-.086**	**.014**	E **.581**	**2.970**	**.407**	E **.009**	**3.895**
2002 2-Month Total	**-.103**	**.002**	**.598**	**3.045**	**.366**	**.016**	**3.923**
2001 2-Month Total	**-.164**	**.005**	**.665**	**3.088**	**.749**	**.008**	**4.352**

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

[b] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

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.

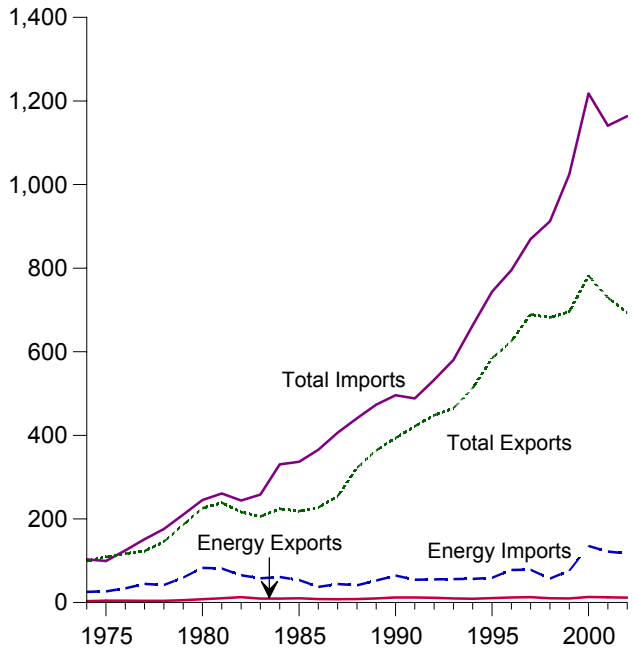
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.

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. • **Electricity:** Tables 7.1 and A6.

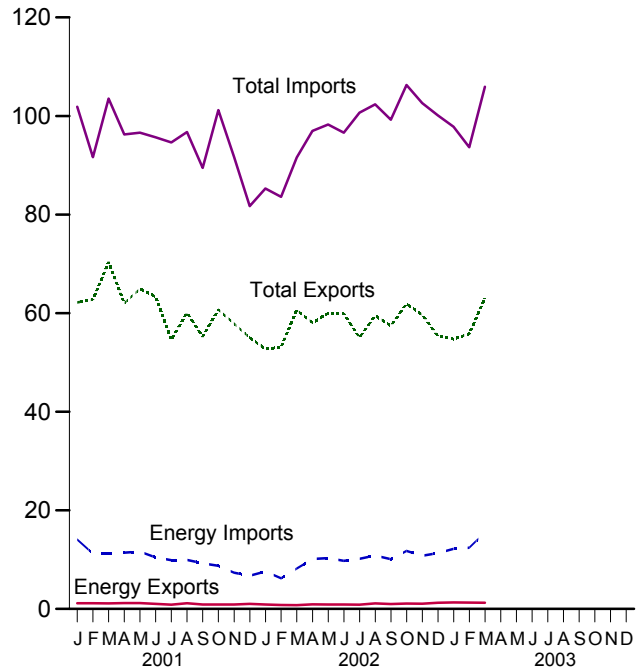
Electricity trade data were revised in the April 2003 *Monthly Energy Review*. EIA previously estimated the proportions of traded electricity from fossil fuels and hydropower (and applied the fossil-fuel steam-electric-plant heat rate to convert from kilowatthours to Btu) and from geothermal (and applied the heat rate for geothermal energy plants). EIA no longer has adequate data to estimate the proportions by source and is now applying an overall rate of 3,412 Btu per kilowatthour to all traded electricity.

Figure 1.5 Merchandise Trade Value
(Billion Dollars)

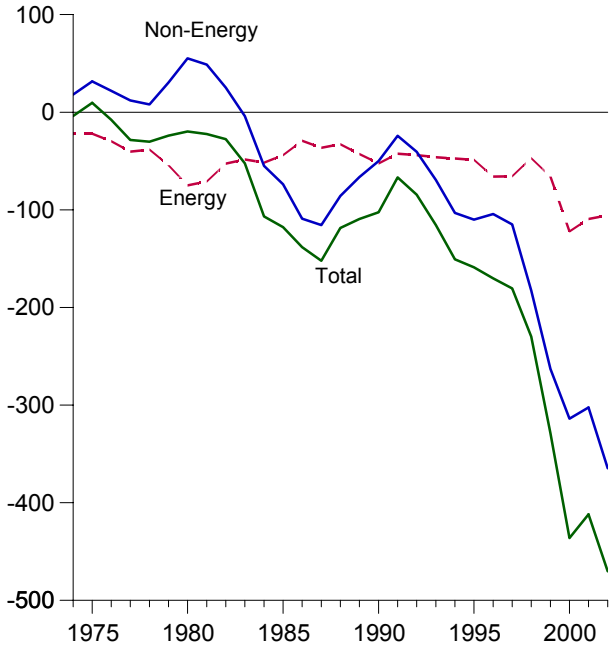
Imports and Exports, 1974-2002



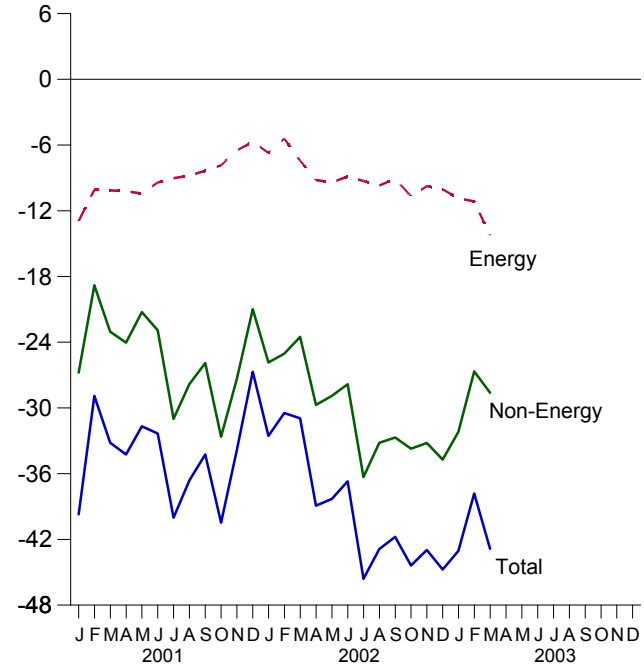
Imports and Exports, Monthly



Trade Balance, 1974-2002



Trade Balance, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.5.

Table 1.5 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 Total	**6,574**	**50,264**	**-43,690**	**10,251**	**57,323**	**-47,072**	**-182,686**	**682,138**	**911,896**	**-229,758**
1999 Total	**7,118**	**67,173**	**-60,055**	**9,880**	**75,803**	**-65,923**	**-262,898**	**695,797**	**1,024,618**	**-328,821**
2000 Total	**10,192**	**119,251**	**-109,059**	**13,179**	**135,367**	**-122,188**	**-313,916**	**781,918**	**1,218,022**	**-436,104**
2001 January	804	10,538	-9,734	1,148	14,087	-12,939	-26,769	62,161	101,869	-39,708
February	690	8,856	-8,166	1,141	11,226	-10,085	-18,811	62,743	91,639	-28,896
March	757	9,226	-8,469	1,129	11,256	-10,127	-23,052	70,358	103,536	-33,179
April	774	9,430	-8,656	1,179	11,398	-10,219	-24,031	62,015	96,265	-34,250
May	805	9,727	-8,922	1,189	11,617	-10,428	-21,246	64,931	96,605	-31,674
June	749	9,096	-8,347	1,009	10,425	-9,416	-22,914	63,333	95,663	-32,330
July	663	8,621	-7,958	867	9,893	-9,026	-30,989	54,611	94,625	-40,015
August	864	8,672	-7,808	1,162	9,956	-8,794	-27,822	60,111	96,728	-36,616
September	619	8,348	-7,729	883	9,227	-8,344	-25,908	55,232	89,484	-34,252
October	669	7,992	-7,323	891	8,745	-7,854	-32,621	60,701	101,177	-40,475
November	638	6,429	-5,791	878	7,364	-6,486	-27,319	57,900	91,705	-33,805
December	838	5,807	-4,969	1,017	6,728	-5,711	-20,989	55,003	81,703	-26,700
Total	**8,868**	**102,747**	**-93,879**	**12,494**	**121,923**	**-109,429**	**-302,470**	**729,100**	**1,140,999**	**-411,899**
2002 January	636	6,490	-5,854	877	7,589	-6,712	-25,844	52,720	85,276	-32,556
February	664	5,392	-4,728	809	6,224	-5,415	-25,050	53,121	83,586	-30,465
March	607	6,888	-6,281	773	8,204	-7,431	-23,517	60,631	91,580	-30,948
April	689	9,069	-8,380	915	10,117	-9,202	-29,715	58,062	96,978	-38,917
May	671	9,191	-8,520	895	10,292	-9,397	-28,908	59,960	98,266	-38,305
June	631	8,595	-7,964	893	9,770	-8,877	-27,832	59,893	96,602	-36,709
July	666	9,002	-8,336	874	10,161	-9,287	-36,311	55,060	100,657	-45,598
August	830	9,676	-8,846	1,115	10,811	-9,696	-33,182	59,480	102,358	-42,878
September	752	8,975	-8,223	991	10,068	-9,077	-32,700	57,451	99,227	-41,777
October	824	10,486	-9,662	1,087	11,759	-10,672	-33,720	61,893	106,285	-44,392
November	759	9,590	-8,831	1,041	10,800	-9,759	-33,203	59,670	102,631	-42,962
December	1,009	9,478	-8,469	1,261	11,299	-10,038	-34,715	55,362	100,116	-44,753
Total	**8,736**	**102,831**	**-94,095**	**11,530**	**117,095**	**-105,565**	**-364,695**	**693,302**	**1,163,561**	**-470,260**
2003 January	1,045	10,396	-9,351	1,310	12,182	-10,872	-32,189	54,745	97,806	-43,061
February	956	10,168	-9,212	1,266	12,411	-11,145	R -26,674	R 55,828	R 93,647	R -37,819
March	1,005	12,751	-11,746	1,250	15,488	-14,238	-28,614	63,092	105,944	-42,852
3-Month Total	**3,006**	**33,315**	**-30,309**	**3,826**	**40,081**	**-36,255**	**-87,477**	**173,664**	**297,396**	**-123,732**
2002 3-Month Total	**1,907**	**18,770**	**-16,863**	**2,459**	**22,017**	**-19,558**	**-74,411**	**166,472**	**260,441**	**-93,969**
2001 3-Month Total	**2,251**	**28,620**	**-26,369**	**3,418**	**36,569**	**-33,151**	**-68,632**	**195,262**	**297,045**	**-101,783**

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

[b] Petroleum, coal, natural gas, and electricity.

R=Revised.

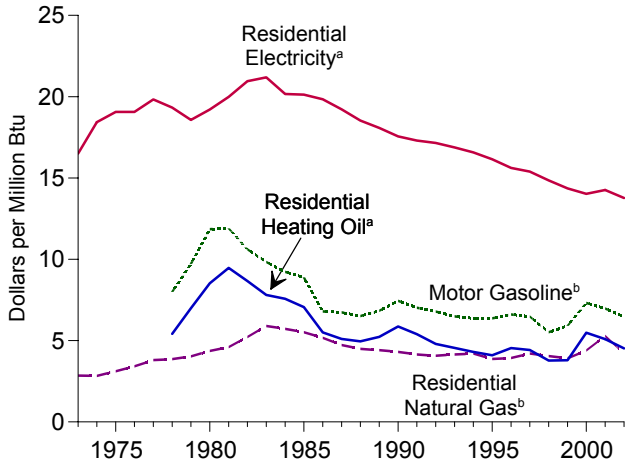
Notes: • Monthly data are not adjusted for seasonal variations. • See Note 5 at end of section. • Totals may not equal sum of components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

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

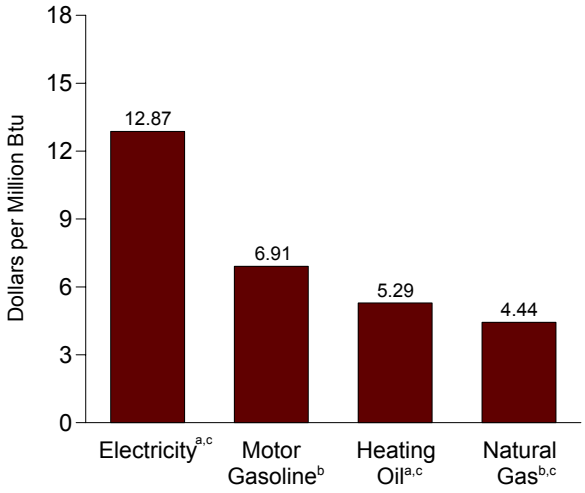
Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.5" at the end of this section.

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

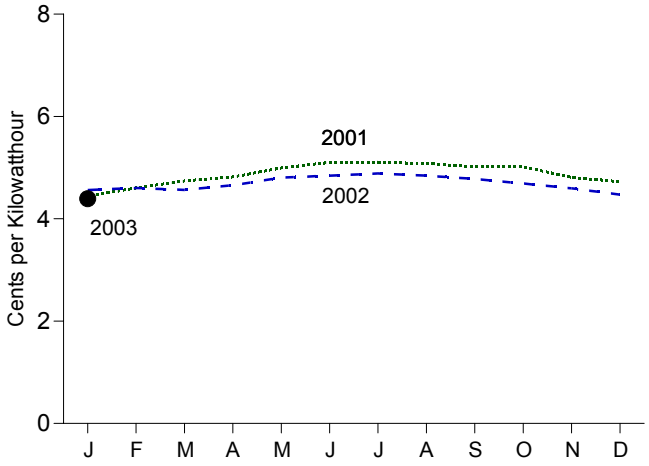
Costs, 1973-2002



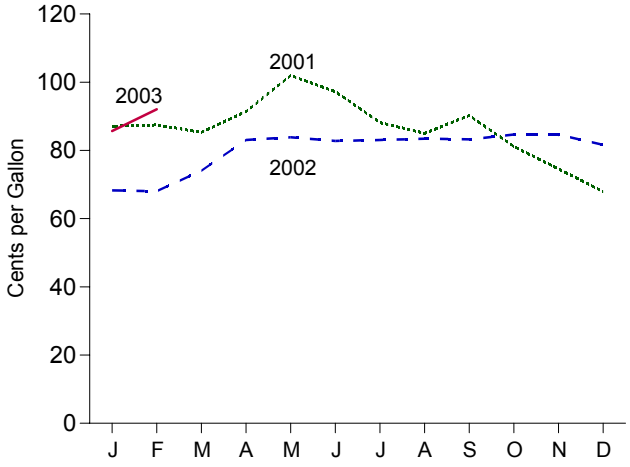
Costs, January 2003



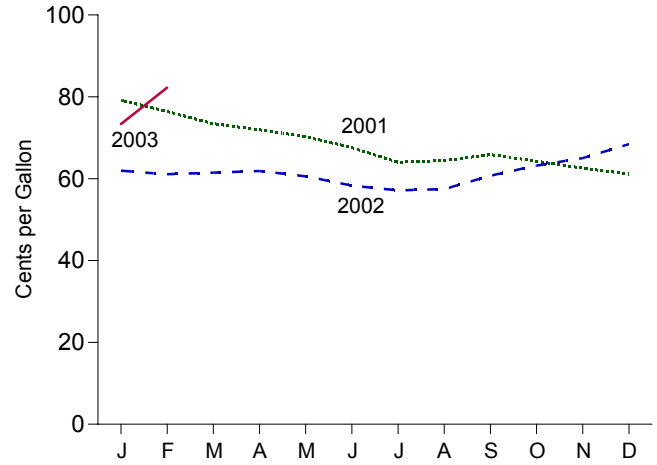
Residential Electricity[a], Monthly



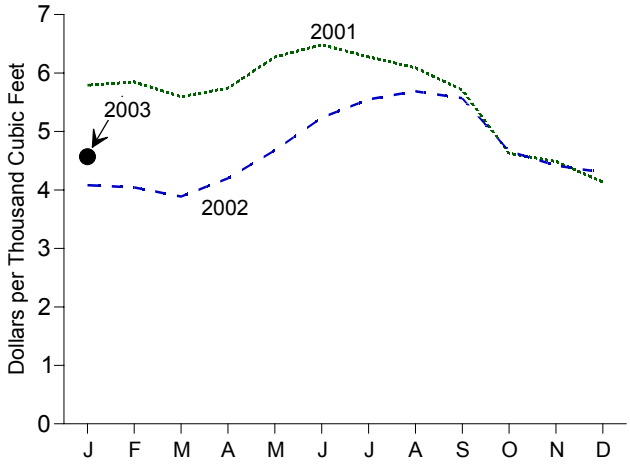
Motor Gasoline[b], Monthly



Residential Heating Oil[a], Monthly



Residential Natural Gas[b], Monthly



[a]Excludes taxes.
[b]Includes taxes.
[C]Residential.

Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eai.doe.gov/emeu/mer/overview.html.
Source: Table 1.6.

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

	Consumer Price Index (Urban)[a]	Motor Gasoline[b]		Residential Heating Oil[c]		Residential Natural Gas[b]		Residential Electricity[c]	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	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 Average	**163.0**	**68.4**	**5.51**	**52.3**	**3.77**	**418.4**	**4.05**	**5.07**	**14.85**
1999 Average	**166.6**	**73.3**	**5.91**	**52.6**	**3.79**	**401.6**	**3.91**	**4.90**	**14.36**
2000 Average	**172.2**	**90.8**	**7.32**	**76.1**	**5.49**	**450.6**	**4.39**	**4.79**	**14.02**
2001 January	175.1	87.1	7.02	79.2	5.71	579.1	5.63	4.44	13.02
February	175.8	87.5	7.05	76.4	5.51	584.8	5.68	4.60	13.49
March	176.2	85.3	6.88	73.4	5.30	559.6	5.44	4.74	13.89
April	176.9	91.4	7.37	72.0	5.19	574.3	5.58	4.82	14.12
May	177.7	102.0	8.22	70.3	5.07	627.5	6.10	4.99	14.63
June	178.0	97.2	7.84	67.6	4.87	648.3	6.30	5.10	14.95
July	177.5	88.2	7.11	64.0	4.61	627.6	6.10	5.10	14.96
August	177.5	85.0	6.85	64.4	4.64	609.0	5.92	5.08	14.89
September	178.3	90.2	7.27	65.9	4.75	570.9	5.55	5.01	14.70
October	177.7	81.1	6.54	64.3	4.63	462.6	4.50	5.01	14.70
November	177.4	74.6	6.02	62.6	4.51	448.7	4.36	4.81	14.09
December	176.7	67.9	5.47	61.1	4.41	413.7	4.02	4.73	13.85
Average	**177.1**	**86.4**	**6.97**	**70.6**	**5.09**	**543.8**	**5.28**	**4.87**	**14.27**
2002 January	177.1	68.3	5.51	61.9	4.47	408.2	3.97	4.56	13.37
February	177.8	68.1	5.49	61.1	4.40	404.4	3.93	4.60	13.48
March	178.8	74.0	5.97	61.5	4.43	388.7	3.78	4.56	13.38
April	179.8	83.0	6.70	61.8	4.46	419.9	4.08	4.66	13.64
May	179.8	83.9	6.76	60.6	4.37	467.7	4.55	4.81	14.08
June	179.9	82.8	6.67	58.3	4.20	523.6	5.09	4.84	14.19
July	180.1	83.1	6.70	57.1	4.12	554.7	5.39	4.89	14.32
August	180.7	83.5	6.73	57.4	4.14	568.9	5.53	4.84	14.19
September	181.0	83.3	6.71	60.7	4.38	556.9	5.41	4.78	14.01
October	181.3	84.7	6.83	63.2	4.56	466.1	4.53	4.69	13.74
November	181.3	84.6	6.82	65.0	4.69	441.8	4.29	4.59	13.47
December	180.9	81.6	6.58	68.4	4.93	430.1	4.18	4.47	13.11
Average	**179.9**	**80.1**	**6.46**	**62.7**	**4.52**	**433.0**	**4.21**	**4.70**	**13.77**
2003 January	181.7	85.7	6.91	73.4	5.29	456.8	4.44	[R] 4.39	[R] 12.87
February	183.1	92.1	7.43	82.3	5.93	NA	NA	NA	NA

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

[b] Includes taxes.

[c] Excludes taxes.

R=Revised. NA=Not available.

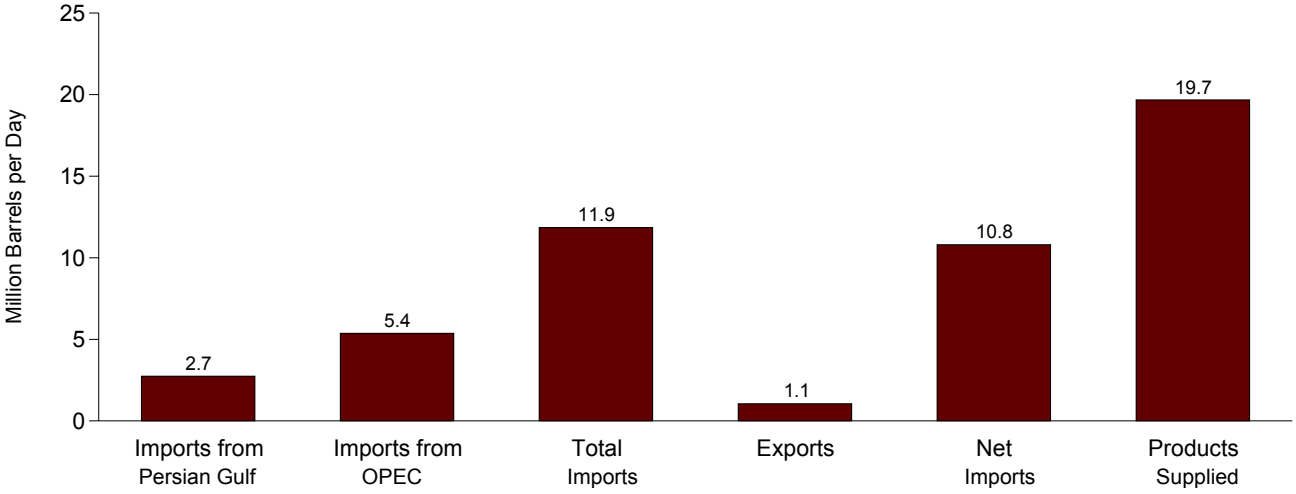
Notes: • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.11, and 9.9, adjusted by the CPI. • **CPI: 1973-2001**—*Economic Report of the President,* February 2003, Table B-60. **2002 forward**—Council of Economic Advisers, *Economic Indicators,* April 2003, "Consumer Prices - All Urban Consumers." • **Conversion Factors:** Tables A1, A3, A4, and A6.

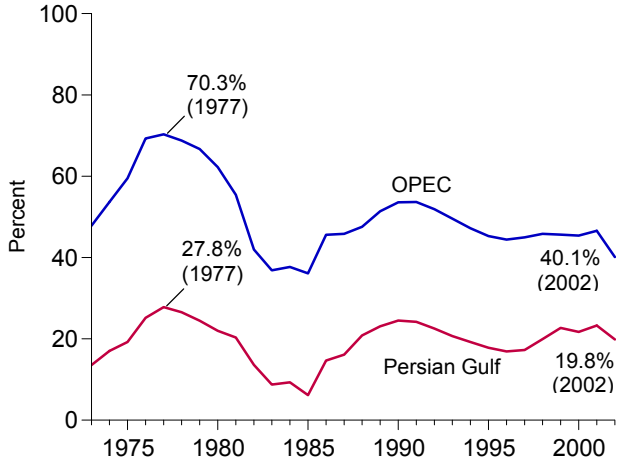
Figure 1.7 Overview of U.S. Petroleum Trade

Overview, March 2003

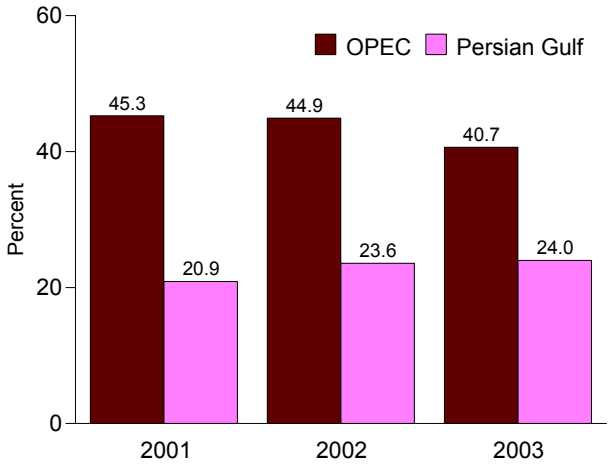


Imports from OPEC and the Persian Gulf as a Share of Total Imports

1973-2002

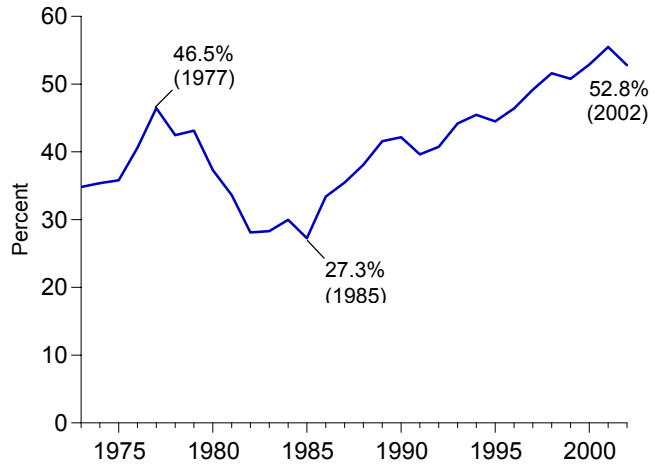


January - March

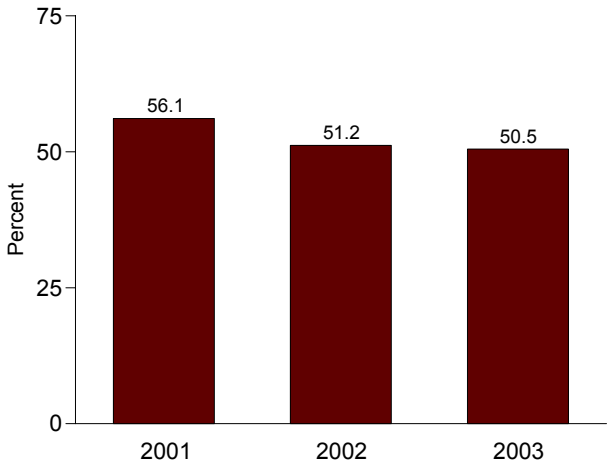


Net Imports as Share of Products Supplied

1973-2002



January - March



OPEC=Organization of Petroleum Exporting Countries.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.7.

Table 1.7 Overview of U.S. Petroleum Trade

	Imports from Persian Gulf[a]	Imports from OPEC[b]	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied: Imports from Persian Gulf[a]	As Share of Products Supplied: Imports from OPEC[b]	As Share of Products Supplied: Imports	As Share of Products Supplied: Net Imports	As Share of Total Imports: Imports from Persian Gulf[a]	As Share of Total Imports: Imports from OPEC[b]
	Thousand Barrels per Day						Percent					
1973 Average	**848**	**2,993**	**6,256**	**231**	**6,025**	**17,308**	**4.9**	**17.3**	**36.1**	**34.8**	**13.6**	**47.8**
1974 Average	**1,039**	**3,280**	**6,112**	**221**	**5,892**	**16,653**	**6.2**	**19.7**	**36.7**	**35.4**	**17.0**	**53.7**
1975 Average	**1,165**	**3,601**	**6,056**	**209**	**5,846**	**16,322**	**7.1**	**22.1**	**37.1**	**35.8**	**19.2**	**59.5**
1976 Average	**1,840**	**5,066**	**7,313**	**223**	**7,090**	**17,461**	**10.5**	**29.0**	**41.9**	**40.6**	**25.2**	**69.3**
1977 Average	**2,448**	**6,193**	**8,807**	**243**	**8,565**	**18,431**	**13.3**	**33.6**	**47.8**	**46.5**	**27.8**	**70.3**
1978 Average	**2,219**	**5,751**	**8,363**	**362**	**8,002**	**18,847**	**11.8**	**30.5**	**44.4**	**42.5**	**26.5**	**68.8**
1979 Average	**2,069**	**5,637**	**8,456**	**471**	**7,985**	**18,513**	**11.2**	**30.5**	**45.7**	**43.1**	**24.5**	**66.7**
1980 Average	**1,519**	**4,300**	**6,909**	**544**	**6,365**	**17,056**	**8.9**	**25.2**	**40.5**	**37.3**	**22.0**	**62.2**
1981 Average	**1,219**	**3,323**	**5,996**	**595**	**5,401**	**16,058**	**7.6**	**20.7**	**37.3**	**33.6**	**20.3**	**55.4**
1982 Average	**696**	**2,146**	**5,113**	**815**	**4,298**	**15,296**	**4.5**	**14.0**	**33.4**	**28.1**	**13.6**	**42.0**
1983 Average	**442**	**1,862**	**5,051**	**739**	**4,312**	**15,231**	**2.9**	**12.2**	**33.2**	**28.3**	**8.8**	**36.9**
1984 Average	**506**	**2,049**	**5,437**	**722**	**4,715**	**15,726**	**3.2**	**13.0**	**34.6**	**30.0**	**9.3**	**37.7**
1985 Average	**311**	**1,830**	**5,067**	**781**	**4,286**	**15,726**	**2.0**	**11.6**	**32.2**	**27.3**	**6.1**	**36.1**
1986 Average	**912**	**2,837**	**6,224**	**785**	**5,439**	**16,281**	**5.6**	**17.4**	**38.2**	**33.4**	**14.7**	**45.6**
1987 Average	**1,077**	**3,060**	**6,678**	**764**	**5,914**	**16,665**	**6.5**	**18.4**	**40.1**	**35.5**	**16.1**	**45.8**
1988 Average	**1,541**	**3,520**	**7,402**	**815**	**6,587**	**17,283**	**8.9**	**20.4**	**42.8**	**38.1**	**20.8**	**47.6**
1989 Average	**1,861**	**4,140**	**8,061**	**859**	**7,202**	**17,325**	**10.7**	**23.9**	**46.5**	**41.6**	**23.1**	**51.4**
1990 Average	**1,966**	**4,296**	**8,018**	**857**	**7,161**	**16,988**	**11.6**	**25.3**	**47.2**	**42.2**	**24.5**	**53.6**
1991 Average	**1,845**	**4,092**	**7,627**	**1,001**	**6,626**	**16,714**	**11.0**	**24.5**	**45.6**	**39.6**	**24.2**	**53.7**
1992 Average	**1,778**	**4,092**	**7,888**	**950**	**6,938**	**17,033**	**10.4**	**24.0**	**46.3**	**40.7**	**22.5**	**51.9**
1993 Average	**1,782**	**4,273**	**8,620**	**1,003**	**7,618**	**17,237**	**10.3**	**24.8**	**50.0**	**44.2**	**20.7**	**49.6**
1994 Average	**1,728**	**4,247**	**8,996**	**942**	**8,054**	**17,718**	**9.8**	**24.0**	**50.8**	**45.5**	**19.2**	**47.2**
1995 Average	**1,573**	**4,002**	**8,835**	**949**	**7,886**	**17,725**	**8.9**	**22.6**	**49.8**	**44.5**	**17.8**	**45.3**
1996 Average	**1,604**	**4,211**	**9,478**	**981**	**8,498**	**18,309**	**8.8**	**23.0**	**51.8**	**46.4**	**16.9**	**44.4**
1997 Average	**1,755**	**4,569**	**10,162**	**1,003**	**9,158**	**18,620**	**9.4**	**24.5**	**54.6**	**49.2**	**17.3**	**45.0**
1998 Average	**2,136**	**4,905**	**10,708**	**945**	**9,764**	**18,917**	**11.3**	**25.9**	**56.6**	**51.6**	**19.9**	**45.8**
1999 Average	**2,464**	**4,953**	**10,852**	**940**	**9,912**	**19,519**	**12.6**	**25.4**	**55.6**	**50.8**	**22.7**	**45.6**
2000 Average	**2,488**	**5,203**	**11,459**	**1,040**	**10,419**	**19,701**	**12.6**	**26.4**	**58.2**	**52.9**	**21.7**	**45.4**
2001 January	2,504	5,527	12,555	954	11,601	20,092	12.5	27.5	62.5	57.7	19.9	44.0
February	2,377	5,071	11,643	1,004	10,639	19,689	12.1	25.8	59.1	54.0	20.4	43.6
March	2,699	5,832	12,132	938	11,194	19,876	13.6	29.3	61.0	56.3	22.2	48.1
April	2,904	6,104	12,653	942	11,711	19,729	14.7	30.9	64.1	59.4	23.0	48.2
May	3,120	6,080	12,529	1,069	11,461	19,501	16.0	31.2	64.2	58.8	24.9	48.5
June	2,901	5,641	11,732	976	10,756	19,561	14.8	28.8	60.0	55.0	24.7	48.1
July	2,736	5,509	11,760	879	10,881	19,919	13.7	27.7	59.0	54.6	23.3	46.8
August	2,695	5,289	11,622	1,048	10,573	20,153	13.4	26.2	57.7	52.5	23.2	45.5
September	3,028	5,593	11,818	825	10,993	19,016	15.9	29.4	62.1	57.8	25.6	47.3
October	2,857	5,542	11,379	946	10,432	19,824	14.4	28.0	57.4	52.6	25.1	48.7
November	2,637	5,097	11,628	960	10,669	19,396	13.6	26.3	60.0	55.0	22.7	43.8
December	2,651	5,024	10,994	1,109	9,885	19,003	14.0	26.4	57.9	52.0	24.1	45.7
Average	**2,761**	**5,528**	**11,871**	**971**	**10,900**	**19,649**	**14.1**	**28.1**	**60.4**	**55.5**	**23.3**	**46.6**
2002 January	2,694	5,001	10,847	861	9,986	19,170	14.1	26.1	56.6	52.1	24.8	46.1
February	2,470	4,733	10,769	1,123	9,646	19,475	12.7	24.3	55.3	49.5	22.9	43.9
March	2,505	4,891	10,957	853	10,104	19,516	12.8	25.1	56.1	51.8	22.9	44.6
April	2,445	4,552	11,524	890	10,635	19,419	12.6	23.4	59.3	54.8	21.2	39.5
May	2,175	4,463	11,612	910	10,702	19,678	11.1	22.7	59.0	54.4	18.7	38.4
June	2,091	4,347	11,532	880	10,653	19,810	10.6	21.9	58.2	53.8	18.1	37.7
July	1,998	4,310	11,294	839	10,455	19,847	10.1	21.7	56.9	52.7	17.7	38.2
August	1,896	4,604	11,821	1,138	10,683	20,134	9.4	22.9	58.7	53.1	16.0	38.9
September	2,052	4,429	11,029	1,015	10,014	19,416	10.6	22.8	56.8	51.6	18.6	40.2
October	2,143	4,645	11,745	962	10,783	19,593	10.9	23.7	59.9	55.0	18.2	39.5
November	2,166	4,605	12,142	1,026	11,115	19,940	10.9	23.1	60.9	55.7	17.8	37.9
December	2,429	4,117	10,987	1,272	9,715	19,859	12.2	20.7	55.3	48.9	22.1	37.5
Average	**2,254**	**4,558**	**11,358**	**980**	**10,378**	**19,656**	**11.5**	**23.2**	**57.8**	**52.8**	**19.8**	**40.1**
2003 January	2,718	4,272	11,008	1,212	9,796	20,042	13.6	21.3	54.9	48.9	24.7	38.8
February	2,612	3,990	10,764	1,067	9,697	20,396	12.8	19.6	52.8	47.5	24.3	37.1
March	2,740	5,371	11,857	1,051	10,806	19,682	13.9	27.3	60.2	54.9	23.1	45.3
3-Month Average	**2,693**	**4,563**	**11,224**	**1,111**	**10,113**	**20,028**	**13.4**	**22.8**	**56.0**	**50.5**	**24.0**	**40.7**
2002 3-Month Average	**2,559**	**4,880**	**10,861**	**940**	**9,921**	**19,384**	**13.2**	**25.2**	**56.0**	**51.2**	**23.6**	**44.9**
2001 3-Month Average	**2,532**	**5,490**	**12,126**	**964**	**11,162**	**19,892**	**12.7**	**27.6**	**61.0**	**56.1**	**20.9**	**45.3**

[a] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

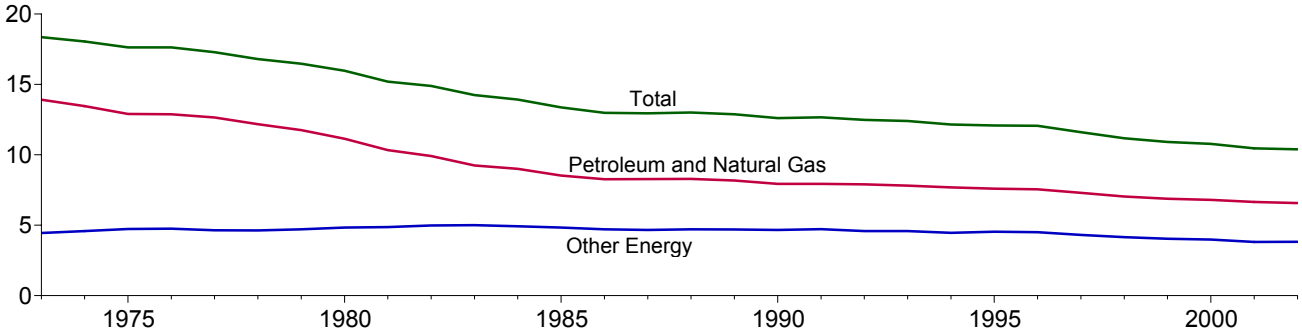
[b] Organization of Petroleum Exporting Countries. See Glossary.

Notes: • Readers of Table 1.7 may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review.* • Petroleum is crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products. • Beginning in October 1977, petroleum imported for the Strategic Petroleum Reserves is included. • Annual averages may not equal average of months due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

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

Sources: • **Column 1:** Table 3.3b. • **Column 2:** Table 3.3d. • **Columns 3-5:** Table 3.1b. • **Column 6:** Table 3.1a. • **Columns 7-12:** Calculated by Energy Information Administration.

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



Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.8.

Table 1.8 Energy Consumption per Dollar of Gross Domestic Product

	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	18.356	75.708	4,123.4	13.91	4.45	18.36
1974 Year	55.187	18.804	73.991	4,099.0	13.46	4.59	18.05
1975 Year	52.678	19.321	71.999	4,084.4	12.90	4.73	17.63
1976 Year	55.520	20.492	76.012	4,311.7	12.88	4.75	17.63
1977 Year	57.053	20.947	78.000	4,511.8	12.65	4.64	17.29
1978 Year	57.966	22.021	79.986	4,760.6	12.18	4.63	16.80
1979 Year	57.789	23.114	80.903	4,912.1	11.76	4.71	16.47
1980 Year	54.596	23.693	78.289	4,900.9	11.14	4.83	15.97
1981 Year	51.859	24.476	76.335	5,021.0	10.33	4.87	15.20
1982 Year	48.736	24.497	73.234	4,919.3	9.91	4.98	14.89
1983 Year	47.411	25.655	73.066	5,132.3	9.24	5.00	14.24
1984 Year	49.558	27.135	76.693	5,505.2	9.00	4.93	13.93
1985 Year	48.756	27.661	76.417	5,717.1	8.53	4.84	13.37
1986 Year	48.904	27.818	76.722	5,912.4	8.27	4.71	12.98
1987 Year	50.609	28.547	79.156	6,113.3	8.28	4.67	12.95
1988 Year	52.774	30.000	82.774	6,368.4	8.29	4.71	13.00
1989 Year	53.923	R 30.963	R 84.886	6,591.8	8.18	R 4.70	R 12.88
1990 Year	53.282	R 31.323	R 84.605	6,707.9	7.94	4.67	R 12.61
1991 Year	52.994	31.528	84.522	6,676.4	7.94	4.72	12.66
1992 Year	54.362	31.504	85.866	6,880.0	7.90	4.58	12.48
1993 Year	55.193	32.385	87.578	7,062.6	7.81	4.59	12.40
1994 Year	56.512	32.736	89.248	7,347.7	7.69	4.46	12.15
1995 Year	57.338	33.884	91.221	7,543.8	7.60	4.54	12.09
1996 Year	58.954	35.270	94.224	7,813.2	7.55	4.51	12.06
1997 Year	59.594	35.133	94.727	8,159.5	7.30	4.31	11.61
1998 Year	59.869	R 35.277	R 95.146	8,508.9	7.04	4.15	11.18
1999 Year	60.970	35.804	96.774	8,859.0	6.88	4.04	10.92
2000 Year	62.461	36.586	99.047	9,191.4	6.80	3.98	10.78
2001 Year	61.274	R 35.121	R 96.395	9,214.5	6.65	R 3.81	R 10.46
2002 Year	R 62.021	R 36.101	R 98.122	9,439.9	6.57	R 3.82	R 10.39

[a] Coal, nuclear electric power, renewable energy, pumped-storage hydroelectric power, and net imports of coal coke and electricity.

R=Revised.

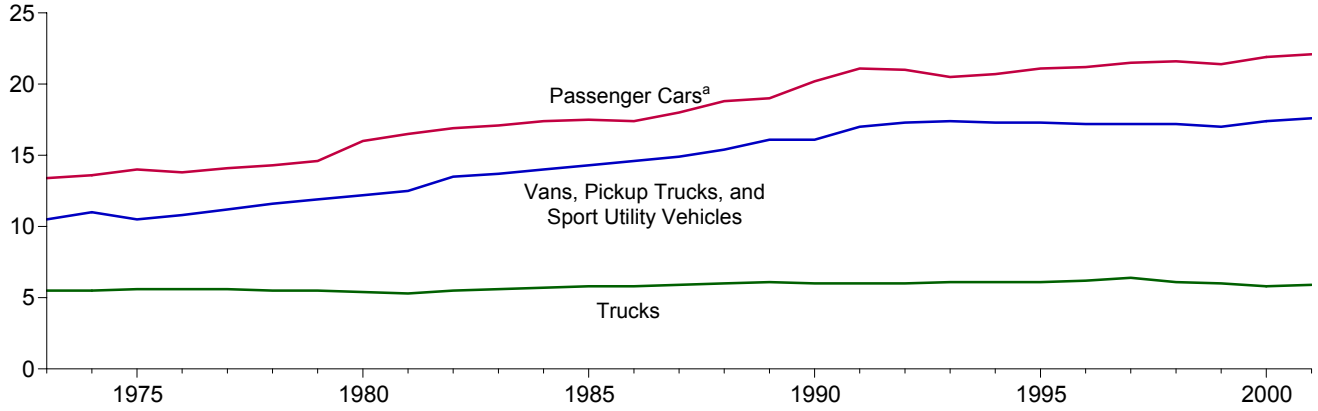
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product: 1973-2000**—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* August 2002, Table 2A. **2001 and 2002**—U.S. Department of Commerce, Bureau of Economic Analysis, *BEA News Release,* May 29, 2003, Table 3, which is available at website www.bea.doc.gov/bea/newsrel/gdp400p.htm.

See Table 1.3 for notes regarding changes to the energy consumption data in the April 2003 *Monthly Energy Review*.

Figure 1.9 Motor Vehicle Fuel Rates
(Miles per Gallon)



[a]Motorcycles are included through 1989.
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Source: Table 1.9.

Table 1.9 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates

	Passenger Cars[a]			Vans, Pickup Trucks, and Sport Utility Vehicles[b]			Trucks[c]			All Motor Vehicles[d]		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	9,884	737	13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	9,221	677	13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	10,157	533	19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	[a]10,504	[a]520	[a]20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001[P]	11,766	532	22.1	11,140	633	17.6	26,431	4,491	5.9	11,800	692	17.1

[a] Motorcycles are included through 1989.
[b] Includes a small number of trucks with 2 axles and 4 tires, such as step vans.
[c] Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.
[d] Includes buses and motorcycles, which are not shown separately.
P=Preliminary.
Notes: Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.
Sources: • **Passenger Cars: 1990-1994:** U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1998,* Table 4-13. • **All Other Data:** • **1973-1994:** Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995,* Table VM-201A. • **1995 forward:** FHWA, *Highway Statistics,* annual, Table VM-1.

Table 1.10 Heating Degree-Days by Census Division

Census Divisions	April 1 through April 30					Cumulative July 1 through April 30				
				Percent Change					Percent Change	
	Normal[a]	2002	2003	Normal to 2003	2002 to 2003	Normal[a]	2002	2003	Normal to 2003	2002 to 2003
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	583	515	659	13	28	6,264	5,257	6,367	2	21
Middle Atlantic										
New Jersey, New York, Pennsylvania	496	434	530	7	22	5,655	4,564	5,890	4	29
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	510	453	470	-8	4	6,209	5,165	6,030	-3	17
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	472	449	429	-9	-4	6,493	5,522	6,225	-4	13
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	179	135	188	5	39	2,785	2,295	2,756	-1	20
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	216	158	180	-17	14	3,521	3,046	3,441	-2	13
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	94	65	83	([c])	([c])	2,269	2,068	2,239	-1	8
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	426	317	357	-16	13	4,894	4,430	4,238	-13	-4
Pacific[b]										
California, Oregon, Washington	298	237	317	6	34	2,970	2,733	2,367	-20	-13
U.S. Average[b]	**345**	**291**	**341**	**-1**	**17**	**4,326**	**3,677**	**4,168**	**-4**	**13**

[a] "Normal" is based on calculations of data from 1971 through 2000.
[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. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree days).

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

Sources: See end of section.

Table 1.11 Cooling Degree-Days by Census Division

Census Divisions	April 1 through April 30					Cumulative January 1 through April 30				
				Percent Change					Percent Change	
	Normal[a]	2002	2003	Normal to 2003	2002 to 2003	Normal[a]	2002	2003	Normal to 2003	2002 to 2003
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	8	0	(c)	(c)	0	8	0	(c)	(c)
Middle Atlantic										
New Jersey, New York, Pennsylvania	0	34	0	(c)	(c)	0	34	0	(c)	(c)
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	1	30	5	(c)	(c)	2	30	5	(c)	(c)
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	8	24	17	(c)	(c)	11	24	17	(c)	(c)
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	72	143	81	(c)	(c)	176	260	190	8	-27
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	34	89	48	(c)	(c)	64	118	62	(c)	(c)
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	109	189	133	22	-30	179	254	175	-2	-31
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	31	53	24	(c)	(c)	41	63	35	(c)	(c)
Pacific[b]										
California, Oregon, Washington	12	10	2	(c)	(c)	18	15	7	(c)	(c)
U.S. Average[b]	**31**	**68**	**35**	**(c)**	**(c)**	**60**	**98**	**61**	**(c)**	**(c)**

[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).

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

Sources: See end of section.

Energy Overview

Note 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 and photovoltaic energy; and electricity net 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 Section 10 for further information on renewable energy.

Note 2. Energy Consumption: Includes consumption of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels and coal coke net imports), nuclear electric power, pumped-storage hydroelectric power, renewable energy, and net imports of electricity. Renewable energy consumption includes: end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use and photovoltaic energy and 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 Section 10 for further information on renewable energy.

Note 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. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 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. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 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.

Table 1.5 Sources

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

Petroleum Exports
1974-1987: "U.S. Exports," FT410, December issues.
1988 and 1989: "Report on U.S. Merchandise Trade," Final Revisions.
1990-1992: "U.S. Merchandise Trade," Final Report.
1993-2001: "U.S. International Trade in Goods and Services," Annual Revision.
2002 and 2003: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum Imports
1974-1987: "U.S. Merchandise Trade," FT900, December issues, 1975-1988.
1989: "Report on U.S. Merchandise Trade," Final Revisions.
1990-1993: "U.S. Merchandise Trade," Final Report.
1994-2001: "U.S. International Trade in Goods and Services," Annual Revision.
2002 and 2003: "U.S. International Trade in Goods and Services," FT-900, monthly.

Energy Exports and Imports
1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: January-July, monthly FT-900 supplement, 1989 issues. August-December, monthly FT-900, 1989 issues.
1989: Monthly FT-900, 1990 issues.
1990-1992: "U.S. Merchandise Trade," Final Report.1993-2001: "U.S. International Trade in Goods and Services," Annual Revision.
2002 and 2003: "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.
1992-2001: "U.S. International Trade in Goods and Services," Annual Revision.
2002 and 2003: "U.S. International Trade in Goods and Services," FT-900, monthly.

Tables 1.10 and 1.11 Sources

There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate 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 February 2003 was 8.4 quadrillion Btu, 6 percent higher than in February 2002.

Residential sector total consumption was 2.2 quadrillion Btu in February 2003, 15 percent higher than the February 2002 level. The sector accounted for 26 percent of total energy consumption.

Commercial sector total consumption was 1.5 quadrillion Btu in February 2003, 5 percent higher than the February 2002 level. The sector accounted for 18 percent of total energy consumption.

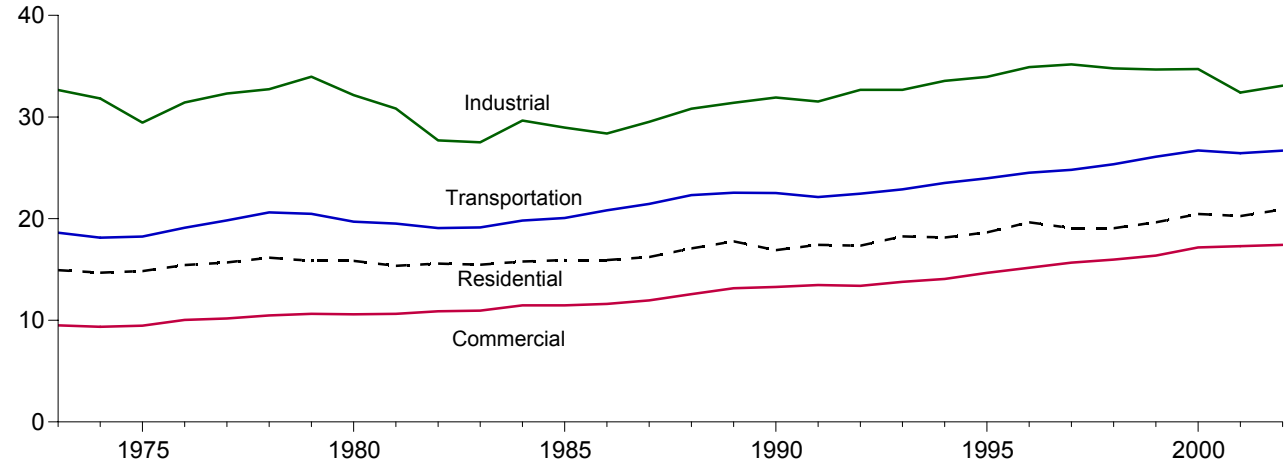
Industrial sector total consumption was 2.7 quadrillion Btu in February 2003, 3 percent higher than the February 2002 level. The sector accounted for 32 percent of total energy consumption.

Transportation sector total consumption was 2.0 quadrillion Btu in February 2003, 3 percent higher than the February 2002 level. The sector accounted for 24 percent of total energy consumption.

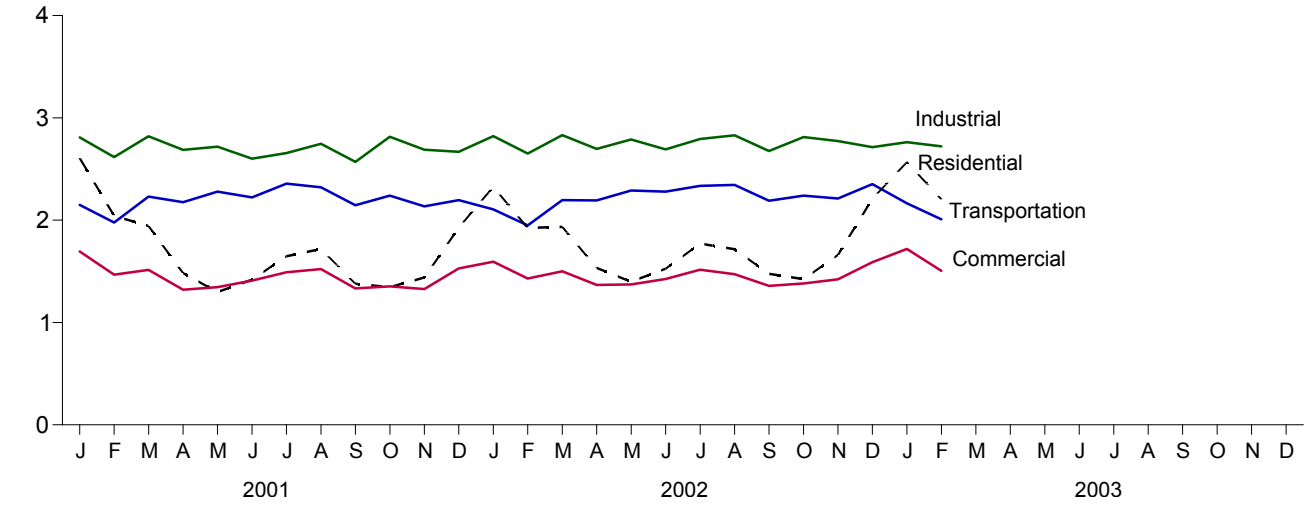
Electric power sector primary consumption was 2.9 quadrillion Btu in February 2003, 6 percent higher than the February 2002 level. Fossil fuels accounted for 68 percent of all primary energy consumed by the electric power sector; nuclear electric power 22 percent; and renewable energy 10 percent.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

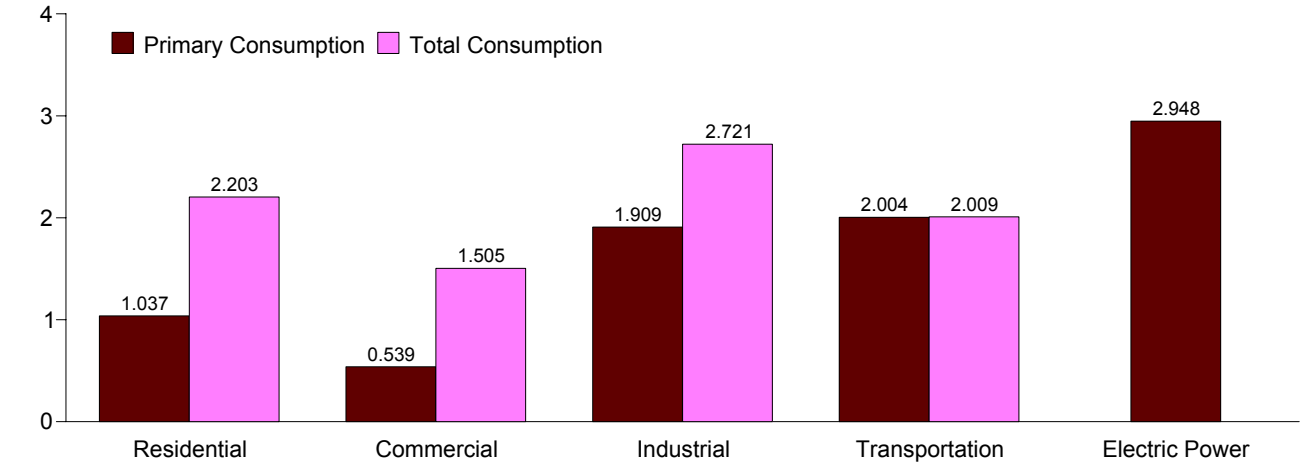
Total Consumption by End-Use Sector, 1973-2002



Total Consumption by End-Use Sector, Monthly



By Sector, February 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Source: Table 2.1.

Table 2.1 Energy Consumption by Sector

(Quadrillion Btu)

	End-Use Sectors								Electric Power Sector[c,d]	Adjustments[e]	Total[b]
	Residential		Commercial[a]		Industrial[b]		Transportation				
	Primary	Total	Primary	Total	Primary	Total	Primary	Total	Primary		
1973 Total	**8.250**	**14.930**	**4.381**	**9.507**	**24.741**	**32.653**	**18.576**	**18.612**	**19.753**	**0.007**	**75.708**
1974 Total	**7.928**	**14.683**	**4.221**	**9.363**	**23.816**	**31.819**	**18.086**	**18.119**	**19.933**	**.007**	**73.991**
1975 Total	**8.006**	**14.842**	**4.023**	**9.466**	**21.454**	**29.447**	**18.209**	**18.244**	**20.307**	**.001**	**71.999**
1976 Total	**8.408**	**15.441**	**4.333**	**10.035**	**22.685**	**31.429**	**19.065**	**19.099**	**21.513**	**.008**	**76.012**
1977 Total	**8.207**	**15.689**	**4.217**	**10.177**	**23.193**	**32.307**	**19.784**	**19.820**	**22.591**	**.007**	**78.000**
1978 Total	**8.272**	**16.156**	**4.269**	**10.481**	**23.277**	**32.733**	**20.580**	**20.615**	**23.587**	**.002**	**79.986**
1979 Total	**7.934**	**15.842**	**4.333**	**10.627**	**24.211**	**33.962**	**20.436**	**20.471**	**23.987**	**.002**	**80.903**
1980 Total	**7.504**	**15.848**	**4.097**	**10.594**	**22.673**	**32.152**	**19.658**	**19.696**	**24.359**	**-.001**	**78.289**
1981 Total	**7.103**	**15.353**	**3.831**	**10.638**	**21.404**	**30.836**	**19.469**	**19.506**	**24.525**	**.003**	**76.335**
1982 Total	**7.163**	**15.577**	**3.859**	**10.880**	**19.112**	**27.704**	**19.032**	**19.069**	**24.063**	**.004**	**73.234**
1983 Total	**6.834**	**15.459**	**3.827**	**10.952**	**18.598**	**27.511**	**19.098**	**19.141**	**24.705**	**.003**	**73.066**
1984 Total	**6.990**	**15.775**	**3.991**	**11.465**	**20.208**	**29.643**	**19.761**	**19.808**	**25.741**	**.003**	**76.693**
1985 Total	**6.988**	**15.925**	**3.712**	**11.468**	**19.540**	**28.958**	**20.023**	**20.070**	**26.158**	**-.004**	**76.417**
1986 Total	**6.807**	**15.922**	**3.652**	**11.605**	**19.133**	**28.375**	**20.768**	**20.817**	**26.359**	**.003**	**76.722**
1987 Total	**6.841**	**16.228**	**3.743**	**11.956**	**20.046**	**29.519**	**21.405**	**21.455**	**27.124**	**-.003**	**79.156**
1988 Total	**7.246**	**17.066**	**3.951**	**12.574**	**20.958**	**30.818**	**22.261**	**22.312**	**28.354**	**.003**	**82.774**
1989 Total	**7.492**	**R 17.771**	**3.955**	**R 13.159**	**20.888**	**R 31.396**	**22.497**	**22.551**	**Rd 30.044**	**R .009**	**R 84.886**
1990 Total	**6.457**	**R 16.896**	**3.813**	**R 13.284**	**21.235**	**R 31.918**	**22.472**	**22.526**	**R 30.647**	**R -.020**	**R 84.605**
1991 Total	**6.689**	**17.412**	**3.862**	**13.461**	**20.903**	**31.527**	**22.069**	**22.122**	**30.999**	**.001**	**84.522**
1992 Total	**6.882**	**17.338**	**3.899**	**13.396**	**21.806**	**32.673**	**22.406**	**22.459**	**30.873**	**(s)**	**85.866**
1993 Total	**7.121**	**18.248**	**3.893**	**13.789**	**21.738**	**32.668**	**22.830**	**22.883**	**32.006**	**-.010**	**87.578**
1994 Total	**6.949**	**18.135**	**3.930**	**14.058**	**22.376**	**33.557**	**23.448**	**23.503**	**32.551**	**-.006**	**89.248**
1995 Total	**7.022**	**18.653**	**4.032**	**14.665**	**22.643**	**33.941**	**23.905**	**23.960**	**33.616**	**.003**	**91.221**
1996 Total	**7.556**	**19.643**	**4.218**	**15.161**	**23.364**	**34.905**	**24.456**	**24.511**	**34.626**	**.004**	**94.224**
1997 Total	**7.088**	**19.067**	**4.248**	**15.679**	**23.608**	**35.168**	**24.753**	**24.808**	**35.024**	**.006**	**94.727**
1998 Total	**R 6.462**	**R 19.051**	**R 3.961**	**R 15.969**	**23.067**	**R 34.777**	**25.297**	**25.352**	**R 36.363**	**R -.003**	**R 95.146**
1999 Total	**6.810**	**19.634**	**4.001**	**16.365**	**22.826**	**34.679**	**26.033**	**26.090**	**37.097**	**.006**	**96.774**
2000 Total	**7.144**	**20.451**	**4.228**	**17.166**	**22.844**	**34.721**	**26.647**	**26.707**	**38.181**	**.002**	**99.047**
2001 January	1.233	R 2.606	.624	R 1.694	1.951	R 2.809	2.144	2.149	R 3.306	R .001	R 9.259
February	.990	R 2.042	.526	R 1.467	1.790	R 2.617	1.973	1.977	R 2.824	R -.003	R 8.100
March	.896	R 1.943	.476	R 1.514	1.920	R 2.821	2.227	2.231	R 2.990	R -.004	R 8.505
April	.577	R 1.484	.340	R 1.320	1.814	R 2.687	2.172	2.176	R 2.764	R -.004	R 7.663
May	.358	R 1.297	.232	R 1.345	1.766	R 2.719	2.273	2.279	R 3.010	R (s)	R 7.639
June	.293	R 1.420	.203	R 1.410	1.658	R 2.601	2.217	2.222	R 3.283	R .003	R 7.655
July	.279	R 1.648	.203	R 1.491	1.734	R 2.657	2.352	2.358	R 3.586	R .006	R 8.160
August	.273	R 1.719	.208	R 1.522	1.798	R 2.747	2.315	2.322	R 3.715	R .007	R 8.317
September	.276	R 1.378	.208	R 1.334	1.732	R 2.570	2.141	2.147	R 3.072	R .002	R 7.430
October	.406	R 1.345	.263	R 1.354	1.927	R 2.815	2.234	2.240	R 2.923	R (s)	R 7.753
November	.544	R 1.439	.313	R 1.327	1.831	R 2.689	2.130	2.135	R 2.773	R (s)	R 7.591
December	.825	R 1.927	.451	R 1.528	1.805	R 2.668	2.192	2.197	R 3.048	R .003	R 8.323
Total	**6.947**	**R 20.257**	**4.047**	**R 17.298**	**21.726**	**R 32.397**	**26.370**	**26.432**	**R 37.294**	**R .011**	**R 96.395**
2002 January	1.051	2.327	.550	R 1.594	R 1.974	2.822	2.101	2.106	R 3.172	R .001	R 8.849
February	.901	R 1.923	.492	R 1.431	1.831	R 2.651	1.945	1.949	R 2.784	R -.002	R 7.952
March	.860	R 1.935	.471	R 1.500	1.937	2.831	R 2.192	2.197	R 3.002	R -.001	R 8.462
April	.581	R 1.533	.347	R 1.368	R 1.806	2.697	2.188	2.193	R 2.867	R -.001	R 7.789
May	.407	R 1.399	.262	R 1.373	R 1.837	2.789	2.286	2.290	R 3.060	R .001	R 7.852
June	.305	R 1.526	.220	R 1.425	R 1.740	2.692	2.274	2.279	R 3.384	R .005	R 7.927
July	.273	R 1.771	.206	R 1.516	R 1.810	2.793	R 2.329	2.335	R 3.796	R .009	R 8.425
August	.259	R 1.716	.210	R 1.472	R 1.867	2.830	2.340	2.346	R 3.686	R .008	R 8.371
September	.265	R 1.476	.211	R 1.358	R 1.771	R 2.676	2.184	2.189	R 3.269	R .005	R 7.705
October	.414	1.423	.276	R 1.381	1.897	2.813	2.235	2.240	R 3.036	R (s)	R 7.858
November	.668	R 1.660	.389	R 1.422	1.873	R 2.774	2.208	2.212	R 2.930	R -.001	R 8.067
December	.987	R 2.209	.522	R 1.590	R 1.821	2.714	2.349	2.353	R 3.187	R .001	R 8.866
Total	**6.971**	**R 20.901**	**4.156**	**R 17.426**	**R 22.164**	**R 33.080**	**R 26.631**	**R 26.688**	**R 38.173**	**R .026**	**R 98.122**
2003 January	R 1.204	R 2.567	R .609	R 1.719	R 1.888	R 2.762	R 2.160	R 2.165	R 3.353	R .001	R 9.214
February	1.037	2.203	.539	1.505	1.909	2.721	2.004	2.009	F 2.948	-.003	8.435
2-Month Total	**2.241**	**4.771**	**1.148**	**3.224**	**3.797**	**5.484**	**4.164**	**4.173**	**E 6.301**	**-.002**	**17.649**
2002 2-Month Total	**1.952**	**4.250**	**1.042**	**3.025**	**3.805**	**5.472**	**4.046**	**4.055**	**5.956**	**-.001**	**16.801**
2001 2-Month Total	**2.223**	**4.649**	**1.150**	**3.161**	**3.741**	**5.425**	**4.116**	**4.126**	**6.130**	**-.002**	**17.358**

[a] Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7.

[b] Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of Section 7.

[c] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

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

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

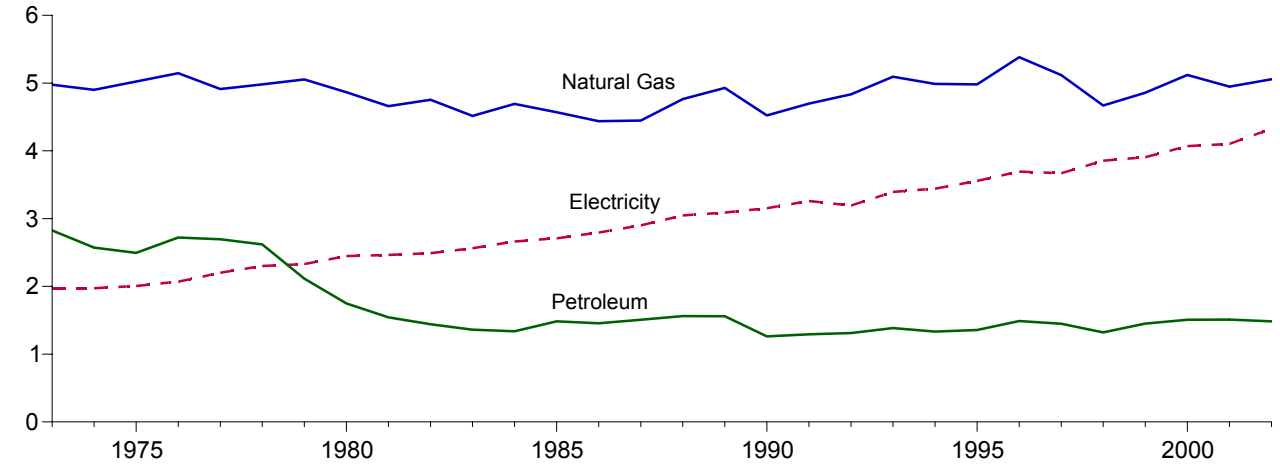
R=Revised. (s)=Less than 0.5 trillion Btu.

Notes: • Primary consumption includes coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, coal coke net imports, and electricity net imports. • Total consumption includes primary consumption, electricity retail sales, and electrical system energy losses. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

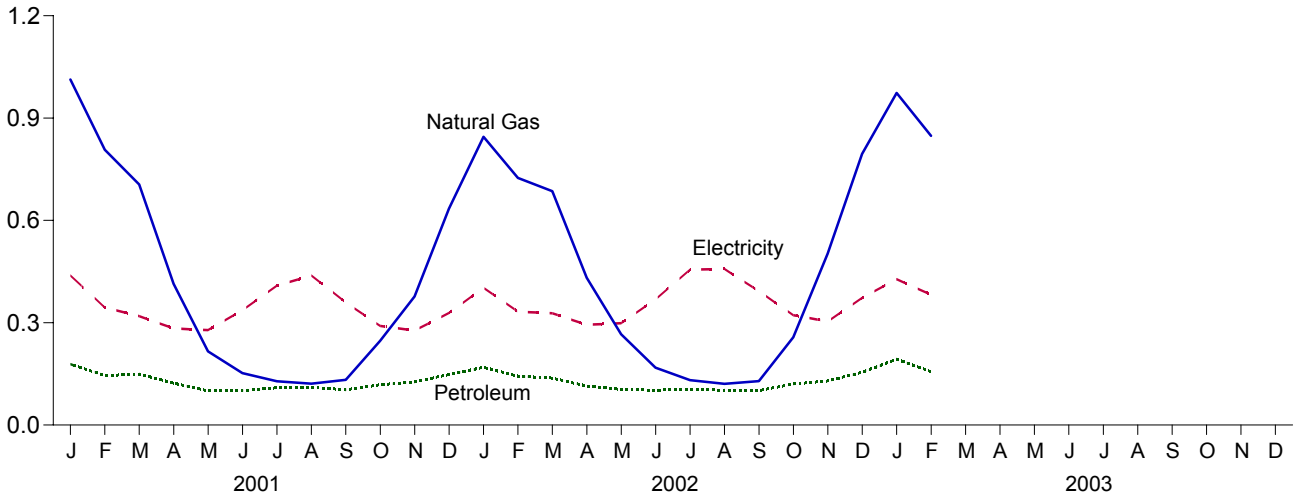
Energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Figure 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

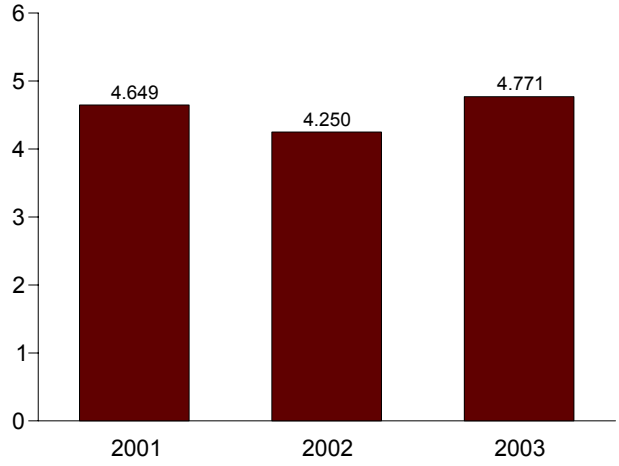
By Major Sources, 1973-2002



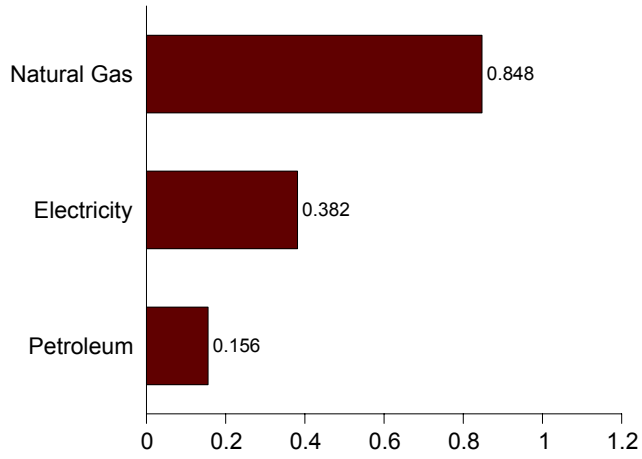
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Source: Table 2.2.

Table 2.2 Residential Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption											
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas[a]	Petroleum	Total	Wood	Geo-thermal[b]	Solar[c]	Total	Total Primary	Electricity Retail Sales[d]	Electrical System Energy Losses[e]	Total
1973 Total	**0.094**	**4.977**	**2.825**	**7.896**	**0.354**	**NA**	**NA**	**0.354**	**8.250**	**1.976**	**4.703**	**14.930**
1974 Total	**.082**	**4.901**	**2.573**	**7.557**	**.371**	**NA**	**NA**	**.371**	**7.928**	**1.973**	**4.783**	**14.683**
1975 Total	**.063**	**5.023**	**2.495**	**7.580**	**.425**	**NA**	**NA**	**.425**	**8.006**	**2.007**	**4.829**	**14.842**
1976 Total	**.059**	**5.147**	**2.720**	**7.927**	**.482**	**NA**	**NA**	**.482**	**8.408**	**2.069**	**4.963**	**15.441**
1977 Total	**.057**	**4.913**	**2.695**	**7.666**	**.542**	**NA**	**NA**	**.542**	**8.207**	**2.202**	**5.280**	**15.689**
1978 Total	**.049**	**4.981**	**2.620**	**7.651**	**.622**	**NA**	**NA**	**.622**	**8.272**	**2.301**	**5.582**	**16.156**
1979 Total	**.037**	**5.055**	**2.114**	**7.206**	**.728**	**NA**	**NA**	**.728**	**7.934**	**2.330**	**5.578**	**15.842**
1980 Total	**.031**	**4.866**	**1.748**	**6.645**	**.859**	**NA**	**NA**	**.859**	**7.504**	**2.448**	**5.897**	**15.848**
1981 Total	**.030**	**4.660**	**1.543**	**6.234**	**.869**	**NA**	**NA**	**.869**	**7.103**	**2.464**	**5.786**	**15.353**
1982 Total	**.032**	**4.753**	**1.441**	**6.226**	**.937**	**NA**	**NA**	**.937**	**7.163**	**2.489**	**5.925**	**15.577**
1983 Total	**.031**	**4.516**	**1.362**	**5.909**	**.925**	**NA**	**NA**	**.925**	**6.834**	**2.562**	**6.063**	**15.459**
1984 Total	**.038**	**4.692**	**1.337**	**6.067**	**.923**	**NA**	**NA**	**.923**	**6.990**	**2.662**	**6.123**	**15.775**
1985 Total	**.035**	**4.571**	**1.483**	**6.089**	**.899**	**NA**	**NA**	**.899**	**6.988**	**2.709**	**6.227**	**15.925**
1986 Total	**.035**	**4.439**	**1.457**	**5.931**	**.876**	**NA**	**NA**	**.876**	**6.807**	**2.795**	**6.320**	**15.922**
1987 Total	**.032**	**4.449**	**1.508**	**5.989**	**.852**	**NA**	**NA**	**.852**	**6.841**	**2.902**	**6.485**	**16.228**
1988 Total	**.034**	**4.765**	**1.563**	**6.361**	**.885**	**NA**	**NA**	**.885**	**7.246**	**3.046**	**6.774**	**17.066**
1989 Total	**.028**	**4.929**	**1.560**	**6.517**	**.918**	**.005**	**.053**	**.976**	**7.492**	**3.090**	R **7.189**	R **17.771**
1990 Total	**.028**	**4.523**	**1.263**	**5.814**	**.581**	**.006**	**.056**	**.642**	**6.457**	**3.153**	R **7.287**	R **16.896**
1991 Total	**.023**	**4.697**	**1.293**	**6.012**	**.613**	**.006**	**.058**	**.677**	**6.689**	**3.260**	**7.463**	**17.412**
1992 Total	**.024**	**4.835**	**1.311**	**6.170**	**.645**	**.006**	**.060**	**.711**	**6.882**	**3.193**	**7.263**	**17.338**
1993 Total	**.024**	**5.095**	**1.385**	**6.504**	**.548**	**.007**	**.062**	**.616**	**7.121**	**3.394**	**7.733**	**18.248**
1994 Total	**.021**	**4.988**	**1.333**	**6.342**	**.537**	**.006**	**.064**	**.607**	**6.949**	**3.441**	**7.746**	**18.135**
1995 Total	**.017**	**4.981**	**1.356**	**6.355**	**.596**	**.007**	**.065**	**.667**	**7.022**	**3.557**	**8.073**	**18.653**
1996 Total	**.017**	**5.383**	**1.489**	**6.888**	**.595**	**.007**	R **.065**	**.667**	**7.556**	**3.694**	**8.393**	**19.643**
1997 Total	**.016**	**5.118**	**1.448**	**6.582**	**.433**	**.008**	**.065**	**.506**	**7.088**	**3.671**	**8.308**	**19.067**
1998 Total	**.012**	**4.669**	**1.322**	**6.003**	**.387**	**.008**	**.065**	**.459**	R **6.462**	**3.856**	R **8.733**	R **19.051**
1999 Total	**.014**	**4.858**	**1.452**	**6.324**	**.414**	**.009**	**.064**	**.486**	**6.810**	**3.906**	**8.917**	**19.634**
2000 Total	**.011**	**5.121**	**1.508**	**6.641**	**.433**	**.009**	R **.061**	**.503**	**7.144**	**4.069**	**9.238**	**20.451**
2001 January	.001	1.013	.178	1.193	.035	.001	.005	.040	1.233	.438	R .935	R 2.606
February	.001	.807	.145	.953	.031	.001	.005	.037	.990	.345	R .708	R 2.042
March	.001	.705	.149	.856	.035	.001	.005	.040	.896	.319	R .727	R 1.943
April	.001	.414	.123	.538	.033	.001	.005	.039	.577	.283	R .624	R 1.484
May	.001	.216	.100	.317	.035	.001	.005	.040	.358	.278	R .661	R 1.297
June	.001	.152	.101	.254	.033	.001	.005	.039	.293	.337	R .790	R 1.420
July	.001	.128	.109	.238	.035	.001	.005	.040	.279	.409	R .960	R 1.648
August	.001	.121	.110	.232	.035	.001	.005	.040	.273	.438	R 1.008	R 1.719
September	.001	.132	.104	.237	.033	.001	.005	.039	.276	.360	R .743	R 1.378
October	.001	.247	.118	.366	.035	.001	.005	.040	.406	.291	R .648	R 1.345
November	.001	.377	.126	.504	.033	.001	.005	.039	.544	.277	R .618	R 1.439
December	.002	.634	.148	.784	.035	.001	.005	.040	.825	.329	R .774	R 1.927
Total	**.012**	**4.948**	**1.511**	**6.471**	**.407**	**.009**	**.060**	**.476**	**6.947**	**4.103**	R **9.206**	R **20.257**
2002 January	.001	.845	.169	1.015	.030	.001	.005	.036	1.051	.402	R .873	2.327
February	.001	.725	.143	.869	.027	.001	.004	.032	.901	.332	R .690	R 1.923
March	.001	.686	.138	.824	.030	.001	.005	.036	.860	.328	.747	R 1.935
April	.001	.432	.114	.547	.029	.001	.005	.034	.581	.294	R .658	R 1.533
May	.001	.266	.104	.371	.030	.001	.005	.036	.407	.299	R .693	R 1.399
June	.001	.168	.102	.271	.029	.001	.005	.034	.305	.368	R .852	R 1.526
July	.001	.132	.105	.238	.030	.001	.005	.036	.273	.456	R 1.043	R 1.771
August	.001	.121	.102	.224	.030	.001	.005	.036	.259	.457	R .999	R 1.716
September	.001	.129	.101	.230	.029	.001	.005	.034	.265	.393	R .819	R 1.476
October	.001	.257	.120	.379	.030	.001	.005	.036	.414	.322	.687	1.423
November	.001	.503	.129	.633	.029	.001	.005	.034	.668	.304	R .689	R 1.660
December	.002	.795	.155	.951	.030	.001	.005	.036	.987	.373	R .850	R 2.209
Total	**.012**	**5.058**	**1.483**	R **6.552**	**.350**	**.010**	**.058**	**.419**	**6.971**	**4.327**	R **9.603**	R **20.901**
2003 January	.001	R .973	.193	R 1.168	.030	.001	.005	.036	R 1.204	.428	R .936	R 2.567
February	.001	F .848	.156	1.005	.027	.001	.004	.032	1.037	.382	.784	2.203
2-Month Total	**.003**	E **1.821**	**.349**	**2.173**	**.057**	**.002**	**.009**	**.068**	**2.241**	**.810**	**1.720**	**4.771**
2002 2-Month Total	**.002**	**1.570**	**.312**	**1.885**	**.057**	**.002**	**.009**	**.068**	**1.952**	**.734**	**1.563**	**4.250**
2001 2-Month Total	**.003**	**1.820**	**.324**	**2.146**	**.066**	**.002**	**.010**	**.077**	**2.223**	**.783**	**1.643**	**4.649**

[a] Includes supplemental gaseous fuels.
[b] Geothermal heat pump and direct use energy.
[c] Solar thermal direct use and photovoltaic electricity generation. Includes small amounts of commercial sector use.
[d] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[e] See Note 12 at end of section.

R=Revised. E=Estimate. 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.

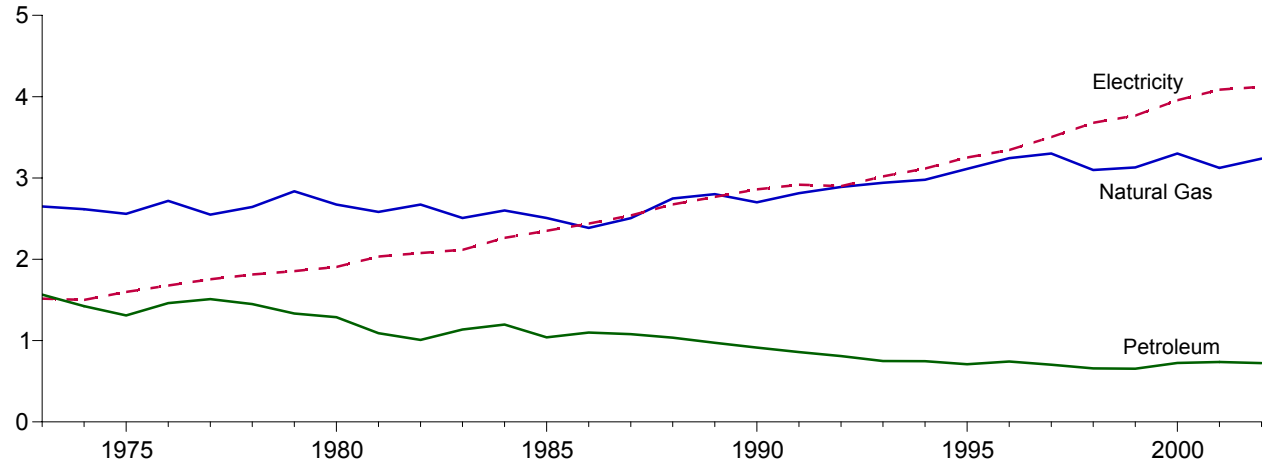
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

Additional Notes and Sources: See end of section.

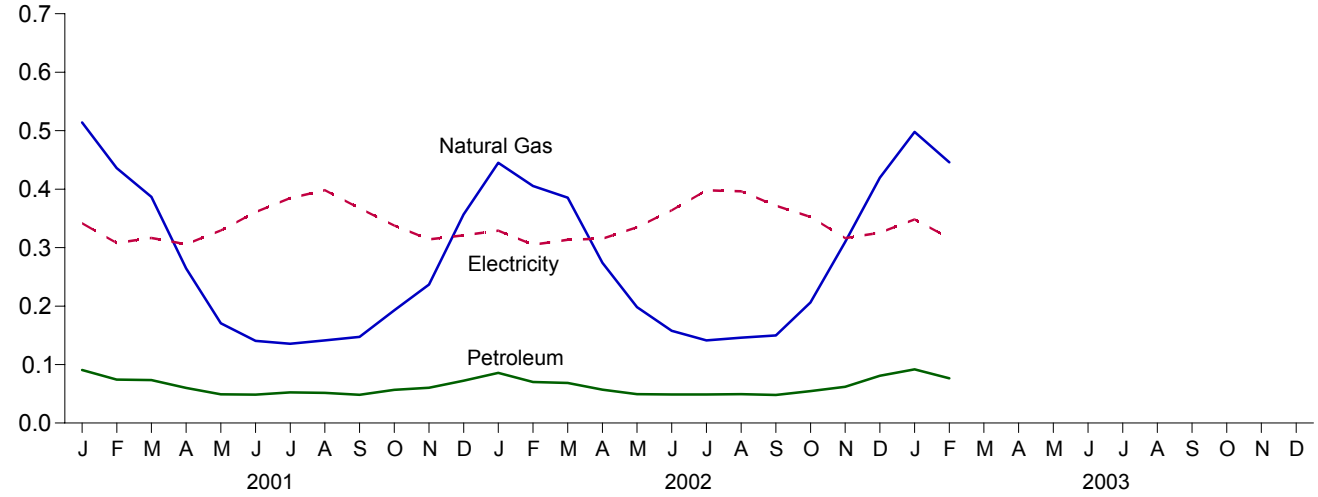
Several components of the energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

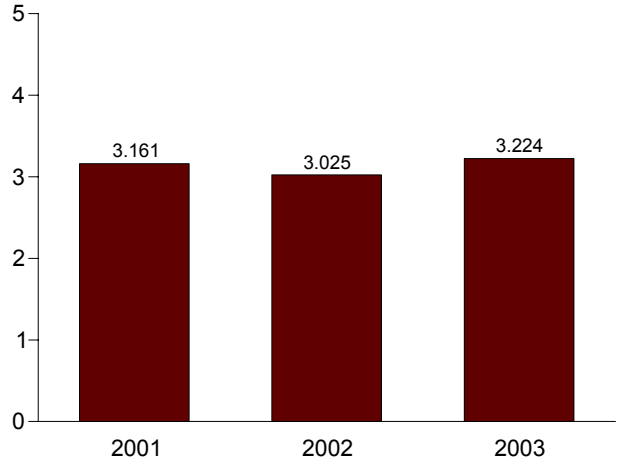
By Major Sources, 1973-2002



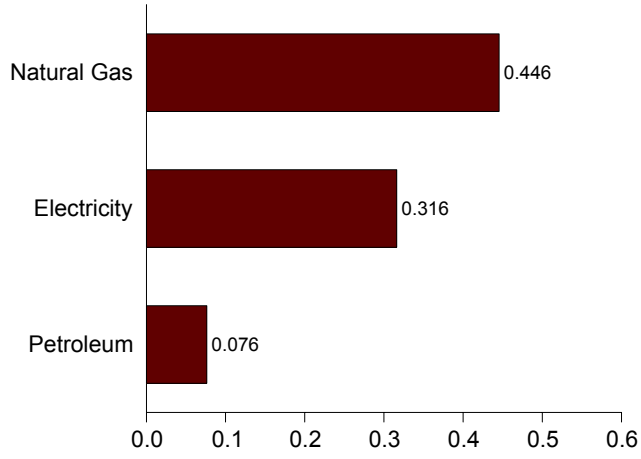
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption											
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas[a]	Petroleum	Total	Hydro-power[b]	Wood and Waste	Geo-thermal[c]	Total	Total Primary	Electricity Retail Sales[d]	Electrical System Energy Losses[e]	Total
1973 Total	**0.160**	**2.649**	**1.565**	**4.374**	**NA**	**0.007**	**NA**	**0.007**	**4.381**	**1.517**	**3.609**	**9.507**
1974 Total	**.175**	**2.617**	**1.423**	**4.214**	**NA**	**.007**	**NA**	**.007**	**4.221**	**1.501**	**3.640**	**9.363**
1975 Total	**.147**	**2.558**	**1.310**	**4.015**	**NA**	**.008**	**NA**	**.008**	**4.023**	**1.598**	**3.845**	**9.466**
1976 Total	**.144**	**2.718**	**1.461**	**4.324**	**NA**	**.009**	**NA**	**.009**	**4.333**	**1.678**	**4.025**	**10.035**
1977 Total	**.148**	**2.548**	**1.511**	**4.207**	**NA**	**.010**	**NA**	**.010**	**4.217**	**1.754**	**4.206**	**10.177**
1978 Total	**.165**	**2.643**	**1.450**	**4.257**	**NA**	**.012**	**NA**	**.012**	**4.269**	**1.813**	**4.398**	**10.481**
1979 Total	**.149**	**2.836**	**1.334**	**4.319**	**NA**	**.014**	**NA**	**.014**	**4.333**	**1.854**	**4.439**	**10.627**
1980 Total	**.115**	**2.674**	**1.288**	**4.076**	**NA**	**.021**	**NA**	**.021**	**4.097**	**1.906**	**4.591**	**10.594**
1981 Total	**.137**	**2.583**	**1.090**	**3.810**	**NA**	**.021**	**NA**	**.021**	**3.831**	**2.033**	**4.774**	**10.638**
1982 Total	**.155**	**2.673**	**1.008**	**3.837**	**NA**	**.022**	**NA**	**.022**	**3.859**	**2.077**	**4.944**	**10.880**
1983 Total	**.162**	**2.508**	**1.136**	**3.805**	**NA**	**.022**	**NA**	**.022**	**3.827**	**2.116**	**5.008**	**10.952**
1984 Total	**.171**	**2.600**	**1.198**	**3.969**	**NA**	**.022**	**NA**	**.022**	**3.991**	**2.264**	**5.209**	**11.465**
1985 Total	**.141**	**2.508**	**1.039**	**3.688**	**NA**	**.024**	**NA**	**.024**	**3.712**	**2.351**	**5.405**	**11.468**
1986 Total	**.141**	**2.386**	**1.099**	**3.625**	**NA**	**.027**	**NA**	**.027**	**3.652**	**2.439**	**5.515**	**11.605**
1987 Total	**.129**	**2.505**	**1.079**	**3.714**	**NA**	**.029**	**NA**	**.029**	**3.743**	**2.539**	**5.674**	**11.956**
1988 Total	**.134**	**2.748**	**1.037**	**3.919**	**NA**	**.032**	**NA**	**.032**	**3.951**	**2.675**	**5.948**	**12.574**
1989 Total	**.118**	**2.802**	**.973**	**3.893**	**.001**	**.058**	**.003**	**.061**	**3.955**	**2.767**	**R 6.437**	**R 13.159**
1990 Total	**.128**	**2.701**	**.913**	**3.742**	**.001**	**.067**	**.003**	**.071**	**3.813**	**2.860**	**R 6.611**	**R 13.284**
1991 Total	**.118**	**2.813**	**.859**	**3.791**	**.001**	**.068**	**.003**	**.072**	**3.862**	**2.918**	**6.681**	**13.461**
1992 Total	**.118**	**2.890**	**.811**	**3.818**	**.001**	**.076**	**.003**	**.081**	**3.899**	**2.900**	**6.596**	**13.396**
1993 Total	**.119**	**2.942**	**.749**	**3.810**	**.001**	**.079**	**.003**	**.084**	**3.893**	**3.019**	**6.877**	**13.789**
1994 Total	**.118**	**2.979**	**.747**	**3.844**	**.001**	**.081**	**.004**	**.086**	**3.930**	**3.116**	**7.013**	**14.058**
1995 Total	**.117**	**3.113**	**.710**	**3.940**	**.001**	**.086**	**.005**	**.092**	**4.032**	**3.252**	**7.381**	**14.665**
1996 Total	**.122**	**3.244**	**.742**	**4.108**	**.001**	**.103**	**.005**	**.110**	**4.218**	**3.344**	**7.599**	**15.161**
1997 Total	**.129**	**3.302**	**.703**	**4.134**	**.001**	**.107**	**.006**	**.113**	**4.248**	**3.503**	**7.928**	**15.679**
1998 Total	**R .093**	**3.098**	**.658**	**R 3.850**	**.001**	**.102**	**.007**	**.111**	**R 3.961**	**3.678**	**R 8.330**	**R 15.969**
1999 Total	**.103**	**3.130**	**.655**	**3.887**	**.001**	**.106**	**.007**	**.114**	**4.001**	**3.766**	**8.597**	**16.365**
2000 Total	**.092**	**3.301**	**.726**	**4.119**	**.001**	**.100**	**.008**	**.109**	**4.228**	**3.956**	**8.982**	**17.166**
2001 January	.012	.514	.091	.616	(s)	.007	.001	.007	.624	.342	R .729	R 1.694
February	.009	.436	.074	.519	(s)	.006	.001	.007	.526	.308	R .633	R 1.467
March	.008	.387	.073	.469	(s)	.007	.001	.007	.476	.317	R .721	R 1.514
April	.008	.264	.060	.333	(s)	.007	.001	.007	.340	.306	R .674	R 1.320
May	.005	.171	.049	.225	(s)	.007	.001	.008	.232	.329	R .783	R 1.345
June	.006	.141	.049	.195	(s)	.007	.001	.008	.203	.361	R .846	R 1.410
July	.007	.136	.052	.195	(s)	.007	.001	.008	.203	.385	R .903	R 1.491
August	.007	.141	.052	.200	(s)	.007	.001	.008	.208	.398	R .916	R 1.522
September	.005	.147	.048	.200	(s)	.007	.001	.007	.208	.367	R .759	R 1.334
October	.006	.193	.057	.256	(s)	.007	.001	.007	.263	.338	R .753	R 1.354
November	.008	.237	.060	.306	(s)	.006	.001	.007	.313	.314	R .701	R 1.327
December	.014	.357	.072	.443	(s)	.007	.001	.008	.451	.321	R .756	R 1.528
Total	**.097**	**3.123**	**.737**	**3.957**	**.001**	**.081**	**.008**	**.090**	**4.047**	**4.085**	**R 9.166**	**R 17.298**
2002 January	.011	.445	.086	.542	(s)	.007	.001	.008	.550	R .329	R .715	R 1.594
February	.009	.405	.070	.485	(s)	.007	.001	.007	.492	R .305	R .633	R 1.431
March	.009	.385	.069	.463	(s)	.007	.001	.008	.471	R .314	R .715	R 1.500
April	.008	.274	.057	.339	(s)	.007	.001	.008	.347	R .315	R .705	R 1.368
May	.006	.198	.049	.253	(s)	.007	.001	.008	.262	R .335	R .776	R 1.373
June	.005	.158	.049	.212	(s)	.007	.001	.008	.220	R .364	R .842	R 1.425
July	.008	.141	.049	.198	(s)	.008	.001	.008	.206	R .398	R .911	R 1.516
August	.007	.146	.049	.202	(s)	.007	.001	.008	.210	R .396	R .865	R 1.472
September	.005	.150	.048	.203	(s)	.007	.001	.008	.211	R .372	R .775	R 1.358
October	.006	.206	.055	.267	(s)	.008	.001	.009	.276	R .353	R .753	R 1.381
November	.010	.310	.062	.381	(s)	.007	.001	.008	.389	R .316	R .717	R 1.422
December	.013	.420	.081	.513	(s)	R .008	.001	.008	.522	R .326	R .742	R 1.590
Total	**.097**	**3.238**	**.724**	**4.059**	**.001**	**.088**	**.009**	**R .097**	**4.156**	**R 4.122**	**R 9.148**	**R 17.426**
2003 January	.012	R .498	.092	R .602	(s)	.007	.001	R .007	R .609	R .348	R .762	R 1.719
February	.009	F .446	.076	.532	(s)	.007	.001	.008	.539	.316	.649	1.505
2-Month Total	**.021**	**E .944**	**.168**	**1.133**	**(s)**	**.014**	**.001**	**.015**	**1.148**	**.665**	**1.411**	**3.224**
2002 2-Month Total	**.020**	**.850**	**.156**	**1.027**	**(s)**	**.014**	**.001**	**.016**	**1.042**	**.634**	**1.348**	**3.025**
2001 2-Month Total	**.021**	**.950**	**.165**	**1.136**	**(s)**	**.013**	**.001**	**.014**	**1.150**	**.650**	**1.361**	**3.161**

[a] Includes supplemental gaseous fuels.
[b] Conventional hydroelectric power.
[c] Geothermal heat pump and direct use energy.
[d] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[e] See Note 12 at end of section.

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

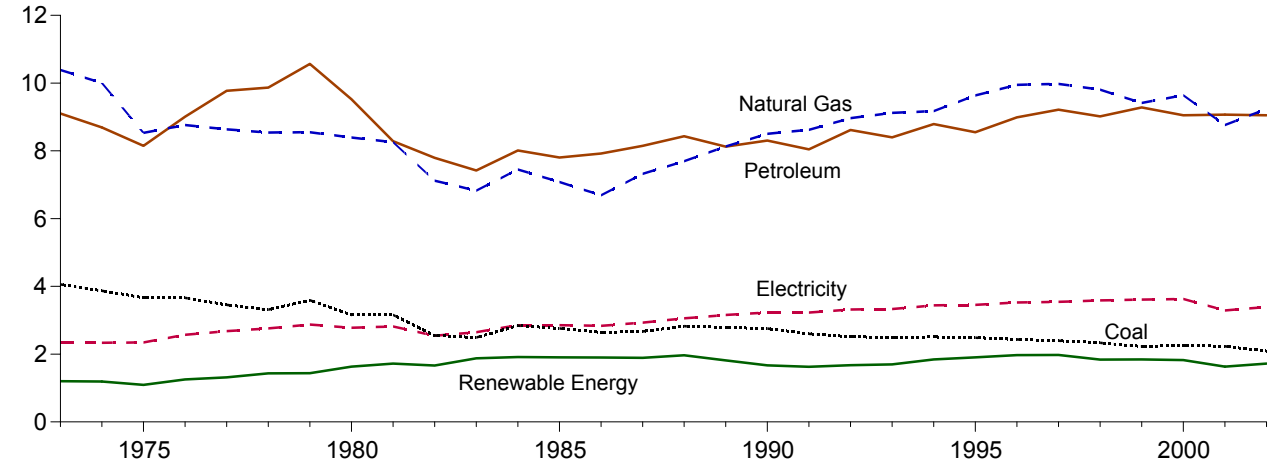
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

Additional Notes and Sources: See end of section.

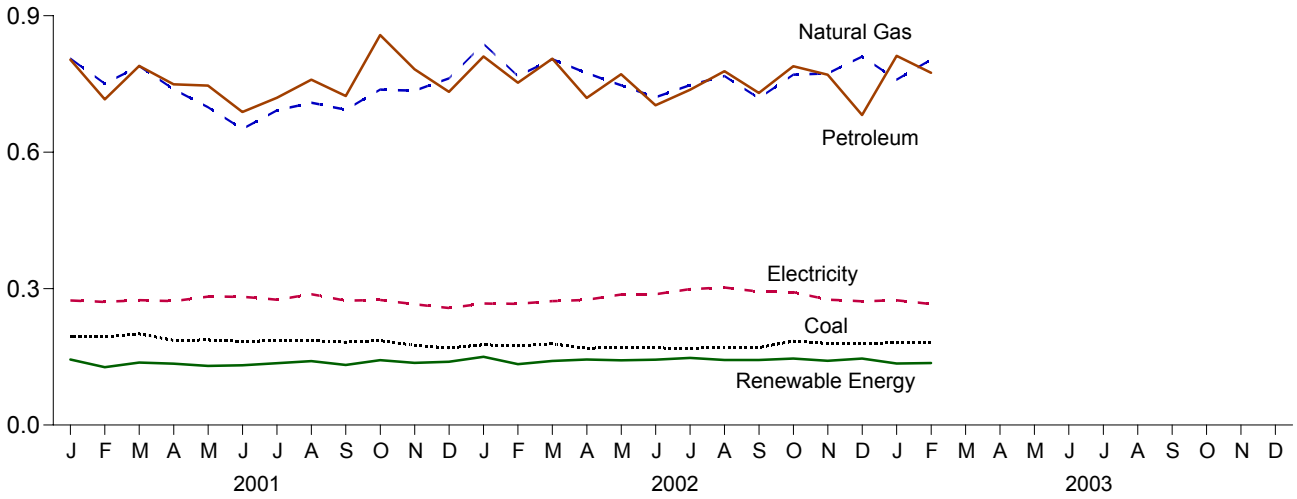
Several components of the energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Figure 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

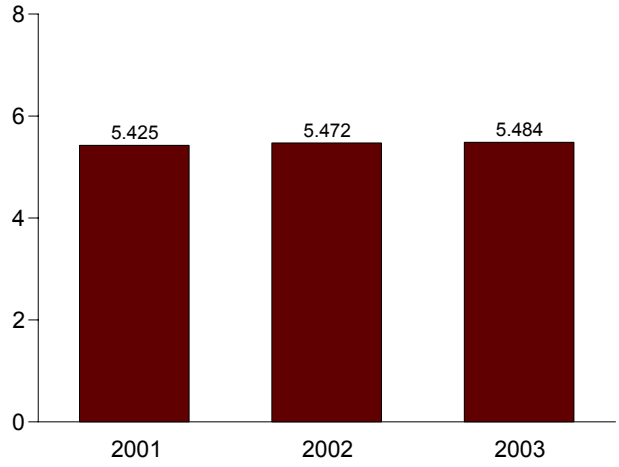
By Major Sources, 1973-2002



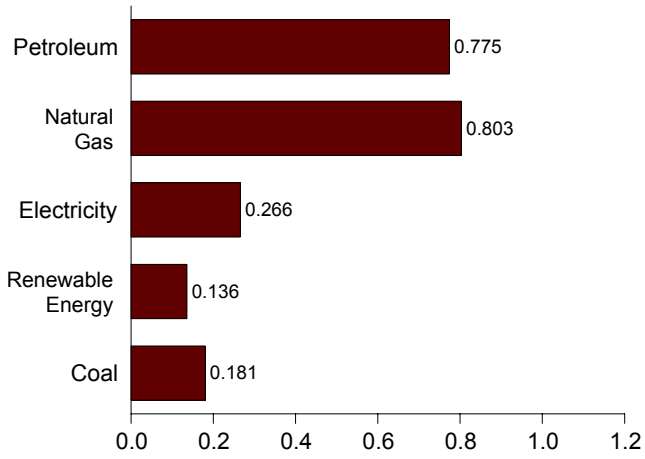
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Source: Table 2.4.

Table 2.4 Industrial Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption											
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas[a]	Petroleum	Total[b]	Hydro-power[c]	Wood[d] and Waste[e]	Geo-thermal[f]	Total	Total Primary	Electricity Retail Sales[g]	Electrical System Energy Losses[h]	Total[b]
1973 Total	**4.057**	**10.388**	**9.104**	**23.541**	**0.035**	**1.165**	**NA**	**1.200**	**24.741**	**2.341**	**5.571**	**32.653**
1974 Total	**3.870**	**10.004**	**8.694**	**22.624**	**.033**	**1.159**	**NA**	**1.192**	**23.816**	**2.337**	**5.666**	**31.819**
1975 Total	**3.667**	**8.532**	**8.146**	**20.359**	**.032**	**1.063**	**NA**	**1.096**	**21.454**	**2.346**	**5.647**	**29.447**
1976 Total	**3.661**	**8.762**	**9.010**	**21.432**	**.033**	**1.220**	**NA**	**1.253**	**22.685**	**2.573**	**6.171**	**31.429**
1977 Total	**3.454**	**8.635**	**9.774**	**21.879**	**.033**	**1.281**	**NA**	**1.314**	**23.193**	**2.682**	**6.432**	**32.307**
1978 Total	**3.314**	**8.539**	**9.867**	**21.845**	**.032**	**1.400**	**NA**	**1.432**	**23.277**	**2.761**	**6.696**	**32.733**
1979 Total	**3.593**	**8.549**	**10.568**	**22.773**	**.034**	**1.405**	**NA**	**1.439**	**24.211**	**2.873**	**6.878**	**33.962**
1980 Total	**3.155**	**8.395**	**9.525**	**21.040**	**.033**	**1.600**	**NA**	**1.633**	**22.673**	**2.781**	**6.698**	**32.152**
1981 Total	**3.157**	**8.257**	**8.285**	**19.682**	**.033**	**1.689**	**NA**	**1.722**	**21.404**	**2.817**	**6.615**	**30.836**
1982 Total	**2.552**	**7.121**	**7.794**	**17.446**	**.033**	**1.634**	**NA**	**1.667**	**19.112**	**2.542**	**6.050**	**27.704**
1983 Total	**2.490**	**6.826**	**7.420**	**16.720**	**.033**	**1.845**	**NA**	**1.879**	**18.598**	**2.648**	**6.265**	**27.511**
1984 Total	**2.842**	**7.448**	**8.014**	**18.292**	**.033**	**1.883**	**NA**	**1.916**	**20.208**	**2.859**	**6.576**	**29.643**
1985 Total	**2.760**	**7.080**	**7.805**	**17.632**	**.033**	**1.875**	**NA**	**1.908**	**19.540**	**2.855**	**6.563**	**28.958**
1986 Total	**2.641**	**6.690**	**7.920**	**17.234**	**.033**	**1.866**	**NA**	**1.899**	**19.133**	**2.834**	**6.408**	**28.375**
1987 Total	**2.673**	**7.323**	**8.151**	**18.155**	**.033**	**1.858**	**NA**	**1.891**	**20.046**	**2.928**	**6.545**	**29.519**
1988 Total	**2.828**	**7.696**	**8.430**	**18.993**	**.033**	**1.933**	**NA**	**1.965**	**20.958**	**3.059**	**6.801**	**30.818**
1989 Total	**2.787**	**8.131**	**8.126**	**19.074**	**.028**	**1.784**	**.002**	**1.814**	**20.888**	**3.158**	**R 7.349**	**R 31.396**
1990 Total	**2.756**	**8.502**	**8.305**	**19.568**	**.031**	**1.634**	**.002**	**1.667**	**21.235**	**3.226**	**R 7.457**	**R 31.918**
1991 Total	**2.601**	**8.619**	**8.047**	**19.277**	**.030**	**1.595**	**.002**	**1.626**	**20.903**	**3.230**	**7.394**	**31.527**
1992 Total	**2.515**	**8.967**	**8.617**	**20.133**	**.031**	**1.640**	**.002**	**1.672**	**21.806**	**3.319**	**7.548**	**32.673**
1993 Total	**2.496**	**9.120**	**8.399**	**20.042**	**.030**	**1.664**	**.002**	**1.696**	**21.738**	**3.334**	**7.596**	**32.668**
1994 Total	**2.510**	**9.172**	**8.792**	**20.532**	**.062**	**1.779**	**.003**	**1.844**	**22.376**	**3.439**	**7.742**	**33.557**
1995 Total	**2.488**	**9.637**	**8.552**	**20.739**	**.055**	**1.847**	**.003**	**1.905**	**22.643**	**3.455**	**7.842**	**33.941**
1996 Total	**2.434**	**9.947**	**8.989**	**21.393**	**.061**	**1.907**	**.003**	**1.971**	**23.364**	**3.527**	**8.014**	**34.905**
1997 Total	**2.395**	**9.976**	**9.215**	**21.632**	**.058**	**1.915**	**.003**	**1.976**	**23.608**	**3.542**	**8.017**	**35.168**
1998 Total	**2.335**	**9.806**	**9.017**	**21.226**	**.055**	**1.784**	**.003**	**1.841**	**23.067**	**3.587**	**8.124**	**R 34.777**
1999 Total	**2.227**	**9.415**	**9.284**	**20.983**	**.049**	**1.791**	**.004**	**1.843**	**22.826**	**3.611**	**8.242**	**34.679**
2000 Total	**2.256**	**9.642**	**9.053**	**21.017**	**.042**	**1.781**	**.004**	**1.828**	**22.844**	**3.631**	**8.245**	**34.721**
2001 January	.194	.806	.803	1.807	.002	.141	(s)	.144	1.951	.274	R .584	R 2.809
February	.194	.751	.716	1.663	.002	.124	(s)	.127	1.790	.271	R .556	R 2.617
March	.201	.789	.790	1.782	.003	.134	(s)	.137	1.920	.275	R .626	R 2.821
April	.186	.738	.749	1.679	.003	.132	(s)	.135	1.814	.272	R .600	R 2.687
May	.187	.699	.746	1.636	.003	.127	(s)	.130	1.766	.282	R .671	R 2.719
June	.184	.651	.688	1.526	.003	.128	(s)	.132	1.658	.282	R .661	R 2.601
July	.185	.692	.720	1.598	.002	.133	(s)	.136	1.734	.276	R .647	R 2.657
August	.186	.709	.760	1.658	.003	.137	(s)	.141	1.798	.287	R .661	R 2.747
September	.182	.693	.723	1.600	.002	.129	(s)	.132	1.732	.273	R .565	R 2.570
October	.185	.738	.857	1.784	.002	.140	(s)	.143	1.927	.275	R .613	R 2.815
November	.175	.735	.782	1.695	.002	.134	(s)	.137	1.831	.265	R .592	R 2.689
December	.170	.762	.733	1.666	.003	.136	(s)	.139	1.805	.257	R .606	R 2.668
Total	**2.230**	**8.763**	**9.069**	**20.093**	**.032**	**1.596**	**.005**	**1.633**	**21.726**	**3.290**	**R 7.381**	**R 32.397**
2002 January	.176	.838	.811	1.824	.003	.147	(s)	.150	R 1.974	.267	.580	2.822
February	.174	.767	.753	1.697	.003	R .130	(s)	.134	1.831	.267	R .553	R 2.651
March	.178	.804	.805	1.796	.003	R .137	(s)	.141	1.937	R .272	.621	2.831
April	.169	.774	.719	R 1.662	.004	.140	(s)	.144	R 1.806	.275	R .616	2.697
May	.171	.747	.772	R 1.694	.004	.138	(s)	R .142	R 1.837	.287	.665	2.789
June	.169	.721	R .703	R 1.596	.003	.140	(s)	.144	R 1.740	.288	R .665	2.692
July	.169	.747	R .737	1.663	.003	.145	(s)	.148	R 1.810	.299	R .684	2.793
August	.171	.768	R .778	R 1.724	.002	R .140	(s)	.143	R 1.867	R .303	R .660	2.830
September	.171	.719	R .730	R 1.628	.002	.141	(s)	.143	R 1.771	.293	R .612	R 2.676
October	.185	.771	R .789	R 1.750	.003	.142	(s)	.146	1.897	.292	R .624	2.813
November	.180	.773	R .770	R 1.732	.005	R .136	(s)	R .141	1.873	.276	R .625	R 2.774
December	.180	.810	R .682	R 1.675	.006	R .140	(s)	R .146	R 1.821	.272	R .621	2.714
Total	**2.092**	**9.239**	**R 9.049**	**R 20.442**	**.041**	**1.677**	**.005**	**1.722**	**R 22.164**	**3.391**	**R 7.525**	**R 33.080**
2003 January	.181	R .759	R .812	R 1.753	R .004	R .131	(s)	R .135	R 1.888	R .274	R .600	R 2.762
February	.181	F .803	.775	1.773	.003	.133	(s)	.136	1.909	.266	.546	2.721
2-Month Total	**.362**	**E 1.563**	**1.587**	**3.525**	**.008**	**.263**	**.001**	**.272**	**3.797**	**.540**	**1.146**	**5.484**
2002 2-Month Total	**.350**	**1.605**	**1.563**	**3.521**	**.006**	**.277**	**.001**	**.284**	**3.805**	**.534**	**1.134**	**5.472**
2001 2-Month Total	**.388**	**1.557**	**1.520**	**3.470**	**.005**	**.266**	**.001**	**.271**	**3.741**	**.545**	**1.140**	**5.425**

[a] Includes supplemental gaseous fuels.
[b] Includes coal coke net imports, which are not separately displayed. See Table 1.4.
[c] Conventional hydroelectric power.
[d] Wood, black liquor, and other wood waste.
[e] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[f] Geothermal heat pump and direct use energy.
[g] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[h] See Note 12 at end of section.

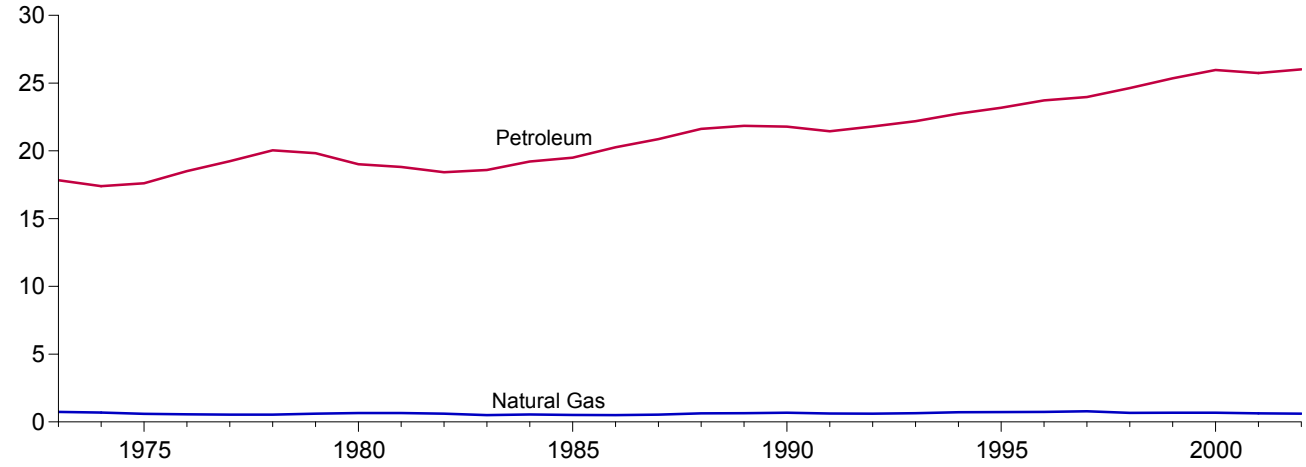
R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 trillion Btu.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Additional Notes and Sources: See end of section.

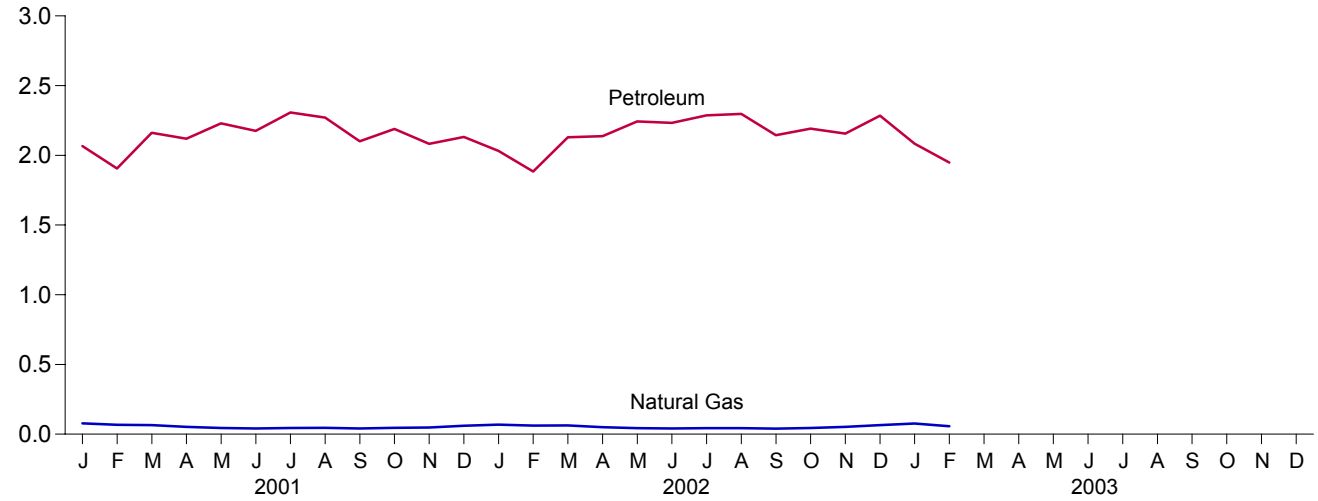
Several components of the energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

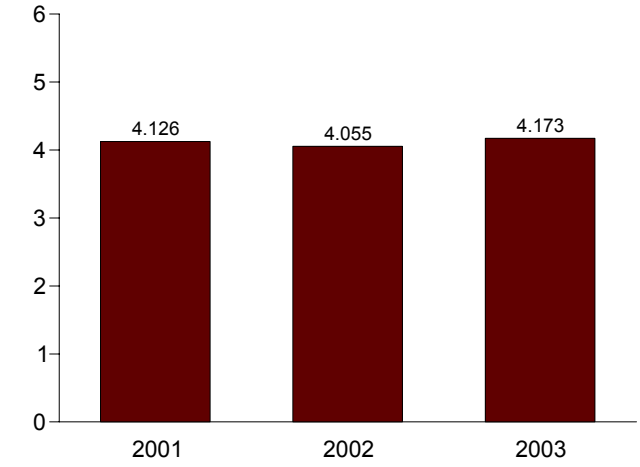
By Major Sources, 1973-2002



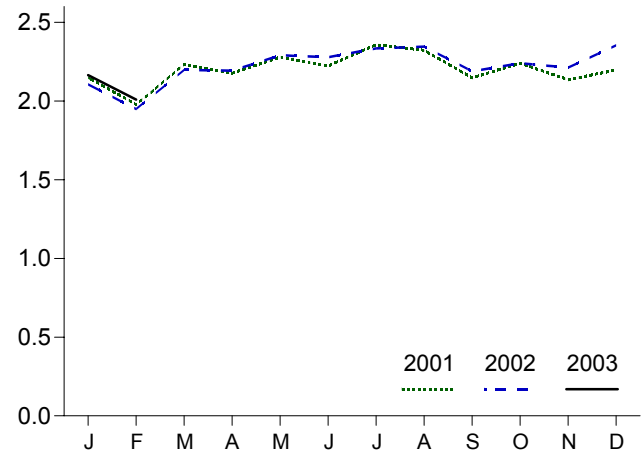
By Major Sources, Monthly



Total, January-February



Total, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.
Source: Table 2.5.

Table 2.5 Transportation Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption						Electricity Retail Sales[c]	Electrical System Energy Losses[d]	Total[b]
	Fossil Fuels				Renewable Energy				
	Coal	Natural Gas[a]	Petroleum	Total	Alcohol Fuels[b]	Total Primary[b]			
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**	**.024**	**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	**(e)**	**.539**	**20.041**	**20.580**	**NA**	**20.580**	**.010**	**.024**	**20.615**
1979 Total	**(e)**	**.612**	**19.825**	**20.436**	**NA**	**20.436**	**.010**	**.024**	**20.471**
1980 Total	**(e)**	**.650**	**19.008**	**19.658**	**NA**	**19.658**	**.011**	**.027**	**19.696**
1981 Total	**(e)**	**.658**	**18.811**	**19.469**	**.007**	**19.469**	**.011**	**.026**	**19.506**
1982 Total	**(e)**	**.612**	**18.420**	**19.032**	**.019**	**19.032**	**.011**	**.026**	**19.069**
1983 Total	**(e)**	**.505**	**18.593**	**19.098**	**.035**	**19.098**	**.013**	**.030**	**19.141**
1984 Total	**(e)**	**.545**	**19.216**	**19.761**	**.043**	**19.761**	**.014**	**.033**	**19.808**
1985 Total	**(e)**	**.519**	**19.504**	**20.023**	**.052**	**20.023**	**.014**	**.033**	**20.070**
1986 Total	**(e)**	**.499**	**20.269**	**20.768**	**.060**	**20.768**	**.015**	**.034**	**20.817**
1987 Total	**(e)**	**.535**	**20.870**	**21.405**	**.069**	**21.405**	**.016**	**.035**	**21.455**
1988 Total	**(e)**	**.632**	**21.629**	**22.261**	**.070**	**22.261**	**.016**	**.035**	**22.312**
1989 Total	**(e)**	**.649**	**21.848**	**22.497**	**.071**	**22.497**	**.016**	**.038**	**22.551**
1990 Total	**(e)**	**.680**	**21.792**	**22.472**	**.063**	**22.472**	**.016**	**.037**	**22.526**
1991 Total	**(e)**	**.620**	**21.448**	**22.069**	**.073**	**22.069**	**.016**	**.037**	**22.122**
1992 Total	**(e)**	**.608**	**21.798**	**22.406**	**.083**	**22.406**	**.016**	**.037**	**22.459**
1993 Total	**(e)**	**.645**	**22.185**	**22.830**	**.097**	**22.830**	**.016**	**.037**	**22.883**
1994 Total	**(e)**	**.709**	**22.739**	**23.448**	**.109**	**23.448**	**.017**	**.038**	**23.503**
1995 Total	**(e)**	**.724**	**23.181**	**23.905**	**.117**	**23.905**	**.017**	**.039**	**23.960**
1996 Total	**(e)**	**.737**	**23.719**	**24.456**	**.084**	**24.456**	**.017**	**.038**	**24.511**
1997 Total	**(e)**	**.780**	**23.973**	**24.753**	**.106**	**24.753**	**.017**	**.038**	**24.808**
1998 Total	**(e)**	**.666**	**24.630**	**25.297**	**.117**	**25.297**	**.017**	**.038**	**25.352**
1999 Total	**(e)**	**.675**	**25.358**	**26.033**	**.122**	**26.033**	**.017**	**.040**	**26.090**
2000 Total	**(e)**	**.674**	**25.973**	**26.647**	**.139**	**26.647**	**.018**	**.042**	**26.707**
2001 January	(e)	.078	2.066	2.144	.015	2.144	.002	.003	2.149
February	(e)	.067	1.905	1.973	.012	1.973	.001	.003	1.977
March	(e)	.065	2.161	2.227	.012	2.227	.001	.003	2.231
April	(e)	.053	2.119	2.172	.011	2.172	.001	.003	2.176
May	(e)	.044	2.230	2.273	.011	2.273	.002	.004	2.279
June	(e)	.041	2.176	2.217	.012	2.217	.002	.004	2.222
July	(e)	.044	2.308	2.352	.011	2.352	.002	.004	2.358
August	(e)	.045	2.271	2.315	.010	2.315	.002	.004	2.322
September	(e)	.041	2.100	2.141	.012	2.141	.002	.004	2.147
October	(e)	.046	2.189	2.234	.016	2.234	.002	.004	2.240
November	(e)	.048	2.083	2.130	.013	2.130	.001	.003	2.135
December	(e)	.060	2.132	2.192	.013	2.192	.001	.003	2.197
Total	**(e)**	**.631**	**25.739**	**26.370**	**.147**	**26.370**	**.019**	**.043**	**26.432**
2002 January	(e)	.069	2.032	2.101	.013	2.101	.001	.003	2.106
February	(e)	.062	1.884	1.945	.012	1.945	.001	.003	1.949
March	(e)	.062	R 2.130	R 2.192	.012	R 2.192	.001	.003	2.197
April	(e)	.050	2.138	2.188	.012	2.188	.001	.003	2.193
May	(e)	.043	2.243	2.286	.014	2.286	.001	.003	2.290
June	(e)	.040	2.233	2.274	.012	2.274	.002	.004	2.279
July	(e)	.043	2.287	R 2.329	.015	R 2.329	.002	.004	2.335
August	(e)	.043	2.298	2.340	.014	2.340	.002	.004	2.346
September	(e)	.039	2.145	2.184	.015	2.184	.002	.004	2.189
October	(e)	.044	2.191	2.235	.017	2.235	.002	.003	2.240
November	(e)	.052	2.156	2.208	.020	2.208	.001	.003	2.212
December	(e)	.065	2.284	2.349	.019	2.349	.001	.003	2.353
Total	**(e)**	**.612**	**R 26.019**	**R 26.631**	**.174**	**R 26.631**	**.018**	**.039**	**R 26.688**
2003 January	(e)	R .076	R 2.083	E 2.160	.017	R 2.160	.001	.003	R 2.165
February	(e)	E .057	1.948	E 2.004	.020	2.004	.001	.003	2.009
2-Month Total	**(e)**	**E .133**	**4.031**	**E 4.164**	**.037**	**4.164**	**.003**	**.006**	**4.173**
2002 2-Month Total	**(e)**	**.130**	**3.916**	**4.046**	**.025**	**4.046**	**.003**	**.006**	**4.055**
2001 2-Month Total	**(e)**	**.145**	**3.971**	**4.116**	**.027**	**4.116**	**.003**	**.006**	**4.126**

[a] Natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel. See Table 4.4.

[b] Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol Fuels," but is counted only once in both total primary consumption and total consumption.

[c] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

[d] See Note 12 at end of Section.

[e] Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

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

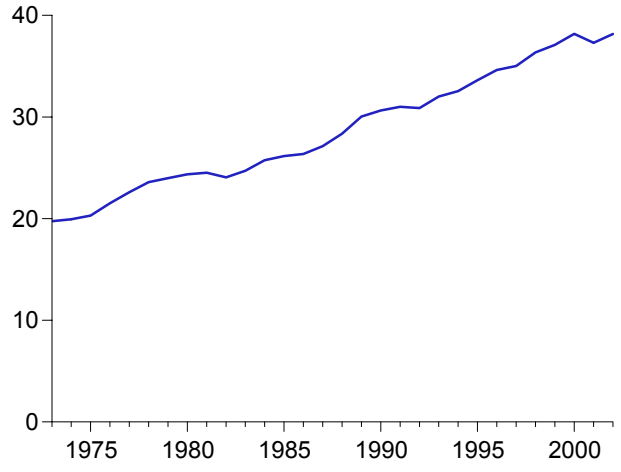
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

Additional Notes and Sources: See end of section.

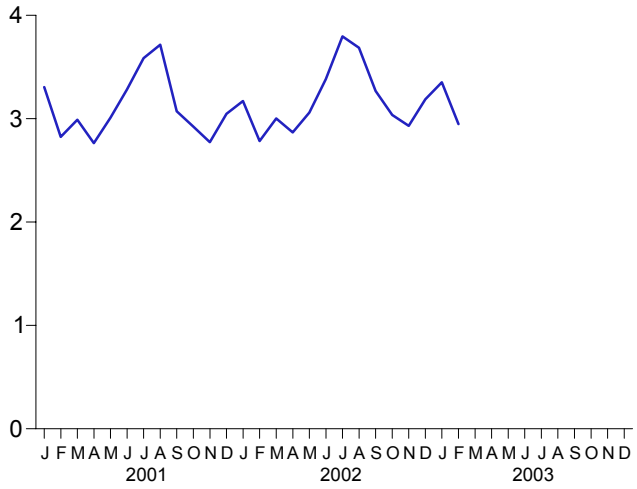
Several components of the energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

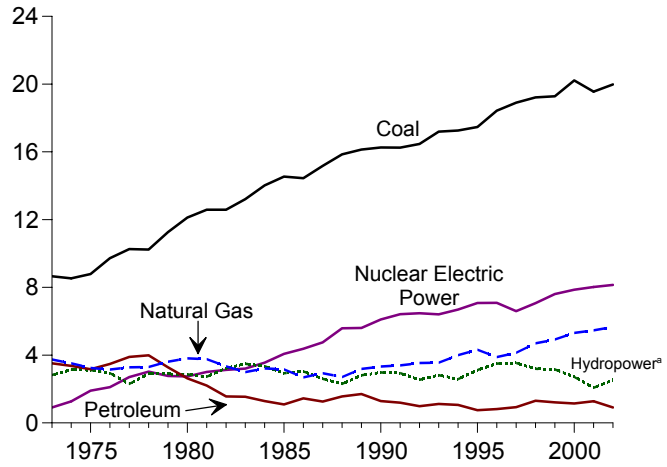
Total, 1973-2002



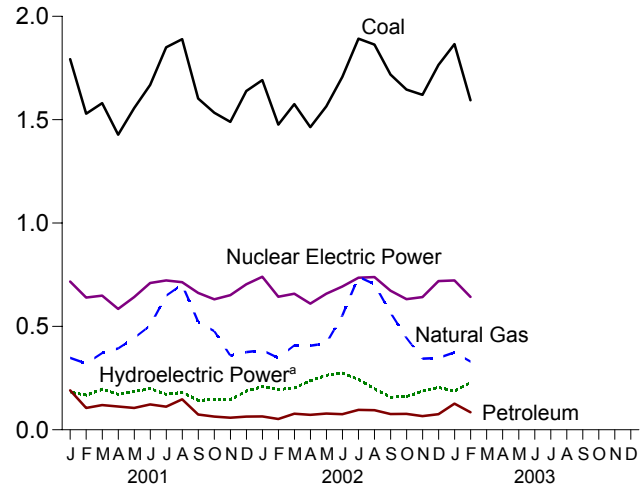
Total, Monthly



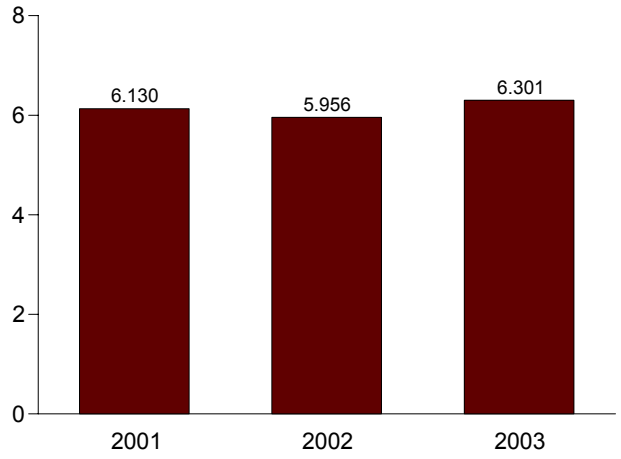
By Major Sources, 1973-2002



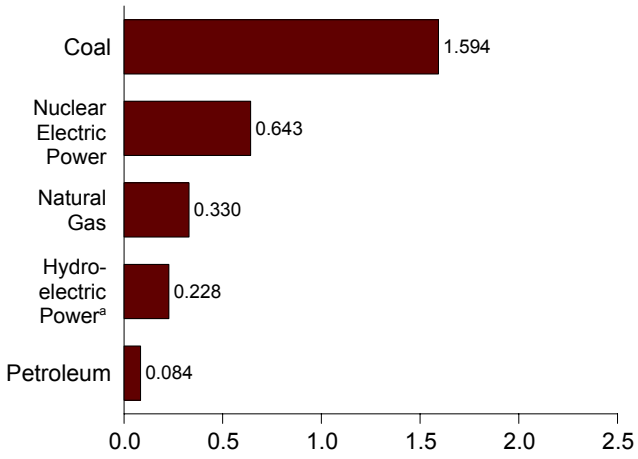
By Major Sources, Monthly



Total, January-February



By Major Sources, February 2003



[a]Conventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

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

Table 2.6 Electric Power Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption												
	Fossil Fuels						Renewable Energy						
	Coal	Natural Gas[a]	Petroleum	Total	Nuclear Electric Power	Hydro-electric Pumped Storage[b]	Conventional Hydroelectric Power	Wood[c] and Waste[d]	Geo-thermal[e]	Solar[f] and Wind[g]	Total	Electricity Net Imports	Total Primary
1973 Total	**8.658**	**3.748**	**3.515**	**15.921**	**0.910**	**(h)**	R **2.827**	**0.003**	**0.043**	**NA**	R **2.873**	**0.049**	**19.753**
1974 Total	**8.534**	**3.519**	**3.365**	**15.418**	**1.272**	**(h)**	R **3.143**	**.003**	**.053**	**NA**	R **3.199**	**.043**	**19.933**
1975 Total	**8.786**	**3.240**	**3.166**	**15.191**	**1.900**	**(h)**	R **3.122**	**.002**	**.070**	**NA**	R **3.194**	**.021**	**20.307**
1976 Total	**9.720**	**3.152**	**3.477**	**16.349**	**2.111**	**(h)**	R **2.943**	**.003**	**.078**	**NA**	R **3.024**	**.029**	**21.513**
1977 Total	**10.262**	**3.284**	**3.901**	**17.446**	**2.702**	**(h)**	R **2.301**	**.005**	**.077**	**NA**	R **2.383**	**.059**	**22.591**
1978 Total	**10.238**	**3.297**	**3.987**	**17.522**	**3.024**	**(h)**	R **2.905**	**.003**	**.064**	**NA**	R **2.973**	**.067**	**23.587**
1979 Total	**11.260**	**3.613**	**3.283**	**18.156**	**2.776**	**(h)**	R **2.897**	**.005**	**.084**	**NA**	R **2.986**	**.069**	**23.987**
1980 Total	**12.123**	**3.810**	**2.634**	**18.567**	**2.739**	**(h)**	R **2.867**	**.005**	**.110**	**NA**	R **2.982**	**.071**	**24.359**
1981 Total	**12.583**	**3.768**	**2.202**	**18.553**	**3.008**	**(h)**	R **2.725**	**.004**	**.123**	**NA**	R **2.852**	**.113**	**24.525**
1982 Total	**12.582**	**3.342**	**1.568**	**17.491**	**3.131**	**(h)**	R **3.233**	**.003**	**.105**	**NA**	R **3.341**	**.100**	**24.063**
1983 Total	**13.213**	**2.998**	**1.544**	**17.754**	**3.203**	**(h)**	R **3.494**	**.004**	**.129**	**(s)**	R **3.627**	**.121**	**24.705**
1984 Total	**14.019**	**3.220**	**1.286**	**18.526**	**3.553**	**(h)**	R **3.353**	**.009**	**.165**	**(s)**	R **3.527**	**.135**	**25.741**
1985 Total	**14.542**	**3.160**	**1.090**	**18.792**	R **4.076**	**(h)**	R **2.937**	**.014**	**.198**	**(s)**	R **3.150**	**.140**	**26.158**
1986 Total	**14.444**	**2.691**	**1.452**	**18.586**	R **4.380**	**(h)**	R **3.038**	**.012**	**.219**	**(s)**	R **3.270**	**.122**	**26.359**
1987 Total	**15.173**	**2.935**	**1.257**	**19.365**	R **4.754**	**(h)**	R **2.602**	**.015**	**.229**	**(s)**	R **2.846**	**.158**	**27.124**
1988 Total	**15.850**	**2.709**	**1.563**	**20.123**	R **5.587**	**(h)**	R **2.302**	**.017**	**.217**	**(s)**	R **2.536**	**.108**	**28.354**
1989 Total[i]	R **16.137**	**3.192**	R **1.703**	R **21.032**	R **5.602**	**(h)**	R **2.808**	R **.232**	**.308**	R **.025**	R **3.372**	**.037**	R **30.044**
1990 Total	R **16.261**	**3.332**	R **1.289**	R **20.883**	R **6.104**	**-.036**	R **3.014**	R **.317**	**.326**	R **.033**	R **3.689**	**.008**	R **30.647**
1991 Total	**16.250**	**3.399**	R **1.198**	**20.847**	R **6.422**	**-.047**	R **2.985**	R **.354**	**.335**	R **.036**	R **3.710**	**.067**	**30.999**
1992 Total	**16.466**	**3.534**	R **.991**	**20.990**	R **6.479**	**-.043**	R **2.586**	R **.402**	**.338**	R **.034**	R **3.360**	**.087**	**30.873**
1993 Total	**17.196**	**3.560**	R **1.124**	**21.880**	R **6.410**	**-.042**	R **2.861**	R **.415**	**.351**	R **.036**	R **3.662**	**.095**	**32.006**
1994 Total	**17.261**	**4.000**	R **1.059**	**22.320**	R **6.694**	**-.035**	R **2.620**	R **.434**	**.325**	R **.041**	R **3.420**	**.153**	**32.551**
1995 Total	**17.466**	**4.325**	R **.755**	**22.546**	R **7.075**	**-.028**	R **3.149**	R **.422**	**.280**	R **.038**	R **3.889**	**.134**	**33.616**
1996 Total	**18.429**	**3.883**	R **.817**	**23.129**	R **7.087**	**-.032**	R **3.528**	R **.438**	**.300**	R **.039**	R **4.305**	**.137**	**34.626**
1997 Total	**18.905**	**4.146**	R **.927**	**23.977**	R **6.597**	R **-.041**	R **3.581**	R **.446**	**.309**	R **.039**	R **4.375**	**.116**	**35.024**
1998 Total	**19.216**	**4.698**	R **1.306**	**25.220**	R **7.068**	**-.046**	R **3.241**	R **.444**	**.311**	R **.036**	R **4.032**	**.088**	R **36.363**
1999 Total	**19.279**	**4.926**	R **1.211**	**25.416**	R **7.610**	R **-.062**	R **3.218**	R **.453**	**.312**	R **.051**	R **4.034**	**.099**	**37.097**
2000 Total	**20.220**	**5.316**	R **1.144**	**26.680**	R **7.862**	**-.057**	R **2.768**	R **.453**	**.296**	R **.062**	R **3.579**	**.116**	**38.181**
2001 January	R 1.793	R .348	R .191	R 2.331	R .717	-.006	.188	R .038	.026	R .004	.257	.006	R 3.306
February	R 1.529	R .320	R .106	R 1.955	R .640	R -.007	.174	R .034	.023	R .004	.235	R .002	R 2.824
March	R 1.580	R .371	R .120	R 2.071	R .649	R -.008	.204	R .038	.025	.006	.272	R .006	R 2.990
April	R 1.427	R .393	R .113	R 1.934	R .585	R -.008	.179	R .036	.023	.007	.246	.008	R 2.764
May	R 1.556	R .444	R .106	R 2.106	R .642	R -.006	.191	R .037	.023	.007	.258	R .010	R 3.010
June	R 1.668	R .504	R .123	R 2.295	R .710	R -.008	.207	R .040	.023	.008	.277	.008	R 3.283
July	R 1.850	R .649	R .112	R 2.611	R .722	R -.009	.181	R .040	.025	.007	.253	R .008	R 3.586
August	R 1.890	R .703	R .147	R 2.740	R .714	R -.007	.188	R .040	.025	.007	.260	R .009	R 3.715
September	R 1.603	R .522	R .074	R 2.198	R .662	R -.009	.152	R .037	.024	.006	.219	.002	R 3.072
October	R 1.534	R .477	R .064	R 2.075	R .631	R -.006	.152	R .037	.024	R .006	.220	.003	R 2.923
November	R 1.489	R .359	R .059	R 1.907	R .651	-.008	.154	R .036	.024	R .005	.219	R .004	R 2.773
December	R 1.639	R .375	R .064	R 2.078	R .704	R -.006	.193	R .038	.025	R .006	.263	R .009	R 3.048
Total	R **19.559**	R **5.466**	R **1.277**	R **26.301**	R **8.028**	**-.089**	**2.165**	R **.452**	**.289**	R **.074**	**2.979**	R **.075**	R **37.294**
2002 January	R 1.691	R .385	R .065	R 2.141	R .741	R -.008	.216	R .040	.025	R .008	R .289	R .009	R 3.172
February	R 1.476	R .348	R .052	R 1.876	R .644	-.006	.200	R .034	.022	R .007	.263	R .007	R 2.784
March	R 1.576	R .408	R .078	R 2.062	R .658	-.007	.209	R .039	.024	R .009	.282	R .006	R 3.002
April	R 1.464	R .407	R .072	R 1.943	R .610	-.006	R .243	R .037	.022	.011	.314	.006	R 2.867
May	R 1.565	R .418	R .079	R 2.062	R .658	R -.006	.269	R .037	.024	R .012	.342	R .003	R 3.060
June	R 1.707	R .552	R .076	R 2.335	R .693	-.009	.283	R .039	.022	R .013	.357	R .007	R 3.384
July	R 1.892	R .740	R .096	R 2.728	R .735	-.010	.254	R .042	.024	R .010	.330	R .013	R 3.796
August	R 1.863	R .704	R .095	R 2.662	R .739	-.009	.207	R .041	.024	R .011	R .283	R .011	R 3.686
September	R 1.718	R .566	R .076	R 2.361	R .673	-.008	.166	R .039	.023	R .008	R .237	.006	R 3.269
October	R 1.646	R .445	R .077	R 2.168	R .632	-.007	.168	R .038	.024	.008	.238	R .005	R 3.036
November	R 1.620	R .344	R .066	R 2.030	R .642	R -.007	.194	R .037	.023	R .007	.261	R .004	R 2.930
December	R 1.765	R .347	R .075	R 2.187	R .720	R -.007	.212	R .042	.024	R .008	R .285	.002	R 3.187
Total	R **19.985**	R **5.664**	R **.908**	R **26.557**	R **8.145**	**-.089**	**2.623**	R **.466**	**.281**	R **.112**	R **3.481**	R **.078**	R **38.173**
2003 January	R 1.866	R .374	R .126	R 2.367	R .723	R -.008	R .195	R .042	R .024	R .006	R .267	.005	R 3.353
February	F 1.594	F .330	F .084	F 2.008	F .643	F -.007	F .235	F .035	F .022	F .007	F .300	F .004	F 2.948
2-Month Total	E **3.460**	E **.704**	E **.211**	E **4.375**	E **1.365**	E **-.015**	E **.430**	E **.077**	E **.046**	E **.013**	E **.566**	E **.009**	E **6.301**
2002 2-Month Total	**3.167**	**.733**	**.117**	**4.017**	**1.384**	**-.014**	**.416**	**.074**	**.047**	**.016**	**.553**	**.016**	**5.956**
2001 2-Month Total	**3.322**	**.668**	**.296**	**4.286**	**1.357**	**-.013**	**.363**	**.072**	**.048**	**.009**	**.492**	**.008**	**6.130**

[a] Includes supplemental gaseous fuels.
[b] Pumped storage facility production minus energy used for pumping.
[c] Wood, black liquor, and other wood waste.
[d] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[e] Geothermal electricity net generation.
[f] Solar thermal and photovoltaic electricity net generation.
[g] Wind electricity net generation.
[h] Included in conventional hydroelectric power.
[i] Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.

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

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

Additional Notes and Sources: See end of section.

Several components of the energy consumption data were revised in the April 2003 *Monthly Energy Review*; see Table 1.3 for more information.

Energy Consumption by Sector

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

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

Note 1. Energy Consumption:

Primary Consumption: Consumption in the five energy-use sectors (residential, commercial, industrial, transportation, and electric power) consists of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels and coal coke net imports), nuclear electric power, pumped-storage hydroelectric power, renewable energy, and net imports of electricity. Renewable energy consumption is the end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, solar thermal direct use and photovoltaic energy and net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind.

Total Consumption: In addition to primary consumption in the four end-use sectors (residential, commercial, industrial, and transportation), total consumption also includes retail sales of electricity and electrical system energy losses (see Note 12).

Note 2. Energy-Use Sectors: The five major economic sectors—residential, commercial, industrial, transportation, and electric power—are called energy-use sectors in this report. The first four sectors comprise the end-use sectors, that is, the point of final consumption of the energy. Energy consumption is assigned to the five energy-use sectors, as closely as possible, by the following definitions:

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. For further explanation see: http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.htm.

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. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

Industrial Sector—An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing (NAICS (North American Industry Classification System) codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); natural gas distribution (NAICS code 2212); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Transportation Sector—An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use. *Note:* Various EIA programs differ in sectoral coverage. For further information see: http://www.eia.doe.gov/neic/datadefinitons/Guideforwebtrans.htm.

Electric Power Sector—An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or

electricity and heat, to the public—i.e., North American Industry Classification System 22 plants.

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 power facilities 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, fishing, and hunting 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.

Note 3. Conversion Factors: See Appendix A.

Note 4. Coal: See Tables 6.2 and A5.

Note 5. Coal Coke Net Imports: Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports. Coal coke net imports are included in the industrial sector.

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: EIA, *Quarterly Coal Report*.

Note 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. For 1973-1979, annual values for residential and commercial natural gas consumption are allocated to the months in proportion to the monthly sales data from the American Gas Association, "Monthly Gas Utility Statistical Report."

Note 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."
1981-2001: EIA, *Petroleum Supply Annual*.
2002 forward: EIA, *Petroleum Supply Monthly*.

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

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

Asphalt—All consumption of asphalt is assigned to the industrial sector.

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

Distillate Fuel Consumed by the Electric Power Sector, 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 by the electric power sector. See Table 7.3e.

Distillate Fuel Consumed by End-Use Sectors, Annually Through 2000—The aggregate end-use amount is total distillate fuel supplied minus the amount consumed for electric power. The end-use total consumed annually is allocated into the individual end-use sectors (residential, commercial, industrial, and transportation) in proportion to each sector's share of "adjusted sales" as reported in EIA's *Fuel Oil and Kerosene Sales* (*Sales*) report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. "Adjusted sales" are sales that have been adjusted to equal EIA distillate fuel product supplied.

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 Consumed by End-Use Sectors, Monthly Through 2000—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 forward, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

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

Distillate Fuel Consumed by End-Use Sectors, 2001 Forward—Each month's end-use consumption total is disaggregated into the individual sectors in proportion to the share that each sector held of the total in the same month in 2000. Annual values are the sum of the monthly values.

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

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

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

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

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

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

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

The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 28 percent (in 1997) 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-forward: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases," which is based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association. EIA adjusts the data

to remove quantities of pentanes plus and to estimate withheld values.

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

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

Commercial sales are the sum of sales for public nonhighway use andmiscellaneous 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 consumption is assigned to the sectors as follows:

Residual Fuel Consumed by the Electric Power Sector, 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 by the electric power sector. Source: Table 7.3e

Residual Fuel Consumed by End-Use Sectors, Annually Through 2000—The aggregate end-use amount is total residual fuel supplied minus the amount consumed for electric power. The end-use total consumed annually is allocated into the individual end-use sectors (commercial, industrial, and transportation) in proportion to each sector's share of "adjusted sales" as reported in EIA's *Fuel Oil and Kerosene Sales* (*Sales)* report series (DOE/EIA-535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172). "Adjusted sales" are sales that have been adjusted to equal EIA residual fuel product supplied.

Following are notes on the individual sector groupings:

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

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

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

Residual Fuel Consumed by End-Use Sectors, Monthly Through 2000—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 calculated as the difference between the sum of the estimates for commercial, transportation, and electric power sectors and total residual fuel consumption.

Residual Fuel Consumption by End-Use Sectors, 2001 Forward—Each month's end-use consumption total is disaggregated into the individual sectors in proportion to the share that each sector held of the total in the same month in 2000. Annual values are the sum of the monthly values.

Road Oil—All consumption of road oil is assigned to the industrial sector.

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

Note 8. Nuclear Electric Power: See Tables 8.1 and A6. Nuclear electric power is included in the electric power sector.

Note 9. Hydroelectric Pumped Storage: See Tables 7.2a and A6. Pumped-storage hydroelectric power is included in the electric power sector.

Note 10. **Renewable Energy:** See Tables 10.2a-10.2c. End-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use and photovoltaic energy is included in the end-use sectors. Included in the electric power sector are: net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind.

Note 11. **Electricity:** End-use consumption of electricity is based on retail sales of electricity in 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.

Note 12. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector-see Table 2.6-and the total energy content of the retail sales of electricity-see Tables 7.5 and A6. Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses is a result of imputing fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring those thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, 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 transmission 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 imports[1] averaged 12.3 million barrels per day in April 2003, 3 percent higher than the previous month's rate and 6 percent higher than the April 2002 rate.

In April 2003, 19.9 million barrels per day of petroleum products were supplied for domestic use, 2 percent higher than the April 2002 rate. Motor gasoline accounted for 43 percent of the total; distillate fuel oil, 19 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline product supplied during April 2003 averaged 8.6 million barrels per day, slightly higher than the previous month's rate but 1 percent lower than the April 2002 rate. Total motor gasoline stocks were 207 million barrels at the end of April 2003, 7 million barrels above the stock level in the previous month but 10 million barrels below the level 1 year earlier.

Distillate fuel oil product supplied during April 2003 averaged 3.8 million barrels per day, 4 percent lower than the previous month's rate but 1 percent higher than the April 2002 rate. Distillate fuel oil ending stocks for April 2003 were 97 million barrels, 2 million barrels below the stock level in the previous month and 26 million barrels below the level 1 year earlier.

Kerosene-type jet fuel product supplied in April 2003 averaged 1.5 million barrels per day, 3 percent lower than the previous month's rate and 9 percent lower than the April 2002 rate. Kerosene-type jet fuel stocks measured 36 million barrels at the end of April 2003, 1 million barrels below the stock level in the previous month and 4 million barrels below the stock 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 January 2003.

[1]Total 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]			Stocks[b]
	Total Domestic[c]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[d]	Petroleum Products	Petroleum Products Supplied	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	**8,607**	**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 Average	**8,392**	**6,252**	**1,759**	**74**	**165**	**18,917**	**1,647**
1999 Average	**8,107**	**5,881**	**1,850**	**-118**	**-304**	**19,519**	**1,493**
2000 Average	**8,110**	**5,822**	**1,911**	**-70**	**(s)**	**19,701**	**1,468**
2001 January	7,528	5,799	1,398	317	38	20,092	1,479
February	7,891	5,780	1,732	-424	223	19,689	1,473
March	8,127	5,880	1,833	861	-501	19,876	1,484
April	8,062	5,863	1,831	736	513	19,729	1,522
May	8,146	5,829	1,912	-42	1,130	19,501	1,555
June	8,062	5,766	1,908	-671	929	19,561	1,563
July	8,066	5,749	1,899	164	7	19,919	1,568
August	8,062	5,725	1,955	-160	-488	20,153	1,548
September	8,128	5,709	2,034	79	944	19,016	1,579
October	8,164	5,746	2,025	142	-205	19,824	1,577
November	8,274	5,881	2,001	36	323	19,396	1,588
December	8,131	5,887	1,889	87	-133	19,003	1,586
Average	**8,054**	**5,801**	**1,868**	**99**	**227**	**19,649**	**1,586**
2002 January	[E]8,155	[E]5,934	1,834	414	-207	19,170	1,592
February	[E]8,190	[E]5,938	1,898	424	-979	19,475	1,576
March	[E]8,167	[E]5,914	1,897	198	-379	19,516	1,571
April	[E]8,233	[E]5,887	1,918	-42	656	19,419	1,589
May	[E]8,306	[E]5,908	1,937	193	524	19,678	1,611
June	[E]8,181	[E]5,887	1,872	-140	197	19,810	1,613
July	[E]8,023	[E]5,773	1,848	-369	270	19,847	1,610
August	[E]8,216	[E]5,827	1,933	-136	-327	20,134	1,596
September	[E]7,719	[E]5,378	1,902	-683	-36	19,416	1,574
October	[E]7,957	[E]5,671	1,878	769	-807	19,593	1,573
November	[E]8,149	[E]5,792	1,896	77	78	19,940	1,578
December	[E]8,083	[E]5,894	1,761	-215	-658	19,859	1,550
Average	**[E]8,115**	**[E]5,817**	**1,881**	**40**	**-136**	**19,656**	**1,550**
2003 January	[E]8,030	[E]5,842	1,756	-148	-1,348	20,042	1,504
February	[E]8,144	[E]5,915	1,811	-91	-1,501	20,396	1,460
March	[RE]8,037	[E]5,890	[R]1,730	[R]325	[R]99	[R]19,682	[R]1,473
April	[E]7,995	[PE]5,798	[E]1,767	[E]300	[E]288	[E]19,879	[E]1,505
4-Month Average	**[E]8,050**	**[PE]5,860**	**[E]1,765**	**[E]100**	**[E]-601**	**[E]19,991**	**[E]1,505**
2002 4-Month Average	**[E]8,186**	**[E]5,918**	**1,886**	**247**	**-216**	**19,393**	**1,589**
2001 4-Month Average	**7,901**	**5,831**	**1,697**	**390**	**60**	**19,852**	**1,522**

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

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

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S1. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S1.

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

	Imports			Exports			
	Total	Crude Oil[a]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[b]
	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 Average	**10,708**	**8,706**	**2,002**	**945**	**110**	**835**	**9,764**
1999 Average	**10,852**	**8,731**	**2,122**	**940**	**118**	**822**	**9,912**
2000 Average	**11,459**	**9,071**	**2,389**	**1,040**	**50**	**990**	**10,419**
2001 January	12,555	8,933	3,623	954	18	936	11,601
February	11,643	8,609	3,035	1,004	24	980	10,639
March	12,132	9,603	2,530	938	37	901	11,194
April	12,653	10,111	2,542	942	5	937	11,711
May	12,529	9,885	2,644	1,069	64	1,005	11,461
June	11,732	9,105	2,627	976	15	960	10,756
July	11,760	9,552	2,208	879	11	868	10,881
August	11,622	9,383	2,239	1,048	28	1,020	10,573
September	11,818	9,339	2,478	825	8	817	10,993
October	11,379	9,211	2,168	946	11	935	10,432
November	11,628	9,320	2,309	960	9	951	10,669
December	10,994	8,839	2,154	1,109	12	1,097	9,885
Average	**11,871**	**9,328**	**2,543**	**971**	**20**	**951**	**10,900**
2002 January	10,847	8,646	2,201	861	11	850	9,986
February	10,769	8,642	2,127	1,123	4	1,118	9,646
March	10,957	8,650	2,307	853	8	845	10,104
April	11,524	9,140	2,384	890	8	882	10,635
May	11,612	9,205	2,407	910	7	903	10,702
June	11,532	9,228	2,304	880	5	874	10,653
July	11,294	9,010	2,284	839	33	806	10,455
August	11,821	9,545	2,276	1,138	9	1,129	10,683
September	11,029	8,796	2,233	1,015	7	1,008	10,014
October	11,745	9,495	2,250	962	4	958	10,783
November	12,142	9,561	2,580	1,026	10	1,016	11,115
December	10,987	8,619	2,369	1,272	2	1,270	9,715
Average	**11,358**	**9,047**	**2,311**	**980**	**9**	**971**	**10,378**
2003 January	11,008	8,547	2,461	1,212	10	1,202	9,796
February	10,764	8,303	2,460	1,067	5	1,062	9,697
March	[R] 11,857	[R] 9,055	[R] 2,802	[R] 1,051	10	[R] 1,042	[R] 10,806
April	[E] 12,266	[E] 9,790	[E] 2,476	[E] 970	[E] 10	[E] 960	[E] 11,296
4-Month Average	[E] **11,485**	[E] **8,932**	[E] **2,552**	[E] **1,076**	[E] **9**	[E] **1,067**	[E] **10,409**
2002 4-Month Average	**11,027**	**8,770**	**2,257**	**927**	**8**	**919**	**10,100**
2001 4-Month Average	**12,258**	**9,325**	**2,933**	**959**	**21**	**938**	**11,299**

[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.

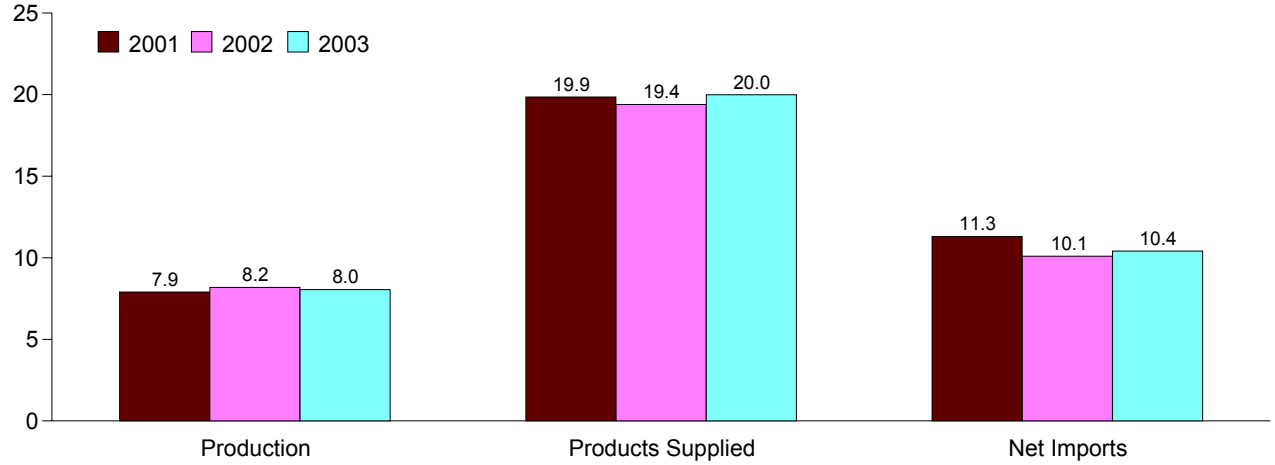
Notes: • Crude oil includes lease condensate. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

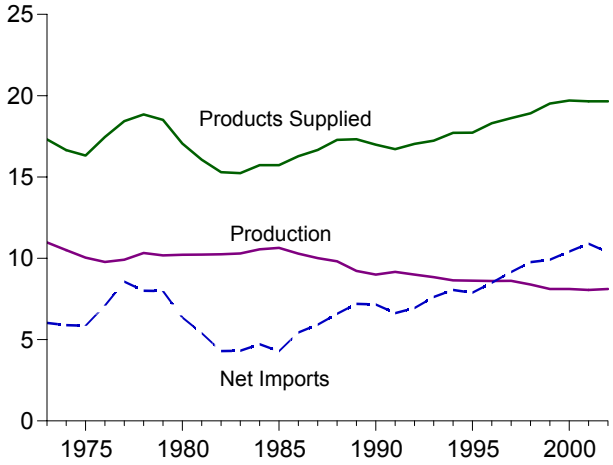
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S1. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S1.

Figure 3.1a Petroleum Overview and Production
(Million Barrels per Day)

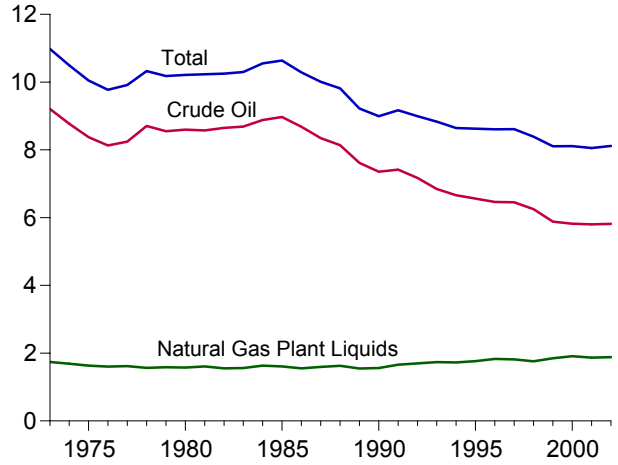
Overview, January-April



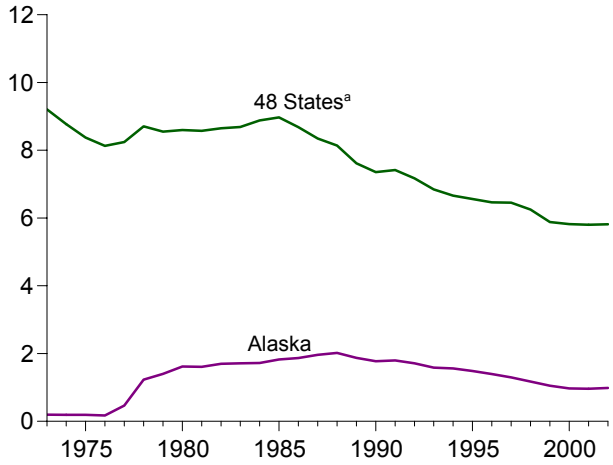
Overview, 1973-2002



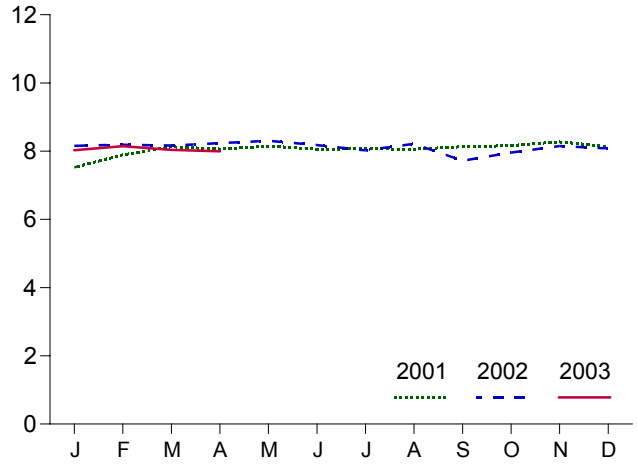
Production, 1973-2002



Crude Oil Production, 1973-2002



Total Production, Monthly



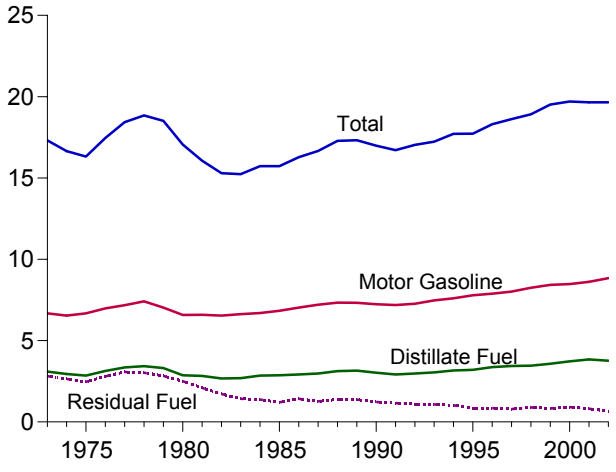
[a]United States excluding Alaska and Hawaii.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: Tables 3.1a, 3.1b, and 3.2a.

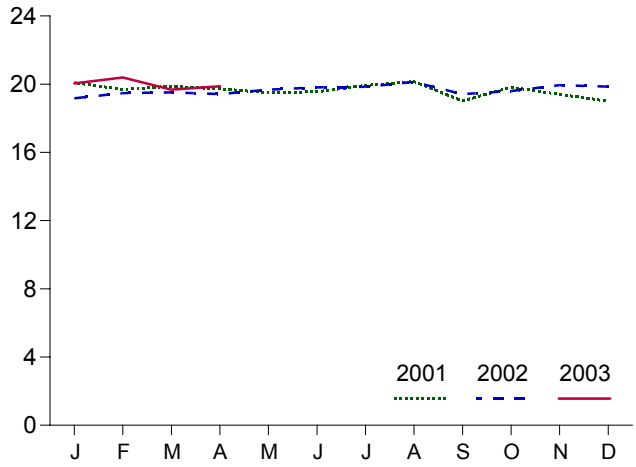
Figure 3.1b Petroleum Products Supplied, Imports, and Stocks

(Million Barrels per Day, Except as Noted)

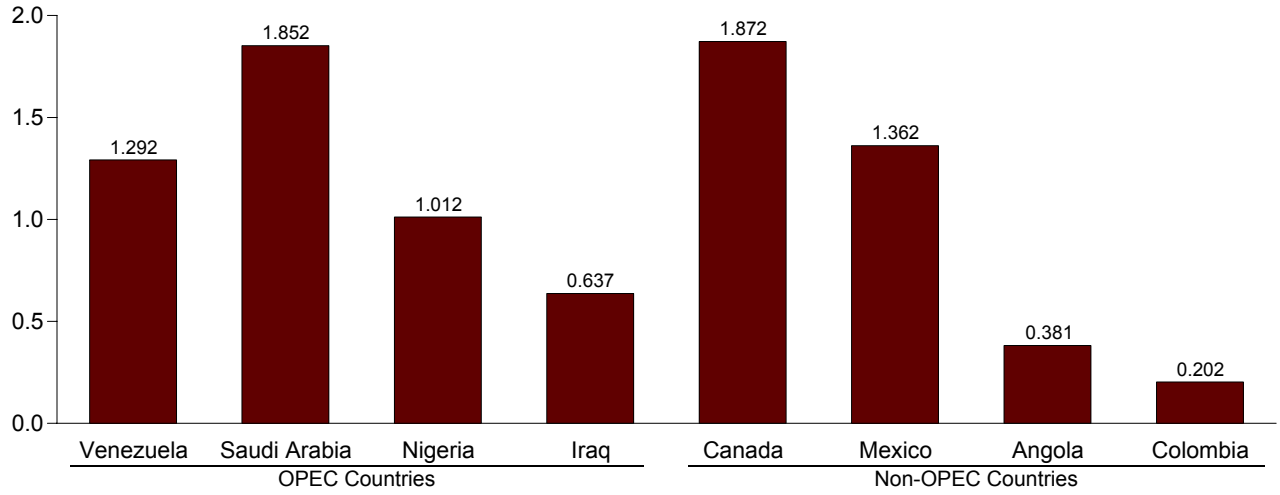
Products Supplied, 1973-2002



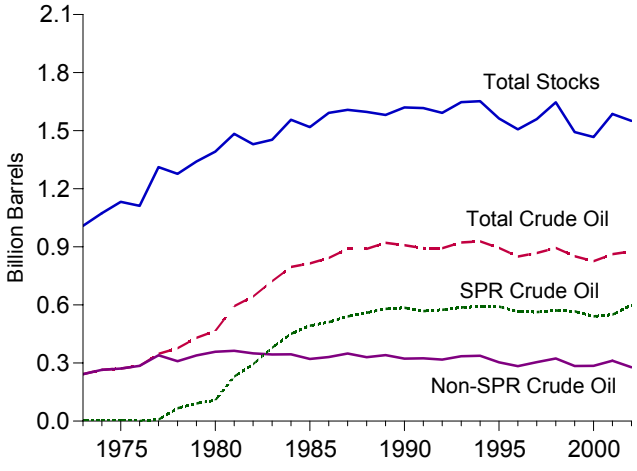
Products Supplied, Monthly



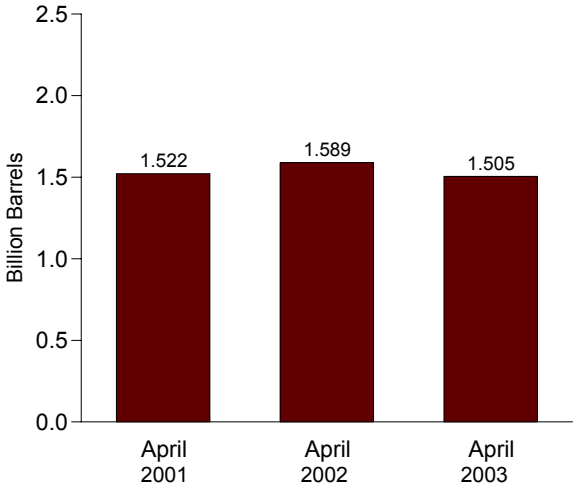
Imports from Selected Countries, March 2003



Stocks, End of Year, 1973-2002



Total Stocks, End of Month



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

Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: Tables 3.1a, 3.2b, 3.3a, 3.3b, 3.3d, 3.3e, 3.3f, 3.4, 3.5, and 3.6.

Table 3.2a Crude Oil Supply and Disposition: Supply

	Supply						
	Field Production		Imports			Unaccounted-for Crude Oil[b]	Crude Oil Used Directly[c]
	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 Average	**6,252**	**1,175**	**8,706**	**0**	**8,706**	**115**	**–**
1999 Average	**5,881**	**1,050**	**8,731**	**8**	**8,722**	**191**	**–**
2000 Average	**5,822**	**970**	**9,071**	**8**	**9,062**	**155**	**–**
2001 January	5,799	980	8,933	32	8,901	392	–
February	5,780	977	8,609	0	8,609	25	–
March	5,880	1,009	9,603	15	9,588	64	–
April	5,863	986	10,111	0	10,111	304	–
May	5,829	957	9,885	30	9,856	70	–
June	5,766	935	9,105	0	9,105	123	–
July	5,749	927	9,552	15	9,538	243	–
August	5,725	928	9,383	0	9,383	19	–
September	5,709	892	9,339	0	9,339	44	–
October	5,746	895	9,211	0	9,211	198	–
November	5,881	1,023	9,320	17	9,302	-155	–
December	5,887	1,046	8,839	18	8,821	61	–
Average	**5,801**	**963**	**9,328**	**11**	**9,318**	**117**	**–**
2002 January	[E] 5,934	[E] 1,036	8,646	33	8,613	298	–
February	[E] 5,938	[E] 1,031	8,642	59	8,583	123	–
March	[E] 5,914	[E] 1,036	8,650	0	8,650	94	–
April	[E] 5,887	[E] 1,009	9,140	0	9,140	270	–
May	[E] 5,908	[E] 1,002	9,205	16	9,189	385	–
June	[E] 5,887	[E] 1,019	9,228	17	9,212	79	–
July	[E] 5,773	[E] 931	9,010	0	9,010	315	–
August	[E] 5,827	[E] 965	9,545	0	9,545	-174	–
September	[E] 5,378	[E] 886	8,796	0	8,796	18	–
October	[E] 5,671	[E] 983	9,495	0	9,495	-92	–
November	[E] 5,792	[E] 908	9,561	34	9,527	-148	–
December	[E] 5,894	[E] 1,010	8,619	34	8,585	173	–
Average	[E] **5,817**	[E] **984**	**9,047**	**16**	**9,031**	**112**	**–**
2003 January	[E] 5,842	[E] 984	8,547	0	8,547	-190	–
February	[E] 5,915	[E] 1,015	8,303	0	8,303	78	–
March	[E] 5,890	[RE] 1,022	[R] 9,055	0	[R] 9,055	[R] 318	–
April	[PE] 5,798	[PE] 977	[E] 9,790	[E] 0	[E] 9,790	[E] 188	–
4-Month Average	[PE] **5,860**	[PE] **999**	[E] **8,932**	[E] **0**	[E] **8,932**	[E] **98**	**–**
2002 4-Month Average	[E] **5,918**	[E] **1,028**	**8,770**	**22**	**8,747**	**197**	**–**
2001 4-Month Average	**5,831**	**988**	**9,325**	**12**	**9,313**	**200**	**–**

[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.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S2. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S2.

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

	Disposition						Stocks[a]		
	Crude Losses	Stock Change[b] SPR[c]	Stock Change[b] Other	Refinery Inputs	Exports	Product Supplied[d]	Total	SPR[c]	Other Primary
	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 Average	**(s)**	**22**	**52**	**14,889**	**110**	**0**	**895**	**571**	**324**
1999 Average	**(s)**	**-11**	**-107**	**14,804**	**118**	**0**	**852**	**567**	**284**
2000 Average	**0**	**-73**	**3**	**15,067**	**50**	**0**	**826**	**541**	**286**
2001 January	0	32	285	14,789	18	0	836	542	294
February	0	(s)	-424	14,813	24	0	824	542	282
March	0	20	841	14,649	37	0	851	542	309
April	0	2	734	15,536	5	0	873	542	331
May	0	30	-71	15,763	64	0	872	543	328
June	0	0	-671	15,650	15	0	852	543	308
July	0	15	149	15,369	11	0	857	544	313
August	0	0	-160	15,259	28	0	852	544	308
September	0	34	45	15,005	8	0	854	545	309
October	0	14	127	15,002	11	0	858	545	313
November	0	71	-35	15,001	9	0	860	547	312
December	0	94	-7	14,688	12	0	862	550	312
Average	**0**	**26**	**73**	**15,128**	**20**	**0**	**862**	**550**	**312**
2002 January	0	141	273	14,453	11	0	875	555	320
February	0	191	233	14,274	4	0	887	560	327
March	0	50	149	14,452	8	0	893	561	331
April	0	175	-217	15,332	8	0	892	567	325
May	0	146	47	15,298	7	0	898	571	326
June	0	173	-313	15,329	5	0	893	576	317
July	0	67	-436	15,434	33	0	882	579	303
August	0	121	-257	15,325	9	0	878	582	296
September	0	166	-848	14,868	7	0	857	587	270
October	0	77	691	14,301	4	0	881	590	292
November	0	209	-132	15,119	10	0	883	596	288
December	0	103	-318	14,899	2	0	877	599	278
Average	**0**	**134**	**-94**	**14,926**	**9**	**0**	**877**	**599**	**278**
2003 January	0	5	-153	14,337	10	0	872	599	273
February	0	0	-91	14,382	5	0	870	599	270
March	0	0	[R] 325	[R] 14,929	10	0	[R] 880	599	[R] 280
April	[E] 0	[E] 11	[E] 290	[E] 15,466	[E] 10	[E] 0	[E] 887	[E] 600	[E] 287
4-Month Average	[E] **0**	[E] **4**	[E] **96**	[E] **14,783**	[E] **9**	[E] **0**	[E] **887**	[E] **600**	[E] **287**
2002 4-Month Average	**0**	**138**	**109**	**14,631**	**8**	**0**	**892**	**567**	**325**
2001 4-Month Average	**0**	**14**	**376**	**14,945**	**21**	**0**	**873**	**542**	**331**

[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.
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.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S2. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**1**	**0**	**0**	**0**	**336**	**336**	**301**	**300**
1999 Average	**0**	**0**	**0**	**0**	**725**	**725**	**248**	**246**
2000 Average	**1**	**0**	**0**	**0**	**620**	**620**	**272**	**263**
2001 January	0	0	0	0	310	310	247	206
February	0	0	0	0	253	253	280	251
March	0	0	0	0	579	579	308	302
April	0	0	0	0	880	880	263	242
May	0	0	0	0	1,011	1,011	256	240
June	6	0	0	0	810	810	270	270
July	0	0	0	0	710	710	292	287
August	0	0	0	0	563	563	261	256
September	0	0	0	0	1,192	1,192	259	237
October	0	0	0	0	1,177	1,177	226	221
November	0	0	0	0	889	889	196	196
December	0	0	0	0	1,126	1,126	145	140
Average	**(s)**	**0**	**0**	**0**	**795**	**795**	**250**	**237**
2002 January	0	0	0	0	988	988	207	207
February	0	0	0	0	706	706	290	279
March	0	0	0	0	780	780	184	179
April	0	0	0	0	583	583	192	185
May	0	0	0	0	436	436	182	163
June	0	0	0	0	167	167	265	243
July	0	0	0	0	301	301	244	238
August	0	0	0	0	246	246	178	169
September	0	0	0	0	148	148	297	286
October	0	0	0	0	215	215	198	182
November	0	0	0	0	380	380	258	230
December	0	0	0	0	366	366	193	190
Average	**0**	**0**	**0**	**0**	**442**	**442**	**223**	**212**
2003 January	4	0	0	0	600	600	166	134
February	11	0	0	0	909	909	241	223
March	0	0	0	0	637	637	251	220
3-Month Average	**5**	**0**	**0**	**0**	**709**	**709**	**219**	**192**
2002 3-Month Average	**0**	**0**	**0**	**0**	**829**	**829**	**225**	**220**
2001 3-Month Average	**0**	**0**	**0**	**0**	**385**	**385**	**278**	**253**

[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 are reported as originating in either Saudi Arabia or Kuwait depending on the country reported to U.S. Customs.

[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.

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

Sources: • **Bahrain:** Energy Information Administration (EIA), Form EIA-814, "Monthly Imports Report." • **All Other Data: 1973-1991—**EIA, *Petroleum Supply Annual 1992, Volume 1,* May, 1993, Table S3. **1992 forward—**EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**4**	**1**	**1,491**	**1,404**	**3**	**3**	**2,136**	**2,044**
1999 Average	**10**	**1**	**1,478**	**1,387**	**2**	**0**	**2,464**	**2,360**
2000 Average	**9**	**0**	**1,572**	**1,523**	**15**	**3**	**2,488**	**2,409**
2001 January	7	0	1,804	1,629	138	79	2,504	2,224
February	0	0	1,800	1,734	44	0	2,377	2,239
March	20	0	1,788	1,730	4	0	2,699	2,611
April	19	0	1,658	1,626	84	76	2,904	2,824
May	30	0	1,770	1,724	52	35	3,120	3,011
June	23	2	1,764	1,694	28	0	2,901	2,776
July	11	0	1,713	1,683	10	0	2,736	2,680
August	10	0	1,835	1,826	26	17	2,695	2,661
September	14	0	1,478	1,439	84	32	3,028	2,900
October	6	0	1,432	1,384	16	16	2,857	2,797
November	10	0	1,543	1,514	0	0	2,637	2,598
December	10	0	1,370	1,357	0	0	2,651	2,623
Average	**13**	**(s)**	**1,662**	**1,611**	**40**	**21**	**2,761**	**2,664**
2002 January	9	0	1,490	1,464	0	0	2,694	2,660
February	11	0	1,464	1,436	0	0	2,470	2,420
March	0	0	1,541	1,517	0	0	2,505	2,476
April	0	0	1,574	1,556	97	97	2,445	2,420
May	10	0	1,547	1,503	0	0	2,175	2,102
June	10	0	1,598	1,565	51	51	2,091	2,027
July	44	35	1,392	1,354	17	0	1,998	1,928
August	9	0	1,437	1,411	25	0	1,896	1,826
September	44	37	1,531	1,512	31	17	2,052	2,000
October	40	32	1,690	1,633	0	0	2,143	2,062
November	0	0	1,511	1,474	17	17	2,166	2,102
December	0	0	1,851	1,815	18	16	2,429	2,387
Average	**15**	**9**	**1,553**	**1,521**	**21**	**16**	**2,254**	**2,200**
2003 January	0	0	1,858	1,820	90	34	2,718	2,588
February	0	0	1,437	1,397	13	0	2,612	2,530
March	0	0	1,852	1,812	0	0	2,740	2,669
3-Month Average	**0**	**0**	**1,725**	**1,686**	**35**	**12**	**2,693**	**2,598**
2002 3-Month Average	**6**	**0**	**1,499**	**1,474**	**0**	**0**	**2,559**	**2,522**
2001 3-Month Average	**9**	**0**	**1,797**	**1,697**	**63**	**27**	**2,532**	**2,362**

[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 are reported as originating in either Saudi Arabia or Kuwait depending on the country reported to U.S. Customs.

(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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**290**	**10**	**([b])**	**([b])**	**([c])**	**([c])**	**66**	**50**	**0**	**0**
1999 Average	**259**	**25**	**([b])**	**([b])**	**([c])**	**([c])**	**81**	**70**	**0**	**0**
2000 Average	**225**	**1**	**([b])**	**([b])**	**([c])**	**([c])**	**48**	**36**	**0**	**0**
2001 January	286	0	([b])	([b])	([c])	([c])	61	20	0	0
February	223	0	([b])	([b])	([c])	([c])	76	42	0	0
March	279	19	([b])	([b])	([c])	([c])	76	60	0	0
April	326	0	([b])	([b])	([c])	([c])	58	52	0	0
May	379	54	([b])	([b])	([c])	([c])	78	73	0	0
June	265	20	([b])	([b])	([c])	([c])	65	57	0	0
July	190	0	([b])	([b])	([c])	([c])	29	28	0	0
August	243	0	([b])	([b])	([c])	([c])	38	37	0	0
September	200	0	([b])	([b])	([c])	([c])	26	25	0	0
October	293	0	([b])	([b])	([c])	([c])	39	29	0	0
November	320	37	([b])	([b])	([c])	([c])	22	21	0	0
December	326	0	([b])	([b])	([c])	([c])	51	42	0	0
Average	**278**	**11**	**([b])**	**([b])**	**([c])**	**([c])**	**51**	**40**	**0**	**0**
2002 January	253	0	([b])	([b])	([c])	([c])	80	67	0	0
February	269	0	([b])	([b])	([c])	([c])	104	84	0	0
March	359	75	([b])	([b])	([c])	([c])	63	63	0	0
April	366	77	([b])	([b])	([c])	([c])	60	58	0	0
May	367	53	([b])	([b])	([c])	([c])	83	76	0	0
June	305	19	([b])	([b])	([c])	([c])	57	57	0	0
July	160	0	([b])	([b])	([c])	([c])	26	14	0	0
August	176	0	([b])	([b])	([c])	([c])	34	34	0	0
September	262	32	([b])	([b])	([c])	([c])	49	49	0	0
October	239	40	([b])	([b])	([c])	([c])	74	66	0	0
November	239	21	([b])	([b])	([c])	([c])	13	13	0	0
December	239	40	([b])	([b])	([c])	([c])	21	21	0	0
Average	**269**	**30**	**([b])**	**([b])**	**([c])**	**([c])**	**55**	**50**	**0**	**0**
2003 January	302	39	([b])	([b])	([c])	([c])	25	25	0	0
February	226	0	([b])	([b])	([c])	([c])	15	15	0	0
March	316	40	([b])	([b])	([c])	([c])	10	10	0	0
3-Month Average	**283**	**27**	**([b])**	**([b])**	**([c])**	**([c])**	**17**	**17**	**0**	**0**
2002 3-Month Average	**295**	**26**	**([b])**	**([b])**	**([c])**	**([c])**	**81**	**71**	**0**	**0**
2001 3-Month Average	**264**	**6**	**([b])**	**([b])**	**([c])**	**([c])**	**71**	**40**	**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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**696**	**689**	**1,719**	**1,377**	**2,771**	**2,125**	**4,905**	**4,169**
1999 Average	**657**	**623**	**1,493**	**1,150**	**2,489**	**1,869**	**4,953**	**4,228**
2000 Average	**896**	**875**	**1,546**	**1,223**	**2,716**	**2,135**	**5,203**	**4,544**
2001 January	881	842	1,796	1,431	3,023	2,294	5,527	4,517
February	894	859	1,500	1,250	2,693	2,150	5,071	4,389
March	1,076	1,057	1,702	1,384	3,133	2,520	5,832	5,131
April	1,192	1,137	1,623	1,333	3,200	2,522	6,104	5,346
May	988	916	1,514	1,312	2,959	2,354	6,080	5,365
June	793	724	1,623	1,297	2,745	2,097	5,641	4,873
July	869	834	1,685	1,445	2,773	2,308	5,509	4,987
August	727	690	1,586	1,374	2,594	2,101	5,289	4,763
September	1,057	994	1,282	1,041	2,565	2,060	5,593	4,960
October	842	812	1,511	1,288	2,685	2,129	5,542	4,926
November	696	662	1,423	1,144	2,461	1,864	5,097	4,462
December	614	579	1,382	1,178	2,373	1,799	5,024	4,423
Average	**885**	**842**	**1,553**	**1,291**	**2,768**	**2,184**	**5,528**	**4,848**
2002 January	537	513	1,437	1,247	2,307	1,826	5,001	4,486
February	454	438	1,435	1,212	2,262	1,734	4,733	4,154
March	588	558	1,375	1,130	2,386	1,825	4,891	4,302
April	563	502	1,116	997	2,106	1,634	4,552	4,055
May	552	537	1,286	1,106	2,288	1,772	4,463	3,874
June	717	691	1,178	958	2,257	1,726	4,347	3,753
July	561	539	1,565	1,331	2,312	1,883	4,310	3,811
August	820	792	1,679	1,514	2,708	2,341	4,604	4,167
September	536	489	1,532	1,302	2,378	1,871	4,429	3,871
October	574	549	1,616	1,453	2,502	2,108	4,645	4,170
November	590	556	1,598	1,438	2,439	2,027	4,605	4,129
December	650	625	778	652	1,688	1,337	4,117	3,724
Average	**596**	**567**	**1,383**	**1,195**	**2,303**	**1,842**	**4,558**	**4,041**
2003 January	825	798	406	399	1,558	1,261	4,272	3,850
February	536	494	613	559	1,390	1,068	3,990	3,598
March	1,012	954	1,292	1,139	2,630	2,145	5,371	4,814
3-Month Average	**800**	**757**	**776**	**704**	**1,875**	**1,505**	**4,563**	**4,103**
2002 3-Month Average	**529**	**505**	**1,415**	**1,196**	**2,320**	**1,797**	**4,880**	**4,319**
2001 3-Month Average	**952**	**921**	**1,672**	**1,359**	**2,958**	**2,327**	**5,490**	**4,689**

[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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**468**	**465**	**57**	**31**	**4**	**0**	**26**	**0**	**1,598**	**1,266**	**42**	**42**
1999 Average	**361**	**357**	**42**	**31**	**3**	**0**	**26**	**0**	**1,539**	**1,178**	**21**	**13**
2000 Average	**301**	**295**	**56**	**49**	**0**	**0**	**51**	**5**	**1,807**	**1,348**	**44**	**33**
2001 January	312	300	53	44	0	0	143	35	1,935	1,342	33	33
February	499	485	27	20	0	0	88	0	1,867	1,346	2	0
March	374	374	47	20	6	0	81	21	1,938	1,411	35	14
April	381	381	111	68	14	0	87	31	1,852	1,391	24	14
May	358	356	31	21	0	0	127	16	1,780	1,368	31	21
June	302	302	22	22	5	0	67	0	1,900	1,472	26	0
July	297	285	65	65	0	0	86	0	1,690	1,270	23	20
August	323	311	20	20	19	0	54	0	1,723	1,272	57	28
September	334	324	46	46	10	0	80	17	1,685	1,262	22	0
October	242	222	30	21	26	0	84	32	1,734	1,316	22	21
November	267	267	21	21	31	0	56	0	1,899	1,414	0	0
December	263	263	46	46	10	0	33	0	1,944	1,408	9	0
Average	**328**	**321**	**43**	**34**	**10**	**0**	**82**	**13**	**1,828**	**1,356**	**24**	**13**
2002 January	294	282	41	41	10	0	63	31	1,866	1,299	12	12
February	276	262	69	69	26	0	67	35	1,838	1,305	45	42
March	321	300	42	42	26	0	122	65	1,821	1,318	4	0
April	367	355	66	66	7	0	117	68	1,943	1,434	1	0
May	353	353	63	63	16	0	144	77	1,912	1,454	16	15
June	459	446	21	21	16	0	129	69	1,880	1,450	51	34
July	308	298	43	43	35	0	93	59	1,877	1,355	43	32
August	223	211	45	23	23	0	191	119	2,022	1,537	45	34
September	342	329	87	65	39	0	94	53	1,874	1,412	15	0
October	258	246	67	67	20	0	131	75	2,073	1,570	48	48
November	402	390	84	64	23	0	73	17	2,071	1,485	21	21
December	317	312	61	51	26	0	66	14	2,082	1,490	14	13
Average	**326**	**315**	**57**	**51**	**22**	**0**	**108**	**57**	**1,939**	**1,426**	**26**	**21**
2003 January	263	245	20	20	31	0	114	48	2,235	1,621	19	16
February	265	251	23	23	27	0	110	36	1,971	1,423	15	14
March	381	381	20	20	41	0	76	15	1,872	1,406	38	7
3-Month Average	**304**	**294**	**21**	**21**	**33**	**0**	**100**	**33**	**2,028**	**1,485**	**24**	**12**
2002 3-Month Average	**297**	**282**	**50**	**50**	**21**	**0**	**85**	**44**	**1,842**	**1,308**	**19**	**17**
2001 3-Month Average	**391**	**383**	**43**	**28**	**2**	**0**	**105**	**20**	**1,915**	**1,367**	**24**	**16**

[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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**354**	**349**	**101**	**98**	**207**	**207**	**12**	**0**	**35**	**26**	**1,351**	**1,321**
1999 Average	**468**	**452**	**118**	**114**	**168**	**168**	**10**	**0**	**35**	**21**	**1,324**	**1,254**
2000 Average	**342**	**318**	**128**	**125**	**143**	**143**	**30**	**0**	**45**	**29**	**1,373**	**1,313**
2001 January	379	345	103	94	94	94	43	0	41	4	1,456	1,391
February	321	294	92	90	177	177	44	0	18	0	1,120	1,058
March	228	204	103	103	152	152	64	0	87	54	1,454	1,371
April	301	257	123	120	177	177	24	0	39	22	1,572	1,548
May	323	260	155	149	127	127	49	0	31	0	1,312	1,266
June	308	248	111	84	155	155	32	0	24	13	1,234	1,214
July	239	215	126	117	149	149	55	0	13	0	1,348	1,322
August	350	326	126	113	98	98	19	0	26	10	1,471	1,422
September	307	268	133	132	86	86	63	0	29	21	1,490	1,437
October	234	226	184	178	136	136	27	0	59	34	1,432	1,399
November	278	236	97	97	173	173	47	0	25	12	1,765	1,717
December	283	242	80	80	159	159	8	0	47	15	1,603	1,558
Average	**296**	**260**	**120**	**113**	**140**	**140**	**40**	**0**	**37**	**15**	**1,440**	**1,394**
2002 January	245	213	104	83	212	212	30	0	33	14	1,352	1,309
February	369	348	82	77	52	52	37	0	22	0	1,611	1,579
March	222	214	110	104	124	124	54	0	17	0	1,451	1,430
April	281	256	81	63	164	164	30	0	18	0	1,458	1,415
May	220	202	88	82	188	188	28	0	40	22	1,562	1,509
June	229	204	108	105	123	123	16	0	7	0	1,492	1,447
July	210	199	107	93	206	206	22	0	27	11	1,591	1,515
August	239	217	79	79	170	170	24	0	52	29	1,500	1,475
September	273	263	107	102	164	164	24	0	4	0	1,450	1,417
October	237	232	156	151	88	88	25	0	22	17	1,577	1,527
November	270	212	153	148	127	127	40	0	23	12	1,571	1,531
December	289	248	100	100	88	88	67	0	4	0	1,772	1,734
Average	**256**	**233**	**106**	**99**	**143**	**143**	**33**	**0**	**23**	**9**	**1,532**	**1,490**
2003 January	141	120	71	71	113	113	25	0	12	11	1,621	1,566
February	268	240	93	93	168	168	21	0	15	0	1,580	1,495
March	202	146	82	82	98	98	49	0	8	0	1,362	1,320
3-Month Average	**202**	**166**	**82**	**82**	**125**	**125**	**32**	**0**	**12**	**4**	**1,519**	**1,459**
2002 3-Month Average	**276**	**255**	**99**	**88**	**132**	**132**	**40**	**0**	**24**	**5**	**1,467**	**1,435**
2001 3-Month Average	**309**	**280**	**100**	**96**	**140**	**140**	**51**	**0**	**50**	**20**	**1,351**	**1,281**

[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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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 Average	**31**	**0**	**82**	**0**	**236**	**221**	**15**	**0**	**24**	**9**	**18**	**0**
1999 Average	**27**	**0**	**65**	**0**	**304**	**263**	**13**	**0**	**89**	**21**	**10**	**0**
2000 Average	**30**	**1**	**90**	**0**	**343**	**302**	**15**	**0**	**72**	**7**	**25**	**0**
2001 January	77	0	141	0	321	229	11	0	190	0	58	0
February	48	0	101	0	395	299	8	0	183	0	47	0
March	48	0	125	0	400	313	5	0	53	0	35	0
April	23	0	105	0	382	325	6	0	115	0	19	0
May	61	0	44	0	411	376	3	0	88	0	31	0
June	56	0	66	0	284	254	12	0	47	0	33	0
July	25	0	70	0	448	363	0	0	81	0	25	0
August	40	0	67	0	287	227	0	0	118	0	11	0
September	34	0	55	0	388	350	3	0	124	0	27	0
October	50	0	75	0	259	211	0	0	34	0	22	0
November	22	0	77	0	387	331	0	0	22	0	16	0
December	33	0	46	0	140	106	0	0	30	0	43	0
Average	**43**	**0**	**81**	**0**	**341**	**281**	**4**	**0**	**90**	**0**	**31**	**0**
2002 January	7	0	114	0	187	168	0	0	49	0	16	0
February	34	0	106	0	243	204	0	0	51	0	10	0
March	47	0	98	0	314	272	0	0	95	12	19	0
April	93	0	80	0	612	559	2	0	192	36	8	0
May	100	0	42	0	476	424	0	0	363	220	23	0
June	45	0	70	0	535	498	0	0	209	78	8	0
July	29	0	45	0	402	356	0	0	165	79	30	0
August	82	0	56	0	478	402	0	0	227	100	29	0
September	26	0	77	0	342	294	0	0	235	104	0	0
October	65	0	71	0	318	308	0	0	287	209	0	0
November	58	0	84	0	409	388	0	0	255	85	19	0
December	61	0	43	0	230	144	0	0	280	97	41	0
Average	**54**	**0**	**74**	**0**	**379**	**335**	**(s)**	**0**	**202**	**86**	**17**	**0**
2003 January	132	0	49	0	210	104	0	0	190	99	12	0
February	79	0	117	0	255	211	0	0	271	121	26	0
March	110	0	64	0	199	147	0	0	255	16	16	0
3-Month Average	**108**	**0**	**75**	**0**	**220**	**152**	**0**	**0**	**238**	**77**	**18**	**0**
2002 3-Month Average	**29**	**0**	**106**	**0**	**248**	**215**	**0**	**0**	**66**	**4**	**15**	**0**
2001 3-Month Average	**58**	**0**	**123**	**0**	**371**	**279**	**8**	**0**	**141**	**0**	**47**	**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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, 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]										Total Imports	
	Trinidad and Tobago		United Kingdom		U.S. Virgin Islands		Other Non-OPEC[b]		Total			
	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**	**[c]4,347**	**[c]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 Average	**66**	**53**	**250**	**161**	**293**	**0**	**531**	**288**	**5,803**	**4,537**	**10,708**	**8,706**
1999 Average	**58**	**40**	**365**	**284**	**280**	**1**	**575**	**304**	**5,899**	**4,502**	**10,852**	**8,731**
2000 Average	**85**	**56**	**366**	**291**	**291**	**0**	**618**	**214**	**6,257**	**4,526**	**11,459**	**9,071**
2001 January	95	55	417	287	339	0	785	164	7,028	4,415	12,555	8,933
February	45	16	378	249	273	0	840	186	6,573	4,220	11,643	8,609
March	67	57	253	167	263	0	483	211	6,301	4,472	12,132	9,603
April	85	60	254	155	201	0	656	216	6,549	4,764	12,653	10,111
May	58	38	418	359	223	0	793	164	6,450	4,520	12,529	9,885
June	70	59	241	192	339	0	759	218	6,091	4,232	11,732	9,105
July	85	58	368	309	320	0	739	392	6,252	4,565	11,760	9,552
August	86	51	314	273	202	0	920	469	6,333	4,620	11,622	9,383
September	91	51	229	165	283	0	704	221	6,225	4,379	11,818	9,339
October	45	39	365	265	263	0	514	182	5,837	4,284	11,379	9,211
November	68	56	367	278	259	0	656	257	6,531	4,858	11,628	9,320
December	69	69	286	225	247	0	592	246	5,969	4,417	10,994	8,839
Average	**72**	**51**	**324**	**244**	**268**	**0**	**702**	**244**	**6,343**	**4,480**	**11,871**	**9,328**
2002 January	71	71	327	245	266	0	546	181	5,846	4,160	10,847	8,646
February	63	63	378	297	242	0	416	155	6,037	4,488	10,769	8,642
March	73	69	288	236	198	0	621	162	6,066	4,348	10,957	8,650
April	59	59	459	385	192	0	743	227	6,973	5,086	11,524	9,140
May	71	63	487	402	159	0	799	260	7,149	5,331	11,612	9,205
June	90	77	683	579	236	0	780	346	7,185	5,476	11,532	9,228
July	73	73	509	471	240	0	929	409	6,984	5,199	11,294	9,010
August	68	50	559	480	234	0	872	454	7,217	5,378	11,821	9,545
September	99	76	358	278	231	0	758	367	6,600	4,925	11,029	8,796
October	112	75	591	486	233	0	722	225	7,100	5,324	11,745	9,495
November	91	82	669	632	321	0	771	239	7,536	5,432	12,142	9,561
December	88	55	415	376	281	0	543	172	6,870	4,895	10,987	8,619
Average	**80**	**68**	**477**	**406**	**236**	**0**	**710**	**267**	**6,800**	**5,005**	**11,358**	**9,047**
2003 January	119	73	491	411	179	0	688	181	6,736	4,698	11,008	8,547
February	78	44	474	407	250	0	667	179	6,773	4,706	10,764	8,303
March	105	78	379	299	328	0	799	226	6,486	4,242	11,857	9,055
3-Month Average	**101**	**66**	**447**	**371**	**252**	**0**	**720**	**196**	**6,662**	**4,543**	**11,224**	**8,646**
2002 3-Month Average	**69**	**68**	**329**	**258**	**235**	**0**	**531**	**166**	**5,981**	**4,327**	**10,861**	**8,646**
2001 3-Month Average	**70**	**44**	**348**	**234**	**292**	**0**	**698**	**187**	**6,636**	**4,374**	**12,126**	**9,063**

[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.

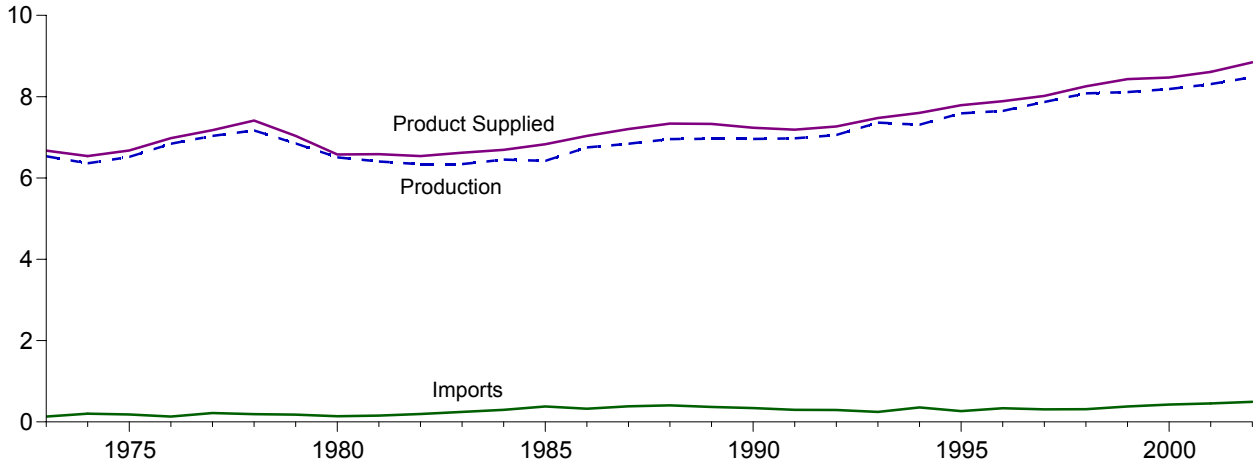
Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

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

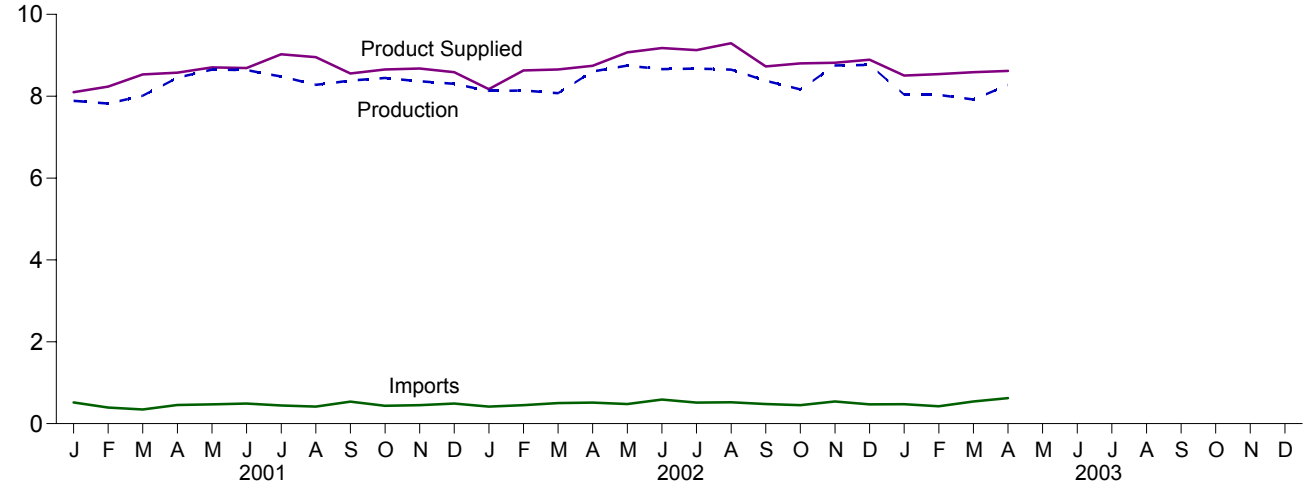
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S3.

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

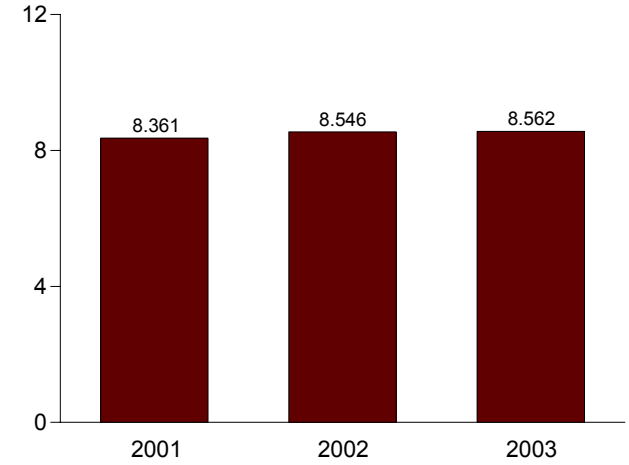
Overview, 1973-2002



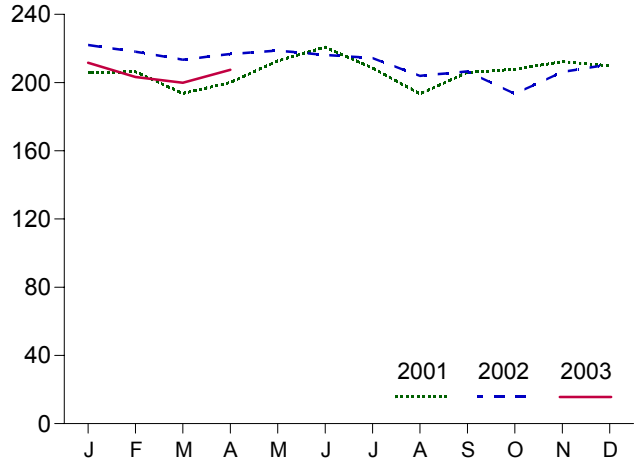
Overview, Monthly



Product Supplied, January-April



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.4.

Table 3.4 Finished Motor Gasoline Supply and Disposition

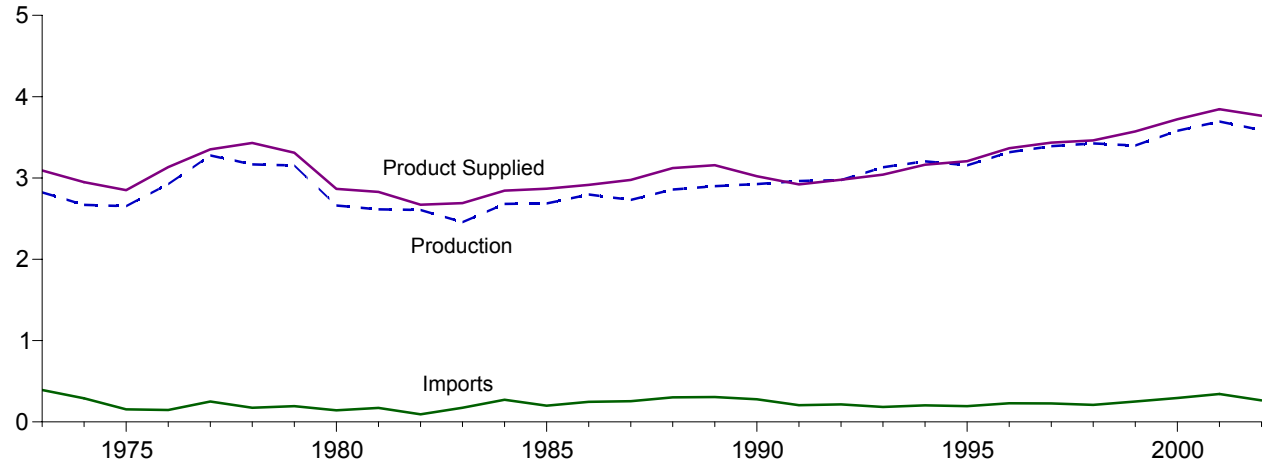
	Supply		Disposition			Motor Gasoline Stocks[a]		Oxygenates Stocks[a]
	Total Production	Imports[b]	Stock Change[b,c]	Exports	Product Supplied	Total[d]	Finished	
	Thousand Barrels per Day					Million Barrels		
1973 Average	**6,535**	**134**	**-9**	**4**	**6,674**	**209**	**NA**	**NA**
1974 Average	**6,360**	**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 Average	**8,082**	**311**	**15**	**125**	**8,253**	**216**	**172**	**14**
1999 Average	**8,111**	**382**	**-49**	**111**	**8,431**	**193**	**154**	**14**
2000 Average	**8,186**	**427**	**-3**	**144**	**8,472**	**196**	**153**	**12**
2001 January	7,888	519	183	125	8,099	206	159	12
February	7,822	394	-146	128	8,234	206	155	12
March	8,011	346	-320	145	8,532	194	145	12
April	8,450	455	187	143	8,575	200	150	12
May	8,651	473	316	102	8,706	213	160	12
June	8,637	490	310	127	8,690	221	169	13
July	8,481	443	-229	129	9,023	209	162	13
August	8,277	415	-378	117	8,953	193	151	13
September	8,381	539	248	115	8,557	206	158	14
October	8,446	435	70	156	8,655	208	160	13
November	8,366	452	34	107	8,677	212	161	13
December	8,301	491	7	200	8,585	210	161	13
Average	**8,312**	**454**	**23**	**133**	**8,610**	**210**	**161**	**13**
2002 January	8,131	416	280	96	8,172	222	170	15
February	8,137	451	-144	102	8,630	218	166	14
March	8,073	504	-181	104	8,655	213	160	14
April	8,606	512	242	134	8,743	217	168	14
May	8,748	480	69	88	9,071	219	170	15
June	8,661	587	-59	131	9,176	216	168	15
July	8,677	515	-71	136	9,128	214	166	15
August	8,648	523	-255	133	9,294	204	158	14
September	8,379	480	16	113	8,729	207	158	13
October	8,166	451	-322	135	8,804	193	148	13
November	8,751	542	345	130	8,818	206	159	13
December	8,767	470	158	186	8,892	211	164	12
Average	**8,480**	**494**	**6**	**124**	**8,844**	**211**	**164**	**12**
2003 January	8,038	474	-166	175	8,504	212	158	13
February	8,031	425	-227	143	8,540	203	152	14
March	[R]7,917	[R]541	[R]-229	[R]102	[R]8,585	[R]200	[R]145	15
April	[E]8,274	[E]623	[E]157	[E]122	[E]8,617	[E]207	[E]151	NA
4-Month Average	**[E]8,064**	**[E]517**	**[E]-116**	**[E]135**	**[E]8,562**	**[E]207**	**[E]151**	**NA**
2002 4-Month Average	**8,236**	**471**	**52**	**109**	**8,546**	**217**	**168**	**14**
2001 4-Month Average	**8,045**	**429**	**-23**	**135**	**8,361**	**200**	**150**	**12**

[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.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S4. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S4.

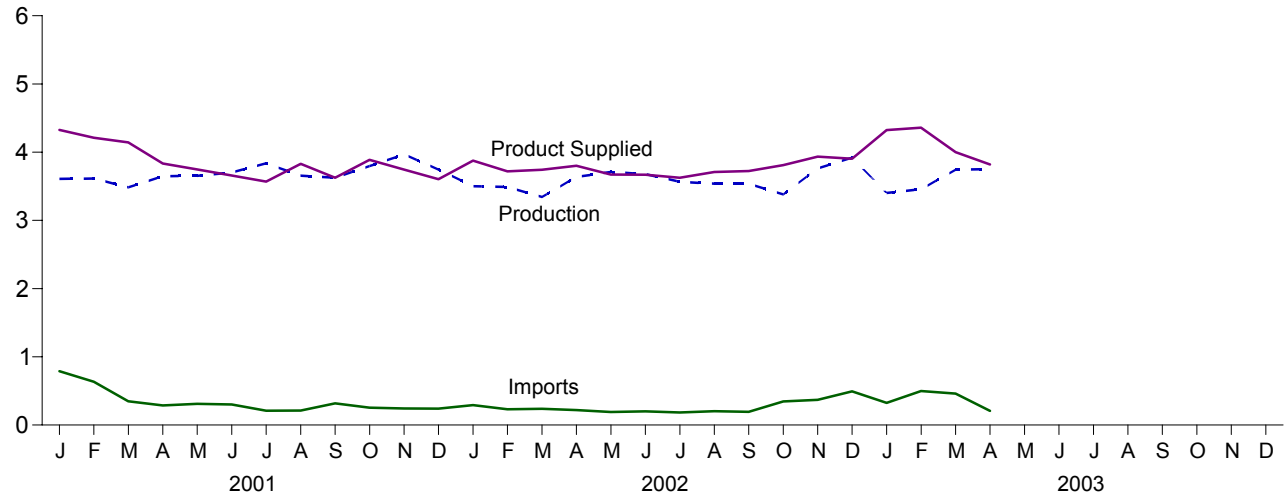
Figure 3.3 Distillate Fuel Oil

(Million Barrels per Day, Except as Noted)

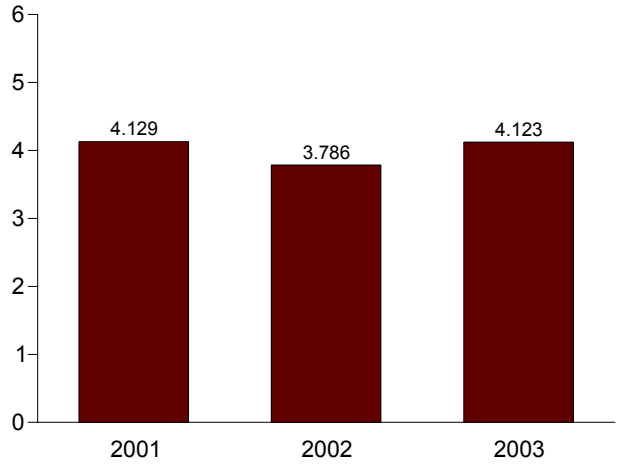
Overview, 1973-2002



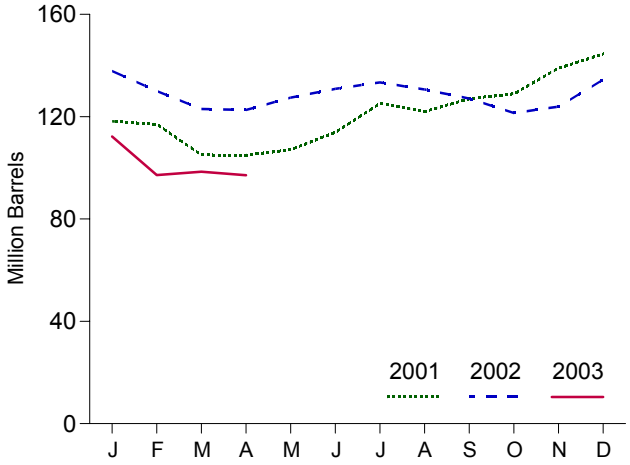
Overview, Monthly



Product Supplied, January-April



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.5.

Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks[a]		
								Sulfur Content	
	Total Production	Imports	Crude Oil Used Directly[b]	Stock Change[c]	Exports	Product Supplied[b]	Total	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**	[g] **64**	[g] **77**
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 Average	**3,424**	**210**	**–**	**48**	**124**	**3,461**	**156**	**77**	**79**
1999 Average	**3,399**	**250**	**–**	**-84**	**162**	**3,572**	**125**	**69**	**56**
2000 Average	**3,580**	**295**	**–**	**-20**	**173**	**3,722**	**118**	**72**	**46**
2001 January	3,609	789	–	6	67	4,325	118	68	50
February	3,612	635	–	-42	77	4,212	117	70	47
March	3,483	348	–	-387	75	4,143	105	68	37
April	3,650	288	–	-3	107	3,834	105	66	39
May	3,652	310	–	71	146	3,746	107	65	42
June	3,702	302	–	225	120	3,659	114	69	45
July	3,837	209	–	364	113	3,569	125	74	51
August	3,654	212	–	-102	140	3,829	122	68	54
September	3,625	317	–	166	152	3,624	127	72	55
October	3,796	253	–	62	99	3,888	129	69	60
November	3,968	244	–	334	132	3,746	139	76	63
December	3,744	241	–	180	202	3,604	145	82	62
Average	**3,695**	**344**	**–**	**73**	**119**	**3,847**	**145**	**82**	**62**
2002 January	3,501	292	–	-192	109	3,875	138	81	57
February	3,489	231	–	-279	279	3,720	130	78	52
March	3,345	239	–	-225	67	3,741	123	74	49
April	3,636	219	–	-14	68	3,801	123	74	48
May	3,709	191	–	155	74	3,671	127	77	50
June	3,679	199	–	115	93	3,670	131	78	53
July	3,565	183	–	80	44	3,624	133	77	56
August	3,538	202	–	-89	119	3,710	131	71	60
September	3,537	193	–	-120	127	3,723	127	68	59
October	3,381	345	–	-180	96	3,809	121	66	56
November	3,761	370	–	82	114	3,936	124	71	52
December	3,921	493	–	340	171	3,904	134	81	54
Average	**3,589**	**264**	**–**	**-26**	**112**	**3,766**	**134**	**81**	**54**
2003 January	3,403	324	–	-717	119	4,325	112	68	44
February	3,455	498	–	-538	132	4,359	97	60	37
March	[R] 3,743	[R] 460	–	[R] 43	[R] 161	[R] 4,000	[R] 99	[R] 63	[R] 35
April	[E] 3,754	[E] 207	–	[E] 7	[E] 133	[E] 3,821	[E] 97	[E] 65	[E] 32
4-Month Average	[E] **3,591**	[E] **370**	**–**	[E] **-298**	[E] **136**	[E] **4,123**	[E] **97**	[E] **65**	[E] **32**
2002 4-Month Average	**3,492**	**246**	**–**	**-176**	**128**	**3,786**	**123**	**74**	**48**
2001 4-Month Average	**3,587**	**514**	**–**	**-109**	**81**	**4,129**	**105**	**66**	**39**

[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.

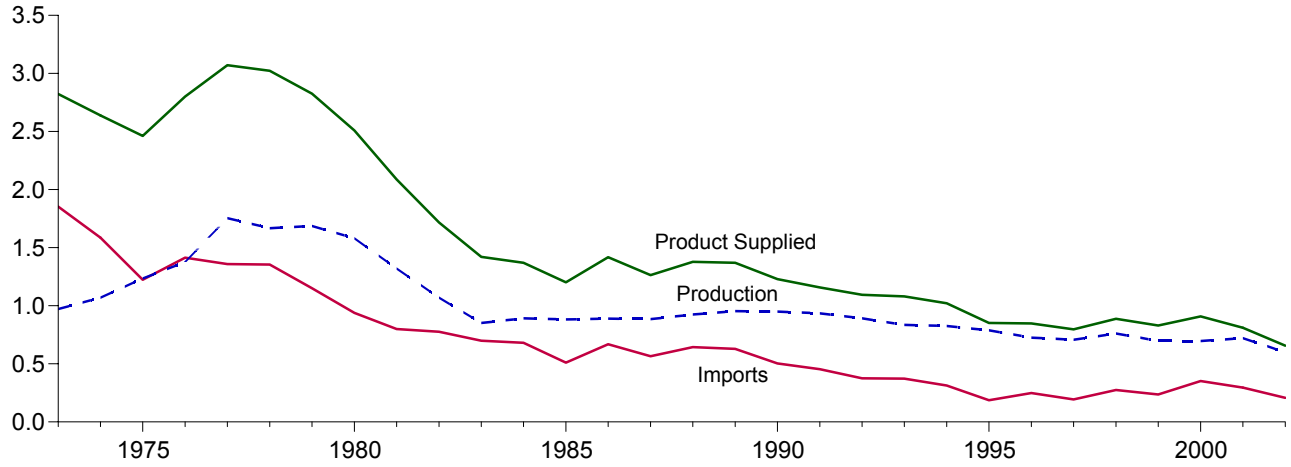
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S5. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S5.

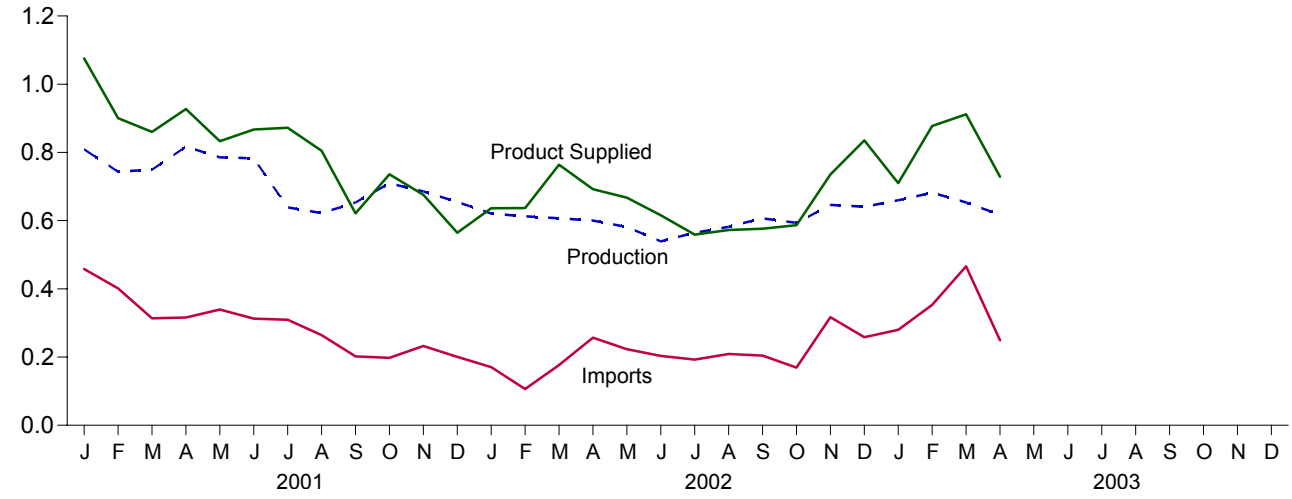
Figure 3.4 Residual Fuel Oil

(Million Barrels per Day, Except as Noted)

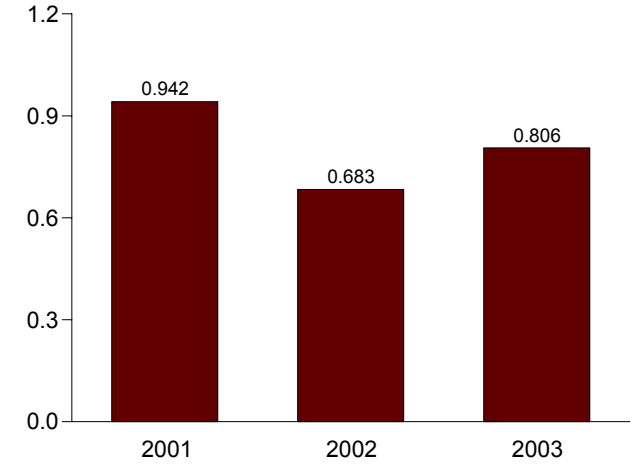
Overview, 1973-2002



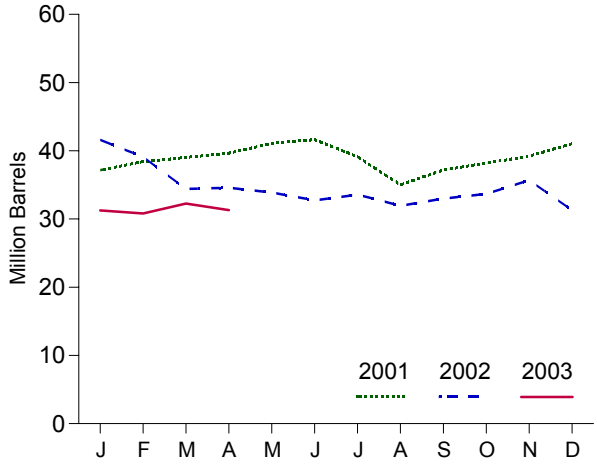
Overview, Monthly



Product Supplied, January-April



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.6.

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			
	Total Production	Imports	Crude Oil Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Stocks[c]
	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 Average	**762**	**275**	**–**	**12**	**138**	**887**	**45**
1999 Average	**698**	**237**	**–**	**-25**	**129**	**830**	**36**
2000 Average	**696**	**352**	**–**	**1**	**139**	**909**	**36**
2001 January	809	458	–	31	160	1,075	37
February	743	401	–	44	200	901	38
March	750	313	–	20	183	860	39
April	817	316	–	21	185	927	40
May	786	339	–	46	246	833	41
June	783	313	–	19	209	867	42
July	639	309	–	-82	158	872	39
August	622	264	–	-132	214	805	35
September	653	202	–	72	161	621	37
October	710	198	–	33	139	736	38
November	685	233	–	33	209	676	39
December	655	200	–	60	231	565	41
Average	**721**	**295**	**–**	**13**	**191**	**811**	**41**
2002 January	621	170	–	18	138	636	42
February	612	106	–	-89	171	637	39
March	607	177	–	-152	171	764	34
April	600	257	–	6	159	692	35
May	582	223	–	-23	160	667	34
June	539	204	–	-38	165	616	33
July	564	193	–	27	171	559	34
August	582	209	–	-53	272	572	32
September	607	205	–	35	200	576	33
October	593	169	–	22	153	586	34
November	646	317	–	67	160	735	36
December	641	258	–	-142	205	835	31
Average	**599**	**208**	**–**	**-27**	**177**	**657**	**31**
2003 January	660	280	–	-1	231	710	31
February	682	353	–	-16	173	877	31
March	[R] 653	[R] 466	–	[R] 47	[R] 161	[R] 912	[R] 32
April	[E] 617	[E] 249	–	[E] 3	[E] 135	[E] 729	[E] 31
4-Month Average	[E] **653**	[E] **338**	**–**	[E] **9**	[E] **175**	[E] **806**	[E] **31**
2002 4-Month Average	**610**	**179**	**–**	**-54**	**159**	**683**	**35**
2001 4-Month Average	**780**	**372**	**–**	**29**	**181**	**942**	**40**

[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.

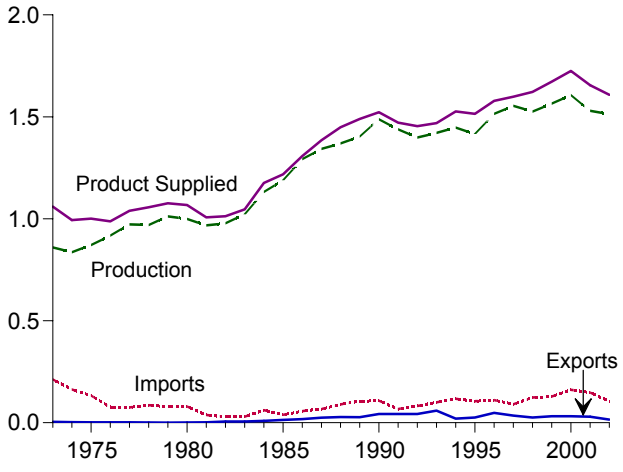
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S6. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S6.

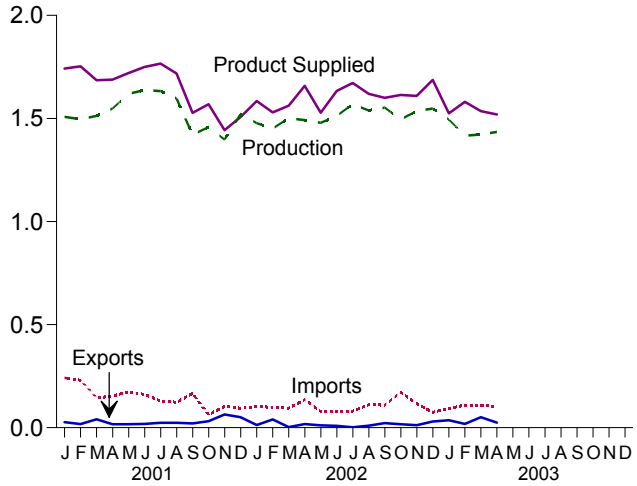
Figure 3.5 Jet Fuel

(Million Barrels Per Day, Except as Noted)

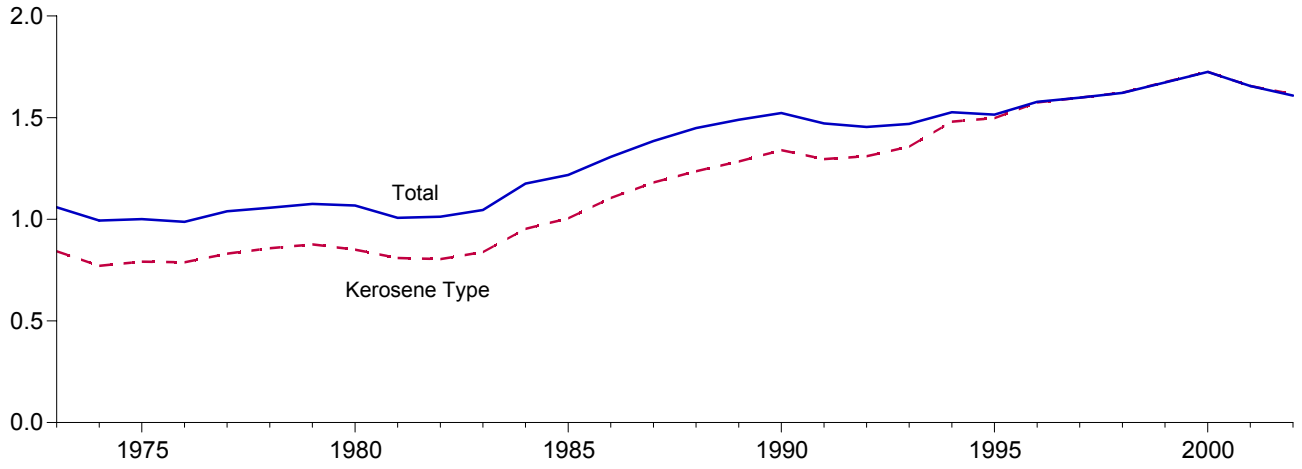
Overview, 1973-2002



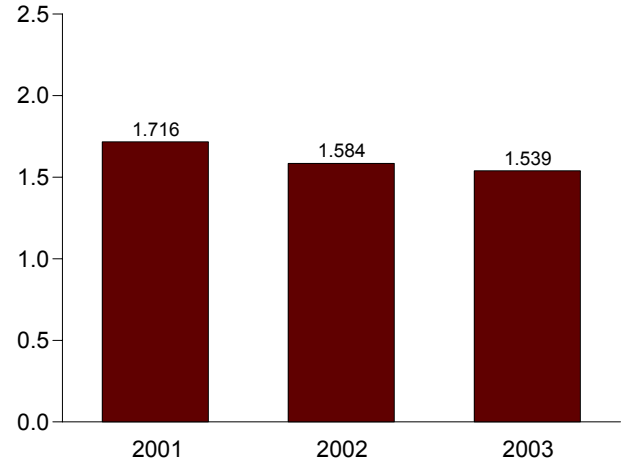
Overview, Monthly



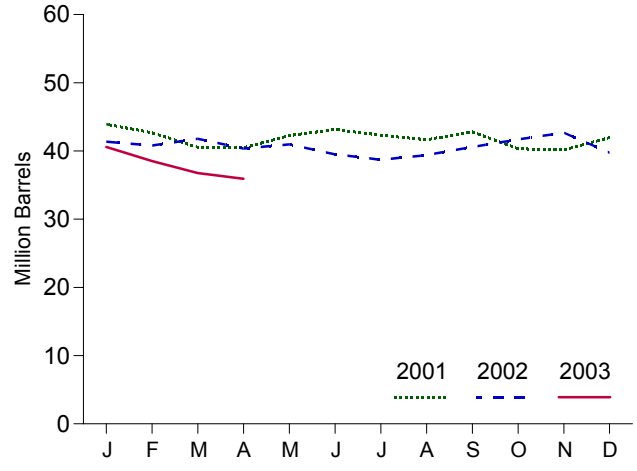
Product Supplied by Type, 1973-2002



Product Supplied, January-April



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.7.

Table 3.7 Jet Fuel Supply and Disposition

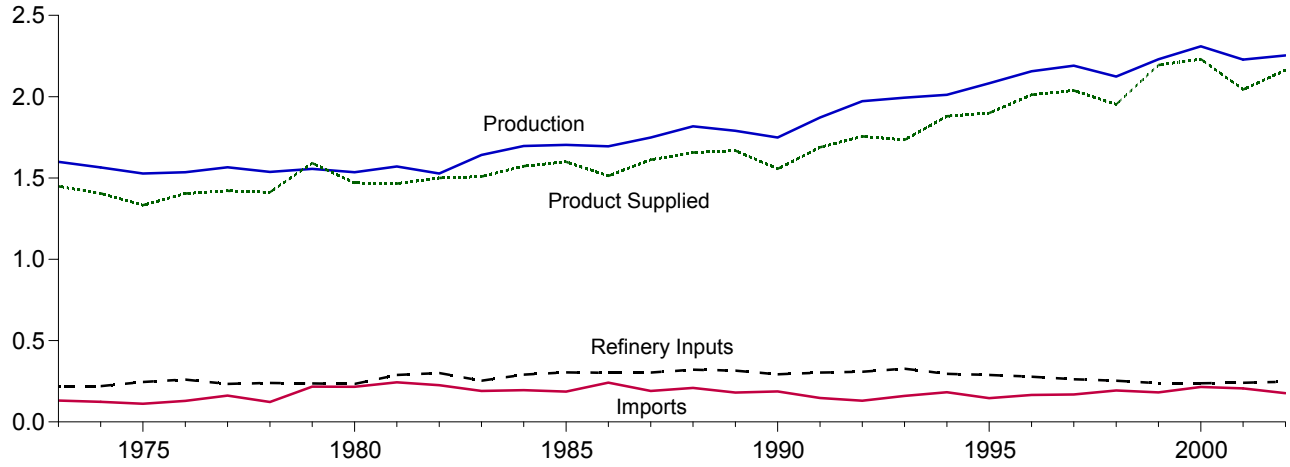
	Supply			Disposition				Stocks[a]	
	Production					Product Supplied			
	Total	Kerosene Type	Imports	Stock Change[b]	Exports	Total	Kerosene Type	Total	Kerosene Type
	Thousand Barrels per Day							Million Barrels	
1973 Average	**859**	**679**	**212**	**8**	**4**	**1,059**	**842**	**29**	**23**
1974 Average	**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 Average	**1,526**	**1,525**	**124**	**2**	**26**	**1,622**	**1,623**	**45**	**45**
1999 Average	**1,565**	**1,565**	**128**	**-11**	**32**	**1,673**	**1,675**	**41**	**40**
2000 Average	**1,606**	**1,606**	**162**	**11**	**32**	**1,725**	**1,725**	**45**	**44**
2001 January	1,508	1,508	242	-20	27	1,742	1,743	44	44
February	1,497	1,497	230	-44	18	1,753	1,752	43	43
March	1,512	1,512	145	-69	41	1,685	1,685	41	41
April	1,548	1,547	153	-4	17	1,688	1,687	40	40
May	1,620	1,620	175	59	17	1,720	1,722	42	42
June	1,637	1,637	161	30	18	1,750	1,749	43	43
July	1,633	1,633	129	-27	23	1,766	1,763	42	42
August	1,597	1,597	123	-21	24	1,718	1,720	42	42
September	1,420	1,420	166	38	21	1,527	1,525	43	43
October	1,458	1,458	63	-79	31	1,569	1,568	40	40
November	1,398	1,398	104	-6	64	1,443	1,444	40	40
December	1,521	1,521	94	58	51	1,507	1,512	42	42
Average	**1,530**	**1,529**	**148**	**-7**	**29**	**1,655**	**1,656**	**42**	**42**
2002 January	1,477	1,477	102	-18	13	1,585	1,589	41	41
February	1,451	1,451	99	-20	40	1,529	1,529	41	41
March	1,501	1,501	94	31	3	1,562	1,562	42	42
April	1,492	1,491	137	-48	18	1,658	1,674	40	40
May	1,479	1,479	79	20	11	1,527	1,535	41	41
June	1,512	1,512	81	-49	9	1,633	1,642	40	39
July	1,569	1,568	80	-25	2	1,672	1,671	39	39
August	1,539	1,538	112	22	10	1,619	1,626	39	39
September	1,552	1,552	110	40	22	1,600	1,608	41	41
October	1,495	1,495	171	35	17	1,614	1,630	42	42
November	1,537	1,536	117	33	12	1,609	1,609	43	43
December	1,548	1,547	75	-94	30	1,687	1,704	40	40
Average	**1,513**	**1,513**	**105**	**-6**	**15**	**1,608**	**1,615**	**40**	**40**
2003 January	1,495	1,495	94	27	36	1,525	1,524	41	41
February	1,416	1,416	109	-74	19	1,581	1,580	39	38
March	[R] 1,422	[R] 1,430	[R] 107	[R] -56	[R] 50	[R] 1,535	[R] 1,559	[R] 37	[R] 37
April	[E] 1,435	[E] 1,434	[E] 102	[E] -7	[E] 25	[E] 1,519	[E] 1,519	[E] 36	[E] 36
4-Month Average	[E] **1,443**	[E] **1,444**	[E] **103**	[E] **-27**	[E] **33**	[E] **1,539**	[E] **1,545**	[E] **36**	[E] **36**
2002 4-Month Average	**1,481**	**1,481**	**108**	**-13**	**18**	**1,584**	**1,589**	**40**	**40**
2001 4-Month Average	**1,516**	**1,516**	**192**	**-34**	**26**	**1,716**	**1,716**	**40**	**40**

[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.

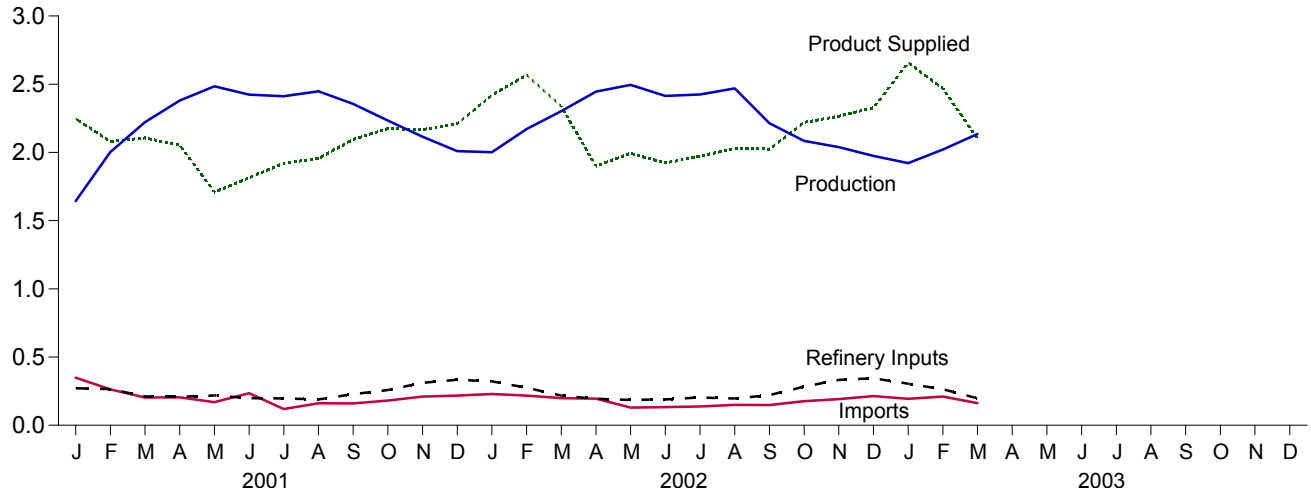
Note: Geographic coverage is the 50 States and the District of Columbia.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S7. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S7.

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

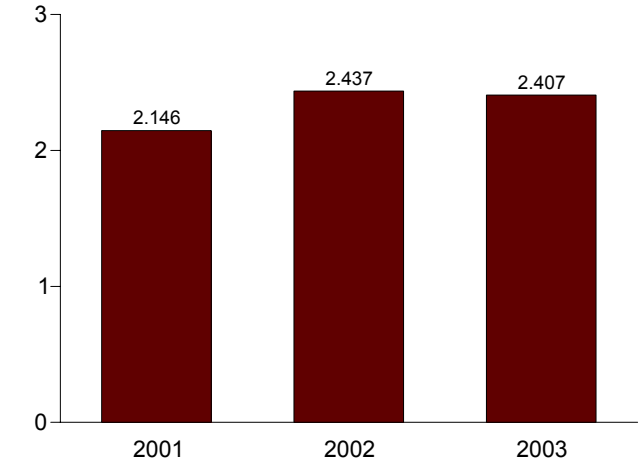
Overview, 1973-2002



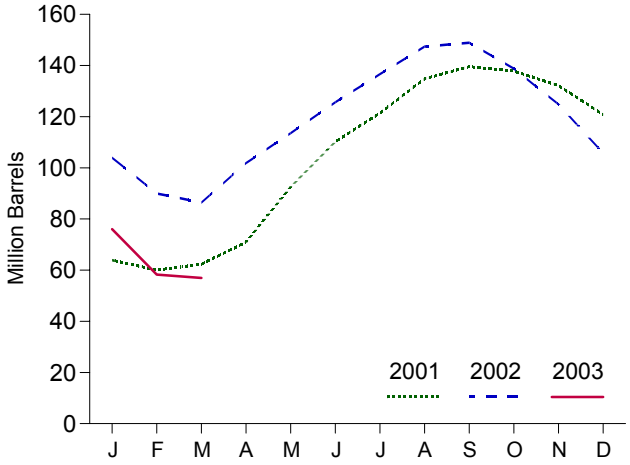
Overview, Monthly



Product Supplied, January-March



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.8.

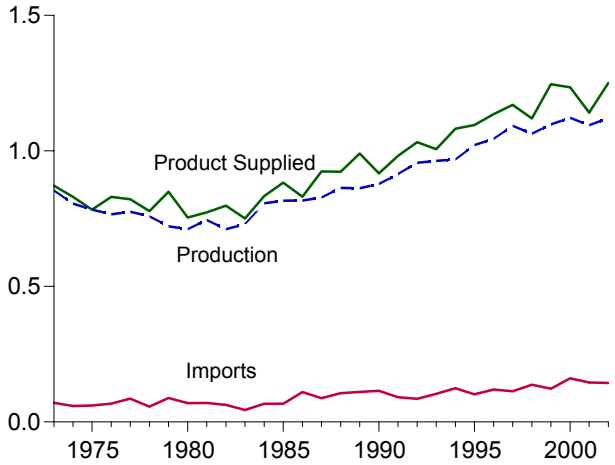
Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Product Supplied	Stocks[b]
	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 Average	**2,124**	**194**	**70**	**253**	**42**	**1,952**	**115**
1999 Average	**2,230**	**182**	**-71**	**238**	**50**	**2,195**	**89**
2000 Average	**2,310**	**215**	**-19**	**238**	**74**	**2,231**	**83**
2001 January	1,644	349	-601	272	75	2,246	64
February	2,002	263	-140	266	59	2,081	60
March	2,221	203	75	212	33	2,105	62
April	2,380	204	288	209	35	2,053	71
May	2,484	170	696	219	31	1,709	93
June	2,423	235	589	199	56	1,815	110
July	2,412	119	363	196	51	1,920	121
August	2,448	162	432	189	34	1,956	135
September	2,356	160	158	228	35	2,095	140
October	2,234	181	-55	258	37	2,175	138
November	2,115	211	-191	312	37	2,168	132
December	2,009	217	-361	334	43	2,210	121
Average	**2,228**	**206**	**105**	**241**	**44**	**2,044**	**121**
2002 January	2,001	229	-565	322	52	2,420	104
February	2,171	217	-498	276	44	2,567	90
March	2,302	199	-115	218	64	2,335	86
April	2,446	195	515	195	32	1,900	102
May	2,495	129	378	186	67	1,993	114
June	2,414	133	402	190	31	1,923	126
July	2,425	137	355	203	33	1,972	137
August	2,470	150	348	196	46	2,030	147
September	2,214	148	49	221	67	2,025	149
October	2,085	176	-326	284	85	2,219	139
November	2,038	191	-466	333	98	2,265	125
December	1,974	214	-615	344	131	2,328	106
Average	**2,253**	**176**	**-43**	**247**	**63**	**2,163**	**106**
2003 January	1,922	194	-959	304	113	2,657	76
February	2,021	210	-634	265	130	2,470	58
March	2,135	162	-43	197	43	2,101	57
3-Month Average	**2,026**	**188**	**-542**	**255**	**95**	**2,407**	**57**
2002 3-Month Average	**2,158**	**215**	**-389**	**272**	**54**	**2,437**	**86**
2001 3-Month Average	**1,954**	**272**	**-225**	**249**	**55**	**2,146**	**62**

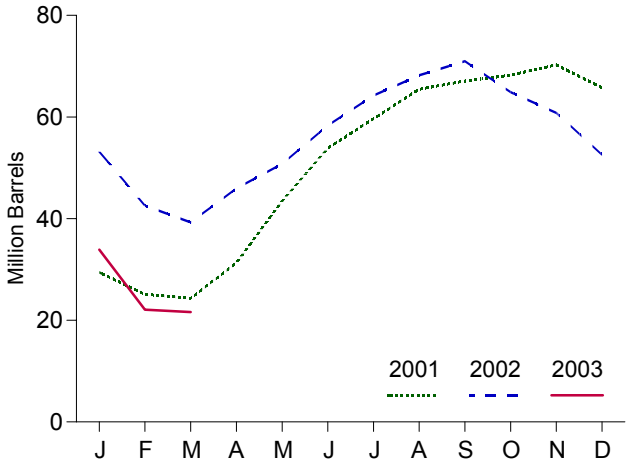
[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are at end of period.
[c] See Note 4 at end of section.
[d] See Note 6 at end of section.
Notes: • Liquefied petroleum gases include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane and isobutylene.
• Geographic coverage is the 50 States and the District of Columbia.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S8. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S9.

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

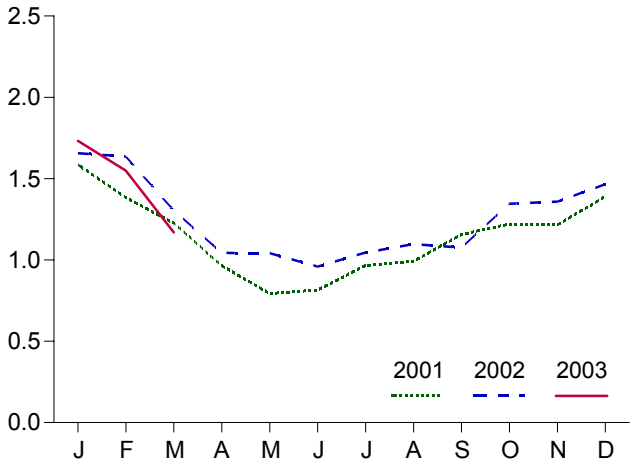
Overview, 1973-2002



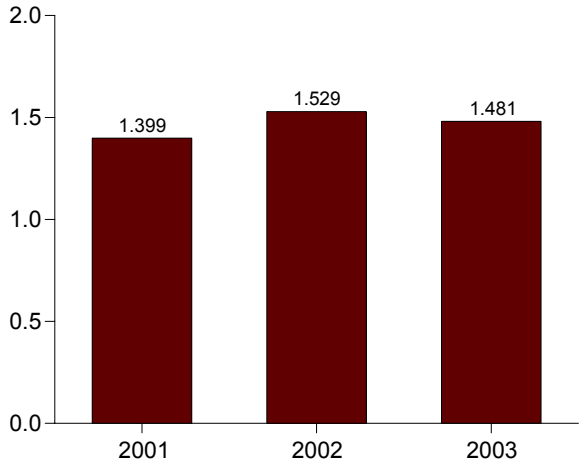
Stocks, End of Month



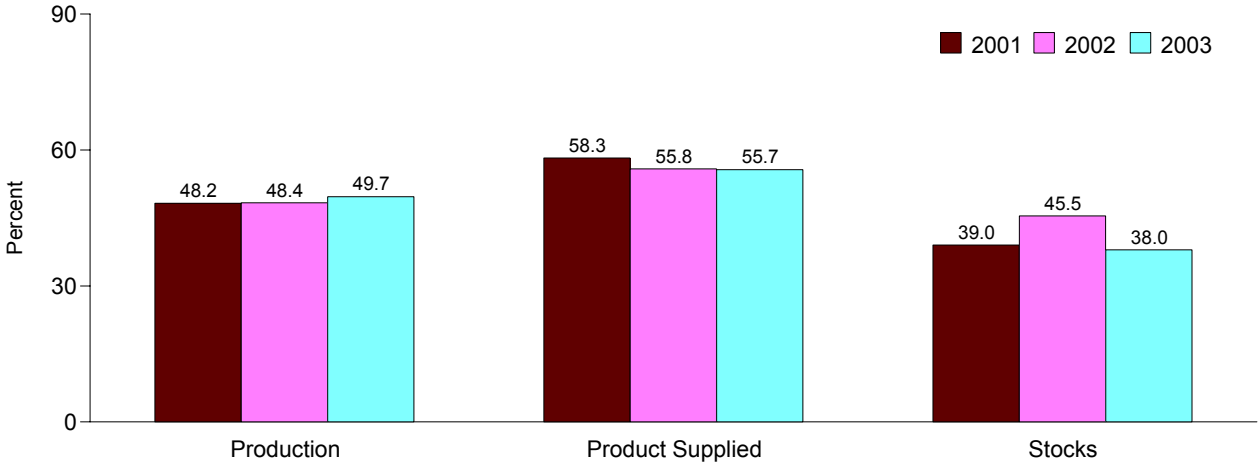
Product Supplied, Monthly



Product Supplied, January-March



Share of Liquefied Petroleum Gases, March



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Source: Table 3.9 and, for calculation of shares, data prio r to rounding.

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

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Product Supplied	Stocks[b]
	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 Average	**1,064**	**137**	**56**	**0**	**25**	**1,120**	**65**
1999 Average	**1,097**	**122**	**-59**	**0**	**33**	**1,246**	**43**
2000 Average	**1,122**	**161**	**-5**	**0**	**53**	**1,235**	**41**
2001 January	957	312	-379	0	62	1,586	29
February	1,048	222	-155	0	41	1,383	25
March	1,072	151	-25	0	22	1,226	24
April	1,110	105	232	0	18	965	31
May	1,121	80	392	0	15	794	43
June	1,093	103	348	0	32	816	54
July	1,102	92	186	0	42	966	60
August	1,111	95	187	0	27	992	65
September	1,146	92	54	0	27	1,157	67
October	1,138	146	38	0	26	1,220	68
November	1,135	175	68	0	26	1,216	70
December	1,104	176	-145	0	35	1,390	66
Average	**1,095**	**145**	**67**	**0**	**31**	**1,142**	**66**
2002 January	1,087	197	-414	0	42	1,657	53
February	1,114	177	-379	0	35	1,635	43
March	1,113	145	-105	0	60	1,304	39
April	1,134	155	221	0	25	1,043	46
May	1,155	86	157	0	43	1,041	51
June	1,134	100	252	0	23	959	58
July	1,137	119	190	0	22	1,045	64
August	1,138	116	128	0	28	1,098	68
September	1,093	130	93	0	54	1,076	71
October	1,080	143	-196	0	74	1,345	65
November	1,138	167	-137	0	85	1,358	61
December	1,126	192	-266	0	119	1,465	53
Average	**1,121**	**144**	**-37**	**0**	**51**	**1,251**	**53**
2003 January	1,063	161	-602	0	95	1,732	34
February	1,068	176	-422	0	116	1,550	22
March	1,061	124	-15	0	31	1,169	22
3-Month Average	**1,064**	**153**	**-344**	**0**	**79**	**1,481**	**22**
2002 3-Month Average	**1,105**	**173**	**-297**	**0**	**46**	**1,529**	**39**
2001 3-Month Average	**1,025**	**229**	**-187**	**0**	**42**	**1,399**	**24**

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

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." • **1981-1991:** EIA, *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S8. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Products Supplied	Stocks[b]
	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 Average	**3,253**	**888**	**18**	**1,002**	**380**	**2,741**	**219**
1999 Average	**3,211**	**943**	**-64**	**1,061**	**338**	**2,819**	**196**
2000 Average	**3,154**	**938**	**30**	**991**	**429**	**2,642**	**207**
2001 January	2,802	1,266	438	544	483	2,604	221
February	3,045	1,111	551	597	499	2,509	236
March	2,883	1,174	180	902	424	2,550	242
April	2,984	1,126	23	984	451	2,651	242
May	3,120	1,177	-57	1,103	465	2,787	241
June	3,229	1,126	-243	1,388	430	2,780	233
July	3,214	998	-382	1,432	393	2,769	221
August	3,197	1,062	-287	1,162	492	2,893	213
September	3,140	1,094	261	1,048	334	2,591	220
October	3,061	1,038	-236	1,060	473	2,802	213
November	3,107	1,066	119	965	402	2,686	217
December	2,858	910	-75	941	370	2,533	214
Average	**3,053**	**1,095**	**20**	**1,013**	**434**	**2,681**	**214**
2002 January	2,914	992	271	711	441	2,482	222
February	2,974	1,022	50	1,071	482	2,392	224
March	3,047	1,094	263	982	436	2,459	232
April	3,161	1,064	-47	1,174	472	2,626	230
May	3,127	1,305	-76	1,257	503	2,747	228
June	3,228	1,101	-174	1,267	445	2,791	223
July	3,247	1,175	-96	1,205	420	2,893	220
August	3,316	1,081	-299	1,237	550	2,909	211
September	3,197	1,097	-57	1,109	479	2,764	209
October	3,062	937	-36	1,004	471	2,561	208
November	3,070	1,042	18	1,015	503	2,576	208
December	3,038	858	-304	1,440	547	2,213	199
Average	**3,116**	**1,064**	**-41**	**1,123**	**479**	**2,619**	**199**
2003 January	3,071	1,095	468	850	526	2,323	213
February	2,959	865	-13	803	464	2,570	213
March	3,177	1,065	337	830	525	2,549	223
3-Month Average	**3,073**	**1,013**	**273**	**829**	**506**	**2,478**	**223**
2002 3-Month Average	**2,978**	**1,036**	**200**	**917**	**452**	**2,446**	**232**
2001 3-Month Average	**2,905**	**1,186**	**384**	**684**	**468**	**2,556**	**242**

[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.

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

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1,* May 1993, Table S9. • **1992 forward:** EIA, *Petroleum Supply Monthly,* May 2003, Table S10.

Petroleum

Note 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*.

Note 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.

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

Note 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.

Note 5. Stocks of Alaskan Crude Oil: Stocks of Alaskan Crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 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
3.1	Products Supplied	1982	1,857	1,856

Section 4. Natural Gas

Total dry natural gas production in the United States during February 2003 was forecast as 1.5 trillion cubic feet, 2 percent higher than production during February 2002.

Consumption of natural and supplemental gas in February 2003 was forecast as 2.4 trillion cubic feet, 8 percent higher than the level in February 2002.

Deliveries to residential consumers in February 2003 were forecast as 824 billion cubic feet, 17 percent higher than the previous February's deliveries. Total deliveries to industrial consumers during February 2003 were forecast as 781 billion cubic feet, 5 percent higher than the previous February's level.

Net imports of natural gas in February 2003 were forecast as 244 billion cubic feet, 11 percent lower than net imports in the previous February.

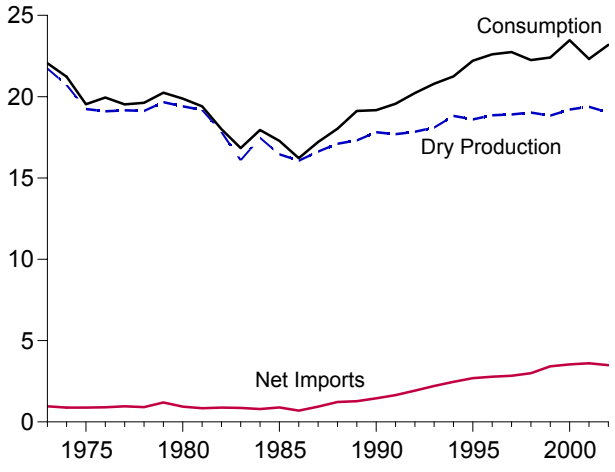
Stocks of working gas[1] in underground natural gas storage reservoirs at the end of February 2003 were 864 billion cubic feet, 53 percent lower than the level of stocks available 1 year earlier.

Net withdrawals from underground storage during February 2003 were 676 billion cubic feet, 46 percent higher than the amount of net withdrawals during February 2002.

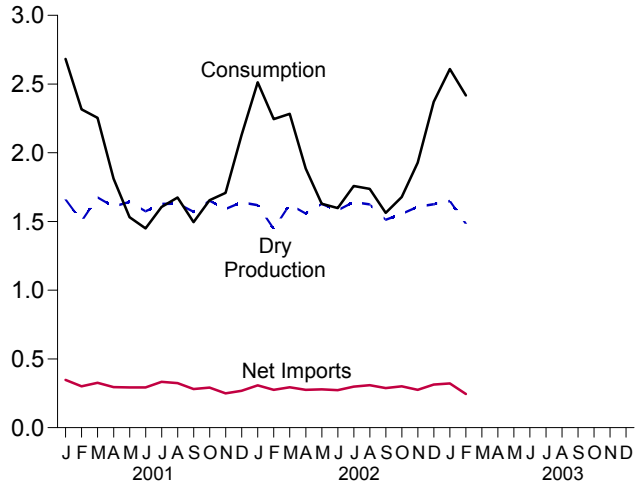
[1]Gas available for withdrawal.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

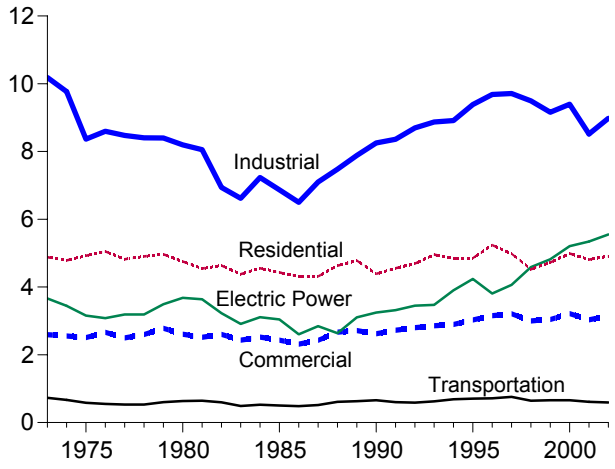
Overview, 1973-2002



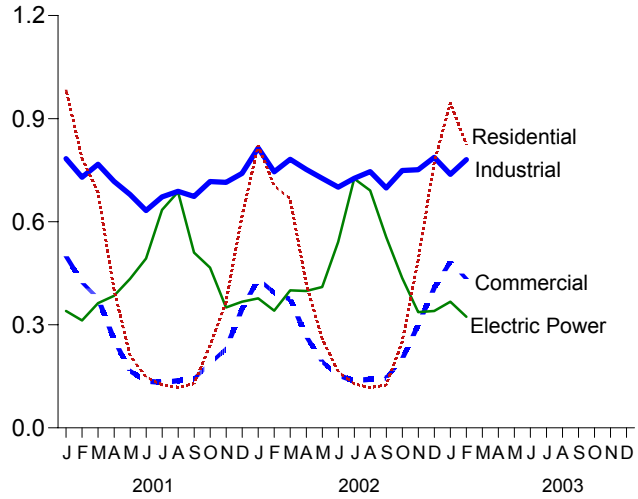
Overview, Monthly



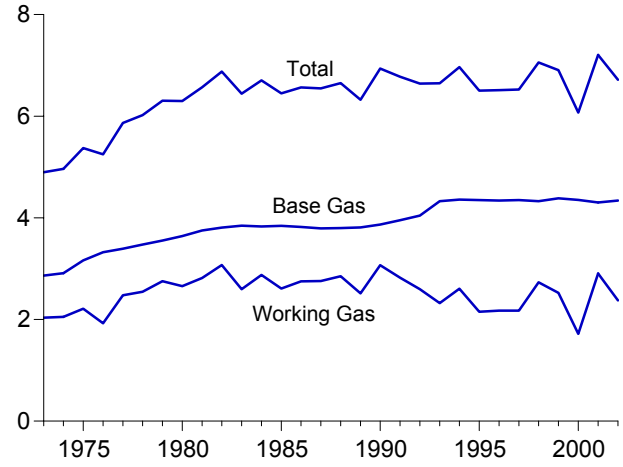
Consumption by Sector, 1973-2002



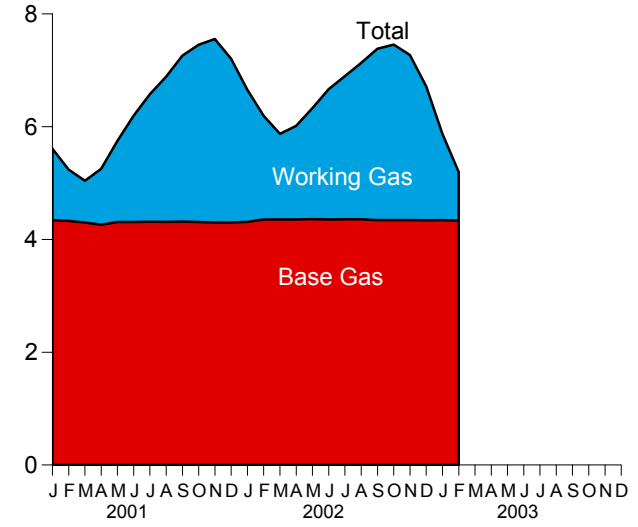
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2002



Underground Storage, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.
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]	Imports	Exports	Withdrawals From Storage[c]	Additions to Storage[c]	Balancing Item[d]	Consumption[e]
1973 Total	[f]**21,731**	**NA**	**1,033**	**77**	**1,533**	**1,974**	**-196**	**22,049**
1974 Total	[f]**20,713**	**NA**	**959**	**77**	**1,701**	**1,784**	**-289**	**21,223**
1975 Total	[f]**19,236**	**NA**	**953**	**73**	**1,760**	**2,104**	**-235**	**19,538**
1976 Total	[f]**19,098**	**NA**	**964**	**65**	**1,921**	**1,756**	**-216**	**19,946**
1977 Total	[f]**19,163**	**NA**	**1,011**	**56**	**1,750**	**2,307**	**-41**	**19,521**
1978 Total	[f]**19,122**	**NA**	**966**	**53**	**2,158**	**2,278**	**-287**	**19,627**
1979 Total	[f]**19,663**	**NA**	**1,253**	**56**	**2,047**	**2,295**	**-372**	**20,241**
1980 Total	**19,403**	**155**	**985**	**49**	**1,972**	**1,949**	**-640**	**19,877**
1981 Total	**19,181**	**176**	**904**	**59**	**1,930**	**2,228**	**-500**	**19,404**
1982 Total	**17,820**	**145**	**933**	**52**	**2,164**	**2,472**	[d]**-537**	**18,001**
1983 Total	**16,094**	**132**	**918**	**55**	**2,270**	**1,822**	[d]**-703**	**16,835**
1984 Total	**17,466**	**110**	**843**	**55**	**2,098**	**2,295**	**-217**	**17,951**
1985 Total	**16,454**	**126**	**950**	**55**	**2,397**	**2,163**	**-428**	**17,281**
1986 Total	**16,059**	**113**	**750**	**61**	**1,837**	**1,984**	**-493**	**16,221**
1987 Total	**16,621**	**101**	**993**	**54**	**1,905**	**1,911**	**-444**	**17,211**
1988 Total	**17,103**	**101**	**1,294**	**74**	**2,270**	**2,211**	**-453**	**18,030**
1989 Total	**17,311**	**107**	**1,382**	**107**	**2,854**	**2,528**	**101**	[g]**19,119**
1990 Total	**17,810**	**123**	**1,532**	**86**	**1,986**	**2,499**	**307**	[g]**19,174**
1991 Total	**17,698**	**113**	**1,773**	**129**	**2,752**	**2,672**	**27**	[g]**19,562**
1992 Total	**17,840**	**118**	**2,138**	**216**	**2,772**	**2,599**	**176**	[g]**20,228**
1993 Total	**18,095**	**119**	**2,350**	**140**	**2,799**	**2,835**	**401**	**20,790**
1994 Total	**18,821**	**111**	**2,624**	**162**	**2,579**	**2,865**	**139**	**21,247**
1995 Total	**18,599**	**110**	**2,841**	**154**	**3,025**	**2,610**	**396**	**22,207**
1996 Total	**18,854**	**91**	**2,937**	**153**	**2,981**	**2,979**	**878**	**22,609**
1997 Total	**18,902**	**77**	**2,994**	**157**	**2,894**	**2,870**	**897**	**22,737**
1998 Total	**19,024**	**80**	**3,152**	**159**	**2,432**	**2,961**	**679**	**22,246**
1999 Total	**18,832**	**82**	**3,586**	**163**	**2,808**	**2,636**	**-103**	**22,405**
2000 Total	**19,212**	**84**	**3,782**	**244**	**3,550**	**2,721**	**-192**	**23,471**
2001 January	[E]1,661	8	373	26	[E]588	[E]92	171	2,683
February	[E]1,502	7	328	27	[E]414	[E]74	167	2,316
March	[E]1,675	7	358	32	[E]298	[E]116	64	2,255
April	[E]1,609	6	319	24	[E]70	[E]349	182	1,812
May	[E]1,643	5	322	29	[E]41	[E]520	69	1,532
June	[E]1,574	5	317	25	[E]49	[E]490	18	1,450
July	[E]1,628	7	365	31	[E]66	[E]451	23	1,606
August	[E]1,631	6	353	29	[E]79	[E]386	21	1,674
September	[E]1,571	6	315	34	[E]41	[E]413	10	1,496
October	[E]1,651	6	326	34	[E]93	[E]282	-105	1,655
November	[E]1,590	7	291	42	[E]138	[E]210	-66	1,708
December	[E]1,640	8	310	42	[E]432	[E]80	-138	2,129
Total	**19,375**	**77**	**3,977**	**373**	[E]**2,309**	[E]**3,464**	**416**	**22,316**
2002 January	[E]1,619	[E]8	343	34	[E]605	[E]59	[R]31	[R]2,512
February	[E]1,447	[E]7	305	30	[E]517	[E]55	54	2,245
March	[E]1,623	[E]8	332	38	[E]425	[E]105	39	2,284
April	[E]1,558	[E]6	315	39	[E]111	[E]237	172	1,886
May	[E]1,628	[E]6	319	39	[E]58	[E]381	40	1,630
June	[E]1,582	[E]5	317	45	[E]56	[E]395	77	1,598
July	[E]1,642	[E]7	344	45	[E]101	[E]341	49	1,758
August	[E]1,625	[E]7	355	47	[E]89	[E]322	30	1,737
September	[E]1,513	[E]6	335	47	[E]72	[E]364	47	1,562
October	[E]1,556	[E]7	343	42	[E]145	[E]229	-101	1,678
November	[E]1,607	[E]7	330	55	[E]322	[E]124	-160	1,928
December	[E]1,626	[E]8	369	55	[E]624	[E]66	-136	[R]2,371
Total	**19,026**	**80**	**4,008**	**516**	[E]**3,126**	[E]**2,679**	[R]**143**	[R]**23,189**
2003 January	[RE]1,649	[RE]8	367	45	[E]886	[E]44	[R]-210	[R]2,609
February	[F]1,483	[F]6	[E]305	[E]61	[E]723	[E]48	[E]8	[F]2,417
2-Month Total	[E]**3,132**	[E]**14**	[E]**672**	[E]**106**	[E]**1,609**	[E]**92**	[E]**-203**	[E]**5,026**
2002 2-Month Total	[E]**3,066**	[E]**15**	**648**	**65**	[E]**1,122**	[E]**114**	**85**	**4,757**
2001 2-Month Total	[E]**3,163**	**15**	**701**	**52**	[E]**1,001**	[E]**166**	**338**	**4,999**

[a] "Marketed Production (Wet)" minus "Extraction Loss." See Table 4.2.
[b] See Note 1 at end of section.
[c] Data for 1980-2000 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See Note 2 at end of section.
[d] See Note 3 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).
[e] See Note 4 at end of section.
[f] May include unknown quantities of nonhydrocarbon gases.
[g] For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector" on Table 4.4. See Note 5 at end of section.
R=Revised. E=Estimate. 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.
Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.
Sources: • **Dry Gas Production: 1973-1995:** Energy Information Administration (EIA), *Natural Gas Annual 2000,* Table 94. **1996 forward:** EIA, *Natural Gas Monthly,* March 2003, Table 2. • **Supplemental Gaseous Fuels: 1980-1995:** EIA, *Natural Gas Annual,* annual reports. **1996 Forward:** EIA, *Natural Gas Monthly,* March 2003, Table 2. • **Imports** and **Exports:** Table 4.3. • **Withdrawals From Storage** and **Additions to Storage: 1973-1996:** EIA, *Natural Gas Annual 2000,* Table 94. **1997-2000:** EIA, *Natural Gas Annual 2001,* Talbe 1. **2001 forward:** Table 4.5. • **Consumption:** Table 4.4. • **Balancing Item:** Calculated as the sum of consumption, exports, and additions to storage minus dry gas production, supplemental gaseous fuels, imports, and withdrawals from storage. • **Forecast values:** EIA, Short-Term Integrated Forecasting System. See Note 10 at end of section.

In the April 2003 *Monthly Energy Review*, Table 4.1 was redesigned with separate columns for "Imports" and "Exports" (replacing "Net Imports") and separate columns for "Withdrawals From Storage" and "Additions to Storage" (replacing "Net Withdrawals From Storage"). Also, "Consumption" data were revised for 1993 forward; see Table 4.4 and Appendix D for more information.

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 Total	**24,108**	**3,427**	**617**	**103**	**19,961**	**938**	**19,024**
1999 Total	**23,823**	**3,293**	**615**	**110**	**19,805**	**973**	**18,832**
2000 Total	**24,332**	**3,374**	**617**	**100**	**20,241**	**1,028**	**19,212**
2001 January	[E] 2,119	[E] 313	[E] 50	[E] 7	[E] 1,750	[E] 89	[E] 1,661
February	[E] 1,918	[E] 289	[E] 40	[E] 6	[E] 1,582	[E] 80	[E] 1,502
March	[E] 2,152	[E] 336	[E] 45	[E] 7	[E] 1,765	[E] 90	[E] 1,675
April	[E] 2,051	[E] 305	[E] 44	[E] 7	[E] 1,695	[E] 86	[E] 1,609
May	[E] 2,082	[E] 300	[E] 43	[E] 7	[E] 1,731	[E] 88	[E] 1,643
June	[E] 1,992	[E] 284	[E] 43	[E] 7	[E] 1,659	[E] 84	[E] 1,574
July	[E] 2,054	[E] 285	[E] 46	[E] 8	[E] 1,716	[E] 87	[E] 1,628
August	[E] 2,063	[E] 292	[E] 45	[E] 8	[E] 1,718	[E] 87	[E] 1,631
September	[E] 1,980	[E] 273	[E] 45	[E] 7	[E] 1,655	[E] 84	[E] 1,571
October	[E] 2,069	[E] 275	[E] 47	[E] 8	[E] 1,739	[E] 88	[E] 1,651
November	[E] 2,049	[E] 321	[E] 45	[E] 8	[E] 1,675	[E] 85	[E] 1,590
December	[E] 2,113	[E] 335	[E] 43	[E] 7	[E] 1,728	[E] 88	[E] 1,640
Total	[E] **24,641**	[E] **3,609**	[E] **535**	[E] **86**	[E] **20,412**	[E] **1,037**	[E] **19,375**
2002 January	[E] 2,073	[E] 325	[E] 35	[E] 7	[E] 1,706	[E] 87	[E] 1,619
February	[E] 1,865	[E] 306	[E] 28	[E] 6	[E] 1,524	[E] 77	[E] 1,447
March	[E] 2,083	[E] 335	[E] 31	[E] 7	[E] 1,710	[E] 87	[E] 1,623
April	[E] 1,993	[E] 314	[E] 30	[E] 7	[E] 1,642	[E] 83	[E] 1,558
May	[E] 2,071	[E] 318	[E] 31	[E] 7	[E] 1,715	[E] 87	[E] 1,628
June	[E] 2,006	[E] 302	[E] 31	[E] 7	[E] 1,667	[E] 85	[E] 1,582
July	[E] 2,049	[E] 280	[E] 32	[E] 7	[E] 1,730	[E] 88	[E] 1,642
August	[E] 2,048	[E] 298	[E] 31	[E] 7	[E] 1,712	[E] 87	[E] 1,625
September	[E] 1,909	[E] 278	[E] 30	[E] 7	[E] 1,594	[E] 81	[E] 1,513
October	[E] 1,995	[E] 317	[E] 32	[E] 7	[E] 1,639	[E] 83	[E] 1,556
November	[E] 2,019	[E] 286	[E] 33	[E] 7	[E] 1,693	[E] 86	[E] 1,607
December	[E] 2,059	[E] 306	[E] 33	[E] 7	[E] 1,713	[E] 87	[E] 1,626
Total	[E] **24,171**	[E] **3,666**	[E] **377**	[E] **84**	[E] **20,045**	[E] **1,018**	[E] **19,026**
2003 January	[RE] 2,087	[RE] 318	[RE] 33	[RE] 7	[RE] 1,729	[RE] 80	[RE] 1,649
February	[F] 1,885	[F] 276	[F] 39	[F] 8	[F] 1,563	[F] 79	[F] 1,483
2-Month Total	[E] **3,972**	[E] **594**	[E] **72**	[E] **15**	[E] **3,292**	[E] **159**	[E] **3,132**
2002 2-Month Total	**3,938**	**631**	**63**	**14**	**3,230**	**164**	**3,066**
2001 2-Month Total	**4,036**	**602**	**90**	**13**	**3,332**	**169**	**3,163**

[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 6 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 7 at end of section.

[f] See Note 8 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.

Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.

Sources: • **1973-1995:** Energy Information Administration (EIA), *Natural Gas Annual 2000,* Table 93. • **1996 forward:** EIA, *Natural Gas Monthly,* April 2003, Table 1. • **Forecast values:** EIA, Short-Term Integrated Forecasting System. See Note 10 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]	Other[c]	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**	**2**	**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 Total	**69**	**12**	**3,052**	**15**	**0**	**0**	**5**	**3,152**	**40**	**66**	**53**	**159**
1999 Total	**76**	**12**	**3,368**	**55**	**20**	**51**	**5**	**3,586**	**39**	**64**	**61**	**163**
2000 Total	**47**	**6**	**3,544**	**12**	**46**	**99**	**28**	**3,782**	**73**	**66**	**106**	**244**
2001 January	5	0	352	2	0	11	2	373	12	6	8	26
February	8	0	305	1	0	7	8	328	15	4	8	27
March	8	0	333	1	2	11	3	358	19	6	7	32
April	5	0	294	2	2	8	7	319	13	6	5	24
May	8	0	295	(s)	5	10	5	322	13	6	10	29
June	4	0	291	0	3	10	9	317	10	4	11	25
July	8	1	339	0	5	7	5	365	10	6	15	31
August	5	1	334	0	0	8	5	353	8	6	16	29
September	5	0	293	0	5	5	7	315	10	6	18	34
October	2	0	314	0	0	9	0	326	11	8	16	34
November	3	0	283	(s)	0	5	0	291	21	6	16	42
December	5	0	294	3	0	8	0	310	25	6	11	42
Total	**65**	**2**	**3,729**	**10**	**23**	**98**	**50**	**3,977**	**167**	**66**	**141**	**373**
2002 January	3	0	334	1	0	5	0	343	16	6	13	34
February	0	0	297	1	0	8	0	305	16	4	11	30
March	0	0	322	0	0	10	0	332	14	6	18	38
April	2	0	297	0	5	10	0	315	13	7	19	39
May	7	0	291	0	6	10	5	319	15	2	23	39
June	5	0	292	0	14	7	0	317	14	6	25	45
July	5	0	323	0	5	11	0	344	12	6	28	45
August	0	0	331	0	3	16	6	355	12	6	29	47
September	0	0	318	0	3	14	0	335	13	6	28	47
October	0	0	315	0	0	22	5	343	10	6	26	42
November	3	0	308	0	0	19	0	330	28	6	21	55
December	3	0	349	0	0	18	0	369	26	6	23	55
Total	**27**	**0**	**3,777**	**2**	**35**	**151**	**16**	**4,008**	**189**	**63**	**263**	**516**
2003 January	0	0	345	1	0	21	0	367	18	4	23	45
February	0	0	E 284	E 0	0	21	0	E 305	E 32	6	E 23	E 61
2-Month Total	**0**	**0**	E **629**	E **1**	**0**	**42**	**0**	E **672**	E **50**	**10**	E **46**	E **106**
2002 2-Month Total	**3**	**0**	**631**	**2**	**0**	**13**	**0**	**648**	**32**	**9**	**23**	**65**
2001 2-Month Total	**13**	**0**	**658**	**4**	**0**	**17**	**10**	**701**	**27**	**9**	**16**	**52**

[a] As liquefied natural gas.

[b] By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981 and exported to Mexico beginning in 1998. See Note 9 at end of section.

[c] Liquefied natural gas imported from Indonesia in 1986 and 2000, the United Arab Emirates beginning in 1996, Malaysia in 1999, Nigeria beginning in 2000, Oman beginning in 2000 and Brunei beginning in 2002.

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

Notes: • See Note 9 at end of section. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.

Sources: • **1973-1996:** Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • **1997 forward:** EIA, *Natural Gas Monthly,* April 2003, Tables 5 and 6.

Table 4.4 Natural Gas Consumption by Sector

(Billion Cubic Feet)

	End-Use Sectors											
			Industrial					Transportation				
				Other Industrial								
	Residential	Commercial[a]	Lease and Plant Fuel	CHP[b]	Non-CHP[c]	Total	Total	Pipeline Fuel[d]	Vehicle Fuel	Total	Electric Power Sector[e,f]	Total
1973 Total	**4,879**	**2,597**	**1,496**	([g])	**8,689**	**8,689**	**10,185**	**728**	**NA**	**728**	**3,660**	**22,049**
1974 Total	**4,786**	**2,556**	**1,477**	([g])	**8,292**	**8,292**	**9,769**	**669**	**NA**	**669**	**3,443**	**21,223**
1975 Total	**4,924**	**2,508**	**1,396**	([g])	**6,968**	**6,968**	**8,365**	**583**	**NA**	**583**	**3,158**	**19,538**
1976 Total	**5,051**	**2,668**	**1,634**	([g])	**6,964**	**6,964**	**8,598**	**548**	**NA**	**548**	**3,081**	**19,946**
1977 Total	**4,821**	**2,501**	**1,659**	([g])	**6,815**	**6,815**	**8,474**	**533**	**NA**	**533**	**3,191**	**19,521**
1978 Total	**4,903**	**2,601**	**1,648**	([g])	**6,757**	**6,757**	**8,405**	**530**	**NA**	**530**	**3,188**	**19,627**
1979 Total	**4,965**	**2,786**	**1,499**	([g])	**6,899**	**6,899**	**8,398**	**601**	**NA**	**601**	**3,491**	**20,241**
1980 Total	**4,752**	**2,611**	**1,026**	([g])	**7,172**	**7,172**	**8,198**	**635**	**NA**	**635**	**3,682**	**19,877**
1981 Total	**4,546**	**2,520**	**928**	([g])	**7,128**	**7,128**	**8,055**	**642**	**NA**	**642**	**3,640**	**19,404**
1982 Total	**4,633**	**2,606**	**1,109**	([g])	**5,831**	**5,831**	**6,941**	**596**	**NA**	**596**	**3,226**	**18,001**
1983 Total	**4,381**	**2,433**	**978**	([g])	**5,643**	**5,643**	**6,621**	**490**	**NA**	**490**	**2,911**	**16,835**
1984 Total	**4,555**	**2,524**	**1,077**	([g])	**6,154**	**6,154**	**7,231**	**529**	**NA**	**529**	**3,111**	**17,951**
1985 Total	**4,433**	**2,432**	**966**	([g])	**5,901**	**5,901**	**6,867**	**504**	**NA**	**504**	**3,044**	**17,281**
1986 Total	**4,314**	**2,318**	**923**	([g])	**5,579**	**5,579**	**6,502**	**485**	**NA**	**485**	**2,602**	**16,221**
1987 Total	**4,315**	**2,430**	**1,149**	([g])	**5,953**	**5,953**	**7,103**	**519**	**NA**	**519**	**2,844**	**17,211**
1988 Total	**4,630**	**2,670**	**1,096**	([g])	**6,383**	**6,383**	**7,479**	**614**	**NA**	**614**	**2,636**	**18,030**
1989 Total	**4,781**	**2,718**	**1,070**	**914**	**5,903**	[h] **6,816**	**7,886**	**629**	**NA**	**629**	[f,h] **3,105**	[h] **19,119**
1990 Total	**4,391**	**2,623**	**1,236**	**1,055**	**5,963**	[h] **7,018**	**8,255**	**660**	**(s)**	**660**	[h] **3,245**	[h] **19,174**
1991 Total	**4,556**	**2,729**	**1,129**	**1,061**	**6,170**	[h] **7,231**	**8,360**	**601**	**(s)**	**602**	[h] **3,316**	[h] **19,562**
1992 Total	**4,690**	**2,803**	**1,171**	**1,107**	**6,420**	[h] **7,527**	**8,698**	**588**	**2**	**590**	[h] **3,448**	[h] **20,228**
1993 Total	**4,956**	**2,862**	**1,172**	**1,124**	**6,576**	**7,700**	**8,872**	**624**	**3**	**627**	**3,473**	**20,790**
1994 Total	**4,848**	**2,895**	**1,124**	**1,176**	**6,613**	**7,790**	**8,913**	**685**	**3**	**689**	**3,903**	**21,247**
1995 Total	**4,850**	**3,031**	**1,220**	**1,258**	**6,906**	**8,164**	**9,384**	**700**	**5**	**705**	**4,237**	**22,207**
1996 Total	**5,241**	**3,158**	**1,250**	**1,289**	**7,146**	**8,435**	**9,685**	**711**	**6**	**718**	**3,807**	**22,609**
1997 Total	**4,984**	**3,215**	**1,203**	**1,282**	**7,229**	**8,511**	**9,714**	**751**	**8**	**760**	**4,065**	**22,737**
1998 Total	**4,520**	**2,999**	**1,173**	**1,355**	**6,965**	**8,320**	**9,493**	**635**	**9**	**645**	**4,588**	**22,246**
1999 Total	**4,726**	**3,045**	**1,079**	**1,401**	**6,678**	**8,079**	**9,158**	**645**	**12**	**657**	**4,820**	**22,405**
2000 Total	**4,992**	**3,218**	**1,144**	**1,386**	**6,869**	**8,254**	**9,398**	**644**	**13**	**657**	**5,206**	**23,471**
2001 January	984	500	99	111	573	684	783	74	[E] 1	76	340	2,683
February	784	424	89	99	541	640	730	64	[E] 1	65	313	2,316
March	685	376	100	108	559	667	767	62	[E] 1	63	363	2,255
April	402	257	96	101	521	622	718	50	[E] 1	51	385	1,812
May	210	166	98	104	478	581	679	41	[E] 1	43	434	1,532
June	148	137	94	106	433	539	633	38	[E] 1	40	493	1,450
July	125	132	97	114	461	575	672	42	[E] 1	43	634	1,606
August	118	137	97	119	473	592	689	42	[E] 1	44	687	1,674
September	129	143	93	113	468	580	674	38	[E] 1	40	510	1,496
October	240	187	98	115	504	619	717	43	[E] 1	44	466	1,655
November	366	230	95	109	511	620	715	45	[E] 1	46	351	1,708
December	617	347	98	116	527	643	741	57	[E] 1	58	367	2,129
Total	**4,809**	**3,035**	**1,153**	**1,314**	**6,049**	**7,363**	**8,516**	**598**	**15**	**613**	**5,343**	**22,316**
2002 January	821	433	[E] 96	112	606	718	815	65	[E] 1	67	[R] 377	[R] 2,512
February	704	394	[E] 86	101	558	659	745	59	[E] 1	60	341	2,245
March	666	375	[E] 97	111	574	685	782	59	[E] 1	61	400	2,284
April	419	266	[E] 93	100	560	659	752	48	[E] 1	49	399	1,886
May	259	193	[E] 97	107	522	629	726	41	[E] 1	42	410	1,630
June	164	153	[E] 94	108	499	606	701	38	[E] 1	39	541	1,598
July	128	137	[E] 98	121	507	629	726	40	[E] 1	41	725	1,758
August	117	142	[E] 97	119	530	649	746	40	[E] 1	41	691	1,737
September	125	146	[E] 90	111	498	608	698	37	[E] 1	38	555	1,562
October	250	200	[E] 93	100	556	656	749	41	[E] 1	43	436	1,678
November	489	301	[E] 96	95	560	656	751	49	[E] 1	50	337	1,928
December	773	408	[E] 97	92	598	690	787	62	[E] 1	63	340	[R] 2,371
Total	**4,915**	**3,147**	**1,133**	**1,278**	**6,568**	**7,846**	**8,979**	**580**	**15**	**595**	[R] **5,553**	[R] **23,189**
2003 January	[R] 946	[R] 484	[E] 91	[R] 106	[R] 541	[R] 647	[R] 738	[R] 73	[E] 1	[R] 74	[R] 367	[R] 2,609
February	[F] 824	[F] 433	[F] 91	[F] 100	[F] 590	[F] 690	[F] 781	[F] 54	[E] 1	[E] 55	[F] 324	[F] 2,417
2-Month Total	[E] **1,770**	[E] **917**	[E] **182**	[E] **206**	[E] **1,131**	[E] **1,337**	[E] **1,519**	[E] **127**	[E] **2**	[E] **129**	[E] **691**	[E] **5,026**
2002 2-Month Total	**1,525**	**827**	**183**	**213**	**1,164**	**1,378**	**1,560**	**124**	[E] **2**	**127**	**718**	**4,757**
2001 2-Month Total	**1,769**	**923**	**188**	**210**	**1,115**	**1,325**	**1,513**	**139**	[E] **2**	**141**	**653**	**4,999**

[a] All commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7. See Table 7.3c for CHP fuel use.

[b] Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See note at end of Section 7.

[c] All industrial sector fuel use other than that in "Lease and Plant Fuel" and "CHP."

[d] Natural gas consumed in the operation of pipelines, primarily in compressors.

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

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

[g] Included in "Non-CHP."

[h] For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector." See Note 5 at end of section.

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

Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.

Sources: • **Residential, Lease and Plant Fuel,** and **Pipeline Fuel: 1973-1995:** Energy Information Administration (EIA), *Natural Gas Annual (NGA) 2000,* Table 95. **1996 forward:** EIA, *Natural Gas Monthly (NGM),* April 2003, Table 3. • **Commercial: 1973-2000:** EIA, *NGA 2001.* **2001 forward:** EIA, *NGM,* April 2003, Table 3. • **Other Industrial Total: 1973-1992:** EIA, *NGA 2000,* Table 95. **1993-forward:** EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers." • **Other Industrial CHP:** Table 7.3c. • **Electric Power Sector: 1973-1988:** Table 7.3e. **1989 forward:** Table 7.3b. • **Vehicle Fuel: Annual Data, 1990 and 1991:** EIA, *NGA 2000,* Table 95. **1992-1995:** Science Applications International Corporation, "Alternative Transportation Fuels and Vehicles Data Development," unpublished final report prepared for EIA (McLean, VA, July 1996) and U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy. **1996-2002:** EIA, Office of Coal, Nuclear, Electric, and Alternate Fuels. **Monthly Estimates:** Derived by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month. • **All Other Series:** Calculated. • **Forecast values:** EIA, Short-Term Integrated Forecasting System.

In the April 2003 *Monthly Energy Review*, independent power producers' use of natural gas was moved from the industrial sector to a new electric power sector. Data for the new sector are derived from electricity collection forms, replacing that supplied on natural gas forms. As a result, total consumption was revised from 1993-2002. Also, data are now shown for industrial sector consumption by combined-heat-and-power (CHP) plants and non-CHP plants. For more information, see Appendix D.

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[b]	Injections[b]	Net[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 Total	**4,326**	**2,730**	**7,056**	**554**	**25.5**	**2,379**	**2,905**	**-526**
1999 Total	**4,383**	**2,523**	**6,906**	**-207**	**-7.6**	**2,772**	**2,598**	**174**
2000 Total	**4,352**	**1,719**	**6,071**	**-806**	**-31.9**	**E 3,498**	**E 2,684**	**E 814**
2001 January	4,344	1,265	5,609	-495	-28.1	E 588	E 92	E 496
February	4,328	912	5,241	-391	-30.0	E 414	E 74	E 339
March	4,300	742	5,042	-412	-35.7	E 298	E 116	E 183
April	4,261	992	5,253	-210	-17.5	E 70	E 349	E -279
May	4,309	1,440	5,749	7	.5	E 41	E 520	E -479
June	4,310	1,882	6,193	165	9.6	E 49	E 490	E -441
July	4,315	2,261	6,576	258	12.9	E 66	E 451	E -385
August	4,313	2,576	6,889	377	17.1	E 79	E 386	E -307
September	4,318	2,944	7,262	450	18.0	E 41	E 413	E -372
October	4,310	3,144	7,454	412	15.1	E 93	E 282	E -190
November	4,301	3,254	7,555	812	33.2	E 138	E 210	E -73
December	4,301	2,904	7,204	1,185	68.9	E 432	E 80	E 352
Total	**4,301**	**2,904**	**7,204**	**1,185**	**68.9**	**E 2,309**	**E 3,464**	**E -1,156**
2002 January	4,313	2,344	6,657	1,078	85.2	E 605	E 59	E 546
February	4,356	1,838	6,194	925	101.4	E 517	E 55	E 462
March	4,355	1,518	5,873	776	104.7	E 425	E 105	E 320
April	4,355	1,659	6,014	666	67.1	E 111	E 237	E -126
May	4,361	1,968	6,329	528	36.7	E 58	E 381	E -323
June	4,355	2,308	6,663	426	22.6	E 56	E 395	E -339
July	4,358	2,539	6,896	278	12.3	E 101	E 341	E -239
August	4,357	2,773	7,130	198	7.7	E 89	E 322	E -234
September	4,342	3,042	7,384	97	3.3	E 72	E 364	E -292
October	4,342	3,116	7,458	-28	-.9	E 145	E 229	E -84
November	4,344	2,929	7,273	-325	-10.0	E 322	E 124	E 198
December	4,340	2,375	6,715	-528	-18.2	E 624	E 66	E 558
Total	**4,340**	**2,375**	**6,715**	**-528**	**-18.2**	**E 3,126**	**E 2,679**	**E 447**
2003 January	R 4,342	1,534	R 5,876	-810	-34.5	E 886	E 44	E 841
February	4,334	864	5,198	-974	-53.0	E 723	E 48	E 676

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

[b] For 1980-2000, 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 2 at end of section.

R=Revised. E=Estimate.

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

Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html.

Sources: See end of section.

Natural Gas

Note 1. 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 Energy Information Administration (EIA) *Natural Gas Annual (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.

Note 2. 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	**2000** . . . 8,241
1983 . . . 7,985	**1992** . . . 7,932	**2001** . . . 8,415

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

The final monthly and annual storage and withdrawal data for 1980–2000 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

Note 3. 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 Energy Information Administration (EIA) *Natural Gas Monthly NGM*, which was published in July 1985.

Note 4. Consumption: Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

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

Note 5. Consumption, **1989-1992:** Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." As a result, for 1989 through 1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

Note 6. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the EIA *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 *NGM*.

Note 7. 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.

Note 8. Extraction Loss: Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

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

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

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

Note 9. 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, Indonesia, Nigeria, Oman, Qatar, Trinidad and Tobago, and the United Arab Emirates. In addition, very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and exports LNG via tanker to Japan. Also, small amounts of LNG have gone to Mexico since 1998.

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

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

Note 10. 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 monthly 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.

Table 4.5 Sources

Storage Activity

1973-1975: Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2*, Table 9.
1976-1979: EIA, *Natural Gas Production and Consumption 1979*, Table 1.
1980-1995: EIA, *Historical Natural Gas Annual 1930 Through 2000*, Table 11.
1996: EIA, *Natural Gas Monthly*, February 2003, Table 9.
1997 forward: EIA, *Natural Gas Monthly*, April 2003, Table 9.
Forecast values: EIA, Short-Term Integrated Forecasting System. See Note 10 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."
1979–1995: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."
1996: EIA, *Natural Gas Monthly*, February 2003, Table 9.
1997 forward: EIA, *Natural Gas Monthly*, April 2003, Table 9.
Forecast values: EIA, Short-Term Integrated Forecasting System. See Note 10 on this page.

Section 5. Crude Oil and Natural Gas Resource Development

The April 2003 rotary rig count was 983, 4 percent higher than the count in March 2003 and 31 percent higher than the count in April 2002. Of the total number of rigs in operation, 877 were onshore and 106 were offshore. For April 2003, the number of onshore rigs was up 36 percent and the number of offshore rigs was up 1 percent from the April 2002 count. Rotary rigs drilling for natural gas as a share of total rigs stood at 81 percent in April 2003.

Total footage drilled in April 2003 was 14.4 million feet, 9 percent higher than the footage drilled in March 2003 and up 43 percent from that drilled in April 2002.

The number of exploratory and development crude oil and natural gas wells drilled during April 2003 was 2,080, up 5 percent from the number drilled in March 2003 and up 31 percent from the number drilled in April 2002. The number of crude oil wells drilled was 557, and the number of natural gas wells was 1,523, 36 percent higher and 29 percent higher, respectively, than their April 2002 levels.

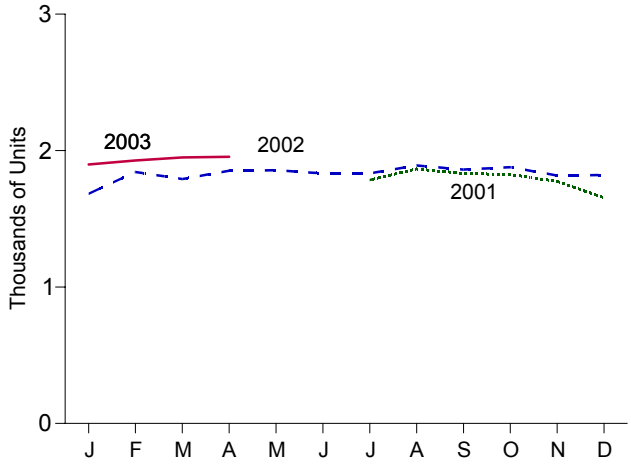
The number of dry holes drilled in April 2003 was 361, up 5 percent from the number drilled in March 2003 and up 31 percent from the number drilled in April 2002.

There were 2.0 thousand well service rigs active in April 2003, less than 1 percent higher than the previous month and 6 percent more than the count a year ago.

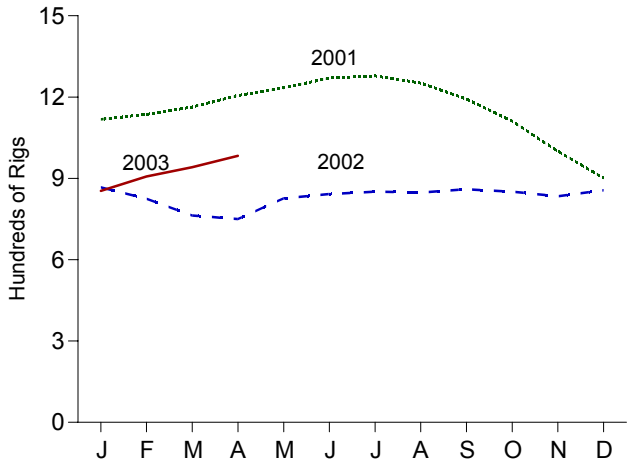
The number of seismic crews active in the 48 States onshore in April 2003 was 27, 5 fewer than a year earlier. The number of crews active in the 48 States offshore was 11, 5 fewer than a year earlier. Two crews were active in Alaska in April 2003, the same as a year ago.

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators

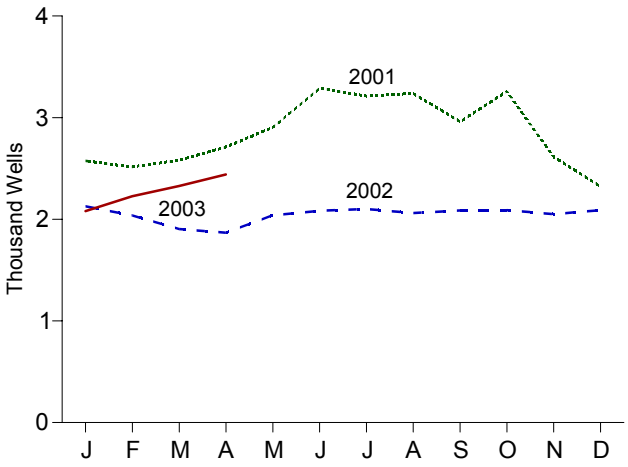
Active Well Service Rig Count



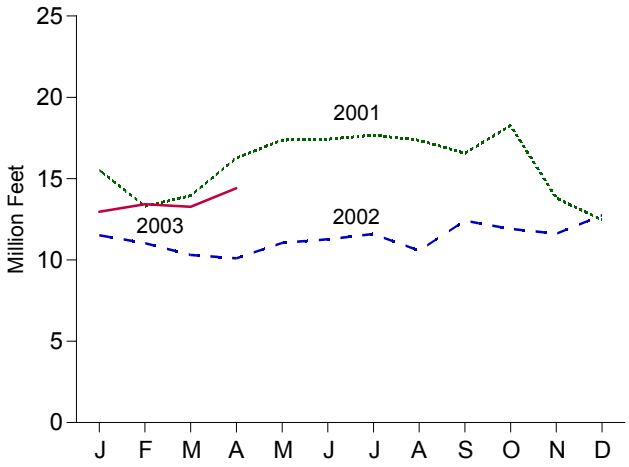
Rotary Rigs in Operation



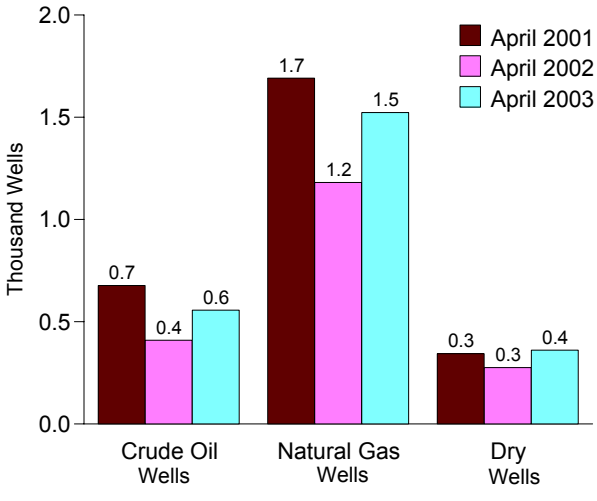
Wells Drilled



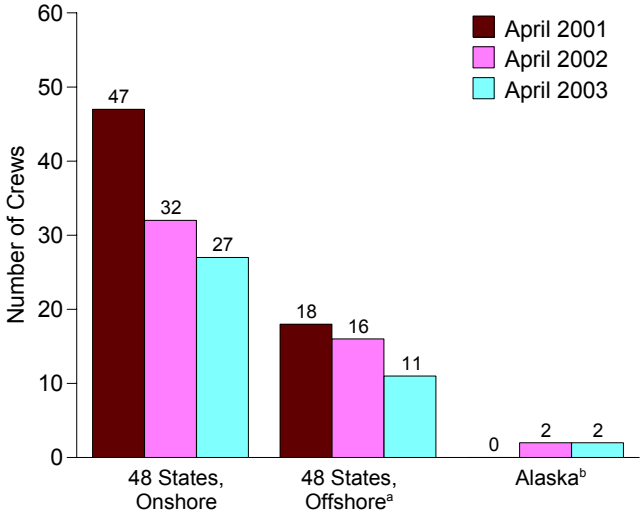
Footage Drilled



Wells Drilled by Type



Maximum U.S. Active Seismic Crew Counts



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

Web Page: http://www.eia.doe.gov/emeu/mer/resource.html.
Sources: Tables 5.1-5.3.

Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements

	Rotary Rigs in Operation[a]					Total Footage Drilled[c]	Active Well Service Rig Count[d]
	By Site		By Objective				
	Onshore	Offshore	Crude Oil	Natural Gas	Total[b]		
	Average					Thousand Feet	Number
1973 Average	**1,110**	**84**	**NA**	**NA**	**1,194**	**138,223**	NA
1974 Average	**1,378**	**94**	**NA**	**NA**	**1,472**	**153,374**	NA
1975 Average	**1,554**	**106**	**NA**	**NA**	**1,660**	**180,494**	NA
1976 Average	**1,529**	**129**	**NA**	**NA**	**1,658**	**186,982**	NA
1977 Average	**1,834**	**167**	**NA**	**NA**	**2,001**	**215,866**	NA
1978 Average	**2,074**	**185**	**NA**	**NA**	**2,259**	**238,669**	NA
1979 Average	**1,970**	**207**	**NA**	**NA**	**2,177**	**244,798**	NA
1980 Average	**2,678**	**231**	**NA**	**NA**	**2,909**	**314,654**	NA
1981 Average	**3,714**	**256**	**NA**	**NA**	**3,970**	**413,112**	NA
1982 Average	**2,862**	**243**	**NA**	**NA**	**3,105**	**378,295**	NA
1983 Average	**2,033**	**199**	**NA**	**NA**	**2,232**	**317,986**	NA
1984 Average	**2,215**	**213**	**NA**	**NA**	**2,428**	**371,392**	NA
1985 Average	**1,774**	**206**	**NA**	**NA**	**1,980**	**313,045**	NA
1986 Average	**865**	**99**	**NA**	**NA**	**964**	**181,856**	NA
1987 Average	**841**	**95**	**NA**	**NA**	**936**	**162,178**	NA
1988 Average	**813**	**123**	**554**	**354**	**936**	**156,354**	NA
1989 Average	**764**	**105**	**453**	**401**	**869**	**134,439**	NA
1990 Average	**902**	**108**	**532**	**464**	**1,010**	**153,701**	NA
1991 Average	**779**	**81**	**482**	**351**	**860**	**143,021**	NA
1992 Average	**669**	**52**	**373**	**331**	**721**	**121,124**	NA
1993 Average	**672**	**82**	**373**	**364**	**754**	**135,118**	NA
1994 Average	**673**	**102**	**335**	**427**	**775**	**124,809**	NA
1995 Average	**622**	**101**	**323**	**385**	**723**	**117,832**	NA
1996 Average	**671**	**108**	**306**	**464**	**779**	**129,045**	NA
1997 Average	**821**	**122**	**376**	**564**	**943**	**156,661**	NA
1998 Average	**703**	**123**	**264**	**560**	**827**	**143,454**	NA
1999 Average	**519**	**106**	**128**	**496**	**625**	**99,410**	NA
2000 Average	**778**	**140**	**197**	**720**	**918**	**141,392**	**NA**
2001 January	944	174	239	879	1,118	15,525	NA
February	973	163	237	898	1,136	13,296	NA
March	996	167	248	913	1,163	13,953	NA
April	1,037	169	247	957	1,206	16,268	NA
May	1,063	171	235	997	1,234	17,374	NA
June	1,107	163	219	1,050	1,270	17,418	NA
July	1,121	157	219	1,058	1,278	17,672	1,784
August	1,105	147	219	1,032	1,252	17,363	1,865
September	1,049	144	220	972	1,193	16,563	1,832
October	978	133	198	913	1,111	18,264	1,824
November	866	134	174	825	1,000	13,806	1,774
December	778	123	147	754	901	12,465	1,654
Average	**1,003**	**153**	**217**	**939**	**1,156**	**189,967**	**NA**
2002 January	741	126	141	725	867	11,513	1,683
February	702	123	144	679	825	11,031	1,843
March	649	114	144	617	763	10,303	1,791
April	645	105	136	612	750	10,102	1,852
May	721	105	134	690	826	11,039	1,856
June	732	110	138	704	842	11,274	1,832
July	740	111	133	716	851	11,590	1,832
August	737	111	125	721	848	10,576	1,891
September	746	114	122	736	860	12,410	1,861
October	740	111	140	709	851	11,907	1,878
November	725	109	146	683	834	11,612	1,817
December	742	114	137	714	856	12,747	1,821
Average	**717**	**113**	**137**	**691**	**830**	**136,104**	**1,830**
2003 January	743	111	132	718	854	12,962	1,898
February	797	110	153	750	907	13,429	1,928
March	836	105	171	767	941	13,269	1,950
April	877	106	185	795	983	14,409	1,954
4-Month Average	**810**	**107**	**159**	**755**	**917**	**54,069**	**1,933**
2002 4-Month Average	**682**	**117**	**142**	**656**	**799**	**42,949**	**1,792**
2001 4-Month Average	**988**	**168**	**243**	**912**	**1,156**	**59,042**	**NA**

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

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

[c] Values shown are totals.

[d] See Glossary.

NA=Not available.

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

Web Page: http://www.eia.doe.gov/emeu/mer/resource.html.

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

Table 5.2 Crude Oil and Natural Gas Wells Drilled

(Number of Wells)

	Exploratory				Development				Total			
	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural 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**	**743**	**4,693**	**6,291**	**12,781**	**7,812**	**5,348**	**25,941**	**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 Total	**291**	**504**	**1,647**	**2,442**	**6,773**	**10,804**	**3,193**	**20,770**	**7,064**	**11,308**	**4,840**	**23,212**
1999 Total	**154**	**539**	**1,195**	**1,888**	**4,022**	**10,338**	**2,169**	**16,529**	**4,176**	**10,877**	**3,364**	**18,417**
2000 Total	**264**	**609**	**1,288**	**2,161**	**7,094**	**15,846**	**2,737**	**25,677**	**7,358**	**16,455**	**4,025**	**27,838**
2001 January	19	74	101	194	669	1,480	231	2,380	688	1,554	332	2,574
February	29	76	94	199	599	1,511	206	2,316	628	1,587	300	2,515
March	R 28	51	90	R 169	R 661	1,563	188	R 2,412	689	1,614	278	2,581
April	28	81	127	236	649	1,610	217	2,476	677	1,691	344	2,712
May	28	84	136	248	736	1,678	241	2,655	764	1,762	377	2,903
June	31	89	128	248	717	2,067	258	3,042	748	2,156	386	3,290
July	31	89	153	273	651	2,070	218	2,939	682	2,159	371	3,212
August	27	104	132	263	670	2,056	248	2,974	697	2,160	380	3,237
September	18	82	119	219	619	1,925	198	2,742	637	2,007	317	2,961
October	29	R 104	144	R 277	764	R 1,997	220	R 2,981	793	2,101	364	3,258
November	20	88	131	239	549	1,651	175	2,375	569	1,739	306	2,614
December	26	53	89	168	462	1,500	192	2,154	488	1,553	281	2,322
Total	**R 314**	**R 975**	**1,444**	**R 2,733**	**R 7,746**	**R 21,108**	**2,592**	**R 31,446**	**8,060**	**22,083**	**4,036**	**34,179**
2002 January	16	60	108	184	409	1,328	207	1,944	425	1,388	315	2,128
February	16	56	103	175	418	1,247	198	1,863	434	1,303	301	2,038
March	16	51	96	163	419	1,137	185	1,741	435	1,188	281	1,904
April	15	51	94	160	395	1,130	182	1,707	410	1,181	276	1,867
May	15	57	103	175	388	1,278	199	1,865	403	1,335	302	2,040
June	15	58	106	179	401	1,301	202	1,904	416	1,359	308	2,083
July	16	59	106	181	406	1,309	205	1,920	422	1,368	311	2,101
August	14	59	105	178	362	1,322	200	1,884	376	1,381	305	2,062
September	14	61	106	181	354	1,349	203	1,906	368	1,410	309	2,087
October	16	58	106	180	406	1,300	203	1,909	422	1,358	309	2,089
November	16	56	104	176	424	1,252	199	1,875	440	1,308	303	2,051
December	15	59	106	180	398	1,309	203	1,910	413	1,368	309	2,090
Total	**184**	**685**	**1,243**	**2,112**	**4,780**	**15,262**	**2,386**	**22,428**	**4,964**	**15,947**	**3,629**	**24,540**
2003 January	15	59	106	180	383	1,316	202	1,901	398	1,375	308	2,081
February	17	62	113	192	444	1,375	216	2,035	461	1,437	329	2,227
March	19	63	118	200	496	1,406	226	2,128	515	1,469	344	2,328
April	21	65	123	209	536	1,458	238	2,232	557	1,523	361	2,441
4-Month Total	**72**	**249**	**460**	**781**	**1,859**	**5,555**	**882**	**8,296**	**1,931**	**5,804**	**1,342**	**9,077**
2002 4-Month Total	**63**	**218**	**401**	**682**	**1,641**	**4,842**	**772**	**7,255**	**1,704**	**5,060**	**1,173**	**7,937**
2001 4-Month Total	**104**	**282**	**412**	**798**	**2,578**	**6,164**	**842**	**9,584**	**2,682**	**6,446**	**1,254**	**10,382**

R=Revised.

Notes: • These well counts include only the original drilling of a hole intended to discover or further develop already discovered crude oil or natural gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than crude oil or natural gas are excluded. 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 notes at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/resource.html.

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

Table 5.3 Maximum U.S. Active Seismic Crew Counts

(Number of Crews)

	48 States, Onshore				48 States, Offshore[a]				Alaska[b]				
	Dimensions[c]				Dimensions[c]				Dimensions[c]				
	2	3	4	Total[d]	2	3	4	Total[d]	2	3	4	Total[d]	Total
2000 March	4	36	1	41	7	11	0	19	1	1	0	2	62
April	4	36	1	41	7	11	0	19	1	2	0	3	63
May	3	34	1	38	6	11	0	18	1	2	0	3	59
June	5	37	1	43	7	9	0	17	1	2	0	3	63
July	4	39	1	44	6	6	0	13	0	1	0	1	58
August	4	40	1	45	7	7	0	15	0	1	0	1	61
September	3	39	1	43	7	8	0	16	0	0	0	0	59
October	4	41	1	46	7	9	0	17	0	0	0	0	63
November	4	40	1	46	7	8	0	16	0	0	0	0	62
December	5	41	1	48	8	8	0	17	0	0	0	0	65
2001 January	5	38	1	44	9	7	0	17	0	0	0	0	61
February	6	38	1	45	8	7	0	16	0	0	0	0	61
March	6	38	1	45	9	9	0	18	0	0	0	0	63
April	7	39	1	47	9	9	0	18	0	0	0	0	65
May	7	37	1	45	9	8	0	17	1	1	0	2	64
June	6	35	1	42	9	7	0	16	1	1	0	2	60
July	6	35	1	42	8	8	0	16	0	0	0	0	58
August	8	32	1	41	7	8	0	15	0	0	0	0	56
September	8	30	1	39	6	9	0	15	0	0	0	0	54
October	5	33	1	39	9	10	0	19	0	0	0	0	58
November	7	34	1	42	7	10	0	17	0	0	0	0	59
December	7	33	1	41	8	9	0	17	0	0	0	0	58
2002 January	6	32	0	38	8	6	0	14	1	1	0	2	54
February	9	31	0	40	9	6	0	15	1	1	0	2	57
March	9	26	0	35	10	7	0	17	1	1	0	2	54
April	7	25	0	32	9	7	0	16	1	1	0	2	50
May	8	24	0	32	9	8	0	17	1	1	0	2	51
June	9	23	0	32	9	7	0	16	1	1	0	2	50
July	8	26	0	34	8	8	0	16	1	1	0	2	52
August	7	26	0	33	8	7	0	15	1	1	0	2	50
September	9	28	0	37	10	7	0	17	1	1	0	2	56
October	8	30	0	38	10	7	0	17	1	1	0	2	57
November	8	27	0	35	8	5	0	13	1	1	0	2	50
December	8	22	0	31	7	4	0	11	1	0	0	1	43
2003 January	8	19	1	28	8	4	0	12	0	0	0	0	40
February	9	20	0	29	8	4	0	12	0	0	0	0	41
March	8	20	0	28	7	4	0	11	1	1	0	2	41
April	7	20	0	27	7	4	0	11	1	1	0	2	40

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

[b] All onshore.

[c] In **two-dimensional** (2D) reflection seismic surveying both the sound source and the sound detectors (numbering up to a hundred or more per shot) are moved along a straight line. The resultant product can be thought of as a vertical sonic cross-section of the subsurface beneath the survey line. It is constructed by summing many compressional (pressure) wave reflections from the various sound source and sound detector locations at the halfway sound path points beneath each location (common depth point stacking). In **three-dimensional** (3D) reflection seismic surveying the sound detectors (numbering up to a thousand or more) are spread out over an area and the sound source is moved from location to location through the area. The resultant product can be thought of as a cube of common depth point stacked reflections. Advantages over 2D include the additional dimension, the fact that many more reflections are available for stacking at each point, which provides greatly improved resolution of subsurface features, and elimination of the "ghost" or "side swipe" reflections from nearby offline features that 2D surveys are prone to (except, of course, along the outer faces of the cube). **Four dimensional** (4D) reflection seismic surveying is the exact repetition of a 3D survey at two or more time intervals. The primary application of 4D is mapping the movement of fluid interfaces in producing oil and gas reservoirs.

[d] Includes crews with unknown survey dimension.

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

Web Page: http://www.eia.doe.gov/emeu/mer/resource.html.

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

Crude Oil and Natural Gas Resource Development

Table 5.2 Notes

Three well types are considered in the *Monthly Energy Review* (*MER*) drilling statistics: "completed for crude oil," "completed for natural gas," and "dry hole." Wells that productively encounter both crude oil and natural gas are categorized as "completed for crude oil." Both development wells and exploratory wells (new field wildcats, new pool tests, and extension tests) are included in the statistics. All other classes of wells drilled in connection with the search for producible hydrocarbons are excluded.

Prior to the March 1985 *MER*, drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API. These estimates are subject to continuous revision as new data, some of which pertain to earlier months and years, become available. Additional information about the EIA estimation methodology may be found in "Estimating Well Completions," 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 April 2003 totaled 88 million short tons, 2 percent lower than in April 2002.

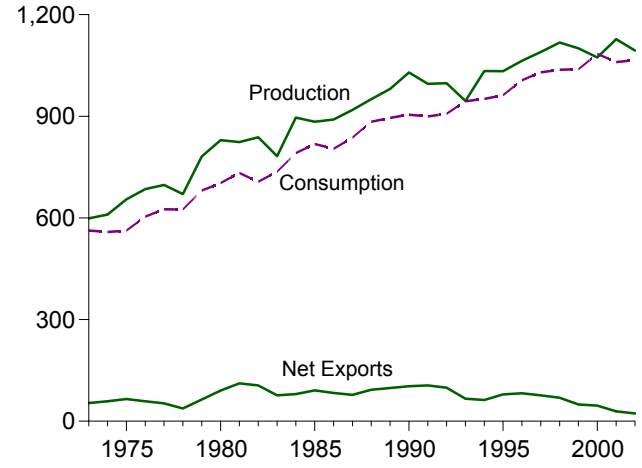
Coal consumed by the electric power sector in February 2003 86 million short tons, 7 percent higher than the level in February 2002.

Electric power sector coal stocks were forecast as 133 million short tons at the end of February 2003, 8 percent lower than the level a year earlier.

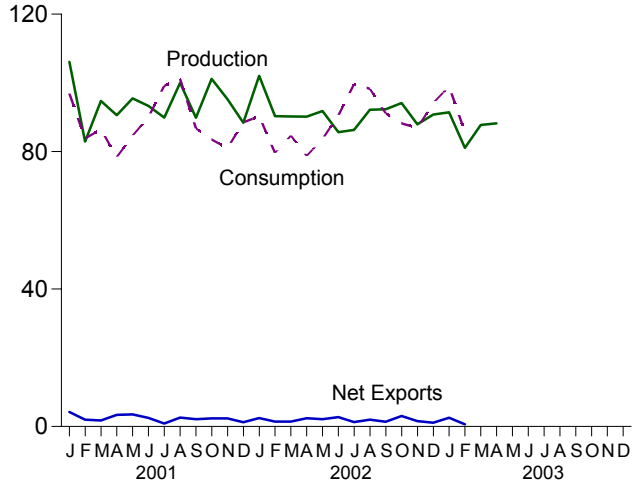
Coal exports in February 2003 totaled 2 million short tons, 8 percent lower than exports in February 2002. Coal imports in February 2003 totaled 2 million short tons, 48 percent higher than imports in February 2002.

Figure 6.1 Coal
(Million Short Tons)

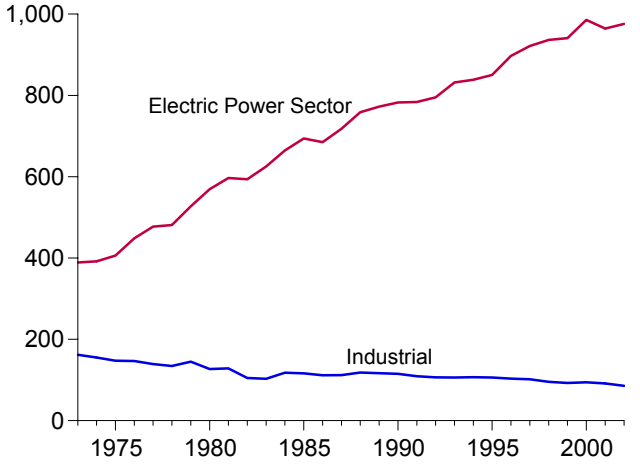
Overview, 1973-2002



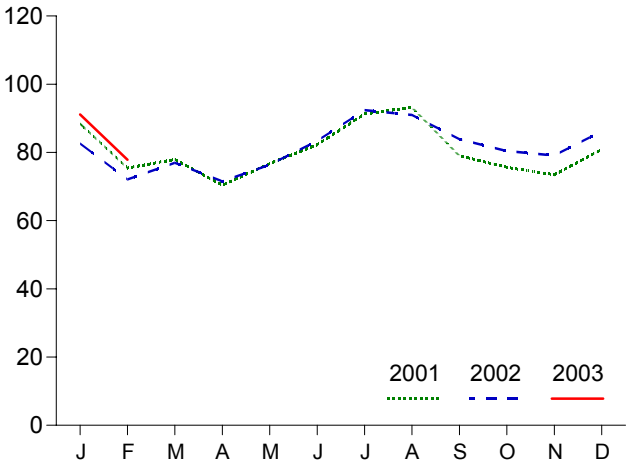
Overview, Monthly



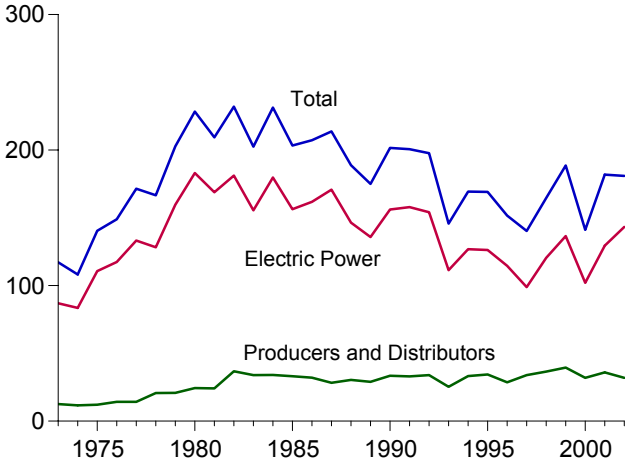
Consumption by Sector, 1973-2002



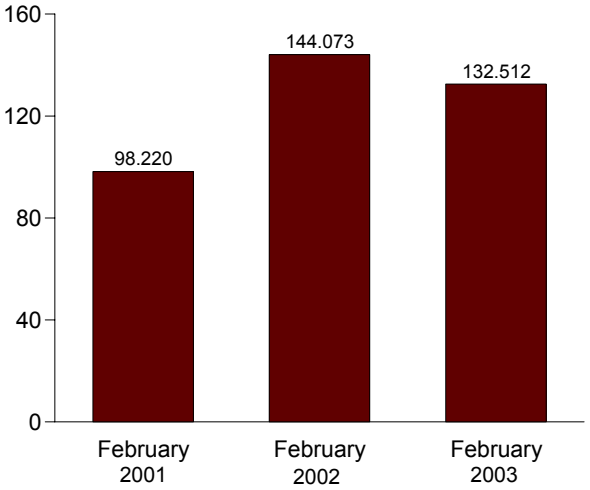
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2002



Electric Power Sector Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.
Sources: Tables 6.1, 6.2, and 6.3.

Table 6.1 Coal Overview

(Thousand Short Tons)

	Production[a]	Waste Coal[b,c]	Imports	Exports	Stock Change[d]	Losses and Unaccounted for[e]	Consumption
1973 Total	**598,568**	**NA**	**127**	**53,587**	**([f])**	**[g] -17,476**	**562,584**
1974 Total	**610,023**	**NA**	**2,080**	**60,661**	**-8,918**	**1,958**	**558,402**
1975 Total	**654,641**	**NA**	**940**	**66,309**	**32,154**	**-5,522**	**562,640**
1976 Total	**684,913**	**NA**	**1,203**	**60,021**	**8,508**	**13,797**	**603,790**
1977 Total	**697,205**	**NA**	**1,647**	**54,312**	**22,644**	**-3,395**	**625,291**
1978 Total	**670,164**	**NA**	**2,953**	**40,714**	**-4,938**	**12,116**	**625,225**
1979 Total	**781,134**	**NA**	**2,059**	**66,042**	**36,206**	**421**	**680,524**
1980 Total	**829,700**	**NA**	**1,194**	**91,742**	**25,595**	**10,827**	**702,730**
1981 Total	**823,775**	**NA**	**1,043**	**112,541**	**-18,983**	**-1,366**	**732,627**
1982 Total	**838,112**	**NA**	**742**	**106,277**	**22,614**	**3,052**	**706,911**
1983 Total	**782,091**	**NA**	**1,271**	**77,772**	**-29,453**	**-1,629**	**736,672**
1984 Total	**895,921**	**NA**	**1,286**	**81,483**	**28,716**	**-4,288**	**791,296**
1985 Total	**883,638**	**NA**	**1,952**	**92,680**	**-27,934**	**2,796**	**818,049**
1986 Total	**890,315**	**NA**	**2,212**	**85,518**	**3,953**	**-1,175**	**804,231**
1987 Total	**918,762**	**NA**	**1,747**	**79,607**	**6,461**	**-2,499**	**836,941**
1988 Total	**950,265**	**NA**	**2,134**	**95,023**	**-24,949**	**-1,316**	**883,642**
1989 Total	**980,729**	**1,407**	**2,851**	**100,815**	**-13,744**	**2,916**	**895,000**
1990 Total	**1,029,076**	**3,339**	**2,699**	**105,804**	**26,542**	**-1,730**	**904,498**
1991 Total	**995,984**	**3,950**	**3,390**	**108,969**	**-947**	**-3,925**	**899,227**
1992 Total	**997,545**	**6,287**	**3,803**	**102,516**	**-2,997**	**461**	**907,655**
1993 Total	**945,424**	**8,137**	**8,181**	**74,519**	**-51,943**	**-4,916**	**944,081**
1994 Total	**1,033,504**	**8,227**	**8,870**	**71,359**	**23,617**	**4,340**	**951,286**
1995 Total	**1,032,974**	**8,561**	**9,473**	**88,547**	**-275**	**632**	**962,104**
1996 Total	**1,063,856**	**8,778**	**8,115**	**90,473**	**-17,456**	**1,411**	**1,006,321**
1997 Total	**1,089,932**	**8,096**	**7,487**	**83,545**	**-11,253**	**3,678**	**1,029,544**
1998 Total	**1,117,535**	**8,690**	**8,724**	**78,048**	**24,228**	**-4,430**	**1,037,103**
1999 Total	**1,100,431**	**8,683**	**9,089**	**58,476**	**23,988**	**-2,906**	**1,038,647**
2000 Total	**1,073,612**	**9,089**	**12,513**	**58,489**	**[R] -47,487**	**[R] 117**	**1,084,095**
2001 January	106,110	([c])	1,303	5,512	[R] -2,939	[R] 7,937	[R] 96,902
February	82,900	([c])	1,252	3,236	[R] 3,824	[R] -6,684	83,776
March	94,761	([c])	1,355	3,094	12,607	-6,088	86,504
April	90,578	([c])	1,253	4,623	10,439	-1,607	78,375
May	95,505	([c])	1,435	4,966	8,320	-955	84,610
June	93,310	([c])	1,436	3,911	-1,833	2,639	90,030
July	89,884	([c])	2,289	3,166	-6,626	-3,529	99,162
August	100,000	([c])	1,772	4,364	-6,805	3,103	101,111
September	89,845	([c])	1,986	4,125	-871	1,867	86,710
October	101,145	([c])	1,649	4,002	9,947	5,329	83,516
November	95,244	([c])	2,057	4,413	8,420	3,451	81,017
December	88,407	([c])	2,001	3,256	6,325	-7,662	88,489
Total	**1,127,689**	**([c])**	**19,787**	**48,666**	**[R] 40,809**	**[R] -2,201**	**[R] 1,060,202**
2002 January	102,070	([c])	1,439	3,873	[R] 4,878	[R] 4,445	[R] 90,312
February	90,325	([c])	1,222	2,630	[R] 5,411	[R] 3,856	[R] 79,650
March	90,224	([c])	1,339	2,749	[R] 1,556	[R] 2,603	[R] 84,655
April	90,160	([c])	1,208	3,584	[R] 8,517	[R] 522	[R] 78,745
May	91,795	([c])	1,227	3,330	[R] 2,718	[R] 3,303	[R] 83,670
June	85,635	([c])	1,422	4,128	[R] -5,658	[R] -1,961	[R] 90,549
July	86,291	([c])	1,573	2,843	[R] -9,943	[R] -4,666	[R] 99,629
August	92,163	([c])	1,555	3,529	[R] -12,830	[R] 4,743	[R] 98,276
September	92,314	([c])	1,526	2,884	[R] 1,851	[R] -2,001	[R] 91,105
October	94,137	([c])	1,369	4,407	[R] 5,742	[R] -2,853	[R] 88,211
November	87,932	([c])	1,393	2,930	[R] 4,858	[R] -5,378	[R] 86,915
December	90,760	([c])	1,602	2,712	[R] -8,064	[R] 3,587	[R] 94,126
Total	**1,093,806**	**([c])**	**16,875**	**39,601**	**[R] -963**	**[R] 6,201**	**[R] 1,065,842**
2003 January	91,426	([c])	1,134	3,680	[R] -7,864	[R] -2,244	[R] 98,988
February	81,106	([c])	1,804	2,428	[F] -4,723	[F] -401	[F] 85,606
March	87,770	([c])	NA	NA	NA	NA	NA
April	88,205	([c])	NA	NA	NA	NA	NA
4-Month Total	**348,507**	**([c])**	**NA**	**NA**	**NA**	**NA**	**NA**
2002 4-Month Total	**372,779**	**([c])**	**5,209**	**12,837**	**20,363**	**11,426**	**333,362**
2001 4-Month Total	**374,348**	**([c])**	**5,163**	**16,464**	**23,931**	**-6,442**	**345,558**

[a] Beginning in 2001, includes bituminous refuse.

[b] Waste coal (including anthracite culm, bituminous gob, fine coal, and lignite waste) consumed by independent power producers. For 1989-2000, waste coal is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."

[c] Beginning in 2001, bituminous refuse is included in "Production"; to avoid double counting, waste coal is not counted as a separate supply-side item for 2001 forward.

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

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

[f] Included in "Losses and Unaccounted for."

[g] Includes stock change.

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. • For methodology used to calculate production, consumption, and stock, see Notes 1, 2, and 3 at end of section.

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.

Sources: See end of section. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 4 at end of section.

In the April 2003 *Monthly Energy Review*, Table 6.1 was redesigned to replace "Stocks" with "Stock Change" and to add columns for "Waste Coal" and "Losses and Unaccounted for." Also, "Consumption" data were revised for 1989 forward; see Table 6.2 and Appendix D for additional information.

Table 6.2 Coal Consumption by Sector

(Thousand Short Tons)

	End-Use Sectors											
		Commercial			Industrial							
						Other Industrial						
	Resi-dential	CHP[a]	Other[b]	Total	Coke Plants	CHP[c]	Non-CHP[d]	Total	Total	Trans-portation	Electric Power Sector[e,f]	Total
1973 Total	**4,113**	([g])	**7,004**	**7,004**	**94,101**	([h])	**68,038**	**68,038**	**162,139**	**116**	**389,212**	**562,584**
1974 Total	**3,653**	([g])	**7,764**	**7,764**	**90,191**	([h])	**64,903**	**64,903**	**155,094**	**80**	**391,811**	**558,402**
1975 Total	**2,823**	([g])	**6,587**	**6,587**	**83,598**	([h])	**63,646**	**63,646**	**147,244**	**24**	**405,962**	**562,640**
1976 Total	**2,586**	([g])	**6,330**	**6,330**	**84,704**	([h])	**61,787**	**61,787**	**146,491**	**12**	**448,371**	**603,790**
1977 Total	**2,507**	([g])	**6,447**	**6,447**	**77,739**	([h])	**61,463**	**61,463**	**139,202**	**9**	**477,126**	**625,291**
1978 Total	**2,188**	([g])	**7,323**	**7,323**	**71,394**	([h])	**63,085**	**63,085**	**134,479**	([h])	**481,235**	**625,225**
1979 Total	**1,678**	([g])	**6,710**	**6,710**	**77,368**	([h])	**67,717**	**67,717**	**145,085**	([h])	**527,051**	**680,524**
1980 Total	**1,355**	([g])	**5,097**	**5,097**	**66,657**	([h])	**60,347**	**60,347**	**127,004**	([h])	**569,274**	**702,730**
1981 Total	**1,336**	([g])	**6,085**	**6,085**	**61,014**	([h])	**67,395**	**67,395**	**128,409**	([h])	**596,797**	**732,627**
1982 Total	**1,401**	([g])	**6,839**	**6,839**	**40,908**	([h])	**64,097**	**64,097**	**105,005**	([h])	**593,666**	**706,911**
1983 Total	**1,352**	([g])	**7,096**	**7,096**	**37,033**	([h])	**65,980**	**65,980**	**103,013**	([h])	**625,211**	**736,672**
1984 Total	**1,643**	([g])	**7,486**	**7,486**	**44,022**	([h])	**73,745**	**73,745**	**117,767**	([h])	**664,399**	**791,296**
1985 Total	**1,556**	([g])	**6,223**	**6,223**	**41,056**	([h])	**75,372**	**75,372**	**116,429**	([h])	**693,841**	**818,049**
1986 Total	**1,533**	([g])	**6,134**	**6,134**	**35,924**	([h])	**75,583**	**75,583**	**111,508**	([h])	**685,056**	**804,231**
1987 Total	**1,383**	([g])	**5,531**	**5,531**	**36,957**	([h])	**75,175**	**75,175**	**112,132**	([h])	**717,894**	**836,941**
1988 Total	**1,426**	([g])	**5,704**	**5,704**	**41,888**	([h])	**76,252**	**76,252**	**118,140**	([h])	**758,372**	**883,642**
1989 Total	**1,172**	**1,125**	**3,871**	**4,996**	**40,508**	**24,867**	**51,268**	**76,134**	**116,643**	([h])	[f] **772,190**	**895,000**
1990 Total	**1,210**	**1,191**	**4,323**	**5,514**	**38,877**	**27,781**	**48,549**	**76,330**	**115,207**	([h])	**782,567**	**904,498**
1991 Total	**975**	**1,228**	**3,891**	**5,119**	**33,854**	**27,021**	**48,384**	**75,405**	**109,259**	([h])	**783,874**	**899,227**
1992 Total	**1,046**	**1,175**	**3,932**	**5,107**	**32,366**	**28,244**	**45,799**	**74,042**	**106,408**	([h])	**795,094**	**907,655**
1993 Total	**1,058**	**1,373**	**3,791**	**5,164**	**31,323**	**28,886**	**46,006**	**74,892**	**106,215**	([h])	**831,645**	**944,081**
1994 Total	**902**	**1,344**	**3,767**	**5,111**	**31,740**	**29,707**	**45,471**	**75,179**	**106,919**	([h])	**838,354**	**951,286**
1995 Total	**755**	**1,419**	**3,633**	**5,052**	**33,011**	**29,363**	**43,693**	**73,055**	**106,067**	([h])	**850,230**	**962,104**
1996 Total	**721**	**1,660**	**3,625**	**5,285**	**31,706**	**29,434**	**42,254**	**71,689**	**103,395**	([h])	**896,921**	**1,006,321**
1997 Total	**711**	**1,738**	**4,015**	**5,752**	**30,203**	**29,853**	**41,661**	**71,515**	**101,718**	([h])	**921,364**	**1,029,544**
1998 Total	**534**	**1,443**	**2,879**	**4,322**	**28,189**	**28,553**	**38,887**	**67,439**	**95,628**	([h])	**936,619**	**1,037,103**
1999 Total	**585**	**1,490**	**2,803**	**4,293**	**28,108**	**27,763**	**36,975**	**64,738**	**92,846**	([h])	**940,922**	**1,038,647**
2000 Total	**454**	**1,547**	**2,126**	**3,673**	**28,939**	**28,031**	**37,177**	**65,208**	**94,147**	([h])	**985,821**	**1,084,095**
2001 January	57	132	331	463	2,176	[R] 2,431	[R] 3,374	5,805	7,981	([h])	[R] 88,400	[R] 96,902
February	45	132	235	367	2,145	2,018	3,795	5,813	7,958	([h])	75,405	83,776
March	42	130	207	336	2,466	2,226	3,511	5,737	8,202	([h])	77,923	86,504
April	41	99	234	333	2,320	2,053	3,240	5,293	7,613	([h])	70,388	78,375
May	26	105	104	209	2,337	1,970	3,322	5,292	7,629	([h])	76,746	84,610
June	29	117	118	235	2,268	2,130	3,117	5,247	7,515	([h])	82,251	90,030
July	36	144	144	288	2,206	2,274	3,110	5,385	7,591	([h])	91,247	99,162
August	36	163	130	293	2,249	2,325	3,014	5,339	7,588	([h])	93,194	101,111
September	24	122	75	197	2,145	2,121	3,198	5,319	7,464	([h])	79,025	86,710
October	31	101	153	253	2,203	2,087	3,302	5,388	7,592	([h])	75,640	83,516
November	42	97	243	340	1,846	2,046	3,309	5,355	7,201	([h])	73,435	81,017
December	71	110	464	574	1,715	2,147	3,147	5,294	7,010	([h])	80,835	88,489
Total	**481**	**1,452**	**2,437**	**3,888**	**26,075**	[R] **25,829**	[R] **39,439**	**65,268**	**91,344**	([h])	[R] **964,489**	[R] **1,060,202**
2002 January	53	132	301	433	1,818	[R] 2,340	[R] 3,078	5,418	7,236	([h])	[R] 82,589	[R] 90,312
February	47	106	271	377	1,723	[R] 2,038	[R] 3,386	5,424	7,147	([h])	[R] 72,079	[R] 79,650
March	44	134	223	357	1,873	[R] 2,209	[R] 3,232	5,441	7,315	([h])	[R] 76,939	[R] 84,655
April	39	102	214	316	1,867	[R] 2,054	[R] 2,975	5,028	6,895	([h])	[R] 71,495	[R] 78,745
May	30	104	136	240	1,928	[R] 1,994	[R] 3,061	5,055	6,983	([h])	[R] 76,417	[R] 83,670
June	27	[R] 120	[R] 101	221	1,846	[R] 2,165	[R] 2,916	5,081	6,927	([h])	[R] 83,373	[R] 90,549
July	38	136	172	307	1,819	[R] 2,312	[R] 2,769	5,081	6,900	([h])	[R] 92,384	[R] 99,629
August	34	137	137	274	1,894	[R] 2,154	[R] 2,933	5,087	6,981	([h])	[R] 90,987	[R] 98,276
September	24	[R] 123	74	197	1,883	[R] 2,148	[R] 2,941	5,089	6,972	([h])	[R] 83,912	[R] 91,105
October	32	118	142	260	2,072	[R] 2,211	[R] 3,255	5,466	7,538	([h])	[R] 80,381	[R] 88,211
November	48	121	270	391	1,910	[R] 2,149	[R] 3,297	5,447	7,356	([h])	[R] 79,120	[R] 86,915
December	64	136	380	516	1,904	[R] 2,292	[R] 3,167	5,460	7,364	([h])	[R] 86,183	[R] 94,126
Total	**481**	[R] **1,469**	[R] **2,419**	**3,888**	**22,537**	[R] **26,066**	[R] **37,011**	**63,077**	**85,615**	([h])	[R] **975,858**	[R] **1,065,842**
2003 January	59	[R] 146	[R] 332	478	2,338	[R] 2,484	[R] 2,520	5,003	7,341	([h])	[R] 91,109	[R] 98,988
February	[F] 47	[F] 119	[F] 260	[F] 379	[F] 2,274	[F] 1,945	[F] 3,136	[F] 5,080	[F] 7,354	([h])	[F] 77,827	[F] 85,606
2-Month Total	[E] **106**	[E] **265**	[E] **592**	[E] **857**	[E] **4,611**	[E] **4,428**	[E] **5,655**	[E] **10,084**	[E] **14,695**	([h])	[E] **168,936**	[E] **184,593**
2002 2-Month Total	**100**	**238**	**572**	**810**	**3,541**	**4,378**	**6,465**	**10,842**	**14,383**	([h])	**154,668**	**169,961**
2001 2-Month Total	**103**	**264**	**566**	**830**	**4,321**	**4,449**	**7,169**	**11,619**	**15,940**	([h])	**163,806**	**180,679**

[a] Commercial combined-heat-and-power (CHP) and a small number of commercial electricity-only plants, such as those at hospitals and universities. See note at end of Section 7.

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

[c] Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See note at end of Section 7.

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

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

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

[g] Included in "Commercial Other."

[h] Included in "Industrial Non-CHP."

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

Notes: • For sector-specific reporting and estimating information, see Note 2 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.

Sources: See end of section. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 4 at end of section.

In the April 2003 *Monthly Energy Review*, Table 6.2 was redesigned to show commercial sector and industrial sector combined-heat-and-power plant consumption separately from other consumption in each sector. For a discussion about these changes and other effects on historical data, see Appendix D. Residential and commercial data were revised due to new methodology—see Note 2 at the end of section.

Table 6.3 Coal Stocks by Sector

(Thousand Short Tons)

	Producers and Distributors	End-Use Sectors					Electric Power Sector[b,c]	Total
		Residential and Commercial	Industrial			Total		
			Coke Plants	Other[a]	Total			
1973 Year	**12,530**	**290**	**6,998**	**10,370**	**17,368**	**17,658**	**86,967**	**117,155**
1974 Year	**11,634**	**280**	**6,209**	**6,605**	**12,814**	**13,094**	**83,509**	**108,237**
1975 Year	**12,108**	**233**	**8,797**	**8,529**	**17,326**	**17,559**	**110,724**	**140,391**
1976 Year	**14,221**	**240**	**9,902**	**7,100**	**17,002**	**17,242**	**117,436**	**148,899**
1977 Year	**14,225**	**220**	**12,816**	**11,063**	**23,879**	**24,099**	**133,219**	**171,543**
1978 Year	**20,695**	**360**	**8,278**	**9,048**	**17,326**	**17,686**	**128,225**	**166,606**
1979 Year	**20,826**	**340**	**10,155**	**11,777**	**21,932**	**22,272**	**159,714**	**202,812**
1980 Year	**24,379**	**NA**	**9,067**	**11,951**	**21,018**	**21,018**	**183,010**	**228,407**
1981 Year	**24,149**	**NA**	**6,475**	**9,906**	**16,381**	**16,381**	**168,893**	**209,423**
1982 Year	**36,784**	**NA**	**4,642**	**9,479**	**14,121**	**14,121**	**181,132**	**232,038**
1983 Year	**33,931**	**NA**	**4,346**	**8,710**	**13,056**	**13,056**	**155,598**	**202,584**
1984 Year	**34,090**	**NA**	**6,166**	**11,317**	**17,483**	**17,483**	**179,727**	**231,300**
1985 Year	**33,133**	**NA**	**3,420**	**10,438**	**13,857**	**13,857**	**156,376**	**203,367**
1986 Year	**32,093**	**NA**	**2,992**	**10,429**	**13,420**	**13,420**	**161,806**	**207,319**
1987 Year	**28,321**	**NA**	**3,884**	**10,777**	**14,662**	**14,662**	**170,797**	**213,780**
1988 Year	**30,418**	**NA**	**3,137**	**8,768**	**11,906**	**11,906**	**146,507**	**188,831**
1989 Year	**29,000**	**NA**	**2,864**	**7,363**	**10,227**	**10,227**	**135,860**	**175,087**
1990 Year	**33,418**	**NA**	**3,329**	**8,716**	**12,044**	**12,044**	**156,166**	**201,629**
1991 Year	**32,971**	**NA**	**2,773**	**7,061**	**9,835**	**9,835**	**157,876**	**200,682**
1992 Year	**33,993**	**NA**	**2,597**	**6,965**	**9,562**	**9,562**	**154,130**	**197,685**
1993 Year	**25,284**	**NA**	**2,401**	**6,716**	**9,117**	**9,117**	**111,341**	**145,742**
1994 Year	**33,219**	**NA**	**2,657**	**6,585**	**9,243**	**9,243**	**126,897**	**169,358**
1995 Year	**34,444**	**NA**	**2,632**	**5,702**	**8,334**	**8,334**	**126,304**	**169,083**
1996 Year	**28,648**	**NA**	**2,667**	**5,688**	**8,355**	**8,355**	**114,623**	**151,627**
1997 Year	**33,973**	**NA**	**1,978**	**5,597**	**7,576**	**7,576**	**98,826**	**140,374**
1998 Year	**36,530**	**NA**	**2,026**	**5,545**	**7,571**	**7,571**	**120,501**	**164,602**
1999 Year	**39,475**	**NA**	**1,943**	**5,569**	**7,512**	**7,511**	[c] **141,604**	**188,590**
2000 Year	**31,905**	**NA**	**1,494**	**4,587**	**6,081**	**6,081**	**102,296**	[R] **141,103**
2001 January	35,489	NA	1,630	4,500	6,130	6,130	[R] 96,545	[R] 138,164
February	37,589	NA	1,766	4,413	6,178	6,178	98,220	141,987
March	39,214	NA	1,902	4,325	6,227	6,227	109,154	154,595
April	40,265	NA	1,813	4,433	6,246	6,246	118,523	165,034
May	39,568	NA	1,724	4,540	6,265	6,265	127,521	173,354
June	38,554	NA	1,635	4,648	6,283	6,283	126,683	171,521
July	39,485	NA	1,616	4,789	6,405	6,405	119,005	164,895
August	38,498	NA	1,597	4,930	6,526	6,526	113,066	158,090
September	34,822	NA	1,577	5,070	6,647	6,647	115,750	157,219
October	33,531	NA	1,506	5,382	6,888	6,888	126,747	167,166
November	32,956	NA	1,508	5,694	7,202	7,202	135,428	175,586
December	**35,900**	**NA**	**1,510**	**6,006**	**7,516**	**7,516**	**138,496**	**181,912**
2002 January	39,548	NA	1,388	5,618	7,006	7,006	[R] 140,236	[R] 186,790
February	41,589	NA	1,309	5,230	6,539	6,539	[R] 144,073	[R] 192,201
March	40,284	NA	1,230	4,842	6,072	6,072	[R] 147,401	[R] 193,757
April	44,961	NA	1,306	4,916	6,221	6,221	[R] 151,092	[R] 202,274
May	43,946	NA	1,381	4,990	6,371	6,371	[R] 154,676	[R] 204,993
June	41,288	NA	1,456	5,064	6,520	6,520	[R] 151,526	[R] 199,334
July	40,496	NA	1,469	5,321	6,790	6,790	[R] 142,105	[R] 189,392
August	36,489	NA	1,483	5,578	7,060	7,060	[R] 133,012	[R] 176,561
September	35,662	NA	1,496	5,834	7,330	7,330	[R] 135,421	[R] 178,413
October	35,191	NA	1,385	5,820	7,205	7,205	[R] 141,758	[R] 184,154
November	36,954	NA	1,274	5,806	7,080	7,080	[R] 144,979	[R] 189,013
December	**31,968**	**NA**	**1,163**	**5,792**	**6,955**	**6,955**	[R] **142,026**	[R] **180,949**
2003 January	31,489	NA	1,402	4,422	5,825	5,825	[R] 135,771	[R] 173,085
February	[F] 30,489	NA	[F] 1,120	[F] 4,240	[F] 5,361	[F] 5,361	[F] 132,512	[F] 168,362

[a] Includes transportation sector.

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

[c] Through 1998, data are for stocks at electric utilities only. Beginning in 1999, data also include stocks at independent power producers.

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

Notes: • Stocks are at end of period. • For sector-specific reporting and estimating information, see Note 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.

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.

Sources: See end of section. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 4 at end of section.

Beginning with the April 2003 *Monthly Energy Review*, coal stocks, previously shown separately for "Electric Utilities" and "Other Power Producers," are now shown only combined as "Electric Power Sector."

Coal

Note 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.

Note 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 based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Coal consumption by the residential and commercial sectors is reported to the Energy Information Administration (EIA) for the two sectors combined; EIA estimates the amount consumed by the sectors individually. To create the estimates, it is first assumed that an occupied coal-heated housing unit consumes fuel at the same Btu rate as an oil-heated housing unit. Then, for the years in which data are available on the number of occupied housing units by heating source (1973-1981 and subsequent odd-numbered years), residential consumption of coal is estimated by the following steps: a ratio is created of the number of occupied housing units heated by coal to the number of occupied housing units heated by oil; that ratio is then multiplied times the Btu quantity of oil consumed by the residential sector to derive an estimate of the Btu quantity of coal consumed by the residential sector; and, finally, the amount estimated as the residential sector consumption is subtracted from the residential and commercial sectors' combined consumption to derive the commercial sector's estimated consumption. The 1999 share is applied to 2000 and succeeding years, and the other missing years' shares are interpolated.

Industrial Coke Plants—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. 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: food manufacturing, which is North American Industry Classification System (NAICS) code 333; paper manufacturing, NAICS 322; chemical manufacturing, NAICS 325; petroleum and coal products, NAICS 324;

nonmetallic mineral products manufacturing, NAICS 327; and primary metal manufacturing, NAICS 331. The monthly ratios are computed as the monthly sum of the weighted indices as a proportion of the quarterly sum of the weighted indices by using the 1977 proportion as the weights.

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

Note 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 based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

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 Power—Monthly stocks data at electric power 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.

Note 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 monthly 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.

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

Table 6.1 Sources

Production
1973–September 1977: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977 forward: Energy Information Administration (EIA), *Weekly Coal Production*.

Waste Coal
EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form.

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

Stocks Change
Calculated from data in Table 6.3.

Losses and Unaccounted for
Calculated.

Consumption
Table 6.2.

Table 6.2 Sources

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 Power
1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977–1988: EIA, Form EIA-759 (formerly Form FPC-4), "Monthly Power Plant Report." 2001: EIA, Form EIA-906, "Power Plant Report."
1989 forward: Table 7.3b

Table 6.3 Sources

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 Power
Table 7.4.

Section 7. Electricity

Overview. In 2002, net generation of electricity totaled 3.8 trillion kilowatthours, up 3 percent compared with the total in 2001. Of the total generated, 96 percent came from the electric power sector; 4 percent was generated by combined-heat-and power plants and electricity-only plants in the industrial and commercial sectors. The Nation imported 36 billion kilowatthours and exported 13 billion kilowatthours of electricity in 2002.

Net Generation. In February 2003, total net generation of electricity was forecast as 294 billion kilowatthours, 5 percent higher than in February 2002.

Consumption of Combustible Fuels. The consumption of coal for electricity generation and useful thermal output by all sectors was forecast as 80 million short tons in February 2003, 8 percent higher than in February 2002. Total petroleum consumption was forecast as 16 million barrels, 61 percent higher than a year earlier, and natural gas consumption was forecast as 428 billion cubic feet, 4 percent lower than a year ago.

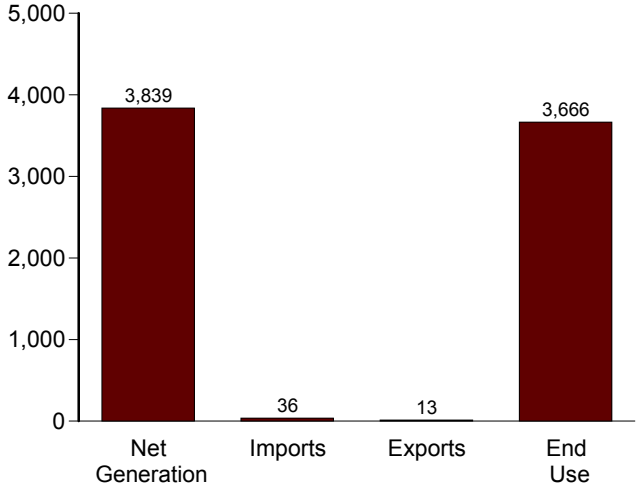
Stocks of Coal and Petroleum. Stocks of coal held by the electric power sector in February 2003 were forecast as 133 million short tons, 8 percent below the level held a year earlier. Total petroleum was forecast as 37 million barrels in February 2003, 31 percent lower than a year earlier.

Retail Sales of Electricity. Total retail sales of electricity in February 2003 were 283 billion kilowatthours, 7 percent more than sales in February 2002. Sales to residential users in February 2003 were 112 billion kilowatthours, 15 percent higher than a year ago; commercial sector sales were 85 billion kilowatthours, 4 percent higher than a year ago; and industrial sector sales were 78 billion kilowatthours, slightly less than a year ago.

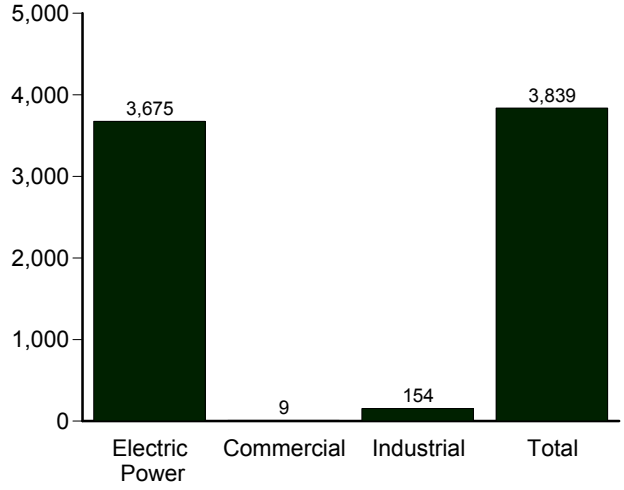
In the April 2003 *Monthly Energy Review* (*MER*), the electricity section was redesigned to incorporate improved statistics and provide more detailed data. The changes make the *MER* electricity data and the fuel data in other sections of the report consistent, and bring the *MER* data in line with those in the *Annual Energy Review* (*AER*), which was redesigned in the *AER 2001* release. *MER* tables now show electricity net generation by electric power, commercial, and industrial sectors. Consumption of combustible fuels is also shown by those sectors and further broken down into use for electricity generation only and use for electricity generation and useful thermal output at combined-heat-and-power (CHP) plants. For additional discussion of the data changes and their impacts, see Appendix D, "Estimating and Presenting Power Sector Fuel Use In EIA Publications and Analyses." For a crosswalk from the March 2003 MER electricity tables to the new set of electricity tables, see page 114.

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

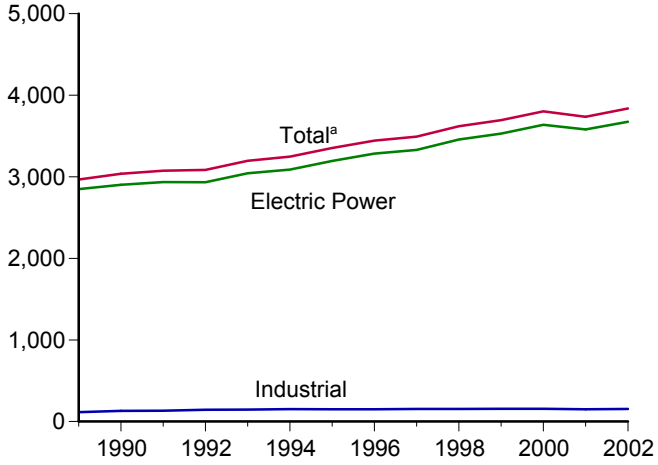
Overview, 2002



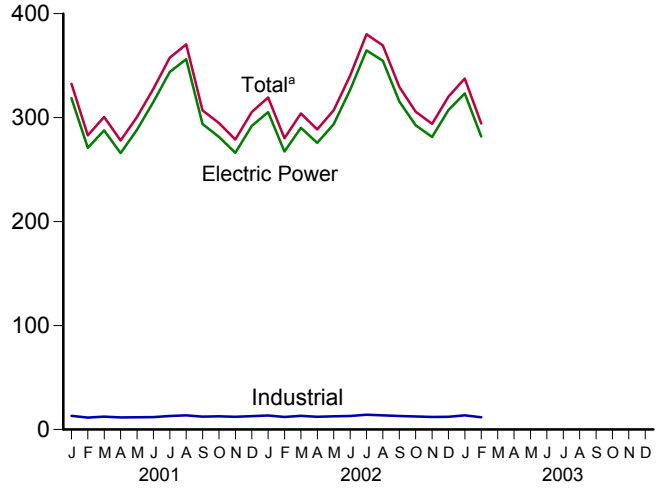
Net Generation, 2002



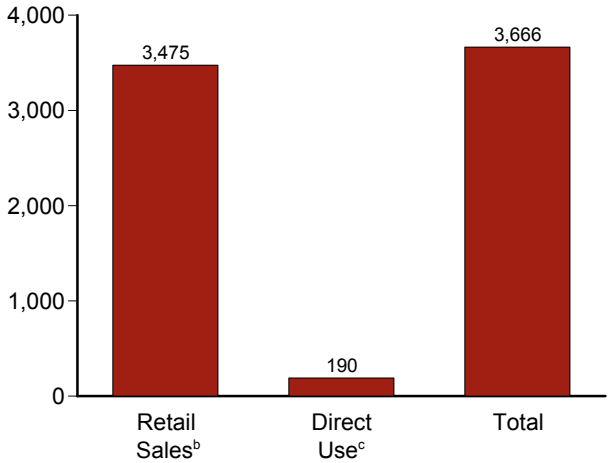
Net Generation by Sector, 1989-2002



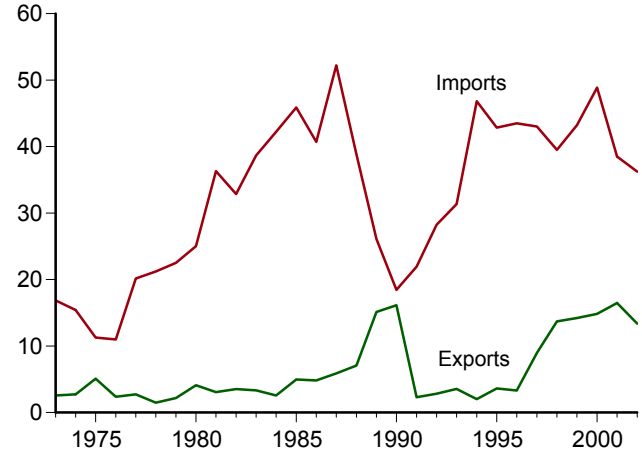
Net Generation by Sector, Monthly



End Use, 2002



Trade, 1973-2002



[a]Includes commercial sector.
[b]Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[c]Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.
Note: Because vertical scales differ, graphs should not be compared .
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Sources: Table 7.1.

Table 7.1 Electricity Overview

(Billion Kilowatthours)

	Net Generation							End Use		
	Electric Power Sector[a]	Commercial Sector[b]	Industrial Sector[c]	Total	Imports[d]	Exports[d]	Losses and Unaccounted for[e]	Retail Sales[f]	Direct Use[g]	Total
1973 Total	**1,861**	**NA**	**3**	**1,864**	**17**	**3**	**165**	**1,713**	**NA**	**1,713**
1974 Total	**1,867**	**NA**	**3**	**1,870**	**15**	**3**	**177**	**1,706**	**NA**	**1,706**
1975 Total	**1,918**	**NA**	**3**	**1,921**	**11**	**5**	**180**	**1,747**	**NA**	**1,747**
1976 Total	**2,038**	**NA**	**3**	**2,041**	**11**	**2**	**194**	**1,855**	**NA**	**1,855**
1977 Total	**2,124**	**NA**	**3**	**2,127**	**20**	**3**	**197**	**1,948**	**NA**	**1,948**
1978 Total	**2,206**	**NA**	**3**	**2,209**	**21**	**1**	**211**	**2,018**	**NA**	**2,018**
1979 Total	**2,247**	**NA**	**3**	**2,251**	**23**	**2**	**200**	**2,071**	**NA**	**2,071**
1980 Total	**2,286**	**NA**	**3**	**2,290**	**25**	**4**	**216**	**2,094**	**NA**	**2,094**
1981 Total	**2,295**	**NA**	**3**	**2,298**	**36**	**3**	**184**	**2,147**	**NA**	**2,147**
1982 Total	**2,241**	**NA**	**3**	**2,244**	**33**	**4**	**187**	**2,086**	**NA**	**2,086**
1983 Total	**2,310**	**NA**	**3**	**2,313**	**39**	**3**	**198**	**2,151**	**NA**	**2,151**
1984 Total	**2,416**	**NA**	**3**	**2,419**	**42**	**3**	**173**	**2,286**	**NA**	**2,286**
1985 Total	**2,470**	**NA**	**3**	**2,473**	**46**	**5**	**190**	**2,324**	**NA**	**2,324**
1986 Total	**2,487**	**NA**	**3**	**2,490**	**41**	**5**	**158**	**2,369**	**NA**	**2,369**
1987 Total	**2,572**	**NA**	**3**	**2,575**	**52**	**6**	**164**	**2,457**	**NA**	**2,457**
1988 Total	**2,704**	**NA**	**3**	**2,707**	**39**	**7**	**161**	**2,578**	**NA**	**2,578**
1989 Total	**2,848**	**4**	**115**	**2,967**	**26**	**15**	**223**	**2,647**	**108**	**2,755**
1990 Total	**2,901**	**6**	**131**	**3,038**	**18**	**16**	R **214**	**2,713**	R **114**	**2,827**
1991 Total	**2,936**	**6**	**133**	**3,074**	**22**	**2**	**213**	**2,762**	**118**	**2,880**
1992 Total	**2,934**	**6**	**143**	**3,084**	**28**	**3**	**224**	**2,763**	**122**	**2,886**
1993 Total	**3,044**	**7**	**146**	**3,197**	**31**	**4**	**236**	**2,861**	**128**	**2,989**
1994 Total	**3,089**	**8**	**151**	**3,248**	**47**	**2**	**224**	**2,935**	**134**	**3,069**
1995 Total	**3,194**	**8**	**151**	**3,353**	**43**	**4**	**235**	**3,013**	**144**	**3,157**
1996 Total	**3,284**	**9**	**151**	**3,444**	**43**	**3**	**237**	**3,101**	**146**	**3,247**
1997 Total	**3,329**	**9**	**154**	**3,492**	**43**	**9**	**232**	**3,146**	**148**	**3,294**
1998 Total	**3,457**	**9**	**154**	**3,620**	**40**	R **14**	**221**	**3,264**	**161**	**3,425**
1999 Total	**3,530**	**9**	**156**	**3,695**	**43**	**14**	**229**	**3,312**	**183**	**3,495**
2000 Total	**3,638**	**8**	**157**	**3,802**	**49**	**15**	**231**	**3,421**	**183**	**3,605**
2001 January	319	1	13	332	3	2	R 9	309	RE 16	R 325
February	271	1	11	283	3	3	R -2	271	RE 15	R 286
March	288	1	12	301	4	2	R 19	267	RE 16	R 283
April	266	1	12	278	4	R 1	R 12	253	RE 16	R 268
May	288	1	12	300	4	2	R 26	261	RE 16	R 277
June	315	1	12	328	4	1	R 27	288	RE 16	R 303
July	344	1	13	358	4	1	R 30	314	RE 16	R 330
August	356	1	14	371	4	1	R 27	330	RE 16	R 346
September	294	1	12	307	2	1	R -2	294	RE 16	R 309
October	281	1	13	295	2	1	R 14	265	RE 16	R 281
November	266	1	12	279	2	1	R 13	251	RE 16	R 267
December	292	1	13	305	3	1	R 26	266	RE 16	R 282
Total	**3,580**	**7**	**149**	**3,737**	R **39**	R **16**	R **199**	**3,370**	R **190**	R **3,560**
2002 January	305	1	14	319	3	1	R 13	R 293	RE 16	R 309
February	267	1	12	280	3	1	R 2	R 265	RE 15	R 280
March	290	1	13	304	3	2	R 21	R 268	RE 16	R 284
April	276	1	12	289	3	R 1	R 15	R 260	RE 16	R 275
May	294	1	13	307	2	2	R 22	R 270	RE 16	R 286
June	R 327	1	13	340	3	1	R 27	R 299	RE 16	R 315
July	365	1	14	380	4	1	R 29	R 338	RE 16	R 354
August	R 355	1	14	369	4	1	R 17	R 339	RE 16	R 356
September	R 316	1	13	R 330	3	1	R 5	311	RE 16	R 326
October	293	1	12	306	2	1	R 7	R 284	RE 16	R 300
November	281	1	12	294	2	1	R 17	R 263	RE 16	R 279
December	307	1	12	320	2	R 1	R 20	285	RE 16	R 301
Total	R **3,675**	**9**	**154**	R **3,839**	**36**	R **13**	R **196**	R **3,475**	RE **190**	R **3,666**
2003 January	R 323	R 1	R 14	R 338	3	1	R 15	R 308	RE 16	R 324
February	F 282	F 1	F 12	F 294	3	2	E -2	F 283	E 15	298
2-Month Total	E **605**	E **1**	E **25**	E **632**	**6**	**3**	E **12**	E **591**	E **31**	**622**
2002 2-Month Total	**573**	**1**	**26**	**600**	**6**	**1**	**15**	**558**	E **31**	**589**
2001 2-Month Total	**590**	**1**	**25**	**615**	**7**	**4**	**7**	**580**	E **31**	**611**

[a] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

[b] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

[c] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section. Through 1988, includes industrial hydroelectric power only.

[d] Electricity transmitted across U.S. borders with Canada and Mexico.

[e] Energy losses that occur between the point of generation and delivery to the customer, and data collection frame differences and nonsampling error. See Note 12 at end of Section 2 for discussion on electrical system energy losses.

[f] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

[g] Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.

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

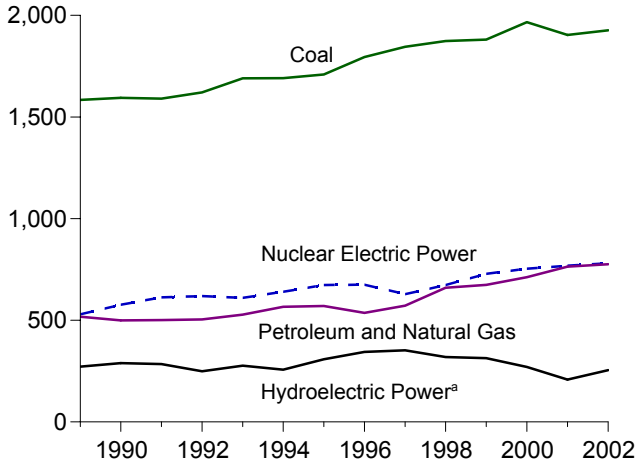
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

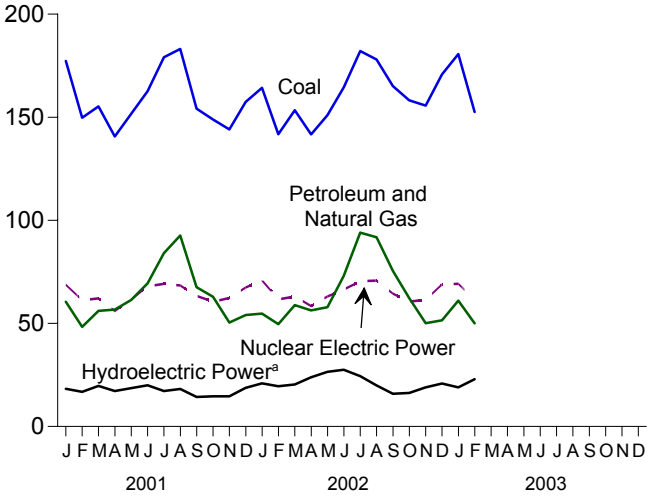
Sources: • **Net Generation:** Tables 7.2a-7.2c. • **Imports and Exports:** See end of section. • **Losses and Unaccounted for:** Calculated as the sum of total net generation and imports minus total end use and exports. • **End Use:** Table 7.5. • **Forecast Values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

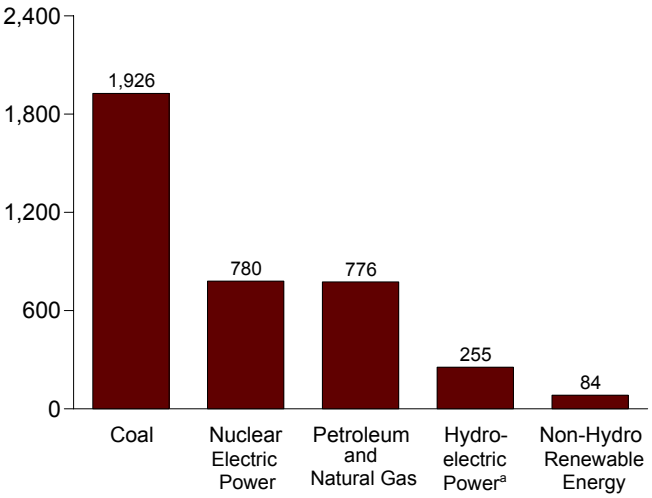
Total (All Sectors), Major Sources, 1989-2002



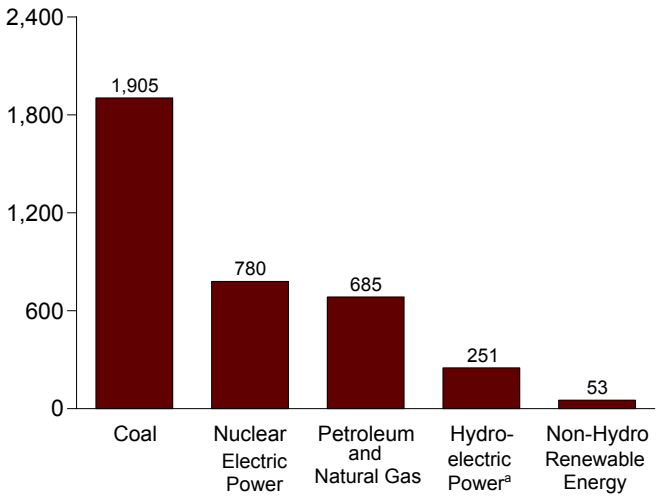
Total (All Sectors), Major Sources, Monthly



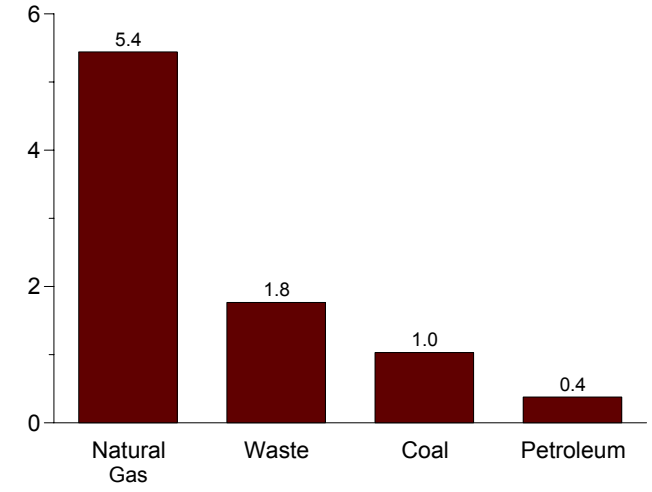
Total (All Sectors), Major Sources, 2002



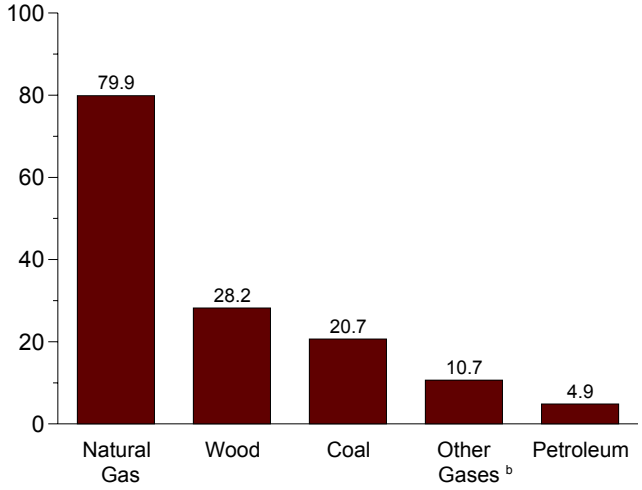
Electric Power Sector, Major Sources, 2002



Commercial Sector, Major Sources, 2002



Industrial Sector, Major Sources, 2002



[a]Conventional and pumped storage hydroelectric power.
[b]Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Sources: Tables 7.2a, 7.2b, and 7.2c.

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

(Million Kilowatthours)

	Fossil Fuels						Renewable Energy						
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power	Wood[f]	Waste[g]	Geothermal	Solar[h]	Wind	Total[i]
1973 Total	**847,651**	**314,343**	**340,858**	**NA**	**83,479**	**(j)**	**275,431**	**130**	**198**	**1,966**	**NA**	**NA**	**1,864,057**
1974 Total	**828,433**	**300,931**	**320,065**	**NA**	**113,976**	**(j)**	**304,212**	**69**	**182**	**2,453**	**NA**	**NA**	**1,870,319**
1975 Total	**852,786**	**289,095**	**299,778**	**NA**	**172,505**	**(j)**	**303,153**	**18**	**174**	**3,246**	**NA**	**NA**	**1,920,755**
1976 Total	**944,391**	**319,988**	**294,624**	**NA**	**191,104**	**(j)**	**286,924**	**84**	**182**	**3,616**	**NA**	**NA**	**2,040,914**
1977 Total	**985,219**	**358,179**	**305,505**	**NA**	**250,883**	**(j)**	**223,599**	**308**	**173**	**3,582**	**NA**	**NA**	**2,127,447**
1978 Total	**975,742**	**365,060**	**305,391**	**NA**	**276,403**	**(j)**	**283,465**	**197**	**140**	**2,978**	**NA**	**NA**	**2,209,377**
1979 Total	**1,075,037**	**303,525**	**329,485**	**NA**	**255,155**	**(j)**	**283,076**	**300**	**198**	**3,889**	**NA**	**NA**	**2,250,665**
1980 Total	**1,161,562**	**245,994**	**346,240**	**NA**	**251,116**	**(j)**	**279,182**	**275**	**158**	**5,073**	**NA**	**NA**	**2,289,600**
1981 Total	**1,203,203**	**206,421**	**345,777**	**NA**	**272,674**	**(j)**	**263,845**	**245**	**123**	**5,686**	**NA**	**NA**	**2,297,973**
1982 Total	**1,192,004**	**146,797**	**305,260**	**NA**	**282,773**	**(j)**	**312,374**	**196**	**125**	**4,843**	**NA**	**NA**	**2,244,372**
1983 Total	**1,259,424**	**144,499**	**274,098**	**NA**	**293,677**	**(j)**	**335,291**	**216**	**163**	**6,075**	**NA**	**3**	**2,313,446**
1984 Total	**1,341,681**	**119,808**	**297,394**	**NA**	**327,634**	**(j)**	**324,311**	**461**	**425**	**7,741**	**5**	**6**	**2,419,465**
1985 Total	**1,402,128**	**100,202**	**291,946**	**NA**	**383,691**	**(j)**	**284,311**	**743**	**640**	**9,325**	**11**	**6**	**2,473,002**
1986 Total	**1,385,831**	**136,585**	**248,508**	**NA**	**414,038**	**(j)**	**294,005**	**492**	**685**	**10,308**	**14**	**4**	**2,490,471**
1987 Total	**1,463,781**	**118,493**	**272,621**	**NA**	**455,270**	**(j)**	**252,856**	**783**	**694**	**10,775**	**10**	**4**	**2,575,288**
1988 Total	**1,540,653**	**148,900**	**252,801**	**NA**	**526,973**	**(j)**	**226,101**	**936**	**738**	**10,300**	**9**	**1**	**2,707,411**
1989 Total[k]	**1,583,779**	**164,518**	**352,629**	**7,862**	**529,355**	**(j)**	**271,977**	**27,237**	**9,163**	**14,593**	**251**	**2,112**	**2,967,306**
1990 Total	**1,594,011**	**126,621**	**372,765**	**10,383**	**576,862**	**-3,508**	**292,866**	**32,522**	**13,260**	**15,434**	**367**	**2,789**	**3,037,988**
1991 Total	**1,590,623**	**119,752**	**381,553**	**11,336**	**612,565**	**-4,541**	**288,994**	**33,725**	**15,665**	**15,966**	**472**	**2,951**	**3,073,799**
1992 Total	**1,621,206**	**100,154**	**404,074**	**13,270**	**618,776**	**-4,177**	**253,088**	**36,529**	**17,816**	**16,138**	**400**	**2,888**	**3,083,882**
1993 Total	**1,690,070**	**112,788**	**414,927**	**12,956**	**610,291**	**-4,036**	**280,494**	**37,623**	**18,333**	**16,789**	**462**	**3,006**	**3,197,191**
1994 Total	**1,690,694**	**105,901**	**460,219**	**13,319**	**640,440**	**-3,378**	**260,126**	**37,937**	**19,129**	**15,535**	**487**	**3,447**	**3,247,522**
1995 Total	**1,709,426**	**74,554**	**496,058**	**13,870**	**673,402**	**-2,725**	**310,833**	**36,521**	**20,405**	**13,378**	**497**	**3,164**	**3,353,487**
1996 Total	**1,795,196**	**81,411**	**455,056**	**14,356**	**674,729**	**-3,088**	**347,162**	**36,800**	**20,911**	**14,329**	**521**	**3,234**	**3,444,188**
1997 Total	**1,845,016**	**92,555**	**479,399**	**13,351**	**628,644**	**-4,040**	**356,453**	**36,948**	**21,709**	**14,726**	**511**	**3,288**	**3,492,172**
1998 Total	**1,873,516**	**128,800**	**531,257**	**13,492**	**673,702**	**-4,467**	**323,336**	**36,338**	**22,448**	**14,774**	**502**	**3,026**	**3,620,295**
1999 Total	**1,881,087**	**118,061**	**556,396**	**14,126**	**728,254**	**-6,097**	**319,536**	**37,041**	**22,572**	**14,827**	**495**	**4,488**	**3,694,810**
2000 Total	**1,966,265**	**111,221**	**601,038**	**13,955**	**753,893**	**-5,539**	**275,573**	**37,595**	**23,131**	**14,093**	**493**	**5,593**	**3,802,105**
2001 January	177,288	18,112	42,389	718	68,707	-589	18,853	3,191	1,819	1,229	7	389	332,495
February	149,736	10,342	37,967	676	61,272	-707	17,472	2,697	1,636	1,073	13	431	282,940
March	155,269	11,733	44,364	769	62,141	-773	20,476	2,853	1,779	1,190	31	532	300,706
April	140,670	10,863	45,842	698	56,003	-796	18,012	2,821	1,783	1,095	39	685	278,077
May	151,593	10,390	50,934	785	61,512	-623	19,176	2,740	1,826	1,071	81	635	300,491
June	162,616	11,823	57,603	733	68,023	-774	20,728	2,891	1,841	1,088	91	670	327,694
July	179,060	11,042	73,030	840	69,166	-871	18,080	3,053	1,913	1,179	92	635	357,614
August	183,116	14,230	78,410	848	68,389	-715	18,915	3,179	1,905	1,167	85	577	370,534
September	154,158	7,342	60,181	767	63,378	-928	15,256	2,874	1,788	1,139	65	490	306,928
October	148,932	6,534	56,377	737	60,461	-615	15,235	3,046	1,809	1,162	21	607	294,735
November	144,117	5,931	44,491	699	62,342	-811	15,413	2,879	1,784	1,157	14	470	278,933
December	157,402	6,539	47,541	770	67,431	-623	19,347	2,975	1,882	1,190	4	616	305,496
Total	**1,903,956**	**124,880**	**639,129**	**9,039**	**768,826**	**-8,823**	**216,961**	**35,200**	**21,765**	**13,741**	**543**	**6,737**	**3,736,644**
2002 January	R 164,255	R 6,079	R 48,656	R 995	70,926	-758	21,652	R 3,249	R 1,913	1,197	11	R 797	R 319,385
February	R 141,769	5,314	44,343	R 809	61,658	-593	R 20,145	R 2,849	R 1,656	1,038	24	R 716	R 280,118
March	R 153,359	R 7,924	R 50,975	R 969	63,041	-692	R 21,051	R 2,966	R 1,940	1,163	33	R 874	R 303,995
April	R 141,669	R 7,497	R 48,793	R 1,000	58,437	-592	R 24,492	R 2,987	R 1,818	1,033	46	R 1,044	R 288,603
May	R 151,011	R 7,826	R 50,064	R 1,078	63,032	-547	27,038	R 2,928	R 1,949	1,127	58	R 1,106	R 307,063
June	R 164,530	R 7,473	R 65,567	R 1,073	66,372	-872	28,360	R 3,085	R 1,958	1,051	96	R 1,147	R 340,238
July	R 182,105	R 9,395	R 84,595	R 1,175	70,421	-1,007	25,417	R 3,216	R 2,051	1,160	86	R 901	R 380,161
August	R 178,027	R 9,186	R 82,621	R 1,203	70,778	-875	20,767	R 3,163	R 1,975	1,125	75	R 982	R 369,442
September	R 165,119	R 7,625	R 67,886	R 1,064	64,481	-785	16,651	R 3,101	R 1,912	1,095	53	R 760	R 329,566
October	R 158,177	R 7,829	R 54,480	R 972	60,493	-688	16,934	R 3,041	R 1,896	1,133	31	R 752	R 305,777
November	R 155,625	R 6,164	R 43,931	R 908	61,520	-674	19,614	R 3,005	R 1,789	1,102	28	R 663	R 294,041
December	R 170,796	R 7,545	R 43,928	R 872	68,905	-688	21,522	R 2,953	R 1,999	1,135	4	R 764	R 320,162
Total	**R 1,926,442**	**R 89,856**	**R 685,840**	**R 12,116**	**780,064**	**-8,769**	**263,642**	**R 36,544**	**R 22,858**	**13,357**	**544**	**R 10,506**	**R 3,838,552**
2003 January	R 180,632	R 12,338	R 48,721	R 913	R 69,211	R -760	R 19,714	R 2,976	R 1,741	R 1,144	R 13	R 558	R 337,545
February	F 152,580	F 8,357	F 41,681	F 796	F 61,546	F -696	F 23,642	F 2,698	F 1,588	F 1,026	F 23	F 712	F 294,365
2-Month Total	**E 333,213**	**E 20,695**	**E 90,401**	**E 1,709**	**E 130,757**	**E -1,457**	**E 43,356**	**E 5,673**	**E 3,329**	**E 2,170**	**E 36**	**E 1,270**	**E 631,910**
2002 2-Month Total	**306,024**	**11,392**	**92,998**	**1,803**	**132,584**	**-1,351**	**41,796**	**6,098**	**3,569**	**2,235**	**35**	**1,513**	**599,503**
2001 2-Month Total	**327,023**	**28,454**	**80,356**	**1,394**	**129,979**	**-1,296**	**36,325**	**5,888**	**3,455**	**2,302**	**19**	**820**	**615,434**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[b] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

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

[d] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[e] Pumped storage facility production minus energy used for pumping.

[f] Wood, black liquor, and other wood waste.

[g] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

[h] Solar thermal and photovoltaic energy.

[i] "Total" includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies, which are not separately displayed.

[j] Included in "Conventional Hydroelectric Power."

[k] Hydroelectric data through 1988 are for generation at electric utilities and industrial plants only; beginning in 1989, data also include generation at independent power producers and commercial plants. For all other series, data through 1988 are for generation at electric utilities only; beginning in 1989, data also include generation at independent power producers, commercial plants, and industrial plants.

R=Revised. E=Estimate. 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.

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

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

Table 7.2b Electricity Net Generation: Electric Power Sector

(Million Kilowatthours)

	Fossil Fuels						Renewable Energy						
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power	Wood[f]	Waste[g]	Geothermal	Solar[h]	Wind	Total[i]
1973 Total	**847,651**	**314,343**	**340,858**	**NA**	**83,479**	**(j)**	**272,083**	**130**	**198**	**1,966**	**NA**	**NA**	**1,860,710**
1974 Total	**828,433**	**300,931**	**320,065**	**NA**	**113,976**	**(j)**	**301,032**	**69**	**182**	**2,453**	**NA**	**NA**	**R 1,867,139**
1975 Total	**852,786**	**289,095**	**299,778**	**NA**	**172,505**	**(j)**	**300,047**	**18**	**174**	**3,246**	**NA**	**NA**	**1,917,649**
1976 Total	**944,391**	**319,988**	**294,624**	**NA**	**191,104**	**(j)**	**283,707**	**84**	**182**	**3,616**	**NA**	**NA**	**2,037,696**
1977 Total	**985,219**	**358,179**	**305,505**	**NA**	**250,883**	**(j)**	**220,475**	**308**	**173**	**3,582**	**NA**	**NA**	**2,124,323**
1978 Total	**975,742**	**365,060**	**305,391**	**NA**	**276,403**	**(j)**	**280,419**	**197**	**140**	**2,978**	**NA**	**NA**	**2,206,331**
1979 Total	**1,075,037**	**303,525**	**329,485**	**NA**	**255,155**	**(j)**	**279,783**	**300**	**198**	**3,889**	**NA**	**NA**	**2,247,372**
1980 Total	**1,161,562**	**245,994**	**346,240**	**NA**	**251,116**	**(j)**	**276,021**	**275**	**158**	**5,073**	**NA**	**NA**	**2,286,439**
1981 Total	**1,203,203**	**206,421**	**345,777**	**NA**	**272,674**	**(j)**	**260,684**	**245**	**123**	**5,686**	**NA**	**NA**	**2,294,812**
1982 Total	**1,192,004**	**146,797**	**305,260**	**NA**	**282,773**	**(j)**	**309,213**	**196**	**125**	**4,843**	**NA**	**NA**	**2,241,211**
1983 Total	**1,259,424**	**144,499**	**274,098**	**NA**	**293,677**	**(j)**	**332,130**	**216**	**163**	**6,075**	**NA**	**3**	**2,310,285**
1984 Total	**1,341,681**	**119,808**	**297,394**	**NA**	**327,634**	**(j)**	**321,150**	**461**	**425**	**7,741**	**5**	**6**	**2,416,304**
1985 Total	**1,402,128**	**100,202**	**291,946**	**NA**	**383,691**	**(j)**	**281,149**	**743**	**640**	**9,325**	**11**	**6**	**2,469,841**
1986 Total	**1,385,831**	**136,585**	**248,508**	**NA**	**414,038**	**(j)**	**290,844**	**492**	**685**	**10,308**	**14**	**4**	**2,487,310**
1987 Total	**1,463,781**	**118,493**	**272,621**	**NA**	**455,270**	**(j)**	**249,695**	**783**	**694**	**10,775**	**10**	**4**	**2,572,127**
1988 Total	**1,540,653**	**148,900**	**252,801**	**NA**	**526,973**	**(j)**	**222,940**	**936**	**738**	**10,300**	**9**	**1**	**2,704,250**
1989 Total[k]	**1,562,366**	**159,005**	**297,295**	**454**	**529,355**	**(j)**	**269,189**	**5,582**	**7,743**	**14,593**	**251**	**2,112**	**2,848,227**
1990 Total	**1,572,109**	**118,864**	**309,486**	**621**	**576,862**	**-3,508**	**289,753**	**7,032**	**11,500**	**15,434**	**367**	**2,789**	**2,901,322**
1991 Total	**1,568,846**	**112,798**	**317,773**	**719**	**612,565**	**-4,541**	**286,019**	**7,736**	**13,854**	**15,966**	**472**	**2,951**	**2,935,561**
1992 Total	**1,597,714**	**92,238**	**334,274**	**1,212**	**618,776**	**-4,177**	**250,016**	**8,491**	**15,924**	**16,138**	**400**	**2,888**	**2,934,374**
1993 Total	**1,665,464**	**105,425**	**342,222**	**967**	**610,291**	**-4,036**	**277,524**	**9,152**	**16,223**	**16,789**	**462**	**3,006**	**3,043,897**
1994 Total	**1,666,276**	**98,677**	**385,689**	**1,092**	**640,440**	**-3,378**	**254,005**	**9,232**	**16,984**	**15,535**	**487**	**3,447**	**3,088,725**
1995 Total	**1,686,056**	**68,146**	**419,179**	**1,927**	**673,402**	**-2,725**	**305,410**	**7,597**	**17,986**	**13,378**	**497**	**3,164**	**3,194,230**
1996 Total	**1,771,973**	**74,783**	**378,757**	**1,341**	**674,729**	**-3,088**	**341,159**	**8,386**	**17,816**	**14,329**	**521**	**3,234**	**3,284,141**
1997 Total	**1,820,762**	**86,479**	**399,596**	**1,533**	**628,644**	**-4,040**	**350,648**	**8,680**	**18,485**	**14,726**	**511**	**3,288**	**3,329,375**
1998 Total	**1,850,193**	**122,211**	**449,293**	**2,315**	**673,702**	**-4,467**	**317,867**	**8,608**	**19,233**	**14,774**	**502**	**3,026**	**3,457,416**
1999 Total	**1,858,618**	**111,539**	**472,996**	**1,607**	**728,254**	**-6,097**	**314,663**	**8,961**	**19,493**	**14,827**	**495**	**4,488**	**3,529,982**
2000 Total	**1,943,111**	**105,192**	**517,978**	**2,028**	**753,893**	**-5,539**	**271,338**	**8,916**	**20,307**	**14,093**	**493**	**5,593**	**3,637,529**
2001 January	R 175,304	17,396	35,261	40	68,707	-589	18,612	757	1,624	1,229	7	389	R 318,738
February	148,060	9,817	31,636	42	61,272	-707	17,231	625	1,478	1,073	13	431	270,971
March	153,452	11,207	37,453	45	62,141	-773	20,132	678	1,611	1,190	31	532	287,699
April	139,034	10,416	39,413	43	56,003	-796	17,722	616	1,585	1,095	39	685	265,854
May	150,043	9,934	44,283	51	61,512	-623	18,875	659	1,643	1,071	81	635	288,166
June	160,888	11,413	50,854	51	68,023	-774	20,430	756	1,658	1,088	91	670	315,148
July	177,141	10,588	65,546	59	69,166	-871	17,832	748	1,719	1,179	92	635	343,834
August	181,053	13,771	70,694	57	68,389	-715	18,594	767	1,714	1,167	85	577	356,154
September	152,449	6,926	53,012	47	63,378	-928	15,009	702	1,592	1,139	65	490	293,881
October	147,219	6,081	49,147	44	60,461	-615	15,025	631	1,610	1,162	21	607	281,393
November	142,473	5,520	37,494	46	62,342	-811	15,211	655	1,584	1,157	14	470	266,155
December	155,711	6,082	40,147	60	67,431	-623	19,076	701	1,667	1,190	4	616	292,062
Total	**R 1,882,826**	**119,149**	**554,940**	**586**	**768,826**	**-8,823**	**213,749**	**8,294**	**19,486**	**13,741**	**543**	**6,737**	**R 3,580,053**
2002 January	R 162,430	R 5,609	R 40,993	179	70,926	-758	21,367	R 760	R 1,668	1,197	11	R 797	R 305,224
February	R 140,185	R 4,924	R 37,469	99	61,658	-593	19,830	R 616	R 1,451	1,038	24	R 716	R 267,484
March	R 151,590	R 7,477	R 43,470	142	63,041	-692	R 20,726	R 690	R 1,711	1,163	33	R 874	R 290,254
April	R 139,984	R 7,089	R 42,283	106	58,437	-592	R 24,091	R 638	R 1,597	1,033	46	R 1,044	R 275,755
May	R 149,307	R 7,417	R 43,159	112	63,032	-547	26,642	R 619	R 1,730	1,127	58	R 1,106	R 293,780
June	R 162,678	R 7,070	R 58,393	95	66,372	-872	28,038	R 694	R 1,740	1,051	96	R 1,147	R 326,537
July	R 180,076	R 8,920	R 76,276	126	70,421	-1,007	25,143	R 744	R 1,807	1,160	86	R 901	R 364,739
August	R 176,138	R 8,721	R 74,484	142	70,778	-875	20,526	R 752	R 1,756	1,125	75	R 982	R 354,650
September	R 163,301	R 7,236	R 60,533	105	64,481	-785	16,440	R 700	R 1,670	1,095	53	R 760	R 315,645
October	R 156,324	R 7,370	R 48,094	154	60,493	-688	16,611	R 698	R 1,630	1,133	31	R 752	R 292,622
November	R 153,833	R 5,724	R 37,652	124	61,520	-674	19,151	R 686	R 1,546	1,102	28	R 663	R 281,368
December	R 168,893	R 7,058	R 37,715	74	68,905	-688	20,968	R 723	R 1,755	1,135	4	R 764	R 307,344
Total	**R 1,904,739**	**R 84,615**	**R 600,523**	**1,456**	**780,064**	**-8,769**	**259,533**	**R 8,320**	**R 20,061**	**13,357**	**544**	**R 10,506**	**R 3,675,402**
2003 January	R 178,525	R 11,653	R 41,095	R 111	R 69,211	R -760	R 19,295	R 820	R 1,534	R 1,144	R 13	R 558	R 323,247
February	F 151,002	F 7,784	F 35,109	F 104	F 61,546	F -696	F 23,298	F 621	F 1,369	F 1,026	F 23	F 712	F 281,951
2-Month Total	**E 329,527**	**E 19,437**	**E 76,204**	**E 215**	**E 130,757**	**E -1,457**	**E 42,594**	**E 1,441**	**E 2,903**	**E 2,170**	**E 36**	**E 1,270**	**E 605,198**
2002 2-Month Total	**302,615**	**10,533**	**78,462**	**278**	**132,584**	**-1,351**	**41,197**	**1,375**	**3,119**	**2,235**	**35**	**1,513**	**572,709**
2001 2-Month Total	**323,363**	**27,213**	**66,897**	**82**	**129,979**	**-1,296**	**35,843**	**1,382**	**3,103**	**2,302**	**19**	**820**	**589,708**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
[b] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[c] Natural gas, including a small amount of supplemental gaseous fuels.
[d] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[e] Pumped storage facility production minus energy used for pumping.
[f] Wood, black liquor, and other wood waste.
[g] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[h] Solar thermal and photovoltaic energy.
[i] "Total" includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies, which are not separately displayed.
[j] Included in "Conventional Hydroelectric Power."
[k] Through 1988, data are for generation at electric utilities only. Beginning in 1989, data also include generation at independent power producers.
R=Revised. E=Estimate. NA=Not available. F=Forecast.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • **1989-1997:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report-Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January 2003:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors

(Million Kilowatthours)

	Commercial Sector[a]					Industrial Sector[b]							
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Total[g]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[h]	Hydropower[i]	Wood[j]	Waste[f]	Total[k]
1989 Total	**736**	**558**	**2,155**	**527**	**4,251**	**20,677**	**4,955**	**53,179**	**7,297**	**2,722**	**21,557**	**893**	**114,828**
1990 Total	**796**	**589**	**3,272**	**812**	**5,837**	**21,107**	**7,169**	**60,007**	**9,641**	**2,975**	**25,379**	**949**	**130,830**
1991 Total	**775**	**413**	**3,213**	**883**	**5,659**	**21,002**	**6,540**	**60,567**	**10,501**	**2,844**	**25,863**	**927**	**132,579**
1992 Total	**749**	**302**	**3,867**	**961**	**6,228**	**22,743**	**7,615**	**65,933**	**11,953**	**2,950**	**27,916**	**932**	**143,280**
1993 Total	**864**	**334**	**4,471**	**1,018**	**7,000**	**23,742**	**7,028**	**68,234**	**11,890**	**2,871**	**28,358**	**1,092**	**146,294**
1994 Total	**850**	**417**	**4,929**	**1,162**	**7,619**	**23,568**	**6,808**	**69,600**	**12,112**	**6,028**	**28,650**	**983**	**151,178**
1995 Total	**998**	**379**	**5,162**	**1,519**	**8,232**	**22,372**	**6,030**	**71,717**	**11,943**	**5,304**	**28,868**	**900**	**151,025**
1996 Total	**1,051**	**369**	**5,249**	**2,176**	**9,030**	**22,172**	**6,260**	**71,049**	**13,015**	**5,878**	**28,354**	**919**	**151,017**
1997 Total	**1,040**	**427**	**4,725**	**2,342**	**8,701**	**23,214**	**5,649**	**75,078**	**11,814**	**5,685**	**28,225**	**882**	**154,097**
1998 Total	**985**	**383**	**4,879**	**2,335**	**8,748**	**22,337**	**6,206**	**77,085**	**11,170**	**5,349**	**27,693**	**880**	**154,132**
1999 Total	**995**	**434**	**4,607**	**2,393**	**8,563**	**21,474**	**6,088**	**78,793**	**12,519**	**4,758**	**28,060**	**686**	**156,264**
2000 Total	**1,097**	**432**	**4,262**	**1,985**	**7,903**	**22,056**	**5,597**	**78,798**	**11,927**	**4,135**	**28,652**	**839**	**156,673**
2001 January	88	61	361	110	629	R 1,895	654	6,767	678	234	2,433	85	R 13,128
February	86	39	311	104	548	1,590	486	6,020	633	235	2,071	54	11,421
March	83	38	321	102	553	1,734	489	6,590	724	338	2,172	66	12,454
April	65	32	330	115	550	1,572	416	6,099	655	283	2,204	83	11,673
May	73	33	334	127	575	1,477	424	6,317	734	293	2,080	55	11,751
June	84	33	344	129	597	1,644	377	6,405	682	291	2,134	54	11,949
July	101	36	455	134	732	1,818	419	7,030	781	242	2,304	60	13,048
August	115	39	525	129	814	1,949	419	7,191	791	316	2,410	62	13,566
September	84	31	388	128	635	1,625	386	6,782	720	243	2,171	68	12,412
October	72	36	384	126	622	1,640	417	6,845	693	206	2,415	73	12,721
November	68	29	327	118	548	1,576	381	6,670	653	198	2,223	82	12,231
December	77	32	354	141	611	1,614	425	7,040	710	265	2,272	73	12,822
Total	**995**	**438**	**4,434**	**1,464**	**7,416**	R **20,135**	**5,293**	**79,755**	**8,454**	**3,145**	**26,888**	**815**	R **149,175**
2002 January	88	27	364	R 143	630	R 1,737	R 442	R 7,299	R 816	279	R 2,487	R 102	R 13,531
February	72	29	307	R 118	R 533	R 1,512	R 361	R 6,566	710	309	R 2,232	R 87	R 12,100
March	90	R 32	R 380	R 135	R 646	R 1,679	R 415	R 7,124	R 828	318	R 2,275	R 93	R 13,095
April	66	22	329	142	575	R 1,618	R 386	R 6,181	R 894	387	R 2,349	R 80	R 12,274
May	69	24	309	149	R 566	R 1,634	384	R 6,596	R 966	382	R 2,308	R 70	R 12,717
June	87	27	406	144	674	R 1,765	R 376	R 6,768	R 978	313	R 2,390	R 74	R 13,026
July	R 106	43	887	R 155	1,200	R 1,924	R 431	R 7,433	R 1,049	266	R 2,471	R 90	R 14,222
August	107	R 41	829	137	1,121	R 1,783	R 424	R 7,307	R 1,061	234	R 2,411	R 82	R 13,671
September	91	29	665	164	R 953	R 1,727	361	R 6,688	R 959	207	R 2,401	R 79	R 12,968
October	81	29	390	R 177	681	R 1,773	R 430	R 5,996	R 817	320	R 2,343	R 89	R 12,475
November	83	26	267	R 148	528	R 1,709	413	R 6,012	R 784	460	R 2,318	R 95	R 12,144
December	R 91	R 49	309	R 154	R 607	R 1,812	R 438	R 5,904	R 798	550	R 2,229	91	R 12,211
Total	R **1,031**	R **379**	R **5,442**	**1,766**	R **8,714**	R **20,672**	R **4,863**	R **79,874**	R **10,659**	**4,025**	R **28,213**	R **1,031**	R **154,435**
2003 January	R 90	R 98	R 376	R 132	R 703	R 2,017	R 587	R 7,250	R 802	R 413	R 2,155	R 75	R 13,595
February	F 82	F 46	F 320	F 131	F 586	F 1,496	F 528	F 6,252	F 692	F 337	F 2,075	F 88	F 11,828
2-Month Total	E **172**	E **143**	E **696**	E **263**	E **1,289**	E **3,514**	E **1,115**	E **13,502**	E **1,494**	E **750**	E **4,230**	E **163**	E **25,423**
2002 2-Month Total	**160**	**56**	**671**	**262**	**1,163**	**3,249**	**804**	**13,865**	**1,525**	**589**	**4,719**	**188**	**25,632**
2001 2-Month Total	**174**	**100**	**673**	**214**	**1,177**	**3,486**	**1,140**	**12,786**	**1,312**	**470**	**4,503**	**138**	**24,549**

[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

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

[f] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

[g] Includes a small amount of other gases, wood, and other, which are not separately displayed.

[h] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[i] Conventional hydroelectric power.

[j] Wood, black liquor, and other wood waste.

[k] Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies, which are not separately displayed.

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

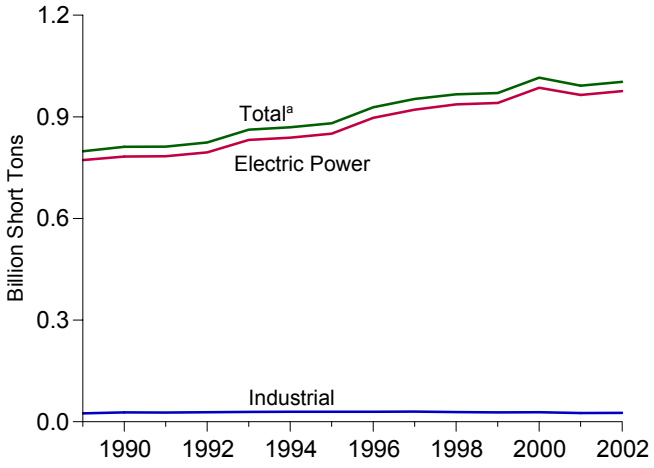
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

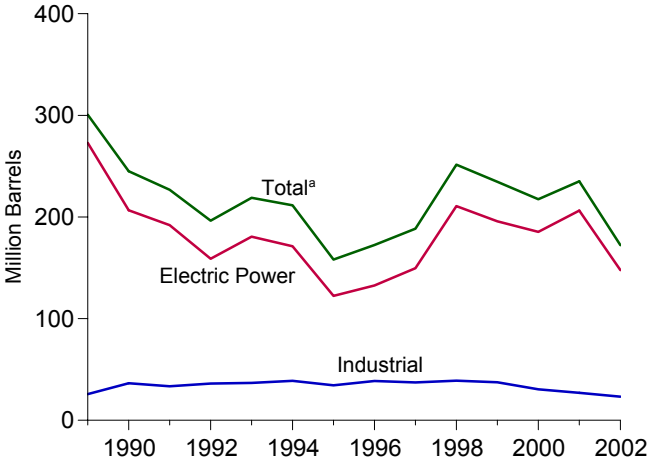
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January 2003:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.3a Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output

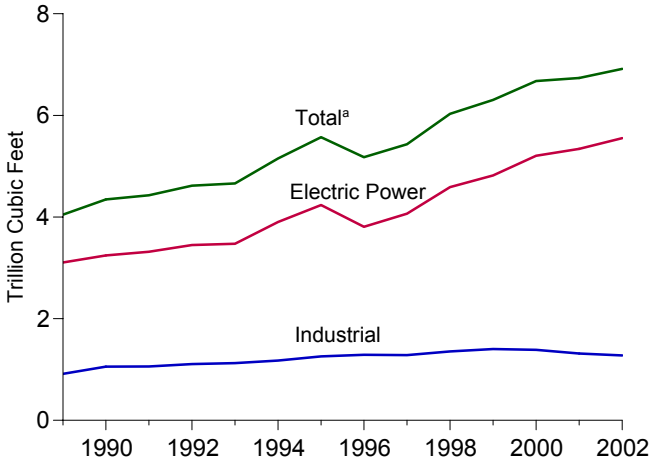
Coal by Sector, 1989-2002



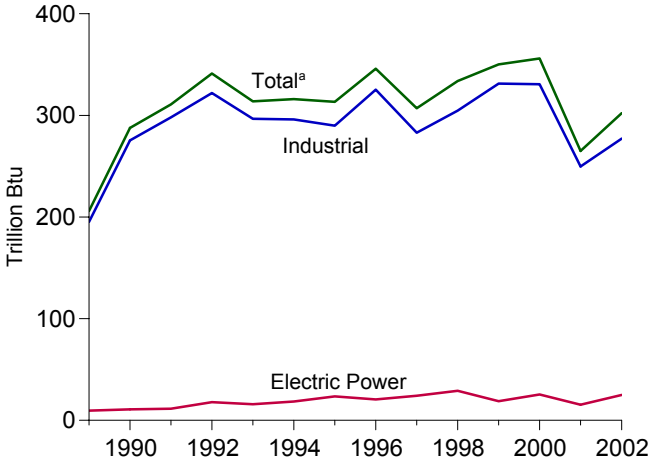
Petroleum by Sector, 1989-2002



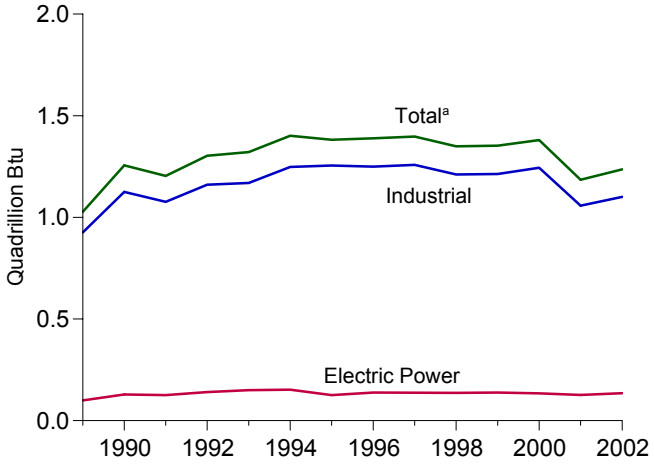
Natural Gas by Sector, 1989-2002



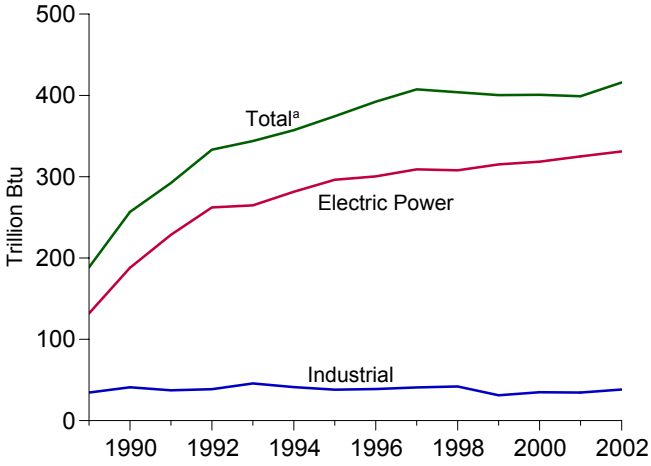
Other Gases[b] by Sector, 1989-2002



Wood by Sector, 1989-2002



Waste by Sector, 1989-2002



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

Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Sources: Tables 7.3a, 7.3b, and 7.3c.

Table 7.3a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors)

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Wood[h]	Waste[i]	Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]					
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	**798,181**	**29,143**	**266,211**	**656**	**915**	**300,583**	**4,049**	**206**	**1,028**	**189**	**88**
1990 Total	**811,538**	**20,194**	**209,314**	**1,332**	**2,832**	**244,998**	**4,346**	**288**	**1,256**	**257**	**86**
1991 Total	**812,124**	**19,590**	**193,073**	**1,215**	**2,566**	**226,708**	**4,429**	**311**	**1,204**	**292**	**114**
1992 Total	**824,512**	**16,852**	**160,941**	**1,695**	**3,366**	**196,318**	**4,618**	**341**	**1,303**	**333**	**92**
1993 Total	**861,904**	**19,293**	**176,992**	**1,571**	**4,200**	**218,855**	**4,662**	**314**	**1,321**	**344**	**85**
1994 Total	**869,405**	**25,177**	**164,047**	**1,539**	**4,157**	**211,547**	**5,151**	**316**	**1,401**	**357**	**92**
1995 Total	**881,012**	**21,697**	**112,168**	**1,322**	**4,590**	**158,140**	**5,572**	**313**	**1,382**	**374**	**97**
1996 Total	**928,015**	**22,444**	**124,607**	**2,468**	**4,596**	**172,499**	**5,178**	**346**	**1,389**	**392**	**91**
1997 Total	**952,955**	**22,893**	**134,623**	**526**	**6,095**	**188,517**	**5,433**	**307**	**1,397**	**407**	**103**
1998 Total	**966,615**	**30,006**	**189,267**	**1,230**	**6,196**	**251,486**	**6,030**	**334**	**1,349**	**404**	**95**
1999 Total	**970,175**	**30,616**	**172,319**	**1,812**	**5,989**	**234,694**	**6,305**	**350**	**1,352**	**400**	**101**
2000 Total	**1,015,398**	**34,572**	**156,673**	**2,904**	**4,669**	**217,494**	**6,677**	**356**	**1,380**	**401**	**109**
2001 January	90,963	8,636	23,493	232	395	34,338	458	22	106	34	8
February	77,556	3,114	14,664	146	359	19,718	417	21	93	29	7
March	80,279	3,441	16,650	158	356	22,028	477	23	98	33	8
April	72,540	2,942	16,020	103	299	20,560	491	20	96	33	7
May	78,821	2,522	15,056	90	347	19,405	544	22	92	33	7
June	84,498	2,137	17,890	93	360	21,920	605	22	96	34	7
July	93,665	2,065	15,928	104	427	20,233	756	25	100	35	8
August	95,682	2,933	20,852	117	416	25,982	814	24	104	35	9
September	81,267	1,479	10,430	96	388	13,944	630	23	96	32	8
October	77,827	1,618	8,851	90	411	12,612	588	21	104	33	8
November	75,578	1,319	8,497	90	345	11,629	465	21	99	33	9
December	83,092	1,539	8,871	111	451	12,776	489	22	100	35	9
Total	**991,770**	**33,746**	**177,202**	**1,430**	**4,554**	**235,147**	**6,735**	**265**	**1,185**	**399**	**95**
2002 January	R 85,061	R 1,792	8,367	R 193	486	R 12,784	R 496	26	R 110	R 36	8
February	R 74,222	R 1,111	6,918	R 96	426	R 10,255	447	22	96	31	7
March	R 79,282	R 1,683	10,675	R 161	440	R 14,721	519	R 26	100	35	8
April	R 73,650	R 1,627	9,645	R 69	R 448	R 13,582	504	25	103	34	R 7
May	R 78,515	R 2,036	9,828	R 162	R 550	R 14,776	523	25	99	35	8
June	R 85,658	R 1,714	R 9,595	R 152	R 547	R 14,198	656	R 27	104	35	7
July	R 94,831	R 2,609	R 12,552	R 251	R 520	R 18,011	858	29	108	37	R 9
August	R 93,278	R 2,309	R 12,436	R 247	R 531	R 17,645	820	28	105	35	7
September	R 86,184	R 1,517	10,147	R 159	R 471	R 14,176	R 675	26	105	35	9
October	R 82,710	R 1,945	10,327	R 167	R 456	R 14,718	543	R 24	R 105	35	11
November	R 81,390	R 1,278	R 8,963	R 174	R 459	R 12,710	R 438	23	R 100	R 34	7
December	R 88,611	R 1,593	R 10,421	R 195	R 497	R 14,697	438	22	103	R 37	8
Total	**R 1,003,393**	**R 21,213**	**R 119,875**	**R 2,027**	**R 5,832**	**R 172,274**	**R 6,917**	**302**	**R 1,236**	**R 416**	**98**
2003 January	R 93,739	R 5,235	R 15,522	R 398	R 527	R 23,791	R 480	R 22	R 97	R 32	R 4
February	F 79,890	F 3,885	F 9,993	F 164	F 491	F 16,497	F 428	F 21	F 99	F 32	F 7
2-Month Total	**E 173,629**	**E 9,120**	**E 25,515**	**E 562**	**E 1,018**	**E 40,288**	**E 908**	**E 43**	**E 196**	**E 64**	**E 11**
2002 2-Month Total	**159,284**	**2,903**	**15,285**	**289**	**912**	**23,039**	**943**	**49**	**205**	**66**	**15**
2001 2-Month Total	**168,519**	**11,750**	**38,157**	**378**	**754**	**54,057**	**875**	**42**	**199**	**63**	**15**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[b] For 1989-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).

[c] For 1989-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.

[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.

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

[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[h] Wood, black liquor, and other wood waste.

[i] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

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

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

Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: See sources for Tables 7.3b and 7.3c.

Table 7.3b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Wood[h]	Waste[i]	Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]					
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	**772,190**	**26,156**	**244,179**	**10**	**517**	**272,931**	**3,105**	**9**	**100**	**132**	**3**
1990 Total	**782,567**	**16,567**	**184,915**	**26**	**1,008**	**206,550**	**3,245**	**11**	**129**	**188**	**(s)**
1991 Total	**783,874**	**14,359**	**172,625**	**59**	**974**	**191,911**	**3,316**	**11**	**126**	**229**	**4**
1992 Total	**795,094**	**12,623**	**138,726**	**128**	**1,494**	**158,948**	**3,448**	**18**	**140**	**262**	**5**
1993 Total	**831,645**	**14,849**	**152,481**	**239**	**2,611**	**180,625**	**3,473**	**16**	**150**	**265**	**5**
1994 Total	**838,354**	**20,612**	**138,222**	**771**	**2,315**	**171,178**	**3,903**	**19**	**152**	**282**	**3**
1995 Total	**850,230**	**18,553**	**90,023**	**499**	**2,674**	**122,447**	**4,237**	**24**	**125**	**296**	**2**
1996 Total	**896,921**	**18,780**	**99,951**	**653**	**2,642**	**132,593**	**3,807**	**20**	**138**	**300**	**2**
1997 Total	**921,364**	**18,989**	**113,669**	**152**	**3,372**	**149,668**	**4,065**	**24**	**137**	**309**	**1**
1998 Total	**936,619**	**23,300**	**166,528**	**431**	**4,102**	**210,769**	**4,588**	**29**	**137**	**308**	**2**
1999 Total	**940,922**	**24,058**	**152,493**	**544**	**3,735**	**195,769**	**4,820**	**19**	**138**	**315**	**1**
2000 Total	**985,821**	**30,016**	**138,513**	**454**	**3,275**	**185,358**	**5,206**	**25**	**134**	**318**	**1**
2001 January	R 88,400	7,957	21,521	49	297	31,013	340	1	12	27	0
February	75,405	2,649	13,088	35	269	17,119	313	1	10	24	0
March	77,923	2,917	15,061	31	265	19,334	363	1	10	27	0
April	70,388	2,582	14,517	25	213	18,192	385	1	9	27	0
May	76,746	2,148	13,676	25	244	17,068	434	1	10	27	0
June	82,251	1,823	16,541	29	274	19,766	493	1	12	28	0
July	91,247	1,741	14,593	32	324	17,983	634	2	11	29	0
August	93,194	2,599	19,436	39	337	23,759	687	1	11	29	0
September	79,025	1,214	9,125	27	309	11,912	510	1	10	27	0
October	75,640	1,335	7,490	27	298	10,342	466	1	10	27	0
November	73,435	1,050	7,116	27	262	9,504	351	1	10	26	0
December	80,835	1,262	7,341	31	340	10,333	367	1	11	27	0
Total	R **964,489**	**29,277**	**159,504**	**377**	**3,433**	**206,324**	**5,343**	**15**	**127**	**325**	**0**
2002 January	R 82,589	1,547	7,168	R 71	357	R 10,572	R 377	3	12	R 28	(s)
February	R 72,079	939	5,903	R 46	322	R 8,495	341	2	10	24	(s)
March	R 76,939	1,492	9,430	R 58	338	R 12,667	400	2	12	27	(s)
April	R 71,495	R 1,470	8,607	R 22	R 320	R 11,698	399	2	11	27	(s)
May	R 76,417	1,780	8,797	R 87	R 431	R 12,817	410	2	9	28	(s)
June	R 83,373	R 1,503	R 8,607	R 96	R 430	R 12,354	541	2	11	28	(s)
July	R 92,384	R 2,301	R 11,316	R 180	R 397	R 15,780	725	2	12	30	(s)
August	R 90,987	R 1,988	R 11,225	R 168	R 413	R 15,446	691	2	12	29	(s)
September	R 83,912	1,336	9,029	R 106	R 377	R 12,356	555	2	11	28	(s)
October	R 80,381	1,719	9,091	R 81	R 338	R 12,580	436	2	11	27	(s)
November	R 79,120	1,086	7,873	R 82	R 346	R 10,770	337	2	11	26	(s)
December	R 86,183	R 1,310	R 8,999	R 96	R 374	R 12,275	340	1	12	R 29	(s)
Total	R **975,858**	R **18,471**	R **106,044**	R **1,092**	R **4,441**	R **147,810**	R **5,553**	**25**	R **135**	R **331**	**1**
2003 January	R 91,109	R 4,441	R 14,061	R 251	R 402	R 20,764	R 367	R 2	R 15	R 27	(s)
February	F 77,827	F 3,611	F 8,465	F 49	F 336	F 13,806	F 324	F 2	F 11	F 24	F (s)
2-Month Total	E 168,936	E 8,052	E 22,526	E 300	E 738	E 34,570	E 691	E 4	E 26	E 51	E **(s)**
2002 2-Month Total	**154,668**	**2,486**	**13,071**	**116**	**679**	**19,068**	**718**	**5**	**22**	**52**	**(s)**
2001 2-Month Total	**163,806**	**10,607**	**34,610**	**84**	**566**	**48,131**	**653**	**2**	**21**	**51**	**0**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
[b] For 1989-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).
[c] For 1989-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).
[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Natural gas, including a small amount of supplemental gaseous fuels.
[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
[h] Wood, black liquor, and other wood waste.
[i] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[j] Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
R=Revised. E=Estimate. (s)=Less than 0.5 trillion Btu. F=Forecast.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January 2003:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Table 7.3c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors

	Commercial Sector[a]				Industrial Sector[b]						
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	**1,125**	**1,967**	**30**	**22**	**24,867**	**25,685**	**914**	**195**	**926**	**35**	**85**
1990 Total	**1,191**	**2,056**	**46**	**28**	**27,781**	**36,392**	**1,055**	**275**	**1,125**	**41**	**86**
1991 Total	**1,228**	**1,337**	**52**	**26**	**27,021**	**33,460**	**1,061**	**298**	**1,076**	**37**	**110**
1992 Total	**1,175**	**1,235**	**62**	**32**	**28,244**	**36,135**	**1,107**	**322**	**1,161**	**39**	**87**
1993 Total	**1,373**	**1,515**	**65**	**33**	**28,886**	**36,715**	**1,124**	**297**	**1,169**	**46**	**80**
1994 Total	**1,344**	**1,625**	**72**	**35**	**29,707**	**38,744**	**1,176**	**296**	**1,248**	**41**	**89**
1995 Total	**1,419**	**1,245**	**78**	**40**	**29,363**	**34,448**	**1,258**	**290**	**1,255**	**38**	**95**
1996 Total	**1,660**	**1,246**	**82**	**53**	**29,434**	**38,661**	**1,289**	**325**	**1,249**	**39**	**89**
1997 Total	**1,738**	**1,584**	**87**	**58**	**29,853**	**37,265**	**1,282**	**283**	**1,259**	**41**	**102**
1998 Total	**1,443**	**1,807**	**87**	**54**	**28,553**	**38,910**	**1,355**	**305**	**1,211**	**42**	**93**
1999 Total	**1,490**	**1,613**	**84**	**54**	**27,763**	**37,312**	**1,401**	**331**	**1,213**	**31**	**99**
2000 Total	**1,547**	**1,615**	**85**	**47**	**28,031**	**30,520**	**1,386**	**331**	**1,244**	**35**	**108**
2001 January	132	241	6	3	R 2,431	3,085	111	20	95	4	8
February	132	158	6	3	2,018	2,442	99	20	83	2	7
March	130	164	6	3	2,226	2,531	108	21	88	3	8
April	99	139	6	3	2,053	2,229	101	19	87	3	7
May	105	143	6	3	1,970	2,194	104	21	82	2	7
June	117	143	6	3	2,130	2,012	106	21	85	2	7
July	144	153	8	4	2,274	2,096	114	23	88	2	8
August	163	170	9	4	2,325	2,053	119	23	92	2	9
September	122	127	7	3	2,121	1,905	113	21	86	2	8
October	101	140	7	3	2,087	2,129	115	20	94	3	8
November	97	121	6	3	2,046	2,005	109	20	89	4	9
December	110	141	6	3	2,147	2,302	116	21	89	4	9
Total	**1,452**	**1,840**	**79**	**39**	R **25,829**	**26,983**	**1,314**	**250**	**1,057**	**35**	**95**
2002 January	132	81	6	4	R 2,340	R 2,131	112	23	97	4	8
February	106	84	5	3	R 2,038	R 1,675	101	20	86	3	7
March	134	R 97	7	4	R 2,209	R 1,957	111	23	88	4	8
April	102	74	6	4	R 2,054	R 1,810	100	23	R 92	3	R 7
May	104	79	6	4	R 1,994	R 1,880	107	23	90	3	8
June	R 120	R 87	7	4	R 2,165	R 1,758	108	25	R 93	3	7
July	136	R 143	11	4	R 2,312	R 2,089	121	R 27	96	3	9
August	137	137	11	4	R 2,154	R 2,062	119	25	92	3	6
September	R 123	85	9	4	R 2,148	R 1,735	111	24	R 93	3	9
October	118	R 96	6	4	R 2,211	R 2,042	100	22	93	4	11
November	121	83	5	4	R 2,149	R 1,857	95	21	R 88	4	7
December	136	R 151	6	4	R 2,292	R 2,271	92	21	R 91	R 4	8
Total	R **1,469**	R **1,197**	**85**	**47**	R **26,066**	R **23,267**	**1,278**	**277**	R **1,101**	R **38**	**97**
2003 January	R 146	R 322	6	R 3	R 2,484	R 2,705	R 106	R 20	R 82	3	R 4
February	F 119	F 151	F 5	F 4	F 1,945	F 2,540	F 100	F 19	F 88	F 3	F 7
2-Month Total	E **265**	E **473**	E **11**	E **7**	E **4,428**	E **5,246**	E **206**	E **39**	E **170**	E **6**	E **11**
2002 2-Month Total	**238**	**165**	**12**	**7**	**4,378**	**3,806**	**213**	**44**	**183**	**7**	**15**
2001 2-Month Total	**264**	**399**	**12**	**6**	**4,449**	**5,527**	**210**	**40**	**178**	**6**	**15**

[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

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

[f] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[h] Wood, black liquor, and other wood waste.

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

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

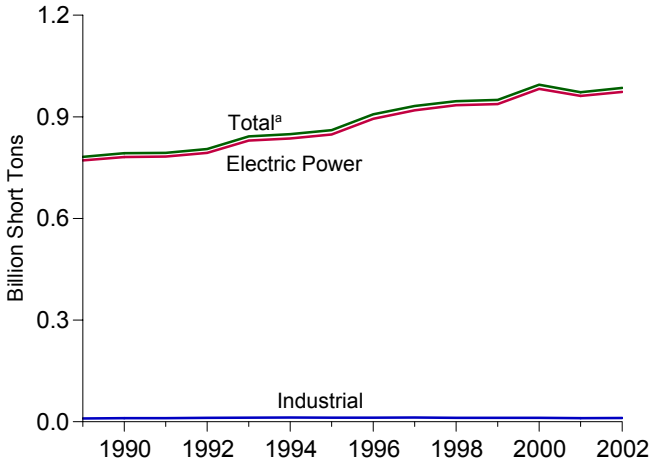
Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

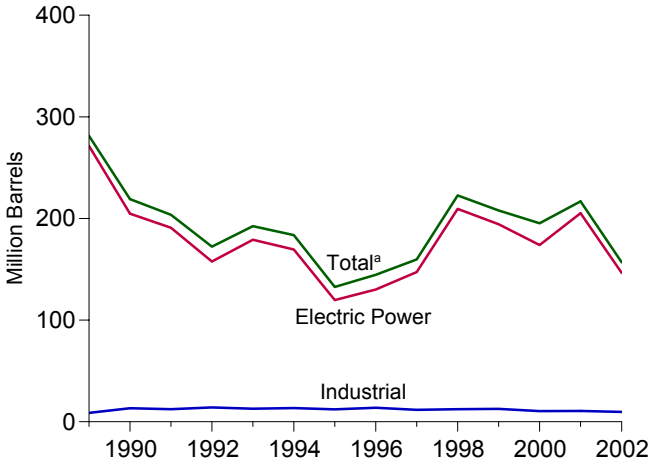
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.3b Consumption of Selected Combustible Fuels for Electricity Generation

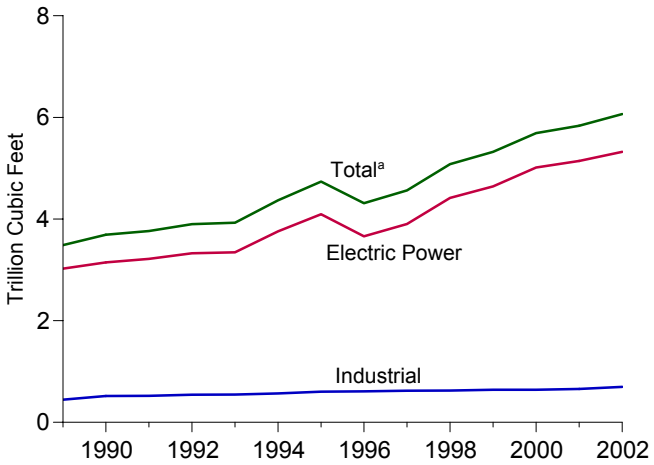
Coal by Sector, 1989-2002



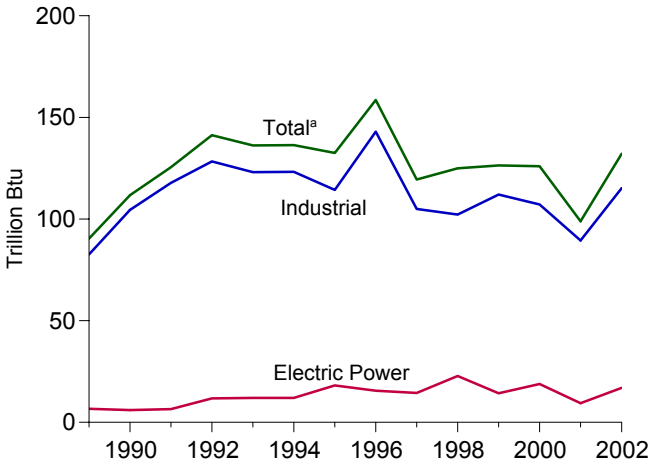
Petroleum by Sector, 1989-2002



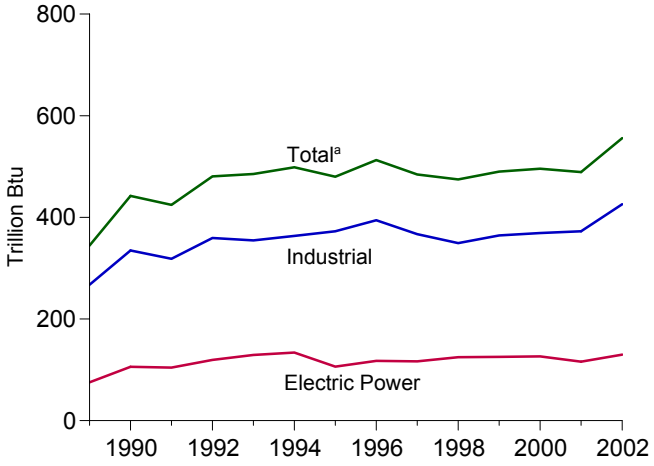
Natural Gas by Sector, 1989-2002



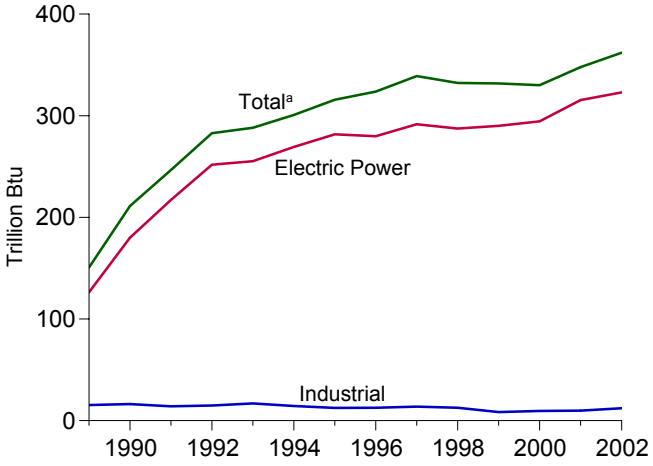
Other Gases[b] by Sector, 1989-2002



Wood by Sector, 1989-2002



Waste by Sector, 1989-2002



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

Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Sources: Tables 7.3d, 7.3e, and 7.3f.

Table 7.3d Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors)

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Wood[h]	Waste[i]	Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]					
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1973 Total	**389,212**	**47,058**	**513,190**	**NA**	**507**	**562,781**	**3,660**	**NA**	**1**	**2**	**NA**
1974 Total	**391,811**	**53,128**	**483,146**	**NA**	**625**	**539,399**	**3,443**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1976 Total	**448,371**	**41,843**	**514,077**	**NA**	**68**	**556,261**	**3,081**	**NA**	**1**	**2**	**NA**
1977 Total	**477,126**	**48,837**	**574,869**	**NA**	**98**	**624,193**	**3,191**	**NA**	**3**	**2**	**NA**
1978 Total	**481,235**	**47,520**	**588,319**	**NA**	**398**	**637,830**	**3,188**	**NA**	**2**	**1**	**NA**
1979 Total	**527,051**	**30,691**	**492,606**	**NA**	**268**	**524,636**	**3,491**	**NA**	**3**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1981 Total	**596,797**	**21,313**	**329,798**	**NA**	**139**	**351,806**	**3,640**	**NA**	**3**	**1**	**NA**
1982 Total	**593,666**	**15,337**	**234,434**	**NA**	**149**	**250,517**	**3,226**	**NA**	**2**	**1**	**NA**
1983 Total	**625,211**	**16,512**	**228,984**	**NA**	**261**	**246,804**	**2,911**	**NA**	**2**	**2**	**NA**
1984 Total	**664,399**	**15,190**	**189,289**	**NA**	**252**	**205,736**	**3,111**	**NA**	**5**	**4**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1986 Total	**685,056**	**14,326**	**216,156**	**NA**	**313**	**232,046**	**2,602**	**NA**	**5**	**7**	**NA**
1987 Total	**717,894**	**15,367**	**184,011**	**NA**	**348**	**201,116**	**2,844**	**NA**	**8**	**7**	**NA**
1988 Total	**758,372**	**18,769**	**229,327**	**NA**	**409**	**250,141**	**2,636**	**NA**	**10**	**8**	**NA**
1989 Total[k]	**781,672**	**27,733**	**249,820**	**303**	**667**	**281,192**	**3,485**	**90**	**345**	**151**	**39**
1990 Total	**792,457**	**18,143**	**190,849**	**437**	**1,914**	**218,997**	**3,692**	**112**	**442**	**211**	**36**
1991 Total	**793,666**	**16,564**	**177,780**	**380**	**1,789**	**203,669**	**3,765**	**125**	**425**	**247**	**59**
1992 Total	**805,140**	**14,493**	**144,467**	**759**	**2,504**	**172,241**	**3,900**	**141**	**481**	**283**	**40**
1993 Total	**842,153**	**16,845**	**159,059**	**715**	**3,169**	**192,462**	**3,929**	**136**	**485**	**288**	**34**
1994 Total	**848,796**	**22,365**	**145,225**	**929**	**3,020**	**183,618**	**4,367**	**136**	**498**	**301**	**40**
1995 Total	**860,594**	**19,615**	**95,507**	**680**	**3,355**	**132,578**	**4,738**	**133**	**480**	**316**	**42**
1996 Total	**907,209**	**20,252**	**106,055**	**1,712**	**3,322**	**144,626**	**4,312**	**159**	**513**	**324**	**37**
1997 Total	**931,949**	**20,309**	**118,741**	**237**	**4,086**	**159,715**	**4,565**	**119**	**484**	**339**	**36**
1998 Total	**946,295**	**25,062**	**172,728**	**549**	**4,860**	**222,640**	**5,081**	**125**	**475**	**332**	**36**
1999 Total	**949,802**	**25,951**	**158,187**	**974**	**4,552**	**207,871**	**5,322**	**126**	**490**	**332**	**41**
2000 Total	**994,933**	**31,675**	**143,381**	**1,450**	**3,744**	**195,228**	**5,691**	**126**	**496**	**330**	**46**
2001 January	89,149	8,188	22,188	134	335	32,186	381	8	43	29	3
February	76,013	2,837	13,594	87	304	18,038	348	8	37	26	3
March	78,624	3,143	15,558	88	297	20,273	403	8	39	29	3
April	71,032	2,739	15,011	63	248	19,055	423	8	39	29	3
May	77,355	2,319	14,114	56	292	17,947	474	9	39	29	3
June	82,971	1,965	16,989	58	312	20,570	533	8	42	30	3
July	92,013	1,887	15,034	66	372	18,848	679	9	42	31	3
August	93,967	2,752	19,895	76	366	24,550	733	9	43	31	4
September	79,762	1,331	9,576	60	341	12,674	553	8	43	29	4
October	76,338	1,461	7,960	56	347	11,210	509	8	43	29	4
November	74,083	1,162	7,597	57	294	10,287	390	8	39	28	4
December	81,520	1,386	7,862	68	385	11,241	410	8	41	30	4
Total	**972,826**	**31,171**	**165,376**	**867**	**3,893**	**216,879**	**5,837**	**99**	**489**	**348**	**42**
2002 January	R 83,361	1,660	7,510	R 109	409	R 11,327	R 423	12	49	R 30	4
February	R 72,770	1,025	6,186	R 71	362	R 9,095	379	10	43	26	4
March	R 77,695	1,584	9,915	R 100	378	R 13,492	446	11	45	R 30	4
April	R 72,275	R 1,540	8,967	R 39	R 376	R 12,429	437	10	46	29	4
May	R 77,210	R 1,892	9,137	R 117	R 472	R 13,506	454	11	44	31	4
June	R 84,186	R 1,605	R 8,950	R 117	R 472	R 13,032	585	11	48	31	4
July	R 93,273	R 2,444	R 11,671	R 207	R 445	R 16,549	779	13	49	33	5
August	R 91,758	R 2,141	R 11,653	R 201	R 456	R 16,277	742	13	49	31	3
September	R 84,683	R 1,434	9,422	R 127	R 420	R 13,083	600	11	47	31	5
October	R 81,211	R 1,842	9,510	R 118	R 391	R 13,423	473	11	45	30	6
November	R 79,926	R 1,185	R 8,178	R 115	R 396	R 11,456	R 373	R 11	R 45	R 29	3
December	R 87,025	R 1,433	R 9,424	R 129	R 431	R 13,141	374	10	46	R 32	4
Total	**R 985,374**	**R 19,787**	**R 110,523**	**R 1,450**	**R 5,010**	**R 156,809**	**R 6,065**	**132**	**R 556**	**R 362**	**48**
2003 January	R 92,030	R 4,816	R 14,529	R 298	R 460	R 21,941	R 408	R 10	R 50	R 29	R 2
February	F 78,500	F 3,732	F 8,978	F 93	F 406	F 14,833	F 367	F 9	F 45	F 27	F 3
2-Month Total	**E 170,530**	**E 8,549**	**E 23,506**	**E 391**	**E 866**	**E 36,775**	**E 775**	**E 19**	**E 94**	**E 56**	**E 6**
2002 2-Month Total	**156,131**	**2,686**	**13,696**	**180**	**772**	**20,421**	**802**	**22**	**92**	**56**	**8**
2001 2-Month Total	**165,162**	**11,025**	**35,782**	**221**	**639**	**50,224**	**729**	**16**	**79**	**55**	**6**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[b] For 1973-1979, gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel.)

[c] For 1973-1979, steam plant use of petroleum. For 1980-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4.)

[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.

[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.

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

[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[h] Wood, black liquor, and other wood waste.

[i] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

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

[k] Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers, commercial plants, and industrial plants.

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

Notes: • Data are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. Consumption for electricity generation at combined-heat-and-power (CHP) plants is estimated. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: See sources for Tables 7.3e and 7.3f.

Table 7.3e Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector

	Coal[a]	Petroleum					Natural Gas[f]	Other Gases[g]	Wood[h]	Waste[i]	Other[j]
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Other Liquids[d]	Petroleum Coke[e]	Total[e]					
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1973 Total	**389,212**	**47,058**	**513,190**	**NA**	**507**	**562,781**	**3,660**	**NA**	**1**	**2**	**NA**
1974 Total	**391,811**	**53,128**	**483,146**	**NA**	**625**	**539,399**	**3,443**	**NA**	**1**	**2**	**NA**
1975 Total	**405,962**	**38,907**	**467,221**	**NA**	**70**	**506,479**	**3,158**	**NA**	**(s)**	**2**	**NA**
1976 Total	**448,371**	**41,843**	**514,077**	**NA**	**68**	**556,261**	**3,081**	**NA**	**1**	**2**	**NA**
1977 Total	**477,126**	**48,837**	**574,869**	**NA**	**98**	**624,193**	**3,191**	**NA**	**3**	**2**	**NA**
1978 Total	**481,235**	**47,520**	**588,319**	**NA**	**398**	**637,830**	**3,188**	**NA**	**2**	**1**	**NA**
1979 Total	**527,051**	**30,691**	**492,606**	**NA**	**268**	**524,636**	**3,491**	**NA**	**3**	**2**	**NA**
1980 Total	**569,274**	**29,051**	**391,163**	**NA**	**179**	**421,110**	**3,682**	**NA**	**3**	**2**	**NA**
1981 Total	**596,797**	**21,313**	**329,798**	**NA**	**139**	**351,806**	**3,640**	**NA**	**3**	**1**	**NA**
1982 Total	**593,666**	**15,337**	**234,434**	**NA**	**149**	**250,517**	**3,226**	**NA**	**2**	**1**	**NA**
1983 Total	**625,211**	**16,512**	**228,984**	**NA**	**261**	**246,804**	**2,911**	**NA**	**2**	**2**	**NA**
1984 Total	**664,399**	**15,190**	**189,289**	**NA**	**252**	**205,736**	**3,111**	**NA**	**5**	**4**	**NA**
1985 Total	**693,841**	**14,635**	**158,779**	**NA**	**231**	**174,571**	**3,044**	**NA**	**8**	**7**	**NA**
1986 Total	**685,056**	**14,326**	**216,156**	**NA**	**313**	**232,046**	**2,602**	**NA**	**5**	**7**	**NA**
1987 Total	**717,894**	**15,367**	**184,011**	**NA**	**348**	**201,116**	**2,844**	**NA**	**8**	**7**	**NA**
1988 Total	**758,372**	**18,769**	**229,327**	**NA**	**409**	**250,141**	**2,636**	**NA**	**10**	**8**	**NA**
1989 Total[k]	**771,551**	**26,036**	**242,708**	**9**	**517**	**271,340**	**3,024**	**7**	**75**	**126**	**2**
1990 Total	**781,301**	**16,394**	**183,285**	**25**	**1,008**	**204,745**	**3,147**	**6**	**106**	**180**	**(s)**
1991 Total	**782,653**	**14,255**	**171,629**	**58**	**974**	**190,810**	**3,216**	**6**	**104**	**217**	**4**
1992 Total	**793,390**	**12,469**	**137,681**	**118**	**1,490**	**157,719**	**3,325**	**12**	**120**	**252**	**3**
1993 Total	**829,851**	**14,559**	**151,407**	**213**	**2,571**	**179,034**	**3,344**	**12**	**129**	**255**	**3**
1994 Total	**836,113**	**20,241**	**137,198**	**667**	**2,256**	**169,387**	**3,758**	**12**	**134**	**269**	**2**
1995 Total	**847,854**	**18,066**	**88,895**	**441**	**2,452**	**119,663**	**4,094**	**18**	**106**	**282**	**2**
1996 Total	**894,400**	**18,472**	**98,795**	**567**	**2,467**	**130,168**	**3,660**	**16**	**117**	**280**	**2**
1997 Total	**919,009**	**18,646**	**112,423**	**130**	**3,201**	**147,202**	**3,903**	**14**	**117**	**292**	**1**
1998 Total	**934,126**	**23,166**	**165,875**	**411**	**3,999**	**209,447**	**4,416**	**23**	**125**	**287**	**2**
1999 Total	**937,888**	**23,875**	**151,921**	**514**	**3,607**	**194,345**	**4,644**	**14**	**125**	**290**	**1**
2000 Total	**982,713**	**29,722**	**138,047**	**403**	**3,155**	**R 173,832**	**5,014**	**19**	**126**	**294**	**1**
2001 January	R 88,120	7,825	21,466	47	284	30,759	324	1	10	26	0
February	75,150	2,614	13,041	34	259	16,986	297	1	8	23	0
March	77,665	2,913	15,019	31	254	19,233	347	1	9	26	0
April	70,153	2,580	14,463	25	201	18,076	370	1	8	26	0
May	76,523	2,144	13,638	25	236	16,986	419	1	9	26	0
June	82,014	1,821	16,513	29	267	19,701	477	(s)	11	27	0
July	90,999	1,738	14,574	32	317	17,926	618	1	11	28	0
August	92,948	2,594	19,416	39	323	23,664	669	1	10	28	0
September	78,798	1,204	9,111	27	300	11,843	493	1	10	26	0
October	75,414	1,327	7,477	27	289	10,276	449	1	10	26	0
November	73,202	1,041	7,106	27	252	9,435	333	1	9	25	0
December	80,593	1,257	7,326	31	331	10,268	349	1	10	27	0
Total	**R 961,580**	**29,058**	**159,150**	**374**	**3,314**	**205,153**	**5,143**	**9**	**116**	**315**	**0**
2002 January	R 82,362	1,541	7,074	R 69	343	R 10,401	R 358	2	R 12	R 27	(s)
February	R 71,916	937	5,817	R 45	310	R 8,350	322	1	9	23	(s)
March	R 76,762	1,490	9,419	R 57	327	R 12,601	381	1	11	26	(s)
April	R 71,342	R 1,468	8,602	R 22	R 309	R 11,638	381	1	10	26	(s)
May	R 76,275	1,775	8,778	R 86	R 414	R 12,707	391	1	9	27	(s)
June	R 83,211	R 1,502	R 8,588	R 95	R 413	R 12,250	R 521	1	11	28	(s)
July	R 92,213	R 2,299	R 11,222	R 178	R 381	R 15,604	704	1	12	29	(s)
August	R 90,747	R 1,985	R 11,212	R 167	R 397	R 15,347	671	2	12	28	(s)
September	R 83,729	1,335	9,017	R 105	R 370	R 12,305	535	1	11	27	(s)
October	R 80,199	1,717	9,074	R 80	R 326	R 12,503	418	1	R 11	26	(s)
November	R 78,948	1,083	7,784	R 81	R 337	R 10,630	319	1	11	25	(s)
December	R 85,999	R 1,279	R 8,906	R 95	R 364	R 12,098	321	1	12	R 29	(s)
Total	**R 973,704**	**R 18,412**	**R 105,492**	**R 1,079**	**R 4,290**	**R 146,433**	**R 5,321**	**17**	**R 130**	**R 323**	**1**
2003 January	R 90,900	R 4,349	R 13,974	R 237	R 392	R 20,522	R 343	R 1	R 14	R 26	(s)
February	F 77,653	F 3,585	F 8,417	F 47	F 325	F 13,676	F 310	F 1	F 10	F 24	F (s)
2-Month Total	**E 168,554**	**E 7,933**	**E 22,391**	**E 285**	**E 718**	**E 34,198**	**E 653**	**E 3**	**E 24**	**E 49**	**E (s)**
2002 2-Month Total	**154,279**	**2,479**	**12,891**	**114**	**654**	**18,751**	**679**	**4**	**21**	**50**	**(s)**
2001 2-Month Total	**163,271**	**10,440**	**34,508**	**81**	**543**	**47,744**	**621**	**1**	**19**	**49**	**0**

[a] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[b] For 1973-1979, gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel.)

[c] For 1973-1979, steam plant use of petroleum. For 1980-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4.)

[d] Jet fuel, kerosene, other petroleum liquids, and waste oil.

[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.

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

[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[h] Wood, black liquor, and other wood waste.

[i] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

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

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

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

Notes: • Data are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. Consumption for electricity generation at combined-heat-and-power (CHP) plants is estimated. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: See end of section.

Table 7.3f Estimated Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors

	Commercial Sector[a]				Industrial Sector[b]						
	Coal[c]	Petroleum[d]	Natural Gas[e]	Waste[f]	Coal[c]	Petroleum[d]	Natural Gas[e]	Other Gases[g]	Wood[h]	Waste[f]	Other[i]
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	**414**	**1,165**	**18**	**9**	**9,707**	**8,688**	**444**	**83**	**267**	**15**	**37**
1990 Total	**417**	**953**	**28**	**15**	**10,740**	**13,299**	**517**	**104**	**335**	**16**	**36**
1991 Total	**403**	**576**	**27**	**15**	**10,610**	**12,283**	**522**	**118**	**318**	**14**	**55**
1992 Total	**371**	**429**	**33**	**16**	**11,379**	**14,093**	**542**	**128**	**359**	**15**	**37**
1993 Total	**404**	**672**	**37**	**16**	**11,898**	**12,755**	**547**	**123**	**355**	**17**	**31**
1994 Total	**404**	**694**	**41**	**17**	**12,279**	**13,537**	**568**	**123**	**364**	**14**	**38**
1995 Total	**569**	**649**	**43**	**21**	**12,171**	**12,265**	**601**	**114**	**373**	**13**	**40**
1996 Total	**656**	**645**	**42**	**31**	**12,153**	**13,813**	**610**	**143**	**394**	**13**	**35**
1997 Total	**630**	**790**	**39**	**34**	**12,311**	**11,723**	**623**	**105**	**367**	**14**	**36**
1998 Total	**440**	**802**	**41**	**32**	**11,728**	**12,392**	**625**	**102**	**349**	**13**	**35**
1999 Total	**481**	**931**	**39**	**33**	**11,432**	**12,595**	**639**	**112**	**364**	**8**	**39**
2000 Total	**514**	**823**	**37**	**26**	**11,706**	**10,459**	**640**	**107**	**369**	**10**	**45**
2001 January	42	145	3	2	R 987	1,283	54	7	32	1	3
February	47	89	2	2	815	963	49	7	28	1	3
March	47	90	3	2	912	951	54	8	30	1	3
April	36	74	3	2	843	904	50	7	30	1	3
May	40	77	3	2	792	884	53	8	30	1	3
June	44	76	3	2	913	794	53	7	31	1	3
July	57	81	4	2	958	841	57	8	31	1	3
August	65	91	4	2	954	795	60	8	32	1	4
September	49	72	3	2	915	759	57	7	33	1	4
October	36	85	3	2	888	849	57	7	33	1	4
November	35	69	3	2	845	783	55	7	30	1	4
December	38	83	3	2	889	890	59	7	31	1	4
Total	**536**	**1,031**	**37**	**23**	R **10,710**	**10,695**	**658**	**89**	**373**	**10**	**42**
2002 January	48	51	3	2	R 951	R 875	62	9	37	1	4
February	32	56	3	2	R 822	R 689	55	9	34	1	3
March	45	R 60	4	2	R 888	R 831	61	9	34	1	4
April	37	R 41	3	2	R 896	R 751	53	9	R 35	1	4
May	36	45	3	2	R 899	R 754	60	9	35	1	4
June	46	54	3	2	R 928	R 728	60	10	37	1	4
July	46	88	7	2	R 1,014	R 857	68	12	37	1	4
August	50	86	7	2	R 961	R 844	65	11	37	1	3
September	48	R 57	5	2	R 906	R 722	59	10	37	1	5
October	45	62	3	3	R 967	R 858	52	9	35	1	6
November	38	53	3	2	R 939	R 772	51	9	34	1	3
December	41	R 106	3	2	R 985	R 938	50	9	R 35	1	4
Total	R **513**	R **758**	**45**	**27**	R **11,157**	R **9,618**	R **699**	**115**	**426**	R **12**	**47**
2003 January	R 48	R 228	3	2	R 1,082	R 1,192	R 62	R 9	R 36	1	R 2
February	F 41	F 97	F 3	F 2	F 806	F 1,060	F 55	F 8	F 34	F 1	F 3
2-Month Total	E **89**	E **325**	E **6**	E **4**	E **1,888**	E **2,251**	E **117**	E **17**	E **70**	E **2**	E **5**
2002 2-Month Total	**80**	**107**	**6**	**4**	**1,773**	**1,563**	**117**	**18**	**71**	**2**	**7**
2001 2-Month Total	**88**	**234**	**5**	**4**	**1,802**	**2,246**	**103**	**14**	**61**	**2**	**6**

[a] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

[b] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

[c] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

[d] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

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

[f] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

[g] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

[h] Wood, black liquor, and other wood waste.

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

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

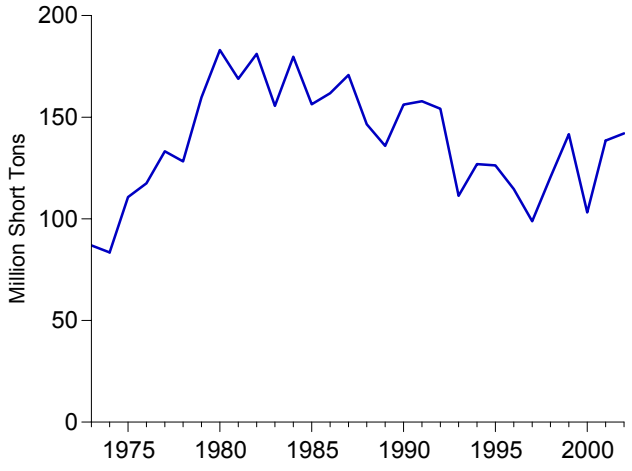
Notes: • Estimates are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

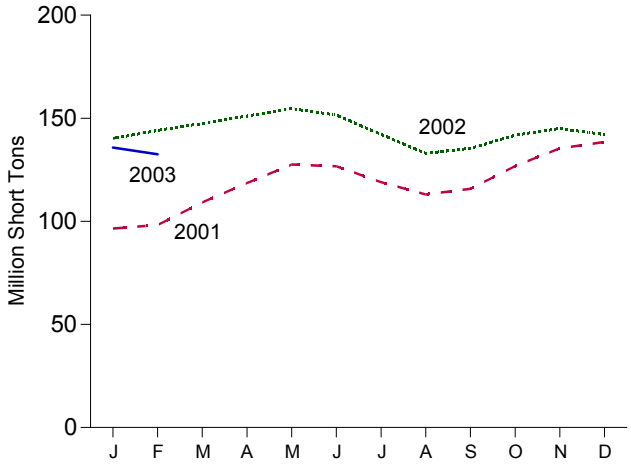
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January 2003:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.4 Stocks of Coal and Petroleum: Electric Power Sector

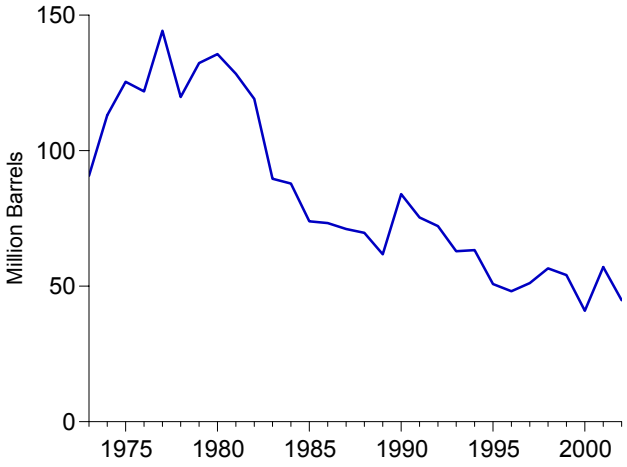
Coal, 1973-2002



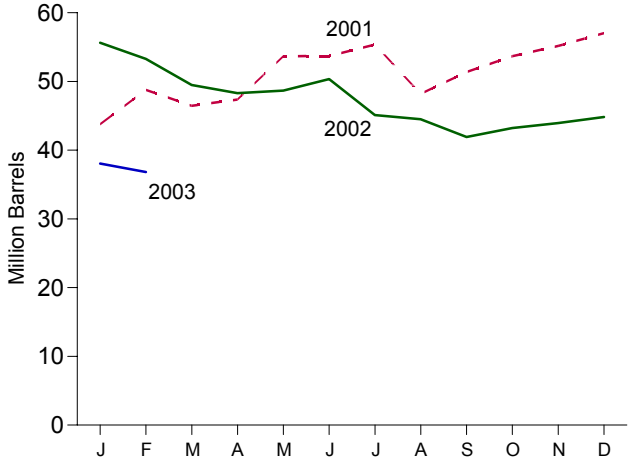
Coal, Monthly



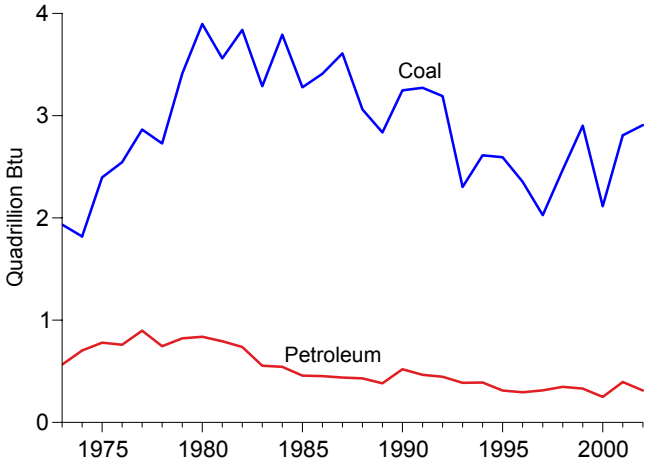
Total Petroleum, 1973-2002



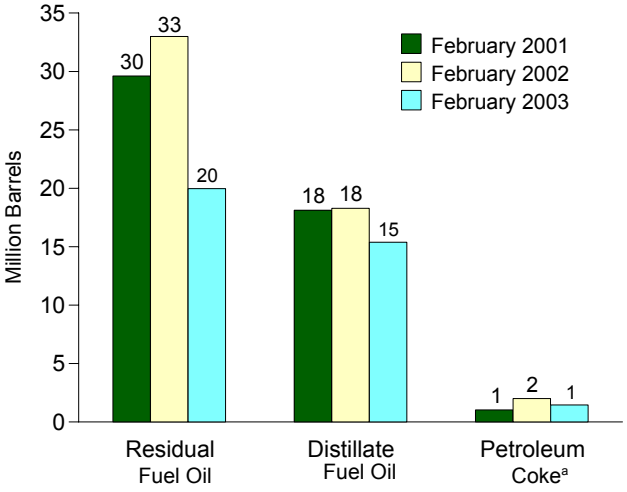
Total Petroleum, Monthly



Coal and Petroleum Stocks, 1973-2002



Petroleum by Type, End of Month



[a]Converted from short tons to barrels by multiplying by 5.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Source: Table 7.4.

Table 7.4 Stocks of Coal and Petroleum: Electric Power Sector

	Coal[a]	Petroleum			
		Distillate Fuel Oil[b]	Residual Fuel Oil[c]	Petroleum Coke[d]	Total[d]
	Thousand Short Tons	Thousand Barrels		Thousand Short Tons	Thousand Barrels
1973 Total	**86,967**	**10,095**	**79,121**	**312**	**90,776**
1974 Total	**83,509**	**15,199**	**97,718**	**35**	**113,091**
1975 Total	**110,724**	**16,432**	**108,825**	**31**	**125,413**
1976 Total	**117,436**	**14,703**	**106,993**	**32**	**121,857**
1977 Total	**133,219**	**19,281**	**124,750**	**44**	**144,252**
1978 Total	**128,225**	**16,386**	**102,402**	**198**	**119,778**
1979 Total	**159,714**	**20,301**	**111,121**	**183**	**132,338**
1980 Total	**183,010**	**30,023**	**105,351**	**52**	**135,635**
1981 Total	**168,893**	**26,094**	**102,042**	**42**	**128,345**
1982 Total	**181,132**	**23,369**	**95,515**	**41**	**119,090**
1983 Total	**155,598**	**18,801**	**70,573**	**55**	**89,652**
1984 Total	**179,727**	**19,116**	**68,503**	**50**	**87,870**
1985 Total	**156,376**	**16,386**	**57,304**	**49**	**73,933**
1986 Total	**161,806**	**16,269**	**56,841**	**40**	**73,313**
1987 Total	**170,797**	**15,759**	**55,069**	**51**	**71,084**
1988 Total	**146,507**	**15,099**	**54,187**	**86**	**69,714**
1989 Total	**135,860**	**13,824**	**47,446**	**105**	**61,795**
1990 Total	**156,166**	**16,471**	**67,030**	**94**	**83,970**
1991 Total	**157,876**	**16,357**	**58,636**	**70**	**75,343**
1992 Total	**154,130**	**15,714**	**56,135**	**67**	**72,183**
1993 Total	**111,341**	**15,674**	**46,770**	**89**	**62,890**
1994 Total	**126,897**	**16,644**	**46,344**	**69**	**63,333**
1995 Total	**126,304**	**15,392**	**35,102**	**65**	**50,821**
1996 Total	**114,623**	**15,216**	**32,473**	**91**	**48,146**
1997 Total	**98,826**	**15,456**	**33,336**	**469**	**51,138**
1998 Total	**120,501**	**16,343**	**37,451**	**559**	**56,591**
1999 Total[e]	**141,604**	**17,995**	**34,256**	**372**	**54,109**
2000 Total	**102,296**	[R] **15,127**	**24,748**	**211**	[R] **40,932**
2001 January	[R] 96,545	17,526	25,010	248	43,775
February	98,220	18,121	29,617	207	48,775
March	109,154	17,505	27,966	196	46,450
April	118,523	17,513	28,933	184	47,365
May	127,521	17,827	34,970	177	53,681
June	126,683	18,996	33,171	308	53,707
July	119,005	19,778	34,054	308	55,374
August	113,066	18,515	28,384	262	48,209
September	115,750	18,864	30,494	402	51,369
October	126,747	18,957	32,530	438	53,675
November	135,428	19,473	33,463	445	55,161
December	**138,496**	**20,486**	**34,594**	**390**	**57,031**
2002 January	[R] 140,236	[R] 18,448	35,150	409	[R] 55,641
February	[R] 144,073	[R] 18,286	32,991	[R] 401	[R] 53,279
March	[R] 147,401	[R] 18,776	28,426	[R] 458	[R] 49,495
April	[R] 151,092	17,463	28,460	[R] 476	[R] 48,301
May	[R] 154,676	18,188	28,450	[R] 406	[R] 48,669
June	[R] 151,526	17,886	[R] 30,571	[R] 378	[R] 50,347
July	[R] 142,105	16,982	26,651	[R] 295	[R] 45,111
August	[R] 133,012	[R] 17,124	25,445	[R] 387	[R] 44,503
September	[R] 135,421	16,756	22,853	[R] 461	[R] 41,916
October	[R] 141,758	16,718	23,926	[R] 517	[R] 43,226
November	[R] 144,979	16,748	25,012	[R] 437	[R] 43,944
December	[R] **142,026**	[R] **17,104**	[R] **25,689**	[R] **409**	[R] **44,837**
2003 January	[R] 135,771	[R] 15,431	[R] 20,870	[R] 350	[R] 38,051
February	[F] 132,512	[F] 15,389	[F] 19,970	[F] 291	[F] 36,812

[a] Anthracite, bituminous coal, subbituminous coal, and lignite.
[b] For 1973-1979, gas turbine and internal combustion plant stocks of petroleum. For 1980-2001, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).
[c] For 1973-1979, steam plant stocks of petroleum. For 1980-2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).
[d] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[e] Through 1998, data are for stocks at electric utilities only. Beginning in 1999, data also include stocks at independent power producers.
R=Revised. F=Forecast.

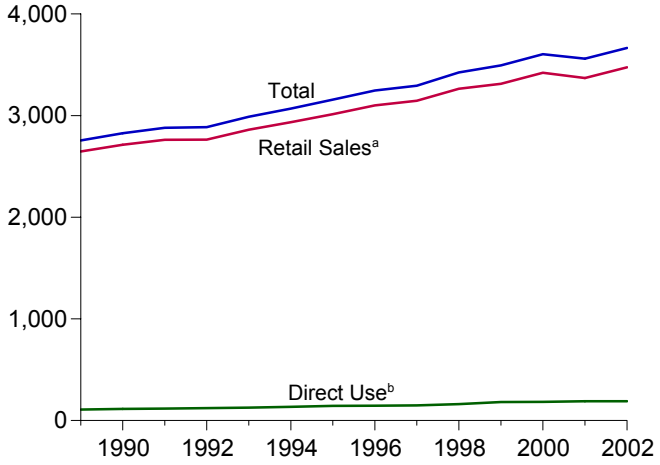
Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Stocks are at end of year. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

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

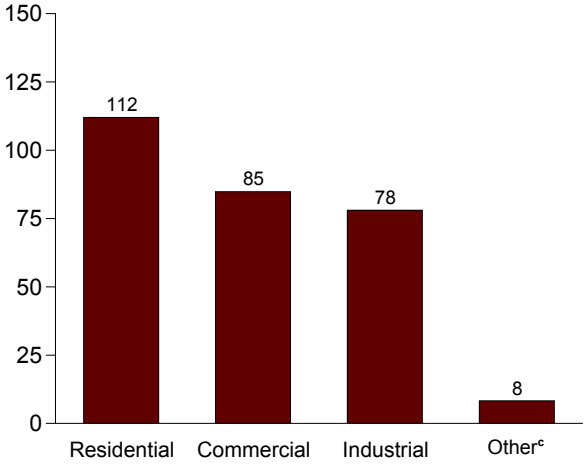
Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • **1989-1997:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-January 2003:** EIA, Form EIA-906, "Power Plant Report." • **February 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.5 Electricity End Use
(Billion Kilowatthours)

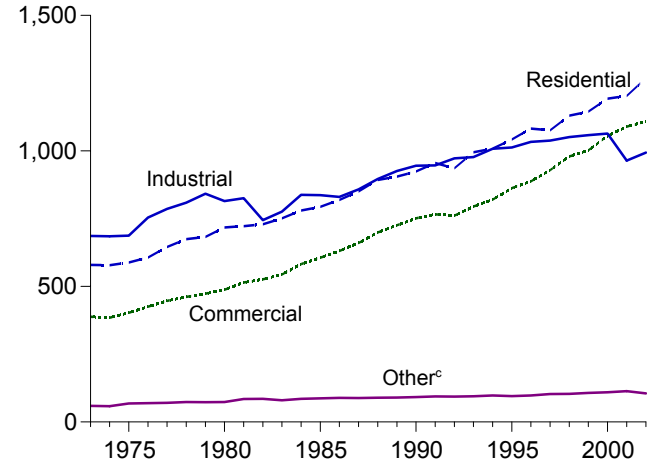
Electricity End Use Overview, 1989-2002



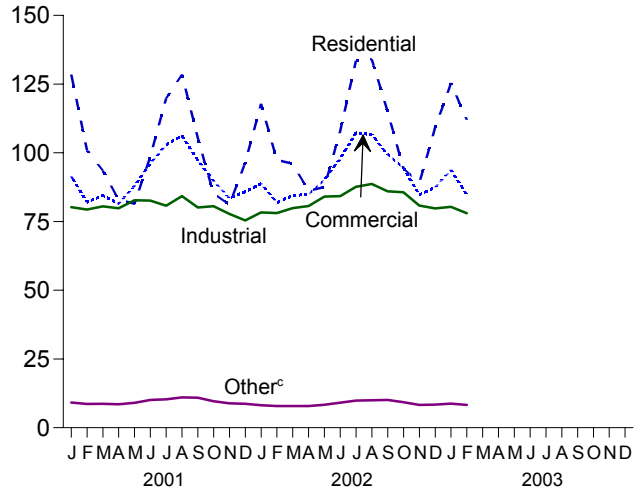
Retail Sales[a] by Sector, February 2003



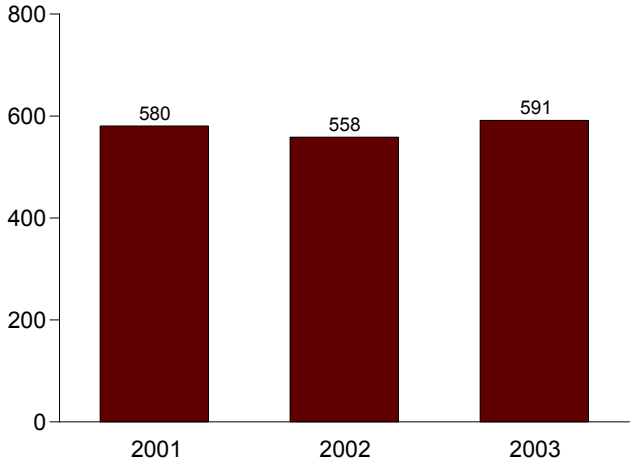
Retail Sales[a] by Sector, 1973-2002



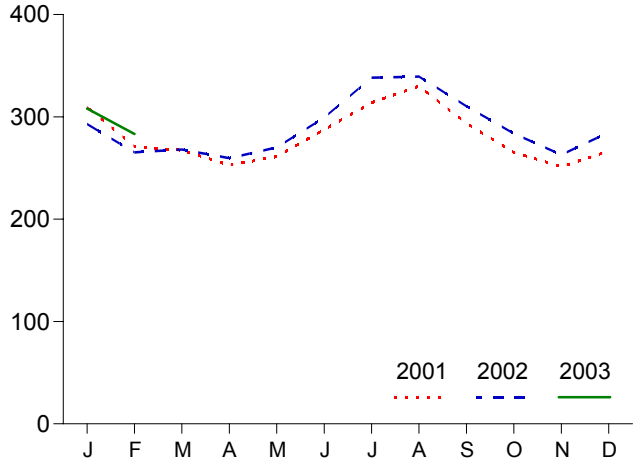
Retail Sales[a] by Sector, Monthly



Retail Sales[a] Total, January-February



Retail Sales[a] Total, Monthly



[a]Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
[b]Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.
[c]Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.
Note: Because vertical scales differ, graphs should not be compared .
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Source: Table 7.5.

Table 7.5 Electricity End Use

(Million Kilowatthours)

	Retail Sales[a]						
	Residential	Commercial	Industrial	Other[b]	Total	Direct Use[c]	Total
1973 Total	**579,231**	**388,266**	**686,085**	**59,326**	**1,712,909**	**NA**	**1,712,909**
1974 Total	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**	**NA**	**1,705,924**
1975 Total	**588,140**	**403,049**	**687,680**	**68,222**	**1,747,091**	**NA**	**1,747,091**
1976 Total	**606,452**	**425,094**	**754,069**	**69,631**	**1,855,246**	**NA**	**1,855,246**
1977 Total	**645,239**	**446,514**	**786,037**	**70,571**	**1,948,361**	**NA**	**1,948,361**
1978 Total	**674,466**	**461,163**	**809,078**	**73,215**	**2,017,922**	**NA**	**2,017,922**
1979 Total	**682,819**	**473,307**	**841,903**	**73,070**	**2,071,099**	**NA**	**2,071,099**
1980 Total	**717,495**	**488,155**	**815,067**	**73,732**	**2,094,449**	**NA**	**2,094,449**
1981 Total	**722,265**	**514,338**	**825,743**	**84,756**	**2,147,103**	**NA**	**2,147,103**
1982 Total	**729,520**	**526,397**	**744,949**	**85,575**	**2,086,441**	**NA**	**2,086,441**
1983 Total	**750,948**	**543,788**	**775,999**	**80,219**	**2,150,955**	**NA**	**2,150,955**
1984 Total	**780,092**	**582,621**	**837,836**	**85,248**	**2,285,796**	**NA**	**2,285,796**
1985 Total	**793,934**	**605,989**	**836,772**	**87,279**	**2,323,974**	**NA**	**2,323,974**
1986 Total	**819,088**	**630,520**	**830,531**	**88,615**	**2,368,753**	**NA**	**2,368,753**
1987 Total	**850,410**	**660,433**	**858,233**	**88,196**	**2,457,272**	**NA**	**2,457,272**
1988 Total	**892,866**	**699,100**	**896,498**	**89,598**	**2,578,062**	**NA**	**2,578,062**
1989 Total	**905,525**	**725,861**	**925,659**	**89,765**	**2,646,809**	R **108,145**	R **2,754,954**
1990 Total	**924,019**	**751,027**	**945,522**	**91,988**	**2,712,555**	R **114,036**	R **2,826,591**
1991 Total	**955,417**	**765,664**	**946,583**	**94,339**	**2,762,003**	R **118,033**	R **2,880,036**
1992 Total	**935,939**	**761,271**	**972,714**	**93,442**	**2,763,365**	**122,251**	**2,885,616**
1993 Total	**994,781**	**794,573**	**977,164**	**94,944**	**2,861,462**	**127,503**	**2,988,966**
1994 Total	**1,008,482**	**820,269**	**1,007,981**	**97,830**	**2,934,563**	**134,111**	**3,068,674**
1995 Total	**1,042,501**	**862,685**	**1,012,693**	**95,407**	**3,013,287**	**144,063**	**3,157,350**
1996 Total	**1,082,512**	**887,445**	**1,033,631**	**97,539**	**3,101,127**	**145,857**	**3,246,984**
1997 Total	**1,075,880**	**928,633**	**1,038,197**	**102,901**	**3,145,610**	**148,428**	**3,294,039**
1998 Total	**1,130,109**	**979,401**	**1,051,203**	**103,518**	**3,264,231**	**160,897**	**3,425,128**
1999 Total	**1,144,923**	**1,001,996**	**1,058,217**	**106,952**	**3,312,087**	**182,508**	**3,494,595**
2000 Total	**1,192,446**	**1,055,232**	**1,064,239**	**109,496**	**3,421,414**	R **183,263**	R **3,604,677**
2001 January	128,464	91,407	80,245	9,167	309,283	RE 16,165	R 325,448
February	101,026	82,072	79,349	8,636	271,083	RE 14,601	R 285,683
March	93,568	84,477	80,533	8,730	267,307	RE 16,165	R 283,472
April	82,937	81,538	79,824	8,525	252,823	RE 15,644	R 268,467
May	81,539	87,955	82,736	9,038	261,269	RE 16,165	R 277,434
June	98,689	96,153	82,616	10,075	287,533	RE 15,644	R 303,177
July	119,819	102,863	80,766	10,355	313,803	RE 16,165	R 329,968
August	128,472	106,234	84,259	11,024	329,988	RE 16,165	R 346,154
September	105,385	97,267	80,133	10,925	293,709	RE 15,644	R 309,353
October	85,207	89,818	80,569	9,660	265,255	RE 16,165	R 281,420
November	81,188	83,539	77,774	8,902	251,404	RE 15,644	R 267,048
December	96,354	85,830	75,421	8,717	266,322	RE 16,165	R 282,488
Total	**1,202,647**	**1,089,154**	**964,224**	**113,756**	**3,369,781**	R **190,332**	R **3,560,113**
2002 January	117,854	R 88,712	R 78,304	R 8,162	R 293,032	RE 16,165	R 309,198
February	97,402	R 81,921	78,113	R 7,880	R 265,317	RE 14,601	R 279,917
March	96,011	R 84,432	R 79,861	R 7,862	R 268,165	RE 16,165	R 284,331
April	86,185	R 84,922	R 80,674	R 7,861	R 259,643	RE 15,644	R 275,287
May	87,577	R 90,154	R 84,072	R 8,344	R 270,147	RE 16,165	R 286,312
June	107,956	R 97,916	84,266	R 9,135	R 299,274	RE 15,644	R 314,917
July	133,517	R 107,299	R 87,631	R 9,879	R 338,327	RE 16,165	R 354,492
August	134,080	R 106,652	R 88,669	R 9,996	R 339,397	RE 16,165	R 355,562
September	115,061	R 99,405	R 85,978	R 10,077	R 310,521	RE 15,644	R 326,165
October	94,328	R 94,491	R 85,647	R 9,282	R 283,748	RE 16,165	R 299,914
November	89,012	R 84,738	R 80,816	R 8,308	R 262,874	RE 15,644	R 278,517
December	109,190	R 87,430	R 79,768	R 8,389	R 284,777	RE 16,165	R 300,942
Total	**1,268,172**	R **1,108,072**	R **993,800**	R **105,177**	R **3,475,221**	RE **190,332**	R **3,665,553**
2003 January	R 125,307	R 93,712	R 80,351	R 8,743	R 308,113	RE 16,165	R 324,278
February	F 112,018	F 84,863	F 78,037	F 8,291	F 283,210	E 14,601	297,810
2-Month Total	E **237,325**	E **178,575**	E **158,389**	E **17,035**	E **591,323**	E **30,766**	**622,089**
2002 2-Month Total	**215,256**	**170,633**	**156,417**	**16,043**	**558,349**	**30,766**	**589,115**
2001 2-Month Total	**229,490**	**173,479**	**159,594**	**17,803**	**580,366**	**30,766**	**611,132**

[a] Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

[b] Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

[c] Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.

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

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

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

Sources: **Retail Sales:** • **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 forward:** EIA, *Electric Power Monthly,* April 2003, Table 5.4B. **Direct Use, Annual:** • **1989-1997:** EIA, Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001 and 2002:** EIA, Form EIA-861, "Annual Electric Power Industry Report." **Direct Use, Monthly:** • **2001 and 2002:** Estimates are derived by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month. • **2003:** Same values as 2002.

Electricity

Note. Classification of Power Plants Into Energy-Use Sectors

The Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31-33 (manufacturing); and 2212 (natural gas distribution) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, "Annual Electric Generator Report," asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the universal list at: www.census.gov/epcd/naics02/naicod02.htm.

Table 7.1 Sources: Imports and Exports of Electricity

Electricity Trade With Canada and Mexico, 1973-1989:
1973–September 1977: Unpublished Federal Power Commission data.
October 1977–1980: Unpublished Economic Regulatory Administration (ERA) data.
1981: Department of Energy (DOE), Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
1982 and 1983: DOE, ERA, *Electricity Exchanges Across International Borders*.
1984–1986: DOE, ERA, *Electricity Transactions Across International Borders*.
1987 and 1988: DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data."
1989: DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

Electricity Trade with Canada, 1990 Forward:
National Energy Board of Canada, data for total sales (firm and interruptible; which exclude non-revenue, inadvertent, and service) from Canada to the United States, and data for total purchases (which exclude non-revenue, inadvertent, and service) by Canada from the United States.

Electricity Trade with Mexico, 1990 Forward:
DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

Table 7.3e Sources:

1973-September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."
October 1977-1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."
1982-1988: Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."
1989-1997: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report."
1998-2000: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report—Nonutility."
2001: EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report."
2002-January 2003: EIA, Form EIA-906, "Power Plant Report."
February 2003: EIA, Short-Term Integrated Forecasting System.

Crosswalk of March 2003 Electricity Tables to April 2003 Electricity Tables

Monthly Energy Review (*MER*) electricity tables were altered significantly in the April *MER*. The closest relationship of tables in the March report to those in the April and subsequent reports is as follows:

March 2003	April 2003
7.1	7.1 Electricity Overview
7.2	7.2a Electricity Net Generation: Total (All Sectors)
7.3	7.2b Electricity Net Generation: Electric Power Sector
7.4	7.2c Electricity Net Generation: Commercial and Industrial Sectors
—	7.3a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors)
—	7.3b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector
—	7.3c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors
7.6	7.3d Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors)
7.7	7.3e Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector
7.8	7.3f Estimated Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors
7.9	7.4 Stocks of Coal and Petroleum: Electric Power Sector
7.5	7.5 Electricity End Use

Section 8. Nuclear Energy

U.S. nuclear electricity net generation during February 2003 was forecast as 62 net terawatthours (billion kilowatthours) of electricity, slightly less than the level in February 2002.

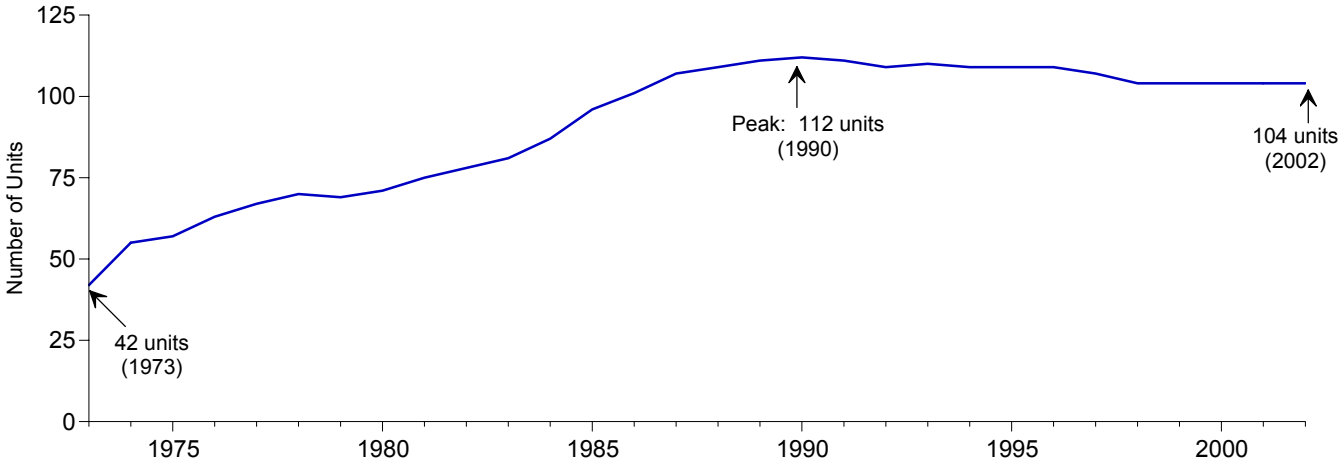
Nuclear units generated at an average capacity factor forecast at 93.3 percent, 0.2 percentage point higher than the capacity factor in February 2002.

The nuclear share of total electricity net generation in February y 2003 was forecast as 20.9 percent, compared with 22.0 percent 1 year earlier.

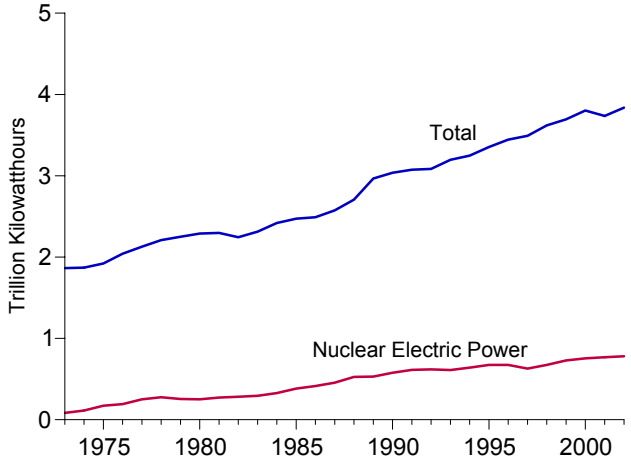
On February 28, 2003, there were 104 operable nuclear generating units in the United States, with a collective net summer capacity of 98.6 million kilowatts of electricity.

Figure 8.1 Nuclear Energy Overview

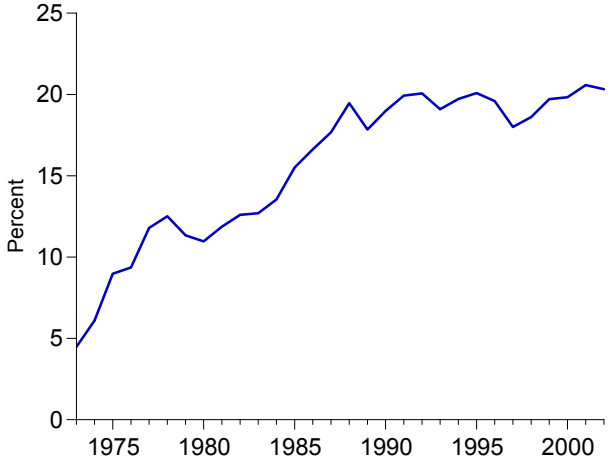
Operable Units, End of Year, 1973-2002



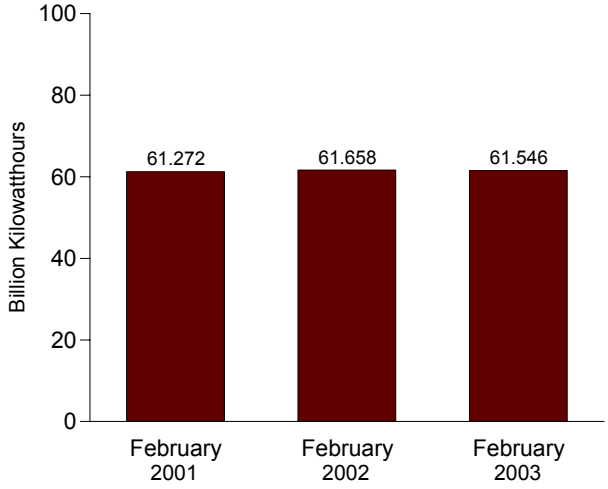
Electricity Net Generation, 1973-2002



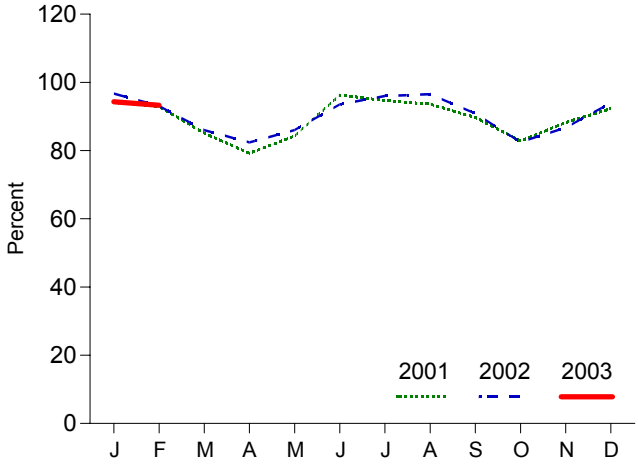
Nuclear Share of Electricity Net Generation, 1973-2002



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: http://www.eia.doe.gov/emeu/mer/nuclear.html.
Sources: Table 7.1 and 8.1.

Table 8.1 Nuclear Energy Overview

	Total Operable Units[a,b]	Net Summer Capacity of Operable Units[b,c]	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor[d]
	Number	Million Kilowatts	Million Kilowatthours	Percent	
1973 Year	**42**	**22.683**	**83,479**	**4.5**	**53.5**
1974 Year	**55**	**31.867**	**113,976**	**6.1**	**47.8**
1975 Year	**57**	**37.267**	**172,505**	**9.0**	**55.9**
1976 Year	**63**	**43.822**	**191,104**	**9.4**	**54.7**
1977 Year	**67**	**46.303**	**250,883**	**11.8**	**63.3**
1978 Year	**70**	**50.824**	**276,403**	**12.5**	**64.5**
1979 Year	**69**	**49.747**	**255,155**	**11.3**	**58.4**
1980 Year	**71**	**51.810**	**251,116**	**11.0**	**56.3**
1981 Year	**75**	**56.042**	**272,674**	**11.9**	**58.2**
1982 Year	**78**	**60.035**	**282,773**	**12.6**	**56.6**
1983 Year	**81**	**63.009**	**293,677**	**12.7**	**54.4**
1984 Year	**87**	**69.652**	**327,634**	**13.5**	**56.3**
1985 Year	**96**	**79.397**	**383,691**	**15.5**	**58.0**
1986 Year	**101**	**85.241**	**414,038**	**16.6**	**56.9**
1987 Year	**107**	**93.583**	**455,270**	**17.7**	**57.4**
1988 Year	**109**	**94.695**	**526,973**	**19.5**	**63.5**
1989 Year	**111**	**98.161**	**529,355**	**17.8**	**62.2**
1990 Year	**112**	**99.624**	**576,862**	**19.0**	**66.0**
1991 Year	**111**	**99.589**	**612,565**	**19.9**	**70.2**
1992 Year	**109**	**98.985**	**618,776**	**20.1**	**70.9**
1993 Year	**110**	**99.041**	**610,291**	**19.1**	**70.5**
1994 Year	**109**	**99.148**	**640,440**	**19.7**	**73.8**
1995 Year	**109**	**99.515**	**673,402**	**20.1**	**77.4**
1996 Year	**109**	**100.784**	**674,729**	**19.6**	**76.2**
1997 Year	**107**	**99.716**	**628,644**	**18.0**	**71.1**
1998 Year	**104**	**97.070**	**673,702**	**18.6**	**78.2**
1999 Year	**104**	**97.411**	**728,254**	**19.7**	**85.3**
2000 Year	**104**	**97.860**	**753,893**	**19.8**	**88.1**
2001 January	104	98.159	68,707	20.7	94.1
February	104	98.159	61,272	21.7	92.9
March	104	98.159	62,141	20.7	85.1
April	104	98.159	56,003	20.1	79.2
May	104	98.159	61,512	20.5	84.3
June	104	98.159	68,023	20.8	96.3
July	104	98.159	69,166	19.3	94.7
August	104	98.159	68,389	18.5	93.6
September	104	98.159	63,378	20.6	89.7
October	104	98.159	60,461	20.5	82.8
November	104	98.159	62,342	22.4	88.2
December	104	98.159	67,431	22.1	92.3
Year	**104**	**98.159**	**768,826**	**20.6**	**89.4**
2002 January	104	98.564	70,926	22.2	96.7
February	104	98.564	61,658	22.0	93.1
March	104	98.564	63,041	20.7	86.0
April	104	98.564	58,437	[R] 20.2	82.4
May	104	98.564	63,032	20.5	86.0
June	104	98.564	66,372	19.5	93.5
July	104	98.564	70,421	18.5	96.0
August	104	98.564	70,778	19.2	96.5
September	104	98.564	64,481	19.6	90.9
October	104	98.564	60,493	19.8	82.5
November	104	98.564	61,520	20.9	86.7
December	104	98.564	68,905	21.5	94.0
Year	**104**	**98.564**	**780,064**	**20.3**	**90.4**
2003 January	104	98.564	[R] 69,211	[R] 20.5	[R] 94.3
February	104	98.564	[F] 61,546	[F] 20.9	[F] 93.3
2 Months	**104**	**98.564**	[E] **130,757**	[E] **20.7**	[E] **93.9**
2002 2 Months	**104**	**98.564**	**132,584**	**22.1**	**95.0**
2001 2 Months	**104**	**98.159**	**129,979**	**21.1**	**93.5**

[a] Total of nuclear generating units holding full-power licenses, or equivalent permission to operate, at the end of the period—see Note 1 at end of section. Although Browns Ferry 1 was shut down in 1985, the unit has remained fully licensed and thus has continued to be counted as operable during the shutdown; in May 2002, the Tennessee Valley Authority announced its intenton to have the unit resume operation in 2007—see Note 1(a) at end of section. For additional information on nuclear generating units, see *Annual Energy Review 2001,* November 2002, Table 9.1.

[b] At end of period.

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

[d] For an explanation of the method of calculating the capacity factor, see Note 2 at end of section.

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

Notes: • See Note 1 at end of section for discussion of reactor unit coverage. • Nuclear electricity net generation totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/nuclear.html.

Sources: See end of section.

In the April 2003 *Monthly Energy* Review, this table was redesigned to show "Total Operable Units," which was previously shown on Table 8.2. Table 8.2, "Nuclear Generating Units," was deleted; annual data on this topic will continue to appear in the Energy Information Administration's *Annual Energy Review*.

Nuclear Energy

Note 1. A reactor is generally defined as operable while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to operate, at the end of the year or month shown. The definition is liberal in that it does not exclude units retaining full-power licenses during long, non-routine shutdowns that for a time rendered them unable to generate electricity. Examples are:

(a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3 and Sequoyah 1 and 2) were shut down under a regulatory forced outage. 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. Browns Ferry 1 is the only one of the five TVA plants that has not returned to service. Because it is still fully licensed to operate, it continues to meet the definition of operable.

(b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.

(c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

Exceptions to the definition are Shoreham and Three Mile Island 2. Shoreham was granted a full-power license in April 1989, but was shut down two months later and never restarted. In 1991, the license was changed to Possession Only. Although not operable at the end of the year, Shoreham is counted as operable during 1989. A major accident closed Three Mile Island 2 in 1979, and although the unit retained its full-power license for several years, it is considered permanently shut down since that year.

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

(a) Net Summer Capacity—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.

b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a unit, specified by the utility and used for plant design.

The monthly capacity factors are 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 capacity 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.

Table 8.1 Sources

Total Operable Units and **Net Summer Capacity of Operable Units**: 1973-1982: Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones." 1983 forward: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate. For a list of currently operable units, see: http://eia.doe.gov/cneaf/nuclear/page/nuc_reactors/operational.html.
Nuclear Electricity Net Generation and **Nuclear Share of Electricity Net Generation**: See Table 7.2a for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.
Capacity Factor: EIA, Office of Coal, Nuclear, Electric and Alternate Fuels for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil at the wellhead was $31.84 per barrel in February 2003, 88 percent above the level of February 2002. The refiner acquisition cost of imported crude oil in February 2003 was $32.75 per barrel, 81 percent above the February 2002 level. The average cost of domestic crude oil in February 2003 was $33.91, 81 percent more than the February 2002 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was $1.75 per gallon in March 2003, 41 percent higher than the price in March 2002. The price of unleaded premium gasoline averaged $1.92 in March 2003, 33 percent higher than the price in March 2002.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in February 2003 was 84 cents per gallon, 11 percent higher than the previous month's price and 94 percent higher than the February 2002 average. The average resale price, excluding taxes, of residual fuel oil in February 2003 was 88 cents, 22 percent higher than the January 2003 price and 142 percent higher than the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in February 2003 was $1.46 per gallon, 4 percent higher than the previous month's average and 23 percent higher than the February 2002 average. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in February 2003 was $1.02 per gallon, 11 percent higher than the previous month's average price and 74 percent higher than the February 2002 average price.

No. 2 Distillate Fuel Oil. The February 2003 national average price, excluding taxes, of heating oil sold to residential customers was $1.51 per gallon, 13 percent higher than the January 2003 price and 39 percent higher than the February 2002 price. The average price of No. 2 fuel oil sold to all end users was $1.13 per gallon in February 2003, 18 percent higher than the January 2003 price and 82 percent higher than the price 1 year earlier.

Electricity. The average retail price of electricity sold to all ultimate consumers in the United States in January 2003 was 7.02 cents per kilowatthour, 1 percent higher than the average price in January 2002. The price of electricity sold to residential consumers in January 2003 averaged 7.98 cents per kilowatthour, 1 percent lower than the January 2002 price. The price of electricity sold to commercial consumers averaged 7.77 cents per kilowatthour in January 2003, 4 percent higher than the January 2002 price. The price of electricity sold to other consumers was 6.68 cents per kilowatthour, 1 percent higher than the January 2002 price. The price of electricity sold to industrial users in January 2003 averaged 4.67 cents per kilowatthour, 1 percent lower than the price 1 year earlier.

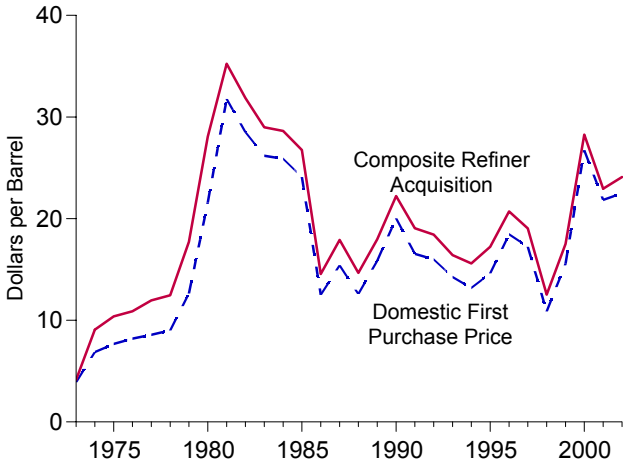
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The average wellhead price of natural gas for January 2003 was estimated as $4.47 per thousand cubic feet, 90 percent higher than the January 2002 price.

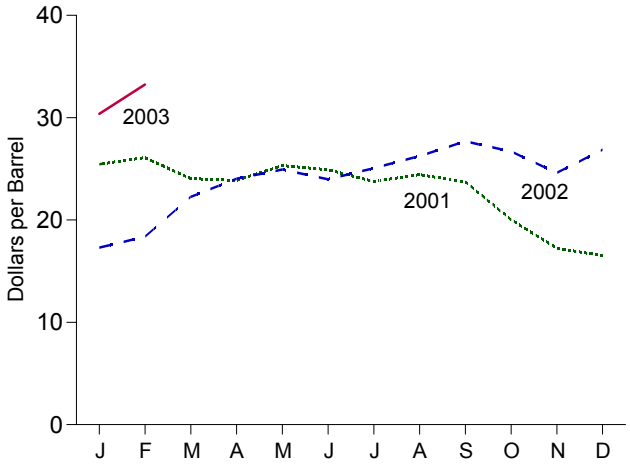
The average price of natural gas delivered to the electric power sector was $4.76 per thousand cubic feet in December 2002 (latest date for which data are available), 51 percent higher than the December 2001 price. The average price of natural gas used by residential consumers in January 2003 was $8.30 per thousand cubic feet, 15 percent higher than the January 2002 price. The average price of natural gas used by commercial consumers in January 2003 was $7.24 per thousand cubic feet, 10 percent higher than the January 2002 price. The average price of natural gas used by industrial consumers in January 2003 was $5.27 per thousand cubic feet, 32 percent above the January 2002 price.

Figure 9.1 Petroleum Prices

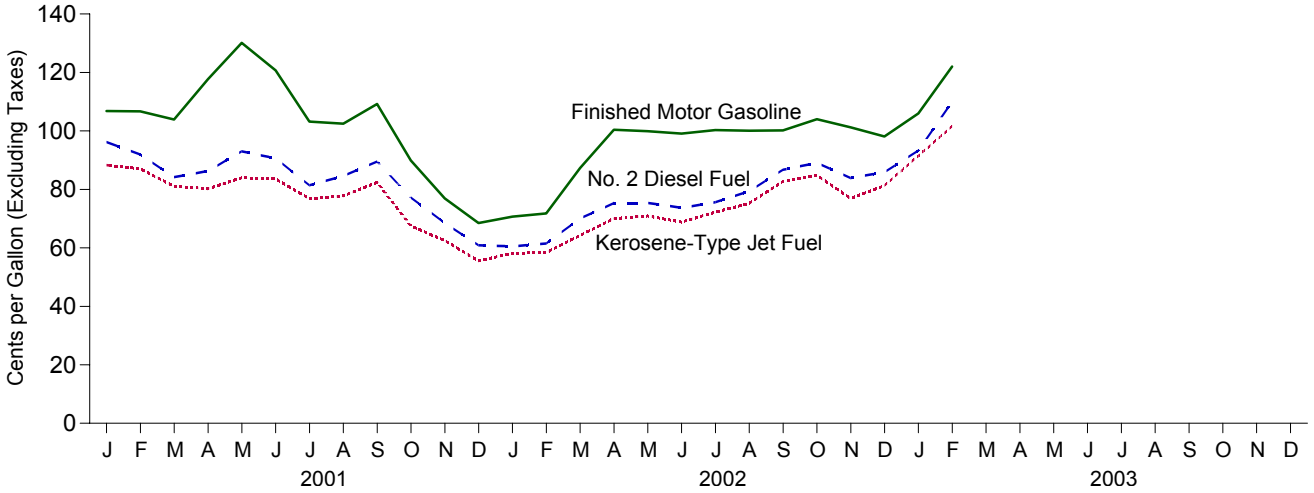
Crude Oil Prices, 1973-2002



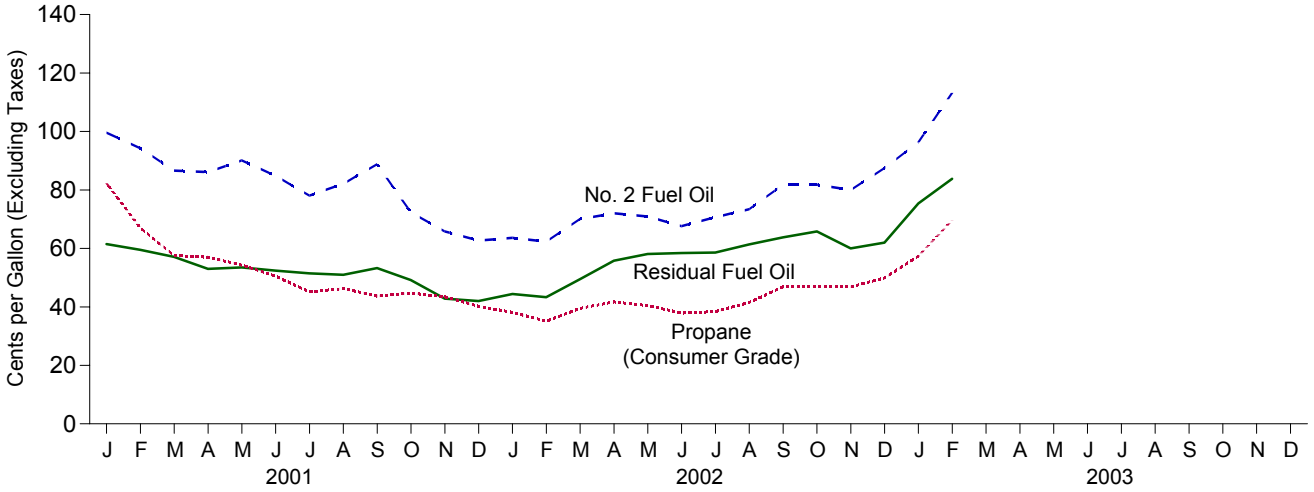
Composite Refiner Acquisition Cost, Monthly



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



Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.
Sources: Tables 9.1, 9.5, and 9.7.

Table 9.1 Crude Oil Price Summary

(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 Average	**10.87**	**10.76**	**11.84**	**13.18**	**12.04**	**12.52**
1999 Average	**15.56**	**16.47**	**17.23**	**17.90**	**17.26**	**17.51**
2000 Average	**26.72**	**26.27**	**27.53**	**29.11**	**27.70**	**28.26**
2001 January	24.64	22.46	24.04	26.83	24.49	25.45
February	25.27	23.01	24.23	27.66	24.97	26.09
March	22.98	20.88	22.89	25.64	23.01	24.05
April	23.39	21.71	23.06	25.12	22.99	23.87
May	24.06	22.71	24.14	26.37	24.63	25.31
June	23.43	22.74	23.83	26.30	23.95	24.92
July	22.82	21.43	22.88	25.13	22.76	23.76
August	23.08	22.02	23.29	25.44	23.77	24.44
September	22.37	21.01	22.22	25.48	22.51	23.73
October	18.73	17.15	18.38	21.79	18.76	20.04
November	16.40	15.03	16.24	18.99	16.06	17.24
December	15.54	15.22	16.05	17.34	15.95	16.52
Average	**21.84**	**20.46**	**21.82**	**24.33**	**22.00**	**22.95**
2002 January	15.89	16.05	17.25	17.85	16.93	17.31
February	16.92	17.68	19.16	18.70	18.13	18.37
March	20.04	21.64	22.22	21.57	22.78	22.26
April	22.14	23.06	24.16	24.27	23.87	24.03
May	23.51	23.16	24.49	25.78	24.29	24.94
June	22.59	22.63	23.95	24.81	23.33	23.98
July	23.51	23.71	25.00	25.37	24.82	25.06
August	24.76	24.57	26.02	26.87	25.77	26.24
September	26.08	25.78	26.61	28.43	27.14	27.68
October	25.29	24.34	25.59	27.82	25.99	26.70
November	23.38	22.42	24.23	26.02	23.68	24.60
December	25.29	[R] 25.86	[R] 27.06	27.25	26.57	26.87
Average	**22.51**	**22.62**	[R] **23.95**	**24.65**	**23.68**	**24.09**
2003 January	28.35	[R] 29.18	[R] 30.28	[R] 30.47	[R] 30.32	[R] 30.38
February	31.84	30.51	32.31	33.91	32.75	33.23

[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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

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 Average	**12.11**	**12.56**	**10.49**	**12.97**	**8.87**	**12.52**	**9.31**	**9.09**	**10.20**	**11.21**
1999 Average	**17.46**	**17.20**	**15.89**	**17.32**	**17.65**	**19.14**	**14.33**	**17.15**	**15.90**	**16.84**
2000 Average	**27.90**	**29.04**	**25.39**	**28.70**	**24.62**	**27.21**	**24.45**	**24.72**	**25.56**	**26.77**
2001 January	24.28	26.72	21.31	26.46	19.79	25.87	20.97	19.62	21.55	23.14
February	25.68	27.06	21.39	26.82	20.58	W	20.43	20.94	22.22	23.67
March	21.97	23.63	18.77	24.70	20.46	W	19.12	20.37	20.83	20.94
April	24.71	25.04	19.78	W	20.83	W	21.12	20.36	21.74	21.69
May	27.45	26.23	21.20	28.74	20.54	28.19	20.10	20.13	21.77	23.62
June	26.87	26.81	21.39	27.63	20.80	W	17.95	20.73	21.48	23.66
July	23.85	25.86	19.18	24.98	W	24.88	18.68	21.03	20.58	22.25
August	24.10	25.23	20.49	25.78	18.93	W	19.67	20.49	21.26	22.59
September	24.03	22.78	20.82	24.60	16.24	23.81	17.11	16.56	18.88	22.42
October	19.70	20.40	16.45	20.14	14.23	20.48	14.76	14.37	15.76	18.17
November	17.49	18.44	14.32	19.02	14.93	W	11.90	14.25	14.05	15.68
December	17.49	18.48	14.26	19.08	15.34	W	12.80	15.21	14.55	15.65
Average	**23.25**	**24.25**	**18.89**	**24.85**	**18.98**	**23.30**	**18.01**	**18.89**	**19.73**	**21.04**
2002 January	19.12	18.93	14.25	19.63	W	19.24	13.55	17.56	15.89	16.18
February	18.76	19.37	15.91	20.70	21.20	W	14.84	19.88	17.65	17.70
March	22.65	23.88	20.21	24.39	23.41	W	19.30	23.12	21.49	21.74
April	24.36	25.57	22.42	25.66	23.17	W	20.02	23.40	22.49	23.40
May	24.35	26.11	22.83	W	23.19	24.52	19.90	22.78	22.26	23.72
June	22.93	24.30	22.02	24.39	23.55	23.24	20.50	23.56	22.26	22.83
July	24.63	W	22.50	26.01	25.11	25.39	21.71	24.98	23.44	23.92
August	25.93	26.10	23.70	27.28	25.10	W	22.67	25.33	24.12	24.89
September	27.97	29.11	25.25	28.56	24.67	28.41	23.98	24.71	25.09	26.27
October	26.57	27.03	23.74	27.32	23.38	28.20	21.65	22.99	22.89	25.33
November	23.58	24.14	20.75	24.83	25.12	25.10	20.18	24.58	22.33	22.49
December	R 28.75	27.75	24.23	29.98	R 26.75	W	23.41	R 26.64	R 26.53	R 25.51
Average	**R 24.08**	**24.59**	**21.60**	**25.37**	**R 23.91**	**24.43**	**20.12**	**R 23.33**	**22.15**	**R 22.94**
2003 January	R 31.61	R 32.94	R 28.32	R 31.68	R 28.41	R 31.66	W	R 28.25	R 29.20	R 29.17
February	33.18	35.25	28.52	32.86	31.26	W	29.56	31.03	30.70	30.38

[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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

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 Average	**13.37**	**11.62**	**13.26**	**11.04**	**14.14**	**11.16**	**13.55**	**10.16**	**11.18**	**11.46**	**12.22**
1999 Average	**18.37**	**17.54**	**18.09**	**16.12**	**17.63**	**17.48**	**18.26**	**15.58**	**17.37**	**16.94**	**17.51**
2000 Average	**29.57**	**26.69**	**29.68**	**26.03**	**30.04**	**26.58**	**29.26**	**26.05**	**26.77**	**27.29**	**27.80**
2001 January	26.56	21.98	28.27	21.51	28.37	23.58	28.29	22.89	23.51	24.08	24.01
February	27.48	22.48	28.71	21.61	28.75	23.00	29.12	22.15	22.96	23.90	24.61
March	24.87	21.57	26.21	19.52	27.40	22.62	26.29	21.13	22.49	23.21	22.46
April	26.63	21.35	26.71	19.57	27.01	22.58	25.95	22.54	22.23	23.26	22.79
May	28.58	22.63	27.83	21.22	29.33	22.63	28.27	21.91	22.47	23.67	24.73
June	28.40	22.53	28.86	21.34	29.31	22.65	26.91	20.41	22.25	23.26	24.40
July	25.59	22.60	27.45	19.79	26.68	22.54	26.02	20.27	22.28	22.43	23.51
August	25.54	23.95	26.31	21.14	27.01	21.78	25.91	21.21	22.06	22.70	23.93
September	25.66	22.55	24.86	21.40	26.45	19.21	24.83	19.40	19.91	21.06	23.55
October	21.21	18.48	21.77	17.19	22.34	16.31	21.27	16.26	16.99	17.58	19.28
November	18.91	14.84	20.22	14.82	20.41	16.44	W	13.62	16.17	16.12	16.37
December	18.49	14.65	18.92	14.64	19.98	16.32	W	14.40	15.87	16.02	16.09
Average	**25.13**	**20.72**	**25.88**	**19.37**	**26.55**	**20.98**	**25.32**	**19.81**	**20.73**	**21.52**	**22.17**
2002 January	20.03	15.66	19.86	14.87	20.41	18.92	20.49	15.10	17.92	17.51	16.96
February	19.70	18.00	20.32	16.29	21.57	22.00	20.83	16.47	20.69	19.68	18.55
March	22.99	20.05	24.54	20.39	24.33	23.93	23.72	20.80	23.29	22.76	21.72
April	25.24	23.37	26.22	22.90	26.47	24.22	25.35	22.02	24.09	24.05	24.26
May	25.56	23.97	25.85	23.45	26.56	24.48	25.93	21.92	24.30	24.09	24.78
June	24.48	23.15	24.99	22.58	25.55	24.61	25.12	22.30	24.47	23.97	23.93
July	25.66	24.38	25.99	23.09	26.89	25.96	26.36	23.34	25.73	25.04	24.96
August	26.99	25.63	27.00	24.21	27.75	26.61	27.00	24.43	26.53	26.10	25.92
September	28.93	26.00	29.77	25.72	29.44	25.67	28.20	25.45	25.74	26.16	27.14
October	27.75	25.16	28.07	24.20	28.59	24.98	28.90	23.06	24.89	24.72	26.32
November	25.06	23.24	25.28	21.37	26.51	26.35	26.96	22.02	25.84	24.52	23.94
December	[R] 30.20	24.53	28.42	[R] 24.63	30.58	[R] 28.20	29.38	25.09	[R] 27.91	[R] 28.07	[R] 26.29
Average	[R] **25.38**	**22.98**	**25.24**	**22.10**	**26.46**	[R] **24.92**	**26.32**	**21.92**	[R] **24.29**	[R] **23.93**	**23.97**
2003 January	[R] 33.29	27.87	[R] 34.11	[R] 28.74	[R] 33.40	[R] 30.41	[R] 32.89	[R] 29.38	[R] 30.03	[R] 30.70	[R] 29.99
February	36.45	30.03	36.79	29.39	35.22	33.43	34.44	31.73	33.10	33.07	31.74

[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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

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,* May 2003, 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 Average	**NA**	**105.9**	**125.0**	**111.5**
1999 Average	**NA**	**116.5**	**135.7**	**122.1**
2000 Average	**NA**	**151.0**	**169.3**	**156.3**
2001 January	NA	147.2	165.7	152.5
February	NA	148.4	167.1	153.8
March	NA	144.7	163.8	150.3
April	NA	156.4	174.8	161.7
May	NA	172.9	193.4	181.2
June	NA	164.0	188.1	173.1
July	NA	148.2	169.5	156.5
August	NA	142.7	163.6	150.9
September	NA	153.1	172.6	160.9
October	NA	136.2	156.0	144.2
November	NA	126.3	142.7	132.4
December	NA	113.1	131.2	120.0
Average	**NA**	**146.1**	**165.7**	**153.1**
2002 January	NA	113.9	132.3	120.9
February	NA	113.0	133.0	121.0
March	NA	124.1	145.0	132.4
April	NA	140.7	162.2	149.3
May	NA	142.1	162.5	150.8
June	NA	140.4	160.6	148.9
July	NA	141.2	160.7	149.6
August	NA	142.3	162.0	150.8
September	NA	142.2	161.9	150.7
October	NA	144.9	164.3	153.5
November	NA	144.8	164.3	153.4
December	NA	139.4	158.9	147.7
Average	**NA**	**135.8**	**157.8**	**144.1**
2003 January	NA	147.3	166.6	155.7
February	NA	164.1	182.8	168.6
March	NA	174.8	192.4	179.1

[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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

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 Average	**29.9**	**35.4**	**26.9**	**28.7**	**28.0**	**30.5**
1999 Average	**38.2**	**40.5**	**32.9**	**36.2**	**35.4**	**37.4**
2000 Average	**62.7**	**70.8**	**51.2**	**56.6**	**56.6**	**60.2**
2001 January	64.6	74.0	48.5	55.9	56.4	61.5
February	62.5	69.7	49.5	55.1	55.9	59.5
March	57.6	66.6	47.8	52.9	51.8	57.1
April	57.5	64.0	41.8	48.9	48.3	53.0
May	58.4	63.9	44.2	50.2	50.3	53.5
June	53.0	64.1	42.4	49.0	47.9	52.4
July	50.0	63.2	42.2	47.2	46.3	51.5
August	50.4	59.7	41.3	48.0	45.7	51.0
September	51.2	62.2	44.9	51.2	48.9	53.3
October	44.8	59.2	40.0	46.6	42.4	49.2
November	40.5	52.3	31.9	40.2	36.9	42.8
December	40.0	51.2	30.7	39.6	36.3	42.0
Average	**52.3**	**64.2**	**42.8**	**49.2**	**47.6**	**53.1**
2002 January	40.8	50.8	33.7	41.8	38.5	44.4
February	38.0	51.2	33.7	41.0	36.6	43.3
March	45.7	53.2	39.6	48.1	43.8	49.5
April	53.2	59.1	47.8	55.0	51.1	55.8
May	56.3	64.0	52.1	56.6	54.5	58.1
June	53.7	63.5	52.7	57.1	53.3	58.4
July	55.8	63.9	50.7	56.8	53.8	58.6
August	60.6	67.4	55.3	59.2	58.2	61.4
September	60.1	67.8	56.3	62.6	58.5	63.8
October	64.5	72.7	55.0	63.6	60.7	65.8
November	58.9	73.6	59.3	54.6	59.0	60.0
December	67.6	73.9	59.5	56.6	64.0	62.0
Average	**54.4**	**63.9**	**50.7**	**54.4**	**52.9**	**56.8**
2003 January	79.5	86.1	NA	70.9	72.2	75.4
February	95.5	95.6	74.0	77.0	88.4	83.8

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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, *Petroleum Marketing Monthly,* May 2003, 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 Average	**52.6**	**91.2**	**45.0**	**46.5**	**42.2**	**44.4**	**28.8**
1999 Average	**64.5**	**100.7**	**53.3**	**55.0**	**49.3**	**54.6**	**34.2**
2000 Average	**96.3**	**133.0**	**88.0**	**96.9**	**88.6**	**89.8**	**59.5**
2001 January	94.1	131.0	88.3	106.4	90.0	90.6	86.4
February	93.8	132.0	87.1	93.4	82.4	85.9	66.9
March	91.0	129.3	80.5	83.6	76.2	78.1	60.1
April	106.3	140.5	79.6	83.0	79.1	82.6	58.5
May	115.3	147.0	83.5	86.6	82.3	89.9	56.2
June	98.5	135.0	82.7	82.6	79.0	85.4	48.7
July	84.0	120.9	75.7	74.7	72.7	75.6	43.5
August	90.6	125.9	77.4	81.3	76.6	80.9	45.3
September	94.1	132.0	80.2	80.1	78.7	84.2	46.4
October	74.0	109.7	67.8	73.1	68.2	71.3	46.0
November	63.4	100.5	61.9	63.5	60.6	61.5	41.6
December	58.3	94.9	55.3	58.6	56.6	54.7	38.1
Average	**88.6**	**125.6**	**76.3**	**82.1**	**75.6**	**78.4**	**54.0**
2002 January	61.1	96.5	57.3	62.1	57.5	54.6	37.6
February	62.7	98.5	57.4	60.9	57.7	56.8	36.6
March	78.1	103.2	64.2	69.2	64.6	66.7	39.9
April	86.8	116.5	69.5	69.9	68.3	70.9	41.7
May	85.9	114.4	69.6	71.1	68.4	70.6	40.8
June	85.6	116.7	67.9	69.4	65.8	68.2	37.9
July	87.8	118.9	71.5	73.2	68.7	71.0	37.5
August	87.4	115.5	74.0	76.4	71.3	75.7	41.5
September	88.9	119.2	81.6	87.4	78.3	83.6	47.0
October	93.4	123.8	83.8	88.8	79.6	86.1	48.9
November	84.9	118.4	74.9	82.3	74.8	78.7	49.4
December	85.9	113.2	79.9	87.9	80.8	82.0	53.2
Average	**82.8**	**113.7**	**71.3**	**75.7**	**69.3**	**72.4**	**43.1**
2003 January	94.6	124.9	[R] 89.5	97.8	89.5	89.2	60.5
February	109.7	129.9	101.9	122.4	107.8	108.0	72.7

[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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, *Petroleum Marketing Monthly,* May 2003, 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 Average	**67.3**	**97.5**	**45.2**	**50.1**	**48.2**	**49.4**	**40.5**
1999 Average	**78.1**	**105.9**	**54.3**	**60.5**	**55.8**	**58.4**	**45.8**
2000 Average	**110.6**	**130.6**	**89.9**	**112.3**	**92.7**	**93.5**	**60.3**
2001 January	106.8	128.5	88.3	126.0	99.6	96.2	82.3
February	106.7	129.2	87.0	122.1	94.3	91.9	67.0
March	103.9	124.5	81.1	112.8	86.6	84.2	57.6
April	117.7	134.9	80.2	100.6	86.1	86.3	57.0
May	130.1	150.9	84.0	94.1	90.1	93.0	54.3
June	120.7	145.1	83.6	93.8	84.8	90.6	50.5
July	103.2	134.6	76.8	83.4	78.1	81.4	45.1
August	102.5	136.3	77.8	84.2	82.1	84.6	46.3
September	109.2	142.4	82.4	94.9	88.8	89.5	43.7
October	89.9	125.3	67.5	94.2	72.4	77.2	44.7
November	76.9	119.4	62.5	100.9	65.8	68.5	43.5
December	68.5	115.8	55.6	98.1	62.7	60.9	40.2
Average	**103.2**	**132.3**	**77.5**	**104.5**	**82.9**	**84.2**	**50.6**
2002 January	70.7	121.2	58.1	98.3	63.6	60.5	38.1
February	71.8	118.5	58.4	97.7	62.3	61.5	35.1
March	87.3	125.2	64.3	99.3	70.1	70.1	39.5
April	100.4	133.4	70.0	NA	72.0	75.3	41.7
May	99.9	128.4	70.9	91.5	70.9	75.4	40.5
June	99.1	127.3	68.8	83.8	67.6	73.7	37.9
July	100.3	139.1	72.2	80.6	70.7	75.6	38.4
August	100.1	136.1	75.2	79.8	73.4	79.4	41.5
September	100.2	139.1	82.8	NA	81.8	86.7	46.9
October	104.0	140.3	84.8	110.2	81.8	89.1	47.1
November	101.2	138.5	76.9	103.8	80.0	83.9	46.9
December	98.1	139.8	81.3	115.2	87.5	85.9	49.9
Average	**94.7**	**131.7**	**72.2**	**98.5**	**73.7**	**76.2**	**41.9**
2003 January	106.0	[R] 139.7	91.5	121.0	96.3	[R] 93.3	[R] 57.4
February	122.0	145.8	101.6	136.8	113.2	109.9	69.6

[a] See Note 5 at end of section.

R=Revised. 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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, *Petroleum Marketing Monthly,* May 2003, 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 Average	**78.8**	**78.8**	**87.3**	**81.8**	**86.8**	**83.1**	**94.8**	**89.2**	**81.4**
1999 Average	**81.3**	**77.0**	**85.4**	**83.6**	**85.8**	**85.2**	**96.9**	**91.3**	**81.5**
2000 Average	**129.7**	**128.1**	**125.5**	**127.3**	**125.9**	**129.1**	**144.2**	**140.4**	**122.4**
2001 January	132.5	134.9	132.8	132.7	133.9	136.8	147.7	146.3	133.1
February	129.5	133.3	130.8	129.5	129.4	132.0	143.5	140.6	127.9
March	125.6	130.1	129.1	125.6	125.5	129.0	139.9	133.8	121.5
April	122.9	126.7	128.0	124.3	124.1	127.2	139.6	131.8	116.8
May	121.8	124.5	124.8	122.7	122.4	125.1	137.3	130.8	111.1
June	121.6	125.5	125.0	119.8	121.6	119.1	133.2	128.7	105.7
July	117.8	121.2	122.7	113.8	117.2	113.1	126.9	123.2	101.0
August	115.2	118.9	121.9	113.5	118.0	110.8	127.2	118.3	103.6
September	118.7	118.4	123.0	115.9	119.7	116.2	129.1	120.0	104.9
October	114.6	117.6	121.1	113.4	117.4	113.4	125.9	118.0	102.6
November	110.2	114.8	118.9	109.9	113.9	109.2	123.3	114.2	101.2
December	108.7	114.2	117.3	106.9	111.3	107.4	119.8	112.2	99.7
Average	**121.7**	**125.6**	**126.1**	**122.1**	**123.6**	**123.9**	**136.3**	**131.4**	**115.9**
2002 January	109.6	113.2	117.4	107.5	112.1	108.4	121.7	113.9	103.3
February	108.7	114.1	117.2	106.9	110.9	106.7	121.0	113.5	100.7
March	112.2	109.6	116.2	111.0	107.7	109.3	119.0	117.0	104.8
April	111.8	108.8	117.6	113.8	112.0	109.7	120.0	120.0	106.2
May	111.8	108.4	118.1	113.6	109.8	109.2	117.6	118.9	104.2
June	110.9	104.7	114.3	110.6	105.7	110.5	115.9	116.5	102.9
July	109.7	101.3	111.5	111.1	105.6	106.7	114.4	113.4	95.3
August	107.7	102.2	112.1	112.4	107.8	107.6	NA	115.2	95.8
September	111.3	106.0	115.0	113.7	110.6	111.1	116.6	120.7	101.8
October	116.6	111.4	118.0	116.2	110.5	112.4	119.4	123.7	106.6
November	115.8	113.4	118.0	118.5	114.4	115.5	125.0	127.6	110.6
December	119.3	118.1	120.4	125.0	120.8	121.5	130.1	135.3	117.4
Average	**112.9**	**111.8**	**117.2**	**114.1**	**112.4**	**111.9**	**121.8**	**121.9**	**106.4**
2003 January	127.9	R 127.4	R 126.5	R 135.4	132.3	R 130.9	138.7	R 146.5	R 127.5
February	142.5	145.2	138.9	153.9	152.1	149.9	155.3	167.2	148.1

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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, *Petroleum Marketing Monthly,* May 2003, 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 Average	**85.8**	**102.2**	**90.2**	**85.6**	**81.8**	**76.7**	**80.4**	**74.8**	**73.5**	**80.1**	**73.8**
1999 Average	**88.4**	**101.1**	**90.7**	**87.0**	**78.9**	**82.0**	**88.3**	**79.3**	**71.6**	**84.7**	**77.4**
2000 Average	**127.0**	**W**	**135.1**	**126.9**	**125.1**	**122.0**	**NA**	**120.7**	**109.5**	**117.1**	**115.6**
2001 January	139.8	W	150.3	141.4	137.1	131.7	NA	127.0	122.7	128.1	124.9
February	137.6	W	146.5	133.4	127.3	126.9	NA	123.1	118.9	126.6	120.4
March	129.3	W	140.8	122.8	119.1	117.4	NA	114.1	115.7	120.1	114.7
April	123.2	W	137.2	117.4	117.1	117.5	NA	112.3	NA	119.3	118.0
May	113.3	W	128.7	112.8	113.7	120.5	NA	117.8	111.3	121.9	118.7
June	110.8	W	123.2	112.7	112.5	112.9	NA	109.8	105.6	117.1	114.0
July	102.0	W	116.9	106.6	104.5	104.7	NA	102.9	102.2	110.6	106.4
August	101.5	W	117.0	107.6	109.3	110.4	NA	111.7	111.8	117.6	115.4
September	106.2	W	120.0	110.4	112.0	119.1	136.4	118.0	118.3	122.1	116.3
October	NA	W	117.7	106.9	104.3	108.4	122.1	108.3	109.5	112.8	105.5
November	110.3	W	117.1	102.4	NA	100.8	112.0	98.2	98.2	106.1	99.9
December	108.8	W	114.3	97.8	95.5	95.0	108.3	93.4	91.7	96.5	91.0
Average	**123.4**	**143.1**	**134.2**	**120.2**	**113.9**	**116.0**	**NA**	**113.3**	**112.1**	**118.0**	**112.2**
2002 January	114.2	W	115.8	101.7	96.8	94.2	102.6	91.9	86.7	96.8	91.5
February	111.0	W	115.1	99.9	95.7	94.3	102.4	95.7	84.2	95.6	91.9
March	113.0	W	117.6	101.6	99.5	101.3	103.6	93.8	83.9	100.3	94.0
April	117.3	129.2	119.1	99.9	101.2	103.1	106.5	94.9	84.6	105.1	101.9
May	106.2	NA	114.2	96.4	102.0	101.4	106.3	W	82.9	106.5	100.7
June	100.5	111.5	111.5	96.4	101.6	97.4	107.1	W	NA	101.7	101.8
July	98.5	W	109.4	97.3	101.7	95.8	107.4	W	96.6	103.7	101.8
August	99.7	W	110.9	99.5	102.5	100.5	108.0	W	NA	103.3	105.3
September	111.2	W	116.4	102.5	107.2	107.1	113.9	W	101.2	111.7	111.0
October	114.8	129.2	120.1	108.0	111.2	114.2	121.3	W	106.7	118.0	116.6
November	119.8	W	124.7	110.3	113.9	115.6	122.5	114.1	112.6	120.2	114.9
December	129.0	W	131.3	119.0	120.9	119.5	124.9	121.0	NA	121.5	116.9
Average	**116.5**	**W**	**120.1**	**104.9**	**105.4**	**105.8**	**111.2**	**102.5**	**98.0**	**107.2**	**105.2**
2003 January	R 138.4	W	141.4	R 130.5	131.7	R 129.4	R 130.7	R 130.3	125.0	127.1	R 122.0
February	161.7	W	159.9	146.9	155.5	145.3	148.5	146.7	136.3	137.0	136.8

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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, *Petroleum Marketing Monthly,* May 2003, 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 Average	**78.4**	**97.8**	**86.1**	**85.2**	**85.2**
1999 Average	**76.2**	**106.5**	**93.8**	**96.6**	**87.6**
2000 Average	**117.0**	**144.5**	**136.8**	**133.7**	**131.1**
2001 January	120.8	144.0	134.3	NA	138.6
February	114.0	145.4	134.4	147.5	134.3
March	109.4	141.9	129.7	NA	129.4
April	110.1	141.8	130.3	NA	127.3
May	114.0	144.6	133.8	145.6	124.9
June	111.9	141.3	130.0	140.6	120.3
July	100.3	122.7	115.4	131.8	113.6
August	101.2	119.0	116.8	124.6	114.3
September	107.7	127.9	120.6	NA	117.5
October	100.2	NA	111.0	131.1	114.2
November	90.2	118.1	103.6	125.7	111.0
December	75.8	110.2	95.0	119.9	108.0
Average	**103.8**	**133.6**	**121.1**	**137.7**	**125.0**
2002 January	74.7	109.2	93.6	114.0	109.7
February	74.5	108.6	94.3	114.5	108.6
March	79.2	118.2	104.4	110.4	109.9
April	87.1	124.5	108.0	111.8	111.2
May	82.5	125.3	107.6	108.4	108.9
June	79.1	122.2	104.3	105.8	104.9
July	87.5	118.5	NA	102.6	102.9
August	89.9	117.0	108.2	108.1	103.8
September	96.6	124.2	115.6	110.0	109.9
October	102.6	128.6	118.6	110.6	114.6
November	103.2	131.3	119.4	113.0	117.9
December	103.0	131.2	118.1	114.6	123.8
Average	**89.1**	**121.4**	**106.3**	**109.4**	**112.8**
2003 January	R 107.2	R 137.1	124.5	R 116.7	R 133.3
February	118.9	154.7	143.8	121.1	150.6

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.

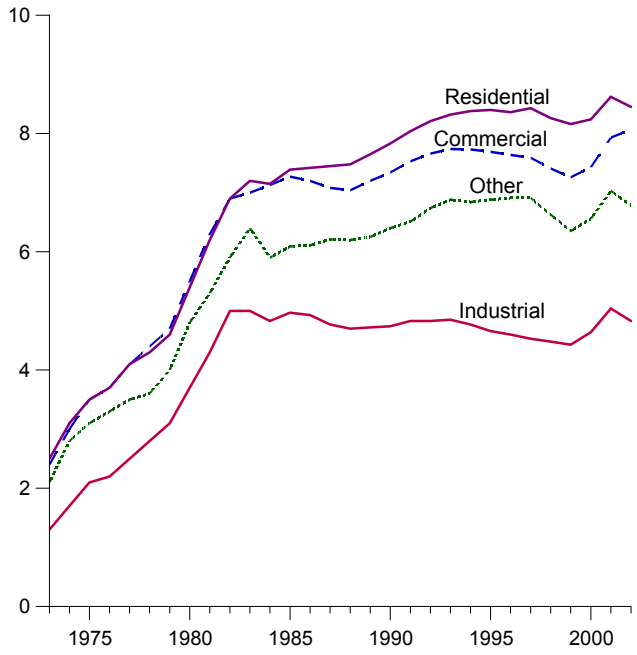
See Note 6 at end of section.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

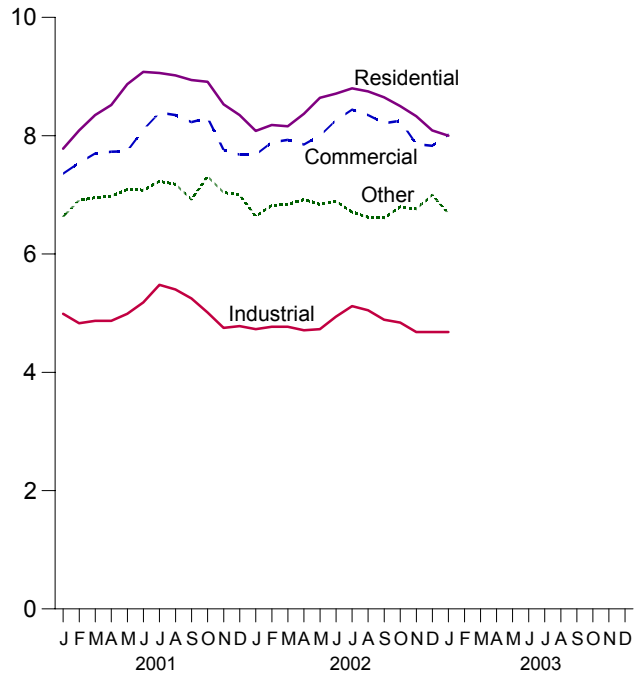
Source: EIA, *Petroleum Marketing Monthly,* May 2003, Table 18.

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

By Sector, 1973-2002



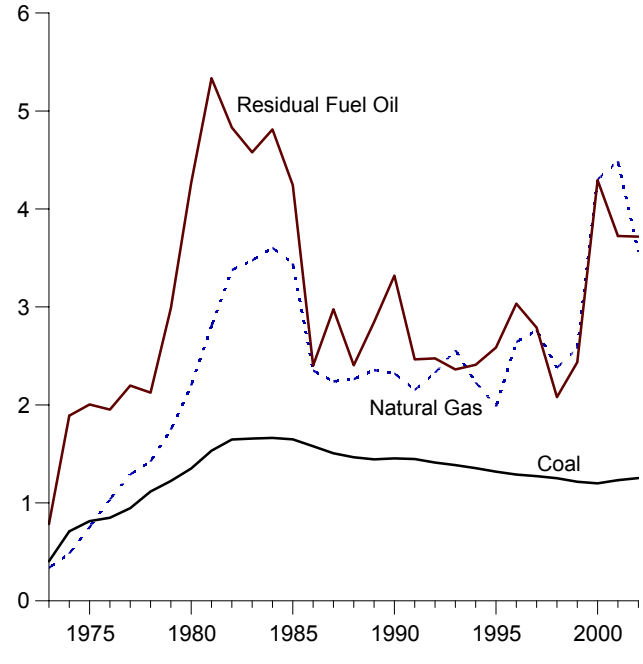
By Sector, Monthly



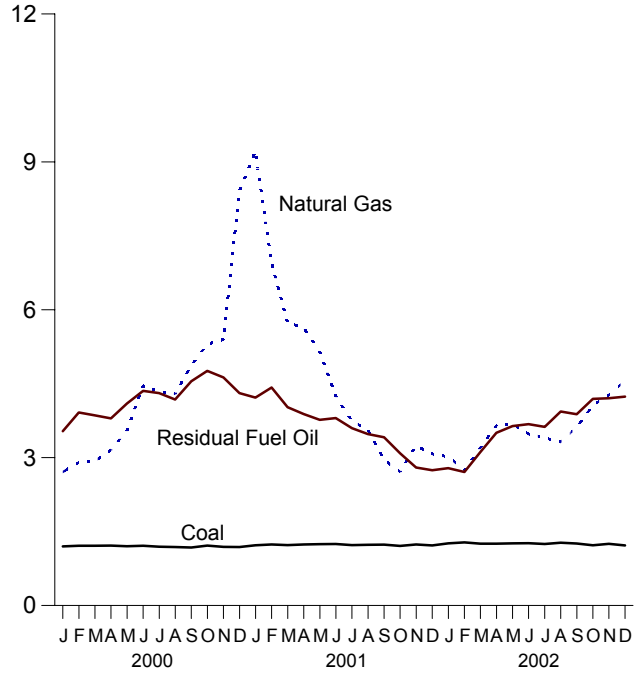
Note: Excludes taxes.
Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.
Source: Table 9.9.

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

Costs, 1973-2002



Costs, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.
Source: Table 9.10.

Table 9.9 Average Retail Prices of Electricity

(Cents per Kilowatthour, Excluding Taxes)

	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 Average	**8.26**	**7.41**	**4.48**	**6.63**	**6.74**
1999 Average	**8.16**	**7.26**	**4.43**	**6.35**	**6.66**
2000 Average	**8.24**	**7.43**	**4.64**	**6.56**	**6.81**
2001 January	7.78	7.36	4.99	6.63	6.90
February	8.09	7.54	4.83	6.91	6.93
March	8.35	7.70	4.87	6.95	7.05
April	8.52	7.73	4.87	6.98	7.06
May	8.87	7.74	4.99	7.09	7.20
June	9.08	8.10	5.18	7.08	7.56
July	9.06	8.39	5.48	7.23	7.86
August	9.02	8.35	5.40	7.18	7.82
September	8.94	8.23	5.25	6.92	7.62
October	8.91	8.30	5.01	7.31	7.46
November	8.53	7.76	4.75	7.04	7.05
December	8.35	7.68	4.78	7.00	7.08
Average	**8.62**	**7.93**	**5.04**	**7.03**	**7.32**
2002 January	8.08	R 7.47	4.73	R 6.63	R 6.96
February	8.18	R 7.69	4.77	R 6.81	R 6.99
March	8.16	R 7.72	R 4.78	6.84	R 6.98
April	8.37	R 7.64	4.71	R 6.91	R 6.95
May	8.64	R 7.80	4.73	6.84	R 7.09
June	8.71	R 8.08	4.94	R 6.88	R 7.39
July	8.80	R 8.29	R 5.13	6.71	R 7.62
August	8.75	R 8.23	5.05	6.62	R 7.56
September	8.65	R 8.07	4.89	6.61	R 7.36
October	8.50	R 8.07	4.84	6.80	R 7.20
November	8.33	R 7.68	4.68	6.76	R 6.95
December	8.09	R 7.64	4.68	7.00	R 6.97
Average	**8.45**	R **7.89**	**4.83**	**6.78**	R **7.19**
2003 January	R 7.98	R 7.77	R 4.67	6.68	R 7.02

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

R=Revised.

Notes: • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. See Note 7 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **March 1980-1982:** FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • **1983:** Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • **1984-1989:** EIA, Form EIA-861, "Annual Electric Utility Report." • **1990 forward:** EIA, *Electric Power Monthly,* April 2003, Table 5.6B.

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

(Cents per Million Btu)

	Coal	Petroleum		Natural Gas[c]	All Fossil Fuels
		Residual Fuel Oil[a]	Total[b]		
1973 Average	**40.5**	**78.5**	**80.0**	**33.8**	**47.6**
1974 Average	**70.9**	**189.0**	**191.0**	**48.2**	**91.4**
1975 Average	**81.4**	**200.5**	**202.3**	**75.2**	**104.4**
1976 Average	**84.8**	**195.2**	**199.0**	**103.4**	**111.9**
1977 Average	**94.7**	**219.8**	**224.9**	**129.1**	**129.7**
1978 Average	**111.6**	**212.5**	**219.1**	**142.2**	**141.1**
1979 Average	**122.4**	**298.8**	**307.2**	**174.9**	**163.9**
1980 Average	**135.1**	**426.7**	**435.1**	**219.9**	**192.8**
1981 Average	**153.2**	**533.4**	**542.5**	**280.5**	**225.6**
1982 Average	**164.7**	**483.2**	**492.2**	**337.6**	**224.9**
1983 Average	**165.6**	**457.8**	**462.8**	**347.4**	**220.6**
1984 Average	**166.4**	**481.2**	**486.3**	**360.3**	**219.1**
1985 Average	**164.8**	**424.4**	**431.7**	**344.4**	**209.4**
1986 Average	**157.9**	**240.1**	**243.7**	**235.1**	**175.0**
1987 Average	**150.6**	**297.6**	**301.1**	**224.0**	**170.6**
1988 Average	**146.6**	**240.5**	**243.9**	**226.3**	**164.3**
1989 Average	**144.5**	**284.6**	**289.3**	**235.5**	**167.5**
1990 Average	**145.5**	**331.9**	**335.3**	**232.1**	**168.8**
1991 Average	**144.7**	**246.5**	**252.7**	**215.3**	**160.2**
1992 Average	**141.2**	**247.5**	**251.4**	**232.8**	**158.9**
1993 Average	**138.5**	**236.2**	**237.3**	**256.0**	**159.4**
1994 Average	**135.5**	**240.9**	**242.3**	**223.0**	**152.5**
1995 Average	**131.8**	**258.6**	**256.6**	**198.4**	**145.2**
1996 Average	**128.9**	**303.4**	**302.6**	**264.1**	**151.8**
1997 Average	**127.3**	**278.8**	**273.0**	**276.0**	**152.0**
1998 Average	**125.2**	**207.9**	**202.1**	**238.1**	**143.5**
1999 Average	**121.6**	**243.6**	**235.9**	**257.4**	**143.8**
2000 Average	**120.0**	**429.4**	**417.9**	**430.2**	**173.5**
2001 January	122.3	421.7	457.7	921.5	214.1
February	123.9	442.2	441.4	694.7	189.1
March	122.6	402.3	401.1	573.8	178.3
April	123.9	388.4	388.6	563.8	191.9
May	124.5	376.7	378.6	514.2	186.3
June	124.8	380.1	369.7	425.1	178.3
July	122.5	359.7	349.2	374.4	176.4
August	123.3	347.7	331.2	355.8	169.6
September	123.4	341.3	316.0	295.5	156.4
October	121.0	309.0	287.5	271.5	142.2
November	123.7	280.0	268.8	324.2	145.1
December	122.0	274.5	256.1	307.7	141.7
Average	**123.2**	**372.4**	**369.3**	**448.7**	**173.0**
2002 January[d]	126.2	278.7	226.4	R 301.3	R 162.6
February	128.2	270.7	204.1	R 274.4	158.3
March	R 125.3	311.3	222.6	R 320.5	R 170.0
April	125.5	350.4	349.7	R 364.9	R 194.2
May	R 126.0	364.2	282.3	367.3	R 186.8
June	R 126.3	368.0	281.4	348.3	R 189.5
July	124.8	362.6	267.7	R 340.3	R 192.0
August	R 127.3	393.5	299.7	331.8	R 191.3
September	R 125.7	388.0	294.0	R 361.6	R 188.3
October	122.2	419.3	339.4	R 406.2	R 184.9
November	125.1	420.7	348.3	R 427.0	R 187.8
December	122.0	423.8	335.0	R 456.1	R 197.4
Average	R **125.3**	**371.7**	**296.9**	R **356.4**	R **183.9**

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

[b] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil. For 1973-1982, data do not include refined motor oil, bunker oil, and liquefied petroleum gas. For 1973-1989, data do not include petroleum coke.

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

[d] Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the commercial and industrial sectors. See Note 8 at end of section for plant coverage.

R=Revised.

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

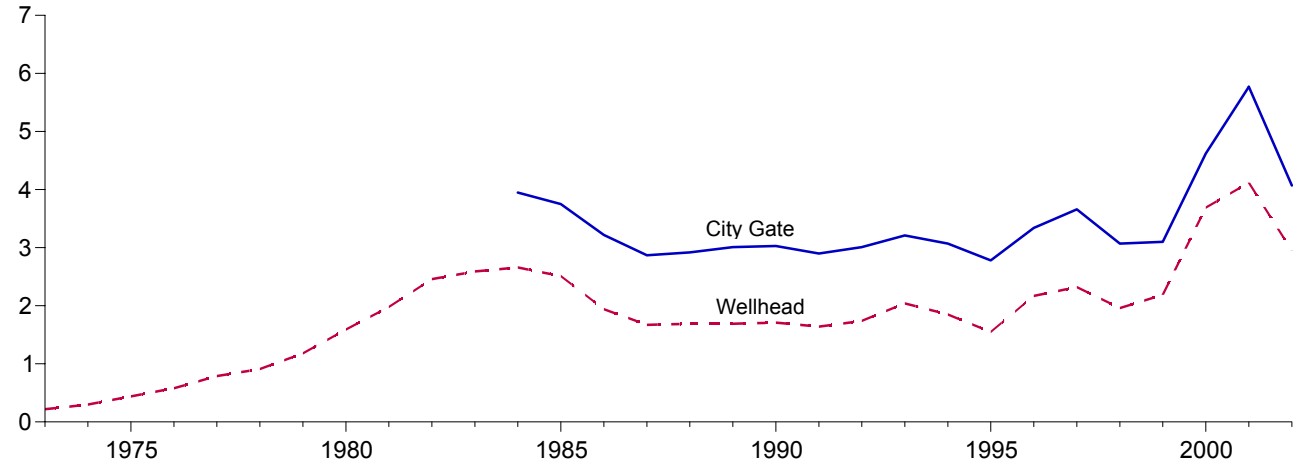
Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Sources: See end of section.

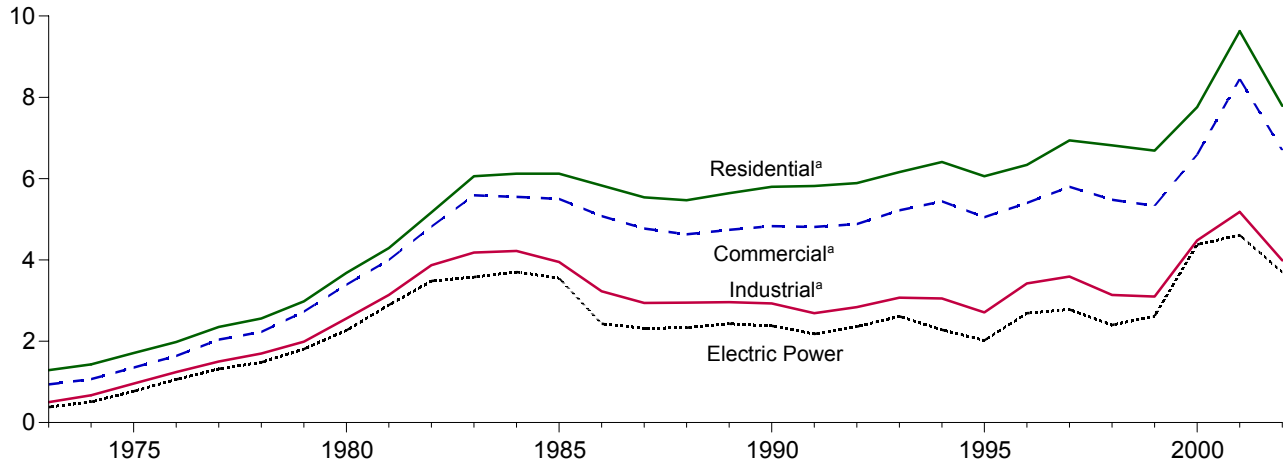
Beginning with the April 2003 *Monthly Energy Review*, Table 9.10, which previously showed quantity and cost of receipts, shows cost only. Also, "Petroleum Total" and "All Fossil Fuel" averages for 1990-2000 are recalculated to incorporate the cost of petroleum coke, which had not been included previously. In addition, beginning with the January 2002 data, coverage is expanded from electric utilities only to include independent power producers and electric generating plants in the commercial and industrial sectors as well.

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

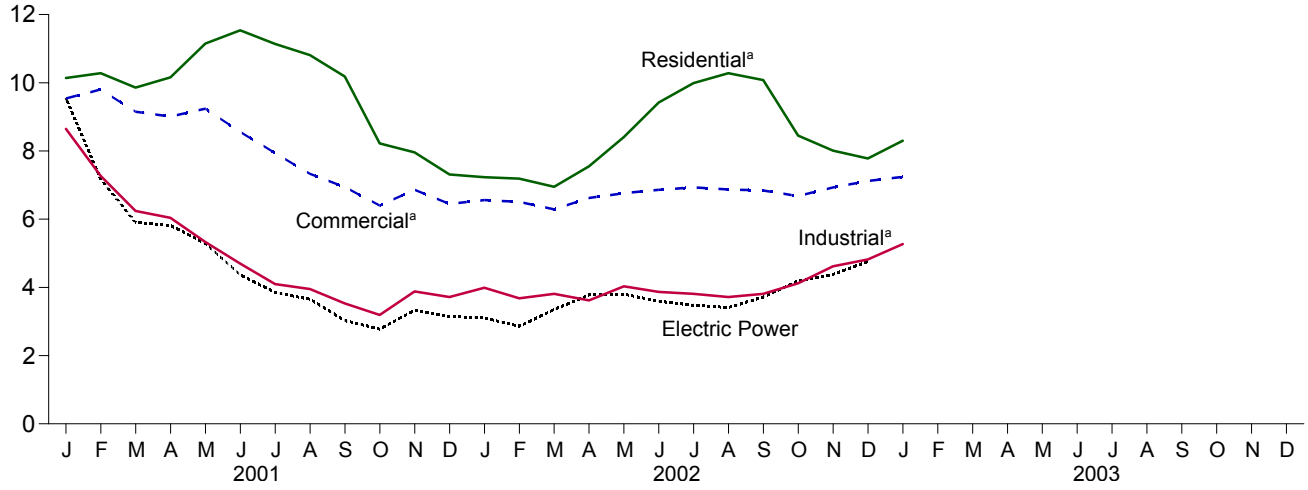
Selected Prices, 1973-2002



Consuming Sectors, 1973-2002



Consuming Sectors, Monthly



[a]Includes taxes.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.
Source: Table 9.11.

Table 9.11 Natural Gas Prices

(Dollars per Thousand Cubic Feet)

	Wellhead Price	City Gate Price	Consuming Sectors[a]							
			Residential		Commercial[b]		Industrial[c]		Electric Power[d]	
			Price[e]	Percentage of Sector[f]	Price[e]	Percentage of Sector[f]	Price[e]	Percentage of Sector[f]	Price	Percentage of Sector[f]
1973 Average	**0.22**	**NA**	**1.29**	**NA**	**0.94**	**NA**	**0.50**	**NA**	**0.38**	**92.1**
1974 Average	**.30**	**NA**	**1.43**	**NA**	**1.07**	**NA**	**.67**	**NA**	**.51**	**92.7**
1975 Average	**.44**	**NA**	**1.71**	**NA**	**1.35**	**NA**	**.96**	**NA**	**.77**	**96.1**
1976 Average	**.58**	**NA**	**1.98**	**NA**	**1.64**	**NA**	**1.24**	**NA**	**1.06**	**96.2**
1977 Average	**.79**	**NA**	**2.35**	**NA**	**2.04**	**NA**	**1.50**	**NA**	**1.32**	**97.1**
1978 Average	**.91**	**NA**	**2.56**	**NA**	**2.23**	**NA**	**1.70**	**NA**	**1.48**	**98.0**
1979 Average	**1.18**	**NA**	**2.98**	**NA**	**2.73**	**NA**	**1.99**	**NA**	**1.81**	**96.1**
1980 Average	**1.59**	**NA**	**3.68**	**NA**	**3.39**	**NA**	**2.56**	**NA**	**2.27**	**96.9**
1981 Average	**1.98**	**NA**	**4.29**	**NA**	**4.00**	**NA**	**3.14**	**NA**	**2.89**	**97.6**
1982 Average	**2.46**	**NA**	**5.17**	**NA**	**4.82**	**NA**	**3.87**	**85.1**	**3.48**	**92.6**
1983 Average	**2.59**	**NA**	**6.06**	**NA**	**5.59**	**NA**	**4.18**	**80.7**	**3.58**	**93.9**
1984 Average	**2.66**	**3.95**	**6.12**	**NA**	**5.55**	**NA**	**4.22**	**74.7**	**3.70**	**94.4**
1985 Average	**2.51**	**3.75**	**6.12**	**NA**	**5.50**	**NA**	**3.95**	**68.8**	**3.55**	**94.0**
1986 Average	**1.94**	**3.22**	**5.83**	**NA**	**5.08**	**NA**	**3.23**	**59.8**	**2.43**	**91.7**
1987 Average	**1.67**	**2.87**	**5.54**	**NA**	**4.77**	**93.1**	**2.94**	**47.4**	**2.32**	**91.6**
1988 Average	**1.69**	**2.92**	**5.47**	**NA**	**4.63**	**90.7**	**2.95**	**42.6**	**2.33**	**89.6**
1989 Average	**1.69**	**3.01**	**5.64**	**99.9**	**4.74**	**89.1**	**2.96**	**36.9**	**2.43**	**88.6**
1990 Average	**1.71**	**3.03**	**5.80**	**99.3**	**4.83**	**86.6**	**2.93**	**35.2**	**2.38**	**89.2**
1991 Average	**1.64**	**2.90**	**5.82**	**99.2**	**4.81**	**85.1**	**2.69**	**32.7**	**2.18**	**93.2**
1992 Average	**1.74**	**3.01**	**5.89**	**99.1**	**4.88**	**83.2**	**2.84**	**30.3**	**2.36**	**93.2**
1993 Average	**2.04**	**3.21**	**6.16**	**99.1**	**5.22**	**83.9**	**3.07**	**29.7**	**2.61**	**93.4**
1994 Average	**1.85**	**3.07**	**6.41**	**99.1**	**5.44**	**79.3**	**3.05**	**25.5**	**2.28**	**93.5**
1995 Average	**1.55**	**2.78**	**6.06**	**99.1**	**5.05**	**76.7**	**2.71**	**24.5**	**2.02**	**92.0**
1996 Average	**2.17**	**3.34**	**6.34**	**99.1**	**5.40**	**77.6**	**3.42**	**19.4**	**2.69**	**92.2**
1997 Average	**2.32**	**3.66**	**6.94**	**98.8**	**5.80**	**70.8**	**3.59**	**18.1**	**2.78**	**91.0**
1998 Average	**1.96**	**3.07**	**6.82**	**97.7**	**5.48**	**67.0**	**3.14**	**16.1**	**2.40**	**82.5**
1999 Average	**2.19**	**3.10**	**6.69**	**95.2**	**5.33**	**66.2**	**3.10**	**17.4**	**2.62**	**75.3**
2000 Average	**3.69**	**4.62**	**7.76**	**92.6**	**6.59**	**62.9**	**4.48**	**18.1**	**4.38**	**64.3**
2001 January	E 8.06	8.94	10.14	NA	9.54	71.9	8.65	18.3	9.55	41.6
February	E 5.84	7.10	10.28	NA	9.80	70.6	7.27	18.0	7.18	38.4
March	E 5.15	6.15	9.86	NA	9.15	68.2	6.24	17.1	5.91	40.9
April	E 5.21	6.39	10.16	NA	9.01	65.5	6.04	16.5	5.82	48.2
May	E 4.56	5.87	11.15	NA	9.24	59.5	5.33	15.3	5.29	48.7
June	E 3.88	5.37	11.54	NA	8.56	58.3	4.70	14.8	4.37	44.5
July	E 3.39	4.32	11.14	NA	7.94	53.1	4.10	15.8	3.85	45.8
August	E 3.23	4.28	10.81	NA	7.33	53.6	3.95	15.3	3.65	41.4
September	E 2.55	3.66	10.18	NA	6.94	52.5	3.53	16.1	3.03	42.1
October	E 2.40	3.32	8.22	NA	6.40	59.0	3.19	16.1	2.78	36.9
November	E 2.74	3.98	7.96	NA	6.86	63.9	3.88	16.7	3.33	33.4
December	E 2.38	3.93	7.31	NA	6.45	67.1	3.72	17.2	3.15	35.4
Average	**E 4.12**	**5.77**	**9.63**	**92.3**	**8.45**	**64.9**	**5.18**	**16.5**	**4.61**	**41.9**
2002 January	E 2.35	4.03	7.23	NA	6.56	66.8	3.99	17.3	R 3.11	80.8
February	E 2.14	3.73	7.19	NA	6.51	65.6	3.68	17.4	R 2.86	87.4
March	E 2.52	3.83	6.95	NA	6.29	65.8	3.81	16.9	R 3.35	86.1
April	E 3.02	4.16	7.55	NA	6.62	61.4	3.62	22.5	R 3.78	84.4
May	E 3.01	4.06	8.41	NA	6.76	57.0	4.03	20.2	R 3.80	81.8
June	E 2.94	4.14	9.42	NA	6.86	53.9	3.87	20.9	R 3.59	78.7
July	E 2.89	3.90	9.99	NA	6.93	50.1	3.81	18.7	R 3.48	74.5
August	E 2.77	3.61	10.28	NA	6.87	48.9	3.72	19.0	R 3.41	78.6
September	E 2.98	4.07	10.08	NA	6.84	49.9	3.81	18.6	R 3.72	79.1
October	E 3.35	4.28	8.45	NA	6.68	56.8	4.12	18.7	R 4.19	81.0
November	E 3.59	4.58	8.01	NA	6.93	61.9	4.62	19.7	R 4.38	84.9
December	E 3.84	4.29	7.78	NA	7.12	66.0	4.82	20.2	R 4.76	88.2
Average	**E 2.95**	**4.07**	**7.79**	**NA**	**6.70**	**61.3**	**3.99**	**19.1**	**R 3.67**	**81.1**
2003 January	E 4.47	5.01	8.30	NA	7.24	67.2	5.27	22.9	NA	NA

[a] See Note 9 at end of section.
[b] Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7.
[c] Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of Section 7.
[d] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. See Note 8 at end of section for plant coverage.
[e] Includes taxes.
[f] The percentage of the sector's consumption in Table 4.4 for which price data are available.

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

Notes: • Prices are for natural gas, including a small amount of supplemental gaseous fuels. • Prices 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.

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Sources: See end of section.

Beginning with the April 2003 *Monthly Energy Review*, Table 9.11 is expanded to include percent-of-sector data, where available, for the residential and electric power sectors.

Energy Prices

Note 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."

Note 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.

Note 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.

Note 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.

Note 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.

Note 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 company-owned and operated outlets but also includes sales to the bulk consumers such as agriculture, industry, and electric utilities. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article reprinted from the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

Note 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.

Note 8. Data for 1973–1982 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974–1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983–1990 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991–2001 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater. Data for 2002 forward cover the aforementioned regulated generating plants **plus** unregulated generating plants (independent power producers, as well as combined-heat-and-power generating plants and electricity-only plants in the commercial and industrial sector) whose total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.

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

Table 9.1 Sources

Domestic First Purchase Price
1973–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.
1977: Federal Energy Administration (FEA), based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."
1978 forward: Energy Information Administration (EIA), *Petroleum Marketing Monthly*, May 2003, 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*, May 2003, 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*, May 2003, Table 1.

Table 9.2 Sources

October 1973–September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."
October 1977–December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report."
1978 forward: EIA, *Petroleum Marketing Monthly*, May 2003, Table 24.

Table 9.10 Sources

1973–July 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.
1990–2001: EIA, *Electric Power Monthly*, March 2003, Table 26.
2002 forward: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants," and EIA, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 9.11 Sources

Wellhead Price:
1973-1996: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 96. 1997 forward: EIA, *Natural Gas Monthly*, April 2003, Table 4.

City Gate Price:
1984-1987: EIA, *Natural Gas Monthly*, March 1990, Table 4; 1988-1992: EIA, *Natural Gas Monthly*, March 1995, Table 4; 1993-1996: EIA, *Natural Gas Monthly*, December 1999, Table 4. 1997 forward: EIA, *Natural Gas Monthly*, April 2003, Table 4.

Residential, Commercial, and Industrial Sector Prices:
1973-1996: EIA, *Natural Gas Annual 2001*, Table 96. 1997 forward: EIA, *Natural Gas Monthly*, April 2003, Table 4.

Percentage of Residential, Commercial, and Industrial Sectors, 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.

Percentage of Commercial, and Industrial Sectors, 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

Electric Power Sector Price:
1973-1996: EIA, *Natural Gas Annual 2001*, Table 96. 1997-2001: EIA, *Natural Gas Monthly*, March 2003, Table 4. 2002: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants," and EIA, Form EIA-423 "Monthly Cost and Quality of Fuels for Electric Plants Report."

Percentage of Electric Power Sector:
1973-2001: Calculated by EIA as the quantity of natural gas receipts reported on FERC Form-423, "Monthly Report on Cost and Quantity of Fuels for Electric Utility Plants" (and predecessor forms) divided by the quantity of natural gas consumed in the electric power sector, as shown on *Monthly Energy Review* Table 7.3b. Natural gas receipts, 1973-1975: Federal Power Commission, "Annual Summary of Cost and Quality of Steam-Electric Plant Fuels," 1973 edition (page ii), 1974 edition (page ii), and 1975 edition (Table 3); 1976-1981: EIA, *Electric Power Annual*, November 1982, Table 68; 1982-1985: EIA, *Electric Power Annual 1986*, September 1987, Table 16; 1986-1995: EIA, *Electric Power Monthly*, December 1986, Table 26; 1996-2000: EIA, *Electric Power Monthly*, March 2002, Table 26; and 2001: EIA, *Electric Power Monthly*, March 2003, Table 26.
2002: Calculated by EIA as the quantity of natural gas receipts reported on FERC Form-423, "Monthly Report on Cost and Quantity of Fuels for Electric Utility Plants" (and published in EIA, *Electric Power Monthly*, March 2003, Table 26), and Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," divided by the quantity of natural gas consumed in the electric power sector, as shown on *Monthly Energy Review* Table 7.3b.

Section 10. Renewable Energy

Sources. The Nation consumed 5.9 quadrillion Btu of renewable energy in 2002, accounting for 6 percent[1] of total energy consumption during the year. At 2.7 quadrillion Btu, conventional hydroelectric power was the largest component of the renewable energy total, measuring 45 percent of the total. Wood was the next largest component at 2.0 quadrillion Btu and 34 percent of the total. Waste, the third largest component of the renewable energy total, contributed 0.6 quadrillion Btu in 2002, a 9-percent share of the total.

Electric Power Sector. In 2002, the electric power sector consumed 3.5 quadrillion Btu of renewable energy resources, 1.1 quadrillion Btu more than all of the end-use sectors combined and a share of 59 percent of the total. Conventional hydroelectric power recorded 2.6 quadrillion Btu in 2002, for 75 percent of the electric power sector total. Waste, at 0.3 quadrillion Btu, was the second largest source consumed for electricity generation, followed by geothermal and wood.

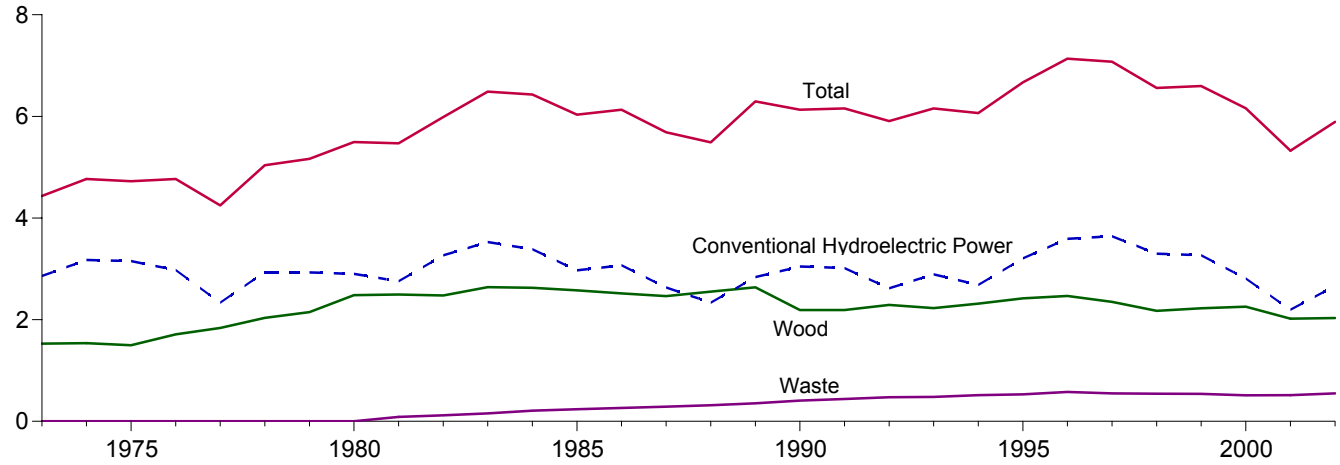
End-Use Sectors. Of the end-use sectors, the industrial sector was the largest consumer of renewable energy in 2002. Industrial facilities used 1.7 quadrillion Btu of renewable energy in 2002, 87 percent in the form of wood. The residential sector was the next largest end-use sector in the use of renewable energy, consuming 0.4 quadrillion Btu---84 percent in the form of wood, 14 percent solar, and 2 geothermal. The transportation sector consumed renewable energy in the form of alcohol fuels used in the blending of motor gasoline; in 2002, alcohol fuel use was 0.2 quadrillion Btu. The commercial sector used 0.1 quadrillion Btu in 2002, 48 percent of it as waste and 42 percent as wood.

In the April *Monthly Energy Review*, data were revised in this section for several reasons, including: (1) Electricity net imports that are derived from hydroelectric power and geothermal energy are no longer included in the renewable energy consumption totals that are shown on Tables 10.1 and 10.2c. Those quantities continue to be included in total U.S. energy consumption as components of electricity net imports, with fuel sources unspecified (see Tables 1.3 and 2.6). The change results in a 0.1-to-0.5 quadrillion Btu drop in total renewable energy consumption from 1973 forward. (2) Wood and waste energy consumption data for 1989-2002 are revised; biomass data are now developed by aggregating individual power plant data for nonutilities instead of applying a generalized net generation figure. (3) Hydropower, solar, geothermal, and wind energy consumption data for 1989-2002 are revised as a result of a thorough review of historical nonutility electric plant data.

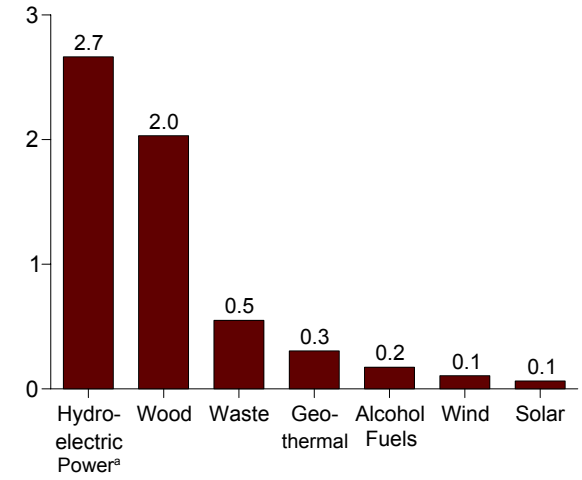
[1]A small amount of alcohol fuel (ethanol blended into motor gasoline) is both fossil fuel (as petroleum) and renewable energy and is counted in both those subtotals but counted only once in total energy consumption.

Figure 10.1 Renewable Energy Consumption
(Quadrillion Btu)

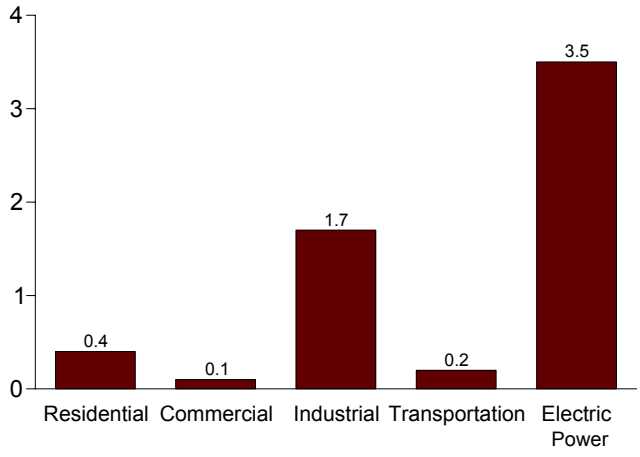
Total and Major Sources, 1973-2002



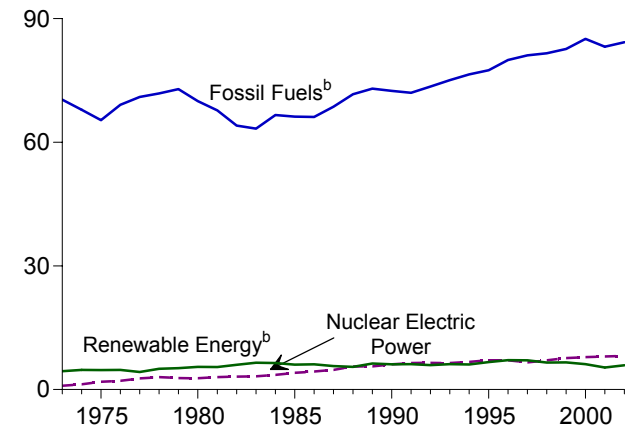
By Source, 2002



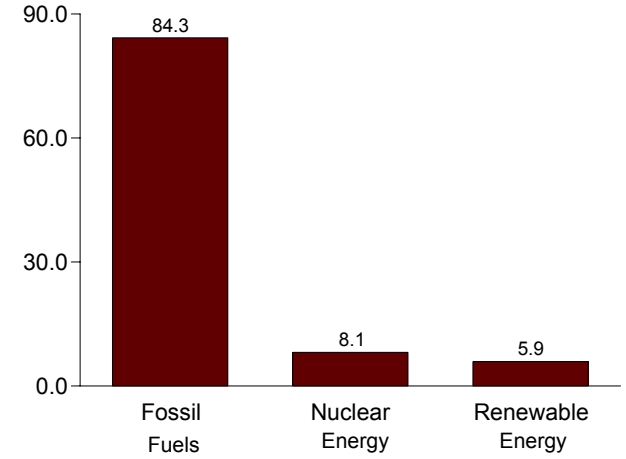
By Sector, 2002



Compared With Other Resources, 1973-2002



Compared With Other Resources, 2002



[a]Conventional hydroelectric power.
[b]A small amount of alcohol (ethanol blended into motor gasoline) is both fossil fuel (as petroleum) and renewable energy and is counted in both those subtotals but counted only once in total energy consumption .
Sources: Tables 1.3 and 10.1-10.2c
Web Page: http://www.eia.doe.gov/emeu/mer/renew.html.

Table 10.1 Renewable Energy Consumption by Source

(Trillion Btu)

	Conventional Hydroelectric Power[a]	Wood[b]	Waste[c]	Alcohol Fuels[d]	Geothermal[e]	Solar[f]	Wind[g]	Total
1973 Total	**2,861**	**1,527**	**2**	**NA**	**43**	**NA**	**NA**	**4,433**
1974 Total	**3,177**	**1,538**	**2**	**NA**	**53**	**NA**	**NA**	**4,769**
1975 Total	**3,155**	**1,497**	**2**	**NA**	**70**	**NA**	**NA**	**4,723**
1976 Total	**2,976**	**1,711**	**2**	**NA**	**78**	**NA**	**NA**	**4,768**
1977 Total	**2,333**	**1,837**	**2**	**NA**	**77**	**NA**	**NA**	**4,249**
1978 Total	**2,937**	**2,036**	**1**	**NA**	**64**	**NA**	**NA**	**5,039**
1979 Total	**2,931**	**2,150**	**2**	**NA**	**84**	**NA**	**NA**	**5,166**
1980 Total	**2,900**	**2,483**	**2**	**NA**	**110**	**NA**	**NA**	**5,494**
1981 Total	**2,758**	**2,495**	**88**	**7**	**123**	**NA**	**NA**	**5,471**
1982 Total	**3,266**	**2,477**	**119**	**19**	**105**	**NA**	**NA**	**5,985**
1983 Total	**3,527**	**2,639**	**157**	**35**	**129**	**NA**	**(s)**	**6,488**
1984 Total	**3,386**	**2,629**	**208**	**43**	**165**	**(s)**	**(s)**	**6,431**
1985 Total	**2,970**	**2,576**	**236**	**52**	**198**	**(s)**	**(s)**	**6,033**
1986 Total	**3,071**	**2,518**	**263**	**60**	**219**	**(s)**	**(s)**	**6,132**
1987 Total	**2,635**	**2,465**	**289**	**69**	**229**	**(s)**	**(s)**	**5,687**
1988 Total	**2,334**	**2,552**	**315**	**70**	**217**	**(s)**	**(s)**	**5,489**
1989 Total	**2,837**	**2,637**	**354**	**71**	**317**	**55**	**22**	**6,294**
1990 Total	**3,046**	**2,191**	**408**	**63**	**336**	**60**	**29**	**6,133**
1991 Total	**3,016**	**2,190**	**440**	**73**	**346**	**63**	**31**	**6,158**
1992 Total	**2,617**	**2,290**	**473**	**83**	**349**	**64**	**30**	**5,907**
1993 Total	**2,892**	**2,227**	**479**	**97**	**364**	**66**	**31**	**6,156**
1994 Total	**2,683**	**2,315**	**515**	**109**	**338**	**69**	**36**	**6,065**
1995 Total	**3,205**	**2,420**	**531**	**117**	**294**	**70**	**33**	**6,669**
1996 Total	**3,590**	**2,467**	**577**	**84**	**316**	**71**	**33**	**7,137**
1997 Total	**3,640**	**2,350**	**551**	**106**	**325**	**70**	**34**	**7,075**
1998 Total	**3,297**	**2,175**	**542**	**117**	**328**	**70**	**31**	**6,561**
1999 Total	**3,268**	**2,224**	**540**	**122**	**331**	**69**	**46**	**6,599**
2000 Total	**2,811**	**2,257**	**511**	**139**	**317**	**66**	**57**	**6,158**
2001 January	191	177	44	15	28	5	4	464
February	177	157	38	12	24	5	4	418
March	207	169	43	12	27	5	5	470
April	182	165	43	11	25	5	7	438
May	194	163	43	11	24	6	6	447
June	210	165	43	12	25	6	7	467
July	183	171	45	11	27	6	6	449
August	192	175	44	10	26	6	6	459
September	154	165	42	12	26	6	5	410
October	154	175	43	16	26	5	6	426
November	156	167	43	13	26	5	5	415
December	196	171	45	13	27	5	6	463
Total	**2,197**	**2,020**	**515**	**147**	**311**	**65**	**68**	**5,324**
2002 January	219	177	R 47	13	27	5	8	R 496
February	204	R 156	41	12	24	5	R 7	449
March	R 213	167	46	12	26	5	9	478
April	248	R 168	45	12	24	5	11	R 512
May	273	167	46	14	26	6	11	542
June	287	170	46	12	24	6	12	556
July	257	176	48	15	26	6	9	R 536
August	210	172	46	14	26	6	10	484
September	168	170	46	15	25	5	8	437
October	171	R 172	46	17	26	5	8	445
November	198	R 165	R 45	20	25	5	7	R 464
December	217	R 171	R 48	19	26	5	8	R 494
Total	**2,664**	**R 2,031**	**R 550**	**174**	**304**	**64**	**R 106**	**R 5,894**
2003 January	R 199	R 165	R 44	17	R 26	5	R 6	R 462
February	239	160	42	20	23	5	7	495
2-Month Total	**438**	**325**	**86**	**37**	**49**	**10**	**13**	**957**
2002 2-Month Total	**422**	**334**	**88**	**25**	**51**	**10**	**15**	**945**
2001 2-Month Total	**368**	**334**	**82**	**27**	**52**	**10**	**8**	**881**

[a] Hydroelectricity generated by pumped storage is not included in renewable energy.
[b] Wood, black liquor, and other wood waste.
[c] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[d] Ethanol blended into motor gasoline.
[e] Geothermal electricity net generation, heat pump, and direct use energy.
[f] Solar thermal and photovoltaic electricity net generation, and solar thermal direct use energy.
[g] Wind electricity net generation.
R=Revised. NA=Not available. (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.
Web Page: http://www.eia.doe.gov/emeu/mer/renew.html.
Sources: Tables 10.2a, 10.2b, and 10.2c.

Beginning with the April 2003 *Monthly Energy Review*, electricity net imports derived from hydroelectric power and geothermal energy are no longer included in renewable energy consumption data but continue to be included in total U.S. energy consumption. See Tables 1.3 and 2.6.

Table 10.2a Estimated Renewable Energy Consumption: Residential and Commercial Sectors

(Trillion Btu)

	Residential Sector				Commercial Sector[a]				
	Wood[b]	Geothermal[c]	Solar[d]	Total	Hydropower[e]	Wood[b]	Waste[f]	Geothermal[c]	Total
1973 Total	**354**	**NA**	**NA**	**354**	**NA**	**7**	**NA**	**NA**	**7**
1974 Total	**371**	**NA**	**NA**	**371**	**NA**	**7**	**NA**	**NA**	**7**
1975 Total	**425**	**NA**	**NA**	**425**	**NA**	**8**	**NA**	**NA**	**8**
1976 Total	**482**	**NA**	**NA**	**482**	**NA**	**9**	**NA**	**NA**	**9**
1977 Total	**542**	**NA**	**NA**	**542**	**NA**	**10**	**NA**	**NA**	**10**
1978 Total	**622**	**NA**	**NA**	**622**	**NA**	**12**	**NA**	**NA**	**12**
1979 Total	**728**	**NA**	**NA**	**728**	**NA**	**14**	**NA**	**NA**	**14**
1980 Total	**859**	**NA**	**NA**	**859**	**NA**	**21**	**NA**	**NA**	**21**
1981 Total	**869**	**NA**	**NA**	**869**	**NA**	**21**	**NA**	**NA**	**21**
1982 Total	**937**	**NA**	**NA**	**937**	**NA**	**22**	**NA**	**NA**	**22**
1983 Total	**925**	**NA**	**NA**	**925**	**NA**	**22**	**NA**	**NA**	**22**
1984 Total	**923**	**NA**	**NA**	**923**	**NA**	**22**	**NA**	**NA**	**22**
1985 Total	**899**	**NA**	**NA**	**899**	**NA**	**24**	**NA**	**NA**	**24**
1986 Total	**876**	**NA**	**NA**	**876**	**NA**	**27**	**NA**	**NA**	**27**
1987 Total	**852**	**NA**	**NA**	**852**	**NA**	**29**	**NA**	**NA**	**29**
1988 Total	**885**	**NA**	**NA**	**885**	**NA**	**32**	**NA**	**NA**	**32**
1989 Total	**918**	**5**	**53**	**976**	**1**	**36**	**22**	**3**	**61**
1990 Total	**581**	**6**	**56**	**642**	**1**	**39**	**28**	**3**	**71**
1991 Total	**613**	**6**	**58**	**677**	**1**	**41**	**26**	**3**	**72**
1992 Total	**645**	**6**	**60**	**711**	**1**	**44**	**32**	**3**	**81**
1993 Total	**548**	**7**	**62**	**616**	**1**	**46**	**33**	**3**	**84**
1994 Total	**537**	**6**	**64**	**607**	**1**	**46**	**35**	**4**	**86**
1995 Total	**596**	**7**	**65**	**667**	**1**	**46**	**40**	**5**	**92**
1996 Total	**595**	**7**	**65**	**667**	**1**	**50**	**53**	**5**	**110**
1997 Total	**433**	**8**	**65**	**506**	**1**	**49**	**58**	**6**	**113**
1998 Total	**387**	**8**	**65**	**459**	**1**	**48**	**54**	**7**	**111**
1999 Total	**414**	**9**	**64**	**486**	**1**	**52**	**54**	**7**	**114**
2000 Total	**433**	**9**	**61**	**503**	**1**	**53**	**47**	**8**	**109**
2001 January	35	1	5	40	(s)	4	3	1	7
February	31	1	5	37	(s)	3	3	1	7
March	35	1	5	40	(s)	4	3	1	7
April	33	1	5	39	(s)	3	3	1	7
May	35	1	5	40	(s)	4	3	1	8
June	33	1	5	39	(s)	3	3	1	8
July	35	1	5	40	(s)	4	4	1	8
August	35	1	5	40	(s)	4	4	1	8
September	33	1	5	39	(s)	3	3	1	7
October	35	1	5	40	(s)	3	3	1	7
November	33	1	5	39	(s)	3	3	1	7
December	35	1	5	40	(s)	4	3	1	8
Total	**407**	**9**	**60**	**476**	**1**	**41**	**39**	**8**	**90**
2002 January	30	1	5	36	(s)	4	4	1	8
February	27	1	4	32	(s)	3	3	1	7
March	30	1	5	36	(s)	4	4	1	8
April	29	1	5	34	(s)	3	4	1	8
May	30	1	5	36	(s)	3	4	1	8
June	29	1	5	34	(s)	3	4	1	8
July	30	1	5	36	(s)	3	4	1	8
August	30	1	5	36	(s)	3	4	1	8
September	29	1	5	34	(s)	3	4	1	8
October	30	1	5	36	(s)	3	4	1	9
November	29	1	5	34	(s)	3	4	1	8
December	30	1	5	36	(s)	4	4	1	8
Total	**350**	**10**	**58**	**419**	**1**	**41**	**47**	**9**	**R 97**
2003 January	30	1	5	36	(s)	R 4	R 3	1	R 7
February	27	1	4	32	(s)	3	F 4	1	8
2-Month Total	**57**	**2**	**9**	**68**	**(s)**	**7**	**E 7**	**1**	**15**
2002 2-Month Total	**57**	**2**	**9**	**68**	**(s)**	**7**	**7**	**1**	**16**
2001 2-Month Total	**66**	**2**	**10**	**77**	**(s)**	**7**	**6**	**1**	**14**

[a] Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7.

[b] Wood, black liquor, and other wood waste.

[c] Geothermal heat pump and direct use energy.

[d] Solar thermal direct use energy and photovoltaic electricity generation. Small amounts of commercial sector use are included in the residential sector.

[e] Conventional hydroelectric power.

[f] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

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

Web Page: http://www.eia.doe.gov/emeu/mer/renew.html.

Sources: See end of section.

Table 10.2b Estimated Renewable Energy Consumption: Industrial and Transportation Sectors

(Trillion Btu)

	Industrial Sector[a]					Transportation Sector
	Hydropower[b]	Wood[c]	Waste[d]	Geothermal[e]	Total	Alcohol Fuels[f]
1973 Total	**35**	**1,165**	**NA**	**NA**	**1,200**	**NA**
1974 Total	**33**	**1,159**	**NA**	**NA**	**1,192**	**NA**
1975 Total	**32**	**1,063**	**NA**	**NA**	**1,096**	**NA**
1976 Total	**33**	**1,220**	**NA**	**NA**	**1,253**	**NA**
1977 Total	**33**	**1,281**	**NA**	**NA**	**1,314**	**NA**
1978 Total	**32**	**1,400**	**NA**	**NA**	**1,432**	**NA**
1979 Total	**34**	**1,405**	**NA**	**NA**	**1,439**	**NA**
1980 Total	**33**	**1,600**	**NA**	**NA**	**1,633**	**NA**
1981 Total	**33**	**1,602**	**87**	**NA**	**1,722**	**7**
1982 Total	**33**	**1,516**	**118**	**NA**	**1,667**	**19**
1983 Total	**33**	**1,690**	**155**	**NA**	**1,879**	**35**
1984 Total	**33**	**1,679**	**204**	**NA**	**1,916**	**43**
1985 Total	**33**	**1,645**	**230**	**NA**	**1,908**	**52**
1986 Total	**33**	**1,610**	**256**	**NA**	**1,899**	**60**
1987 Total	**33**	**1,576**	**282**	**NA**	**1,891**	**69**
1988 Total	**33**	**1,625**	**308**	**NA**	**1,965**	**70**
1989 Total	**28**	**1,584**	**200**	**2**	**1,814**	**71**
1990 Total	**31**	**1,442**	**192**	**2**	**1,667**	**63**
1991 Total	**30**	**1,410**	**185**	**2**	**1,626**	**73**
1992 Total	**31**	**1,461**	**179**	**2**	**1,672**	**83**
1993 Total	**30**	**1,483**	**181**	**2**	**1,696**	**97**
1994 Total	**62**	**1,580**	**199**	**3**	**1,844**	**109**
1995 Total	**55**	**1,652**	**195**	**3**	**1,905**	**117**
1996 Total	**61**	**1,683**	**224**	**3**	**1,971**	**84**
1997 Total	**58**	**1,731**	**184**	**3**	**1,976**	**106**
1998 Total	**55**	**1,603**	**180**	**3**	**1,841**	**117**
1999 Total	**49**	**1,620**	**171**	**4**	**1,843**	**122**
2000 Total	**42**	**1,636**	**145**	**4**	**1,828**	**139**
2001 January	2	128	14	(s)	144	15
February	2	113	11	(s)	127	12
March	3	121	13	(s)	137	12
April	3	119	13	(s)	135	11
May	3	115	12	(s)	130	11
June	3	117	12	(s)	132	12
July	2	121	12	(s)	136	11
August	3	125	12	(s)	141	10
September	2	118	12	(s)	132	12
October	2	127	13	(s)	143	16
November	2	120	14	(s)	137	13
December	3	122	14	(s)	139	13
Total	**32**	**1,446**	**150**	**5**	**1,633**	**147**
2002 January	3	R 131	R 15	(s)	150	13
February	3	117	14	(s)	134	12
March	3	122	15	(s)	141	12
April	4	126	14	(s)	144	12
May	4	124	14	(s)	R 142	14
June	3	127	14	(s)	144	12
July	3	R 130	14	(s)	148	15
August	2	R 126	14	(s)	143	14
September	2	127	14	(s)	143	15
October	3	127	15	(s)	146	17
November	5	R 121	15	(s)	R 141	20
December	6	125	15	(s)	R 146	19
Total	**41**	**R 1,505**	**R 172**	**5**	**1,722**	**174**
2003 January	R 4	R 116	R 14	(s)	R 135	17
February	3	119	14	(s)	136	20
2-Month Total	**8**	**235**	**28**	**1**	**272**	**37**
2002 2-Month Total	**6**	**248**	**29**	**1**	**284**	**25**
2001 2-Month Total	**5**	**241**	**25**	**1**	**271**	**27**

[a] Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of Section 7.
[b] Conventional hydroelectric power.
[c] Wood, black liquor, and other wood waste.
[d] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
[e] Geothermal heat pump and direct use energy.
[f] Ethanol blended into motor gasoline.

R=Revised. NA=Not available. (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.

Web Page: http://www.eia.doe.gov/emeu/mer/renew.html.

Sources: See end of section.

Table 10.2c Renewable Energy Consumption: Electric Power Sector and Total

(Trillion Btu)

	Electric Power Sector[a,b]							Renewable Energy Consumption Total
	Hydropower[c]	Wood[d]	Waste[e]	Geothermal[f]	Solar[g]	Wind[h]	Total	
1973 Total	**2,827**	**1**	**2**	**43**	**NA**	**NA**	**2,873**	**4,433**
1974 Total	**3,143**	**1**	**2**	**53**	**NA**	**NA**	**3,199**	**4,769**
1975 Total	**3,122**	**(s)**	**2**	**70**	**NA**	**NA**	**3,194**	**4,723**
1976 Total	**2,943**	**1**	**2**	**78**	**NA**	**NA**	**3,024**	**4,768**
1977 Total	**2,301**	**3**	**2**	**77**	**NA**	**NA**	**2,383**	**4,249**
1978 Total	**2,905**	**2**	**1**	**64**	**NA**	**NA**	**2,973**	**5,039**
1979 Total	**2,897**	**3**	**2**	**84**	**NA**	**NA**	**2,986**	**5,166**
1980 Total	**2,867**	**3**	**2**	**110**	**NA**	**NA**	**2,982**	**5,494**
1981 Total	**2,725**	**3**	**1**	**123**	**NA**	**NA**	**2,852**	**5,471**
1982 Total	**3,233**	**2**	**1**	**105**	**NA**	**NA**	**3,341**	**5,985**
1983 Total	**3,494**	**2**	**2**	**129**	**NA**	**(s)**	**3,627**	**6,488**
1984 Total	**3,353**	**5**	**4**	**165**	**(s)**	**(s)**	**3,527**	**6,431**
1985 Total	**2,937**	**8**	**7**	**198**	**(s)**	**(s)**	**3,150**	**6,033**
1986 Total	**3,038**	**5**	**7**	**219**	**(s)**	**(s)**	**3,270**	**6,132**
1987 Total	**2,602**	**8**	**7**	**229**	**(s)**	**(s)**	**2,846**	**5,687**
1988 Total	**2,302**	**10**	**8**	**217**	**(s)**	**(s)**	**2,536**	**5,489**
1989 Total	[b]**2,808**	[b]**100**	[b]**132**	[b]**308**	[b]**3**	[b]**22**	[b]**3,372**	**6,294**
1990 Total	**3,014**	**129**	**188**	**326**	**4**	**29**	**3,689**	**6,133**
1991 Total	**2,985**	**126**	**229**	**335**	**5**	**31**	**3,710**	**6,158**
1992 Total	**2,586**	**140**	**262**	**338**	**4**	**30**	**3,360**	**5,907**
1993 Total	**2,861**	**150**	**265**	**351**	**5**	**31**	**3,662**	**6,156**
1994 Total	**2,620**	**152**	**282**	**325**	**5**	**36**	**3,420**	**6,065**
1995 Total	**3,149**	**125**	**296**	**280**	**5**	**33**	**3,889**	**6,669**
1996 Total	**3,528**	**138**	**300**	**300**	**5**	**33**	**4,305**	**7,137**
1997 Total	**3,581**	**137**	**309**	**309**	**5**	**34**	**4,375**	**7,075**
1998 Total	**3,241**	**137**	**308**	**311**	**5**	**31**	**4,032**	**6,561**
1999 Total	**3,218**	**138**	**315**	**312**	**5**	**46**	**4,034**	**6,599**
2000 Total	**2,768**	**134**	**318**	**296**	**5**	**57**	**3,579**	**6,158**
2001 January	188	12	27	26	(s)	4	257	464
February	174	10	24	23	(s)	4	235	418
March	204	10	27	25	(s)	5	272	470
April	179	9	27	23	(s)	7	246	438
May	191	10	27	23	1	6	258	447
June	207	12	28	23	1	7	277	467
July	181	11	29	25	1	6	253	449
August	188	11	29	25	1	6	260	459
September	152	10	27	24	1	5	219	410
October	152	10	27	24	(s)	6	220	426
November	154	10	26	24	(s)	5	219	415
December	193	11	27	25	(s)	6	263	463
Total	**2,165**	**127**	**325**	**289**	**5**	**68**	**2,979**	**5,324**
2002 January	216	12	[R]28	25	(s)	8	[R]289	[R]496
February	200	10	24	22	(s)	[R]7	263	449
March	209	12	27	24	(s)	9	282	478
April	[R]243	11	27	22	(s)	11	314	[R]512
May	269	9	28	24	1	11	342	542
June	283	11	28	22	1	12	357	556
July	254	12	30	24	1	9	330	[R]536
August	207	12	29	24	1	10	[R]283	484
September	166	11	28	23	1	8	[R]237	437
October	168	11	27	24	(s)	8	238	445
November	194	11	26	23	(s)	7	261	[R]464
December	212	12	[R]29	24	(s)	8	[R]285	[R]494
Total	**2,623**	[R]**135**	[R]**331**	**281**	**5**	[R]**106**	[R]**3,481**	[R]**5,894**
2003 January	[R]195	[R]15	[R]27	[R]24	(s)	[R]6	[R]267	[R]462
February	[F]235	[F]11	[F]24	[F]22	[F](s)	[F]7	[F]300	495
2-Month Total	[E]**430**	[E]**26**	[E]**51**	[E]**46**	**(s)**	[E]**13**	[E]**566**	**957**
2002 2-Month Total	**416**	**22**	**52**	**47**	**(s)**	**15**	**553**	**945**
2001 2-Month Total	**363**	**21**	**51**	**48**	**(s)**	**8**	**492**	**881**

[a] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

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

[c] Conventional hydroelectric power.

[d] Wood, black liquor, and other wood waste.

[e] Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

[f] Geothermal electricity net generation.

[g] Solar thermal and photovoltaic electricity net generation.

[h] Wind electricity net generation.

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

Web Page: http://www.eia.doe.gov/emeu/mer/renew.html.

Sources: **Wood and Waste • 1973-1988:** Table 7.3d. • **1989 forward:** Table 7.3b. **Hydropower, Geothermal, Solar, and Wind:** Tables 7.2b and A6. **Electric Power Sector Total:** Calculated as the sum of the individual fuels. **Renewable Energy Consumption Total:** Table 10.1. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for more information about forecast values.

Beginning with the April 2003 *Monthly Energy Review*, electricity net imports derived from hydroelectric power and geothermal energy are no longer included in renewable energy consumption data but continue to be included in total U.S. energy consumption. See Tables 1.3 and 2.6.

Renewable Energy

Tables 10.2a and 10.2b Sources

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 l.
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.
1990–2000: EIA, *Renewable Energy Annual*, annual reports, Table 6. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.
2001 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.
1993–2000: EIA, *Renewable Energy Annual*, annual reports, Table 6. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.
2001 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 10.3b).
1990–2000: EIA, *Renewable Energy Annual 2001* (November 2002), Table B1, and CNEAF staff for subsequent data updates.
2001 forward: EIA, CNEAF, estimates.

Waste, Commercial
Table 7.3c

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 10.3a).
1982 and 1983: EIA, CNEAF, estimates for total waste consumption, minus electric utilities' use of waste to produce electricity (see Table 10.3a).
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 10.3a).
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 10.3a).
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 10.3a and 10.3b).
1990–2000: EIA, *Renewable Energy Annual 2001* (November 2002), Table B1, and CNEAF staff for subsequent data updates.
2001 forward: EIA, CNEAF, estimates.

Hydroelectric, Commercial
Hydroelectric total (all sectors) from Table 7.2a minus electric power sector hydroelectric from Table 7.2b minus industrial sector hydroelectric from Table 7.2c, times the fossil-fueled steam-electric plants heat rate from Table A6.

Hydroelectric, Industrial
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 7.2c and A6.

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* (*PSM*), Tables 2 and 28, and *Monthly Energy Review* (*MER*) Table A1. Ten percent of the "Field Production" of "Oxygenated Finished Motor Gasoline" from *PSM* Table 2 is added to the "Refinery Input of Fuel Ethanol" from *PSM* Table 28. The sum is multiplied by the conversion factor of 3.539 million Btu per barrel as shown in the *MER* Table A1.

Geothermal
1989 forward: John Lund, Oregon Institute of Technology Geoheat Center, unpublished data.

Solar
1989–1991: EIA, CNEAF, estimates.
1992–2000: EIA *Renewable Energy Annual*, annual reports, Table 2. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a and 10.2b.
2001 forward: EIA, CNEAF, estimates.

Section 11. International Petroleum

Crude Oil Production. World crude oil production during February 2003 was 70 million barrels per day, up 1.8 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during February 2003 averaged 28 million barrels per day, up by 1.3 million barrels per day from the level during the previous month. During February 2003, production increased in Venezuela by 820 thousand barrels per day; Saudi Arabia by 300 thousand barrels per day; Iran by 75 thousand barrels per day; Kuwait by 60 thousand barrels per day; both Nigeria and the United Arab Emirates by 50 thousand barrels per day; both Libya and Qatar by 25 thousand barrels per day; and Algeria by 5 thousand barrels per day. Production decreased in Iraq by 65 thousand barrels per day and Indonesia by 5 thousand barrels per day.

Among the non-OPEC nations, production during February 2003 increased in Norway by 100 thousand barrels per day; the United States by 73 thousand barrels per day; the United Kingdom by 69 thousand barrels per day; Russia by 66 thousand barrels per day; Canada by 45 thousand barrels per day; and China by 21 thousand barrels per day. Production decreased in Mexico by 5 thousand barrels per day and remained unchanged in Egypt.

Petroleum Consumption. In January 2003, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 49.0 million barrels per day, 3 percent[1] higher than the January 2002 rate. Comparing January rates in 2003 and 2002, consumption was higher in 2003 in Japan (+7 percent); Canada, South Korea, and the United States (each +5 percent); and the United Kingdom (+1 percent). The January 2003 consumption rate was lower in Germany (-9 percent); Italy (-8 percent); and France (-2 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of January 2003 totaled 3.7 billion barrels, 5 percent[1] lower than the ending stock level in January 2002. Stock levels were higher in January 2003 in France (+4 percent) and Italy (less than +1 percent). Stock levels were lower in the United Kingdom and South Korea (each -13 percent); Germany (-7 percent); the United States (-6 percent); and Japan and Canada (each -2 percent), compared with levels 1 year earlier.

Tables 11.4a-11.4e, "Nuclear Electric Gross Generation," are no longer included in the *Monthly Energy Review*. Annual data on this topic will continue to appear in the Energy Information Administration's *Annual Energy Review*.

[1]Percentage changes are based on unrounded data.

Table 11.1a World Crude 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**	**2,007**	**1,446**	**2,132**	**550**	**8,362**	**2,316**	**3,280**	**27,710**
1998 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 Average	**1,202**	**1,472**	**3,557**	**2,508**	**1,898**	**1,319**	**2,130**	**665**	**7,833**	**2,169**	**2,826**	**27,579**
2000 Average	**1,254**	**1,423**	**3,696**	**2,571**	**2,079**	**1,410**	**2,165**	**737**	**8,404**	**2,368**	**3,155**	**29,262**
2001 January	1,295	1,435	3,935	1,735	2,169	1,450	2,285	775	8,700	2,460	3,100	29,339
February	1,265	1,440	3,785	2,195	2,100	1,400	2,255	735	8,320	2,400	3,030	28,925
March	1,265	1,395	3,835	2,855	2,070	1,390	2,285	735	8,300	2,440	3,000	29,570
April	1,250	1,352	3,785	2,930	1,982	1,380	2,210	715	7,950	2,350	2,920	28,824
May	1,265	1,362	3,685	2,905	1,965	1,360	2,140	725	8,000	2,297	2,890	28,594
June	1,285	1,382	3,785	1,105	2,001	1,370	2,205	735	8,050	2,280	2,900	27,098
July	1,295	1,370	3,875	2,145	1,992	1,380	2,140	735	8,250	2,260	2,890	28,332
August	1,295	1,360	3,785	2,875	2,006	1,380	2,207	725	8,070	2,247	2,880	28,830
September	1,265	1,350	3,655	2,673	1,942	1,350	2,360	685	7,800	2,170	2,720	27,970
October	1,245	1,340	3,535	2,911	1,922	1,320	2,350	685	7,670	2,140	2,750	27,868
November	1,255	1,340	3,535	2,805	1,913	1,310	2,350	665	7,670	2,140	2,740	27,723
December	1,255	1,310	3,491	2,025	1,913	1,310	2,290	655	7,600	2,140	2,750	26,739
Average	**1,270**	**1,369**	**3,724**	**2,432**	**1,998**	**1,367**	**2,256**	**714**	**8,031**	**2,276**	**2,880**	**28,317**
2002 January	1,221	1,310	3,385	2,315	1,850	1,260	2,150	625	7,300	2,060	2,630	26,106
February	1,215	1,280	3,365	2,545	1,803	1,280	2,100	625	7,210	2,050	2,600	26,073
March	1,235	1,280	3,385	2,515	1,850	1,290	2,120	635	7,310	2,055	2,620	26,295
April	1,245	1,270	3,375	1,215	1,860	1,300	2,130	655	7,455	2,070	2,530	25,105
May	1,275	1,270	3,395	1,865	1,880	1,310	2,070	675	7,450	2,060	2,730	25,980
June	1,285	1,270	3,415	1,525	1,890	1,320	2,060	665	7,500	2,060	2,735	25,725
July	1,305	1,265	3,425	1,835	1,910	1,330	2,050	675	7,700	2,080	2,735	26,310
August	1,315	1,260	3,440	1,505	1,910	1,330	2,100	685	7,730	2,090	2,765	26,130
September	1,345	1,260	3,485	1,825	1,930	1,350	2,143	695	7,880	2,103	2,955	26,971
October	1,395	1,260	3,535	2,425	1,930	1,350	2,140	725	7,900	2,113	2,980	27,753
November	1,383	1,250	3,535	2,395	1,940	1,350	2,150	730	8,100	2,100	2,972	27,905
December	1,445	1,230	3,585	2,325	1,970	1,350	2,200	755	8,050	2,140	[R] 1,020	[R] 26,069
Average	**1,306**	**1,267**	**3,444**	**2,023**	**1,894**	**1,319**	**2,118**	**679**	**7,634**	**2,082**	[R] **2,604**	[R] **26,370**
2003 January	1,490	1,230	3,660	2,555	1,990	1,375	2,300	760	8,570	2,200	[R] 630	[R] 26,759
February	1,495	1,225	3,735	2,490	2,050	1,400	2,350	785	8,870	2,250	1,450	28,100
2-Mo. Avg.	**1,492**	**1,228**	**3,696**	**2,524**	**2,018**	**1,387**	**2,324**	**772**	**8,712**	**2,224**	**1,019**	**27,395**
2002 2-Mo. Avg.	**1,218**	**1,296**	**3,376**	**2,424**	**1,828**	**1,269**	**2,126**	**625**	**7,257**	**2,055**	**2,616**	**26,090**
2001 2-Mo. Avg.	**1,281**	**1,437**	**3,864**	**1,953**	**2,136**	**1,426**	**2,271**	**756**	**8,520**	**2,432**	**3,067**	**29,142**

[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 February 2003, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 600 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.

R=Revised.

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.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

Sources: See end of section.

Table 11.1b World Crude Oil Production: Persian Gulf Nations, Non-OPEC, and World

(Thousand Barrels per Day)

	Persian Gulf Nations[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**	**8,541**	**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	**18,095**	**1,922**	**3,200**	**856**	**3,023**	**3,143**	**–**	**5,920**	**2,518**	**6,452**	**37,980**	**65,690**
1998 Average	**19,337**	**1,981**	**3,198**	**834**	**3,070**	**3,017**	**–**	**5,854**	**2,616**	**6,252**	**38,147**	**66,921**
1999 Average	**18,667**	**1,907**	**3,195**	**852**	**2,906**	**3,018**	**–**	**6,079**	**2,684**	**5,881**	**38,269**	**65,848**
2000 Average	**19,892**	**1,977**	**3,249**	**748**	**3,012**	**3,197**	**–**	**6,479**	**2,275**	**5,822**	**39,081**	**68,342**
2001 January	19,809	2,032	3,220	731	3,117	3,230	–	E 6,875	2,338	5,799	39,706	69,045
February	19,570	2,052	3,330	720	3,166	3,057	–	E 6,966	2,279	5,780	39,656	68,581
March	20,270	2,070	3,376	716	3,181	3,128	–	E 6,808	2,323	5,880	39,703	69,273
April	19,747	2,046	3,302	712	3,037	3,203	–	E 6,855	2,318	5,863	39,551	68,374
May	19,612	2,027	3,310	651	3,060	2,939	–	E 6,917	2,262	5,829	39,080	67,674
June	17,991	1,971	3,312	685	3,170	2,928	–	E 6,956	2,128	5,766	39,004	66,103
July	19,292	1,953	3,262	688	3,216	3,262	–	E 7,124	2,234	5,749	39,745	68,077
August	19,743	1,954	3,303	693	3,205	2,872	–	E 7,125	2,211	5,725	39,437	68,267
September	18,960	2,009	3,288	697	3,207	3,154	–	E 7,189	2,230	5,709	39,922	67,892
October	18,898	2,046	3,313	692	3,022	3,256	–	E 7,233	2,361	5,746	39,914	67,782
November	18,763	2,082	3,316	698	3,198	3,124	–	E 7,306	2,280	5,881	40,308	68,031
December	17,859	2,110	3,272	700	3,305	3,249	–	E 7,233	2,418	5,887	40,841	67,579
Average	**19,210**	**2,029**	**3,300**	**698**	**3,157**	**3,117**	**–**	**E 7,049**	**2,282**	**5,801**	**39,740**	**68,057**
2002 January	17,570	2,091	3,365	627	3,253	3,079	–	E 7,017	2,396	E 5,934	40,437	66,543
February	17,633	2,167	3,330	629	3,142	3,150	–	E 7,094	2,392	E 5,938	40,536	66,609
March	17,785	2,159	3,350	624	3,125	2,787	–	E 7,157	2,334	E 5,914	40,119	66,414
April	16,665	2,204	3,333	630	3,178	3,157	–	E 7,179	2,388	E 5,887	40,708	65,813
May	17,360	2,130	3,365	667	3,136	3,028	–	E 7,184	2,338	E 5,908	40,382	66,362
June	17,090	2,155	3,415	635	3,158	2,918	–	E 7,337	2,323	E 5,887	40,470	66,195
July	17,660	2,201	3,395	628	3,145	3,114	–	E 7,441	2,114	E 5,773	40,416	66,726
August	17,395	2,165	3,490	624	3,214	2,896	–	E 7,574	1,953	E 5,827	40,428	66,558
September	17,953	2,135	3,430	628	3,162	2,752	–	E 7,686	2,186	E 5,378	40,122	67,093
October	18,663	2,179	3,447	625	3,257	2,993	–	E 7,735	2,364	E 5,671	41,012	68,765
November	18,835	2,224	3,379	629	3,080	3,059	–	E 7,753	2,350	E 5,792	40,886	68,791
December	18,859	2,238	3,371	630	3,269	2,962	–	E 7,721	2,375	E 5,894	41,003	R 67,072
Average	**17,792**	**2,171**	**3,390**	**631**	**3,177**	**2,990**	**–**	**E 7,408**	**2,292**	**E 5,817**	**40,543**	**R 66,914**
2003 January	19,769	R 2,180	3,354	630	3,330	R 2,935	–	E 7,765	R 2,246	E 5,842	R 40,914	R 67,673
February	20,215	2,225	3,375	630	3,325	3,035	–	E 7,831	2,315	E 5,915	41,411	69,511
2-Mo. Avg.	**19,981**	**2,201**	**3,364**	**630**	**3,328**	**2,982**	**–**	**E 7,796**	**2,279**	**E 5,876**	**41,150**	**68,545**
2002 2-Mo. Avg.	**17,600**	**2,127**	**3,348**	**628**	**3,200**	**3,113**	**–**	**7,053**	**2,394**	**5,936**	**40,484**	**66,574**
2001 2-Mo. Avg.	**19,696**	**2,041**	**3,272**	**726**	**3,140**	**3,148**	**–**	**6,918**	**2,310**	**5,790**	**39,682**	**68,825**

[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.

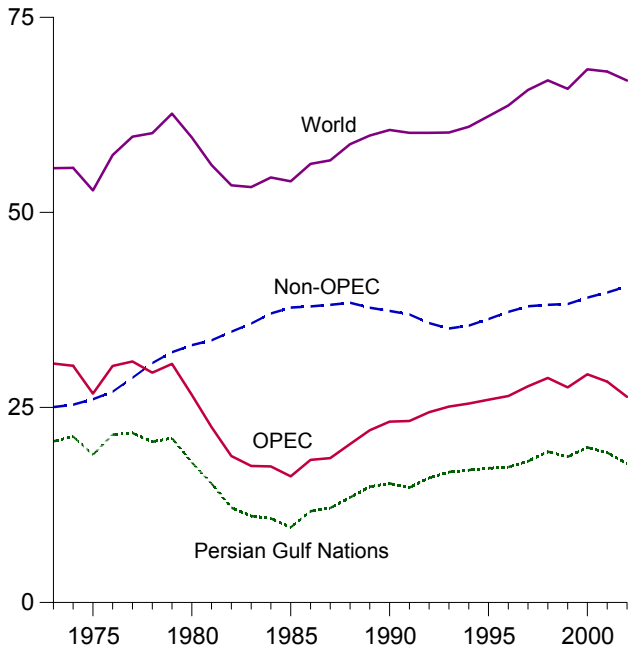
Notes: • Crude oil includes lease condensate but excludes natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum to World totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

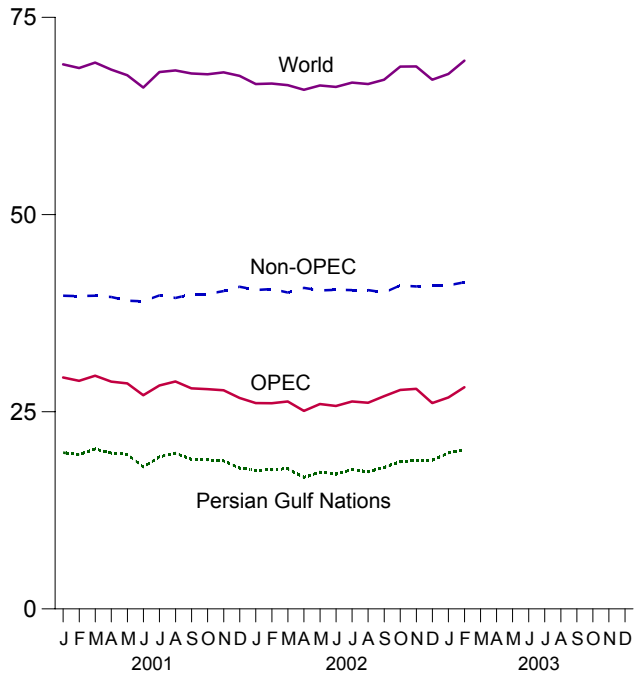
Sources: See end of section.

Figure 11.1a Crude Oil Production Overview
(Million Barrels per Day)

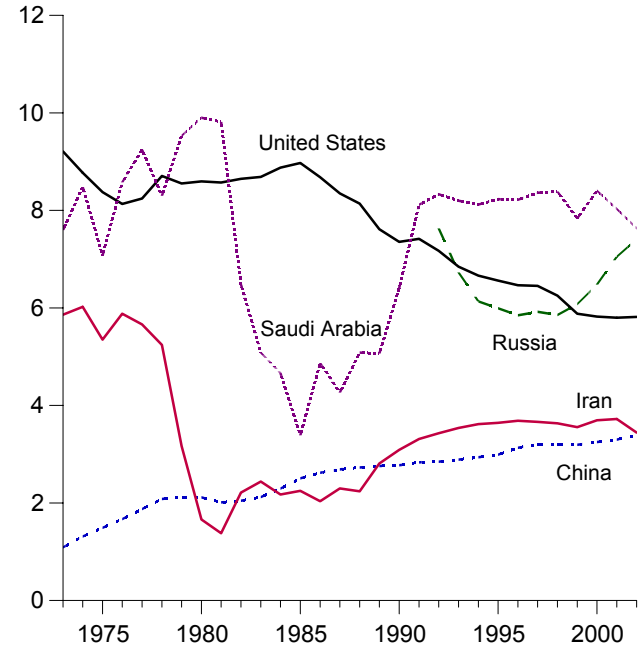
World Production, 1973-2002



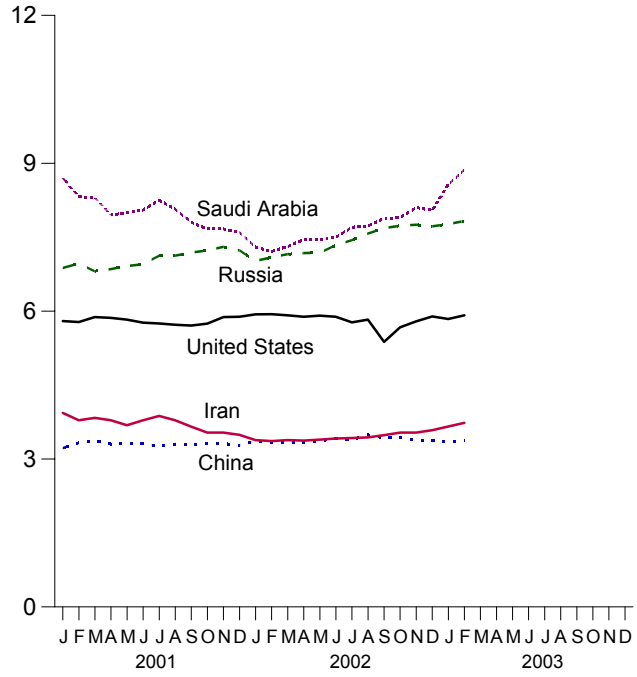
World Production, Monthly



Selected Producers, 1973-2002

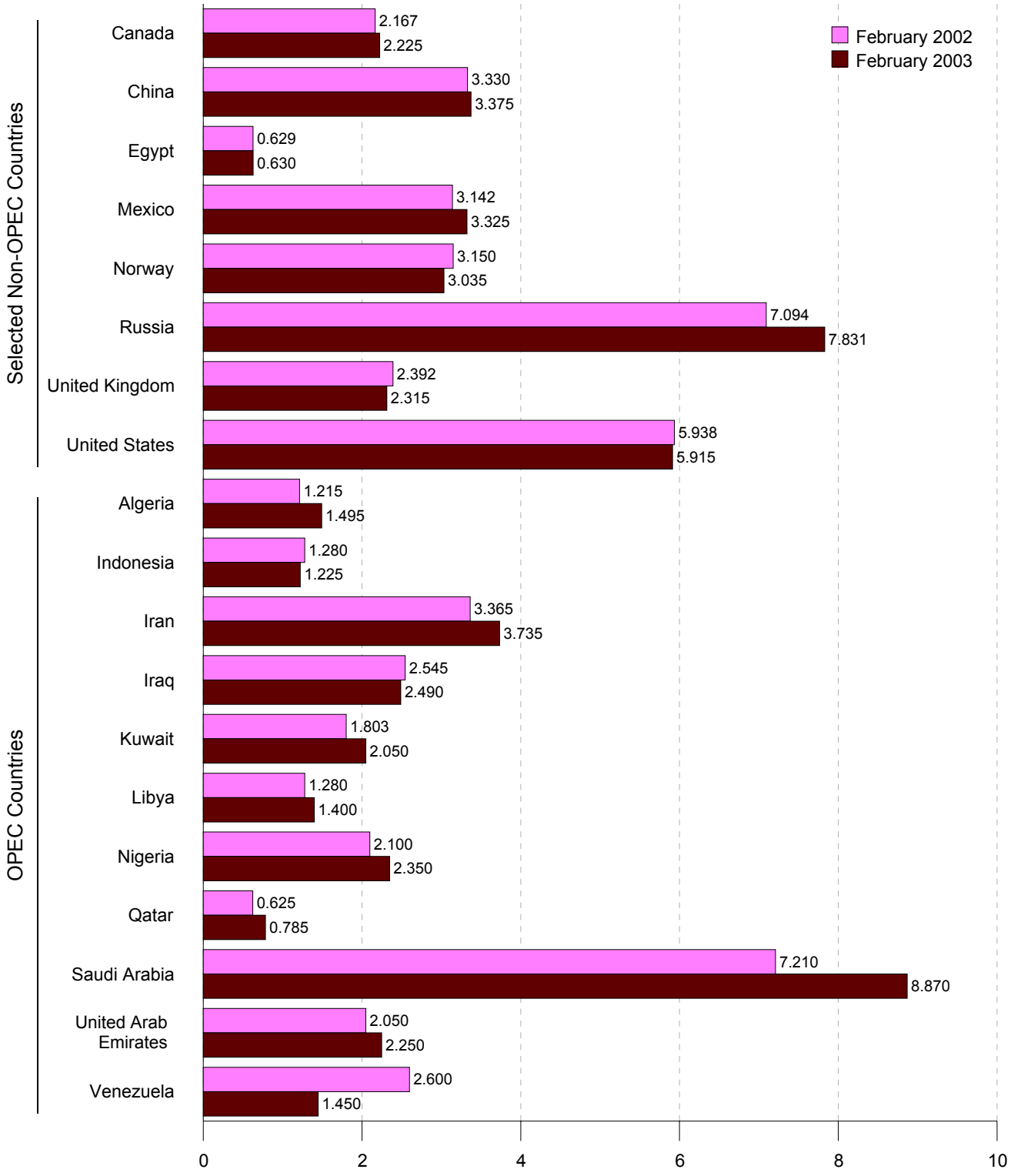


Selected Producers, Monthly



Note: OPEC is the Organization of Petroleum Exporting Countries.
Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Sources: Tables 11.1a and 11.1b.

Figure 11.1b Crude Oil Production by Selected Country
(Million Barrels per Day)

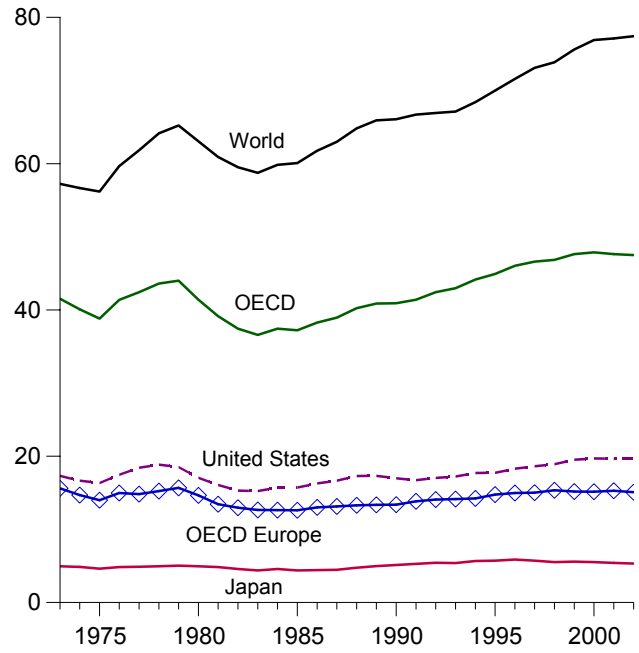


Note: OPEC is the Organization of Petroleum Exporting Countries.
Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Sources: Tables 11.1a and 11.1b.

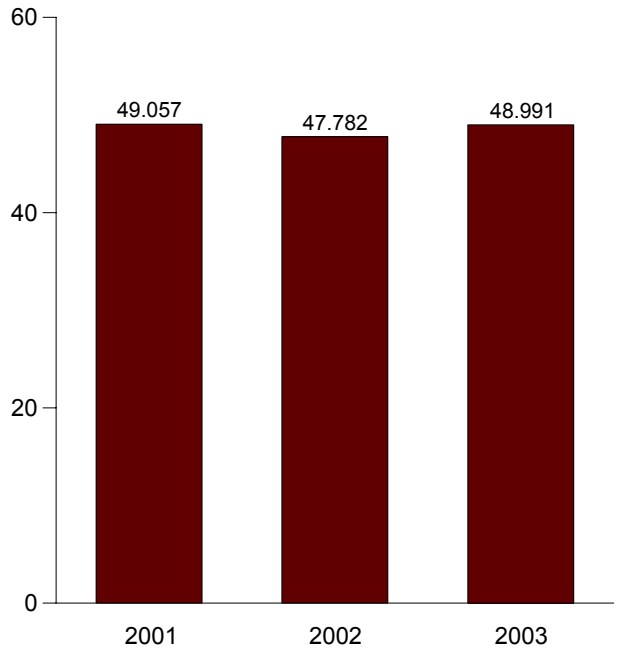
Figure 11.2 Petroleum Consumption in OECD Countries

(Million Barrels per Day)

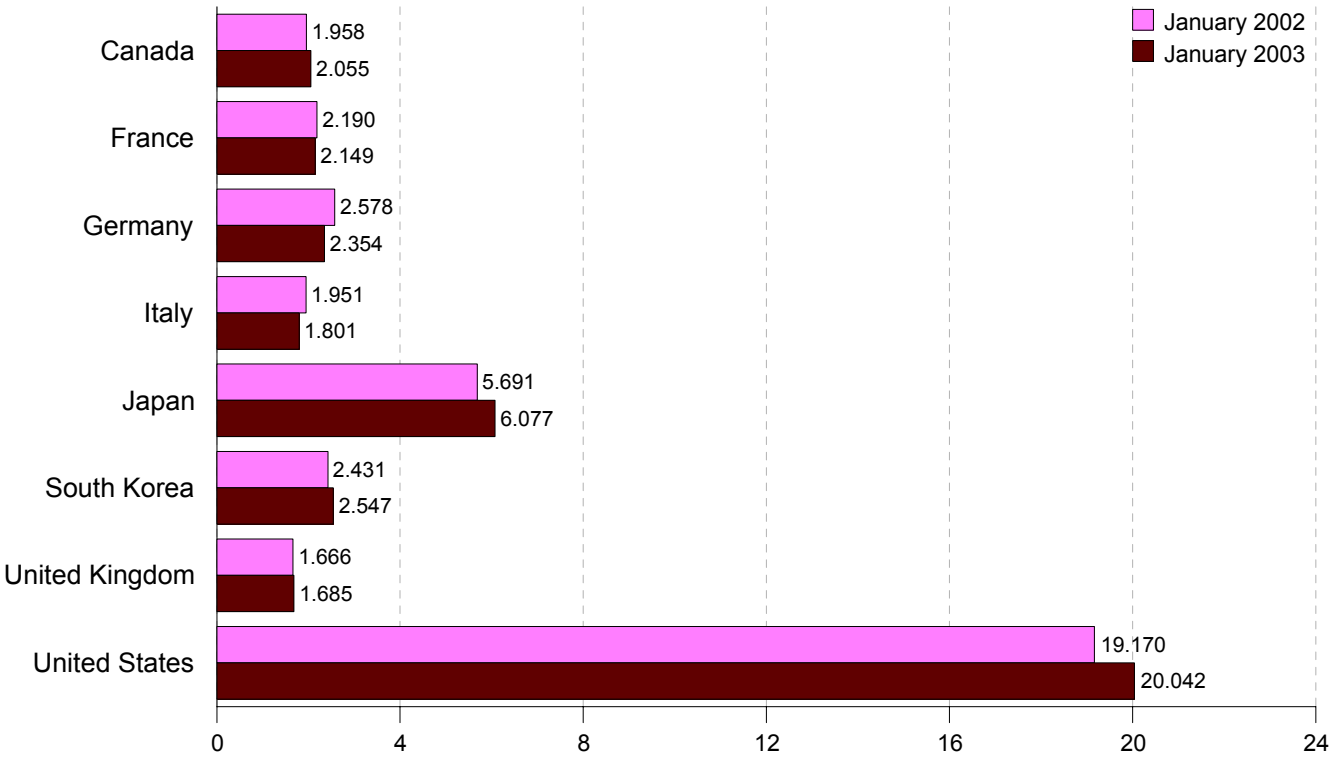
Overview, 1973-2002



OECD Total, January



By Selected OECD Country



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

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Source: Table 11.2.

Table 11.2 Petroleum Consumption in OECD Countries

(Thousand Barrels per Day)

	Canada	France	Germany[a]	Italy	Japan	South Korea	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]	World
1973 Average	**1,729**	**2,601**	**3,324**	**2,068**	**4,949**	**281**	**2,341**	**17,308**	**15,598**	**1,658**	**41,523**	**57,237**
1974 Average	**1,779**	**2,447**	**3,030**	**2,004**	**4,864**	**287**	**2,210**	**16,653**	**14,699**	**1,806**	**40,089**	**56,677**
1975 Average	**1,779**	**2,252**	**2,957**	**1,855**	**4,621**	**311**	**1,911**	**16,322**	**13,998**	**1,794**	**38,825**	**56,198**
1976 Average	**1,818**	**2,420**	**3,206**	**1,971**	**4,837**	**357**	**1,892**	**17,461**	**14,964**	**1,946**	**41,382**	**59,673**
1977 Average	**1,850**	**2,294**	**3,212**	**1,897**	**4,880**	**422**	**1,905**	**18,431**	**14,810**	**2,035**	**42,429**	**61,826**
1978 Average	**1,902**	**2,408**	**3,290**	**1,952**	**4,945**	**482**	**1,938**	**18,847**	**15,247**	**2,194**	**43,616**	**64,158**
1979 Average	**1,971**	**2,463**	**3,373**	**2,039**	**5,050**	**525**	**1,971**	**18,513**	**15,668**	**2,278**	**44,005**	**65,220**
1980 Average	**1,873**	**2,256**	**3,082**	**1,934**	**4,960**	**537**	**1,725**	**17,056**	**14,640**	**2,342**	**41,408**	**63,067**
1981 Average	**1,768**	**2,023**	**2,804**	**1,874**	**4,848**	**536**	**1,590**	**16,058**	**13,452**	**2,479**	**39,141**	**60,903**
1982 Average	**1,578**	**1,880**	**2,743**	**1,781**	**4,582**	**534**	**1,590**	**15,296**	**12,965**	**2,484**	**37,439**	**59,503**
1983 Average	**1,448**	**1,835**	**2,661**	**1,750**	**4,395**	**561**	**1,531**	**15,231**	**12,650**	**2,303**	**36,588**	**58,739**
1984 Average	**1,472**	**1,754**	**2,662**	**1,646**	**4,576**	**587**	**1,849**	**15,726**	**12,629**	**2,442**	**37,432**	**59,831**
1985 Average	**1,504**	**1,775**	**2,700**	**1,717**	**4,384**	**569**	**1,634**	**15,726**	**12,603**	**2,441**	**37,228**	**60,091**
1986 Average	**1,506**	**1,772**	**2,860**	**1,738**	**4,439**	**607**	**1,649**	**16,281**	**13,009**	**2,436**	**38,277**	**61,759**
1987 Average	**1,548**	**1,789**	**2,767**	**1,855**	**4,484**	**639**	**1,603**	**16,665**	**13,142**	**2,479**	**38,957**	**62,999**
1988 Average	**1,693**	**1,797**	**2,744**	**1,836**	**4,752**	**731**	**1,697**	**17,283**	**13,291**	**2,489**	**40,238**	**64,819**
1989 Average	**1,733**	**1,857**	**2,581**	**1,930**	**4,983**	**843**	**1,738**	**17,325**	**13,359**	**2,638**	**40,881**	**65,917**
1990 Average	**1,690**	**1,818**	**2,664**	**1,872**	**5,140**	**1,025**	**1,752**	**16,988**	**13,368**	**2,706**	**40,917**	**66,083**
1991 Average	**1,622**	**1,935**	**2,828**	**1,863**	**5,284**	**1,202**	**1,801**	**16,714**	**13,827**	**2,751**	**41,400**	**66,721**
1992 Average	**1,643**	**1,926**	**2,843**	**1,937**	**5,446**	**1,456**	**1,803**	**17,033**	**14,073**	**2,773**	**42,424**	**66,933**
1993 Average	**1,688**	**1,875**	**2,900**	**1,852**	**5,401**	**1,690**	**1,815**	**17,237**	**14,140**	**2,826**	**42,982**	**67,123**
1994 Average	**1,727**	**1,833**	**2,879**	**1,841**	**5,674**	**1,856**	**1,837**	**17,718**	**14,226**	**2,966**	**44,167**	**68,420**
1995 Average	**1,755**	**1,896**	**2,875**	**2,048**	**5,711**	**2,007**	**1,845**	**17,725**	**14,756**	**2,963**	**44,917**	**69,993**
1996 Average	**1,797**	**1,935**	**2,911**	**2,058**	**5,867**	**2,155**	**1,845**	**18,309**	**14,964**	**2,951**	**46,042**	**71,581**
1997 Average	**1,923**	**1,957**	**2,915**	**1,908**	**5,728**	**2,260**	**1,805**	**18,620**	**15,009**	**3,073**	**46,614**	**73,099**
1998 Average	**1,947**	**2,030**	**2,921**	**1,945**	**5,528**	**1,930**	**1,789**	**18,917**	**15,335**	**3,185**	**46,841**	**73,859**
1999 Average	**2,029**	**2,027**	**2,836**	**1,841**	**5,587**	**2,075**	**1,739**	**19,519**	**15,169**	**3,267**	**47,646**	**75,610**
2000 Average	**2,073**	**2,021**	**2,775**	**1,867**	**5,528**	**2,146**	**1,721**	**19,701**	**15,146**	**3,282**	**47,876**	**76,896**
2001 January	1,987	2,165	2,692	1,824	6,059	2,443	1,723	20,092	15,256	3,218	49,057	NA
February	2,009	2,098	2,638	1,915	6,391	2,299	1,725	19,689	15,235	3,300	48,924	NA
March	1,870	2,008	2,782	1,803	5,872	2,253	1,838	19,876	15,196	3,380	48,449	NA
April	1,781	2,009	2,699	1,709	5,120	1,997	1,742	19,729	14,692	3,143	46,463	NA
May	1,904	1,894	2,715	1,801	4,914	1,992	1,692	19,501	14,805	3,324	46,441	NA
June	1,883	1,963	2,877	1,771	4,850	2,048	1,664	19,561	14,902	3,230	46,475	NA
July	1,897	2,046	2,978	1,912	5,131	1,827	1,656	19,919	15,350	3,185	47,310	NA
August	2,045	1,984	3,058	1,824	5,210	1,922	1,690	20,153	15,434	3,251	48,015	NA
September	1,795	2,081	2,913	2,027	4,962	2,164	1,769	19,016	15,802	3,025	46,766	NA
October	1,927	2,056	2,882	1,902	4,939	1,939	1,683	19,824	15,529	3,249	47,408	NA
November	1,974	2,076	2,925	1,905	5,480	2,265	1,762	19,396	15,878	3,206	48,200	NA
December	1,850	2,026	2,587	1,999	6,171	2,549	1,654	19,003	15,336	3,177	48,086	NA
Average	**1,910**	**2,033**	**2,813**	**1,866**	**5,421**	**2,140**	**1,716**	**19,649**	**15,285**	**3,224**	**47,629**	**77,125**
2002 January	1,958	2,190	R 2,578	1,951	5,691	2,431	1,666	19,170	R 15,335	3,197	R 47,782	NA
February	1,972	2,042	R 2,679	2,037	6,014	2,296	1,734	19,475	R 15,363	3,383	R 48,503	NA
March	1,968	1,931	2,643	1,870	5,435	2,313	1,747	19,516	14,822	3,157	47,212	NA
April	1,894	1,907	R 2,670	1,833	4,882	2,172	1,704	19,419	R 14,825	3,282	R 46,473	NA
May	1,917	1,761	R 2,486	1,815	4,491	1,892	1,670	19,678	R 14,347	3,198	R 45,523	NA
June	1,993	1,912	2,770	1,835	4,569	1,913	1,624	19,810	14,777	3,158	R 46,221	NA
July	2,021	2,070	R 2,916	1,945	5,053	1,893	1,697	19,847	R 15,489	3,295	R 47,597	NA
August	2,051	1,842	R 2,784	1,761	5,023	1,992	1,703	20,134	R 14,802	3,075	R 47,077	NA
September	2,006	1,974	R 2,928	1,846	5,065	2,135	1,672	19,416	R 15,279	3,374	R 47,274	NA
October	2,075	2,046	R 2,767	1,938	5,127	2,145	1,720	19,593	R 15,617	R 3,378	R 47,939	NA
November	2,036	1,953	R 2,742	1,798	5,947	2,362	1,748	19,940	R 15,327	R 3,100	R 48,747	NA
December	1,986	1,884	R 2,638	1,873	6,606	2,582	1,695	19,859	R 15,129	R 3,410	R 49,618	NA
Average	**1,994**	**1,959**	**R 2,716**	**1,874**	**5,322**	**2,177**	**1,698**	**19,656**	**R 15,091**	**R 3,250**	**R 47,492**	**R 77,429**
2003 January	2,055	2,149	2,354	1,801	6,077	2,547	1,685	20,042	14,948	3,322	48,991	NA

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

[b] "OECD Europe" consists of Austria, Belgium, Czech Republic (beginning in 1993), Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

[c] "Other OECD" consists of Australia, Mexico, 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."

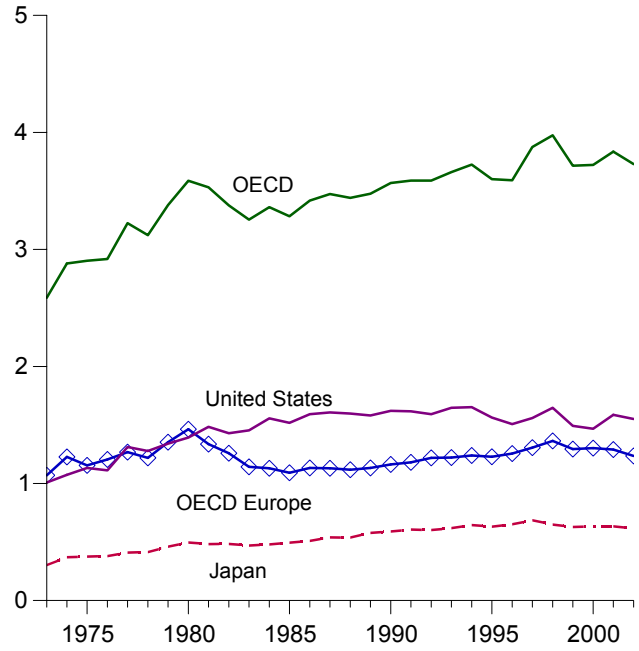
R=Revised. NA=Not available.

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.
Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

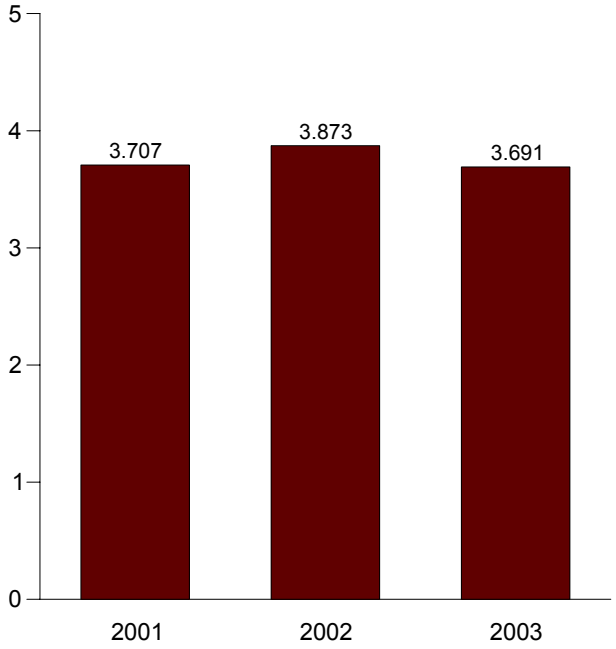
Sources: • **United States:** Table 3.1a. • **All Other Data: 1973-1979—**International Energy Agency (IEA), *Annual Oil and Gas Statistics of OECD Countries.* **1980 forward**—IEA, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances.*

Figure 11.3 Petroleum Stocks in OECD Countries
(Billion Barrels)

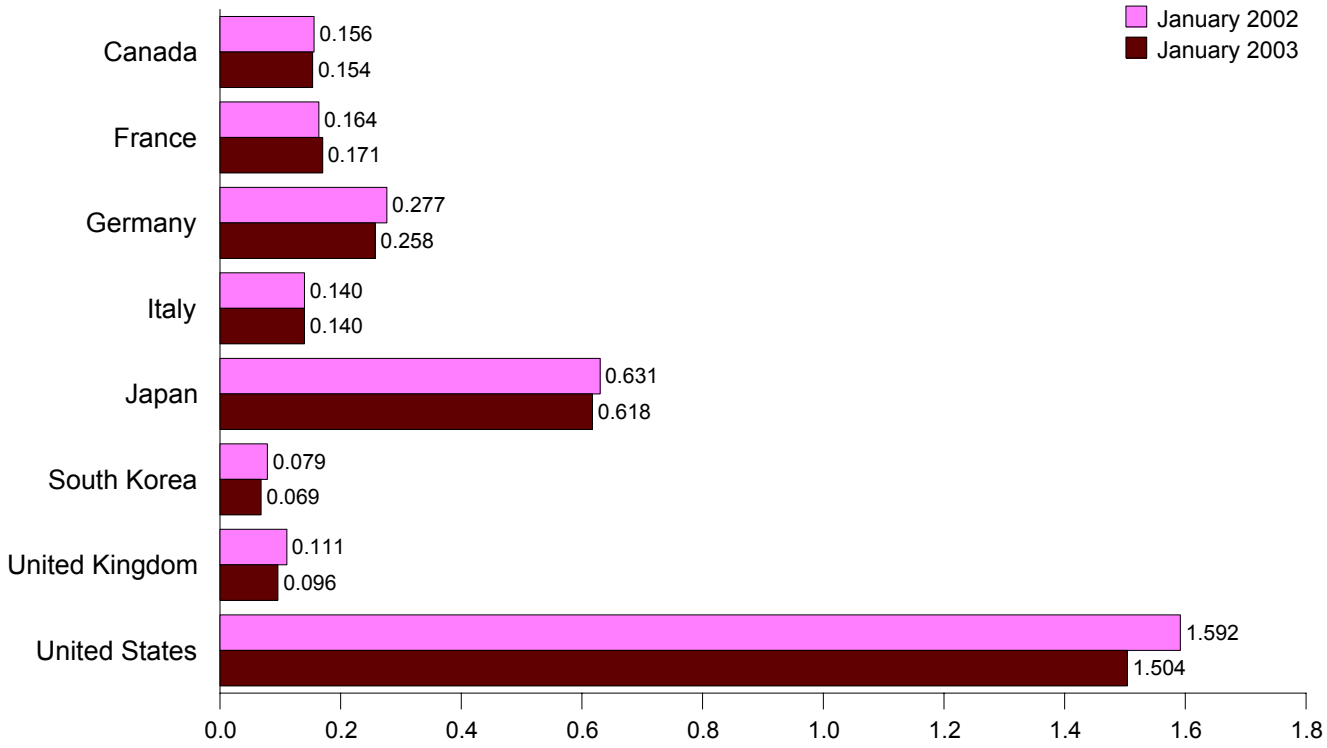
Overview, End of Year, 1973-2002



OECD Stocks, End of Month, January



By Selected OECD Country



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

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Source: Table 11.3

Table 11.3 Petroleum Stocks in OECD Countries

(Million Barrels)

	Canada	France	Germany[a]	Italy	Japan	South Korea	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]
1973 Year	**140**	**201**	**181**	**152**	**303**	**NA**	**156**	**1,008**	**1,070**	**67**	**2,588**
1974 Year	**145**	**249**	**213**	**167**	**370**	**NA**	**191**	**1,074**	**1,227**	**64**	**2,880**
1975 Year	**174**	**225**	**187**	**143**	**375**	**NA**	**165**	**1,133**	**1,154**	**67**	**2,903**
1976 Year	**153**	**234**	**208**	**143**	**380**	**NA**	**165**	**1,112**	**1,205**	**68**	**2,918**
1977 Year	**167**	**239**	**225**	**161**	**409**	**NA**	**148**	**1,312**	**1,268**	**68**	**3,224**
1978 Year	**144**	**201**	**238**	**154**	**413**	**NA**	**157**	**1,278**	**1,219**	**68**	**3,122**
1979 Year	**150**	**226**	**272**	**163**	**460**	**NA**	**169**	**1,341**	**1,353**	**75**	**3,379**
1980 Year	**164**	**243**	**319**	**170**	**495**	**NA**	**168**	**1,392**	**1,464**	**72**	**3,587**
1981 Year	**161**	**214**	**297**	**167**	**482**	**NA**	**143**	**1,484**	**1,337**	**67**	**3,531**
1982 Year	**136**	**193**	**272**	**179**	**484**	**NA**	**125**	**1,430**	**1,258**	**68**	**3,376**
1983 Year	**121**	**153**	**249**	**149**	**470**	**NA**	**118**	**1,454**	**1,142**	**68**	**3,255**
1984 Year	**128**	**152**	**239**	**159**	**479**	**NA**	**112**	**1,556**	**1,130**	**69**	**3,362**
1985 Year	**113**	**139**	**233**	**157**	**494**	**NA**	**123**	**1,519**	**1,092**	**66**	**3,284**
1986 Year	**111**	**127**	**252**	**155**	**509**	**NA**	**124**	**1,593**	**1,133**	**72**	**3,418**
1987 Year	**126**	**127**	**259**	**169**	**540**	**NA**	**121**	**1,607**	**1,130**	**71**	**3,474**
1988 Year	**116**	**140**	**266**	**155**	**538**	**NA**	**112**	**1,597**	**1,118**	**71**	**3,440**
1989 Year	**114**	**138**	**271**	**164**	**577**	**NA**	**118**	**1,581**	**1,133**	**71**	**3,476**
1990 Year	**121**	**140**	**265**	**172**	**590**	**NA**	**112**	**1,621**	**1,163**	**73**	**3,568**
1991 Year	**119**	**153**	**288**	**160**	**606**	**NA**	**119**	**1,617**	**1,181**	**65**	**3,588**
1992 Year	**107**	**146**	**310**	**174**	**603**	**NA**	**113**	**1,592**	**1,219**	**67**	**3,588**
1993 Year	**105**	**158**	**309**	**163**	**618**	**NA**	**118**	**1,647**	**1,221**	**69**	**3,661**
1994 Year	**119**	**158**	**312**	**164**	**645**	**NA**	**115**	**1,653**	**1,240**	**69**	**3,726**
1995 Year	**109**	**159**	**301**	**162**	**630**	**NA**	**107**	**1,563**	**1,228**	**71**	**3,601**
1996 Year	**103**	**158**	**300**	**152**	**651**	**NA**	**108**	**1,507**	**1,256**	**74**	**3,591**
1997 Year	**115**	**164**	**298**	**147**	**685**	**88**	**105**	**1,560**	**1,306**	**122**	**3,876**
1998 Year	**118**	**161**	**321**	**153**	**649**	**85**	**109**	**1,647**	**1,364**	**112**	**3,975**
1999 Year	**109**	**163**	**287**	**148**	**629**	**84**	**105**	**1,493**	**1,294**	**106**	**3,715**
2000 Year	**112**	**174**	**270**	**157**	**634**	**89**	**103**	**1,468**	**1,302**	**117**	**3,723**
2001 January	113	168	273	163	628	80	100	1,479	1,292	116	3,707
February	111	172	275	159	620	86	102	1,473	1,293	118	3,701
March	117	171	267	158	636	80	105	1,484	1,292	116	3,724
April	116	171	268	159	646	86	103	1,522	1,283	107	3,761
May	119	171	266	156	647	80	103	1,555	1,280	109	3,790
June	116	171	259	149	641	83	107	1,563	1,278	113	3,794
July	123	164	258	149	636	90	107	1,568	1,271	112	3,801
August	123	168	256	156	647	93	104	1,548	1,284	116	3,812
September	129	167	253	152	654	92	102	1,579	1,282	122	3,858
October	129	170	255	151	670	95	111	1,577	1,281	119	3,872
November	127	165	257	153	656	96	110	1,588	1,276	113	3,857
December	**124**	**167**	**269**	**151**	**634**	**88**	**112**	**1,586**	**1,290**	**113**	**3,836**
2002 January	156	164	277	140	631	79	111	1,592	R 1,302	113	R 3,873
February	160	167	276	138	620	71	106	1,576	R 1,305	115	R 3,847
March	158	163	R 276	132	630	79	103	1,571	R 1,281	110	R 3,829
April	159	164	R 276	133	624	74	106	1,589	R 1,274	114	R 3,833
May	156	173	R 274	136	626	77	103	1,611	R 1,286	110	R 3,866
June	152	170	269	132	634	87	111	1,613	R 1,287	112	R 3,884
July	157	169	264	137	633	84	110	1,610	R 1,278	108	3,870
August	159	171	264	142	633	83	102	1,596	1,275	116	R 3,862
September	160	174	259	136	627	80	101	1,574	R 1,257	111	3,809
October	R 159	176	254	140	628	80	109	1,573	R 1,278	108	R 3,827
November	R 154	170	253	143	616	78	108	1,578	R 1,254	113	R 3,794
December	R **154**	**175**	**253**	**138**	**615**	**69**	R **96**	**1,550**	R **1,235**	R **106**	R **3,729**
2003 January	154	171	258	140	618	69	96	1,504	1,241	105	3,691

[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, and, for 1997 forward, Czech Republic, Hungary, and Poland.

[c] "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1997 forward, Mexico.

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

R=Revised. NA=Not available.

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

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

Sources: • **United States:** Table 3.1a. • **All Other Data:** International Energy Agency, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances.*

International Petroleum

Tables 11.1a and 11.1b Sources

United States: See Table 3.1a.

All Other Countries: Monthly Data
2001 forward: Energy Information Administration (EIA), *International Petroleum Monthly*.

All Other Countries: Annual Data
1973–1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.
1980–2001: Office of Energy Markets and End Use, International Energy Database, February 2003.
2002: Average of monthly data.

World: Monthly Data
2001 forward: EIA, *International Petroleum Monthly*, sum of all countries' monthly data.

World: Annual Data
1973–1979: EIA, *International Energy Annual 1981*, Table 8.
1980–2001: Office of Energy Markets and End Use, International Energy Database, February 2003.
2002: Average of monthly data.

Appendix A. Thermal Conversion Factors

The thermal conversion factors presented in the following tables can be used to estimate the heat content in British thermal units (Btu) of a given amount of energy measured in physical units, such as barrels or cubic feet. For example, 10 barrels of asphalt has a heat content of approximately 66.36 million Btu (10 barrels x 6.636 million Btu per barrel = 66.36 million Btu).

The heat content rates (i.e., thermal conversion factors) provided in this section represent the gross (or upper) energy content of the fuels. Gross heat content rates are applied in all Btu calculations for the *Monthly Energy Review* and are commonly used in energy calculations in the United States; net (or lower) heat content rates are typically used in European energy calculations. The difference between the two rates is the amount of energy that is consumed to vaporize water that is created during the combustion process. Generally, the difference ranges from 2 percent to 10 percent, depending on the specific fuel and its hydrogen content. Some fuels, such as unseasoned wood, can be more than 40 percent different in their gross and net heat content rates. See **British Thermal Unit (Btu)** in the Glossary for more information.

Thermal conversion factors for hydrocarbon mixes (Table A1) are weighted averages of the thermal conversion factors for each hydrocarbon included in the mix. For example, in calculating the thermal conversion factor for a 60-40 butane-propane mixture, the thermal conversion factor for butane is weighted 1.5 times the thermal conversion factor for propane.

In general, the annual thermal conversion factors presented in Tables A2 through A6 are computed from final annual data or from the best available data and labeled "preliminary." Often, the previous year's factor is used as a preliminary value until data become available to calculate the factor appropriate to the year. The source of each factor is described in the section entitled "Thermal Conversion Factor Source Documentation," which follows Table A6 in this appendix.

Table A1. Approximate Heat Content of Petroleum Products
(Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Natural Gasoline and Isopentane	4.620
Aviation Gasoline	5.048	Pentanes Plus	4.620
Butane	4.326	Petrochemical Feedstocks	
Butane-Propane Mixture[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.
Web Page: http://www.eia.doe.gov/emeu/mer/append.html.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A2. Approximate Heat Content of Crude Oil, Total Petroleum, and Natural Gas Plant Liquids

(Million Btu per Barrel)

	Crude Oil[a]			Total Petroleum[b]		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	5.938	5.800	5.855	5.746	3.796
1996	5.800	5.947	5.800	5.847	5.736	3.777
1997	5.800	5.954	5.800	5.862	5.734	3.762
1998	5.800	5.953	5.800	5.861	5.720	3.769
1999	5.800	5.942	5.800	5.840	5.699	3.744
2000	5.800	5.959	5.800	5.849	5.658	3.733
2001	5.800	5.976	5.800	5.862	5.752	3.735
2002	5.800	5.975	5.800	5.865	5.695	3.730
2003[E]	5.800	5.975	5.800	5.865	5.695	3.730

[a] Crude oil, including lease condensate.
[b] Crude oil, including lease condensate, and petroleum products.
E=Estimate.
Web Page: http://www.eia.doe.gov/emeu/mer/append.html.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A3. Approximate Heat Content of Petroleum Product Weighted Averages

(Million Btu per Barrel)

	Consumption						Imports	Exports	Liquefied Petroleum Gases Consumption	Motor Gasoline Consumption
	End-Use Sectors				Electric Power Sector[a]	Total				
	Residential	Commercial	Industrial	Transportation						
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	5.619	5.234	5.440	6.240	5.410	5.641	5.869	3.683	5.253
1990	4.950	5.617	5.272	5.444	6.244	5.411	5.614	5.838	3.625	5.253
1991	4.912	5.590	5.190	5.442	6.246	5.384	5.636	5.827	3.614	5.253
1992	4.942	5.577	5.188	5.445	6.238	5.378	5.623	5.774	3.624	5.253
1993	4.942	5.571	5.195	5.438	6.230	5.379	5.620	5.777	3.606	5.253
1994	4.936	5.580	5.165	5.426	6.213	5.361	5.534	5.777	3.635	[b]5.230
1995	4.925	5.546	5.133	5.419	6.188	5.341	5.483	5.740	3.623	5.215
1996	4.869	5.494	5.129	5.421	6.195	5.336	5.468	5.728	3.613	5.216
1997	4.870	5.459	5.133	5.417	6.199	5.336	5.469	5.726	3.616	5.213
1998	4.842	5.440	5.149	5.414	6.210	5.349	5.462	5.710	3.614	5.212
1999	4.749	5.349	5.105	5.415	6.205	5.328	5.421	5.684	3.616	5.211
2000	4.754	5.388	5.072	5.423	6.189	5.326	5.432	5.651	3.607	5.210
2001	4.824	5.422	5.120	5.421	6.195	5.345	5.443	5.751	3.614	5.210
2002[E]	4.824	5.422	5.120	5.421	6.195	5.322	5.434	5.694	3.612	5.208
2003[E]	4.824	5.422	5.120	5.421	6.195	5.322	5.434	5.694	3.612	5.208

[a] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

[b] There is a discontinuity in this time series between 1993 and 1994; beginning in 1994, the single constant factor is replaced by a factor that is a quantity-weighted average of motor gasoline's major components. See Table A1.

E=Estimate.

Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

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				
	Marketed	Dry	End-Use Sectors	Electric Power Sector[a]	Total	Imports	Exports
1973	1,093	1,021	1,020	1,024	1,021	1,026	1,023
1974	1,097	1,024	1,024	1,022	1,024	1,027	1,016
1975	1,095	1,021	1,020	1,026	1,021	1,026	1,014
1976	1,093	1,020	1,019	1,023	1,020	1,025	1,013
1977	1,093	1,021	1,019	1,029	1,021	1,026	1,013
1978	1,088	1,019	1,016	1,034	1,019	1,030	1,013
1979	1,092	1,021	1,018	1,035	1,021	1,037	1,013
1980	1,098	1,026	1,024	1,035	1,026	1,022	1,013
1981	1,103	1,027	1,025	1,035	1,027	1,014	1,011
1982	1,107	1,028	1,026	1,036	1,028	1,018	1,011
1983	1,115	1,031	1,031	1,030	1,031	1,024	1,010
1984	1,109	1,031	1,030	1,035	1,031	1,005	1,010
1985	1,112	1,032	1,031	1,038	1,032	1,002	1,011
1986	1,110	1,030	1,029	1,034	1,030	997	1,008
1987	1,112	1,031	1,031	1,032	1,031	999	1,011
1988	1,109	1,029	1,029	1,028	1,029	1,002	1,018
1989	1,107	1,031	1,031	1,028	1,031	1,004	1,019
1990	1,105	1,029	1,030	1,027	1,029	1,012	1,018
1991	1,108	1,030	1,031	1,025	1,030	1,014	1,022
1992	1,110	1,030	1,031	1,025	1,030	1,011	1,018
1993	1,106	1,027	1,028	1,025	1,027	1,020	1,016
1994	1,105	1,028	1,029	1,025	1,028	1,022	1,011
1995	1,106	1,026	1,027	1,021	1,026	1,021	1,011
1996	1,109	1,026	1,027	1,020	1,026	1,022	1,011
1997	1,107	1,026	1,027	1,020	1,026	1,023	1,011
1998	1,109	1,031	1,033	1,024	1,031	1,023	1,011
1999	1,107	1,027	1,028	1,022	1,027	1,022	1,006
2000	1,107	1,025	1,026	1,021	1,025	1,023	1,006
2001	1,105	1,028	1,029	[R] 1,023	1,028	1,023	1,010
2002[E]	1,105	1,028	1,029	[R] 1,020	1,028	1,023	1,010
2003[E]	1,105	1,028	1,029	[R] 1,020	1,028	1,023	1,010

[a] The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

R=Revised. E=Estimate.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

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
		Consumption							
		End-Use Sectors							
	Production	Residential and Commercial	Industrial		Electric Power Sector [b]	Total	Imports	Exports	Imports and Exports
			Coke Plants	Other [a]					
1973	23.376	22.831	26.780	22.586	22.246	23.057	25.000	26.596	24.800
1974	23.072	22.479	26.778	22.419	21.781	22.677	25.000	26.700	24.800
1975	22.897	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800
1976	22.855	22.774	26.781	22.530	21.679	22.498	25.000	26.601	24.800
1977	22.597	22.919	26.787	22.322	21.508	22.265	25.000	26.548	24.800
1978	22.248	22.466	26.789	22.207	21.275	22.017	25.000	26.478	24.800
1979	22.454	22.242	26.788	22.452	21.364	22.100	25.000	26.548	24.800
1980	22.415	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800
1981	22.308	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800
1982	22.239	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800
1983	22.052	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800
1984	22.010	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800
1985	21.870	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800
1986	21.913	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800
1987	21.922	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800
1988	21.823	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800
1989	21.765	23.650	26.800	22.347	[R] 20.898	[R] 21.307	25.000	26.160	24.800
1990	21.822	23.137	26.799	22.457	[R] 20.779	[R] 21.197	25.000	26.202	24.800
1991	21.681	23.114	26.799	22.460	20.730	21.120	25.000	26.188	24.800
1992	21.682	23.105	26.799	22.250	20.709	21.068	25.000	26.161	24.800
1993	21.418	22.994	26.800	22.123	20.677	21.010	25.000	26.335	24.800
1994	21.394	23.112	26.800	22.068	20.589	20.929	25.000	26.329	24.800
1995	21.326	23.118	26.800	21.950	20.543	20.880	25.000	26.180	24.800
1996	21.322	23.011	26.800	22.105	20.547	20.870	25.000	26.174	24.800
1997	21.296	22.494	26.800	22.172	20.518	20.830	25.000	26.251	24.800
1998	21.418	[R] 21.620	27.426	23.164	20.516	20.881	25.000	26.800	24.800
1999	21.070	23.880	27.426	22.489	20.490	20.818	25.000	26.081	24.800
2000	21.072	25.020	27.426	22.433	20.511	20.828	25.000	26.117	24.800
2001	20.443	24.905	27.426	23.209	[R] 20.279	[R] 20.655	25.000	25.998	24.800
2002[P]	20.620	[R] 24.836	27.426	23.361	[R] 20.479	20.814	25.000	26.062	24.800
2003[E]	20.620	[R] 24.836	27.426	23.361	[R] 20.479	20.814	25.000	26.062	24.800

[a] Includes transportation.

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

R=Revised. P=Preliminary. E=Estimate.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A6. Approximate Heat Rates for Electricity

(Btu per Kilowatthour)

	Electricity Net Generation			
	Fossil-Fueled Steam-Electric Plants[a,b]	Nuclear Steam-Electric Plants[c]	Geothermal Energy Plants[d]	Electricity Consumption[e]
1973	10,389	10,903	21,674	3,412
1974	10,442	11,161	21,674	3,412
1975	10,406	11,013	21,611	3,412
1976	10,373	11,047	21,611	3,412
1977	10,435	10,769	21,611	3,412
1978	10,361	10,941	21,611	3,412
1979	10,353	10,879	21,545	3,412
1980	10,388	10,908	21,639	3,412
1981	10,453	11,030	21,639	3,412
1982	10,454	11,073	21,629	3,412
1983	10,520	10,905	21,290	3,412
1984	10,440	10,843	21,303	3,412
1985	10,447	10,622	21,263	3,412
1986	10,446	10,579	21,263	3,412
1987	10,419	10,442	21,263	3,412
1988	10,324	10,602	21,096	3,412
1989	10,432	10,583	21,096	3,412
1990	10,402	10,582	21,096	3,412
1991	10,436	10,484	20,997	3,412
1992	10,342	10,471	20,914	3,412
1993	10,309	10,504	20,914	3,412
1994	10,316	10,452	20,914	3,412
1995	10,312	10,507	20,914	3,412
1996	10,340	10,503	20,960	3,412
1997	10,213	10,494	20,960	3,412
1998	10,197	10,491	21,017	3,412
1999	10,226	10,450	21,017	3,412
2000	10,201	10,429	21,017	3,412
2001	[b]10,127	10,442	21,017	3,412
2002[P]	10,106	10,442	21,017	3,412
2003[E]	10,106	10,442	21,017	3,412

[a] Used as the thermal conversion factor for hydroelectric, solar, and wind electricity net generation.
[b] Through 2000, heat rates are for electric utilities only. Beginning in 2001, heat rates are for the electric power sector, which comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.
[c] Used as the thermal conversion factor for nuclear electricity net generation.
[d] Used as the thermal conversion factor for geothermal electricity net generation.
[e] Used as the thermal conversion factor for electricity retail sales, and electricity imports and exports.
P=Preliminary. E=Estimate.
Web Page: http://www.eia.doe.gov/emeu/mer/append.html.
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. 1973 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: 1973 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. 1973 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 A1). 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 the Electric Power Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the electric power sector, weighted by the quantity of each petroleum product consumed at by the electric power sector.

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.

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.

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.

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 the Electric Power Sector. Calculated annually by EIA by dividing the total heat content of natural gas consumed by the electric power sector by the total quantity received by the electric power sector.

Natural Gas, Consumption by the End-Use Sectors. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed by the electric power sector by the quantity of all natural gas consumed less the quantity of natural gas consumed by the electric power sector.

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 waste coal) consumption by the total tonnage.

Coal, Consumption by the Electric Power Sector. Calculated annually by dividing the total heat content of coal (including 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 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 and, for 2001 forward, bituminous refuse) 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 used data from Form EIA-767, "Steam-Electric Plant Operation and Design Report," 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. 1973-1988: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1989 forward: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report" (and predecessor forms EIA-860A, EIA-860B, and EIA-867), and the generation on Form EIA-906, "Power Plant Report" (and predecessor forms).

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 for 1982 through 1984 were published in the following EIA reports-1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. 1983 and 1984: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1985 forward: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report," and the generation reported on Form EIA-906, "Power Plant Report" (and predecessor forms).

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_3O_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)

[a]Exact conversion.

[b]Calculated by the Energy Information Administration.

[c]To convert degrees Celsius (°C) to degrees Fahrenheit (°F) exactly, multiply by 9/5, then add 32.

[d]The 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.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

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	m
10^{9}	giga	G	10^{-9}	nano	n
$1,0^{12}$	tera	T	10^{-12}	pico	p
$1,0^{15}$	peta	P	10^{-15}	femto	f
$1,0^{18}$	exa	E	10^{-18}	atto	a
$1,0^{21}$	zetta	Z	10^{-21}	zepto	z
$1,0^{24}$	yotta	Y	10^{-24}	yocto	y

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

Source: U.S. Department of Commerce, National Institute of Standards and Technology, The International System of Units (SI), NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p.10.

Table B3. Other Physical Conversion Factors

Energy Source	Original Unit	*multiplied by*	Conversion Factor	equals	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	cords (cd)	x	1.25[b]	=	shorts tons
	cords (cd)	x	128[a]	=	cubic feet (ft^3)

[a]Exact conversion.

[b]Calculated by the Energy Information Administration.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B-10, C-17 and C-21.

Appendix C. List of Energy Plugs

Energy Plugs are synopses of products that have been released recently by the Energy Information Administration. They appear on a regular basis at the front of the *Monthly Energy Review*. Following is a list of the Energy Plug titles that have been published over the past four years. For a complete list of all features that have appeared in the *Monthly Energy Review* since the first article was published in March 1975, go to the Energy Plug web site at: http://www.eia.doe.gov/emeu/plugs/plugsrgt.html.

Title	Cover Date
2003	
Annual Energy Outlook 2003	January 2003
Performance Profiles of Major Energy Producers 2001	February 2003
Voluntary Reporting of Greenhouse Gases 2001	March 2003
Electric Power Annual 2001	April 2003
2002	
Performance Profiles of Major Energy Producers 2000	January 2002
Voluntary Reporting of Greenhouse Gases 2000	February 2002
Analysis of Corporate Average Fuel Economy Standards for Light Trucks and Increased Alternative Fuel Use	March 2002
Summer 2002 Motor Gasoline Outlook	April 2002
International Energy Outlook 2002	April 2002
Weekly Natural Gas Storage Report	May 2002
International Energy Annual 2000	May 2002
Delivered Energy Consumption Projections by Industry	June 2002
Uranium Industry Annual 2001	June 2002
Biomass for Electricity Generation	July 2002
Measuring Changes in Energy Efficiency	July 2002
Foreign Direct Investment in U.S. Energy in 2000	August 2002
U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices	August 2002
Diesel Fuel Price Pass-through	September 2002
Winter Fuels Outlook: 2002-2003	October 2002
Annual Energy Review 2001	November 2002
Renewable Energy Annual 2001	December 2002
2001	
Energy Education Resources	January 2001
Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand	February 2001
Performance Profiles of Major Energy Producers 1999	February 2001
Renewable Energy 2000: Issues and Trends	March 2001
Summer 2001 Motor Gasoline Outlook	April 2001
International Energy Outlook 2001	April 2001
State Energy Data Report 1999: Consumption Estimates	May 2001
The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply	May 2001
Energy Market Maps	June 2001
Coal Industry Annual 1999	July 2001
Annual Energy Review 2000	August 2001
World Energy "Areas To Watch"	August 2001
Electric Power Annual 2000, Volume I	September 2001
Winter Fuels Outlook: 2001-2002	October 2001
Fuel Oil and Kerosene Sales 2000	October 2001
The Majors' Shift to Natural Gas	October 2001

2001 (Continued)

Annual Energy Outlook 2002, Early Release . . . . . November 2001
Emissions of Greenhouse Gases in the United States 2000 . . . . . November 2001
State Energy Price and Expenditure Report 1999 . . . . . November 2001
Energy Education Resources . . . . . December 2001
U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply . . . . . December 2001

2000

Inventory of Nonutility Electric Power Plants in the United States 1998 . . . . . January 2000
The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations . . . . . January 2000
International Energy Annual 1998 . . . . . February 2000
Performance Profiles of Major Energy Producers 1998 . . . . . February 2000
OPEC Revenues Fact Sheet . . . . . March 2000
Country Analysis Brief: Iran . . . . . March 2000
International Energy Outlook 2000 . . . . . April 2000
Outlook for Biomass Ethanol Production and Demand . . . . . April 2000
Summer 2000 Motor Gasoline Outlook . . . . . May 2000
State Energy Price and Expenditure Report 1997 . . . . . June 2000
Energy Consumption and Renewable Energy Development Potential on Indian Lands . . . . . June 2000
Annual Energy Review 1999 . . . . . July 2000
A Primer on Gasoline Prices . . . . . August 2000
Long-Term World Oil Supply: A Resource Base/Production Path Analysis . . . . . August 2000
U.S. Carbon Dioxide Emissions From Energy Sources: 1999 Flash Estimate . . . . . September 2000
The Electric Transmission Network: A Multi-Region Analysis . . . . . September 2000
Propane Prices: What Consumers Should Know . . . . . October 2000
Winter Fuels Outlook: 2000-2001 . . . . . October 2000
Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report . . . . . October 2000
Residential Natural Gas Prices: What Consumers Should Know . . . . . November 2000
The Changing Structure of the Electric Power Industry 2000: An Update . . . . . November 2000
Annual Energy Outlook 2001 Early Release . . . . . December 2000
Residential Heating Oil Prices: What Consumers Should Know . . . . . December 2000

1999

Performance Profiles of Major Energy Producers 1997 . . . . . January 1999
State Energy Data Report 1996 . . . . . February 1999
State Electricity Profiles . . . . . March 1999
International Energy Annual 1997 . . . . . April 1999
International Energy Outlook 1999 . . . . . April 1999
Natural Gas 1998: Issues and Trends . . . . . May 1999
Electric Power Annual 1998, Volume I . . . . . June 1999
Annual Energy Review 1998 . . . . . July 1999
Energy in the Americas . . . . . August 1999
State Energy Data Report 1997 . . . . . September 1999
The U.S. Coal Industry in the 1990s: Low Prices and Record Production . . . . . September 1999
Issues in Midterm Analysis and Forecasting 1999 . . . . . October 1999
1999-2000 Winter Fuels Outlook . . . . . November 1999
Emissions of Greenhouse Gases in the United States 1998 . . . . . November 1999
Annual Energy Outlook 2000 . . . . . December 1999
Energy in Africa . . . . . December 1999

Appendix D

Estimating and Presenting Power Sector Fuel Use in EIA Publications and Analyses

I. Background

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

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

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

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

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

This document provides detail on these changes and describes the reasoning behind the changes and their effects on EIA publications. The *Annual Energy Review (AER) 2001* (November 2002) was the first of EIA's annual publications to be released with the new formats. Since then, EIA has released several other annual reports with the electric power data in parallel formats: *Emissions of Greenhouse Gases in the United States 2001* (December 2002); *Natural Gas Annual 2001* (February 2003); *Electric Power Annual 2001* (March 2003) and *Annual Coal Report 2001* (March 2003). Beginning with the April 2003 *Monthly Energy Review*, EIA's monthly reports are being redesigned to present the electric power statistics in the new formats.

The remainder of this document is organized as follows:

- Section II: an overview of the key changes.
- Section III: the impacts on multi-fuel publications, particularly the *Monthly Energy Review* (*MER*).[2]
- Section IV: specific information on electric power data.
- Section V: specific information for data on natural gas, coal, petroleum, and renewable energy.

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[1] Combined-heat-and-power plants (CHP) produce both electricity and useful thermal output. EIA formerly referred to these plants as cogenerators, but has determined that CHP better describes the facilities because some of the plants included in EIA's data do not produce heat and power in a sequential fashion, and as a result do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

[2] Multi-fuel publications are those that provide information on multiple fuels and sectors, such as the *Monthly Energy Review* and the *Annual Energy Review*.

Figure D1. Industrial Sector for Natural Gas in March 2003 MER and April 2003 MER

Column Headers from March 2003 MER Table 4.4

	Lease and Plant Fuel	Pipeline Fuel[a]	Delivered to Consumers						Total Consumption[c]
			Residential	Commercial	Industrial[b]	Vehicles	Electric Utilities	Total	

Column Headers from April 2003 MER Table 4.4

	End-Use Sectors										Electric Power Sector[e,f]	Total
			Industrial					Transportation				
				Other Industrial								
	Resi-dential	Com-mercial[a]	Lease and Plant Fuel	CHP[b]	Non-CHP[c]	Total	Total	Pipeline Fuel[d]	Vehicle Fuel	Total		

II. Overview of Key Changes

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

Categorization of Electric Power Facilities

Until the 1990s, most electric power generation and fuel use data could be meaningfully categorized into electric utilities and nonutility power producers.[3] Electric utilities were generally structured as vertically integrated[4] power companies that were responsible for generating, transmitting, and distributing power to consumers within their franchised service territory. Nonutility power producers were generally independent generators (mostly combined-heat-and-power plants) that produced some power for their own use and sold the remainder to utilities for distribution to consumers. However, in recent years, many formerly integrated utilities have split apart, spinning off the generating part of their business into separate companies. Independent developers have built most of the new generating capacity that has been installed in recent years. As a result, the distinction between utility and nonutility power plants has become much less meaningful. In fact, a large portion of the growth in nonutility generation in recent years is due to the reclassification of utility power plants as nonutility power plants.

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

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

In addition, EIA is now presenting data for an electric power sector that includes electricity-only plants and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public (North American Industry Classification System code 22). This contrasts with some previous data presentations in which the electric power sector included industrial and commercial CHP plants as well.

Reporting of CHP Plant Fuel Use

Historically, fuel consumption in CHP plants has been combined with other uses in many EIA data presentations. For example, in some tables the use of natural gas in commercial and industrial CHP plants was included with other commercial and industrial uses. Further, some of the fuel consumption (the portion associated with electricity production) at these same facilities was also reported under the column labeled "Nonutility Power Producers." Based on questions received from many EIA customers, it became clear that this categorization led to confusion.

Currently, EIA is distinguishing within the industrial, commercial, and electric power sectors what portion of fuel consumption is used in CHP facilities and non-CHP facilities. For example:

- In tabulations of energy use by end-use sector, if a commercial or industrial facility has a CHP unit, the total fuel consumption for that unit will be reported under commercial or industrial, but it will be identified separately from other commercial or industrial consumption. Figure D1 provides an example for

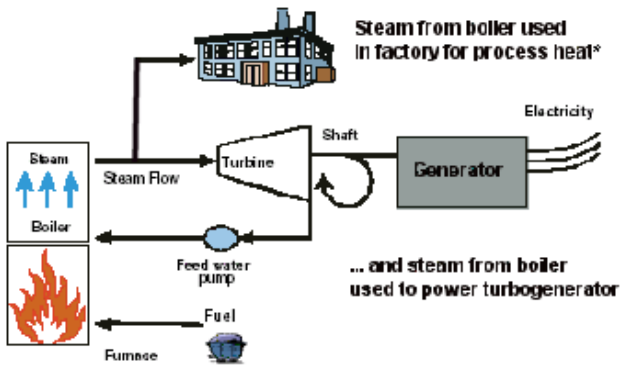
[3] For an example of this, see *Electric Power Annual 1998, Volume II*, DOE/EIA-0348(98)/2, December 1999.
[4] In this context "integrated" means that the company is involved in the three main sectors of the electric power business—generation, transmission, and distribution.

natural gas consumption in the industrial sector. It shows the headings in Table 4.4 of the April 2003 *MER* compared with the headings for the same table in the March 2003 *MER*.

CHP plants reporting that their primary business is generating and selling power to others will be reported in a separate column in the electric power sector, as shown in Figure D1.

- In tabulations of energy use to produce electric power, the total fuel consumption reported by CHP plants will be further separated into that which is used to produce electricity and that which is used to produce thermal energy.[5] Figure D2 shows a schematic for a combined-heat-and-power plant.

Figure D2. Schematic for Combined-Heat-and-Power Plants



*Useful heat may also be recovered as a byproduct of electric power generation.

The separation between electricity and thermal uses is being done because many EIA data users have expressed interest in knowing how much fuel is used to produce electricity in the United States.

Data Series Revisions Resulting From Changes in Electric Power Fuel Use Estimates

The revisions to electric power data affect many areas. For example, to estimate natural gas use, EIA has historically surveyed natural gas pipeline-companies and local gas utilities to obtain data on natural gas used by residential, commercial, industrial, and electric utility and nonutility generators.[6] However, EIA also surveyed electric utilities on their natural gas use. The data obtained directly from the end user were generally thought to be more accurate than the data obtained from natural gas suppliers. As a result, total natural gas use was estimated by adding the data from natural gas companies on residential, commercial, industrial, and nonutility power producer use to the amount reported directly by electric utilities. The data collected for nonutility power producers were included with industrial use in previous EIA natural gas data presentations.

With the changing structure of the electricity sector, this reporting approach no longer appears reasonable. EIA has decided to follow the procedure described for electric utilities and use data obtained from its direct surveys of nonutility electric generators rather than the natural gas supplier surveys.[7] More detail on how the various fuel sectors are affected is given in the following sections.

Data changes are also occurring because of the extensive review of reported data that was undertaken in this process. Since it was decided that data reported directly by utilities and nonutility power generators would be the primary source of fuel consumption data for the power sector, an examination of heat rates,[8] capacity factors,[9] and power-to-steam ratios across 13 years of reported data was conducted. As a result, data for nonutility power producers for 1989 through 2002 have been revised. The data review procedure is described in Section IV under the heading "Efforts to Improve Data." As a result of the review by expert EIA analysts, anomalous values have been investigated and resolved and the result is higher quality data at aggregated levels.

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[5] For the method used to separate the fuel used at CHP plants between electricity and useful thermal energy production, see Section IV.
[6] Energy Information Administration, Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."
[7] Energy Information Administration, Form EIA-759, "Monthly Power Plant Report" for electric utilities and Forms EIA-867 and EIA-860B, "Annual Electric Generator Report–Nonutility" for nonutilities. Starting with 2001, data for both utilities and nonutilities are collected on a new survey, Form EIA-906, "Power Plant Report."
[8] Heat rates are computed by dividing the heat content of the fuel burned to generate electricity by the resulting net kilowatthour generation.
[9] Capacity factors are the ratio of the electrical energy produced by a generating unit for the period of time considered to the e lectrical energy that could have been produced at continuous full power operation during the same period.

Table D1. Revisions to Selected Estimates: March 2003 MER and April 2003 MER

Electricity Net Generation: Total (All Sectors)
(Billion Kilowatthours)

Year	March 2003 MER	April 2003 MER	Percent Difference
2000	3,800	3,802	0.1
2001	3,758	3,737	-0.6
2002	3,861	3,836	-0.7

Total Natural Gas Consumption
(Trillion Cubic Feet)

Year	March 2003 MER	April 2003 MER	Percent Difference
2000	22.5	23.5	4.4
2001	20.9	22.3	6.7
2002	20.3	23.2	14.3

Total Coal Consumption
(Million Short Tons)

Year	March 2003 MER	April 2003 MER	Percent Difference
2000	1,081	1,084	0.3
2001	1,053	1,060	0.7
2002	1,063	1,065	0.2

Total Petroleum Consumption
(Thousand Barrels per Day)

Year	March 2003 MER	April 2003 MER	Percent Difference
2000	19,701	19,701	0.0
2001	19,649	19,649	0.0
2002	19,656	19,656	0.0

Total Renewable Energy Consumption
(Trillion Btu)

Year	March 2003 MER	April 2003 MER	Percent Difference
2000	6,868	6,158	-10.3
2001	6,189	5,324	-14.0
2002	6,760	5,891	-12.9

Sources: Electricity Net Generation, Table 7.2 of March 2003 *MER* and Table 7.2a of the April 2003 *MER*. Natural Gas, Consumption, Table 4.4 March 2003 *MER* and April 2003 *MER*. Coal Consumption, Table 6.2 of March 2003 *MER* and April 2003 *MER*. Petroleum Consumption, Table 3.1a of March 2003 *MER* and April 2003 *MER*. Renewable Energy Consumption, Table 10.1 of March 2003 *MER* and April 2003 *MER*.

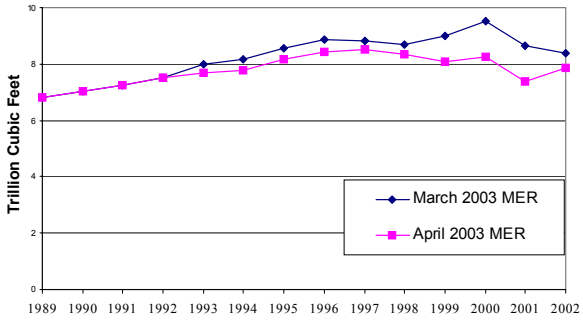
Revisions resulting from changing the source of fuel consumption data for nonutilities and from EIA's data review affect data beyond the category of nonutilities. For example, the revised estimate of natural gas consumption for 2002 is 14 percent higher in the April 2003 *Monthly Energy Review (MER)* than in the March 2003 *MER* (Table D1).

On the other hand, the revised estimate of renewable energy consumption for 2002 is 13 percent lower in the April 2003 *MER* than in the March 2003 *MER* (Table D1), due largely to a downward revision in the estimate of biomass energy consumption particularly wood/wood waste at electric power plants. A smaller revision resulted from the procedure to assign fuel consumption by energy type at some solar and hydroelectric plants. In the April *MER*, the assignment was made at the boiler level while in the March *MER* it was based on aggregate plant-level information. In addition, beginning with the April 2003 *Monthly Energy Review*, electricity net imports derived from hydroelectric power and geothermal energy are no longer included in renewable energy consumption data. They continue to be included in total U.S. energy consumption, with fuel sources unspecified (see Tables 1.3 and 2.6). The change results in a 0.1-to-0.5 quadrillion Btu drop in total renewable energy consumption from 1973 forward.

Estimates for coal and petroleum consumption show little or no change between the March and April *MER's* for the same year. This is also true for electricity net generation.

In addition, as a result of the recategorization of nonutility data, estimates of industrial natural gas consumption have been revised and are lower. For example, in March 2003 *MER,* EIA showed 8.39 trillion cubic feet delivered to industrial facilities in 2002. In April 2003 *MER*, the comparable figure (under the "other industrial" heading) for 2002 is 7.85 trillion cubic feet (Figure D3). This revision is a result of the change in the operational definition of deliveries to the industrial sector, which is explained in Section V.

Figure D3. Industrial Natural Gas Consumption: March 2003 MER and April 2003 MER



To summarize the changes, data for combined-heat-and-power plants are shown separately by end-use sector in the April 2003 *MER* while they were included with the sector totals in the March 2003 *MER*. Independent power producers are excluded from the industrial sector in the April 2003 *MER* and included in the electric power sector. Data are based on a survey of electric generators. By contrast, independent power producers were included in the industrial sector in the March 2003 *MER* for natural gas and data were based on a survey of natural gas suppliers.

III. Multi-Fuel Publications

EIA's multi-fuel publications—i.e., those that report data on numerous energy sources and provide overall energy totals—have been reformatted to incorporate the new approach described in detail in the preceding sections. The *Annual Energy Review* (*AER*) *2001* was the first of the historical multi-fuel publications to be released with the new formats. EIA has now redesigned the *Monthly Energy Review* (*MER*) to make its data and presentations conform to the *AER 2001*. In addition to the *MER*, the State-level consumption, price, and expenditure estimates that have previously been released under the titles *State Energy Data Report* and *State Energy Price and Expenditure Report* will be reformatted beginning with the 2001 update. Coordinated data and presentation changes are also being incorporated into EIA's forecast products—the *Short-Term Energy Outlook* (STEO) and the *Annual Energy Outlook* (AEO).

The April 2003 *MER* includes many redesigned tables (and related graphs) that were adapted to present the new electricity data. Revised tables fall into three groupings: electricity, fuels, and total energy. These tables are interrelated.

Tables 7.3a, 7.3b, and 7.3c provide data on fuel consumption for both electricity generation and useful thermal output. Data on consumption by the electric power sector on Table 7.3b correspond with data for this sector on fuel consumption tables (e.g., Table 4.4 on natural gas, Table 6.2 on coal, and Table 10.2c on renewable energy consumption).

Similarly, data on commercial sector CHP plants on Table 7.3c correspond with the commercial sector CHP columns of the fuel consumption tables and data on industrial sector CHP plants on Table 7.3c correspond with the industrial sector CHP columns of the fuel consumption tables.

Table 7.3d provides data on consumption of combustible fuels for electricity generation. Data on the amount of fossil fuel (such as coal, residual fuel oil, and natural gas) and on the amount of renewable energy used to generate electricity at both electricity-only and CHP plants can be found on this table.

Table 7.3d data on fuel consumed for electricity generation differ from those for the electric power sector on the fuel consumption tables (e.g., Table 4.4 for natural gas) because the electric power sector includes entities that produce thermal energy as well as electricity (CHP plants whose primary business is to sell electricity). In addition, there are entities that generate electricity that are not in the electric power sector (commercial sector CHP plants and industrial sector CHP plants).

Electricity Tables. Most March 2003 *MER* electricity tables were altered in format for presentation in the April 2003 *MER*. Below is a crosswalk of the March 2003 *MER* tables to their closest matches in the April 2003 *MER*:

March 2003 MER	April 2003 MER Table Title
7.1	7.1 Electricity Overview
7.2	7.2a Electricity Net Generation: Total (All Sectors)
7.3	7.2b Electricity Net Generation: Electric Power Sector
7.4	7.2c Electricity Net Generation: Commercial and Industrial Sectors
---	7.3a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors)
---	7.3b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector
---	7.3c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors
7.6	7.3d Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors)
7.7	7.3e Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector
7.8	7.3f Estimated Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors
7.9	7.4 Stocks of Coal and Petroleum: Electric Power Sector
7.5	7.5 Electricity End Use

Fuel Tables. The following April 2003 *MER* fuel tables were reformatted from the previous year's report to incorporate the new electricity information:

4.4	Natural Gas Consumption by Sector
6.2	Coal Consumption by Sector
6.3	Coal Stocks by Sector
10.2c	Renewable Energy Consumption: End-Use Sectors
A3	Approximate Heat Content of Petroleum Product Weighted Averages
A4	Approximate Heat Content of Natural Gas
A5	Approximate Heat Content of Coal and Coal Coke

Total Energy Tables. The following April 2003 *MER* tables summarize all energy consumption and include format changes that are related to the new electricity information:

2.1	Energy Consumption by Sector
2.3c	Commercial Energy Consumption Sector
2.4d	Industrial Energy Consumption Sector
2.6	Electric Power Sector Energy Consumption

IV. Electric Power Data

Summary of Key Changes

EIA previously presented data on electric power, such as generation and fuel consumption, in the following categories:

- Electric utilities
- Nonutility power producers (independent power producers and combined-heat-and-power plants)
- Electric power industry (sum of electric utilities and nonutility power producers)

Now EIA is organizing data using the following new categories:

- Electricity-only-plants
- Combined-heat-and-power (CHP) plants

Data on CHP plants are disaggregated by the end-use category (commercial, industrial, electric power) that they report as their major line of business. The categorization is based on their North American Industry Classification System code. For example, a CHP plant that is part of a hospital will be classified as "commercial." Similarly, a CHP plant that reports that it is part of a paper mill will be classified as "industrial," and a CHP plant that reports that its primary business is selling power to others will be classified as "electric power." In addition, EIA is defining the electric power sector to include electricity-only plants and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public.

EIA is presenting data for the following categories:

- Electric Power Sector
- Commercial and industrial CHP plants
- Total (sum of Electric Power Sector plus commercial and industrial CHP plants and equal to the prior "electric power industry" category)

Another change is that EIA has estimated and is presenting data on the amount of fuel used to generate electricity and the amount of fuel used for useful thermal output. Furthermore, during the course of recategorizing the data, EIA performed a thorough data quality review and revised data to resolve anomalies.

Efforts to Improve Data

EIA reviewed electric power data from 1989 through 2002 to determine whether there were anomalies. The 1989–2000 data for nonutilities were from Form EIA-860B, "Annual Electric Generator Report-Nonutility," and its predecessor, Form EIA-867, "Annual Nonutility Power Producer Report." The 2001 and 2002 data are from Form EIA-906, "Power Plant Report." These forms are used to collect data on fuel consumption, generation, and, with the exception of 1995 through 1997, useful thermal output. When anomalies were identified in the data for the more recent years (1998–2002), EIA contacted selected respondents to resolve the inconsistencies. For the older data it was not pratical to contact respondents. In this situation EIA made data adjustments to resolve the anomalies.

The review included an examination of both respondent-level data and aggregate-level data. EIA reviewed data for facilities with heat rates greater than 40,000 Btu per kilowatthour and less than 5,000 Btu per kilowatthour. The upper limit was chosen to allow for the heat rates of older non-electricity boilers. In addition, EIA reviewed data for facilities with overall efficiency of greater than 100 percent and identified facilities with thermal output that were not designated as CHP plants. To ensure consistency, EIA compared North American Industry Classification System (NAICS) codes, cogenerator status, fuel consumption, electric generation, and thermal output levels over time.

EIA analysts reviewed and evaluated aggregate-level data by State, NAICS code, fuel type, and generator type. For the historical data (1989–1997), EIA also:

- Estimated a value for useful thermal output for 1995 through 1997 (when useful thermal output was not included on the survey form) that produced a heat rate and an efficiency consistent with that observed in other years (see discussion below on CHP fuel use methodology).
- Corrected errors in units reported for fuel consumption.
- Compared data on fuel consumption with data on electric generation and adjusted data on fuel consumption or generation to maintain a consistent ratio.
- Adjusted data on useful thermal output for those respondents with heat rates outside the 5,000-to-40,000 Btu per kilowatthour range to produce an efficiency consistent with other years.

For the 1998-2000 data, the review also included a comparison for consistency with data reported by manufacturing plants on Form EIA-3, "Quarterly Coal Consumption—Manufacturing Plants," since a subset of the EIA-3 manufacturing plants generate electricity and also reported on the electric generator survey Form EIA-860B. In general, there was good correspondence between the data submissions. In situations where there were inconsistencies, selected respondents were contacted to explain the differences.

Allocating CHP Fuel Use

EIA developed the following method for estimating how the total fuel consumed in the boiler is split between electricity generation and useful thermal output:

- First, a steam boiler efficiency rate of 80 percent was assumed[10].
- Then the reported or estimated value for useful thermal output (in Btu) was divided by 0.8 to estimate the fuel used to generate this amount of thermal output.
- Next, this value was subtracted from total fuel consumption and the remainder was assumed to be the amount used for electric generation.

V. Other Energy Data

Natural Gas

A number of changes have been made to natural gas consumption data presentations, definitions, and data sources. As a result of these changes the presentation of natural gas consumption by end-use sector will be consistent with end-use sector presentations and definitions in other EIA publications and the measures of natural gas used by electricity generators will be explicitly presented and identical to the quantities presented in electric power publications.

In prior EIA data publications natural gas consumption was presented for residential, commercial, industrial, transportation, and electric utility sectors. Deliveries of natural gas to independent power producers (called "other nonutility power producers" on the survey form) were included in the data reported for the industrial sector and the measures were collected through natural gas survey forms submitted by gas delivery agents (local distribution companies and pipelines).

Beginning with the April 2003 *Monthly Energy Review* (*MER*) the definition of industrial sector gas consumption for 1993-2002 no longer includes independent power producers. In addition, a new electric power sector is being used that includes independent power producers, utilities, and other electricity generators as described in the previous electricity discussion. The data reported for the electric power sector are derived entirely from data submitted on electricity data collection forms used over the period 1993-2002. These include Forms EIA-759, "Monthly Power Plant Report," and EIA-860B, "Annual Electric Generator Report-Nonutility," through 2000 and Form EIA-906, "Power Plant Report," for 2001 forward.

Compared with past publications, the impact of the definitional change for the industrial sector is to reduce measured natural gas consumption by the industrial sector. For example, in the March 2003 *MER* EIA showed 8.39 trillion cubic feet delivered to industrial facilities in 2002. In the April 2003 *MER*, the comparable figure (under the "other industrial" heading) for 2002 is 7.85 trillion cubic feet. This revision is a result of the change in the operational definition of deliveries to the industrial sector.

Compared with past publications, the impact of the definitional change and the new data sources for the electric power sector is to increase measured natural gas consumption compared to the previous electric utility data series. As a result of the changes in data sources (predominantly new electric power data sources), total natural gas consumption is higher than previously published, i.e., total natural gas consumption has increased by 4, 7, and 14 percent in 2000, 2001, and 2002, respectively.

Also new detail is available about gas consumption in the commercial, industrial and electric power sectors that distinguishes deliveries of natural gas to combined-heat-and-power (CHP) plants in these sectors from deliveries to other facilities within these sectors. "Deliveries to industrial consumers" includes deliveries to industrial consumers that are CHP plants, such as paper mills, as well as other industrial users. Included with the CHP plant data are a small number of industrial firms that report using natural gas only to generate electricity (most likely for their own use). "Deliveries to commercial consumers" also include deliveries to CHP plants, such as hospitals. Similarly, a small number of plants that report natural gas use for only electricity generation are included with the data on commercial CHP plants.

The sources for total commercial and industrial sector data are natural gas survey forms while the sources of the subcomponent CHP data series are electric power survey forms. The sources of all electric power data series, including the CHP subcomponent, are electric power survey forms.

Coal

Data on coal consumed by the commercial and industrial sectors will now be separated into coal consumed by combined-heat-and-power (CHP) plants and coal consumed by the other plants in the commercial and industrial sector (referred to as "other" or "non-CHP").[11]

Consumption by electric utilities and independent power producers, shown separately in the past, will be combined and called "electric power sector." Note that "independent power producers" were previously called "other power producers" in the coal publications and tabulations. Both

[10] Arthur D. Little, Report to the Energy Information Administration, *Industrial Model: Update on Energy Use and Industrial Characteristics*, (September 2001), Appendix C, "Average Boiler Efficiencies."

[11] A small number of commercial and industrial plants that use coal only to generate electricity are included with the data on comm ercial and industrial CHP plants.

terms refer to the same entities, i.e., generating facilities with a North American Industry Classification System (NAICS) code of 22.

The sources for total coal consumption remain unchanged for the residential and commercial sectors and for coke plants. They are:

- Residential and Commercial–Form EIA-6A, "Coal Distribution Report."
- Coke–Form EIA-5, "Coke Plant Report."

For the industrial sector excluding coke plants (referred to as "other industrial") the data sources remain the same for the following categories:

- Manufacturing–Form EIA-3, "Quarterly Coal Consumption—Manufacturing Plants."
- Mines–Form EIA-7A, "Coal Production Report."
- Agriculture, Mining, Construction, and Transportation–Form EIA-6A, "Coal Distribution Report."

For the portion of coal consumed by CHP plants in the commercial and industrial sectors through 2000, data were obtained from Form EIA-860B, "Annual Electric Generator Report-Nonutility," and beginning in 2001, Form EIA-906, "Power Plant Report."

Data for the electric power sector for the years 1989 through 2000 were from Form EIA-759 and Form EIA-860B. Beginning in 2001, data from Form EIA-906 are used.

Petroleum

Data on sales to independent power producers (that may have been previously reported in the industrial sector) are now included in the sales for electric power generation category in the "adjusted sales" tables of the *Fuel Oil and Kerosene Sales Report*, Tables 13-24. These data are presented in Table 2.6 of the April 2003 MER for the electric power sector. This category includes data on electric utilities and data on independent power producers. The data on electric utilities are obtained from Form EIA-759, "Monthly Power Plant Report," and FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and Form EIA-906, "Power Plant Reports." The data on independent power producers are from Form EIA-860B, "Annual Electric Generator Report-Nonutility," through 2000, and Form EIA-906, "Power Plant Report," for 2001 forward. Previously, some data on sales of kerosene, distillate, and residual fuel oils to independent power producers were obtained from Form EIA-821, "Fuel Oil and Kerosene Sales Report," but coverage may not have been complete or data for independent power producers may have been included in the end-use sectors.

Renewable Energy

For the first time EIA is presenting data on biomass energy consumption that were obtained by aggregating individual power plant data for nonutilities rather than by applying a generalized heat rate to the aggregate net generation figure. All new renewable energy publications also reflect changes in EIA definitions of the energy use sectors described earlier.

Glossary

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that will be used for blending or compounding into finished aviation gasoline (e.g., straight run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. gallons.

Base Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

Black Liquor (Pulping Liquor): The alkaline spent liquor removed from the digesters in the process of chemically pulping wood. After evaporation, the liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

British Thermal Unit (Btu): The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit). See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9º F. It is extracted from natural gas or refinery gas streams.

Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1º F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C_4H_8) recovered from refinery processes.

Capacity Factor: The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

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 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.

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000º F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

Combined-Heat-and-Power (CHP) Plant: A plant designed to produce both heat and electricity from a single heat source. Note: This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

Commercial Sector: An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. *Note*: This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

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 generated from flowing water that is not created by **hydroelectric 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 sales transaction in which the seller pays for the transportation and insurance of the goods to the port of destination specified by the buyer.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include: 1) small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2) small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; and 3) drip gases, and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

Crude Oil F.O.B. Price: The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

Crude Oil (Including Lease Condensate): A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

Crude Oil Landed Cost: The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Crude Oil Refinery Input: The total crude oil put into processing units at refineries.

Crude Oil Stocks: Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Crude Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Cubic Foot (Natural Gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60º F.

Degree-Day Normals: Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961–1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days, Cooling (CDD): A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

Degree-Days, Heating (HDD): A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specified reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

Degree-Days, Population-Weighted: Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

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. It includes diesel fuels and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and electric power generation.

Dry Hole: An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Dry Natural Gas Production: See **Natural Gas (Dry) Production**.

Electrical System Energy Losses: The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electricity Generation: The process of producing electric energy, or the amount of electric energy produced by transforming other forms of energy, commonly expressed in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Gross: The total amount of electric energy produced by generating units and

measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Net: The amount of **gross electricity generation** less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Note: Electricity required for pumping at **hydroelectric pumped-storage** plants is regarded as electricity for station service and is deducted from gross generation.

Electricity-Only Plant: A plant designed to produce Celectricity only. See also **Combined-Heat-and-Power (CHP) Plant.**

Electricity Retail Sales: The amount of electricity sold to customers purchasing electricity for their own use and not for resale.

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Power Sector: An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public—i.e., North American Industry Classification System 22 plants. See also **Combined-Heat-and-Power (CHP) Plant, Electricity-Only Plant, Electric Utility,** and **Independent Power Producer.**

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities for delivery of electric energy for use primarily by the public. Included are investor-owned electric utilities, municipal and State utilities, Federal electric utilities, and rural electric cooperatives. A few entities that are tariff based and corporately aligned with companies that own distribution facilities are also included. Note: Due to the issuance of FERC Order 888 that required traditional electric utilities to functionally unbundle their generation, transmission, and distribution operations, "electric utility" currently has inconsistent interpretations from State to State.

End-Use Sectors: The **residential**, **commercial**, **industrial**, and **transportation** sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy service provider: An energy entity that provides service to a retail or end-use customer.

Energy-Use Sectors: A group of major energy-consuming components of U.S. society developed to measure and analyze energy use. The sectors most commonly referred to in EIA are: **residential**, **commercial**, **industrial**, **transportation**, and **electric power**.

Ethane: A normally gaseous straight-chain hydrocarbon (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48º F. It is extracted from natural gas and refinery gas streams.

Ethanol: An anhydrous denatured aliphatic alcohol intended for gasoline blending. See Oxygenates**.**

Ethylene: An olefinic hydrocarbon (C_2H_4) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

Exports: Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

Federal Energy Administration (FEA): A predecessor of the Energy Information Administration.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

Federal Power Commission (FPC): The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric

power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

First Purchase Price: The 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. (Free on Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See **U.S.S.R.**

Fossil Fuel: An energy source formed in the Earth's crust from decayed organic material, such as **petroleum**, **coal**, and **natural gas**.

Fossil-Fueled Steam-Electric Power Plant: An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C_2H_5OH) 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 alcohol (generally ethanol but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline, Oxygenated**.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

GT/IC: Gas turbine and internal combustion plants.

Heat Content 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.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

Hydroelectric Power: The production of electricity from the kinetic energy of falling water.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

Hydroelectric Pumped Storage: Hydroelectricity that is generated during peak load periods by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

Imports: Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an **electric utility**.

Industrial Sector: An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing (**NAICS (North American Industry Classification System**) codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); natural gas distribution (NAICS code 2212); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. *Note*: This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Isobutane: A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams. See **Butane**.

Isobutylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isopentane: A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290° to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate having a maximum distillation temperature of 401º F at the 10-percent recovery point, a final boiling point of 572º F, and a minimum flash point of 100º F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Kilowatt: A unit of electrical power equal to 1,000 **watts**.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 **kilowatt** (1,000 **watts**) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour**.

Landed Costs: The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

Lease Condensate: A mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. Note: This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

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 -260º F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

Low-Power Testing: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

Marketed Production (Natural Gas): Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

Methane: A colorless, flammable, odorless, hydrocarbon gas (CH_4) that is the principal constituent of natural gas. It is also an important source of hydroge in various industrial processes.

Methyl Tertiary Butyl Ether (MTBE): An ether, $(CH_3)_3COCH_3$, intended for motor gasoline blending. See **Oxygenates**.

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

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline Blending: Mechanical mixing of motor gasoline blending components and oxygenates as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

Motor Gasoline Blending Components: Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. Note: oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122ºF to 158ºF at the 10-percent recovery point to 365ºF to 374ºF at the 90-percent recovery point. "Motor gasoline" includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

Motor Gasoline Grades: The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three grades: regular, midgrade, and premium. Note: Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

Regular Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Midgrade Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Premium Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Motor Gasoline, Oxygenated: Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. Note: Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are

included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

Motor Gasoline, Reformulated: Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. Note: This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Retail Prices: Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service.

Motor Gasoline (Total): For stock level data, a sum including finished motor gasoline stocks plus stocks of motor gasoline blending components but excluding stocks of oxygenates.

MTBE: See **Methyl Tertiary Butyl Ether**.

NAICS (North American Industry Classification System) A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to http://www.census.gov/epcd/www/naics.html**).**

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

Natural Gas: A gaseous mixture of hydrocarbon compounds, primarily methane, used as a fuel for electricity generation and in a variety of ways in buildings, and as raw material input and fuel for industrial processes.

Natural Gas, Dry: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. Note: Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

Natural Gas (Dry) Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and 2) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

Natural Gas Marketed Production: Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring; nonhydrocarbon gases removed in treating and processing operations; and quantities vented and flared.

Natural Gas Plant Liquids (NGPL): Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Material as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Wellhead Price: The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

Natural Gasoline: A mixture of hydrocarbons (mostly pentanes and heavier) extracted from natural gas that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane, which is a saturated branch-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Summer Capacity: The maximum output, commonly expressed in **kilowatts** (kW) or megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand. 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.

Nuclear Electric Power (Nuclear Power): Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Nuclear Reactor: An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

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**.

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, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

PAD Districts: Petroleum Administration for Defense Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

Pentanes Plus: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks: Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Coke: See **Coke, Petroleum**.

Petroleum Consumption: 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: Same as **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: Includes consumption of 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 (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67º F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C_3H_6) recovered from refinery or petrochemical processes.

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 hydrolectric power**, **wood**, **waste**, **alcohol fuels**, **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. For further explanation see

http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.htm.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

Rotary Rig: A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Short Ton (Coal): A unit of weight equal to 2,000 pounds.

SIC (Standard Industrial Classification): A set of codes developed by the U.S. Office of Management and Budget which categorizes industries into groups with similar economic activities. Replaced by **NAICS (North American Industry Classification System)**.

Solar Energy: See **Solar Thermal Energy** and **Photovoltaic Energy**.

Solar Thermal Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or **electricity**.

Special Naphthas: All finished products within the naphtha boiling ranges that are used as paint thinner, cleaners or solvents. Those products are refined to a

specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

Steam Coal: All nonmetallurgical coal.

Steam-Electric Power Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Still Gas (Refinery Gas): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and, petrochemical feedstock.

Stocks: See **Coal Stocks**, **Crude Oil Stocks**, or **Petroleum Stocks, Primary**.

Strategic Petroleum Reserve (SPR): Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Supplemental Gaseous Fuels: Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): (Also referred to as substitute natural gas) A manufactured product, chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons that may easily be substituted for or interchanged with pipeline-quality 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. *Note*: Various EIA programs differ in sectoral coverage. For further information see http://www.eia.doe.gov/neic/datadefinitions/Guideforwebtrans.htm.

Unaccounted-for Crude Oil: Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

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: The 50 States and the District of Columbia. Note: The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 States and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States."

Useful Thermal Output: The thermal energy made available in a combined-heat-and-power system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: 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 production site or at processing plants.

Vessel Bunkering: Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

Waste Energy: 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 used as fuel.

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Waxes: Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Wind Energy: Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

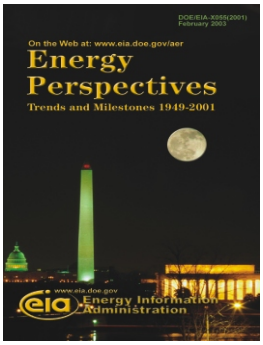
Wood Energy: Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.

Working Gas: The volume of gas in a reservoir that is in addition to the base gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.

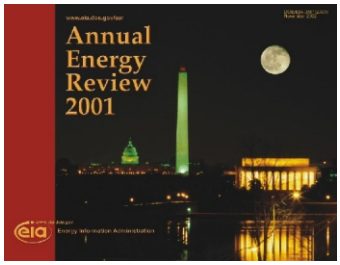
Integrated Historical Energy Data Sources
...from the Energy Information Administration

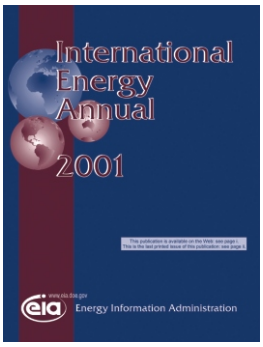
Monthly Energy Review
Current monthly data on production, consumption, stocks, trade, and prices of the principal energy commodities in the United States. Also available in print.
http://eia.dog.gov/mer/

Energy Perspectives:
Trends and Milestones 1949-2001
A graphical, historical overview of U.S. energy trends and milestones. Many of the graphs extend over 50 years. Also available as a pamphlet.
http://eia.doe.gov/aer/ep/overview.html



Aannual Energy Review
Long-term historical annual data on U.S. energy production, consumption, stocks, trade and prices. Most series begin in 1949. Also available in print.
http://eia.doe.gov/aer

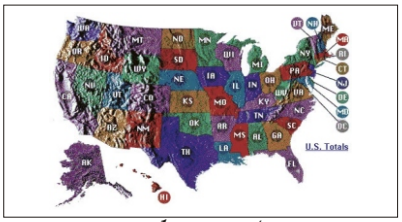




International Energy Annual
Annual data for production, consumption, and trade of primary energy commodities in more than 220 countries, dependencies, and areas of special sovereignty. Also included are prices of crude oil and petroleum products in selected countries.
http://eia.doe.gov/iea

State Energy Data
Annual energy consumption, price, and expenditure estimates at the State and national levels by energy source and by major sector (residentiao, commercial, industrial transportation, and electric utilities). Consumption data begin with 1960; price and expenditure data begin with 1970.
http://eia.doe/gov/states

On the Web



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EIA has many other data products. For more information, contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov, or access EIA's Home Page (http://www.eia.doe.gov).

International Energy Information

from the Energy Information Administration

International Energy Annual

World energy consumption and production data by country for major forms of energy (petroleum, natural gas, coal, and electricity).

International Energy Outlook

Scenario-based forecasts through 2025 of world energy demand by sector and fuel, plus discussion of electricity, transportation, and environmental issues.

International Petroleum Monthly

Monthly summary of world petroleum production, demand, stocks, and imports data.

Short-Term Energy Outlook

Includes monthly discussion and quarterly forecast of international oil markets (crude oil prices and international oil demand, supply, and stocks).

OPEC Fact Sheet

Monthly discussion, analysis, and data on the activities of the Organization of Petroleum Exporting Countries and its member countries in the international oil market.

Country Analysis Briefs

Detailed statistics and analyses on the energy situation in over 100 countries, regions, and organizations. Also included are "special topic" reports, as well as a monthly and an annual chronology of major energy developments.

Annual Energy Review

Includes time series data for energy production, consumption, capacity, reserves, and prices, worldwide and by selected countries and regions.

Monthly Energy Review

Includes monthly data on crude oil production, petroleum consumption, and petroleum stocks, worldwide and by selected countries and regions.

Foreign Direct Investment in U.S. Energy

Analysis of foreign direct investment in U.S. energy resources, assets, and companies, describing the role of foreign ownership in U.S. energy enterprises with respect to acquisitions and divestitures, cumulative net investment (including net loans), capital investment, energy operations, and financial performance.

Performance Profiles of Major Energy Producers

Includes a report on the worldwide investment activities and operations of the major U.S. energy-producing companies.

These reports and many other energy-related resources are all available on the EIA website at www.eia.doe.gov. Select “By Geography” and then “International.” Some reports are available in hard copy as well. For more information, contact the National Energy Information Center at 202–586–8800 or infoctr@eia.doe.gov.

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