Monthly Energy Review

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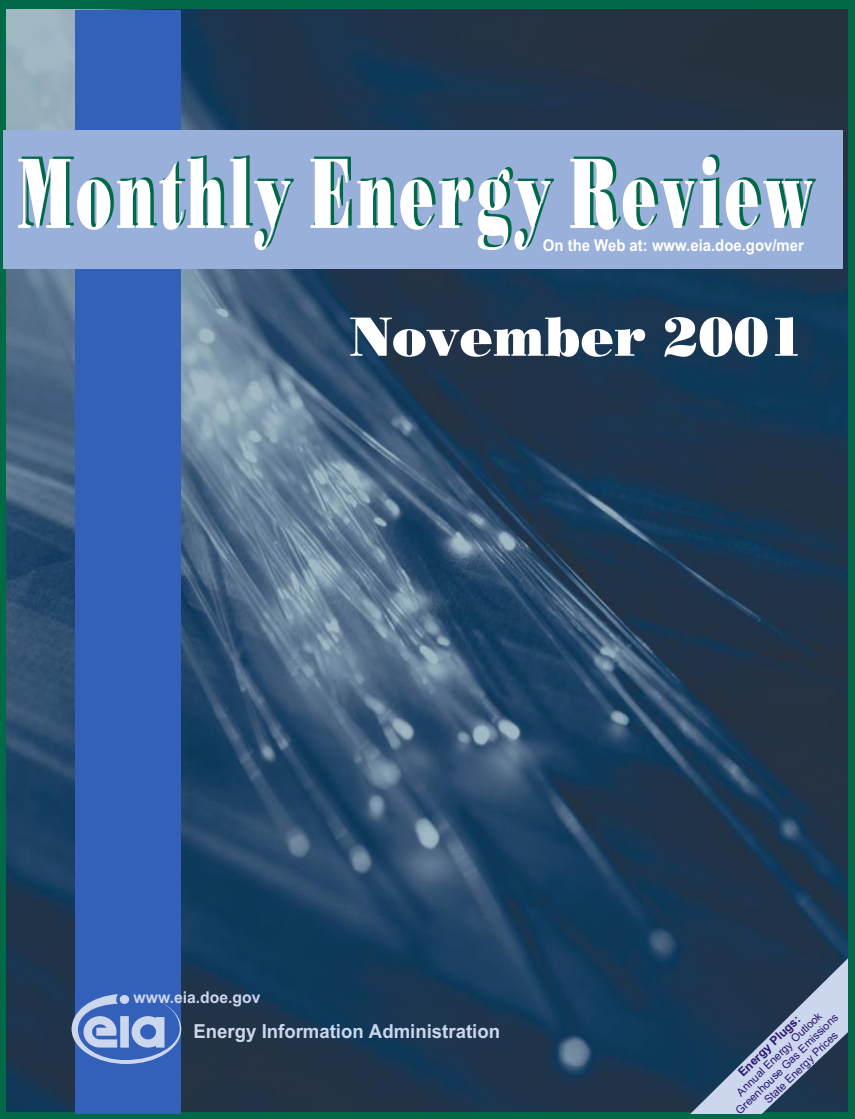
November 2001



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Monthly Energy Review

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

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Monthly Energy Review

November 2001

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Energy Plug

Annual Energy Outlook 2002, Early Release

In a context of declining or only slowly rising energy prices, strong economic growth and expanding energy demand are projected to raise total U.S. energy consumption to 131 quadrillion British thermal units (Btu) in 2020, up about 32 percent from the 2000 level of 99 quadrillion Btu, according to the reference-case forecast in the Energy Information Administration's *Annual Energy Outlook 2002*.

Despite an expected decline in energy intensity (energy use per dollar of gross domestic product) of 1.5 percent per year through 2020, energy demand is projected to rise in all economic sectors. The highest rate of growth is in the transportation sector, expected to grow at an average annual rate of 1.9 percent to 40 quadrillion Btu in 2020. Next is commercial energy consumption (up 1.7 percent per year to 23 quadrillion Btu), then industrial consumption (up 1.1 percent per year to 44 quadrillion Btu), and finally residential consumption (up 1 percent per year to 24 quadrillion Btu). Energy use per capita is also projected to rise slightly.

Other projected reference-case energy trends are as follows:

Electricity. Electricity demand is expected to rise 1.8 percent per year through 2020, driven in part by growth in computers, office equipment, and appliances. Electricity generation from coal, natural gas, and renewable energy sources increases to meet the rising demand, although some fossil fuel-fired and nuclear generating plants will be retired. As increasing competition in the electric power sector encourages higher efficiencies and less capital-intensive investment, natural gas is projected to expand its share of total generation from 16 percent in 2000 to 32 percent in 2020, while the share of coal is expected to decline from 52 percent to 46 percent. Nuclear generating capacity also declines; of the 98 gigawatts available in 2000, 10 gigawatts are expected to be retired for economic reasons by 2020. No new plants are expected. Renewable energy generation, confronted with cheaper fossil-fired generation, grows only 1.3 percent annually.

Petroleum. Petroleum demand is expected to grow 1.5 percent per year through the forecast period (see figure), led by growth in the transportation sector. Although crude oil production declines 0.2 percent per year, output from additional oil fields in Alaska and increases in natural gas plant liquids production boosts total domestic petroleum supplies. Nevertheless, rising demand will necessitate higher net imports, which are projected to reach 62 percent of total consumption in 2020.

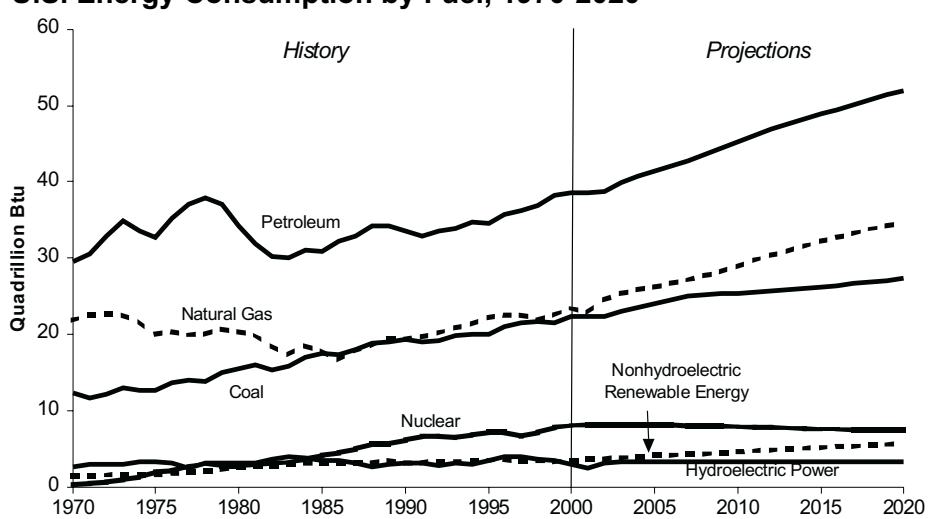
Natural gas. Driven mainly by greater use for electricity generation, consumption of natural gas is expected to grow 2 percent annually and reach 34 trillion cubic feet in 2020. Production grows at the same rate, and net imports increase nearly 60 percent. Net imports of liquefied natural gas are also projected to rise.

Coal. Growing electricity output helps boost projected demand for coal by 26 percent to 1,365 million short tons in 2020, a growth rate of 1.2 percent yearly. Production rises to 1,397 million short tons and exports decline slightly.

Renewable energy. As noted, renewable electricity generation grows slowly through 2020, but total renewable production—including industrial biomass, ethanol, and all electricity sources—increases more than one-third to 8.9 quadrillion Btu.

Carbon dioxide emissions. Rising energy demand, retiring nuclear capacity, and slow renewables growth contribute to an increase in energy-related emissions of carbon dioxide of about one-third, from 1,562 million metric tons carbon equivalent in 2000 to 2,088 million metric tons in 2020.

U.S. Energy Consumption by Fuel, 1970-2020



Source: Energy Information Administration.

Annual Energy Outlook 2002, Early Release, is available only on the EIA website, with the full report in hard copy expected to be available in late December. Go to www.eia.doe.gov and select Forecasts and Annual (to 2020). Contact wmaster@eia.doe.gov or call 202–586–8959 if you have problems. Questions about the report's content should be directed to Susan Holte, Office of Integrated Analysis and Forecasting, at susan.holte@eia.doe.gov or 202–586–4838. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202–586–8800.

Energy Plug

Emissions of Greenhouse Gases in the United States 2000

U.S. emissions of greenhouse gases in 2000 rose for the ninth year since 1990, up 2.5 percent from 1999 levels, according to preliminary data published in the Energy Information Administration's *Emissions of Greenhouse Gases in the United States 2000* (see table). U.S. emissions have risen in all but 2 years since 1990 and have averaged an annual growth rate of 1.3 percent.

The latest edition of the annual report details changes in U.S. emissions of four major categories of greenhouse gases: carbon dioxide, methane, nitrous oxide, and an important group of engineered gases.

Carbon dioxide. Emissions of carbon dioxide (CO_2), the chief greenhouse gas from human-caused sources, rose 3.1 percent in 2000 and accounted for 83 percent of U.S. total carbon-equivalent greenhouse gas emissions; 81 percent of the total was due to CO_2 emissions from fossil fuel combustion. The sharpest upturn in 2000 was in the electric power sector, where emissions jumped 4.7 percent, nearly double the sector's average annual increase from 1990 to 2000. The increase was driven in part by a shift in power generation from renewable fuels (especially hydroelectric power), which declined 11 percent, to fossil fuels; coal-fired generation rose 4.3 percent and natural-gas fired generation rose 7.1 percent in 2000.

Industrial CO_2 emissions were essentially flat in 2000, despite robust economic growth. Industrial energy consumption is highly concentrated, and six groups—petroleum refining; chemicals; primary metals; paper; food; and stone, clay, and glass—account for more than two-thirds of all industrial CO_2 emissions. Economic growth in those six groups was sluggish or even negative (paper) in 2000.

Transportation-sector carbon dioxide emissions rose 3.1 percent in 2000. Although gasoline consumption grew only 0.6 percent, emissions from the use of jet fuel rose 3.4 percent and those from distillate fuel (primarily diesel) rose 4.6 percent.

Methane. Emissions of methane, which account for about 9 percent of U.S. carbon-equivalent greenhouse gas emissions, declined 1.6 percent in 2000. Three sources—energy, waste management, and agriculture—account for 99 percent of U.S. methane emissions. Energy-related emissions were basically unchanged at 11.0 million metric tons. Agricultural emissions, which are dominated by emissions from domestic livestock and their decomposing wastes, rose slightly. However, emissions from waste management fell 7 percent, building on underlying longterm trends in the volume of waste landfilled (down) and in landfill gas captured (up), and benefiting from a surge in newly online methane recovery systems.

Nitrous oxide. Emissions of nitrous oxide, which accounts for about 5 percent of U.S. carbon-equivalent emissions, declined an estimated 0.6 percent in 2000. Agricultural sources, especially nitrogen fertilization of soils, produced about 70 percent of the total. Another 23 percent can be laid to fossil fuel use, particularly vehicles equipped with catalytic converters.

Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Emissions of these engineered gases (HFCs, PFCs, and SF_6 respectively), which account for about 2.5 percent of the Nation's carbon-equivalent greenhouse gas emissions, rose 4.5 percent in 2000. An 8.3 percent rise in HFC emissions accounted for nearly all the aggregate increase and is mainly due to HFCs' widening use as replacements for chlorofluorocarbons (CFCs), now being phased out by international treaty.

U.S. Emissions of Greenhouse Gases, Based on Global Warming Potential, 1990-2000
(Million Metric Tons of Carbon Equivalent)

Gas	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	P2000
Carbon Dioxide	1,355	1,341	1,367	1,399	1,425	1,438	1,488	1,509	1,511	1,536	1,583
Methane	199	200	200	194	194	195	188	186	181	180	177
Nitrous Oxide	94	96	98	98	106	101	101	99	99	100	99
HFCs, PFCs, SF_6	30	28	29	30	32	35	39	42	46	45	47
Total	**1,678**	**1,665**	**1,694**	**1,722**	**1,757**	**1,770**	**1,815**	**1,836**	**1,836**	**1,860**	**1,906**

P=Preliminary data.
Notes: • HFCs=hydrofluorocarbons. PFCs=perfluorocarbons. SF_6=sulfur hexafluoride. • These data reflect the use of revised global warming potentials (GWPs) published in the *Third Assessment Report* from the Intergovernmental Panel on Climate Change (2001).
Source: Energy Information Administration.

Emissions of Greenhouse Gases in the United States 2000, DOE/EIA-0573(2000); 105 pages, 35 tables, 10 figures. For information on hard copies of the Executive Summary, contact the National Energy Information Center (NEIC) at infoctr@eia.doe.gov or 202–586–8800.To access the report via the Internet, go to www.eia.doe.gov and select Environment, Greenhouse Gas, and then the title under Featured Products. Contact wmaster@eia.doe.gov or call 202–586–8959 if you have problems. Questions about the report's content should be directed to Perry Lindstrom, Office of Integrated Analysis and Forecasting, at perry.lindstrom@ eia.doe.gov or 202–586–0394. For general information about energy, contact NEIC.

Energy Plug

State Energy Price and Expenditure Report 1999

The United States spent over half a trillion dollars on energy in 1999 (see table). Almost half of that total ($263 billion) was used to purchase petroleum products, including $149 billion spent on motor gasoline. Consumers also spent $84 billion on natural gas and $26 billion on coal, for a total of $372 billion on fossil fuels. Energy expenditures accounted for 6 percent of the Nation's 1999 gross domestic product.

Energy expenditures varied widely across the country in 1999, with the total ranging from $1 billion in the District of Columbia to $56 billion in California. Per-person expenditures averaged $2,049 for the entire country but ranged from $1,674 in Florida to $3,861 in Wyoming.

By sector, the largest expenditures occurred in the transportation sector ($209 billion), followed by the residential ($137 billion), industrial ($114 billion), and commercial ($98 billion) sectors. Transportation energy expenditures ranged from $472 per person in New York to $1,904 per person in Wyoming. Residential energy expenditures ranged from $333 per person in Utah to $704 per person in Connecticut.

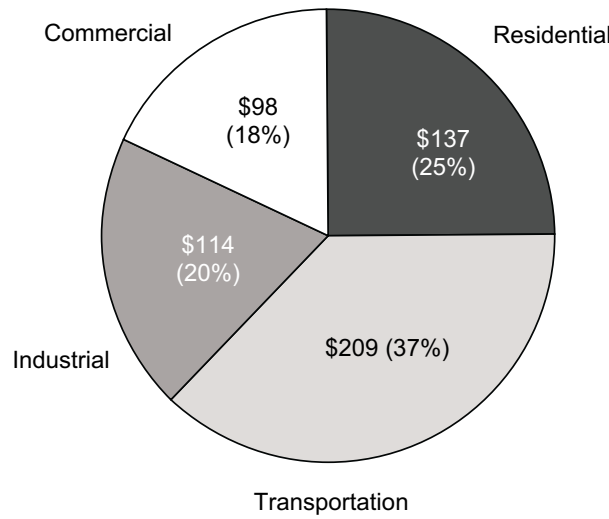
U.S. Energy Expenditures, 1999
(Million Dollars)

Coal	**25,920**
Coking Coal	1,306
Steam Coal	24,613
Coal Coke, Net Imports	**140**
Imports	226
Exports	-86
Natural Gas	**83,512**
Petroleum	**262,912**
Distillate Fuel	54,996
Jet Fuel	13,878
LPG	19,147
Motor Gasoline	149,260
Residual Fuel	4,300
Other	21,332
Nuclear Fuel	**3,617**
Wood and Waste	**2,341**
Primary Energy*	**378,554**
Cost of Fuel for Electricity	-36,550
Electricity	216,737
Total	**558,742**

*Includes $112 million for net imports of electricity.
LPG=Liquefied petroleum gases.

Source: Energy Information Administration.

U.S. Energy Expenditures by Sector, 1999
(Billion Dollars)



Source: Energy Information Administration.

The overall U.S. average price for energy in 1999 was $8.41 per million British thermal units (Btu). The lowest State-level average price was $5.77 per million Btu (in Louisiana), while the highest was $13.23 per million Btu (in the District of Columbia). U.S. consumers paid electricity's relatively high average price of $19.37 per million Btu for its flexibility and cleanliness at the point of consumption. In comparison, they paid an average of $7.33 per million Btu for petroleum, $4.26 per million Btu for natural gas, $1.55 per million Btu for wood and waste, $1.26 per million Btu for coal, and 47 cents per million Btu for nuclear fuel.

The *State Energy Price and Expenditure Report 1999* (*SEPER*) presents price and expenditure estimates for selected years from 1970 through 1999 by energy resource and sector for all States and for the Nation. The related website provides data for all years 1970 through 1999. The new edition includes 2 years of new data, 1998 and 1999, as well as revisions to previous years' data where new information became available.

Much of the expenditures work in *SEPER* relies on a companion publication, the *State Energy Data Report* (*SEDR*), which is also published by the Energy Information Administration. *SEDR* presents annual estimates of U.S. and State-level energy consumption by energy resource and sector. Both reports include extensive documentation of data sources and estimation procedures as well as summaries of the most significant changes since the previous release.

State Energy Price and Expenditure Report 1999 , DOE/EIA-0376(99); 448 pages, 372 tables. For information about hard copies of the report, contact the National Energy Information Center (NEIC) at infoctr@eia.doe.gov or 202–586–8800. To access it via the Internet, go to www.eia.doe.gov and select By Geography, States, and then Prices & Expenditures. Contact wmaster@eia.doe.gov or call 202–586–8959 if you have problems. Questions about the report's contents should be directed to Julia Hutchins, Office of Energy Markets and End Use, at julia.hutchins@eia.doe.gov or 202–586–5138. For general information about energy, contact NEIC.

Section 1. Energy Overview

Energy production during August 2001 totaled 6.3 quadrillion Btu, a 1.1-percent increase compared with the level of production during August 2000. Production of coal increased 4.6 percent; crude oil and nuclear electric power increased 0.6 percent each; natural gas plant liquids increased 0.3 percent; and natural gas (dry) remained unchanged, compared with the level of production during August 2000.

Energy consumption during August 2001 totaled 8.3 quadrillion Btu, 2.7 percent below the level of consumption during August 2000. Consumption of natural gas decreased 6.2 percent; petroleum decreased 2.0 percent; nuclear electric power increased 0.6 percent; and coal increased 0.2 percent, compared with the level 1 year earlier.

Net imports of energy during August 2001 totaled 2.2 quadrillion Btu, 4.1 percent below the level of net imports 1 year earlier. Net imports of natural gas rose 10.4 percent; crude oil decreased 8.6 percent; and petroleum products decreased 0.7 percent. Net exports of coal decreased 47.3 percent while net imports of coal coke decreased 51.2 percent, compared with the level in August 2000.

Table 1.1 Energy Summary for August 2001

(Quadrillion Btu)

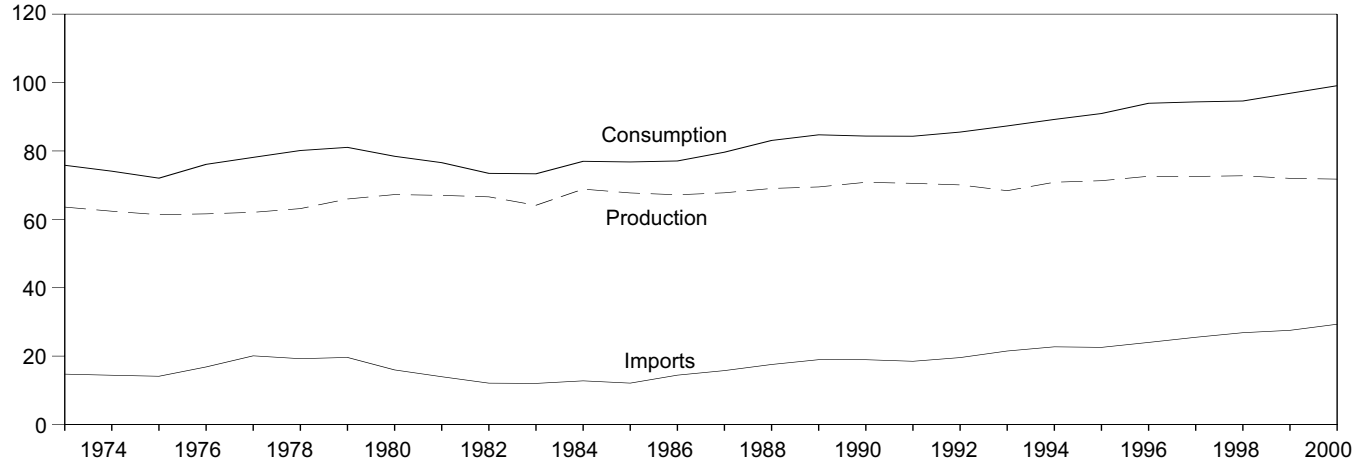
	August			Cumulative January Through August				
	2001	2000	Percent Change[a]	2001	2001 Daily Rate	2000	2000 Daily Rate	Percent Change[b]
Production[c]	**6.307**	**6.238**	**1.1**	**48.481**	**0.200**	**48.104**	**0.197**	**1.2**
Fossil Fuels	**5.073**	**4.972**	**2.0**	**38.972**	**.160**	**38.160**	**.156**	**2.5**
Coal	2.130	2.037	4.6	15.886	.065	15.108	.062	5.6
Natural Gas (Dry)	E 1.671	E 1.670	.0	E 13.221	E .054	E 13.028	E .053	1.9
Crude Oil[d]	E 1.047	1.041	.6	E 8.227	E .034	8.244	.034	.2
Natural Gas Plant Liquids	.225	.225	.3	1.638	.007	1.780	.007	-7.6
Nuclear Electric Power	**.726**	**.722**	**.6**	**5.469**	**.023**	**5.414**	**.022**	**1.4**
Renewable Energy	**.511**	**.548**	**-6.7**	**4.078**	**.017**	**4.567**	**.019**	**-10.3**
Consumption[e]	**8.272**	**8.499**	**-2.7**	**65.376**	**.269**	**66.061**	**.271**	**-.6**
Fossil Fuels[f]	**7.028**	**7.212**	**-2.6**	**55.819**	**.230**	**56.005**	**.230**	**.1**
Coal	2.088	2.084	.2	14.927	.061	14.862	.061	.8
Natural Gas[g]	F 1.612	1.720	-6.2	E 15.266	E .063	15.578	.064	-1.6
Petroleum[h]	3.316	3.384	-2.0	25.573	.105	25.431	.104	1.0
Nuclear Electric Power	**.726**	**.722**	**.6**	**5.469**	**.023**	**5.414**	**.022**	**1.4**
Renewable Energy[e]	**.532**	**.581**	**-8.5**	**4.219**	**.017**	**4.766**	**.020**	**-11.1**
Net Imports	**2.162**	**2.254**	**-4.1**	**17.615**	**.072**	**16.724**	**.069**	**5.8**
Fossil Fuels[i]	**2.142**	**2.221**	**-3.5**	**17.474**	**.072**	**16.525**	**.068**	**6.2**
Coal[j]	-.070	-.132	-47.3	-.556	-.002	-.823	-.003	-32.1
Coal Coke	.004	.008	-51.2	.024	(s)	.049	(s)	-50.3
Natural Gas	E .336	.304	10.4	E 2.572	E .011	2.351	.010	9.8
Crude Oil[k]	1.675	1.833	-8.6	13.296	.055	13.034	.053	2.4
Petroleum Products[l]	.190	.191	-.7	2.109	.009	1.828	.007	15.8
Renewable Energy[m]	E **.020**	**.033**	**-39.1**	E **.141**	E **.001**	E **.199**	E **.001**	**-28.9**

[a] Based on data prior to rounding.
[b] Based on daily rates prior to rounding.
[c] Total production also includes hydroelectricity generated from pumped storage.
[d] Includes lease condensate.
[e] Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Renewable Energy," but is counted only once in total energy consumption.
[f] Fossil fuel consumption also includes coal coke net imports and electricity net imports from fossil fuels.
[g] Includes supplemental gaseous fuels.
[h] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.
[i] Fossil fuel net imports also include electricity net imports from fossil fuels.
[j] Minus sign indicates exports are greater than imports.
[k] Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[l] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.
[m] Electricity net imports derived from hydroelectric power or geothermal energy.
(s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.
E=Estimate. F=Forecast.
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: Tables 1.3, 1.4, and 1.5.

Figure 1.1 Energy Overview

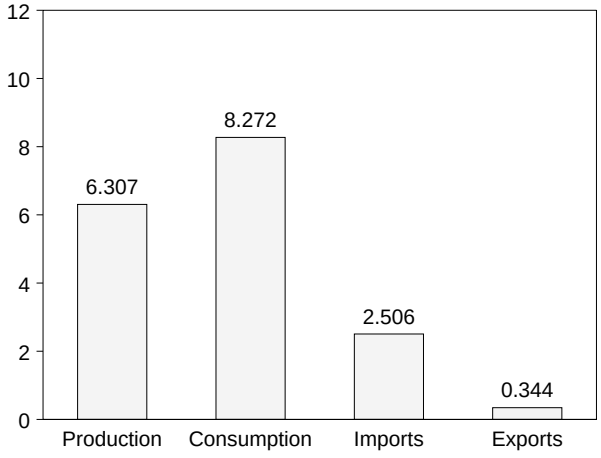
(Quadrillion Btu)

Consumption, Production, and Imports, 1973-2000



Consumption, Production, and Imports, Monthly

Overview, August 2001



Net Imports, January-August

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

Table 1.2 Energy Overview

(Quadrillion Btu)

	Production	Consumption[a]	Imports	Exports	Net Imports
1973 Total	**63.585**	**75.808**	**14.731**	**2.051**	**12.680**
1974 Total	**62.372**	**74.080**	**14.413**	**2.223**	**12.190**
1975 Total	**61.357**	**72.042**	**14.111**	**2.359**	**11.752**
1976 Total	**61.602**	**76.072**	**16.837**	**2.188**	**14.648**
1977 Total	**62.052**	**78.122**	**20.090**	**2.071**	**18.019**
1978 Total	**63.137**	**80.123**	**19.254**	**1.931**	**17.323**
1979 Total	**65.948**	**81.044**	**19.616**	**2.870**	**16.746**
1980 Total	**67.241**	**78.435**	**15.971**	**3.723**	**12.247**
1981 Total	**67.007**	**76.569**	**13.975**	**4.329**	**9.646**
1982 Total	**66.574**	**73.440**	**12.092**	**4.633**	**7.460**
1983 Total	**64.106**	**73.317**	**12.027**	**3.717**	**8.310**
1984 Total	**68.832**	**76.972**	**12.767**	**3.804**	**8.963**
1985 Total	**67.720**	**76.778**	**12.103**	**4.231**	**7.872**
1986 Total	**67.178**	**77.065**	**14.438**	**4.055**	**10.382**
1987 Total	**67.760**	**79.633**	**15.764**	**3.853**	**11.911**
1988 Total	**69.025**	**83.068**	**17.564**	**4.415**	**13.149**
1989 Total	**69.467**	**84.716**	**18.955**	**4.767**	**14.188**
1990 Total	**70.835**	**84.344**	**18.952**	**4.865**	**14.087**
1991 Total	**70.528**	**84.298**	**18.497**	**5.157**	**13.339**
1992 Total	**70.069**	**85.513**	**19.577**	**4.957**	**14.621**
1993 Total	**68.378**	**87.300**	**21.498**	**4.283**	**17.215**
1994 Total	**70.848**	**89.213**	**22.727**	**4.075**	**18.652**
1995 Total	**71.301**	**90.943**	**22.566**	**4.536**	**18.030**
1996 Total	**72.595**	**93.931**	**24.010**	**4.656**	**19.354**
1997 Total	**72.545**	**94.340**	**25.514**	**4.576**	**20.938**
1998 Total	**72.742**	**94.608**	**26.855**	**4.389**	**22.466**
1999 January	6.147	8.936	2.253	.305	1.948
February	5.774	7.863	2.075	.251	1.824
March	6.264	8.423	2.295	.291	2.004
April	5.793	7.661	2.380	.356	2.024
May	5.882	7.569	2.433	.303	2.130
June	5.977	7.777	2.304	.320	1.984
July	6.078	8.277	2.478	.321	2.157
August	6.137	8.285	2.402	.332	2.070
September	5.918	7.645	2.248	.307	1.941
October	5.928	7.799	2.302	.348	1.954
November	5.931	7.732	2.157	.323	1.834
December	6.153	8.878	2.222	.354	1.867
Total	**71.982**	**96.852**	**27.549**	**3.811**	**23.738**
2000 January	6.042	9.019	2.238	.327	1.911
February	5.746	8.453	2.236	.270	1.966
March	6.292	8.317	2.394	.372	2.022
April	5.750	7.687	2.400	.316	2.084
May	6.044	R 7.957	2.442	.333	2.109
June	5.989	7.951	2.499	.331	2.168
July	6.002	8.178	2.528	.317	2.211
August	6.238	8.499	2.642	.388	2.254
September	5.842	7.769	2.481	.330	2.151
October	5.986	7.855	2.452	.381	2.071
November	5.902	8.055	2.387	.382	2.004
December	5.927	R 9.336	2.626	.360	2.266
Total	**71.761**	R **99.076**	**29.324**	**4.108**	**25.216**
2001 January	R 6.195	R 9.237	R 2.636	.358	R 2.279
February	5.622	R 8.129	R 2.273	R .304	R 1.969
March	R 6.257	R 8.549	R 2.608	.301	R 2.306
April	R 5.856	R 7.699	R 2.567	R .324	R 2.243
May	R 6.132	R 7.707	R 2.643	.373	R 2.269
June	R 6.028	R 7.665	R 2.425	R .315	R 2.111
July	6.082	R 8.118	R 2.558	R .282	R 2.276
August	6.307	8.272	2.506	.344	2.162
8-Month Total	**48.481**	**65.376**	**20.215**	**2.601**	**17.615**
2000 8-Month Total	**48.104**	**66.061**	**19.379**	**2.655**	**16.724**
1999 8-Month Total	**48.052**	**64.792**	**18.621**	**2.480**	**16.141**

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

R=Revised.

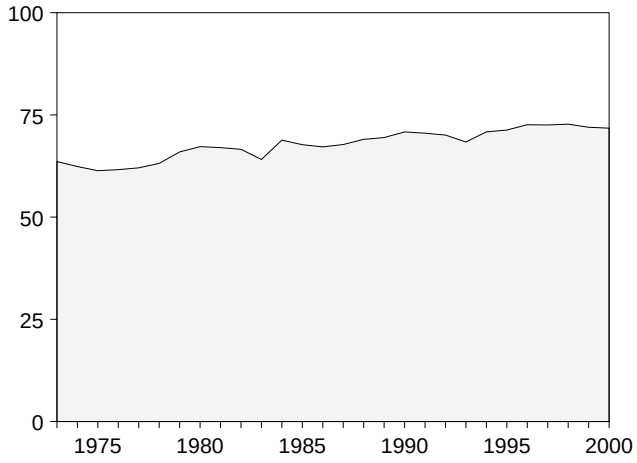
Notes: For definitions, see Notes 1 through 4 at end of section. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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

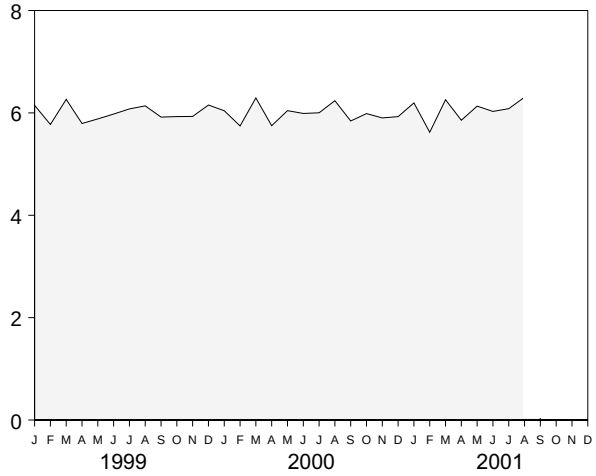
Figure 1.2 Energy Production

(Quadrillion Btu)

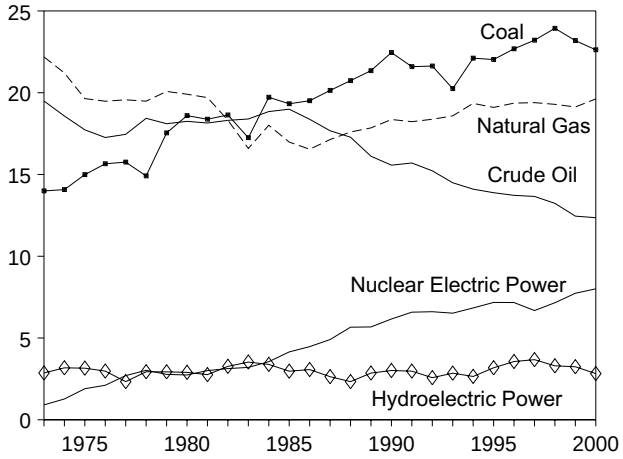
Total, 1973-2000



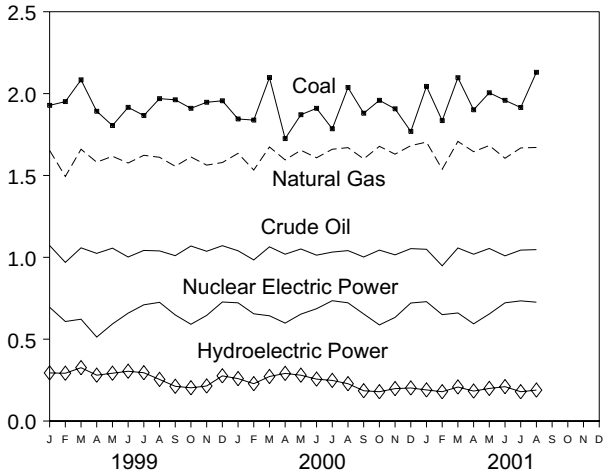
Total, Monthly



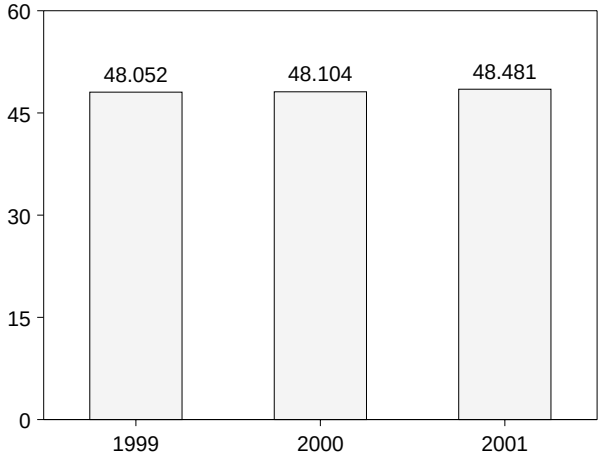
By Major Sources, 1973-2000



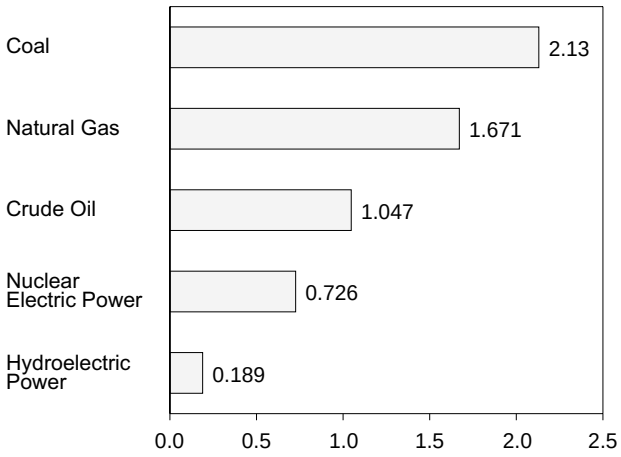
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 1.3 Energy Production by Source

(Quadrillion Btu)

	Fossil Fuels							Renewable Energy[a]					
	Coal	Natural Gas (Dry)	Crude Oil[b]	Natural Gas Plant Liquids	Total	Nuclear Electric Power	Hydro-electric Pumped Storage[c]	Conventional Hydroelectric Power	Wood, Waste, Alcohol[d]	Geo-thermal	Solar and Wind	Total	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])**	**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])**	**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])**	**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])**	**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])**	**E 3.386**	**2.880**	**.165**	**(s)**	**6.431**	**68.832**
1985 Total	**19.325**	**16.980**	**18.992**	**2.241**	**57.539**	**4.149**	**([e])**	**E 2.970**	**E 2.864**	**.198**	**(s)**	**6.033**	**67.720**
1986 Total	**19.509**	**16.541**	**18.376**	**2.149**	**56.575**	**4.471**	**([e])**	**E 3.071**	**E 2.841**	**.219**	**(s)**	**6.132**	**67.178**
1987 Total	**20.141**	**17.136**	**17.675**	**2.215**	**57.167**	**4.906**	**([e])**	**E 2.635**	**E 2.823**	**.229**	**(s)**	**5.687**	**67.760**
1988 Total	**20.738**	**17.599**	**17.279**	**2.260**	**57.875**	**5.661**	**([e])**	**E 2.334**	**E 2.937**	**.217**	**(s)**	**5.489**	**69.025**
1989 Total	**21.346**	**17.847**	**16.117**	**2.158**	**57.468**	**[f] 5.677**	**([e])**	**2.855**	**E 3.060**	**.323**	**.083**	**6.322**	**69.467**
1990 Total	**22.456**	**18.362**	**15.571**	**2.175**	**58.564**	**6.162**	**-.036**	**3.048**	**E 2.660**	**.343**	**.094**	**6.145**	**70.835**
1991 Total	**21.594**	**18.229**	**15.701**	**2.306**	**57.829**	**6.580**	**-.047**	**3.021**	**E 2.700**	**.348**	**.097**	**6.167**	**70.528**
1992 Total	**21.629**	**18.375**	**15.223**	**2.363**	**57.590**	**6.608**	**-.043**	**2.617**	**E 2.845**	**.355**	**.097**	**5.915**	**70.069**
1993 Total	**20.249**	**18.584**	**14.494**	**2.408**	**55.736**	**6.520**	**-.042**	**2.892**	**2.803**	**.369**	**.102**	**6.165**	**68.378**
1994 Total	**22.111**	**19.348**	**14.103**	**2.391**	**57.952**	**6.838**	**-.035**	**2.684**	**2.938**	**.364**	**.107**	**6.093**	**70.848**
1995 Total	**22.029**	**19.101**	**13.887**	**2.442**	**57.458**	**7.177**	**-.028**	**3.207**	**3.066**	**.314**	**.106**	**6.694**	**71.301**
1996 Total	**22.684**	**19.363**	**13.723**	**2.530**	**58.299**	**7.168**	**-.032**	**3.593**	**3.126**	**.332**	**.110**	**7.160**	**72.595**
1997 Total	**23.211**	**19.394**	**13.658**	**2.495**	**58.758**	**6.678**	**-.042**	**3.718**	**3.004**	**.322**	**.107**	**7.151**	**72.545**
1998 Total	**23.935**	**19.288**	**13.235**	**2.420**	**58.879**	**7.157**	**-.046**	**3.345**	**2.976**	**.327**	**.104**	**6.752**	**72.742**
1999 January	1.928	1.653	1.072	.192	4.845	.695	-.006	.300	E .280	E .025	E .008	.612	6.147
February	1.951	1.494	.969	.181	4.595	.608	-.004	.296	E .250	E .022	E .007	.575	5.774
March	2.084	1.660	1.058	.207	5.009	.622	-.004	.330	E .273	E .025	E .009	.637	6.264
April	1.892	1.581	1.024	.203	4.700	.513	-.005	.285	E .267	E .024	E .010	.585	5.793
May	1.805	1.617	1.056	.208	4.686	.593	-.007	.299	E .274	E .025	E .012	.610	5.882
June	1.916	1.576	1.002	.210	4.706	.659	-.006	.310	E .267	E .029	E .013	.619	5.977
July	1.866	1.623	1.042	.221	4.752	.710	-.006	.302	E .277	E .031	E .013	.622	6.078
August	1.969	1.611	1.039	.217	4.837	.725	-.008	.262	E .277	E .032	E .012	.583	6.137
September	1.962	1.556	1.010	.215	4.743	.648	-.004	.216	E .274	E .031	E .010	.531	5.918
October	1.910	1.613	1.069	.227	4.819	.591	-.005	.208	E .275	E .032	E .009	.524	5.928
November	1.947	1.563	1.037	.219	4.766	.645	-.005	.219	E .268	E .030	E .008	.525	5.931
December	1.956	1.579	1.071	.227	4.834	.727	-.004	.280	E .278	E .030	E .008	.596	6.153
Total	**23.186**	**19.126**	**12.451**	**2.528**	**57.291**	**7.736**	**-.063**	**3.305**	**E 3.259**	**.335**	**.119**	**7.018**	**71.982**
2000 January	1.845	E 1.635	1.040	.226	4.747	.722	-.005	.264	E .277	E .027	E .010	.578	6.042
February	1.838	E 1.533	.984	.215	4.570	.655	-.004	.233	E .259	E .024	E .009	.525	5.746
March	2.098	E 1.674	1.064	.230	5.065	.643	-.006	.277	E .278	E .024	E .010	.589	6.292
April	1.725	E 1.595	1.019	.220	4.558	.598	-.004	.295	E .268	E .025	E .011	.599	5.750
May	1.871	E 1.654	1.051	.225	4.800	.653	-.005	.285	E .275	E .026	E .011	.596	6.044
June	1.910	E 1.608	1.013	.215	4.747	.686	-.006	.262	E .264	E .026	E .011	.562	5.989
July	1.785	E 1.660	1.032	.224	4.700	.735	-.003	.252	E .281	E .027	E .010	.570	6.002
August	2.037	E 1.670	1.041	.225	4.972	.722	-.004	.232	E .278	E .028	E .011	.548	6.238
September	1.880	E 1.601	1.002	.215	4.698	.654	-.007	.192	E .268	E .027	E .010	.497	5.842
October	1.959	E 1.678	1.044	.222	4.903	.587	-.004	.183	E .279	E .028	E .010	.500	5.986
November	1.907	E 1.630	1.015	.210	4.763	.633	-.004	.201	E .271	E .028	E .010	.510	5.902
December	1.769	E 1.682	1.053	.183	4.687	.721	-.005	.208	E .278	E .029	E .009	.524	5.927
Total	**22.623**	**E 19.619**	**12.358**	**2.611**	**57.211**	**8.009**	**-.057**	**2.883**	**E 3.276**	**E .319**	**E .121**	**6.599**	**71.761**
2001 January	2.044	RE 1.704	E 1.049	.160	R 4.957	.729	-.004	.195	E .280	E .029	E .009	.513	R 6.195
February	1.835	E 1.538	E .948	.181	4.502	.650	-.005	.184	E .255	E .026	E .010	.475	5.622
March	2.097	RE 1.708	E 1.057	.212	R 5.073	.660	-.006	.213	E .278	E .027	E .012	.530	R 6.257
April	R 1.901	RE 1.645	E 1.019	.206	R 4.771	.594	-.006	.190	E .270	E .025	E .013	.497	R 5.856
May	R 2.005	RE 1.683	E 1.054	.222	R 4.963	.654	-.003	.202	E .278	E .025	E .014	.519	R 6.132
June	R 1.959	RE 1.605	E 1.009	.214	R 4.786	.722	-.004	.214	E .272	E .025	E .014	.524	R 6.028
July	1.915	E 1.668	E 1.044	.219	4.845	.734	-.005	.185	E .283	E .027	E .014	.508	6.082
August	2.130	E 1.671	E 1.047	.225	5.073	.726	-.004	.193	E .279	E .026	E .013	.511	6.307
8-Month Total	**15.886**	**E 13.221**	**E 8.227**	**1.638**	**38.972**	**5.469**	**-.038**	**1.576**	**E 2.194**	**E .210**	**E .099**	**4.078**	**48.481**
2000 8-Month Total	**15.108**	**E 13.028**	**8.244**	**1.780**	**38.160**	**5.414**	**-.037**	**2.099**	**E 2.179**	**E .207**	**E .082**	**4.567**	**48.104**
1999 8-Month Total	**15.411**	**12.815**	**8.263**	**1.640**	**38.130**	**5.125**	**-.045**	**2.383**	**E 2.163**	**E .213**	**E .083**	**4.843**	**48.052**

[a] End-use consumption, and electric utility and nonutility 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.
[f] Beginning in 1989, includes electricity generated by nonutility nuclear units.
R=Revised. NA=Not available. E=Estimate. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

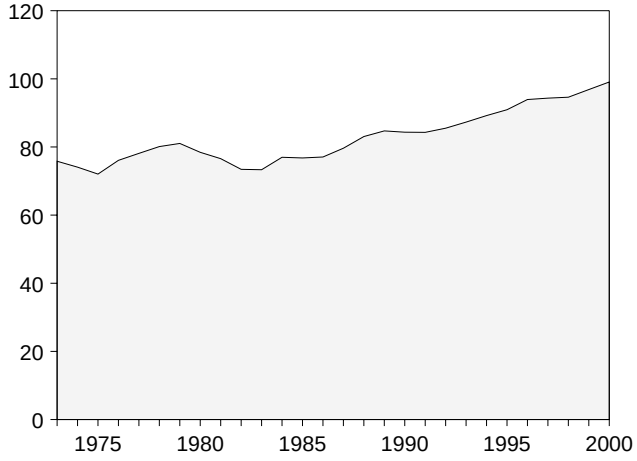
Notes: See Note 1 at end of section. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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 7.2 and A6. **Renewable Energy:** Tables E2, E3a, and E3b.

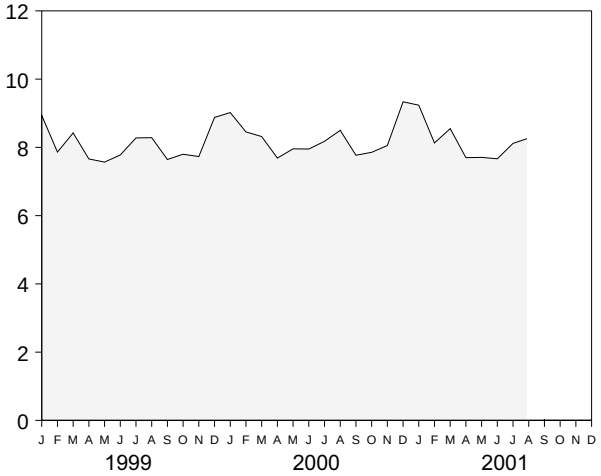
Figure 1.3 Energy Consumption

(Quadrillion Btu)

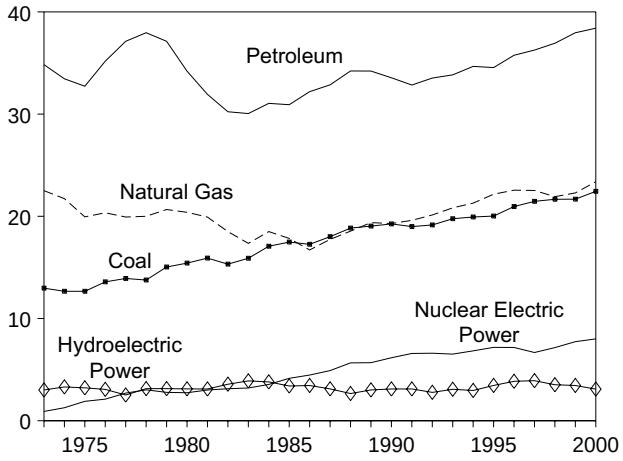
Total, 1973-2000



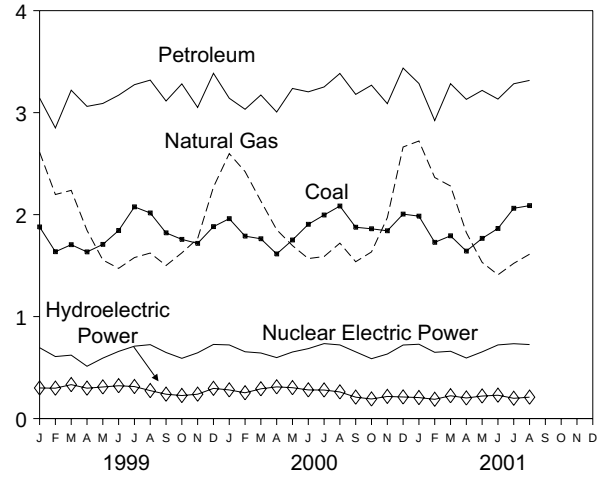
Total, Monthly



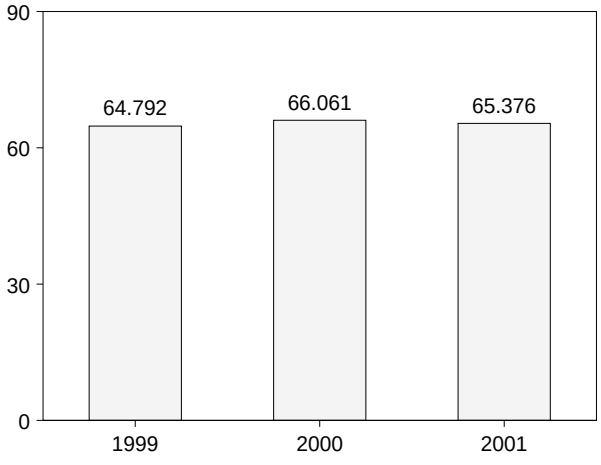
By Major Sources, 1973-2000



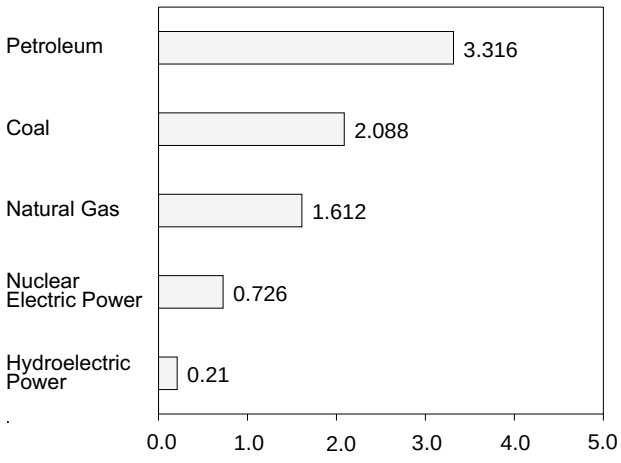
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 1.4 Energy Consumption by Source

(Quadrillion Btu)

	Fossil Fuels						Renewable Energy[a]					
	Coal	Natural Gas[b]	Petro-leum[c]	Total[d]	Nuclear Electric Power	Hydro-electric Pumped Storage[e]	Conventional Hydroelectric Power	Wood, Waste, Alcohol[f]	Geo-thermal	Solar and Wind	Total	Total[f]
1973 Total	**12.971**	**22.512**	**34.840**	**70.316**	**0.910**	**(g)**	**3.010**	**1.529**	**0.043**	**NA**	**4.581**	**75.808**
1974 Total	**12.663**	**21.732**	**33.455**	**67.906**	**1.272**	**(g)**	**3.309**	**1.540**	**.053**	**NA**	**4.902**	**74.080**
1975 Total	**12.663**	**19.948**	**32.731**	**65.355**	**1.900**	**(g)**	**3.219**	**1.499**	**.070**	**NA**	**4.788**	**72.042**
1976 Total	**13.584**	**20.345**	**35.175**	**69.104**	**2.111**	**(g)**	**3.066**	**1.713**	**.078**	**NA**	**4.857**	**76.072**
1977 Total	**13.922**	**19.931**	**37.122**	**70.989**	**2.702**	**(g)**	**2.515**	**1.838**	**.077**	**NA**	**4.431**	**78.122**
1978 Total	**13.766**	**20.000**	**37.965**	**71.856**	**3.024**	**(g)**	**3.141**	**2.038**	**.064**	**NA**	**5.243**	**80.123**
1979 Total	**15.040**	**20.666**	**37.123**	**72.892**	**2.776**	**(g)**	**3.141**	**2.152**	**.084**	**NA**	**5.377**	**81.044**
1980 Total	**15.423**	**20.394**	**34.202**	**69.984**	**2.739**	**(g)**	**E 3.118**	**2.485**	**.110**	**NA**	**5.712**	**78.435**
1981 Total	**15.908**	**19.928**	**31.931**	**67.750**	**3.008**	**(g)**	**E 3.105**	**2.590**	**.123**	**NA**	**5.818**	**76.569**
1982 Total	**15.322**	**18.505**	**30.231**	**64.036**	**3.131**	**(g)**	**E 3.572**	**2.615**	**.105**	**NA**	**6.292**	**73.440**
1983 Total	**15.894**	**17.357**	**30.054**	**63.290**	**3.203**	**(g)**	**E 3.899**	**2.831**	**.129**	**(s)**	**6.860**	**73.317**
1984 Total	**17.071**	**18.507**	**31.051**	**66.617**	**3.553**	**(g)**	**E 3.800**	**2.880**	**.165**	**(s)**	**6.845**	**76.972**
1985 Total	**17.478**	**17.834**	**30.922**	**66.221**	**4.149**	**(g)**	**E 3.398**	**E 2.864**	**.198**	**(s)**	**6.460**	**76.778**
1986 Total	**17.260**	**16.708**	**32.196**	**66.148**	**4.471**	**(g)**	**E 3.446**	**E 2.841**	**.219**	**(s)**	**6.507**	**77.065**
1987 Total	**18.008**	**17.744**	**32.865**	**68.626**	**4.906**	**(g)**	**E 3.117**	**E 2.823**	**.229**	**(s)**	**6.170**	**79.633**
1988 Total	**18.846**	**18.552**	**34.222**	**71.660**	**5.661**	**(g)**	**E 2.662**	**E 2.937**	**.217**	**(s)**	**5.817**	**83.068**
1989 Total	**[h]19.043**	**19.384**	**34.211**	**72.618**	**[i]5.677**	**(g)**	**3.014**	**E 3.060**	**.334**	**.083**	**6.492**	**84.716**
1990 Total	**19.253**	**19.296**	**33.553**	**72.027**	**6.162**	**-.036**	**3.146**	**E 2.660**	**.355**	**.094**	**6.254**	**84.344**
1991 Total	**18.998**	**19.606**	**32.845**	**71.519**	**6.580**	**-.047**	**3.159**	**E 2.700**	**.363**	**.097**	**6.320**	**84.298**
1992 Total	**19.152**	**20.131**	**33.527**	**72.897**	**6.608**	**-.043**	**2.818**	**E 2.845**	**.374**	**.097**	**6.134**	**85.513**
1993 Total	**19.763**	**20.827**	**33.841**	**74.508**	**6.520**	**-.042**	**3.119**	**2.803**	**.387**	**.102**	**6.410**	**87.300**
1994 Total	**19.933**	**21.288**	**34.670**	**76.089**	**6.838**	**-.035**	**2.993**	**2.938**	**.391**	**.107**	**6.429**	**89.213**
1995 Total	**20.025**	**22.163**	**34.553**	**76.924**	**7.177**	**-.028**	**3.481**	**3.066**	**.333**	**.106**	**6.987**	**90.943**
1996 Total	**20.957**	**22.559**	**35.757**	**79.406**	**7.168**	**-.032**	**3.892**	**3.126**	**.346**	**.110**	**7.473**	**93.931**
1997 Total	**21.464**	**22.530**	**36.266**	**80.415**	**6.678**	**-.042**	**3.961**	**3.004**	**.322**	**.107**	**7.395**	**94.340**
1998 Total	**21.667**	**21.921**	**36.934**	**80.637**	**7.157**	**-.046**	**3.569**	**2.976**	**.328**	**.104**	**6.977**	**94.608**
1999 January	1.879	2.612	3.143	7.639	.695	-.006	E .306	E .280	E .025	E .008	.619	8.936
February	1.636	2.197	2.850	6.686	.608	-.004	E .302	E .250	E .022	E .007	.581	7.863
March	1.705	2.238	3.220	7.171	.622	-.004	E .337	E .273	E .025	E .009	.643	8.423
April	1.634	1.846	3.061	6.558	.513	-.005	E .303	E .267	E .024	E .010	.603	7.661
May	1.708	1.555	3.090	6.364	.593	-.007	E .317	E .274	E .025	E .012	.628	7.569
June	1.844	1.473	3.171	6.498	.659	-.006	E .328	E .267	E .029	E .013	.636	7.777
July	2.076	1.579	3.274	6.941	.710	-.006	E .320	E .277	E .031	E .013	.641	8.277
August	2.016	1.623	3.319	6.974	.725	-.008	E .282	E .277	E .032	E .012	.603	8.285
September	1.821	1.501	3.114	6.452	.648	-.004	E .243	E .274	E .031	E .010	.558	7.645
October	1.757	1.625	3.282	6.678	.591	-.005	E .231	E .275	E .032	E .009	.547	7.799
November	1.718	1.765	3.051	6.554	.645	-.005	E .243	E .268	E .030	E .008	.549	7.732
December	1.882	2.270	3.386	7.553	.727	-.004	E .300	E .278	E .030	E .008	.617	8.878
Total	**21.677**	**22.289**	**37.960**	**82.075**	**7.736**	**-.063**	**3.512**	**E 3.259**	**.335**	**.119**	**7.226**	**96.852**
2000 January	1.960	2.598	3.141	7.713	.722	-.005	E .286	E .277	E .027	E .010	.599	9.019
February	1.789	2.422	3.033	7.263	.655	-.004	E .257	E .259	E .024	E .009	.549	8.453
March	1.763	2.133	3.173	7.082	.643	-.006	E .298	E .278	E .024	E .010	.610	8.317
April	1.614	1.852	3.006	6.486	.598	-.004	E .315	E .268	E .025	E .011	.618	7.687
May	1.751	R 1.696	3.237	R 6.701	.653	-.005	E .309	E .275	E .026	E .011	.620	R 7.957
June	1.905	1.569	3.204	6.691	.686	-.006	E .286	E .264	E .026	E .011	.586	7.951
July	1.996	1.589	3.252	6.858	.735	-.003	E .283	E .281	E .027	E .010	.602	8.178
August	2.084	1.720	3.384	7.212	.722	-.004	E .265	E .278	E .028	E .011	.581	8.499
September	1.876	1.538	3.179	6.611	.654	-.007	E .217	E .268	E .027	E .010	.522	7.769
October	1.861	1.634	3.269	6.773	.587	-.004	E .196	E .279	E .028	E .010	.514	7.855
November	1.841	1.970	3.088	6.910	.633	-.004	E .221	E .271	E .028	E .010	.529	8.055
December	2.005	R 2.663	3.437	R 8.100	.721	-.005	E .217	E .278	E .029	E .009	.534	R 9.336
Total	**22.445**	**R 23.383**	**38.404**	**R 84.399**	**8.009**	**-.057**	**E 3.149**	**E 3.276**	**E .319**	**E .121**	**6.865**	**R 99.076**
2001 January	1.985	2.722	3.286	R 7.998	.729	-.004	E .210	E .280	E .029	E .009	.529	R 9.237
February	1.728	R 2.364	2.922	R 7.011	.650	-.005	E .194	E .255	E .026	E .010	.484	R 8.129
March	1.792	R 2.280	3.284	R 7.361	.660	-.006	E .229	E .278	E .027	E .012	.546	R 8.549
April	R 1.642	R 1.824	3.130	R 6.606	.594	-.006	E .208	E .270	E .025	E .013	.516	R 7.699
May	R 1.767	R 1.532	3.218	R 6.527	.654	-.003	E .225	E .278	E .025	E .014	.541	R 7.707
June	R 1.864	R 1.410	3.133	R 6.415	.722	-.004	E .233	E .272	E .025	E .014	.544	R 7.665
July	2.062	R 1.522	3.283	R 6.873	.734	-.005	E .204	E .283	E .027	E .014	.528	R 8.118
August	2.088	F 1.612	3.316	7.028	.726	-.004	E .213	E .279	E .026	E .013	.532	8.272
8-Month Total	**14.927**	**E 15.266**	**25.573**	**55.819**	**5.469**	**-.038**	**E 1.717**	**E 2.194**	**E .210**	**E .099**	**4.219**	**65.376**
2000 8-Month Total	**14.862**	**15.578**	**25.431**	**56.005**	**5.414**	**-.037**	**E 2.298**	**E 2.179**	**E .207**	**E .082**	**4.766**	**66.061**
1999 8-Month Total	**14.500**	**15.122**	**25.127**	**54.832**	**5.125**	**-.045**	**E 2.495**	**E 2.163**	**E .213**	**E .083**	**4.955**	**64.792**

[a] End-use consumption, electric utility and nonutility electricity net generation, and net imports of electricity.

[b] Includes supplemental gaseous fuels. For 1990-1999, annual values also include natural gas used by vehicles, whereas monthly values do not. See Table 4.4.

[c] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.

[d] Includes coal coke net imports and electricity net imports from fossil fuels. See Table 1.5.

[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] Included in conventional hydroelectric power.

[h] Beginning in 1989, includes coal consumed by "Other Power Producers." See Table 6.2.

[i] Beginning in 1989, includes electricity generated by nonutility nuclear units.

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

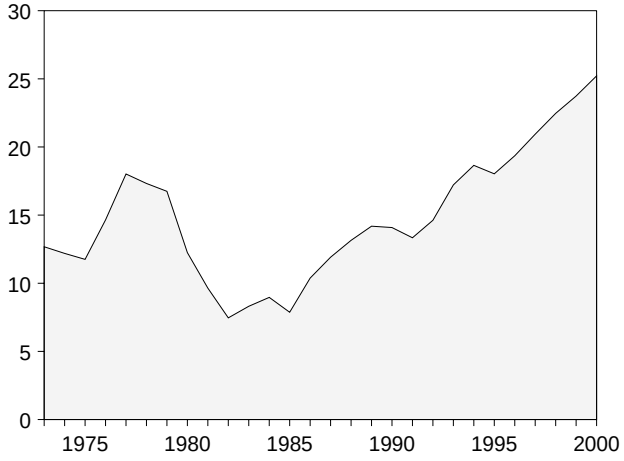
Notes: See Note 2 at end of section. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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 7.2 and A6. **Renewable Energy:** Table E1.

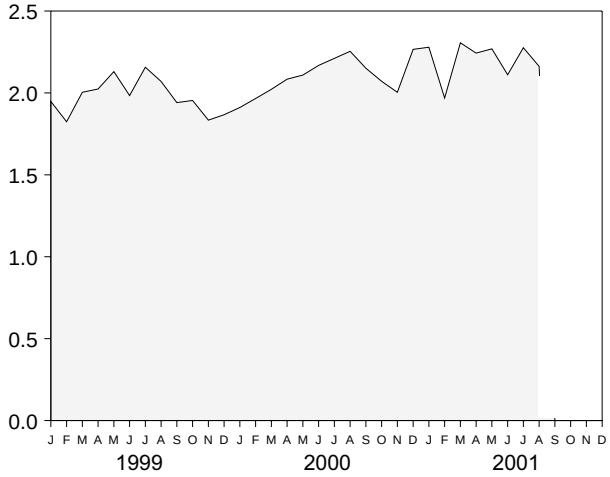
Figure 1.4 Energy Net Imports

(Quadrillion Btu, Except as Noted)

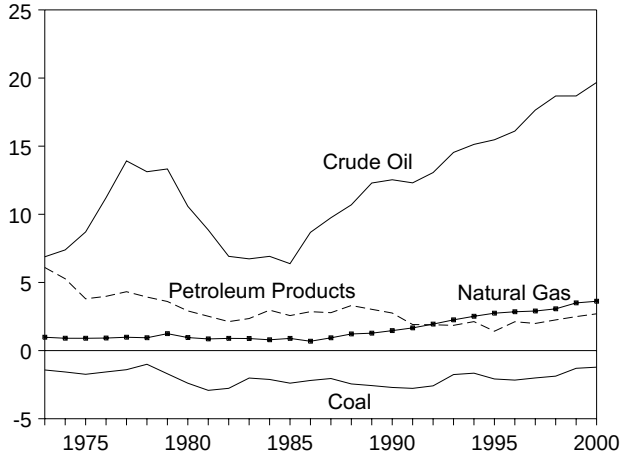
Total, 1973-2000



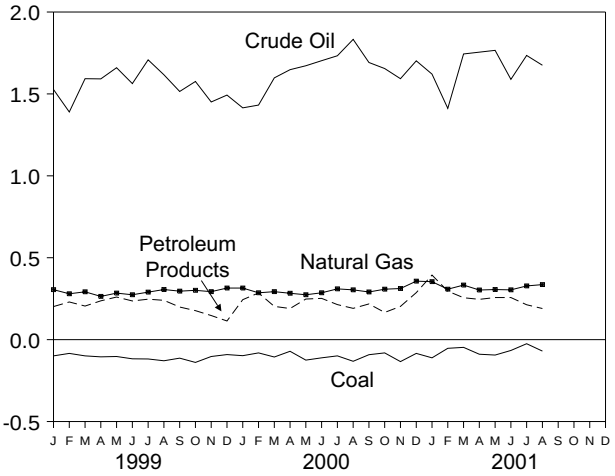
Total, Monthly



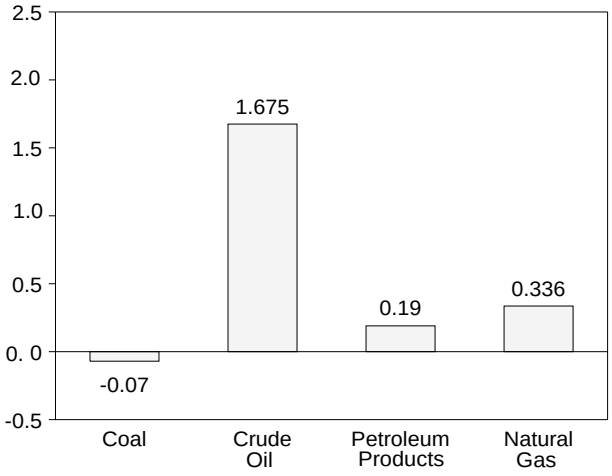
By Major Sources, 1973-2000



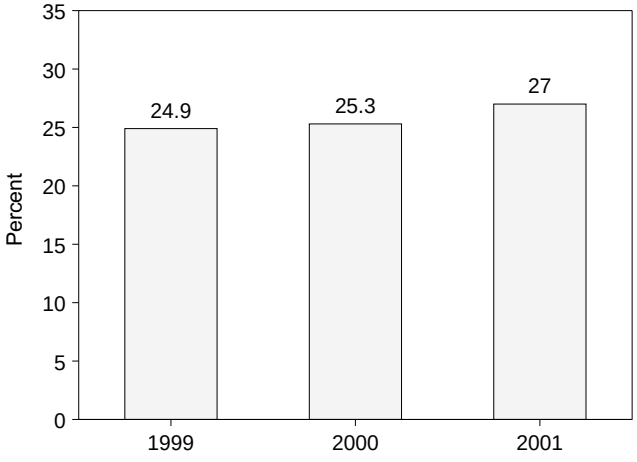
By Major Sources, Monthly



By Major Sources, August 2001



As Share of Consumption, January-August



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

Table 1.5 Energy Net Imports by Source

(Quadrillion Btu)

	Fossil Fuels							Renewable Energy			
								Electricity[a]			
	Coal	Coal Coke	Natural Gas	Crude Oil[b]	Petroleum Products[c]	Electricity[d]	Total	Hydro-power[e]	Geo-thermal	Total	Total
1973 Total	**-1.422**	**-0.007**	**0.981**	**6.883**	**6.097**	**(f)**	**12.531**	**0.148**	**(f)**	**0.148**	**12.680**
1974 Total	**-1.568**	**.056**	**.907**	**7.389**	**5.273**	**(f)**	**12.058**	**.133**	**(f)**	**.133**	**12.190**
1975 Total	**-1.738**	**.014**	**.904**	**8.708**	**3.800**	**(f)**	**11.688**	**.064**	**(f)**	**.064**	**11.752**
1976 Total	**-1.567**	.000	**.922**	**11.221**	**3.982**	**(f)**	**14.559**	**.089**	**(f)**	**.089**	**14.648**
1977 Total	**-1.401**	**.015**	**.981**	**13.921**	**4.321**	**(f)**	**17.837**	**.182**	**(f)**	**.182**	**18.019**
1978 Total	**-1.004**	**.125**	**.941**	**13.125**	**3.932**	**(f)**	**17.118**	**.204**	**(f)**	**.204**	**17.323**
1979 Total	**-1.702**	**.063**	**1.243**	**13.328**	**3.603**	**(f)**	**16.535**	**.211**	**(f)**	**.211**	**16.746**
1980 Total	**-2.391**	**-.035**	**.957**	**10.586**	**2.912**	**(f)**	**12.030**	**.217**	**(f)**	**.217**	**12.247**
1981 Total	**-2.918**	**-.016**	**.857**	**8.854**	**2.522**	**(f)**	**9.298**	**.347**	**(f)**	**.347**	**9.646**
1982 Total	**-2.768**	**-.022**	**.898**	**6.917**	**2.128**	**(f)**	**7.153**	**.306**	**(f)**	**.306**	**7.460**
1983 Total	**-2.013**	**-.016**	**.885**	**6.731**	**2.351**	**(f)**	**7.938**	**.372**	**(f)**	**.372**	**8.310**
1984 Total	**-2.119**	**-.011**	**.792**	**6.918**	**2.970**	**(f)**	**8.549**	**.414**	**(f)**	**.414**	**8.963**
1985 Total	**-2.389**	**-.013**	**.896**	**6.381**	**2.570**	**(f)**	**7.445**	**.428**	**(f)**	**.428**	**7.872**
1986 Total	**-2.193**	**-.017**	**.686**	**8.676**	**2.855**	**(f)**	**10.007**	**.375**	**(f)**	**.375**	**10.382**
1987 Total	**-2.049**	**.009**	**.937**	**9.748**	**2.784**	**(f)**	**11.428**	**.483**	**(f)**	**.483**	**11.911**
1988 Total	**-2.446**	**.040**	**1.221**	**10.698**	**3.308**	**(f)**	**12.821**	**.328**	**(f)**	**.328**	**13.149**
1989 Total	**-2.566**	**.030**	**1.278**	**12.296**	**3.029**	**-.050**	**14.018**	**.159**	**.011**	**.171**	**14.188**
1990 Total	**-2.705**	**.005**	**1.464**	**12.536**	**2.757**	**-.080**	**13.977**	**.098**	**.011**	**.110**	**14.087**
1991 Total	**-2.769**	**.010**	**1.666**	**12.308**	**1.912**	**.059**	**13.186**	**.138**	**.015**	**.153**	**13.339**
1992 Total	**-2.587**	**.035**	**1.941**	**13.065**	**1.895**	**.053**	**14.401**	**.201**	**.019**	**.219**	**14.621**
1993 Total	**-1.758**	**.027**	**2.255**	**14.542**	**1.854**	**.050**	**16.970**	**.227**	**.018**	**.246**	**17.215**
1994 Total	**-1.657**	**.058**	**2.518**	**15.131**	**2.126**	**.140**	**18.316**	**.309**	**.027**	**.337**	**18.652**
1995 Total	**-2.081**	**.061**	**2.745**	**15.469**	**1.422**	**.121**	**17.737**	**.274**	**.019**	**.293**	**18.030**
1996 Total	**-2.165**	**.023**	**2.847**	**16.108**	**2.119**	**.109**	**19.041**	**.300**	**.014**	**.313**	**19.354**
1997 Total	**-2.006**	**.046**	**2.904**	**17.648**	**1.993**	**.109**	**20.694**	**.244**	.000	**.244**	**20.938**
1998 Total	**-1.874**	**.067**	**3.064**	**18.684**	**2.252**	**.048**	**22.241**	**.224**	**.001**	**.225**	**22.466**
1999 January	-.099	.005	.305	1.527	.202	E (s)	1.941	E .006	E (s)	E .006	1.948
February	-.084	.002	.280	1.390	.230	E .001	1.818	E .006	E (s)	E .006	1.824
March	-.099	.007	.292	1.593	.205	E (s)	1.997	E .007	E (s)	E .007	2.004
April	-.105	.009	.264	1.592	.237	E .008	2.006	E .018	E (s)	E .018	2.024
May	-.103	.003	.284	1.660	.260	E .008	2.112	E .018	E (s)	E .018	2.130
June	-.117	.002	.274	1.563	.236	E .008	1.966	E .018	E (s)	E .018	1.984
July	-.118	.003	.290	1.708	.247	E .009	2.139	E .019	E (s)	E .019	2.157
August	-.129	.006	.306	1.617	.240	E .010	2.050	E .020	E (s)	E .020	2.070
September	-.113	.002	.296	1.515	.199	E .015	1.914	E .027	E (s)	E .027	1.941
October	-.139	.004	.301	1.576	.177	E .011	1.930	E .023	E (s)	E .023	1.954
November	-.103	.009	.293	1.451	.147	E .012	1.809	E .024	E (s)	E .025	1.834
December	-.091	.006	.315	1.493	.114	E .009	1.847	E .021	E (s)	E .021	1.867
Total	**-1.298**	**.058**	**3.500**	**18.686**	**2.493**	**.092**	**23.530**	**.207**	**.001**	**.208**	**23.738**
2000 January	-.098	.004	.315	1.415	.244	E .010	1.890	E .022	.000	E .022	1.911
February	-.081	.007	.286	1.432	.285	E .012	1.942	E .024	.000	E .024	1.966
March	-.106	.006	.293	1.598	.203	E .008	2.001	E .020	.000	E .020	2.022
April	-.071	.006	.283	1.648	.190	E .007	2.064	E .020	.000	E .020	2.084
May	-.125	.008	.274	1.672	.248	E .008	2.086	E .024	.000	E .024	2.109
June	-.111	.004	.286	1.703	.252	E .008	2.143	E .025	.000	E .025	2.168
July	-.099	.006	.310	1.733	.214	E .016	2.179	E .032	.000	E .032	2.211
August	-.132	.008	.304	1.833	.191	E .016	2.221	E .033	.000	E .033	2.254
September	-.092	.007	.291	1.692	.218	E .011	2.126	E .025	.000	E .025	2.151
October	-.081	.006	.308	1.655	.166	E .004	2.058	E .013	.000	E .013	2.071
November	-.134	.004	.312	1.593	.203	E .007	1.985	E .019	.000	E .019	2.004
December	-.084	.000	.357	1.702	.287	E -.006	2.256	E .010	.000	E .010	2.266
Total	**-1.215**	**.065**	**3.620**	**19.676**	**2.701**	**.102**	**24.950**	**.266**	**.000**	**.266**	**25.216**
2001 January	-.111	.003	R .354	1.621	.394	E .003	R 2.263	E .015	.000	E .015	R 2.279
February	-.053	.002	.308	1.412	.296	E -.006	R 1.960	E .009	.000	E .009	R 1.969
March	-.047	.003	R .333	1.744	.256	E .002	R 2.290	E .016	.000	E .016	R 2.306
April	-.089	.005	RE .303	1.755	.246	E .005	R 2.224	E .019	.000	E .019	R 2.243
May	-.094	.004	RE .306	1.766	.257	E .007	R 2.247	E .023	.000	E .023	R 2.269
June	-.066	.003	RE .304	1.589	.257	E .006	R 2.091	E .019	.000	E .019	R 2.111
July	-.025	.000	RE .328	1.735	.213	E .006	R 2.256	E .019	.000	E .019	R 2.276
August	-.070	.004	E .336	1.675	.190	E .007	2.142	E .020	.000	E .020	2.162
8-Month Total	**-.556**	**.024**	**E 2.572**	**13.296**	**2.109**	**E .029**	**17.474**	**E .141**	**.000**	**E .141**	**17.615**
2000 8-Month Total	**-.823**	**.049**	**2.351**	**13.034**	**1.828**	**E .086**	**16.525**	**E .199**	.000	**E .199**	**16.724**
1999 8-Month Total	**-.853**	**.038**	**2.295**	**12.650**	**1.856**	**E .045**	**16.029**	**E .112**	.000	**E .112**	**16.141**

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

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

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

[d] May include some nuclear-generated electricity.

[e] Conventional hydroelectric power.

[f] Included in "Hydropower."

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

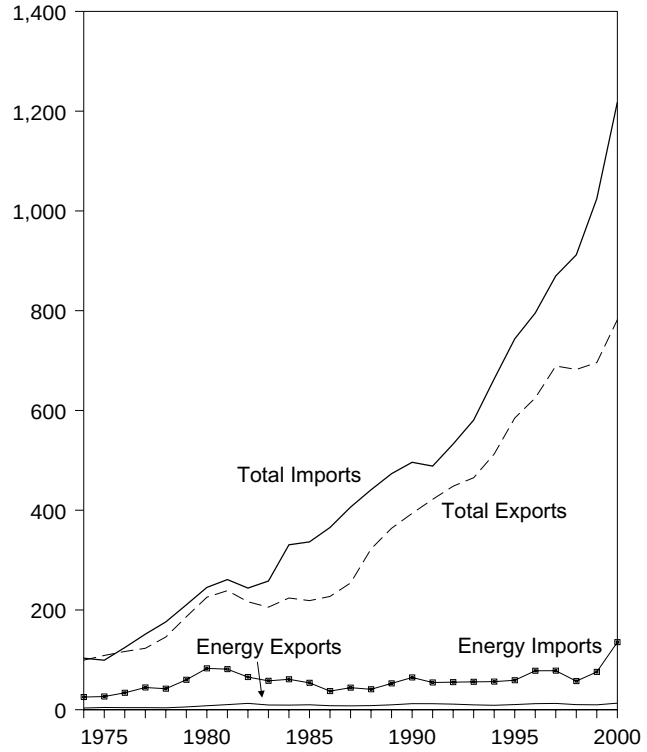
Notes: See Notes 3 and 4 at end of section. Net imports equal imports minus exports. Minus sign indicates exports are greater than imports. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: **Coal:** Tables 6.1 and A5. **Coal Coke:** Section 2, "Energy Consumption Notes and Sources," Note 5, and Table A5. **Natural Gas:** Tables 4.1 and A4. **Crude Oil and Petroleum Products:** Tables 3.1b, A2, and A3. **Fossil Fuel Electricity:** Derived from Table 7.1 sources and Table A6. **Renewable Energy:** Table E3b.

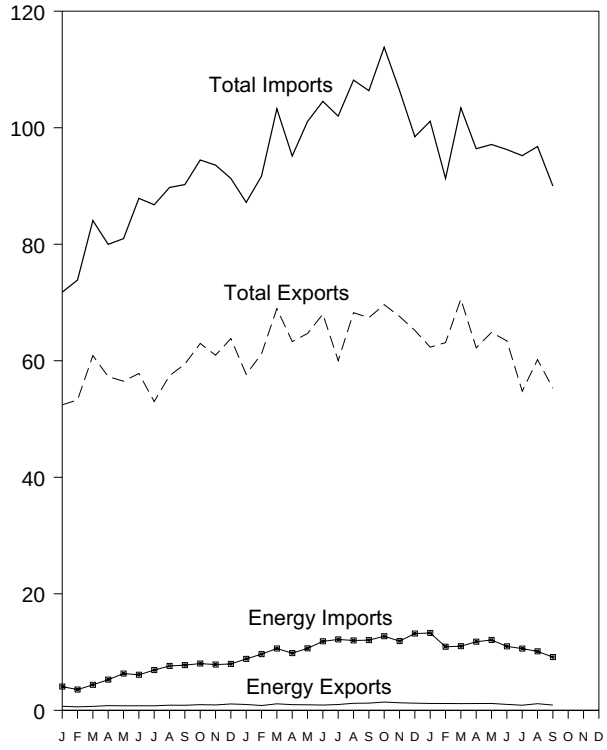
Figure 1.5 Merchandise Trade Value

(Billion Dollars)

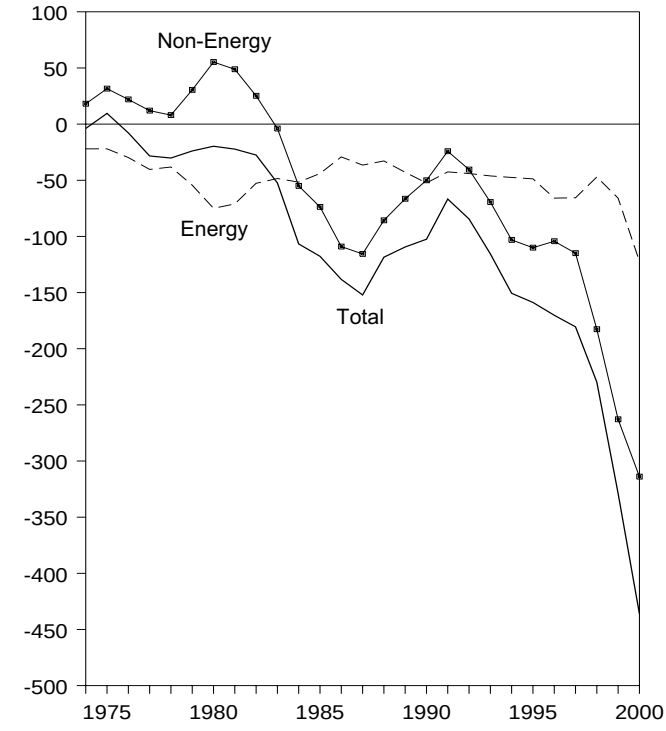
Imports and Exports, 1974-2000



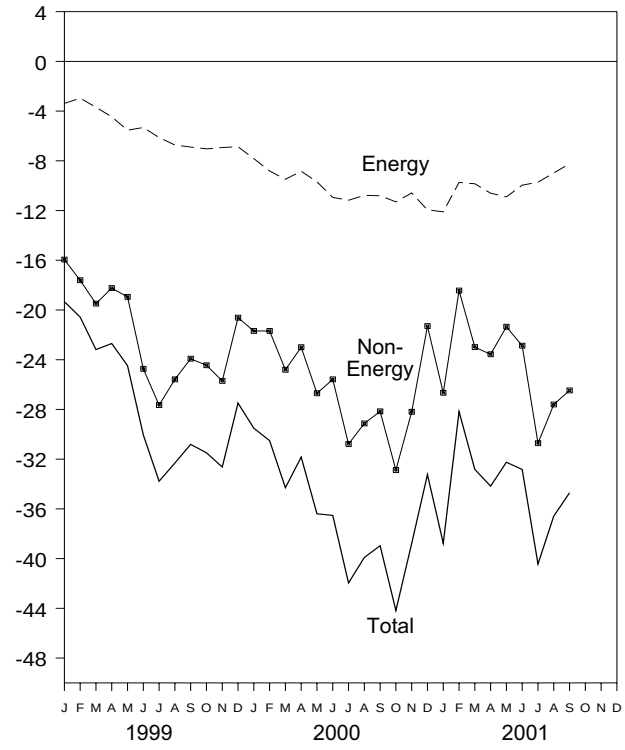
Imports and Exports, Monthly



Trade Balance, 1974-2000



Trade Balance, Monthly



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

Table 1.6 Merchandise Trade Value

(Million Dollars)

	Petroleum[a]			Energy[b]			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total	**792**	**24,668**	**-23,876**	**3,444**	**25,454**	**-22,010**	**18,126**	**99,437**	**103,321**	**-3,884**
1975 Total	**907**	**25,197**	**-24,289**	**4,470**	**26,476**	**-22,006**	**31,557**	**108,856**	**99,305**	**9,551**
1976 Total	**998**	**32,226**	**-31,228**	**4,226**	**33,996**	**-29,770**	**21,950**	**116,794**	**124,614**	**-7,820**
1977 Total	**1,276**	**42,368**	**-41,093**	**4,184**	**44,537**	**-40,354**	**12,001**	**123,182**	**151,534**	**-28,353**
1978 Total	**1,561**	**39,526**	**-37,965**	**3,881**	**42,096**	**-38,215**	**8,010**	**145,847**	**176,052**	**-30,205**
1979 Total	**1,914**	**56,715**	**-54,801**	**5,621**	**59,998**	**-54,377**	**30,455**	**186,363**	**210,285**	**-23,922**
1980 Total	**2,833**	**78,637**	**-75,803**	**7,982**	**82,924**	**-74,942**	**55,246**	**225,566**	**245,262**	**-19,696**
1981 Total	**3,696**	**76,659**	**-72,963**	**10,279**	**81,360**	**-71,081**	**48,814**	**238,715**	**260,982**	**-22,267**
1982 Total	**5,947**	**60,458**	**-54,511**	**12,729**	**65,409**	**-52,680**	**25,170**	**216,442**	**243,952**	**-27,510**
1983 Total	**4,557**	**53,217**	**-48,659**	**9,500**	**57,952**	**-48,452**	**-3,957**	**205,639**	**258,048**	**-52,409**
1984 Total	**4,470**	**56,924**	**-52,454**	**9,311**	**60,980**	**-51,669**	**-55,033**	**223,976**	**330,678**	**-106,703**
1985 Total	**4,707**	**50,475**	**-45,768**	**9,971**	**53,917**	**-43,946**	**-73,765**	**218,815**	**336,526**	**-117,712**
1986 Total	**3,640**	**35,142**	**-31,503**	**8,115**	**37,310**	**-29,195**	**-109,084**	**227,159**	**365,438**	**-138,279**
1987 Total	**3,922**	**42,285**	**-38,363**	**7,713**	**44,220**	**-36,506**	**-115,613**	**254,122**	**406,241**	**-152,119**
1988 Total	**3,693**	**38,787**	**-35,094**	**8,235**	**41,042**	**-32,806**	**-85,720**	**322,426**	**440,952**	**-118,526**
1989 Total	**5,021**	**49,704**	**-44,683**	**9,869**	**52,779**	**-42,910**	**-66,490**	**363,812**	**473,211**	**-109,399**
1990 Total	**6,901**	**61,583**	**-54,682**	**12,233**	**64,661**	**-52,428**	**-50,068**	**393,592**	**496,088**	**-102,496**
1991 Total	**6,954**	**51,350**	**-44,396**	**12,081**	**54,629**	**-42,548**	**-24,175**	**421,730**	**488,453**	**-66,723**
1992 Total	**6,412**	**51,217**	**-44,805**	**11,254**	**55,256**	**-44,002**	**-40,500**	**448,164**	**532,665**	**-84,501**
1993 Total	**6,215**	**51,046**	**-44,831**	**9,756**	**55,900**	**-46,144**	**-69,425**	**465,091**	**580,659**	**-115,568**
1994 Total	**5,659**	**50,835**	**-45,176**	**8,911**	**56,391**	**-47,480**	**-103,149**	**512,626**	**663,256**	**-150,629**
1995 Total	**6,321**	**54,368**	**-48,047**	**10,358**	**59,109**	**-48,751**	**-110,050**	**584,742**	**743,543**	**-158,801**
1996 Total	**7,984**	**72,022**	**-64,038**	**12,181**	**78,086**	**-65,905**	**-104,309**	**625,075**	**795,289**	**-170,214**
1997 Total	**8,592**	**71,152**	**-62,560**	**12,682**	**78,277**	**-65,595**	**-114,927**	**689,182**	**869,704**	**-180,522**
1998 Total	**6,574**	**50,264**	**-43,690**	**10,251**	**57,323**	**-47,072**	**-182,686**	**682,138**	**911,896**	**-229,758**
1999 January	460	3,428	-2,968	692	4,075	-3,383	-15,947	52,436	71,766	-19,330
February	380	3,025	-2,645	600	3,561	-2,961	-17,609	53,279	73,849	-20,570
March	440	3,809	-3,369	683	4,373	-3,690	-19,493	60,889	84,072	-23,183
April	579	4,668	-4,089	804	5,264	-4,460	-18,237	57,283	79,980	-22,697
May	563	5,630	-5,067	773	6,307	-5,534	-18,943	56,489	80,965	-24,477
June	565	5,432	-4,867	789	6,105	-5,316	-24,739	57,825	87,880	-30,055
July	560	6,146	-5,586	781	6,906	-6,125	-27,653	52,998	86,775	-33,778
August	630	6,786	-6,156	888	7,614	-6,726	-25,584	57,439	89,749	-32,310
September	623	6,908	-6,285	869	7,760	-6,891	-23,922	59,431	90,244	-30,813
October	738	7,197	-6,459	982	8,022	-7,040	-24,447	62,973	94,460	-31,487
November	700	6,949	-6,249	925	7,854	-6,929	-25,704	60,948	93,581	-32,633
December	884	7,190	-6,306	1,094	7,962	-6,868	-20,621	63,808	91,296	-27,489
Total	**7,118**	**67,173**	**-60,055**	**9,880**	**75,803**	**-65,923**	**-262,898**	**695,797**	**1,024,618**	**-328,821**
2000 January	804	7,976	-7,172	1,004	8,825	-7,821	-21,689	57,679	87,188	-29,510
February	659	8,807	-8,148	827	9,646	-8,819	-21,689	61,179	91,688	-30,508
March	867	9,737	-8,870	1,119	10,604	-9,485	-24,811	68,948	103,244	-34,296
April	795	8,962	-8,167	973	9,815	-8,842	-22,996	63,302	95,141	-31,838
May	696	9,621	-8,925	949	10,638	-9,689	-26,705	64,673	101,067	-36,394
June	673	10,512	-9,839	907	11,849	-10,942	-25,583	68,002	104,527	-36,525
July	726	10,707	-9,981	998	12,169	-11,171	-30,786	60,029	101,986	-41,957
August	929	10,527	-9,598	1,209	11,990	-10,781	-29,130	68,255	108,166	-39,911
September	970	10,642	-9,672	1,241	12,050	-10,809	-28,156	67,391	106,355	-38,965
October	1,166	11,206	-10,040	1,424	12,722	-11,298	-32,879	69,635	113,812	-44,177
November	992	10,197	-9,205	1,296	11,882	-10,586	-28,195	67,614	106,395	-38,781
December	915	10,356	-9,441	1,232	13,175	-11,943	-21,299	65,211	98,452	-33,242
Total	**10,192**	**119,251**	**-109,059**	**13,179**	**135,367**	**-122,188**	**-313,916**	**781,918**	**1,218,022**	**-436,104**
2001 January	791	10,703	-9,912	1,177	13,276	-12,099	-26,667	62,340	101,106	-38,766
February	720	8,939	-8,219	1,171	10,909	-9,738	-18,440	63,115	91,294	-28,178
March	746	9,102	-8,356	1,158	11,002	-9,844	-22,984	70,586	103,414	-32,828
April	764	9,483	-8,719	1,170	11,775	-10,605	-23,566	62,224	96,395	-34,171
May	791	9,691	-8,900	1,176	12,076	-10,900	-21,349	64,873	97,122	-32,249
June	760	9,173	-8,413	1,019	10,976	-9,957	-22,875	63,421	96,252	-32,832
July	674	8,643	-7,969	878	10,596	-9,718	-30,719	54,772	95,209	-40,437
August	843	8,620	-7,777	1,141	10,119	-8,978	R -27,605	R 60,191	R 96,774	R -36,583
September	647	8,230	-7,583	907	9,140	-8,233	-26,475	55,292	90,000	-34,708
9-Month Total	**6,737**	**82,585**	**-75,848**	**9,797**	**99,870**	**-90,072**	**-220,680**	**556,814**	**867,566**	**-310,752**
2000 9-Month Total	**7,119**	**93,640**	**-86,521**	**9,227**	**97,587**	**-88,360**	**-231,544**	**579,458**	**899,363**	**-319,904**
1999 9-Month Total	**4,800**	**45,832**	**-41,032**	**6,879**	**51,965**	**-45,086**	**-192,127**	**508,069**	**745,280**	**-237,213**

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

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

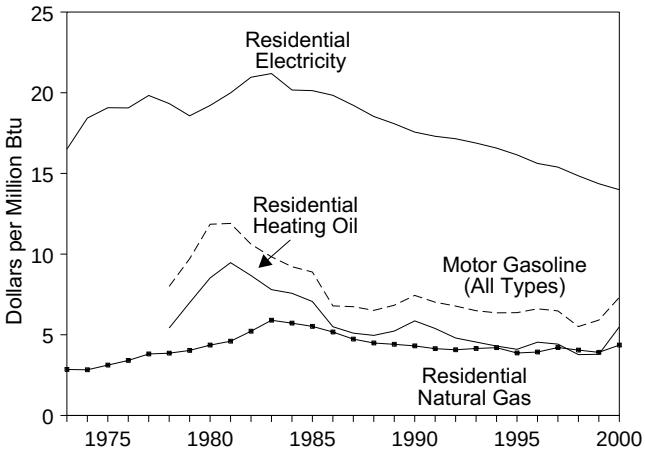
R=Revised.

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

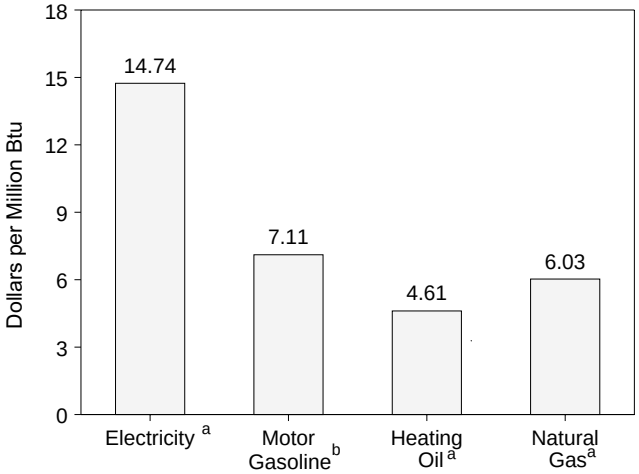
Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this section.

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

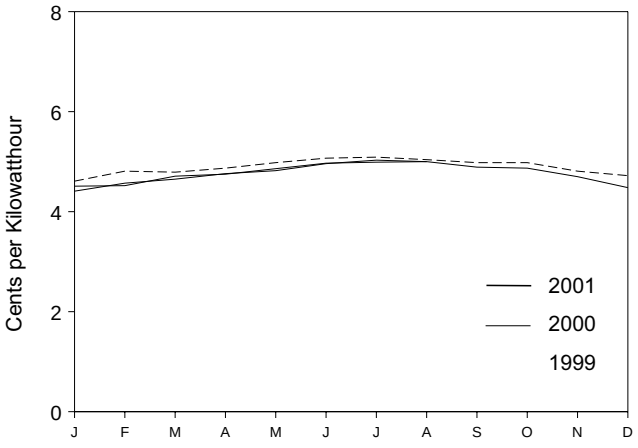
Costs, 1973-2000



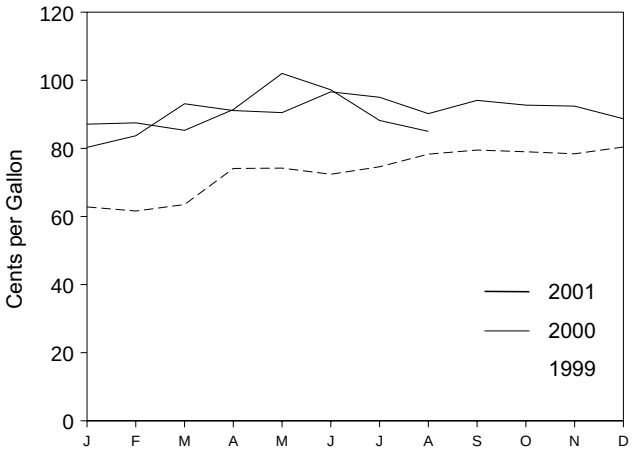
Costs, July 2001



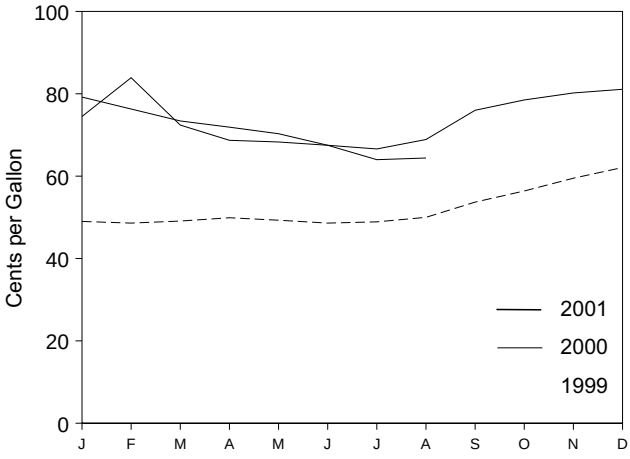
Residential Electricity, Monthly



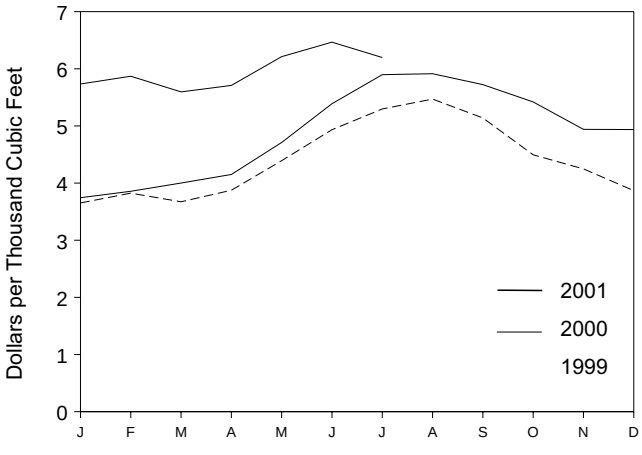
Motor Gasoline (All Types), Monthly



Residential Heating Oil, Monthly



Residential Natural Gas, Monthly



[a]Residential.
[b]All types.
NA=Not available.
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.7.

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

	Consumer Price Index (Urban)[a]	Motor Gasoline (All Types)		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per 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 January	164.3	62.8	5.06	49.0	3.53	365.2	3.55	4.61	13.52
February	164.5	61.6	4.97	48.6	3.51	382.4	3.72	4.81	14.11
March	165.0	63.5	5.12	49.1	3.54	367.3	3.57	4.79	14.03
April	166.2	74.1	5.97	49.9	3.60	387.5	3.77	4.87	14.27
May	166.2	74.2	5.98	49.3	3.56	439.2	4.27	4.98	14.58
June	166.2	72.4	5.84	48.6	3.50	493.4	4.80	5.07	14.87
July	166.7	74.6	6.01	48.9	3.53	529.7	5.15	5.09	14.93
August	167.1	78.3	6.31	50.0	3.60	547.0	5.32	5.04	14.77
September	167.9	79.5	6.40	53.7	3.87	514.0	5.00	4.98	14.59
October	168.2	79.0	6.37	56.4	4.07	449.5	4.37	4.98	14.58
November	168.3	78.4	6.32	59.5	4.29	424.8	4.13	4.81	14.09
December	168.3	80.4	6.48	62.1	4.48	386.8	3.76	4.72	13.83
Average	**166.6**	**73.3**	**5.91**	**52.6**	**3.79**	**401.6**	**3.91**	**4.90**	**14.36**
2000 January	168.8	80.3	6.47	74.5	5.37	374.4	3.64	4.51	13.23
February	169.8	83.7	6.75	83.9	6.05	385.7	3.75	4.52	13.26
March	171.2	93.1	7.51	72.4	5.22	400.1	3.89	4.71	13.80
April	171.3	91.1	7.35	68.7	4.95	415.1	4.04	4.75	13.91
May	171.5	90.5	7.30	68.3	4.93	471.1	4.58	4.86	14.25
June	172.4	96.6	7.79	67.5	4.86	538.9	5.24	4.97	14.55
July	172.8	95.0	7.66	66.6	4.80	589.7	5.74	4.99	14.64
August	172.8	90.2	7.27	68.9	4.97	591.4	5.75	5.00	14.65
September	173.7	94.1	7.59	76.0	5.48	572.3	5.57	4.89	14.34
October	174.0	92.7	7.47	78.5	5.66	542.0	5.27	4.87	14.27
November	174.1	92.4	7.45	80.2	5.79	494.0	4.81	4.70	13.79
December	174.0	88.7	7.15	81.1	5.85	493.7	4.80	4.48	13.12
Average	**172.2**	**90.8**	**7.32**	**76.1**	**5.49**	**448.3**	**4.36**	**4.77**	**13.99**
2001 January	175.1	87.1	7.02	79.2	5.71	573.4	5.58	4.41	12.94
February	175.8	87.5	7.05	76.3	5.50	R 587.0	R 5.71	4.57	13.39
March	176.2	85.3	6.88	73.4	5.30	559.6	5.44	4.65	13.62
April	176.9	91.4	7.37	71.9	5.18	R 570.9	R 5.55	4.76	13.95
May	177.7	102.0	8.22	70.3	5.07	621.3	6.04	4.82	14.13
June	178.0	97.2	7.84	67.5	4.87	R 646.6	R 6.29	4.96	14.52
July	177.5	88.2	7.11	R 64.0	R 4.61	619.7	6.03	5.03	14.74
August	177.5	85.0	6.85	64.4	4.64	NA	NA	5.00	14.66

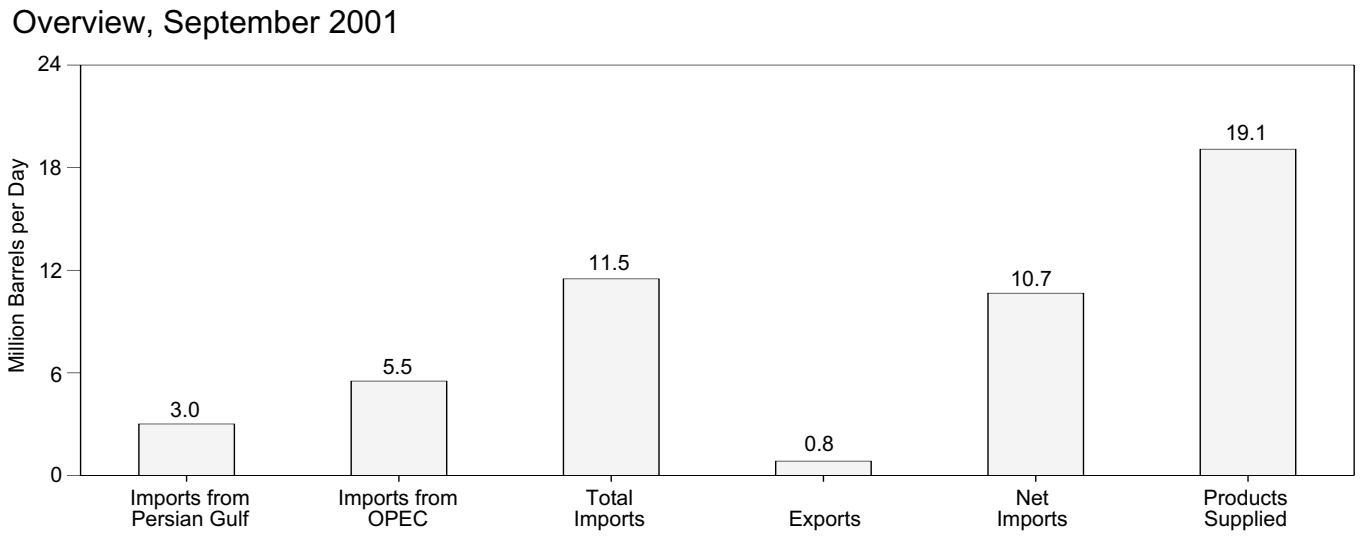
[a] Consumer Price Index, All Urban Consumers, All Items, 1982-1984 = 100.0.

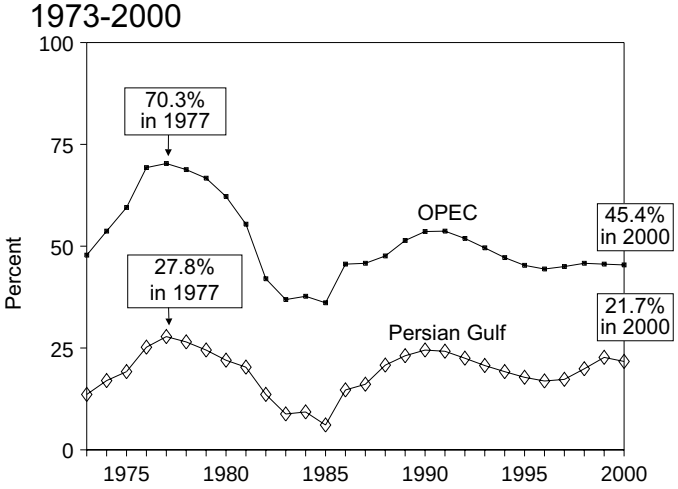
R=Revised. NA=Not available.

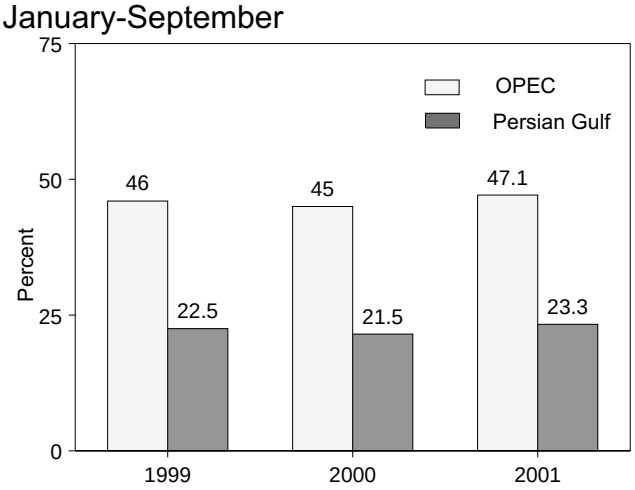
Notes: Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. Annual averages may not equal average of months due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

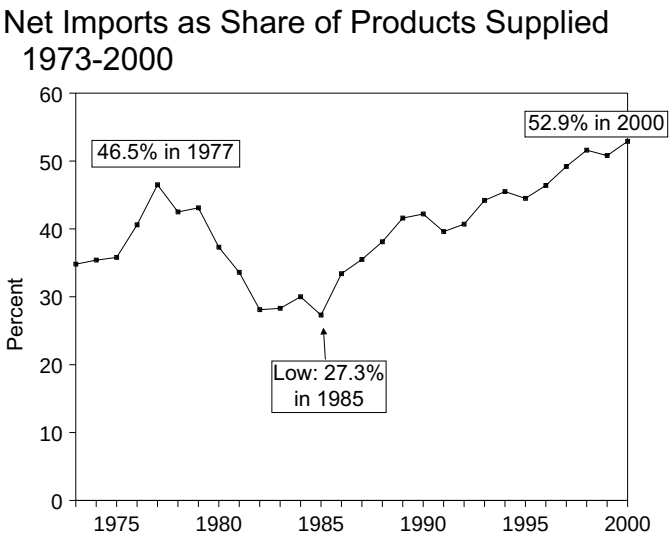
Sources: **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.11, and 9.9, adjusted by the CPI. **CPI: 1973-1997**—*Economic Report of the President,* February 2001, Table B-60. **1998 forward**—Council of Economic Advisers, *Economic Indicators,* October 2001, "Consumer Prices - All Urban Consumers." **Conversion Factors:** Tables A1, A3, A4, and A6.

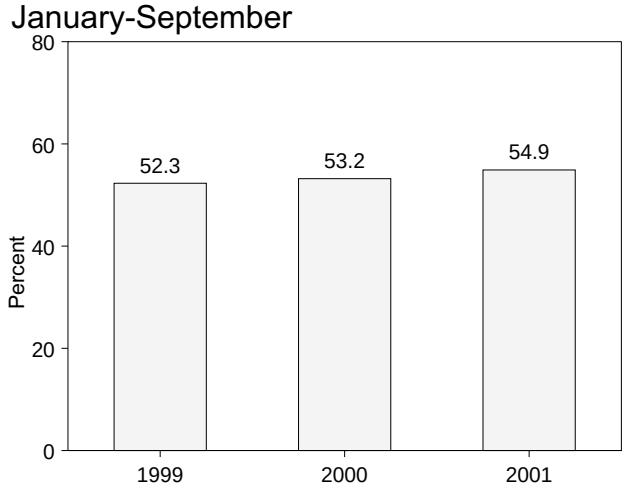
Figure 1.7 Overview of U.S. Petroleum Trade











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

Table 1.8 Overview of U.S. Petroleum Trade

	Thousand Barrels per Day						Percent					
							As Share of Products Supplied				As Share of Total Imports	
	Imports from Persian Gulf[a]	Imports from OPEC[b]	Total Imports	Exports	Net Imports	Products Supplied	Imports from Persian Gulf[a]	Imports from OPEC[b]	Total Imports	Net Imports	Imports from Persian Gulf[a]	Imports from OPEC[b]
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 January	2,129	4,819	10,424	896	9,529	19,029	11.2	25.3	54.8	50.1	20.4	46.2
February	2,383	5,110	10,650	756	9,894	19,107	12.5	26.7	55.7	51.8	22.4	48.0
March	2,801	5,109	10,658	764	9,894	19,497	14.4	26.2	54.7	50.7	26.3	47.9
April	2,633	5,679	11,618	1,196	10,422	19,152	13.8	29.7	60.7	54.4	22.7	48.9
May	2,479	5,079	11,511	915	10,596	18,705	13.3	27.2	61.5	56.6	21.5	44.1
June	2,590	5,040	11,160	907	10,253	19,836	13.1	25.4	56.3	51.7	23.2	45.2
July	2,427	5,016	11,697	918	10,779	19,820	12.2	25.3	59.0	54.4	20.8	42.9
August	2,514	5,137	11,142	902	10,240	20,093	12.5	25.6	55.5	51.0	22.6	46.1
September	2,457	4,825	10,657	889	9,768	19,483	12.6	24.8	54.7	50.1	23.1	45.3
October	2,480	4,645	10,595	944	9,651	19,868	12.5	23.4	53.3	48.6	23.4	43.8
November	2,336	4,431	10,033	950	9,083	19,087	12.2	23.2	52.6	47.6	23.3	44.2
December	2,331	4,564	10,065	1,230	8,835	20,498	11.4	22.3	49.1	43.1	23.2	45.3
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 January	2,048	4,169	10,140	1,006	9,134	19,026	10.8	21.9	53.3	48.0	20.2	41.1
February	2,362	4,907	11,003	870	10,133	19,635	12.0	25.0	56.0	51.6	21.5	44.6
March	2,204	5,054	11,052	1,159	9,893	19,218	11.5	26.3	57.5	51.5	19.9	45.7
April	2,400	5,171	11,558	1,131	10,427	18,816	12.8	27.5	61.4	55.4	20.8	44.7
May	2,218	4,904	11,415	856	10,559	19,605	11.3	25.0	58.2	53.9	19.4	43.0
June	2,586	5,558	12,032	925	11,107	20,054	12.9	27.7	60.0	55.4	21.5	46.2
July	2,612	5,178	11,588	900	10,688	19,696	13.3	26.3	58.8	54.3	22.5	44.7
August	2,825	5,904	12,173	1,073	11,099	20,496	13.8	28.8	59.4	54.2	23.2	48.5
September	2,827	5,470	11,900	1,059	10,841	19,899	14.2	27.5	59.8	54.5	23.8	46.0
October	2,504	5,307	11,290	1,292	9,998	19,798	12.6	26.8	57.0	50.5	22.2	47.0
November	2,482	5,236	11,309	1,108	10,201	19,328	12.8	27.1	58.5	52.8	21.9	46.3
December	2,791	5,575	12,053	1,095	10,958	20,814	13.4	26.8	57.9	52.6	23.2	46.3
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	2,438	5,405	12,118	965	11,154	19,900	12.3	27.2	60.9	56.0	20.1	44.6
February	2,339	4,999	11,462	1,015	10,447	19,597	11.9	25.5	58.5	53.3	20.4	43.6
March	2,679	5,783	11,942	947	10,996	19,892	13.5	29.1	60.0	55.3	22.4	48.4
April	2,865	5,983	12,311	950	11,361	19,591	14.6	30.5	62.8	58.0	23.3	48.6
May	3,076	5,960	12,243	1,114	11,130	19,491	15.8	30.6	62.8	57.1	25.1	48.7
June	2,829	5,515	11,499	998	10,501	19,608	14.4	28.1	58.6	53.6	24.6	48.0
July	2,718	5,466	11,576	886	10,690	19,884	13.7	27.5	58.2	53.8	23.5	47.2
August	2,680	5,234	11,318	1,084	10,234	20,085	13.3	26.1	56.4	51.0	23.7	46.2
September	3,011	5,520	11,498	838	10,659	19,082	15.8	28.9	60.3	55.9	26.2	48.0
9-Month Average	**2,740**	**5,545**	**11,778**	**978**	**10,800**	**19,685**	**13.9**	**28.2**	**59.8**	**54.9**	**23.3**	**47.1**
2000 9-Month Average	**2,453**	**5,145**	**11,428**	**998**	**10,430**	**19,605**	**12.5**	**26.2**	**58.3**	**53.2**	**21.5**	**45.0**
1999 9-Month Average	**2,491**	**5,089**	**11,061**	**905**	**10,156**	**19,416**	**12.8**	**26.2**	**57.0**	**52.3**	**22.5**	**46.0**

[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 1.8 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.

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)

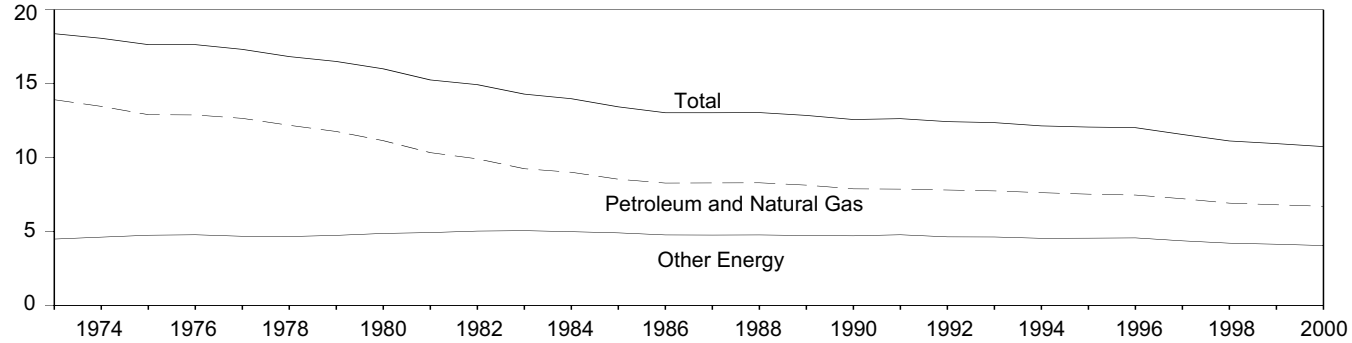


Table 1.9 Energy Consumption per Dollar of Gross Domestic Product

(Seasonally Adjusted at Annual Rates)

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Dollar of GDP		
	Petroleum and Natural Gas	Other Energy[a]	Total		Petroleum and Natural Gas	Other Energy[a]	Total
	Quadrillion Btu			Billion Chained (1996) Dollars	Thousand Btu per Chained (1996) Dollar		
1973 Year	**57.352**	**18.456**	**75.808**	**4,123.4**	**13.91**	**4.48**	**18.38**
1974 Year	**55.187**	**18.893**	**74.080**	**4,099.0**	**13.46**	**4.61**	**18.07**
1975 Year	**52.678**	**19.364**	**72.042**	**4,084.4**	**12.90**	**4.74**	**17.64**
1976 Year	**55.520**	**20.552**	**76.072**	**4,311.7**	**12.88**	**4.77**	**17.64**
1977 Year	**57.053**	**21.069**	**78.122**	**4,511.8**	**12.65**	**4.67**	**17.32**
1978 Year	**57.966**	**22.158**	**80.123**	**4,760.6**	**12.18**	**4.65**	**16.83**
1979 Year	**57.789**	**23.255**	**81.044**	**4,912.1**	**11.76**	**4.73**	**16.50**
1980 Year	**54.596**	**23.839**	**78.435**	**4,900.9**	**11.14**	**4.86**	**16.00**
1981 Year	**51.859**	**24.710**	**76.569**	**5,021.0**	**10.33**	**4.92**	**15.25**
1982 Year	**48.736**	**24.704**	**73.440**	**4,919.3**	**9.91**	**5.02**	**14.93**
1983 Year	**47.411**	**25.906**	**73.317**	**5,132.3**	**9.24**	**5.05**	**14.29**
1984 Year	**49.558**	**27.413**	**76.972**	**5,505.2**	**9.00**	**4.98**	**13.98**
1985 Year	**48.756**	**28.022**	**76.778**	**5,717.1**	**8.53**	**4.90**	**13.43**
1986 Year	**48.904**	**28.161**	**77.065**	**5,912.4**	**8.27**	**4.76**	**13.03**
1987 Year	**50.609**	**29.024**	**79.633**	**6,113.3**	**8.28**	**4.75**	**13.03**
1988 Year	**52.774**	**30.294**	**83.068**	**6,368.4**	**8.29**	**4.76**	**13.04**
1989 Year	**53.595**	[b c] **31.121**	[b c] **84.716**	**6,591.8**	**8.13**	**4.72**	**12.85**
1990 Year	**52.849**	**31.495**	**84.344**	**6,707.9**	**7.88**	**4.70**	**12.57**
1991 Year	**52.452**	**31.846**	**84.298**	**6,676.4**	**7.86**	**4.77**	**12.63**
1992 Year	**53.657**	**31.855**	**85.513**	**6,880.0**	**7.80**	**4.63**	**12.43**
1993 Year	**54.668**	**32.632**	**87.300**	**7,062.6**	**7.74**	**4.62**	**12.36**
1994 Year	**55.958**	**33.255**	**89.213**	**7,347.7**	**7.62**	**4.53**	**12.14**
1995 Year	**56.717**	**34.226**	**90.943**	**7,543.8**	**7.52**	**4.54**	**12.06**
1996 Year	**58.316**	**35.615**	**93.931**	**7,813.2**	**7.46**	**4.56**	**12.02**
1997 Year	**58.795**	**35.545**	**94.340**	**8,159.5**	**7.21**	**4.36**	**11.56**
1998 Year	**58.855**	**35.753**	**94.608**	**8,508.9**	**6.91**	**4.20**	**11.12**
1999 1st Quarter	60.773	NA	NA	8,733.5	6.96	NA	NA
2nd Quarter	60.295	NA	NA	8,771.2	6.86	NA	NA
3rd Quarter	60.280	NA	NA	8,871.5	6.77	NA	NA
4th Quarter	59.634	NA	NA	9,049.9	6.62	NA	NA
Year	**60.248**	**36.604**	**96.852**	**8,856.5**	**6.80**	**4.13**	**10.94**
2000 1st Quarter	61.354	NA	NA	9,102.5	6.74	NA	NA
2nd Quarter	[R] 61.987	NA	NA	9,229.4	6.72	NA	NA
3rd Quarter	61.151	NA	NA	9,260.1	6.60	NA	NA
4th Quarter	[R] 62.652	NA	NA	9,303.9	6.73	NA	NA
Year	[R] **61.787**	**37.289**	[R] **99.076**	**9,224.0**	**6.70**	**4.04**	**10.74**
2001 1st Quarter	[R] 63.088	NA	NA	9,334.5	6.76	NA	NA
2nd Quarter	[R] 60.437	NA	NA	9,341.7	[R] 6.47	NA	NA

[a] Coal, nuclear electric power, renewable energy, and pumped-storage hydroelectric power.

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

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

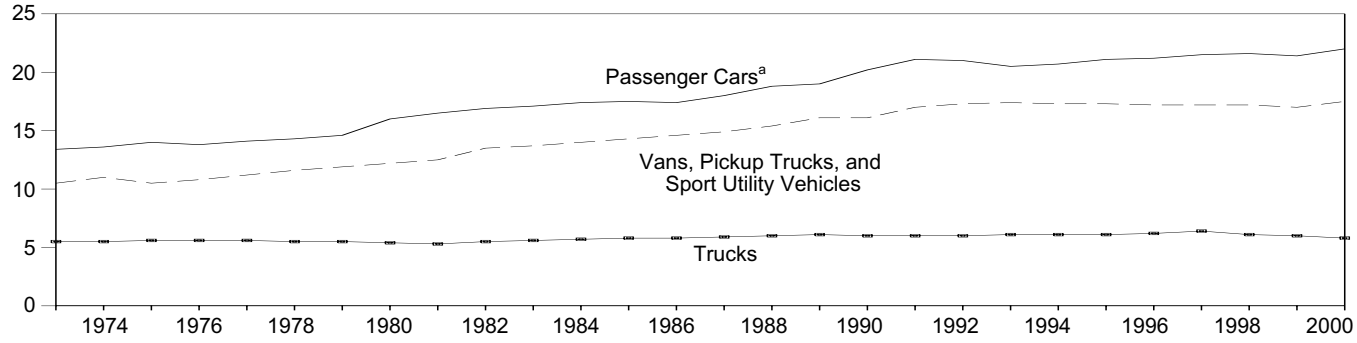
R=Revised. NA=Not available. E=Estimate.

Notes: Quarterly data are seasonally adjusted and shown at annual rates. Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: **Energy Consumption:** Table 1.4. **Gross Domestic Product: 1973-1998**—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* August 2001, Table 2A. **1999 forward**—U.S. Department of Commerce, Bureau of Economic Analysis, *BEA News Release,* October 31, 2001, Table 3, which is available at website www.bea.doc.gov/bea/newsrel/gdp400p.htm.

Figure 1.9 Motor Vehicle Fuel Rates

(Miles per Gallon)



[a] Includes motorcycles through 1989.

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

	Passenger Cars			Vans, Pickup Trucks, and Sport Utility Vehicles[a]			Trucks[b]			All Motor Vehicles[c]		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	[d]9,884	[d]737	[d]13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	[d]9,221	[d]677	[d]13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	[d]9,309	[d]665	[d]14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	[d]9,418	[d]681	[d]13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	[d]9,517	[d]676	[d]14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	[d]9,500	[d]665	[d]14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	[d]9,062	[d]620	[d]14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	[d]8,813	[d]551	[d]16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	[d]8,873	[d]538	[d]16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	[d]9,050	[d]535	[d]16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	[d]9,118	[d]534	[d]17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	[d]9,248	[d]530	[d]17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	[d]9,419	[d]538	[d]17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	[d]9,464	[d]543	[d]17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	[d]9,720	[d]539	[d]18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	[d]9,972	[d]531	[d]18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	[d]10,157	[d]533	[d]19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	[R]11,848	[R]553	21.4	[R]11,957	[R]701	[R]17.0	[R]26,014	[R]4,352	[R]6.0	[R]12,206	[R]732	[R]16.7
2000[e]	11,988	546	22.0	11,684	668	17.5	25,651	4,387	5.8	12,177	719	16.9

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

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

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

Table 1.11 Heating Degree-Days by Census Division

Census Divisions	October 1 through October 31					Cumulative July 1 through October 31				
				Percent Change					Percent Change	
	Normal[a]	2000	2001	Normal to 2001	2000 to 2001	Normal[a]	2000	2001	Normal to 2001	2000 to 2001
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	439	449	408	-7	-9	609	654	558	-8	-15
Middle Atlantic										
New Jersey, New York, Pennsylvania	368	333	314	-15	-6	473	460	407	-14	-12
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	401	312	392	-2	26	529	478	556	5	16
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	396	325	415	5	28	551	479	573	4	20
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	158	147	180	14	22	178	189	221	24	17
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	204	156	245	20	57	229	200	299	31	50
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	77	86	111	([c])	([c])	82	106	133	([c])	([c])
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	357	375	311	-13	-17	530	501	386	-27	-23
Pacific[b]										
California, Oregon, Washington	174	192	143	-18	-26	278	250	189	-32	-24
U.S. Average[b]	**271**	**246**	**264**	**-3**	**7**	**360**	**343**	**349**	**-3**	**2**

[a] "Normal" is based on calculations of data from 1961 through 1990.
[b] Excludes Alaska and Hawaii.
[c] Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

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

Sources: See end of section.

Table 1.12 Cooling Degree-Days by Census Division

Census Divisions	October 1 through October 31					Cumulative January 1 through October 31				
				Percent Change					Percent Change	
	Normal[a]	2000	2001	Normal to 2001	2000 to 2001	Normal[a]	2000	2001	Normal to 2001	2000 to 2001
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	1	0	3	([c])	([c])	420	369	528	26	43
Middle Atlantic										
New Jersey, New York, Pennsylvania	6	3	8	([c])	([c])	675	622	766	14	23
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	11	7	3	([c])	([c])	736	662	760	3	15
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	16	19	5	([c])	([c])	981	995	1,032	5	4
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	118	100	107	-9	7	1,847	1,886	1,854	(s)	-2
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	57	77	38	([c])	([c])	1,555	1,761	1,572	1	-11
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	137	186	117	-15	-37	2,417	2,829	2,509	4	-11
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	51	47	68	([c])	([c])	1,169	1,440	1,502	28	4
Pacific[b]										
California, Oregon, Washington	38	39	68	([c])	([c])	689	736	787	14	7
U.S. Average[b]	**52**	**54**	**50**	**([c])**	**([c])**	**1,172**	**1,236**	**1,245**	**6**	**1**

[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.
(s)=Less than 0.5 percent and greater than -0.5 percent.
Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, if a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree-days). A weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days).
Sources: See end of section.

Energy Overview Notes

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

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

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

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

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

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

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

Sources for Table 1.6

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

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

1999: "U.S. International Trade in Goods and Services, Annual Revision for 1999."
2000: "U.S. International Trade in Goods and Services, Annual Revision for 2000."
2001: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum Imports
1974-1987: "U.S. Merchandise Trade," FT900, December issues, 1975-1988.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions."
1989: "Report on U.S. Merchandise Trade, 1989 Revisions."
1990: "U.S. Merchandise Trade, 1990 Final Report."
1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.
1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1993: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1994.
1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services, Annual Revision for 1997."
1998: "U.S. International Trade in Goods and Services, Annual Revision for 1998."
1999: "U.S. International Trade in Goods and Services, Annual Revision for 1999."
2000: "U.S. International Trade in Goods and Services, Annual Revision for 2000."
2001: "U.S. International Trade in Goods and Services," FT-900, monthly.

Energy Exports and Imports
1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: January-July, monthly FT-900 supplement, 1989 issues. August-December, monthly FT-900, 1989 issues.
1989: Monthly FT-900, 1990 issues.
1990: "U.S. Merchandise Trade, 1990 Final Report."
1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.
1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1993: "U.S. International Trade in Goods and Services, Annual Revision for 1993."
1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services, Annual Revision for 1997."
1998: "U.S. International Trade in Goods and Services, Annual Revision for 1998."
1999: "U.S. International Trade in Goods and Services, Annual Revision for 1999."
2000: "U.S. International Trade in Goods and Services, Annual Revision for 2000."
2001: "U.S. International Trade in Goods and Services," FT-900, monthly.

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

Total Merchandise
1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.
1989: "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.
1990: "U.S. Merchandise Trade, 1990 Final Report," May 10, 1991, and "U.S. Merchandise Trade, December 1992," February 18, 1993, page 3.
1991: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1992: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1993 and 1994: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1995 and 1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997 and 1998: "U.S. International Trade in Goods and Services, Annual Revision for 1998."
1999 and 2000: "U.S. International Trade in Goods and Services, Annual Revision for 2000."
2001: "U.S. International Trade in Goods and Services," FT-900, monthly.

Sources for Tables 1.11 and 1.12

There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Analysis Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population.

The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1990 by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-1 (heating degree-days) and 5-2 (cooling degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Section 2. Energy Consumption by Sector

U.S. total energy consumption in August 2001 was 8.3 quadrillion Btu, 3 percent lower than in August 2000.

Residential sector total consumption was 1.6 quadrillion Btu in August 2001, slightly lower than the August 2000 level. The sector accounted for 19 percent of total energy consumption.

Commercial sector total consumption was 1.4 quadrillion Btu in August 2001, 2 percent higher than the August 2000 level. The sector accounted for 17 percent of total energy consumption.

Industrial sector total consumption was 2.9 quadrillion Btu in August 2001, 7 percent lower than the August 2000 level. The sector accounted for 35 percent of total energy consumption.

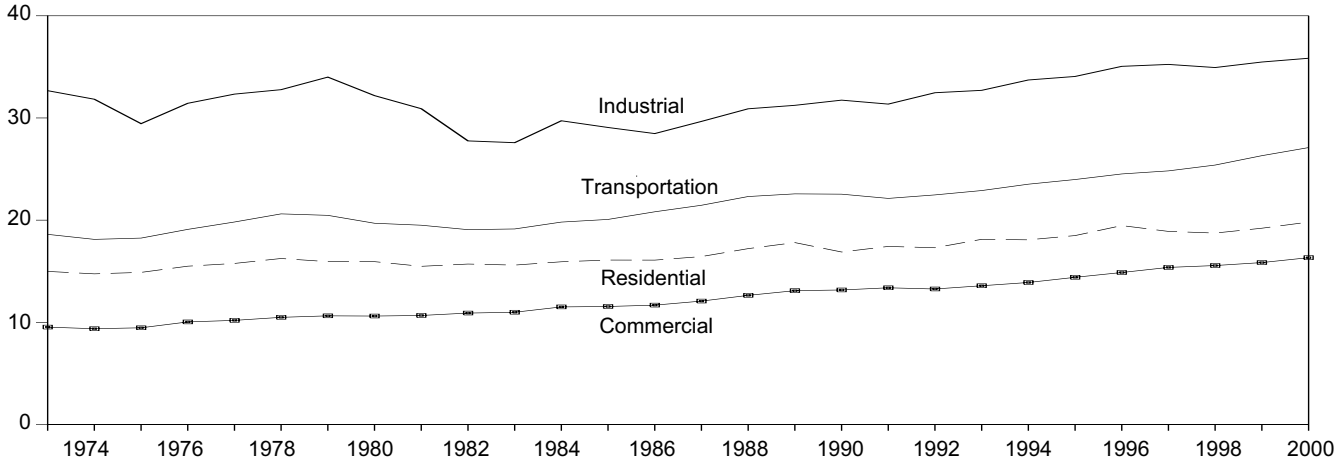
Transportation sector total consumption was 2.4 quadrillion Btu in August 2001, 2 percent lower than the August 2000 level. The sector accounted for 29 percent of total energy consumption.

Electric power sector primary consumption was 3.4 quadrillion Btu in August 2001, 3 percent lower than the August 2000 level. Fossil fuels accounted for 70 percent of all primary energy consumed by the electric power sector; nuclear electric power 21 percent; and renewable energy 9 percent.

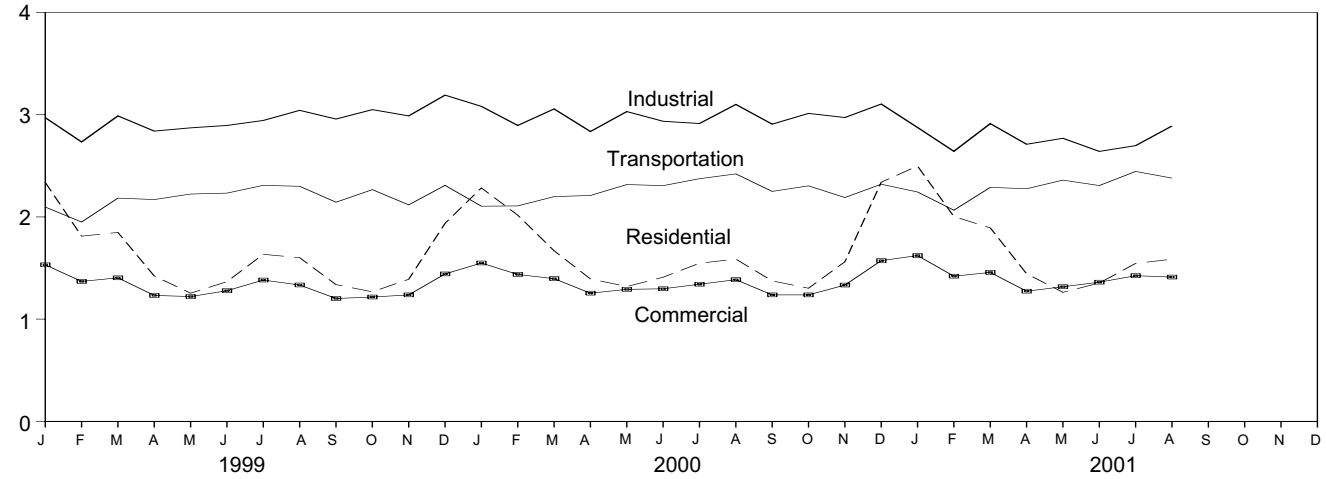
Figure 2.1 Energy Consumption by Sector

(Quadrillion Btu)

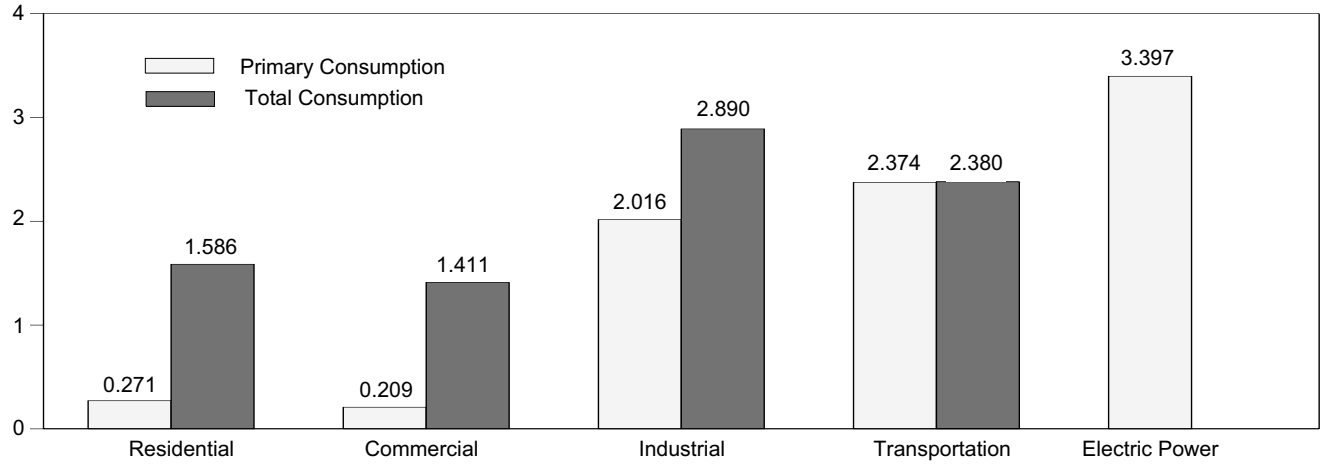
Total Consumption End Use, 1973-2000



Total Consumption End Use, Monthly



By Sector, August 2001



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

Table 2.1 Energy Consumption by Sector

(Quadrillion Btu)

	End-Use Sectors[a]								Electric Power Sector[a]	
	Residential		Commercial		Industrial		Transportation			
	Primary	Total	Primary	Total	Primary	Total	Primary	Total	Primary	Total[b]
1973 Total	**8.258**	**14.983**	**4.373**	**9.534**	**24.706**	**32.672**	**18.576**	**18.612**	**19.887**	**75.808**
1974 Total	**7.948**	**14.745**	**4.201**	**9.374**	**23.783**	**31.835**	**18.086**	**18.119**	**20.055**	**74.080**
1975 Total	**8.027**	**14.888**	**4.002**	**9.465**	**21.422**	**29.445**	**18.209**	**18.244**	**20.382**	**72.042**
1976 Total	**8.431**	**15.493**	**4.310**	**10.038**	**22.652**	**31.434**	**19.065**	**19.099**	**21.607**	**76.072**
1977 Total	**8.232**	**15.765**	**4.193**	**10.194**	**23.160**	**32.336**	**19.784**	**19.820**	**22.746**	**78.122**
1978 Total	**8.309**	**16.249**	**4.233**	**10.489**	**23.245**	**32.770**	**20.580**	**20.615**	**23.755**	**80.123**
1979 Total	**7.971**	**15.937**	**4.296**	**10.635**	**24.177**	**33.999**	**20.436**	**20.471**	**24.162**	**81.044**
1980 Total	**7.533**	**15.938**	**4.068**	**10.613**	**22.640**	**32.189**	**19.658**	**19.696**	**24.538**	**78.435**
1981 Total	**7.142**	**15.482**	**3.791**	**10.672**	**21.371**	**30.906**	**19.469**	**19.506**	**24.793**	**76.569**
1982 Total	**7.206**	**15.704**	**3.816**	**10.906**	**19.079**	**27.756**	**19.032**	**19.070**	**24.303**	**73.440**
1983 Total	**6.879**	**15.603**	**3.783**	**10.989**	**18.565**	**27.580**	**19.098**	**19.141**	**24.989**	**73.317**
1984 Total	**7.036**	**15.927**	**3.945**	**11.510**	**20.175**	**29.724**	**19.761**	**19.809**	**26.053**	**76.972**
1985 Total	**7.024**	**16.095**	**3.676**	**11.550**	**19.507**	**29.067**	**20.023**	**20.071**	**26.552**	**76.778**
1986 Total	**6.842**	**16.087**	**3.617**	**11.684**	**19.100**	**28.474**	**20.768**	**20.818**	**26.735**	**77.065**
1987 Total	**6.874**	**16.437**	**3.710**	**12.078**	**20.013**	**29.664**	**21.405**	**21.456**	**27.633**	**79.633**
1988 Total	**7.280**	**17.213**	**3.918**	**12.640**	**20.926**	**30.899**	**22.261**	**22.313**	**28.681**	**83.068**
1989 Total	**7.522**	**17.805**	**3.892**	**13.099**	**20.727**	**31.238**	**22.517**	**22.571**	**30.055**	**84.716**
1990 Total	**6.494**	**16.884**	**3.742**	**13.168**	**21.111**	**31.743**	**22.488**	**22.541**	**30.502**	**84.344**
1991 Total	**6.723**	**17.427**	**3.800**	**13.382**	**20.754**	**31.359**	**22.077**	**22.130**	**30.943**	**84.298**
1992 Total	**6.916**	**17.300**	**3.834**	**13.264**	**21.679**	**32.472**	**22.419**	**22.471**	**30.660**	**85.513**
1993 Total	**7.156**	**18.124**	**3.828**	**13.583**	**21.928**	**32.702**	**22.844**	**22.896**	**31.550**	**87.300**
1994 Total	**6.991**	**18.074**	**3.865**	**13.899**	**22.640**	**33.717**	**23.467**	**23.522**	**32.249**	**89.213**
1995 Total	**7.063**	**18.492**	**3.958**	**14.406**	**22.962**	**34.063**	**23.921**	**23.975**	**33.033**	**90.943**
1996 Total	**7.598**	**19.471**	**4.127**	**14.876**	**23.716**	**35.053**	**24.469**	**24.523**	**34.013**	**93.931**
1997 Total	**7.136**	**18.899**	**4.150**	**15.375**	**23.890**	**35.241**	**24.770**	**24.823**	**34.393**	**94.340**
1998 Total	**6.497**	**18.735**	**3.883**	**15.556**	**23.554**	**34.938**	**25.336**	**25.390**	**35.350**	**94.608**
1999 January	1.146	2.338	.580	1.531	2.079	2.971	2.092	2.097	3.039	8.936
February	.894	1.812	.494	1.369	1.872	2.734	1.946	1.950	2.659	7.863
March	.873	1.848	.477	1.404	2.054	2.989	2.180	2.184	2.841	8.423
April	.584	1.422	.328	1.232	1.910	2.840	2.166	2.170	2.676	7.661
May	.384	1.254	.236	1.221	1.862	2.872	2.219	2.224	2.868	7.569
June	.305	1.367	.202	1.278	1.884	2.895	2.228	2.233	3.154	7.777
July	.274	1.634	.191	1.382	1.918	2.944	2.304	2.309	3.583	8.277
August	.268	1.601	.198	1.334	2.043	3.043	2.295	2.300	3.475	8.285
September	.285	1.338	.195	1.202	2.041	2.958	2.139	2.144	2.982	7.645
October	.403	1.267	.249	1.216	2.111	3.050	2.262	2.267	2.774	7.799
November	.549	1.390	.320	1.237	2.039	2.989	2.114	2.118	2.712	7.732
December	.882	1.937	.457	1.442	2.234	3.192	2.304	2.309	3.004	8.878
Total	**6.847**	**19.210**	**3.929**	**15.849**	**24.046**	**35.474**	**26.256**	**26.311**	**35.766**	**96.852**
2000 January	1.106	2.284	.568	1.549	2.147	3.082	2.100	2.105	3.099	9.019
February	1.006	2.017	.537	1.437	2.014	2.895	2.103	2.108	2.796	8.453
March	.748	1.669	.450	1.396	2.096	3.057	2.194	2.199	2.832	8.317
April	.568	1.393	.337	1.254	1.905	2.836	2.205	2.210	2.678	7.687
May	.384	1.319	R .247	R 1.291	2.027	3.031	2.312	2.317	2.988	R 7.957
June	.302	1.410	.216	1.297	1.962	2.936	2.301	2.306	3.167	7.951
July	.271	1.547	.210	1.341	1.949	2.914	2.369	2.374	3.376	8.178
August	.276	1.587	.218	1.386	2.099	3.101	2.415	2.421	3.486	8.499
September	.295	1.374	.216	1.237	2.000	2.908	2.245	2.250	3.013	7.769
October	.403	1.302	.258	1.237	2.085	3.013	2.299	2.304	2.812	7.855
November	.662	1.561	.373	1.333	2.017	2.973	2.185	2.190	2.820	8.055
December	1.136	2.340	R .576	R 1.572	2.187	3.105	2.315	2.320	3.123	R 9.336
Total	**7.157**	**19.812**	R **4.206**	R **16.329**	**24.489**	**35.844**	R **27.045**	**27.101**	**36.189**	R **99.076**
2001 January	1.227	R 2.498	.642	R 1.622	2.036	R 2.875	2.239	2.244	R 3.093	R 9.237
February	R 1.014	R 2.004	.556	1.420	1.837	R 2.642	R 2.062	R 2.066	2.663	R 8.129
March	.910	1.893	R .492	R 1.457	2.047	R 2.913	2.285	2.289	2.818	R 8.549
April	.584	1.444	.352	R 1.273	R 1.865	R 2.711	2.272	2.276	2.631	R 7.699
May	.367	1.262	.264	1.317	R 1.857	R 2.770	2.355	2.360	2.866	R 7.707
June	.298	1.353	.234	1.361	R 1.751	R 2.641	2.302	R 2.307	3.078	R 7.665
July	R .275	R 1.545	R .226	R 1.425	R 1.831	R 2.698	R 2.439	R 2.445	3.342	R 8.118
August	.271	1.586	.209	1.411	2.016	2.890	2.374	2.380	3.397	8.272
8-Month Total	**4.946**	**13.585**	**2.976**	**11.287**	**15.240**	**22.139**	**18.329**	**18.367**	**23.888**	**65.376**
2000 8-Month Total	**4.662**	**13.226**	**2.784**	**10.951**	**16.200**	**23.853**	**18.000**	**18.038**	**24.422**	**66.061**
1999 8-Month Total	**4.727**	**13.276**	**2.708**	**10.751**	**15.622**	**23.287**	**17.430**	**17.467**	**24.294**	**64.792**

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

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

R=Revised.

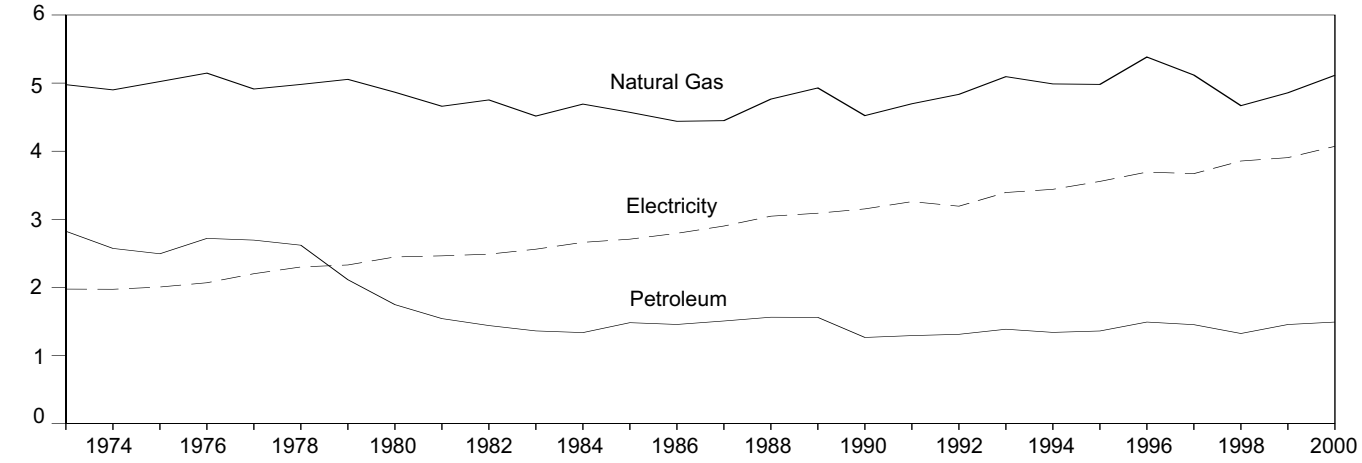
Notes: Primary consumption includes coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity. Total consumption includes primary consumption; electric utility retail sales of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

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

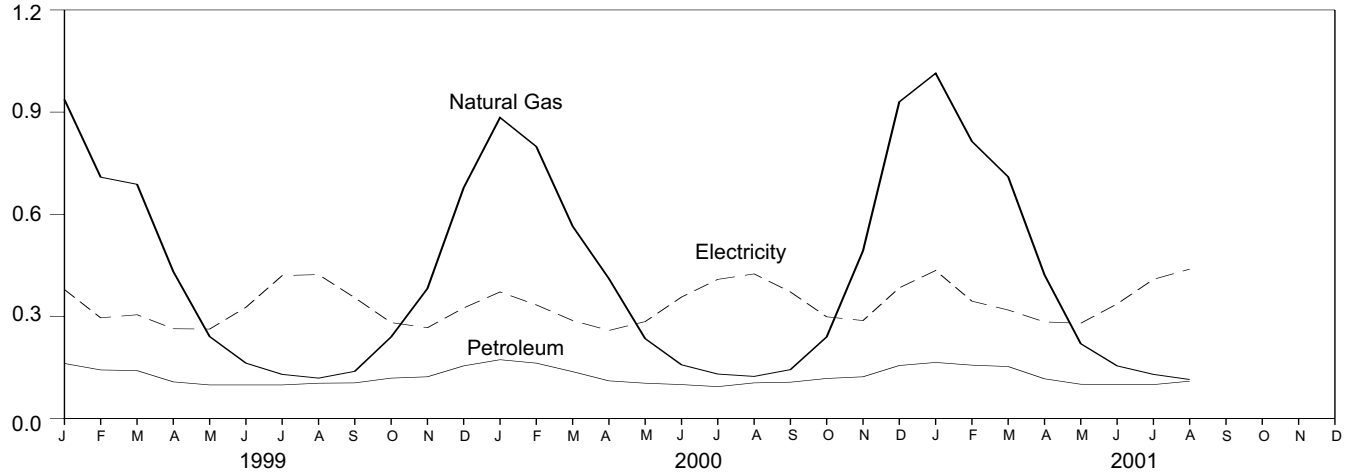
Figure 2.2 Residential Sector Energy Consumption

(Quadrillion Btu)

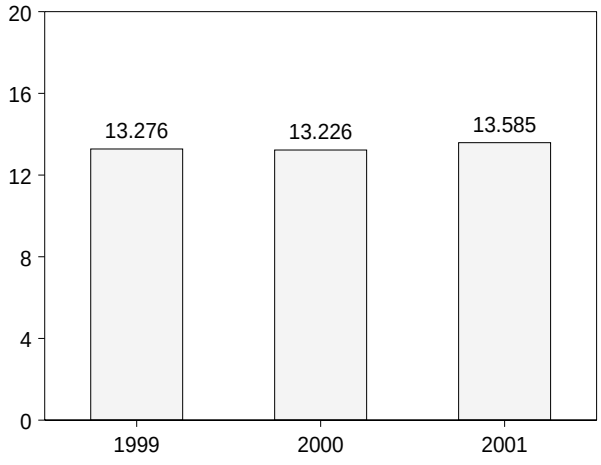
By Major Sources, 1973-2000



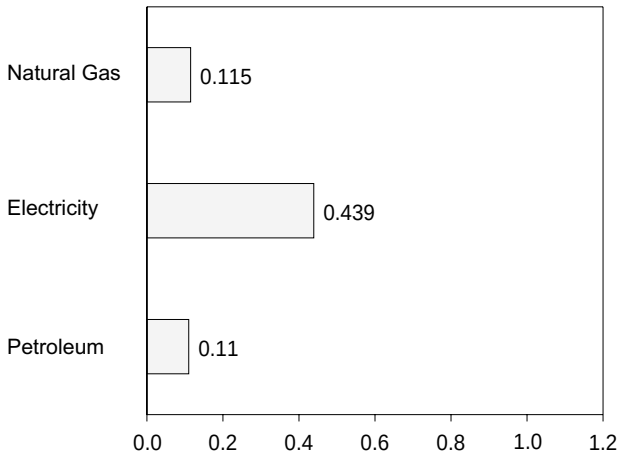
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 2.2 Residential Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption											
	Fossil Fuels[a]				Renewable Energy							
	Coal	Natural Gas[b]	Petroleum	Total	Wood[c]	Geo-thermal[d]	Solar[e]	Total	Total Primary	Electricity[f]	Electrical System Energy Losses[g]	Total
1973 Total	**0.102**	**4.977**	**2.825**	**7.904**	**0.354**	**NA**	**NA**	**0.354**	**8.258**	**1.976**	**4.749**	**14.983**
1974 Total	**.103**	**4.901**	**2.573**	**7.577**	**.371**	**NA**	**NA**	**.371**	**7.948**	**1.973**	**4.824**	**14.745**
1975 Total	**.084**	**5.023**	**2.495**	**7.601**	**.425**	**NA**	**NA**	**.425**	**8.027**	**2.007**	**4.855**	**14.888**
1976 Total	**.081**	**5.147**	**2.720**	**7.949**	**.482**	**NA**	**NA**	**.482**	**8.431**	**2.069**	**4.994**	**15.493**
1977 Total	**.082**	**4.913**	**2.695**	**7.690**	**.542**	**NA**	**NA**	**.542**	**8.232**	**2.202**	**5.331**	**15.765**
1978 Total	**.085**	**4.981**	**2.620**	**7.687**	**.622**	**NA**	**NA**	**.622**	**8.309**	**2.301**	**5.639**	**16.249**
1979 Total	**.075**	**5.055**	**2.114**	**7.243**	**.728**	**NA**	**NA**	**.728**	**7.971**	**2.330**	**5.636**	**15.937**
1980 Total	**.060**	**4.866**	**1.748**	**6.674**	**.859**	**NA**	**NA**	**.859**	**7.533**	**2.448**	**5.958**	**15.938**
1981 Total	**.070**	**4.660**	**1.543**	**6.273**	**.869**	**NA**	**NA**	**.869**	**7.142**	**2.464**	**5.876**	**15.482**
1982 Total	**.075**	**4.753**	**1.441**	**6.269**	**.937**	**NA**	**NA**	**.937**	**7.206**	**2.489**	**6.008**	**15.704**
1983 Total	**.075**	**4.516**	**1.362**	**5.954**	**.925**	**NA**	**NA**	**.925**	**6.879**	**2.562**	**6.162**	**15.603**
1984 Total	**.083**	**4.692**	**1.337**	**6.113**	**.923**	**NA**	**NA**	**.923**	**7.036**	**2.662**	**6.229**	**15.927**
1985 Total	**.070**	**4.571**	**1.483**	**6.125**	**.899**	**NA**	**NA**	**.899**	**7.024**	**2.709**	**6.362**	**16.095**
1986 Total	**.070**	**4.439**	**1.457**	**5.966**	**.876**	**NA**	**NA**	**.876**	**6.842**	**2.795**	**6.450**	**16.087**
1987 Total	**.065**	**4.449**	**1.508**	**6.022**	**.852**	**NA**	**NA**	**.852**	**6.874**	**2.902**	**6.662**	**16.437**
1988 Total	**.067**	**4.765**	**1.563**	**6.395**	**.885**	**NA**	**NA**	**.885**	**7.280**	**3.046**	**6.887**	**17.213**
1989 Total	**.058**	**4.929**	**1.560**	**6.547**	**.918**	**.005**	**.053**	**.976**	**7.522**	**3.090**	**7.193**	**17.805**
1990 Total	**.062**	**4.523**	**1.266**	**5.852**	**.581**	**.006**	**.056**	**.642**	**6.494**	**3.153**	**7.238**	**16.884**
1991 Total	**.056**	**4.697**	**1.293**	**6.047**	**.613**	**.006**	**.058**	**.677**	**6.723**	**3.260**	**7.444**	**17.427**
1992 Total	**.057**	**4.835**	**1.312**	**6.205**	**.645**	**.006**	**.060**	**.711**	**6.916**	**3.193**	**7.191**	**17.300**
1993 Total	**.057**	**5.095**	**1.387**	**6.540**	**.548**	**.007**	**.062**	**.616**	**7.156**	**3.394**	**7.574**	**18.124**
1994 Total	**.056**	**4.988**	**1.340**	**6.384**	**.537**	**.006**	**.064**	**.607**	**6.991**	**3.441**	**7.642**	**18.074**
1995 Total	**.054**	**4.981**	**1.361**	**6.396**	**.596**	**.007**	**.065**	**.667**	**7.063**	**3.557**	**7.871**	**18.492**
1996 Total	**.055**	**5.383**	**1.492**	**6.930**	**.595**	**.007**	**.066**	**.668**	**7.598**	**3.694**	**8.179**	**19.471**
1997 Total	**.058**	**5.118**	**1.454**	**6.630**	**.433**	**.007**	**.065**	**.506**	**7.136**	**3.671**	**8.092**	**18.899**
1998 Total	**.044**	**4.669**	**1.324**	**6.037**	**.387**	**.008**	**.065**	**.459**	**6.497**	**3.856**	**8.383**	**18.735**
1999 January	.006	.937	.162	1.105	A .035	A .001	A .005	A .041	1.146	.379	.813	2.338
February	.005	.709	.143	.857	A .032	A .001	A .005	A .037	.894	.296	.622	1.812
March	.003	.688	.141	.832	A .035	A .001	A .005	A .041	.873	.305	.669	1.848
April	.004	.432	.108	.544	A .034	A .001	A .005	A .040	.584	.264	.574	1.422
May	.002	.241	.099	.342	A .035	A .001	A .005	A .041	.384	.263	.607	1.254
June	.003	.163	.099	.265	A .034	A .001	A .005	A .040	.305	.327	.735	1.367
July	.004	.130	.099	.233	A .035	A .001	A .005	A .041	.274	.420	.940	1.634
August	.003	.119	.104	.226	A .035	A .001	A .005	A .041	.268	.423	.911	1.601
September	.002	.139	.105	.245	A .034	A .001	A .005	A .040	.285	.355	.697	1.338
October	.003	.240	.119	.362	A .035	A .001	A .005	A .041	.403	.282	.582	1.267
November	.004	.382	.123	.509	A .034	A .001	A .005	A .040	.549	.267	.574	1.390
December	.007	.678	.155	.840	A .035	A .001	A .005	A .041	.882	.325	.731	1.937
Total	**.047**	**4.858**	**1.456**	**6.361**	**.414**	**.008**	**.064**	**.486**	**6.847**	**3.906**	**8.457**	**19.210**
2000 January	.006	.884	.173	1.063	A .037	A .001	A .005	A .043	1.106	.372	.806	2.284
February	.004	.799	.163	.967	A .034	A .001	A .005	A .040	1.006	.334	.677	2.017
March	.003	.565	.138	.706	A .037	A .001	A .005	A .043	.748	.288	.633	1.669
April	.004	.411	.111	.526	A .036	A .001	A .005	A .041	.568	.259	.566	1.393
May	.003	.235	.104	.342	A .037	A .001	A .005	A .043	.384	.285	.650	1.319
June	.003	.158	.100	.261	A .036	A .001	A .005	A .041	.302	.357	.750	1.410
July	.003	.131	.094	.228	A .037	A .001	A .005	A .043	.271	.409	.867	1.547
August	.003	.124	.105	.233	A .037	A .001	A .005	A .043	.276	.425	.887	1.587
September	.003	.144	.107	.253	A .036	A .001	A .005	A .041	.295	.372	.707	1.374
October	.002	.240	.118	.360	A .037	A .001	A .005	A .043	.403	.299	.600	1.302
November	.005	.493	.123	.621	A .036	A .001	A .005	A .041	.662	.288	.611	1.561
December	.007	.930	.156	1.093	A .037	A .001	A .005	A .043	1.136	.384	.820	2.340
Total	**.047**	**5.115**	**1.492**	**6.654**	**E .433**	**E .009**	**E .062**	**E .503**	**7.157**	**4.072**	**8.583**	**19.812**
2001 January	.006	1.014	.165	1.185	A .037	A .001	A .005	A .043	1.227	.435	R .835	R 2.498
February	.004	R .814	.157	R .975	A .033	A .001	A .005	A .039	R 1.014	.345	.646	R 2.004
March	.004	.710	.153	.867	A .037	A .001	A .005	A .043	.910	.319	.664	1.893
April	.004	.422	.117	RE .543	A .036	A .001	A .005	A .041	.584	.284	.576	1.444
May	.003	.220	.101	E .324	A .037	A .001	A .005	A .043	.367	.280	.616	1.262
June	.003	R .155	.100	E .257	A .036	A .001	A .005	A .041	.298	.337	.717	1.353
July	.003	R .130	.100	RE .233	A .037	A .001	A .005	A .043	R .275	.409	.860	R 1.545
August	.003	F .115	.110	E .228	A .037	A .001	A .005	A .043	.271	.439	.877	1.586
8-Month Total	**.029**	**E 3.579**	**1.002**	**E 4.610**	**A .289**	**A .006**	**A .041**	**A .335**	**4.946**	**2.848**	**5.791**	**13.585**
2000 8-Month Total	**.030**	**3.308**	**.988**	**4.326**	**A .289**	**A .006**	**A .041**	**A .336**	**4.662**	**2.728**	**5.836**	**13.226**
1999 8-Month Total	**.030**	**3.419**	**.954**	**4.404**	**A .276**	**A .006**	**A .042**	**A .324**	**4.727**	**2.678**	**5.871**	**13.276**

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

R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the 2000 annual value by 365 and multiplying by the number of days in the month.

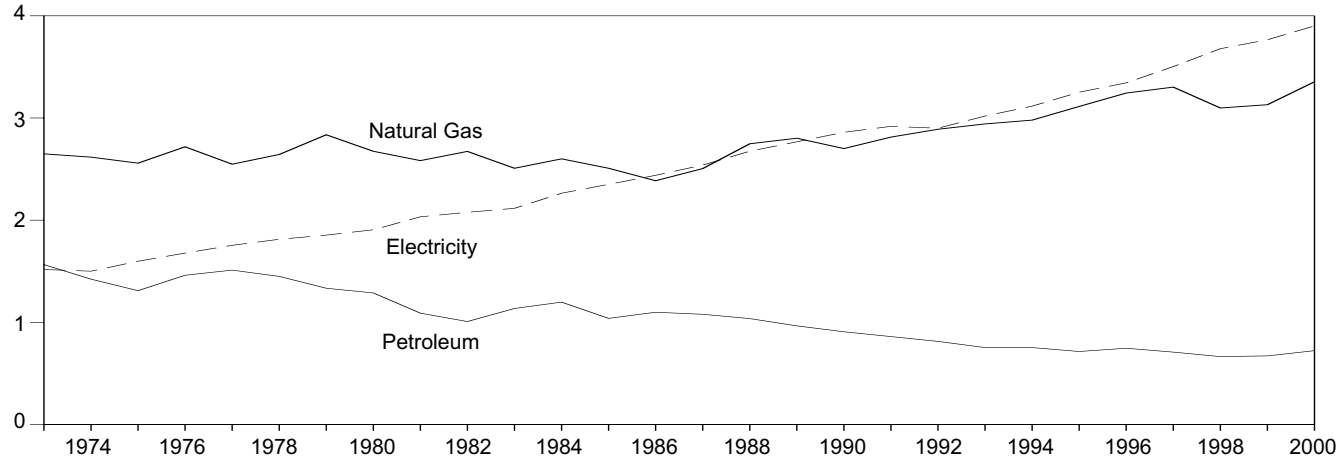
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

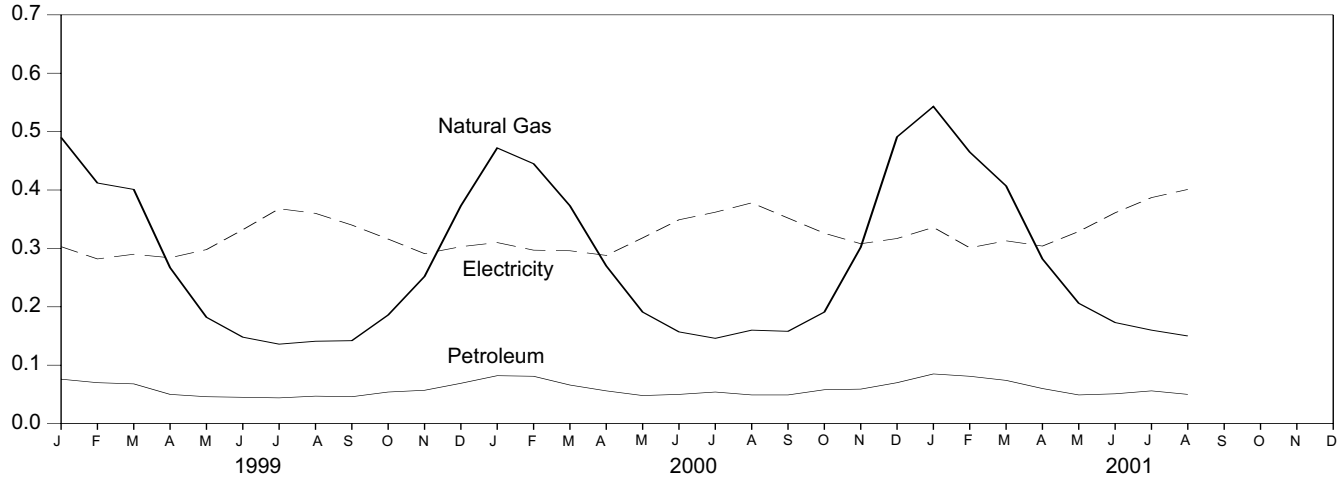
Figure 2.3 Commercial Sector Energy Consumption

(Quadrillion Btu)

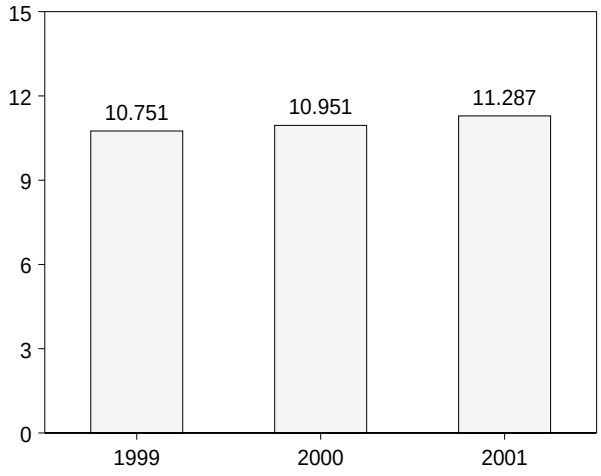
By Major Sources, 1973-2000



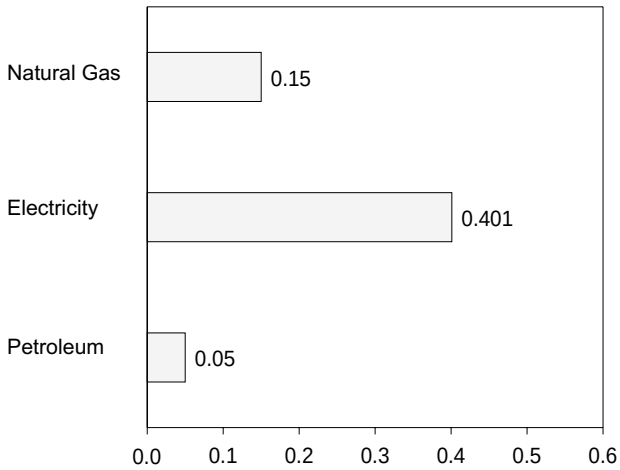
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 2.3 Commercial Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption										
	Fossil Fuels[a]				Renewable Energy						
	Coal	Natural Gas[b]	Petroleum	Total	Wood[c]	Geo-thermal[d]	Total	Total Primary	Electricity[e]	Electrical System Energy Losses[f]	Total
1973 Total	**0.152**	**2.649**	**1.565**	**4.367**	**0.007**	**NA**	**0.007**	**4.373**	**1.517**	**3.644**	**9.534**
1974 Total	**.154**	**2.617**	**1.423**	**4.194**	**.007**	**NA**	**.007**	**4.201**	**1.501**	**3.672**	**9.374**
1975 Total	**.126**	**2.558**	**1.310**	**3.994**	**.008**	**NA**	**.008**	**4.002**	**1.598**	**3.865**	**9.465**
1976 Total	**.122**	**2.718**	**1.461**	**4.301**	**.009**	**NA**	**.009**	**4.310**	**1.678**	**4.049**	**10.038**
1977 Total	**.123**	**2.548**	**1.511**	**4.182**	**.010**	**NA**	**.010**	**4.193**	**1.754**	**4.247**	**10.194**
1978 Total	**.128**	**2.643**	**1.450**	**4.221**	**.012**	**NA**	**.012**	**4.233**	**1.813**	**4.443**	**10.489**
1979 Total	**.112**	**2.836**	**1.334**	**4.282**	**.014**	**NA**	**.014**	**4.296**	**1.854**	**4.485**	**10.635**
1980 Total	**.086**	**2.674**	**1.288**	**4.047**	**.021**	**NA**	**.021**	**4.068**	**1.906**	**4.639**	**10.613**
1981 Total	**.097**	**2.583**	**1.090**	**3.770**	**.021**	**NA**	**.021**	**3.791**	**2.033**	**4.848**	**10.672**
1982 Total	**.112**	**2.673**	**1.008**	**3.794**	**.022**	**NA**	**.022**	**3.816**	**2.077**	**5.014**	**10.906**
1983 Total	**.117**	**2.508**	**1.136**	**3.761**	**.022**	**NA**	**.022**	**3.783**	**2.116**	**5.090**	**10.989**
1984 Total	**.125**	**2.600**	**1.198**	**3.923**	**.022**	**NA**	**.022**	**3.945**	**2.264**	**5.300**	**11.510**
1985 Total	**.106**	**2.508**	**1.039**	**3.652**	**.024**	**NA**	**.024**	**3.676**	**2.351**	**5.522**	**11.550**
1986 Total	**.106**	**2.386**	**1.099**	**3.590**	**.027**	**NA**	**.027**	**3.617**	**2.439**	**5.628**	**11.684**
1987 Total	**.097**	**2.505**	**1.079**	**3.681**	**.029**	**NA**	**.029**	**3.710**	**2.539**	**5.829**	**12.078**
1988 Total	**.101**	**2.748**	**1.037**	**3.886**	**.032**	**NA**	**.032**	**3.918**	**2.675**	**6.047**	**12.640**
1989 Total	**.088**	**2.802**	**.966**	**3.855**	**.034**	**.003**	**.037**	**3.892**	**2.767**	**6.441**	**13.099**
1990 Total	**.093**	**2.701**	**.908**	**3.702**	**.037**	**.003**	**.040**	**3.742**	**2.860**	**6.566**	**13.168**
1991 Total	**.085**	**2.813**	**.861**	**3.758**	**.039**	**.003**	**.042**	**3.800**	**2.918**	**6.663**	**13.382**
1992 Total	**.085**	**2.890**	**.814**	**3.788**	**.042**	**.003**	**.045**	**3.834**	**2.900**	**6.531**	**13.264**
1993 Total	**.086**	**2.942**	**.753**	**3.780**	**.044**	**.003**	**.047**	**3.828**	**3.019**	**6.736**	**13.583**
1994 Total	**.083**	**2.979**	**.753**	**3.816**	**.045**	**.004**	**.049**	**3.865**	**3.116**	**6.919**	**13.899**
1995 Total	**.081**	**3.113**	**.715**	**3.908**	**.045**	**.005**	**.050**	**3.958**	**3.252**	**7.196**	**14.406**
1996 Total	**.083**	**3.244**	**.747**	**4.073**	**.049**	**.005**	**.054**	**4.127**	**3.344**	**7.405**	**14.876**
1997 Total	**.087**	**3.302**	**.709**	**4.098**	**.047**	**.006**	**.053**	**4.150**	**3.503**	**7.722**	**15.375**
1998 Total	**.066**	**3.098**	**.665**	**3.829**	**.047**	**.007**	**.054**	**3.883**	**3.678**	**7.996**	**15.556**
1999 January	.010	.490	.076	.575	A .004	A .001	A .005	.580	.303	.648	1.531
February	.007	.412	.070	.490	A .004	A .001	A .004	.494	.282	.593	1.369
March	.004	.401	.068	.472	A .004	A .001	A .005	.477	.290	.637	1.404
April	.006	.267	.050	.324	A .004	A .001	A .005	.328	.284	.619	1.232
May	.004	.182	.046	.231	A .004	A .001	A .005	.236	.298	.687	1.221
June	.004	.148	.045	.198	A .004	A .001	A .005	.202	.332	.745	1.278
July	.006	.136	.044	.187	A .004	A .001	A .005	.191	.368	.823	1.382
August	.005	.141	.047	.193	A .004	A .001	A .005	.198	.360	.776	1.334
September	.003	.142	.046	.191	A .004	A .001	A .005	.195	.340	.667	1.202
October	.004	.186	.054	.244	A .004	A .001	A .005	.249	.316	.651	1.216
November	.006	.252	.057	.315	A .004	A .001	A .005	.320	.291	.626	1.237
December	.011	.373	.069	.452	A .004	A .001	A .005	.457	.303	.682	1.442
Total	**.070**	**3.130**	**.672**	**3.871**	**.051**	**.007**	**.058**	**3.929**	**3.766**	**8.154**	**15.849**
2000 January	.009	.472	.082	.563	A .004	A .001	A .005	.568	.310	.671	1.549
February	.007	.445	.081	.533	A .004	A .001	A .005	.537	.297	.602	1.437
March	.005	.373	.066	.445	A .004	A .001	A .005	.450	.296	.650	1.396
April	.006	.270	.056	.332	A .004	A .001	A .005	.337	.288	.629	1.254
May	.004	R .191	.048	R .242	A .004	A .001	A .005	R .247	.318	.726	R 1.291
June	.004	.157	.050	.211	A .004	A .001	A .005	.216	.349	.732	1.297
July	.005	.146	.054	.205	A .004	A .001	A .005	.210	.362	.768	1.341
August	.005	.160	.049	.213	A .004	A .001	A .005	.218	.378	.790	1.386
September	.004	.158	.049	.211	A .004	A .001	A .005	.216	.352	.669	1.237
October	.003	.191	.058	.253	A .004	A .001	A .005	.258	.326	.654	1.237
November	.007	.302	.059	.368	A .004	A .001	A .005	.373	.308	.653	1.333
December	.011	R .491	.070	R .571	A .004	A .001	A .005	R .576	.317	.678	R 1.572
Total	**.070**	R **3.354**	**.723**	R **4.147**	E **.052**	E **.008**	E **.060**	R **4.206**	**3.901**	**8.222**	R **16.329**
2001 January	.008	.543	.085	.637	A .004	A .001	A .005	.642	.336	R .645	R 1.622
February	.007	R .465	.081	R .552	A .004	A .001	A .005	.556	.301	.563	1.420
March	.006	R .407	.074	R .487	A .004	A .001	A .005	R .492	.313	.652	R 1.457
April	.006	R .282	.060	RE .348	A .004	A .001	A .005	.352	.304	.616	R 1.273
May	.004	.206	.049	E .259	A .004	A .001	A .005	.264	.329	.724	1.317
June	.004	.173	.051	E .229	A .004	A .001	A .005	.234	.361	.767	1.361
July	.004	R .160	.056	RE .221	A .004	A .001	A .005	R .226	.387	.813	R 1.425
August	.004	F .150	.050	E .204	A .004	A .001	A .005	.209	.401	.801	1.411
8-Month Total	**.043**	E **2.386**	**.507**	E **2.936**	A **.035**	A **.005**	A **.040**	**2.976**	**2.731**	**5.580**	**11.287**
2000 8-Month Total	**.045**	**2.213**	**.487**	**2.745**	A **.035**	A **.005**	A **.040**	**2.784**	**2.597**	**5.569**	**10.951**
1999 8-Month Total	**.045**	**2.177**	**.446**	**2.669**	A **.034**	A **.004**	A **.039**	**2.708**	**2.517**	**5.527**	**10.751**

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

R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the 2000 annual value by 365 and multiplying by the number of days in the month.

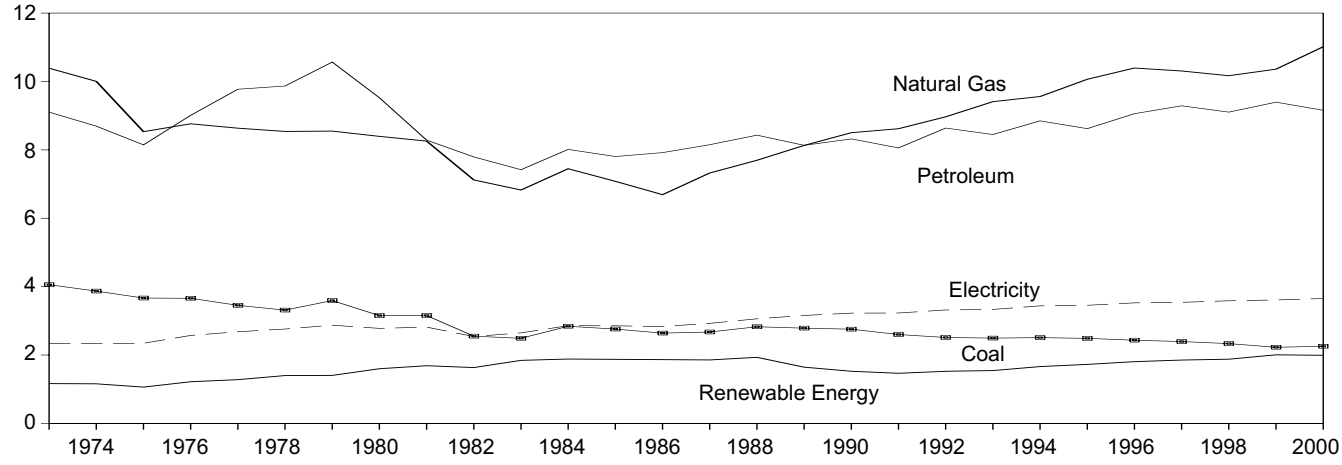
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

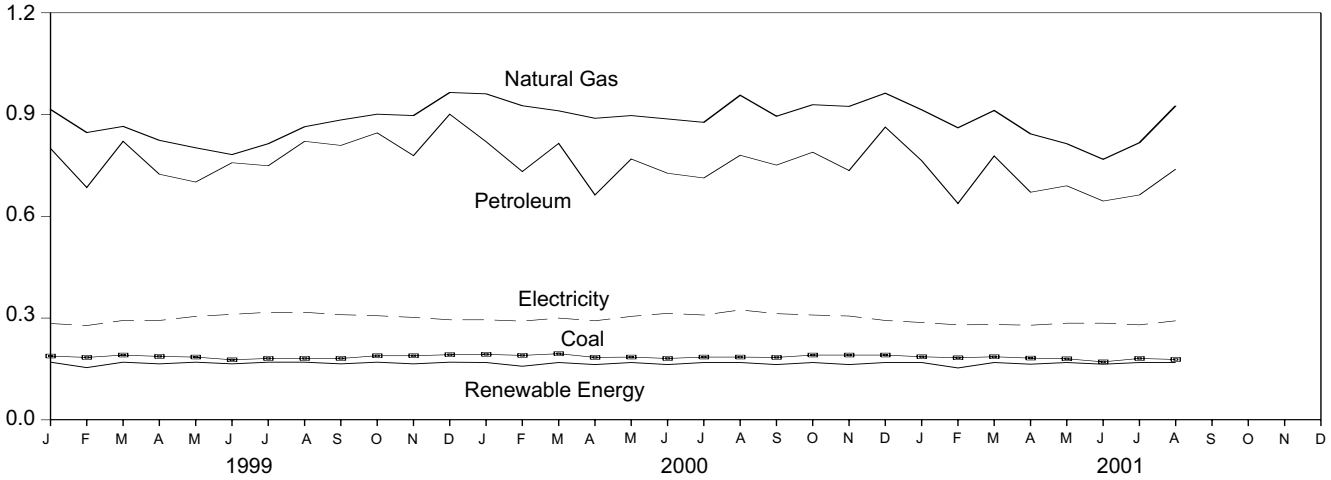
Figure 2.4 Industrial Sector Energy Consumption

(Quadrillion Btu)

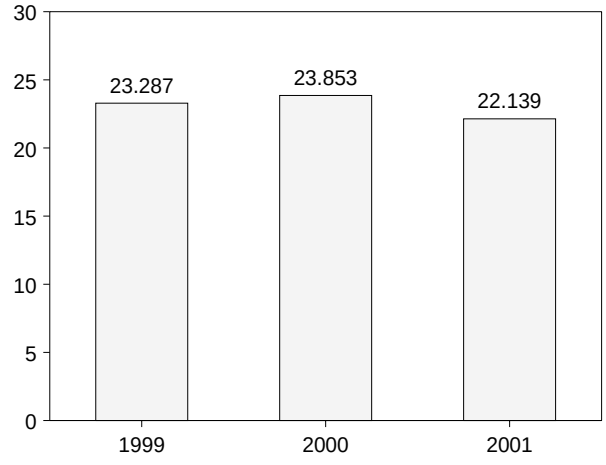
By Major Sources, 1973-2000



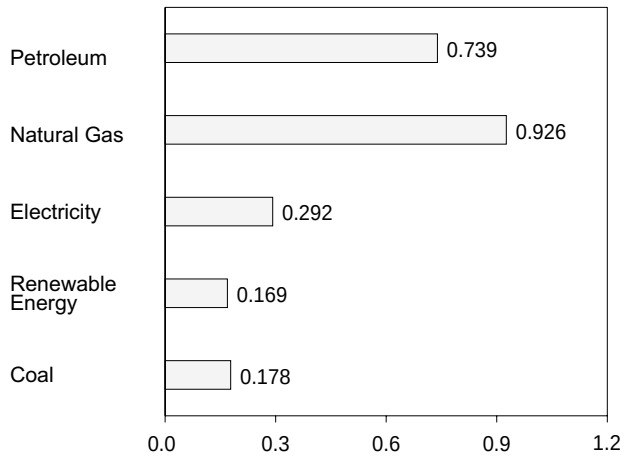
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 2.4 Industrial Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption											
	Fossil Fuels[a]					Renewable Energy						
	Coal	Coal Coke Net Imports	Natural Gas[b]	Petroleum	Total	Wood[c] and Waste[d]	Geo-thermal[e]	Total	Total Primary	Electricity[f]	Electrical System Energy Losses[g]	Total
1973 Total	**4.057**	**-0.007**	**10.388**	**9.104**	**23.541**	**1.165**	**NA**	**1.165**	**24.706**	**2.341**	**5.625**	**32.672**
1974 Total	**3.870**	**.056**	**10.004**	**8.694**	**22.624**	**1.159**	**NA**	**1.159**	**23.783**	**2.337**	**5.715**	**31.835**
1975 Total	**3.667**	**.014**	**8.532**	**8.146**	**20.359**	**1.063**	**NA**	**1.063**	**21.422**	**2.346**	**5.676**	**29.445**
1976 Total	**3.661**	**(s)**	**8.762**	**9.010**	**21.432**	**1.220**	**NA**	**1.220**	**22.652**	**2.573**	**6.209**	**31.434**
1977 Total	**3.454**	**.015**	**8.635**	**9.774**	**21.879**	**1.281**	**NA**	**1.281**	**23.160**	**2.682**	**6.494**	**32.336**
1978 Total	**3.314**	**.125**	**8.539**	**9.867**	**21.845**	**1.400**	**NA**	**1.400**	**23.245**	**2.761**	**6.764**	**32.770**
1979 Total	**3.593**	**.063**	**8.549**	**10.568**	**22.773**	**1.405**	**NA**	**1.405**	**24.177**	**2.873**	**6.949**	**33.999**
1980 Total	**3.155**	**-.035**	**8.395**	**9.525**	**21.040**	**1.600**	**NA**	**1.600**	**22.640**	**2.781**	**6.768**	**32.189**
1981 Total	**3.157**	**-.016**	**8.257**	**8.285**	**19.682**	**1.689**	**NA**	**1.689**	**21.371**	**2.817**	**6.717**	**30.906**
1982 Total	**2.552**	**-.022**	**7.121**	**7.794**	**17.446**	**1.634**	**NA**	**1.634**	**19.079**	**2.542**	**6.135**	**27.756**
1983 Total	**2.490**	**-.016**	**6.826**	**7.420**	**16.720**	**1.845**	**NA**	**1.845**	**18.565**	**2.648**	**6.368**	**27.580**
1984 Total	**2.842**	**-.011**	**7.448**	**8.014**	**18.292**	**1.883**	**NA**	**1.883**	**20.175**	**2.859**	**6.691**	**29.724**
1985 Total	**2.760**	**-.013**	**7.080**	**7.805**	**17.632**	**1.875**	**NA**	**1.875**	**19.507**	**2.855**	**6.705**	**29.067**
1986 Total	**2.641**	**-.017**	**6.690**	**7.920**	**17.234**	**1.866**	**NA**	**1.866**	**19.100**	**2.834**	**6.540**	**28.474**
1987 Total	**2.673**	**.009**	**7.323**	**8.151**	**18.155**	**1.858**	**NA**	**1.858**	**20.013**	**2.928**	**6.723**	**29.664**
1988 Total	**2.828**	**.040**	**7.696**	**8.430**	**18.993**	**1.933**	**NA**	**1.933**	**20.926**	**3.059**	**6.915**	**30.899**
1989 Total	**2.787**	**.030**	**8.131**	**8.133**	**19.081**	**1.644**	**.002**	**1.646**	**20.727**	**3.158**	**7.353**	**31.238**
1990 Total	**2.756**	**.005**	**8.502**	**8.320**	**19.583**	**1.525**	**.002**	**1.527**	**21.111**	**3.226**	**7.406**	**31.743**
1991 Total	**2.601**	**.010**	**8.619**	**8.057**	**19.287**	**1.465**	**.002**	**1.467**	**20.754**	**3.230**	**7.375**	**31.359**
1992 Total	**2.515**	**.035**	**8.967**	**8.638**	**20.154**	**1.523**	**.002**	**1.525**	**21.679**	**3.319**	**7.473**	**32.472**
1993 Total	**2.496**	**.027**	**9.410**	**8.449**	**20.382**	**1.543**	**.002**	**1.546**	**21.928**	**3.334**	**7.440**	**32.702**
1994 Total	**2.510**	**.058**	**9.560**	**8.849**	**20.977**	**1.661**	**.003**	**1.663**	**22.640**	**3.439**	**7.638**	**33.717**
1995 Total	**2.488**	**.061**	**10.064**	**8.621**	**21.234**	**1.725**	**.003**	**1.727**	**22.962**	**3.455**	**7.646**	**34.063**
1996 Total	**2.434**	**.023**	**10.393**	**9.058**	**21.909**	**1.804**	**.003**	**1.807**	**23.716**	**3.527**	**7.810**	**35.053**
1997 Total	**2.395**	**.046**	**10.307**	**9.288**	**22.036**	**1.851**	**.003**	**1.854**	**23.890**	**3.542**	**7.809**	**35.241**
1998 Total	**2.335**	**.067**	**10.168**	**9.104**	**21.675**	**1.876**	**.003**	**1.879**	**23.554**	**3.587**	**7.797**	**34.938**
1999 January	.188	.005	.915	.800	1.909	A .170	A (s)	A .170	2.079	.284	.608	2.971
February	.184	.002	.847	.685	1.718	A .154	A (s)	A .154	1.872	.278	.584	2.734
March	.191	.007	.865	.821	1.884	A .170	A (s)	A .170	2.054	.293	.642	2.989
April	.187	.009	.824	.724	1.745	A .165	A (s)	A .165	1.910	.293	.638	2.840
May	.185	.003	.802	.701	1.692	A .170	A (s)	A .170	1.862	.305	.704	2.872
June	.177	.002	.782	.758	1.719	A .165	A (s)	A .165	1.884	.311	.699	2.895
July	.181	.003	.814	.749	1.747	A .170	A (s)	A .170	1.918	.317	.710	2.944
August	.181	.006	.864	.821	1.872	A .170	A (s)	A .170	2.043	.317	.683	3.043
September	.181	.002	.884	.809	1.876	A .165	A (s)	A .165	2.041	.310	.608	2.958
October	.189	.004	.901	.846	1.940	A .170	A (s)	A .170	2.111	.307	.632	3.050
November	.189	.009	.897	.779	1.874	A .165	A (s)	A .165	2.039	.302	.648	2.989
December	.192	.006	.965	.901	2.064	A .170	A (s)	A .170	2.234	.295	.663	3.192
Total	**2.227**	**.058**	**10.360**	**9.395**	**22.039**	**2.003**	**.004**	**2.007**	**24.046**	**3.611**	**7.817**	**35.474**
2000 January	.193	.004	.961	.820	1.978	A .168	A (s)	A .169	2.147	.295	.640	3.082
February	.190	.007	.926	.732	1.856	A .158	A (s)	A .158	2.014	.291	.591	2.895
March	.195	.006	.911	.815	1.927	A .168	A (s)	A .169	2.096	.300	.661	3.057
April	.184	.006	.889	.663	1.741	A .163	A (s)	A .163	1.905	.292	.639	2.836
May	.185	.008	.897	.769	1.859	A .168	A (s)	A .169	2.027	.305	.698	3.031
June	.181	.004	.887	.727	1.799	A .163	A (s)	A .163	1.962	.314	.659	2.936
July	.185	.006	.877	.713	1.781	A .168	A (s)	A .169	1.949	.309	.655	2.914
August	.185	.008	.957	.780	1.930	A .168	A (s)	A .169	2.099	.324	.677	3.101
September	.184	.007	.895	.751	1.837	A .163	A (s)	A .163	2.000	.313	.595	2.908
October	.191	.006	.929	.789	1.916	A .168	A (s)	A .169	2.085	.309	.620	3.013
November	.191	.004	.924	.735	1.854	A .163	A (s)	A .163	2.017	.306	.649	2.973
December	.191	(s)	.963	.863	2.018	A .168	A (s)	A .169	2.187	.293	.626	3.105
Total	**2.257**	**.065**	**11.016**	**9.158**	**22.496**	**E 1.988**	**E .004**	**E 1.993**	**24.489**	**3.654**	**7.701**	**35.844**
2001 January	.186	.003	R .914	.764	1.867	A .169	A (s)	A .169	2.036	.287	R .551	R 2.875
February	.183	.002	.861	.638	1.684	A .153	A (s)	A .153	1.837	.280	.525	R 2.642
March	.186	.003	R .912	.778	R 1.878	A .169	A (s)	A .169	2.047	.281	.585	R 2.913
April	R .182	.005	.843	.671	RE 1.701	A .163	A (s)	A .164	R 1.865	.279	.566	R 2.711
May	R .180	.004	.814	.690	RE 1.688	A .169	A (s)	A .169	R 1.857	.285	.628	R 2.770
June	R .171	.003	R .768	.645	RE 1.587	A .163	A (s)	A .164	R 1.751	.285	.605	R 2.641
July	.181	(s)	R .817	.663	RE 1.662	A .169	A (s)	A .169	R 1.831	.280	.588	R 2.698
August	.178	.004	F .926	.739	E 1.846	A .169	A (s)	A .169	2.016	.292	.583	2.890
8-Month Total	**1.447**	**.024**	**E 6.855**	**5.588**	**E 13.913**	**A 1.324**	**A (s)**	**A 1.327**	**15.240**	**2.269**	**4.631**	**22.139**
2000 8-Month Total	**1.499**	**.049**	**7.304**	**6.019**	**14.871**	**A 1.325**	**A (s)**	**A 1.328**	**16.200**	**2.433**	**5.220**	**23.853**
1999 8-Month Total	**1.475**	**.038**	**6.714**	**6.060**	**14.286**	**A 1.333**	**A (s)**	**A 1.336**	**15.622**	**2.398**	**5.267**	**23.287**

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

[b] Includes supplemental gaseous fuels.

[c] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

[d] 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.

[e] Geothermal heat pump and direct use energy.

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

[g] See Note 12 at end of section.

R=Revised. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 0.5 trillion Btu. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the 2000 annual value by 365 and multiplying by the number of days in the month.

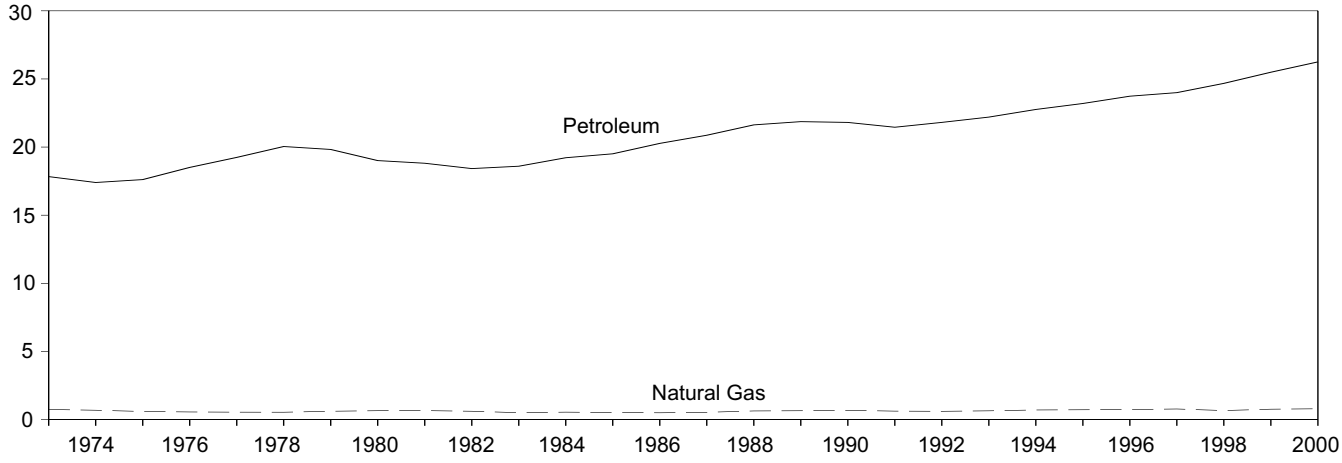
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

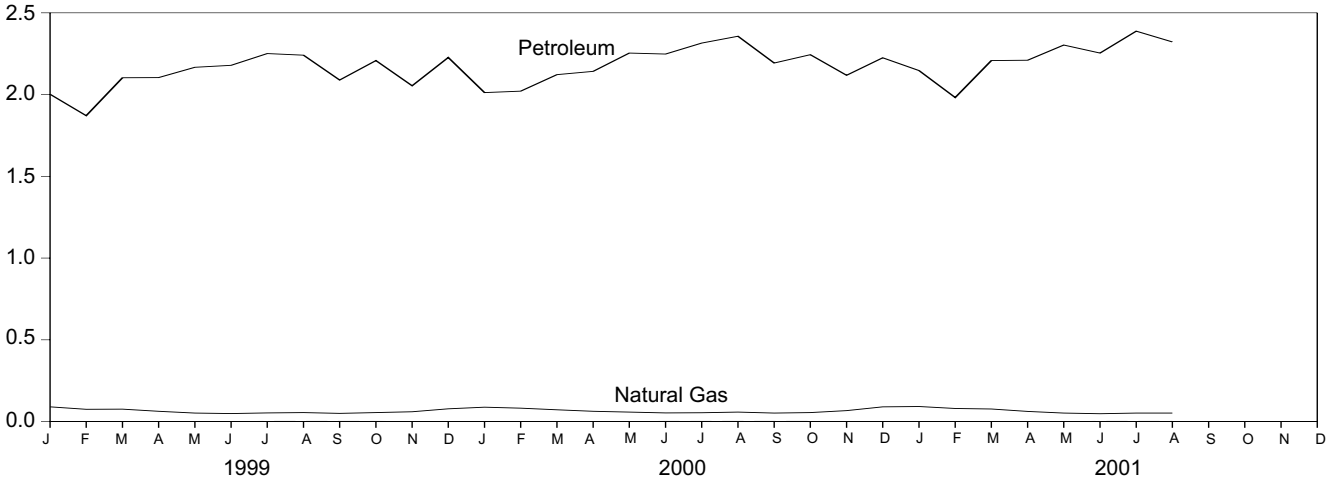
Figure 2.5 Transportation Sector Energy Consumption

(Quadrillion Btu)

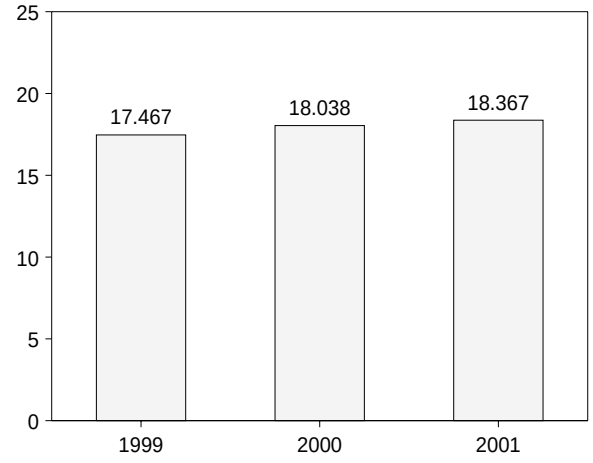
By Major Sources, 1973-2000



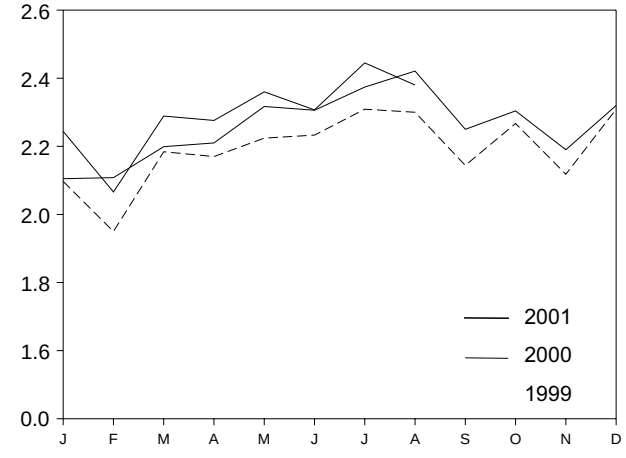
By Major Sources, Monthly



Total, January-August



Total, Monthly



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

Table 2.5 Transportation Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption								
	Fossil Fuels[a]				Renewable Energy				
	Coal	Natural Gas[b]	Petroleum	Total	Alcohol Fuels[c]	Total Primary[c]	Electricity[d]	Electrical System Energy Losses[e]	Total[c]
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**	**.025**	**18.244**
1976 Total	**(s)**	**.559**	**18.506**	**19.065**	**NA**	**19.065**	**.010**	**.024**	**19.099**
1977 Total	**(s)**	**.543**	**19.241**	**19.784**	**NA**	**19.784**	**.010**	**.025**	**19.820**
1978 Total	**(f)**	**.539**	**20.041**	**20.580**	**NA**	**20.580**	**.010**	**.025**	**20.615**
1979 Total	**(f)**	**.612**	**19.825**	**20.436**	**NA**	**20.436**	**.010**	**.024**	**20.471**
1980 Total	**(f)**	**.650**	**19.008**	**19.658**	**NA**	**19.658**	**.011**	**.027**	**19.696**
1981 Total	**(f)**	**.658**	**18.811**	**19.469**	**.007**	**19.469**	**.011**	**.026**	**19.506**
1982 Total	**(f)**	**.612**	**18.420**	**19.032**	**.019**	**19.032**	**.011**	**.027**	**19.070**
1983 Total	**(f)**	**.505**	**18.593**	**19.098**	**.035**	**19.098**	**.013**	**.030**	**19.141**
1984 Total	**(f)**	**.545**	**19.216**	**19.761**	**.043**	**19.761**	**.014**	**.033**	**19.809**
1985 Total	**(f)**	**.519**	**19.504**	**20.023**	**.052**	**20.023**	**.014**	**.033**	**20.071**
1986 Total	**(f)**	**.499**	**20.269**	**20.768**	**.060**	**20.768**	**.015**	**.035**	**20.818**
1987 Total	**(f)**	**.535**	**20.870**	**21.405**	**.069**	**21.405**	**.016**	**.036**	**21.456**
1988 Total	**(f)**	**.632**	**21.629**	**22.261**	**.070**	**22.261**	**.016**	**.036**	**22.313**
1989 Total	**(f)**	**.649**	**21.868**	**22.517**	**.071**	**22.517**	**.016**	**.038**	**22.571**
1990 Total	**(f)**	**.680**	**21.808**	**22.488**	**.063**	**22.488**	**.016**	**.037**	**22.541**
1991 Total	**(f)**	**.620**	**21.456**	**22.077**	**.073**	**22.077**	**.016**	**.037**	**22.130**
1992 Total	**(f)**	**.606**	**21.812**	**22.419**	**.083**	**22.419**	**.016**	**.036**	**22.471**
1993 Total	**(f)**	**.643**	**22.201**	**22.844**	**.097**	**22.844**	**.016**	**.036**	**22.896**
1994 Total	**(f)**	**.707**	**22.760**	**23.467**	**.109**	**23.467**	**.017**	**.038**	**23.522**
1995 Total	**(f)**	**.722**	**23.199**	**23.921**	**.117**	**23.921**	**.017**	**.038**	**23.975**
1996 Total	**(f)**	**.734**	**23.735**	**24.469**	**.084**	**24.469**	**.017**	**.037**	**24.523**
1997 Total	**(f)**	**.776**	**23.993**	**24.770**	**.106**	**24.770**	**.017**	**.037**	**24.823**
1998 Total	**(f)**	**.662**	**24.675**	**25.336**	**.117**	**25.336**	**.017**	**.037**	**25.390**
1999 January	(f)	.090	2.002	2.092	.011	2.092	.001	.003	2.097
February	(f)	.075	1.871	1.946	.009	1.946	.001	.003	1.950
March	(f)	.076	2.103	2.180	.010	2.180	.001	.003	2.184
April	(f)	.063	2.104	2.166	.009	2.166	.001	.003	2.170
May	(f)	.052	2.167	2.219	.009	2.219	.001	.003	2.224
June	(f)	.049	2.179	2.228	.010	2.228	.001	.003	2.233
July	(f)	.053	2.251	2.304	.008	2.304	.002	.004	2.309
August	(f)	.055	2.241	2.295	.010	2.295	.002	.003	2.300
September	(f)	.050	2.089	2.139	.010	2.139	.002	.003	2.144
October	(f)	.055	2.208	2.262	.012	2.262	.002	.003	2.267
November	(f)	.060	2.054	2.114	.012	2.114	.001	.003	2.118
December	(f)	.078	2.227	2.304	.014	2.304	.001	.003	2.309
Total	**(f)**	**.762**	**25.494**	**26.256**	**.122**	**26.256**	**.017**	**.038**	**26.311**
2000 January	(f)	.088	2.012	2.100	.012	2.100	.001	.003	2.105
February	(f)	.082	2.021	2.103	.009	2.103	.001	.003	2.108
March	(f)	.072	2.122	2.194	.012	2.194	.001	.003	2.199
April	(f)	.063	2.142	2.205	.010	2.205	.001	.003	2.210
May	(f)	R .058	2.254	2.312	.012	2.312	.001	.003	2.317
June	(f)	.053	2.248	2.301	.007	2.301	.002	.003	2.306
July	(f)	.054	2.315	2.369	.013	2.369	.002	.003	2.374
August	(f)	.058	2.357	2.415	.012	2.415	.002	.003	2.421
September	(f)	.052	2.193	2.245	.011	2.245	.002	.003	2.250
October	(f)	.055	2.244	2.299	.013	2.299	.002	.003	2.304
November	(f)	.067	2.118	2.185	.013	2.185	.001	.003	2.190
December	(f)	.090	2.225	2.315	.014	2.315	.001	.003	2.320
Total	**(f)**	**.793**	**26.252**	**R 27.045**	**.139**	**R 27.045**	**.018**	**.038**	**27.101**
2001 January	(f)	.092	2.147	2.239	.015	2.239	.001	.003	2.244
February	(f)	.080	1.982	R 2.062	.012	R 2.062	.001	.003	R 2.066
March	(f)	.077	2.208	2.285	.012	2.285	.001	.003	2.289
April	(f)	.062	2.210	2.272	.011	2.272	.001	.003	2.276
May	(f)	.052	2.303	2.355	.011	2.355	.001	.003	2.360
June	(f)	.048	2.254	2.302	.012	2.302	.002	.004	R 2.307
July	(f)	R .052	2.388	R 2.439	.011	R 2.439	.002	.004	R 2.445
August	(f)	F .052	2.322	E 2.374	.010	2.374	.002	.004	2.380
8-Month Total	**(f)**	**E .515**	**17.814**	**E 18.329**	**.094**	**18.329**	**.013**	**.026**	**18.367**
2000 8-Month Total	**(f)**	**.528**	**17.472**	**18.000**	**.087**	**18.000**	**.012**	**.026**	**18.038**
1999 8-Month Total	**(f)**	**.513**	**16.917**	**17.430**	**.074**	**17.430**	**.012**	**.026**	**17.467**

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

[b] Includes natural gas consumed in the operation of pipelines (primarily in compressors). For 1990-1999, annual values also include natural gas used by vehicles, whereas monthly values do not. See Table 4.4.

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

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

[e] See Note 12 at end of Section.

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

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

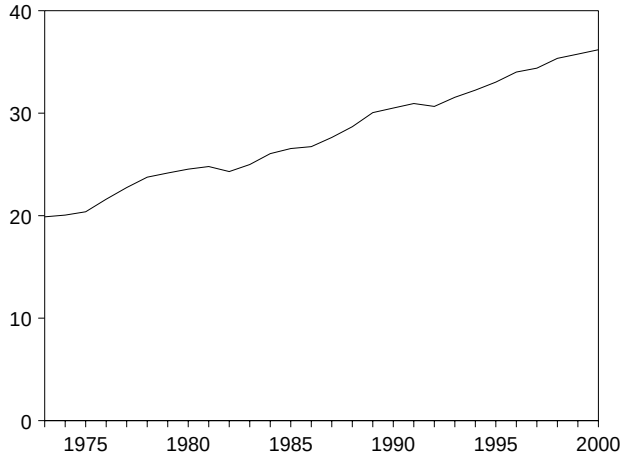
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

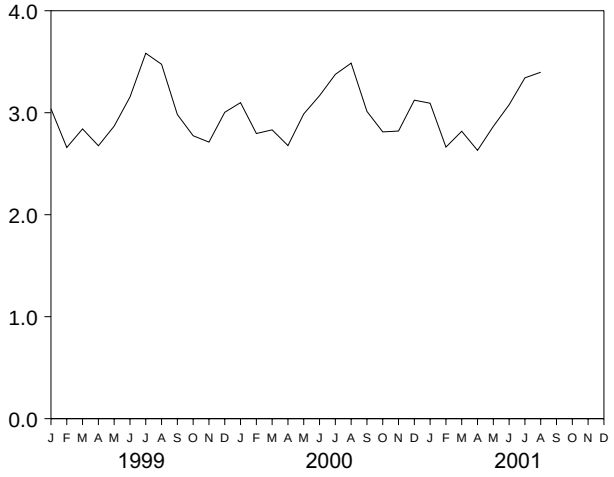
Figure 2.6 Electric Power Sector Energy Consumption

(Quadrillion Btu)

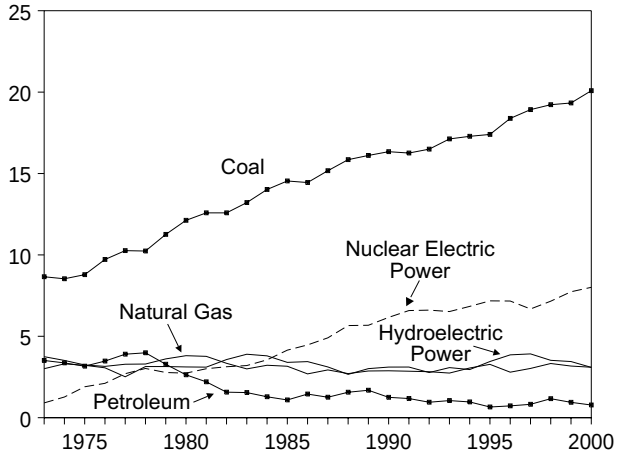
Total, 1973-2000



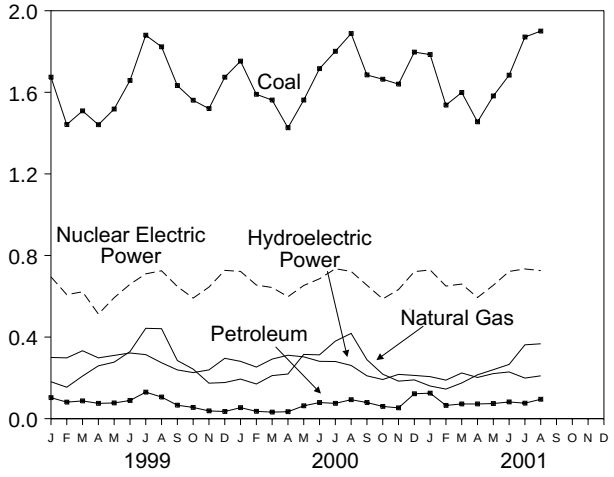
Total, Monthly



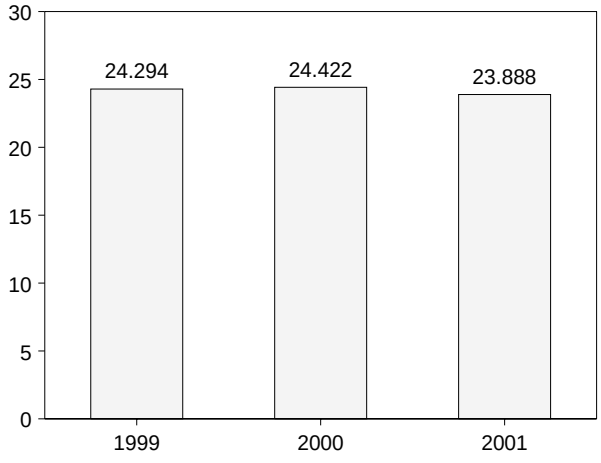
By Major Sources, 1973-2000



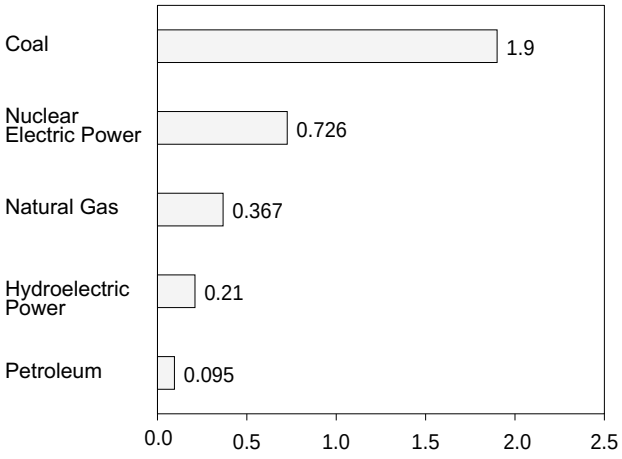
By Major Sources, Monthly



Total, January-August



By Major Sources, August 2001



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

Table 2.6 Electric Power Sector Energy Consumption

(Quadrillion Btu)

	Primary Consumption												
	Fossil Fuels[a]							Renewable Energy					
	Coal	Natural Gas[b]	Petroleum	Other[c]	Total	Nuclear Electric Power	Hydro-electric Pumped Storage[d]	Conventional Hydroelectric Power[e]	Wood[f] and Waste[g]	Geo-thermal[h]	Solar[i] and Wind[j]	Total	Total Primary
1973 Total	**8.658**	**3.748**	**3.515**	**(k)**	**15.921**	**0.910**	**(k)**	**3.010**	**0.003**	**0.043**	**NA**	**3.056**	**19.887**
1974 Total	**8.534**	**3.519**	**3.365**	**(k)**	**15.418**	**1.272**	**(k)**	**3.309**	**.003**	**.053**	**NA**	**3.365**	**20.055**
1975 Total	**8.786**	**3.240**	**3.166**	**(k)**	**15.191**	**1.900**	**(k)**	**3.219**	**.002**	**.070**	**NA**	**3.291**	**20.382**
1976 Total	**9.720**	**3.152**	**3.477**	**(k)**	**16.349**	**2.111**	**(k)**	**3.066**	**.003**	**.078**	**NA**	**3.146**	**21.607**
1977 Total	**10.262**	**3.284**	**3.901**	**(k)**	**17.446**	**2.702**	**(k)**	**2.515**	**.005**	**.077**	**NA**	**2.597**	**22.746**
1978 Total	**10.238**	**3.297**	**3.987**	**(k)**	**17.522**	**3.024**	**(k)**	**3.141**	**.003**	**.064**	**NA**	**3.209**	**23.755**
1979 Total	**11.260**	**3.613**	**3.283**	**(k)**	**18.156**	**2.776**	**(k)**	**3.141**	**.005**	**.084**	**NA**	**3.230**	**24.162**
1980 Total	**12.123**	**3.810**	**2.634**	**(k)**	**18.567**	**2.739**	**(k)**	**3.118**	**.005**	**.110**	**NA**	**3.232**	**24.538**
1981 Total	**12.583**	**3.768**	**2.202**	**(k)**	**18.553**	**3.008**	**(k)**	**3.105**	**.004**	**.123**	**NA**	**3.232**	**24.793**
1982 Total	**12.582**	**3.342**	**1.568**	**(k)**	**17.491**	**3.131**	**(k)**	**3.572**	**.003**	**.105**	**NA**	**3.680**	**24.303**
1983 Total	**13.213**	**2.998**	**1.544**	**(k)**	**17.754**	**3.203**	**(k)**	**3.899**	**.004**	**.129**	**(s)**	**4.032**	**24.989**
1984 Total	**14.019**	**3.220**	**1.286**	**(k)**	**18.526**	**3.553**	**(k)**	**3.800**	**.009**	**.165**	**(s)**	**3.974**	**26.053**
1985 Total	**14.542**	**3.160**	**1.090**	**(k)**	**18.792**	**4.149**	**(k)**	**3.398**	**.014**	**.198**	**(s)**	**3.611**	**26.552**
1986 Total	**14.444**	**2.691**	**1.452**	**(k)**	**18.586**	**4.471**	**(k)**	**3.446**	**.012**	**.219**	**(s)**	**3.678**	**26.735**
1987 Total	**15.173**	**2.935**	**1.257**	**(k)**	**19.365**	**4.906**	**(k)**	**3.117**	**.015**	**.229**	**(s)**	**3.362**	**27.633**
1988 Total	**15.850**	**2.709**	**1.563**	**(k)**	**20.123**	**5.661**	**(k)**	**2.662**	**.017**	**.217**	**(s)**	**2.897**	**28.681**
1989 Total	**16.110**	**2.871**	**1.685**	**-.050**	**20.615**	**5.677**	**(k)**	**3.014**	**.393**	**.325**	**.030**	**3.763**	**30.055**
1990 Total	**16.342**	**2.882**	**1.250**	**-.080**	**20.395**	**6.162**	**-.036**	**3.146**	**.453**	**.344**	**.038**	**3.982**	**30.502**
1991 Total	**16.257**	**2.856**	**1.178**	**.059**	**20.349**	**6.580**	**-.047**	**3.159**	**.510**	**.352**	**.039**	**4.061**	**30.943**
1992 Total	**16.495**	**2.826**	**.951**	**.053**	**20.325**	**6.608**	**-.043**	**2.818**	**.552**	**.362**	**.037**	**3.769**	**30.660**
1993 Total	**17.124**	**2.741**	**1.052**	**.050**	**20.968**	**6.520**	**-.042**	**3.119**	**.570**	**.374**	**.040**	**4.104**	**31.550**
1994 Total	**17.284**	**3.053**	**.968**	**.140**	**21.445**	**6.838**	**-.035**	**2.993**	**.587**	**.378**	**.044**	**4.002**	**32.249**
1995 Total	**17.402**	**3.276**	**.658**	**.121**	**21.458**	**7.177**	**-.028**	**3.481**	**.584**	**.319**	**.041**	**4.426**	**33.033**
1996 Total	**18.385**	**2.798**	**.725**	**.109**	**22.016**	**7.168**	**-.032**	**3.892**	**.594**	**.331**	**.044**	**4.861**	**34.013**
1997 Total	**18.924**	**3.025**	**.822**	**.109**	**22.880**	**6.678**	**-.042**	**3.961**	**.568**	**.306**	**.042**	**4.877**	**34.393**
1998 Total	**E 19.227**	**3.330**	**1.166**	**.048**	**23.771**	**7.157**	**-.046**	**3.569**	**E .549**	**.310**	**.040**	**4.468**	**35.350**
1999 January	E 1.674	.181	.103	(s)	1.959	.695	-.006	E .306	E .060	E .024	.002	.392	3.039
February	E 1.442	.154	.081	.001	1.678	.608	-.004	E .302	E .051	E .021	.003	.377	2.659
March	E 1.509	.209	.087	(s)	1.805	.622	-.004	E .337	E .054	E .023	.003	.417	2.841
April	E 1.441	.259	.075	.008	1.783	.513	-.005	E .303	E .055	E .022	.005	.384	2.676
May	E 1.518	.277	.077	.008	1.880	.593	-.007	E .317	E .055	E .023	.007	.403	2.868
June	E 1.658	.329	.089	.008	2.084	.659	-.006	E .328	E .054	E .027	.007	.417	3.154
July	E 1.880	.443	.130	.009	2.463	.710	-.006	E .320	E .059	E .030	.007	.416	3.583
August	E 1.823	.441	.106	.010	2.381	.725	-.008	E .282	E .058	E .031	.007	.377	3.475
September	E 1.633	.285	.066	.015	1.999	.648	-.004	E .243	E .062	E .029	.005	.339	2.982
October	E 1.561	.243	.055	.011	1.870	.591	-.005	E .231	E .053	E .030	.004	.319	2.774
November	E 1.520	.174	.038	.012	1.744	.645	-.005	E .243	E .053	E .028	.003	.327	2.712
December	E 1.674	.177	.035	.009	1.895	.727	-.004	E .300	E .055	E .028	.003	.386	3.004
Total	**E 19.333**	**3.173**	**.943**	**.092**	**23.540**	**7.736**	**-.063**	**3.512**	**E .669**	**.316**	**.055**	**4.553**	**35.766**
2000 January	E 1.753	.194	.054	.010	2.011	.722	-.005	E .286	E .056	.025	.004	.371	3.099
February	E 1.590	.170	.036	.012	1.807	.655	-.004	E .257	E .054	.023	.004	.338	2.796
March	E 1.562	.211	.032	.008	1.814	.643	-.006	E .298	E .056	.022	.005	.381	2.832
April	E 1.426	.219	.034	.007	1.685	.598	-.004	E .315	E .054	.023	.006	.399	2.678
May	E 1.562	.315	.063	.008	1.948	.653	-.005	E .309	E .054	.024	.006	.391	2.988
June	E 1.716	.313	.079	.008	2.116	.686	-.006	E .286	E .054	.024	.005	.370	3.167
July	E 1.801	.380	.075	.016	2.272	.735	-.003	E .283	E .058	.026	.005	.372	3.376
August	E 1.888	.418	.093	.016	2.416	.722	-.004	E .265	E .056	.026	.005	.353	3.486
September	E 1.685	.289	.079	.011	2.065	.654	-.007	E .217	E .054	.025	.005	.301	3.013
October	E 1.664	.218	.060	.004	1.946	.587	-.004	E .196	E .057	.026	.005	.284	2.812
November	E 1.640	.184	.053	.007	1.884	.633	-.004	E .221	E .055	.026	.005	.306	2.820
December	E 1.797	.190	.122	-.006	2.103	.721	-.005	E .217	E .055	.027	.004	.304	3.123
Total	**E 20.086**	**3.101**	**.779**	**.102**	**24.067**	**8.009**	**-.057**	**3.149**	**E .663**	**.298**	**.060**	**4.170**	**36.189**
2001 January	E 1.785	.160	.125	.003	R 2.072	.729	-.004	E .210	E .055	.027	E .004	.297	R 3.093
February	E 1.537	.145	.065	-.006	1.742	.650	-.005	E .194	E .053	.025	E .005	.276	2.663
March	E 1.599	.175	.072	.002	1.847	.660	-.006	E .229	E .056	.025	E .007	.317	2.818
April	E 1.455	.215	.072	.005	1.747	.594	-.006	E .208	E .056	.023	E .008	.295	2.631
May	E 1.582	.240	.074	.007	1.903	.654	-.003	E .225	E .057	.023	E .009	.313	2.866
June	E 1.684	.266	.082	.006	2.038	.722	-.004	E .233	E .057	.023	E .009	.322	3.078
July	E 1.871	.362	.076	.006	2.314	.734	-.005	E .204	E .062	.025	E .008	.299	3.342
August	E 1.900	.367	.095	.007	2.370	.726	-.004	E .213	E .059	.025	E .008	.305	3.397
8-Month Total	**E 13.413**	**1.928**	**.662**	**.029**	**16.033**	**5.469**	**-.038**	**E 1.717**	**E .454**	**.196**	**E .058**	**2.424**	**23.888**
2000 8-Month Total	**13.299**	**2.220**	**.465**	**.086**	**16.070**	**5.414**	**-.037**	**E 2.298**	**E .443**	**.193**	**.041**	**2.975**	**24.422**
1999 8-Month Total	**12.944**	**2.294**	**.749**	**.045**	**16.032**	**5.125**	**-.045**	**E 2.495**	**E .446**	**.200**	**.041**	**3.182**	**24.294**

[a] Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
[b] Includes supplemental gaseous fuels.
[c] Electricity net imports from fossil fuels; may include some nuclear-generated electricity.
[d] Pumped storage facility production minus energy used for pumping.
[e] Conventional hydroelectric net generation. Through 1988, also includes all electricity net imports; from 1989, includes only the portion of electricity net imports derived from hydroelectric power.
[f] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.
[g] Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.
[h] Geothermal electricity net generation. From 1989, also includes electricity imports derived from geothermal energy.
[i] Solar thermal and photovoltaic electricity net generation.
[j] Wind electricity net generation.
[k] Included in conventional hydroelectric power.
R=Revised. NA=Not available. E=Estimate. (s)=Less than 0.5 trillion Btu.
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Additional Notes and Sources: See end of section.

Energy Consumption by Sector Notes and Sources

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

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

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

1. Energy Consumption:

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

Total Consumption: In addition to primary consumption in the four end-use sectors (residential, commercial, industrial, and transportation), includes: electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; and electrical system energy losses (see Note 12).

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

Note: Most consumption of fossil fuels at nonutility power producers is included in the end-use sectors, mainly industrial. For further information on nonutility consumption of fossil fuels, see Note 4 ("Coal"), Note 6 ("Natural Gas"), and Note 7 ("Petroleum").

Residential Sector—An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters.

Commercial Sector—An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment.

Industrial Sector—An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing; agriculture, forestry, and fisheries; mining; and construction. Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products.

Transportation Sector—An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use.

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

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

3. Conversion Factors: See Appendix A.

4. Coal: See Tables 6.2 and A5.

Note: Coal consumed by "Other Power Producers" (nonutility wholesale producers of electricity, and some nonutility cogeneration plants), is included in the electric power sector (see Table 6.2). Coal consumed by nonutilities not included in "Other Power Producers" is included in the end-use sectors, mainly industrial.

5. Coal Coke Net Imports: Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports.

Note: 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: *Quarterly Coal Report*.

6. Natural Gas: See Tables 4.4 and A4.

Note: Natural gas consumed by nonutility power produces is included in the end-use sectors, mainly industrial.

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.

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

7. Petroleum: Petroleum consumption in this section of the *Monthly Energy Review (MER)* is the series called "petroleum product supplied" from Section 3.

Note: Petroleum consumed by nonutility power producers is included in the end-use sectors, mainly industrial.

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."
1981-2000: EIA, *Petroleum Supply Annual*.
2001 forward: EIA, *Petroleum Supply Monthly*.

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

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

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

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

Distillate Fuel Used by Electric Utilities, All Time Periods—For 1973-1979, consumption of distillate fuel is assumed to be the amount of petroleum (minus small amounts of kerosene and kerosene-type jet fuel deliveries) consumed in gas turbine and internal combustion plants. For 1980 forward, consumption of distillate fuel is assumed to be the amount of light oil (minus small amounts of kerosene deliveries through 1982) consumed at electric utilities. Source: Table 7.7.

Distillate Fuel Used by Sectors Other Than Electric Utilities, Annually Through 1997—The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual consumption totals are allocated to the individual nonutility sectors (residential, commercial, industrial, and transportation) in proportion to the share of "adjusted sales" of each end-use sector, as reported in EIA's *Fuel Oil and Kerosene Sales* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. "Adjusted sales" are sales that have been adjusted at the PAD district level to equal EIA volume estimates of petroleum products supplied in the U.S. market. Following are notes on the individual sector groupings:

Since 1979, the residential sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is

split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

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

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

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

Distillate Fuel Used by Sectors Other Than Electric Utilities, Monthly Through 1997—Residential and commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales;* for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales;* and for 1983-1997, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." After 1993, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into months. The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.

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

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

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

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

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

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

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

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

Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to 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 36 percent (in 1996) to a high of 73 percent (in 1994).

LPG consumed annually by the industrial sector is estimated as the difference between LPG total supplied and the estimated consumption of LPG by the sum of the resi-

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

Sources of the annual sales data for creating annual energy shares are:
1973-1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption because the collection of data under Form EIA-174 was discontinued after data year 1982.
1984-1996: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases," which is based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.

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

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

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

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

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

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

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

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

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

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

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

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

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

Residual Fuel Used by Sectors Other Than Electric Utilities, Monthly Through 1997—Commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales;* and for 1983-1996, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

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

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

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

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

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

8. Nuclear Electric Power—See Tables 8.1 and A6**.**

Note: Nuclear electric power is included in the electric power sector**.**

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

Note: Pumped-storage hydroelectric power is included in the electric power sector.

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

Note: 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: electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind; and net imports of electricity from hydroelectric power and geothermal energy.

11. Electricity: End-use consumption of electricity is based on data from Table 7.5 for electric utility retail sales of electricity (which include nonutility sales of electricity to utilities for distribution to end users, but do not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users). "Other," which is primarily for use in government buildings, is added to the commercial sector, except for approximately 5 percent used by railroads and railways and attributed to the transportation sector. Kilowatthours are converted to Btu at the rate of 3,412 Btu per kilowatthour.

12. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector-see Table 2.6-and the total energy content of electric utility retail sales of electricity (which include nonutility sales of electricity to utilities for distribution to end users, but do not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users)--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 11.5 million barrels per day in October 2001, less than 1 percent lower than the previous month's rate but 2 percent higher than the October 2000 rate.

In October 2001, 19.9 million barrels per day of petroleum products were supplied for domestic use, 1 percent higher than the October 2000 rate. Motor gasoline accounted for 44 percent of the total; distillate fuel oil, 19 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline product supplied during October 2001 averaged 8.7 million barrels per day, 1 percent higher than the previous month's rate and 3 percent higher than the October 2000 rate. Total motor gasoline stocks were 207 million barrels at the end of October 2001, 1 million barrels above the stock level in the previous month and 19 million barrels above the level 1 year earlier.

Distillate fuel oil product supplied during October 2001 averaged 3.8 million barrels per day, 5 percent higher than the previous month's rate and 3 percent higher than the October 2000 rate. Distillate fuel oil ending stocks for October 2001 were 128 million barrels, 1 million barrels above the stock level in the previous month and 11 million barrels above the level 1 year earlier.

Kerosene-type jet fuel product supplied in October 2001 averaged 1.6 million barrels per day, 7 percent higher than the previous month's rate but 9 percent lower than the October 2000 rate. Kerosene-type jet fuel stocks measured 41 million barrels at the end of October 2001, 2 million barrels below the stock level in both the previous month and the level 1 year earlier.

Estimates (except of crude production) for the most current month are based on Energy Information Administration (EIA) weekly data and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent month, crude production is an EIA estimate based on historical and provisional data through July 2001.

[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 January	8,001	5,963	1,656	297	-454	19,029	1,642
February	8,068	5,966	1,722	50	-291	19,107	1,635
March	8,023	5,883	1,787	367	-859	19,497	1,620
April	8,015	5,887	1,806	-301	433	19,152	1,624
May	8,091	5,875	1,790	182	897	18,705	1,658
June	7,997	5,760	1,874	-235	-273	19,836	1,642
July	8,013	5,798	1,902	34	10	19,820	1,644
August	8,069	5,780	1,874	-566	-145	20,093	1,622
September	8,127	5,804	1,917	-368	142	19,483	1,615
October	8,283	5,947	1,953	-85	-875	19,868	1,585
November	8,275	5,960	1,949	-297	-188	19,087	1,571
December	8,320	5,959	1,957	-507	-1,995	20,498	1,493
Average	**8,107**	**5,881**	**1,850**	**-118**	**-304**	**19,519**	**1,493**
2000 January	8,096	5,784	1,956	21	-520	19,026	1,477
February	8,227	5,852	1,987	98	-486	19,635	1,466
March	8,256	5,918	1,987	364	-38	19,218	1,476
April	8,232	5,854	1,968	225	746	18,816	1,505
May	8,196	5,847	1,943	-294	691	19,605	1,518
June	8,106	5,823	1,922	-154	427	20,054	1,526
July	8,073	5,739	1,934	-225	666	19,696	1,540
August	8,087	5,789	1,941	197	-450	20,496	1,532
September	8,066	5,758	1,923	-347	184	19,899	1,527
October	8,151	5,809	1,919	-189	-464	19,798	1,507
November	8,089	5,833	1,876	-281	240	19,328	1,505
December	7,750	5,855	1,583	-250	-971	20,814	1,468
Average	**8,110**	**5,822**	**1,911**	**-70**	**(s)**	**19,701**	**1,468**
2001 January	[E]7,552	[E]5,836	1,381	211	-52	19,900	1,477
February	[E]7,951	[E]5,840	1,728	-492	254	19,597	1,471
March	[E]8,102	[E]5,878	1,830	795	-581	19,892	1,477
April	[E]8,042	[E]5,854	1,836	700	619	19,591	1,517
May	[E]8,171	[E]5,859	1,921	37	1,116	19,491	1,553
June	[E]8,095	[E]5,799	1,910	-668	859	19,608	1,559
July	[E]8,108	[E]5,806	1,892	189	11	19,884	1,565
August	[E]8,137	[E]5,823	1,946	-165	-463	20,085	1,545
September	[RE]8,270	[RE]5,829	[R]2,027	[R]73	[R]916	[R]19,082	[R]1,575
October	[E]8,066	[PE]5,763	[E]1,902	[E]140	[E]-230	[E]19,946	[E]1,569
10-Month Average	**[E]8,050**	**[PE]5,829**	**[E]1,838**	**[E]88**	**[E]239**	**[E]19,711**	**[E]1,569**
2000 10-Month Average	**8,149**	**5,817**	**1,948**	**-31**	**76**	**19,625**	**1,507**
1999 10-Month Average	**8,069**	**5,866**	**1,829**	**-61**	**-142**	**19,462**	**1,585**

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

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

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

[d] Includes stocks located in the Strategic Petroleum Reserve.

[e] See Note 4 at end of section.

[f] See Note 6 at end of section.

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

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

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

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

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

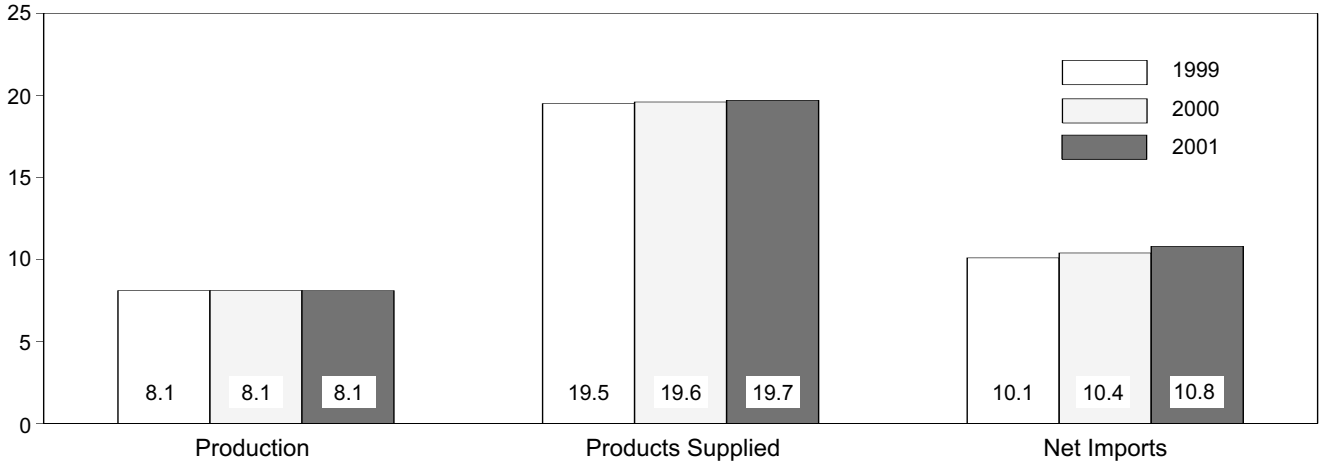
	Imports			Exports			
	Total	Crude Oil[a]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[b]
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 Average	**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 January	10,424	8,393	2,031	896	107	788	9,529
February	10,650	8,468	2,182	756	119	636	9,894
March	10,658	8,739	1,919	764	95	669	9,894
April	11,618	9,256	2,362	1,196	332	864	10,422
May	11,511	9,098	2,412	915	88	826	10,596
June	11,160	8,888	2,272	907	123	784	10,253
July	11,697	9,391	2,306	918	120	798	10,779
August	11,142	8,908	2,234	902	132	769	10,240
September	10,657	8,527	2,130	889	27	862	9,768
October	10,595	8,613	1,983	944	56	888	9,651
November	10,033	8,224	1,809	950	83	866	9,083
December	10,065	8,234	1,830	1,230	133	1,096	8,835
Average	**10,852**	**8,731**	**2,122**	**940**	**118**	**822**	**9,912**
2000 January	10,140	7,829	2,311	1,006	176	830	9,134
February	11,003	8,318	2,684	870	30	840	10,133
March	11,052	8,790	2,261	1,159	144	1,015	9,893
April	11,558	9,341	2,217	1,131	124	1,007	10,427
May	11,415	9,085	2,331	856	34	822	10,559
June	12,032	9,533	2,499	925	9	915	11,107
July	11,588	9,398	2,190	900	15	885	10,688
August	12,173	9,939	2,234	1,073	17	1,056	11,099
September	11,900	9,484	2,416	1,059	23	1,036	10,841
October	11,290	8,969	2,321	1,292	9	1,283	9,998
November	11,309	8,913	2,396	1,108	2	1,106	10,201
December	12,053	9,229	2,824	1,095	16	1,079	10,958
Average	**11,459**	**9,071**	**2,389**	**1,040**	**50**	**990**	**10,419**
2001 January	12,118	8,791	3,327	965	18	947	11,154
February	11,462	8,484	2,978	1,015	24	991	10,447
March	11,942	9,477	2,465	947	37	910	10,996
April	12,311	9,821	2,491	950	5	945	11,361
May	12,243	9,655	2,588	1,114	95	1,018	11,130
June	11,499	8,901	2,598	998	15	983	10,501
July	11,576	9,406	2,170	886	13	873	10,690
August	11,318	9,092	2,225	1,084	28	1,056	10,234
September	[R] 11,498	[R] 9,054	[R] 2,444	[R] 838	[R] 8	[R] 830	[R] 10,659
October	[E] 11,472	[E] 9,239	[E] 2,233	[E] 1,027	[E] 79	[E] 948	[E] 10,445
10-Month Average	[E] **11,747**	[E] **9,198**	[E] **2,548**	[E] **983**	[E] **33**	[E] **950**	[E] **10,764**
2000 10-Month Average	**11,414**	**9,070**	**2,344**	**1,028**	**58**	**970**	**10,386**
1999 10-Month Average	**11,013**	**8,831**	**2,182**	**909**	**120**	**789**	**10,104**

[a] Includes crude oil for storage in the Strategic Petroleum Reserve.
[b] Net imports equals imports minus exports.
[c] See Note 6 at end of section.
R=Revised. E=Estimate.
Notes: Crude oil includes lease condensate. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S1. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S1.

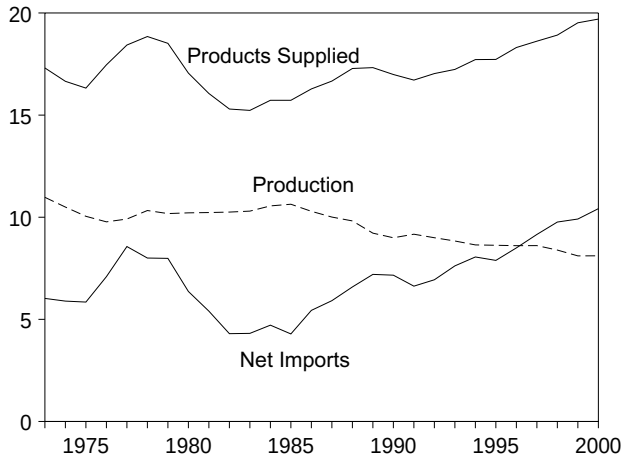
Figure 3.1a Petroleum Overview

(Million Barrels per Day)

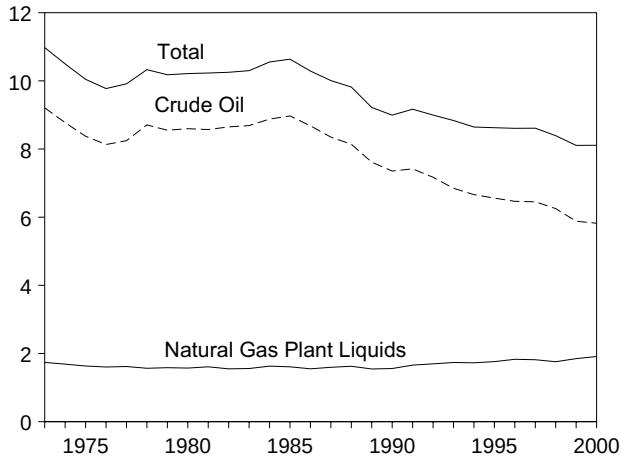
Overview, January-October



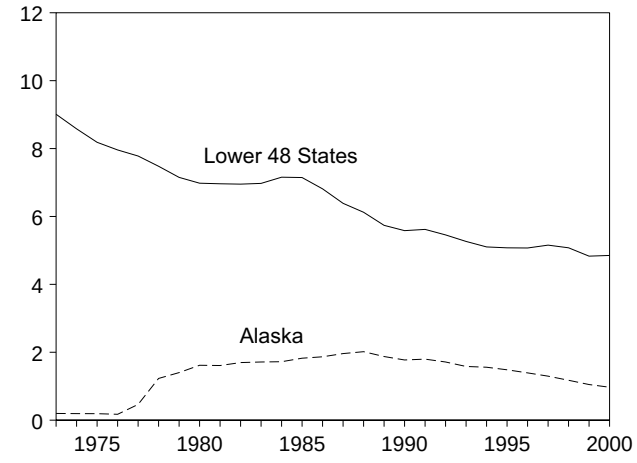
Overview, 1973-2000



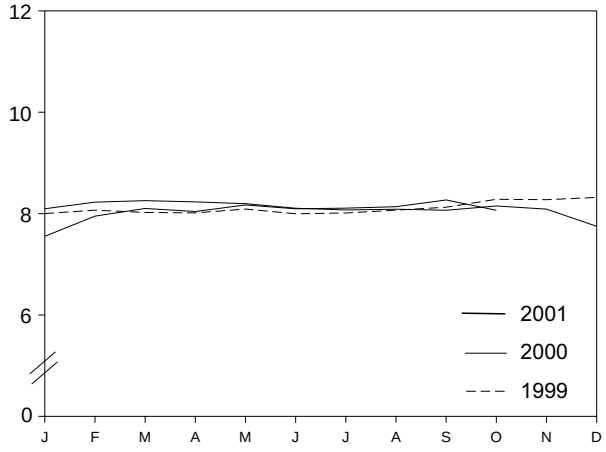
Production, 1973-2000



Crude Oil Production, 1973-2000



Total Production, Monthly

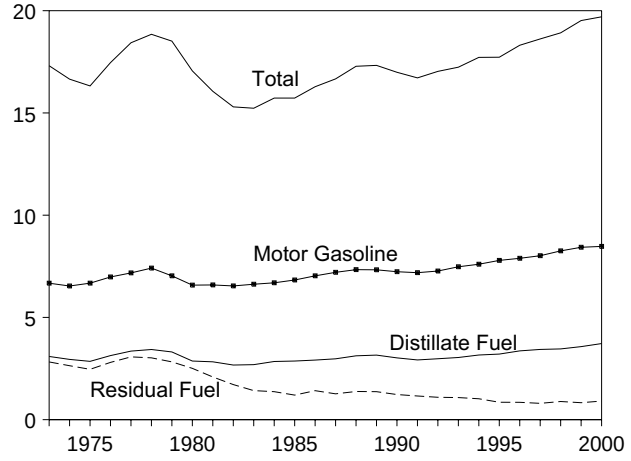


Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 3.1a, 3.1b, and 3.2a.

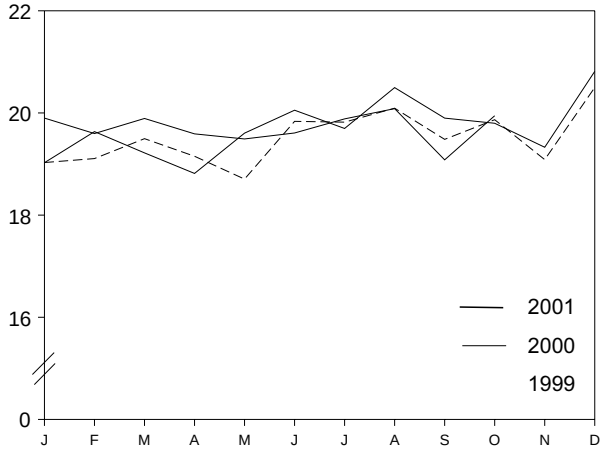
Figure 3.1b Petroleum Overview

(Million Barrels per Day, Except as Noted)

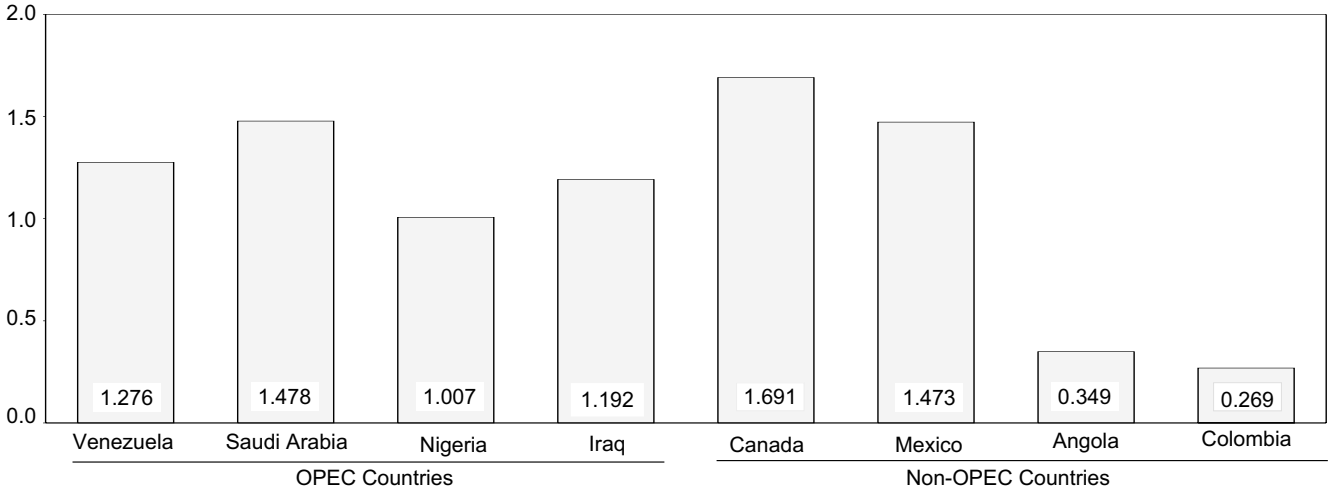
Products Supplied, 1973-2000



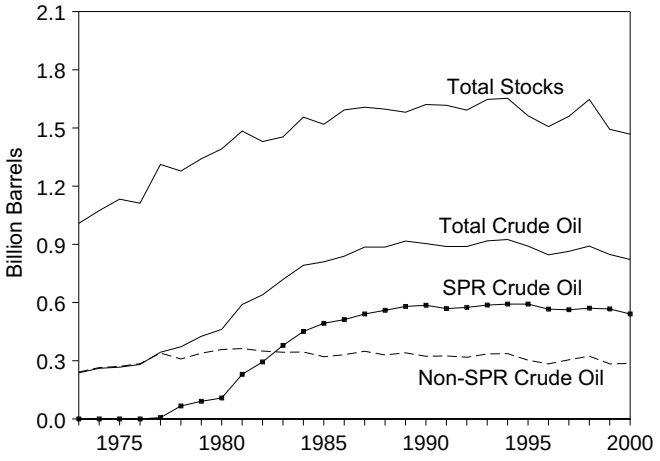
Products Supplied, Monthly



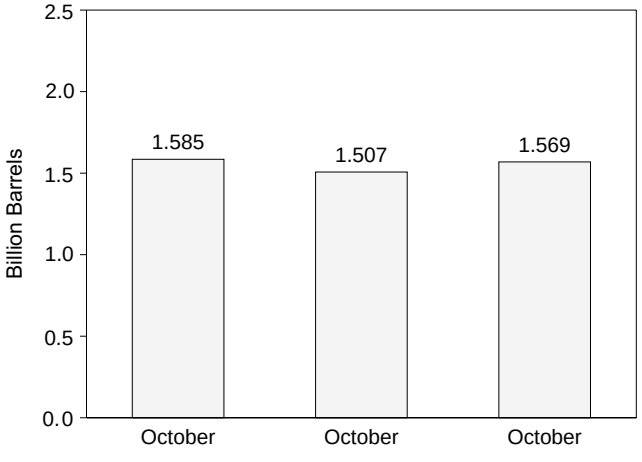
Imports from Selected Countries, September 2001



Stocks, End of Year, 1973-2000



Total Stocks, End of Month



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

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

Table 3.2a Crude Oil Supply and Disposition: Supply

	Supply						
	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 January	5,963	1,164	8,393	0	8,393	490	–
February	5,966	1,104	8,468	0	8,468	45	–
March	5,883	1,134	8,739	0	8,739	338	–
April	5,887	1,056	9,256	0	9,256	-18	–
May	5,875	1,088	9,098	0	9,098	270	–
June	5,760	967	8,888	0	8,888	198	–
July	5,798	990	9,391	0	9,391	202	–
August	5,780	1,011	8,908	31	8,877	177	–
September	5,804	933	8,527	17	8,509	436	–
October	5,947	1,068	8,613	17	8,595	(s)	–
November	5,960	1,023	8,224	17	8,207	306	–
December	5,959	1,058	8,234	16	8,218	-156	–
Average	**5,881**	**1,050**	**8,731**	**8**	**8,722**	**191**	**–**
2000 January	5,784	1,024	7,829	3	7,826	362	–
February	5,852	1,031	8,318	17	8,301	-14	–
March	5,918	1,013	8,790	0	8,790	412	–
April	5,854	1,008	9,341	0	9,341	206	–
May	5,847	966	9,085	0	9,085	303	–
June	5,823	925	9,533	16	9,518	143	–
July	5,739	913	9,398	15	9,383	471	–
August	5,789	914	9,939	0	9,939	127	–
September	5,758	892	9,484	0	9,484	-159	–
October	5,809	966	8,969	32	8,938	70	–
November	5,833	986	8,913	17	8,896	-1	–
December	5,855	1,010	9,229	0	9,229	-86	–
Average	**5,822**	**970**	**9,071**	**8**	**9,062**	**155**	**–**
2001 January	[E] 5,836	[E] 980	8,791	32	8,759	398	–
February	[E] 5,840	[E] 977	8,484	0	8,484	22	–
March	[E] 5,878	[E] 1,009	9,477	15	9,462	121	–
April	[E] 5,854	[E] 986	9,821	0	9,821	566	–
May	[E] 5,859	[E] 957	9,655	30	9,625	384	–
June	[E] 5,799	[E] 935	8,901	0	8,901	298	–
July	[E] 5,806	[E] 927	9,406	15	9,391	354	–
August	[E] 5,823	[E] 963	9,092	0	9,092	214	–
September	[RE] 5,829	[RE] 925	[R] 9,054	0	[R] 9,054	[R] 254	–
October	[PE] 5,763	[PE] 906	[E] 9,239	[E] 0	[E] 9,239	[E] 404	–
10-Month Average	[PE] **5,829**	[PE] **956**	[E] **9,198**	[E] **9**	[E] **9,189**	[E] **304**	**–**
2000 10-Month Average	**5,817**	[E] **965**	**9,070**	**8**	**9,062**	**195**	**–**
1999 10-Month Average	**5,866**	[E] **1,052**	**8,831**	**7**	**8,824**	**216**	**–**

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

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

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S2. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S2.

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

	Disposition						Stocks[a]		
	Crude Losses	Stock Change[b]		Refinery Inputs	Exports	Product Supplied[d]	Total	SPR[c]	Other Primary
		SPR[c]	Other						
	Thousand Barrels per Day						Million Barrels		
1973 Average	**13**	–	**-11**	**12,431**	**2**	–	**242**	–	**242**
1974 Average	**13**	–	**62**	**12,133**	**3**	–	**265**	–	**265**
1975 Average	**13**	–	**17**	**12,442**	**6**	–	**271**	–	**271**
1976 Average	[e] **14**	–	**39**	**13,416**	**8**	–	**285**	–	**285**
1977 Average	**16**	**20**	**150**	**14,602**	**50**	–	**348**	**7**	**340**
1978 Average	**16**	**163**	**-84**	**14,739**	**158**	–	**376**	**67**	**309**
1979 Average	**16**	**67**	**81**	**14,648**	**235**	–	**430**	**91**	**339**
1980 Average	[e] **14**	**45**	**52**	**13,481**	**287**	–	[f] **466**	**108**	[f] **358**
1981 Average	**5**	**336**	[f] **-46**	**12,470**	**228**	–	**594**	**230**	**363**
1982 Average	**3**	**174**	**-38**	**11,774**	**236**	–	[g] **644**	**294**	[g] **350**
1983 Average	**2**	**234**	[g] **-20**	**11,685**	**164**	**66**	**723**	**379**	**344**
1984 Average	**2**	**195**	**4**	**12,044**	**181**	**64**	**796**	**451**	**345**
1985 Average	**1**	**117**	**-67**	**12,002**	**204**	**60**	**814**	**493**	**321**
1986 Average	**(s)**	**50**	**28**	**12,716**	**154**	**49**	**843**	**512**	**331**
1987 Average	**(s)**	**80**	**49**	**12,854**	**151**	**34**	**890**	**541**	**349**
1988 Average	**(s)**	**52**	**-51**	**13,246**	**155**	**40**	**890**	**560**	**330**
1989 Average	**(s)**	**56**	**30**	**13,401**	**142**	**28**	**921**	**580**	**341**
1990 Average	**(s)**	**16**	**-51**	**13,409**	**109**	**24**	**908**	**586**	**323**
1991 Average	**(s)**	**-47**	**5**	**13,301**	**116**	**18**	**893**	**569**	**325**
1992 Average	**(s)**	**17**	**-18**	**13,411**	**89**	**13**	**893**	**575**	**318**
1993 Average	**(s)**	**34**	**47**	**13,613**	**98**	**10**	**922**	**587**	**335**
1994 Average	**(s)**	**13**	**5**	**13,866**	**99**	**9**	**929**	**592**	**337**
1995 Average	**(s)**	**(s)**	**-93**	**13,973**	**95**	**7**	**895**	**592**	**303**
1996 Average	**(s)**	**-71**	**-53**	**14,195**	**110**	**6**	**850**	**566**	**284**
1997 Average	**0**	**-7**	**57**	**14,662**	**108**	**2**	**868**	**563**	**305**
1998 Average	**(s)**	**22**	**52**	**14,889**	**110**	**0**	**895**	**571**	**324**
1999 January	0	18	280	14,442	107	0	904	572	332
February	(s)	(s)	50	14,309	119	0	906	572	334
March	(s)	0	367	14,498	95	0	917	572	345
April	0	17	-317	15,094	332	0	908	572	335
May	0	37	145	14,973	88	0	914	574	340
June	0	40	-276	14,959	123	0	907	575	332
July	0	29	5	15,237	120	0	908	576	332
August	0	-27	-539	15,299	132	0	890	575	315
September	0	20	-388	15,107	27	0	879	575	304
October	0	-103	18	14,589	56	0	876	572	304
November	0	-105	-191	14,704	83	0	867	569	298
December	0	-60	-447	14,410	133	0	852	567	284
Average	**(s)**	**-11**	**-107**	**14,804**	**118**	**0**	**852**	**567**	**284**
2000 January	0	41	-20	13,779	176	0	852	568	284
February	0	30	68	14,028	30	0	855	569	286
March	0	1	363	14,613	144	0	867	569	297
April	0	0	225	15,053	124	0	873	569	304
May	0	0	-294	15,494	34	0	864	569	295
June	0	-17	-136	15,643	9	0	860	569	291
July	0	47	-272	15,819	15	0	853	570	282
August	0	33	164	15,640	17	0	859	571	287
September	0	-34	-313	15,407	23	0	848	570	278
October	0	-189	(s)	15,029	9	0	842	564	278
November	0	-566	285	15,023	2	0	834	548	286
December	0	-220	-30	15,232	16	0	826	541	286
Average	**0**	**-73**	**3**	**15,067**	**50**	**0**	**826**	**541**	**286**
2001 January	0	32	179	14,797	18	0	836	542	294
February	0	(s)	-492	14,813	24	0	822	542	280
March	0	20	775	14,643	37	0	847	542	304
April	0	2	698	15,537	5	0	868	542	325
May	0	30	8	15,766	95	0	869	543	326
June	0	0	-668	15,651	15	0	849	543	306
July	0	15	174	15,364	13	0	855	544	311
August	0	0	-165	15,267	28	0	850	544	306
September	0	34	[R] 38	[R] 15,055	[R] 8	0	852	545	307
October	[E] 0	[E] 12	[E] 128	[E] 15,186	[E] 79	[E] 0	[E] 857	[E] 545	[E] 311
10-Month Average	[E] **0**	[E] **15**	[E] **73**	[E] **15,210**	[E] **33**	[E] **0**	[E] **857**	[E] **545**	[E] **311**
2000 10-Month Average	**0**	**-9**	**-22**	**15,054**	**58**	**0**	**842**	**564**	**278**
1999 10-Month Average	**(s)**	**3**	**-64**	**14,854**	**120**	**0**	**876**	**572**	**304**

[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.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S2. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S2.

Table 3.3a Petroleum Imports From Bahrain, Iran, Iraq, and Kuwait

(Thousand Barrels per Day)

	Persian Gulf[a]							
	Bahrain		Iran		Iraq		Kuwait[b]	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**11**	**0**	**223**	**216**	**4**	**4**	**47**	**42**
1974 Average	**12**	**0**	**469**	**463**	**0**	**0**	**5**	**5**
1975 Average	**16**	**0**	**280**	**278**	**2**	**2**	**16**	**4**
1976 Average	**3**	**0**	**298**	**298**	**26**	**26**	**5**	**1**
1977 Average	**10**	**0**	**535**	**530**	**74**	**74**	**48**	**42**
1978 Average	**3**	**0**	**555**	**554**	**62**	**62**	**6**	**5**
1979 Average	**1**	**0**	**304**	**297**	**88**	**88**	**8**	**5**
1980 Average	**(s)**	**0**	**9**	**8**	**28**	**28**	**27**	**27**
1981 Average	**1**	**0**	**0**	**0**	**(s)**	**0**	**0**	**0**
1982 Average	**1**	**0**	**35**	**35**	**3**	**3**	**5**	**2**
1983 Average	**2**	**0**	**48**	**48**	**10**	**10**	**14**	**7**
1984 Average	**1**	**0**	**10**	**10**	**12**	**12**	**36**	**24**
1985 Average	**4**	**0**	**27**	**27**	**46**	**46**	**21**	**4**
1986 Average	**2**	**0**	**19**	**19**	**81**	**81**	**68**	**28**
1987 Average	**0**	**0**	**98**	**98**	**83**	**82**	**84**	**70**
1988 Average	**2**	**0**	**[c] (s)**	**[c] (s)**	**345**	**343**	**92**	**80**
1989 Average	**0**	**0**	**0**	**0**	**449**	**441**	**157**	**155**
1990 Average	**1**	**0**	**0**	**0**	**518**	**514**	**86**	**79**
1991 Average	**2**	**0**	**32**	**32**	**0**	**0**	**6**	**6**
1992 Average	**0**	**0**	**0**	**0**	**0**	**0**	**51**	**39**
1993 Average	**1**	**0**	**0**	**0**	**0**	**0**	**353**	**344**
1994 Average	**1**	**0**	**0**	**0**	**0**	**0**	**312**	**307**
1995 Average	**1**	**0**	**0**	**0**	**0**	**0**	**218**	**213**
1996 Average	**1**	**0**	**0**	**0**	**1**	**1**	**236**	**235**
1997 Average	**0**	**0**	**0**	**0**	**89**	**89**	**253**	**253**
1998 Average	**1**	**0**	**0**	**0**	**336**	**336**	**301**	**300**
1999 January	0	0	0	0	485	485	132	132
February	0	0	0	0	681	681	205	205
March	0	0	0	0	791	791	324	324
April	0	0	0	0	829	829	286	279
May	0	0	0	0	750	750	227	227
June	0	0	0	0	773	773	259	259
July	0	0	0	0	680	680	311	311
August	0	0	0	0	672	672	348	348
September	0	0	0	0	741	741	261	261
October	0	0	0	0	922	922	205	205
November	0	0	0	0	713	713	216	216
December	0	0	0	0	668	668	200	186
Average	**0**	**0**	**0**	**0**	**725**	**725**	**248**	**246**
2000 January	0	0	0	0	254	254	239	218
February	0	0	0	0	750	750	267	264
March	0	0	0	0	468	468	162	162
April	0	0	0	0	657	657	264	247
May	0	0	0	0	438	438	170	166
June	0	0	0	0	830	830	210	210
July	0	0	0	0	762	762	264	264
August	0	0	0	0	765	765	405	405
September	0	0	0	0	765	765	352	338
October	0	0	0	0	653	653	337	337
November	0	0	0	0	585	585	248	237
December	10	0	0	0	528	528	344	311
Average	**1**	**0**	**0**	**0**	**620**	**620**	**272**	**263**
2001 January	(s)	0	0	0	294	294	242	206
February	0	0	0	0	236	236	280	251
March	0	0	0	0	566	566	302	302
April	0	0	0	0	862	862	242	221
May	0	0	0	0	973	973	251	240
June	6	0	0	0	740	740	255	255
July	0	0	0	0	697	697	287	287
August	0	0	0	0	562	562	256	256
September	0	0	0	0	1,192	1,192	243	220
9-Month Average	**1**	**0**	**0**	**0**	**682**	**682**	**262**	**249**
2000 9-Month Average	**0**	**0**	**0**	**0**	**630**	**630**	**259**	**252**
1999 9-Month Average	**0**	**0**	**0**	**0**	**711**	**711**	**262**	**261**

[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.

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

Table 3.3b Petroleum Imports From Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf

(Thousand Barrels per Day)

	Persian Gulf[a]							
	Qatar		Saudi Arabia[b]		United Arab Emirates		Total[a]	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**7**	**7**	**486**	**462**	**71**	**71**	**848**	**802**
1974 Average	**17**	**17**	**461**	**438**	**74**	**69**	**1,039**	**992**
1975 Average	**18**	**18**	**715**	**701**	**117**	**117**	**1,165**	**1,121**
1976 Average	**24**	**24**	**1,230**	**1,222**	**254**	**254**	**1,840**	**1,825**
1977 Average	**67**	**67**	**1,380**	**1,373**	**335**	**333**	**2,448**	**2,418**
1978 Average	**64**	**64**	**1,144**	**1,142**	**385**	**385**	**2,219**	**2,212**
1979 Average	**31**	**31**	**1,356**	**1,347**	**281**	**281**	**2,069**	**2,049**
1980 Average	**22**	**22**	**1,261**	**1,250**	**172**	**172**	**1,519**	**1,508**
1981 Average	**7**	**7**	**1,129**	**1,112**	**81**	**77**	**1,219**	**1,196**
1982 Average	**7**	**7**	**552**	**530**	**92**	**81**	**696**	**659**
1983 Average	**(s)**	**0**	**337**	**321**	**30**	**18**	**442**	**405**
1984 Average	**5**	**4**	**325**	**309**	**117**	**90**	**506**	**450**
1985 Average	**(s)**	**0**	**168**	**132**	**45**	**35**	**311**	**244**
1986 Average	**13**	**12**	**685**	**618**	**44**	**38**	**912**	**796**
1987 Average	**0**	**0**	**751**	**642**	**61**	**56**	**1,077**	**949**
1988 Average	**0**	**0**	**1,073**	**911**	**29**	**23**	**1,541**	**1,357**
1989 Average	**2**	**2**	**1,224**	**1,116**	**28**	**21**	**1,861**	**1,734**
1990 Average	**4**	**4**	**1,339**	**1,195**	**17**	**9**	**1,966**	**1,801**
1991 Average	**0**	**0**	**1,802**	**1,703**	**3**	**2**	**1,845**	**1,743**
1992 Average	**1**	**0**	**1,720**	**1,597**	**6**	**0**	**1,778**	**1,636**
1993 Average	**1**	**0**	**1,414**	**1,282**	**14**	**12**	**1,782**	**1,637**
1994 Average	**0**	**0**	**1,402**	**1,297**	**13**	**11**	**1,728**	**1,615**
1995 Average	**0**	**0**	**1,344**	**1,260**	**10**	**5**	**1,573**	**1,479**
1996 Average	**0**	**0**	**1,363**	**1,248**	**3**	**3**	**1,604**	**1,488**
1997 Average	**4**	**0**	**1,407**	**1,293**	**2**	**0**	**1,755**	**1,635**
1998 Average	**4**	**1**	**1,491**	**1,404**	**3**	**3**	**2,136**	**2,044**
1999 January	0	0	1,511	1,410	0	0	2,129	2,027
February	0	0	1,497	1,417	0	0	2,383	2,303
March	34	0	1,652	1,584	0	0	2,801	2,698
April	31	0	1,482	1,417	5	0	2,633	2,526
May	0	0	1,502	1,406	0	0	2,479	2,383
June	0	0	1,539	1,438	19	0	2,590	2,470
July	0	0	1,436	1,296	0	0	2,427	2,287
August	18	0	1,474	1,373	3	0	2,514	2,392
September	14	0	1,441	1,330	0	0	2,457	2,333
October	0	0	1,353	1,251	0	0	2,480	2,378
November	11	11	1,396	1,334	0	0	2,336	2,274
December	8	0	1,455	1,391	0	0	2,331	2,245
Average	**10**	**1**	**1,478**	**1,387**	**2**	**0**	**2,464**	**2,360**
2000 January	12	0	1,543	1,483	0	0	2,048	1,955
February	2	0	1,317	1,265	25	18	2,362	2,297
March	9	0	1,548	1,490	17	0	2,204	2,120
April	13	0	1,466	1,452	0	0	2,400	2,356
May	9	0	1,566	1,510	34	0	2,218	2,115
June	10	0	1,512	1,436	24	0	2,586	2,476
July	8	0	1,554	1,486	24	15	2,612	2,528
August	6	0	1,649	1,587	0	0	2,825	2,756
September	10	0	1,669	1,645	31	0	2,827	2,748
October	7	0	1,499	1,462	9	0	2,504	2,451
November	15	0	1,624	1,567	9	0	2,482	2,389
December	3	0	1,897	1,882	9	0	2,791	2,721
Average	**9**	**0**	**1,572**	**1,523**	**15**	**3**	**2,488**	**2,409**
2001 January	7	0	1,758	1,629	138	79	2,438	2,207
February	0	0	1,779	1,723	44	0	2,339	2,210
March	20	0	1,787	1,728	4	0	2,679	2,597
April	19	0	1,657	1,625	84	76	2,865	2,785
May	30	0	1,770	1,724	52	35	3,076	2,972
June	23	2	1,777	1,707	28	0	2,829	2,704
July	11	0	1,713	1,683	10	0	2,718	2,667
August	10	0	1,826	1,816	26	17	2,680	2,651
September	14	0	1,478	1,439	84	32	3,011	2,884
9-Month Average	**15**	**(s)**	**1,728**	**1,675**	**52**	**27**	**2,740**	**2,634**
2000 9-Month Average	**9**	**0**	**1,538**	**1,485**	**17**	**4**	**2,453**	**2,371**
1999 9-Month Average	**11**	**0**	**1,504**	**1,408**	**3**	**0**	**2,491**	**2,380**

[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.

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

Table 3.3c Petroleum Imports From Algeria, Ecuador, Gabon, Indonesia, and Libya

(Thousand Barrels per Day)

	Other OPEC[a]									
	Algeria		Ecuador[b]		Gabon[c]		Indonesia		Libya	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**136**	**120**	**48**	**47**	**0**	**0**	**213**	**200**	**164**	**133**
1974 Average	**190**	**180**	**42**	**42**	**23**	**23**	**300**	**284**	**4**	**4**
1975 Average	**282**	**264**	**57**	**57**	**27**	**27**	**390**	**379**	**232**	**223**
1976 Average	**432**	**408**	**51**	**51**	**28**	**26**	**539**	**537**	**453**	**444**
1977 Average	**559**	**544**	**57**	**55**	**42**	**35**	**541**	**507**	**723**	**704**
1978 Average	**649**	**634**	**54**	**38**	**41**	**38**	**573**	**533**	**654**	**638**
1979 Average	**636**	**608**	**42**	**30**	**42**	**42**	**420**	**380**	**658**	**642**
1980 Average	**488**	**456**	**27**	**17**	**26**	**25**	**348**	**314**	**554**	**548**
1981 Average	**311**	**261**	**48**	**38**	**35**	**35**	**366**	**318**	**319**	**317**
1982 Average	**170**	**90**	**42**	**32**	**40**	**40**	**248**	**226**	**26**	**23**
1983 Average	**240**	**176**	**61**	**56**	**59**	**59**	**338**	**315**	**0**	**0**
1984 Average	**323**	**194**	**55**	**47**	**58**	**57**	**343**	**304**	**1**	**0**
1985 Average	**187**	**84**	**67**	**56**	**52**	**51**	**314**	**292**	**4**	**0**
1986 Average	**271**	**78**	**77**	**64**	**26**	**25**	**318**	**297**	**0**	**0**
1987 Average	**295**	**115**	**29**	**23**	**35**	**35**	**285**	**262**	**0**	**0**
1988 Average	**300**	**58**	**47**	**33**	**16**	**15**	**205**	**186**	**0**	**0**
1989 Average	**269**	**60**	**89**	**80**	**50**	**49**	**183**	**158**	**0**	**0**
1990 Average	**280**	**63**	**49**	**38**	**64**	**64**	**114**	**98**	**0**	**0**
1991 Average	**253**	**44**	**63**	**53**	**84**	**84**	**111**	**102**	**0**	**0**
1992 Average	**196**	**24**	**65**	**62**	**124**	**123**	**78**	**70**	**0**	**0**
1993 Average	**220**	**24**	**(b)**	**(b)**	**152**	**151**	**81**	**65**	**0**	**0**
1994 Average	**243**	**21**	**(b)**	**(b)**	**194**	**194**	**111**	**92**	**0**	**0**
1995 Average	**234**	**27**	**(b)**	**(b)**	**(c)**	**(c)**	**88**	**64**	**0**	**0**
1996 Average	**256**	**8**	**(b)**	**(b)**	**(c)**	**(c)**	**59**	**44**	**0**	**0**
1997 Average	**285**	**6**	**(b)**	**(b)**	**(c)**	**(c)**	**58**	**51**	**0**	**0**
1998 Average	**290**	**10**	**(b)**	**(b)**	**(c)**	**(c)**	**66**	**50**	**0**	**0**
1999 January	246	20	(b)	(b)	(c)	(c)	100	75	0	0
February	209	6	(b)	(b)	(c)	(c)	66	66	0	0
March	285	6	(b)	(b)	(c)	(c)	43	40	0	0
April	321	80	(b)	(b)	(c)	(c)	98	94	0	0
May	303	107	(b)	(b)	(c)	(c)	105	98	0	0
June	255	7	(b)	(b)	(c)	(c)	66	52	0	0
July	302	48	(b)	(b)	(c)	(c)	19	14	0	0
August	249	0	(b)	(b)	(c)	(c)	95	85	0	0
September	255	4	(b)	(b)	(c)	(c)	95	63	0	0
October	183	0	(b)	(b)	(c)	(c)	98	79	0	0
November	211	11	(b)	(b)	(c)	(c)	74	68	0	0
December	279	15	(b)	(b)	(c)	(c)	118	99	0	0
Average	**259**	**25**	**(b)**	**(b)**	**(c)**	**(c)**	**81**	**70**	**0**	**0**
2000 January	240	7	(b)	(b)	(c)	(c)	31	22	0	0
February	256	0	(b)	(b)	(c)	(c)	32	28	0	0
March	199	0	(b)	(b)	(c)	(c)	45	45	0	0
April	195	(s)	(b)	(b)	(c)	(c)	91	70	0	0
May	270	0	(b)	(b)	(c)	(c)	35	30	0	0
June	222	0	(b)	(b)	(c)	(c)	46	42	0	0
July	205	0	(b)	(b)	(c)	(c)	20	14	0	0
August	236	0	(b)	(b)	(c)	(c)	61	55	0	0
September	216	0	(b)	(b)	(c)	(c)	28	28	0	0
October	210	0	(b)	(b)	(c)	(c)	37	34	0	0
November	212	0	(b)	(b)	(c)	(c)	60	29	0	0
December	240	0	(b)	(b)	(c)	(c)	92	41	0	0
Average	**225**	**1**	**(b)**	**(b)**	**(c)**	**(c)**	**48**	**36**	**0**	**0**
2001 January	286	0	(b)	(b)	(c)	(c)	48	20	0	0
February	223	0	(b)	(b)	(c)	(c)	76	42	0	0
March	279	19	(b)	(b)	(c)	(c)	74	57	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
9-Month Average	**266**	**10**	**(b)**	**(b)**	**(c)**	**(c)**	**54**	**43**	**0**	**0**
2000 9-Month Average	**226**	**1**	**(b)**	**(b)**	**(c)**	**(c)**	**43**	**37**	**0**	**0**
1999 9-Month Average	**270**	**31**	**(b)**	**(b)**	**(c)**	**(c)**	**76**	**65**	**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."

(s)=Less than 500 barrels per day.

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

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

Table 3.3d Petroleum Imports From Nigeria, Venezuela, Total Other OPEC, and Total OPEC

(Thousand Barrels per Day)

	Other OPEC[a]						Total OPEC[b]	
	Nigeria		Venezuela		Total			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**459**	**448**	**1,135**	**344**	**2,156**	**1,293**	**2,993**	**2,095**
1974 Average	**713**	**697**	**979**	**319**	**2,253**	**1,549**	**3,280**	**2,540**
1975 Average	**762**	**746**	**702**	**395**	**2,452**	**2,091**	**3,601**	**3,211**
1976 Average	**1,025**	**1,014**	**700**	**241**	**3,229**	**2,721**	**5,066**	**4,545**
1977 Average	**1,143**	**1,130**	**690**	**250**	**3,754**	**3,225**	**6,193**	**5,643**
1978 Average	**919**	**910**	**646**	**181**	**3,536**	**2,972**	**5,751**	**5,184**
1979 Average	**1,080**	**1,069**	**690**	**293**	**3,569**	**3,063**	**5,637**	**5,112**
1980 Average	**857**	**841**	**481**	**156**	**2,781**	**2,356**	**4,300**	**3,864**
1981 Average	**620**	**611**	**406**	**147**	**2,106**	**1,726**	**3,323**	**2,922**
1982 Average	**514**	**510**	**412**	**155**	**1,451**	**1,075**	**2,146**	**1,734**
1983 Average	**302**	**301**	**422**	**164**	**1,422**	**1,072**	**1,862**	**1,477**
1984 Average	**216**	**207**	**548**	**253**	**1,544**	**1,062**	**2,049**	**1,512**
1985 Average	**293**	**280**	**605**	**306**	**1,522**	**1,069**	**1,830**	**1,312**
1986 Average	**440**	**437**	**793**	**416**	**1,926**	**1,317**	**2,837**	**2,113**
1987 Average	**535**	**529**	**804**	**488**	**1,983**	**1,451**	**3,060**	**2,400**
1988 Average	**618**	**607**	**794**	**439**	**1,981**	**1,339**	**3,520**	**2,696**
1989 Average	**815**	**800**	**873**	**495**	**2,279**	**1,642**	**4,140**	**3,376**
1990 Average	**800**	**784**	**1,025**	**666**	**2,332**	**1,713**	**4,296**	**3,514**
1991 Average	**703**	**683**	**1,035**	**668**	**2,249**	**1,634**	**4,092**	**3,377**
1992 Average	**681**	**665**	**1,170**	**826**	**2,313**	**1,770**	**4,092**	**3,406**
1993 Average	**740**	**722**	**1,300**	**1,010**	**2,493**	**1,972**	**4,273**	**3,609**
1994 Average	**637**	**624**	**1,334**	**1,034**	**2,520**	**1,965**	**4,247**	**3,580**
1995 Average	**627**	**621**	**1,480**	**1,151**	**2,430**	**1,862**	**4,002**	**3,341**
1996 Average	**617**	**595**	**1,676**	**1,303**	**2,609**	**1,950**	**4,211**	**3,438**
1997 Average	**698**	**689**	**1,773**	**1,394**	**2,814**	**2,140**	**4,569**	**3,775**
1998 Average	**696**	**689**	**1,719**	**1,377**	**2,771**	**2,125**	**4,905**	**4,169**
1999 January	702	686	1,641	1,243	2,690	2,024	4,819	4,051
February	701	661	1,751	1,298	2,727	2,030	5,110	4,334
March	650	613	1,331	1,001	2,308	1,659	5,109	4,358
April	890	848	1,737	1,420	3,046	2,443	5,679	4,968
May	617	572	1,574	1,213	2,599	1,991	5,079	4,374
June	703	667	1,426	1,047	2,451	1,773	5,040	4,243
July	666	645	1,602	1,222	2,589	1,930	5,016	4,216
August	800	766	1,480	1,183	2,623	2,035	5,137	4,427
September	535	505	1,484	1,138	2,368	1,711	4,825	4,044
October	543	522	1,340	1,041	2,164	1,642	4,645	4,020
November	588	548	1,222	942	2,095	1,569	4,431	3,843
December	490	450	1,346	1,069	2,233	1,633	4,564	3,878
Average	**657**	**623**	**1,493**	**1,150**	**2,489**	**1,869**	**4,953**	**4,228**
2000 January	490	439	1,360	1,051	2,121	1,519	4,169	3,474
February	657	636	1,600	1,198	2,545	1,863	4,907	4,160
March	1,038	1,005	1,567	1,209	2,850	2,260	5,054	4,379
April	948	931	1,537	1,176	2,771	2,176	5,171	4,533
May	913	902	1,468	1,102	2,686	2,035	4,904	4,150
June	1,189	1,136	1,516	1,207	2,972	2,385	5,558	4,861
July	895	876	1,446	1,159	2,566	2,049	5,178	4,577
August	1,122	1,108	1,661	1,429	3,080	2,591	5,904	5,348
September	1,020	1,008	1,378	1,075	2,643	2,112	5,470	4,859
October	946	943	1,610	1,293	2,803	2,270	5,307	4,721
November	851	836	1,632	1,358	2,755	2,222	5,236	4,612
December	686	673	1,776	1,419	2,794	2,132	5,575	4,854
Average	**896**	**875**	**1,546**	**1,223**	**2,716**	**2,135**	**5,203**	**4,544**
2001 January	873	842	1,761	1,416	2,967	2,278	5,405	4,486
February	894	859	1,467	1,234	2,660	2,135	4,999	4,345
March	983	963	1,769	1,463	3,104	2,503	5,783	5,100
April	1,122	1,078	1,611	1,322	3,118	2,452	5,983	5,237
May	949	877	1,477	1,264	2,884	2,268	5,960	5,240
June	765	706	1,597	1,280	2,692	2,063	5,515	4,767
July	847	813	1,682	1,445	2,748	2,286	5,466	4,953
August	720	682	1,553	1,342	2,554	2,062	5,234	4,713
September	1,007	944	1,276	1,041	2,509	2,009	5,520	4,893
9-Month Average	**906**	**862**	**1,579**	**1,314**	**2,806**	**2,230**	**5,545**	**4,864**
2000 9-Month Average	**919**	**894**	**1,503**	**1,179**	**2,693**	**2,111**	**5,145**	**4,482**
1999 9-Month Average	**696**	**663**	**1,556**	**1,195**	**2,598**	**1,954**	**5,089**	**4,334**

[a] The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

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

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

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

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

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Angola		Australia		Bahamas		Brazil		Canada		China	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**49**	**49**	**2**	**0**	**174**	**0**	**9**	**0**	**1,325**	**1,001**	**(s)**	**0**
1974 Average	**49**	**48**	**1**	**0**	**164**	**0**	**2**	**0**	**1,070**	**791**	**0**	**0**
1975 Average	**75**	**71**	**5**	**0**	**152**	**0**	**5**	**0**	**846**	**600**	**0**	**0**
1976 Average	**12**	**7**	**2**	**0**	**118**	**0**	**0**	**0**	**599**	**371**	**0**	**0**
1977 Average	**24**	**17**	**3**	**0**	**171**	**0**	**0**	**0**	**517**	**279**	**0**	**0**
1978 Average	**20**	**6**	**5**	**0**	**160**	**0**	**0**	**0**	**467**	**248**	**0**	**0**
1979 Average	**43**	**39**	**6**	**0**	**147**	**0**	**1**	**0**	**538**	**271**	**13**	**13**
1980 Average	**42**	**37**	**1**	**0**	**78**	**0**	**3**	**1**	**455**	**199**	**(s)**	**0**
1981 Average	**49**	**45**	**5**	**0**	**74**	**0**	**23**	**14**	**447**	**164**	**18**	**0**
1982 Average	**44**	**42**	**5**	**(s)**	**65**	**0**	**47**	**19**	**482**	**214**	**40**	**8**
1983 Average	**78**	**71**	**4**	**0**	**125**	**0**	**41**	**2**	**547**	**274**	**34**	**6**
1984 Average	**90**	**85**	**38**	**25**	**88**	**0**	**60**	**(s)**	**630**	**341**	**46**	**15**
1985 Average	**110**	**104**	**37**	**21**	**40**	**0**	**61**	**0**	**770**	**468**	**59**	**36**
1986 Average	**112**	**102**	**41**	**30**	**37**	**0**	**50**	**0**	**807**	**570**	**90**	**68**
1987 Average	**192**	**180**	**58**	**49**	**37**	**0**	**84**	**0**	**848**	**608**	**82**	**63**
1988 Average	**212**	**203**	**64**	**59**	**32**	**0**	**98**	**0**	**999**	**681**	**88**	**82**
1989 Average	**284**	**279**	**36**	**31**	**34**	**0**	**82**	**0**	**931**	**630**	**80**	**76**
1990 Average	**237**	**236**	**53**	**47**	**37**	**0**	**49**	**0**	**934**	**643**	**80**	**77**
1991 Average	**254**	**254**	**26**	**21**	**35**	**0**	**22**	**0**	**1,033**	**743**	**91**	**87**
1992 Average	**336**	**336**	**19**	**17**	**36**	**0**	**20**	**0**	**1,069**	**797**	**90**	**84**
1993 Average	**336**	**336**	**19**	**18**	**28**	**0**	**33**	**0**	**1,181**	**900**	**51**	**50**
1994 Average	**331**	**322**	**17**	**16**	**29**	**0**	**31**	**1**	**1,272**	**983**	**65**	**64**
1995 Average	**367**	**360**	**16**	**16**	**2**	**0**	**8**	**0**	**1,332**	**1,040**	**53**	**53**
1996 Average	**351**	**344**	**31**	**25**	**1**	**0**	**9**	**0**	**1,424**	**1,075**	**57**	**57**
1997 Average	**427**	**425**	**48**	**31**	**1**	**0**	**5**	**0**	**1,563**	**1,198**	**49**	**48**
1998 Average	**468**	**465**	**57**	**31**	**4**	**0**	**26**	**0**	**1,598**	**1,266**	**42**	**42**
1999 January	421	421	0	0	0	0	3	0	1,600	1,196	(s)	0
February	380	364	73	49	0	0	22	0	1,459	1,081	2	0
March	270	270	53	53	0	0	15	0	1,365	1,056	31	30
April	401	393	19	19	7	0	26	0	1,373	1,057	21	21
May	407	400	55	37	23	0	47	0	1,523	1,104	2	0
June	334	334	56	34	0	0	48	0	1,477	1,159	67	19
July	349	349	30	30	8	0	31	0	1,694	1,354	19	19
August	309	309	65	47	0	0	30	0	1,653	1,263	72	33
September	465	465	110	65	0	0	16	0	1,407	1,067	37	34
October	444	444	0	0	0	0	18	0	1,627	1,229	0	0
November	307	307	22	22	0	0	37	0	1,592	1,264	1	0
December	244	227	23	23	0	0	18	0	1,684	1,291	1	0
Average	**361**	**357**	**42**	**31**	**3**	**0**	**26**	**0**	**1,539**	**1,178**	**21**	**13**
2000 January	249	247	43	43	0	0	59	0	1,869	1,378	7	0
February	186	177	58	50	0	0	21	0	1,904	1,350	22	21
March	312	308	44	44	0	0	10	0	1,673	1,261	91	37
April	348	335	97	70	0	0	57	0	1,750	1,323	61	18
May	378	366	94	65	0	0	33	0	1,907	1,488	39	28
June	376	359	56	56	0	0	102	19	1,830	1,430	55	54
July	310	310	87	84	0	0	88	11	1,775	1,376	44	39
August	279	279	45	45	0	0	72	17	1,790	1,318	33	32
September	266	266	42	22	0	0	22	0	1,789	1,321	40	40
October	266	254	42	42	0	0	37	0	1,716	1,262	70	69
November	341	329	22	22	0	0	80	13	1,736	1,283	21	20
December	301	301	42	42	0	0	36	0	1,948	1,380	45	39
Average	**301**	**295**	**56**	**49**	**0**	**0**	**51**	**5**	**1,807**	**1,348**	**44**	**33**
2001 January	312	300	74	65	0	0	105	35	1,827	1,297	33	33
February	499	485	27	20	0	0	88	0	1,828	1,313	2	0
March	374	374	47	20	6	0	80	21	1,893	1,378	32	14
April	303	303	111	68	14	0	80	31	1,812	1,355	24	14
May	336	336	16	15	0	0	120	16	1,736	1,325	31	21
June	283	283	22	22	14	0	67	0	1,848	1,425	26	0
July	310	298	65	65	0	0	78	0	1,659	1,225	23	20
August	323	311	20	20	19	0	54	0	1,674	1,226	57	28
September	349	339	46	46	10	0	80	17	1,691	1,245	21	0
9-Month Average	**342**	**335**	**48**	**38**	**7**	**0**	**84**	**13**	**1,774**	**1,310**	**28**	**15**
2000 9-Month Average	**301**	**295**	**63**	**53**	**0**	**0**	**52**	**5**	**1,809**	**1,361**	**44**	**30**
1999 9-Month Average	**370**	**367**	**51**	**37**	**4**	**0**	**26**	**0**	**1,507**	**1,150**	**28**	**17**

[a] The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

(s)=Less than 500 barrels per day.

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

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

Table 3.3f Petroleum Imports From Colombia, Ecuador, Gabon, Italy, Malaysia, and Mexico

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Colombia		Ecuador[b]		Gabon[c]		Italy		Malaysia		Mexico	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**9**	**2**	**–**	**–**	**–**	**–**	**125**	**0**	**12**	**1**	**16**	**1**
1974 Average	**5**	**0**	**–**	**–**	**–**	**–**	**74**	**0**	**12**	**1**	**8**	**2**
1975 Average	**9**	**0**	**–**	**–**	**–**	**–**	**27**	**0**	**8**	**5**	**71**	**70**
1976 Average	**21**	**6**	**–**	**–**	**–**	**–**	**39**	**0**	**18**	**16**	**87**	**87**
1977 Average	**17**	**0**	**–**	**–**	**–**	**–**	**51**	**0**	**66**	**55**	**179**	**177**
1978 Average	**20**	**0**	**–**	**–**	**–**	**–**	**38**	**0**	**42**	**37**	**318**	**316**
1979 Average	**18**	**0**	**–**	**–**	**–**	**–**	**30**	**0**	**66**	**52**	**439**	**437**
1980 Average	**4**	**0**	**–**	**–**	**–**	**–**	**4**	**0**	**70**	**61**	**533**	**507**
1981 Average	**1**	**0**	**–**	**–**	**–**	**–**	**11**	**0**	**36**	**33**	**522**	**469**
1982 Average	**5**	**0**	**–**	**–**	**–**	**–**	**18**	**(s)**	**20**	**18**	**685**	**645**
1983 Average	**10**	**0**	**–**	**–**	**–**	**–**	**18**	**(s)**	**4**	**3**	**826**	**766**
1984 Average	**8**	**0**	**–**	**–**	**–**	**–**	**45**	**(s)**	**1**	**0**	**748**	**659**
1985 Average	**23**	**0**	**–**	**–**	**–**	**–**	**60**	**(s)**	**3**	**1**	**816**	**715**
1986 Average	**87**	**57**	**–**	**–**	**–**	**–**	**76**	**0**	**12**	**11**	**699**	**621**
1987 Average	**148**	**115**	**–**	**–**	**–**	**–**	**54**	**1**	**13**	**12**	**655**	**602**
1988 Average	**134**	**106**	**–**	**–**	**–**	**–**	**65**	**5**	**19**	**19**	**747**	**674**
1989 Average	**172**	**136**	**–**	**–**	**–**	**–**	**34**	**3**	**39**	**39**	**767**	**716**
1990 Average	**182**	**140**	**–**	**–**	**–**	**–**	**58**	**2**	**41**	**40**	**755**	**689**
1991 Average	**163**	**123**	**–**	**–**	**–**	**–**	**47**	**3**	**24**	**24**	**807**	**759**
1992 Average	**126**	**102**	**–**	**–**	**–**	**–**	**55**	**0**	**10**	**10**	**830**	**787**
1993 Average	**171**	**141**	**81**	**78**	**–**	**–**	**31**	**0**	**11**	**10**	**919**	**863**
1994 Average	**161**	**146**	**91**	**91**	**–**	**–**	**22**	**0**	**10**	**6**	**984**	**939**
1995 Average	**219**	**207**	**97**	**96**	**229**	**229**	**5**	**0**	**8**	**6**	**1,068**	**1,027**
1996 Average	**234**	**226**	**104**	**96**	**184**	**184**	**8**	**0**	**11**	**6**	**1,244**	**1,207**
1997 Average	**271**	**270**	**115**	**114**	**230**	**230**	**7**	**0**	**23**	**8**	**1,385**	**1,360**
1998 Average	**354**	**349**	**101**	**98**	**207**	**207**	**12**	**0**	**35**	**26**	**1,351**	**1,321**
1999 January	445	440	70	66	194	194	0	0	28	13	1,337	1,254
February	480	458	51	45	175	175	17	0	20	0	1,279	1,231
March	592	572	131	123	111	111	10	0	0	0	1,490	1,434
April	435	425	67	61	269	269	19	0	27	14	1,403	1,315
May	458	443	145	128	190	190	30	0	67	56	1,333	1,246
June	370	351	112	112	92	92	8	0	31	22	1,355	1,297
July	600	572	88	88	140	140	0	0	30	17	1,379	1,310
August	547	521	133	133	95	95	0	0	64	49	1,339	1,225
September	406	388	136	136	159	159	8	0	44	22	1,282	1,219
October	432	432	163	163	186	186	7	0	39	36	1,189	1,131
November	416	396	185	179	190	190	6	0	30	10	1,230	1,165
December	433	421	128	128	216	216	13	0	32	13	1,272	1,217
Average	**468**	**452**	**118**	**114**	**168**	**168**	**10**	**0**	**35**	**21**	**1,324**	**1,254**
2000 January	452	426	83	83	150	150	16	0	84	65	1,340	1,266
February	355	335	102	102	155	155	48	0	71	36	1,237	1,150
March	464	460	122	122	136	128	29	0	34	15	1,382	1,286
April	402	370	114	114	172	172	20	0	34	25	1,417	1,359
May	346	338	91	91	155	155	13	0	35	20	1,362	1,314
June	283	265	106	96	88	88	36	0	29	14	1,499	1,431
July	237	199	112	112	105	105	18	0	55	42	1,311	1,241
August	313	299	190	184	106	106	20	0	21	0	1,426	1,381
September	360	332	205	202	182	182	24	0	15	0	1,494	1,437
October	207	180	166	160	164	164	23	0	86	66	1,263	1,248
November	324	283	141	136	181	181	49	0	21	11	1,340	1,290
December	359	327	104	96	129	129	69	0	59	55	1,405	1,348
Average	**342**	**318**	**128**	**125**	**143**	**143**	**30**	**0**	**45**	**29**	**1,373**	**1,313**
2001 January	360	326	97	94	94	94	43	0	37	0	1,403	1,363
February	321	294	90	90	177	177	44	0	18	0	1,088	1,026
March	210	186	80	80	152	152	64	0	87	54	1,433	1,351
April	276	232	111	108	177	177	24	0	38	22	1,558	1,533
May	296	233	155	149	127	127	49	0	30	0	1,305	1,258
June	293	233	111	84	155	155	32	0	24	13	1,234	1,214
July	211	187	105	105	149	149	55	0	13	0	1,343	1,317
August	338	314	113	101	98	98	19	0	26	10	1,452	1,403
September	269	231	123	122	86	86	63	0	29	21	1,473	1,420
9-Month Average	**286**	**248**	**110**	**104**	**135**	**135**	**44**	**0**	**34**	**13**	**1,368**	**1,323**
2000 9-Month Average	**357**	**336**	**125**	**123**	**139**	**138**	**25**	**0**	**42**	**24**	**1,385**	**1,318**
1999 9-Month Average	**482**	**464**	**104**	**100**	**158**	**158**	**10**	**0**	**35**	**22**	**1,356**	**1,282**

[a] The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

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

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

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

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

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

Table 3.3g Petroleum Imports From Netherlands, Netherlands Antilles, Norway, Puerto Rico, Russia, and Spain

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Netherlands		Netherlands Antilles		Norway		Puerto Rico		Russia[b]		Spain	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**53**	**0**	**585**	**0**	**1**	**0**	**99**	**0**	**26**	**0**	**26**	**0**
1974 Average	**43**	**0**	**511**	**0**	**1**	**1**	**90**	**0**	**20**	**0**	**12**	**0**
1975 Average	**19**	**4**	**332**	**0**	**17**	**12**	**90**	**0**	**14**	**0**	**1**	**0**
1976 Average	**8**	**0**	**275**	**0**	**36**	**35**	**88**	**0**	**11**	**2**	**1**	**0**
1977 Average	**31**	**4**	**211**	**0**	**50**	**48**	**105**	**0**	**12**	**2**	**10**	**0**
1978 Average	**5**	**2**	**229**	**0**	**104**	**104**	**94**	**0**	**8**	**1**	**3**	**0**
1979 Average	**23**	**7**	**231**	**0**	**75**	**75**	**92**	**0**	**1**	**0**	**4**	**0**
1980 Average	**2**	**(s)**	**225**	**0**	**144**	**144**	**88**	**0**	**1**	**0**	**1**	**0**
1981 Average	**30**	**(s)**	**197**	**0**	**119**	**114**	**62**	**0**	**5**	**(s)**	**1**	**(s)**
1982 Average	**35**	**(s)**	**175**	**0**	**102**	**102**	**50**	**0**	**1**	**0**	**3**	**(s)**
1983 Average	**65**	**3**	**189**	**0**	**66**	**65**	**40**	**0**	**1**	**(s)**	**2**	**(s)**
1984 Average	**65**	**3**	**188**	**0**	**114**	**112**	**42**	**0**	**13**	**(s)**	**11**	**0**
1985 Average	**58**	**0**	**40**	**0**	**32**	**31**	**28**	**0**	**8**	**(s)**	**29**	**1**
1986 Average	**54**	**0**	**25**	**0**	**60**	**53**	**21**	**0**	**18**	**(s)**	**53**	**0**
1987 Average	**60**	**0**	**29**	**0**	**80**	**70**	**21**	**0**	**11**	**0**	**55**	**0**
1988 Average	**61**	**0**	**36**	**0**	**67**	**62**	**22**	**0**	**29**	**0**	**68**	**0**
1989 Average	**49**	**0**	**42**	**0**	**138**	**127**	**32**	**0**	**48**	**0**	**67**	**0**
1990 Average	**55**	**0**	**31**	**0**	**102**	**96**	**32**	**0**	**45**	**1**	**47**	**0**
1991 Average	**29**	**0**	**81**	**0**	**82**	**74**	**27**	**0**	**29**	**1**	**33**	**0**
1992 Average	**26**	**0**	**65**	**0**	**127**	**119**	**26**	**0**	**18**	**5**	**32**	**0**
1993 Average	**10**	**0**	**82**	**0**	**142**	**137**	**29**	**0**	**55**	**36**	**37**	**0**
1994 Average	**32**	**0**	**98**	**0**	**202**	**190**	**22**	**0**	**30**	**27**	**37**	**0**
1995 Average	**15**	**0**	**52**	**0**	**273**	**258**	**15**	**0**	**25**	**14**	**16**	**1**
1996 Average	**19**	**0**	**64**	**0**	**313**	**293**	**20**	**0**	**25**	**18**	**29**	**1**
1997 Average	**25**	**0**	**74**	**0**	**309**	**288**	**16**	**0**	**13**	**3**	**21**	**0**
1998 Average	**31**	**0**	**82**	**0**	**236**	**221**	**15**	**0**	**24**	**9**	**18**	**0**
1999 January	21	0	95	0	216	179	18	0	28	0	4	0
February	7	0	160	0	203	157	0	0	28	0	0	0
March	20	0	58	0	248	199	3	0	26	0	5	0
April	34	0	76	0	265	192	15	0	75	43	13	0
May	65	0	81	0	293	244	10	0	109	45	26	0
June	44	0	31	0	524	497	15	0	149	22	0	0
July	37	0	83	0	408	396	13	0	139	32	8	0
August	35	0	58	0	244	222	12	0	138	14	13	0
September	2	0	30	0	235	195	22	0	142	39	(s)	0
October	17	0	49	0	341	292	13	0	110	31	22	0
November	24	0	44	0	288	255	12	0	94	16	23	0
December	11	0	24	0	371	326	15	0	31	12	9	0
Average	**27**	**0**	**65**	**0**	**304**	**263**	**13**	**0**	**89**	**21**	**10**	**0**
2000 January	12	0	110	0	314	262	14	0	29	0	37	0
February	45	0	60	0	381	328	15	0	120	0	35	0
March	39	0	74	0	346	305	13	0	63	17	23	0
April	21	0	41	0	397	348	14	0	83	25	31	0
May	16	0	75	0	307	295	20	0	44	13	8	0
June	43	0	95	0	274	240	17	0	75	0	28	0
July	8	0	63	0	545	482	13	0	78	0	23	0
August	22	8	138	0	377	334	11	0	73	6	47	0
September	39	0	56	0	363	323	16	0	89	8	21	0
October	40	0	142	0	306	283	16	0	111	13	20	0
November	34	0	103	0	293	241	8	0	50	0	6	0
December	41	0	119	0	220	186	21	0	55	0	16	0
Average	**30**	**1**	**90**	**0**	**343**	**302**	**15**	**0**	**72**	**7**	**25**	**0**
2001 January	77	0	141	0	319	226	11	0	188	0	50	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	50	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	262	202	0	0	118	0	11	0
September	34	0	39	0	303	265	3	0	124	0	27	0
9-Month Average	**45**	**0**	**84**	**0**	**356**	**291**	**5**	**0**	**110**	**0**	**31**	**0**
2000 9-Month Average	**27**	**1**	**79**	**0**	**367**	**324**	**15**	**0**	**72**	**8**	**28**	**0**
1999 9-Month Average	**30**	**0**	**74**	**0**	**293**	**254**	**12**	**0**	**93**	**22**	**8**	**0**

[a] The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

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

(s)=Less than 500 barrels per day.

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

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

Table 3.3h Petroleum Imports From Trinidad and Tobago, United Kingdom, U.S. Virgin Islands, Other Non-OPEC, Total Non-OPEC, and Total Imports

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Trinidad and Tobago		United Kingdom		U.S. Virgin Islands		Other Non-OPEC[b]		Total		Total Imports	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**255**	**60**	**15**	**0**	**329**	**0**	**153**	**36**	**3,263**	**1,149**	**6,256**	**3,244**
1974 Average	**251**	**63**	**8**	**0**	**391**	**0**	**122**	**30**	**2,832**	**937**	**6,112**	**3,477**
1975 Average	**242**	**115**	**14**	**(s)**	**406**	**0**	**120**	**14**	**2,454**	**893**	**6,056**	**4,105**
1976 Average	**274**	**104**	**31**	**13**	**422**	**0**	**203**	**101**	**2,247**	**742**	**7,313**	**5,287**
1977 Average	**289**	**134**	**126**	**97**	**466**	**0**	**287**	**157**	**2,614**	**971**	**8,807**	**6,615**
1978 Average	**253**	**142**	**180**	**169**	**428**	**0**	**239**	**146**	**2,612**	**1,172**	**8,363**	**6,356**
1979 Average	**190**	**123**	**202**	**197**	**431**	**0**	**269**	**192**	**2,819**	**1,407**	**8,456**	**6,519**
1980 Average	**176**	**115**	**176**	**173**	**388**	**0**	**219**	**162**	**2,609**	**1,399**	**6,909**	**5,263**
1981 Average	**133**	**102**	**375**	**369**	**327**	**0**	**236**	**163**	**2,672**	**1,474**	**5,996**	**4,396**
1982 Average	**112**	**92**	**456**	**441**	**316**	**0**	**306**	**174**	**2,968**	**1,754**	**5,113**	**3,488**
1983 Average	**96**	**83**	**382**	**365**	**282**	**0**	**378**	**215**	**3,189**	**1,853**	**5,051**	**3,329**
1984 Average	**94**	**87**	**402**	**378**	**294**	**0**	**411**	**210**	**3,388**	**1,914**	**5,437**	**3,426**
1985 Average	**113**	**98**	**310**	**278**	**247**	**0**	**394**	**137**	**3,237**	**1,888**	**5,067**	**3,201**
1986 Average	**125**	**93**	**350**	**317**	**244**	**0**	**426**	**144**	**3,387**	**2,065**	**6,224**	**4,178**
1987 Average	**106**	**75**	**352**	**304**	**272**	**0**	**459**	**196**	**3,617**	**2,274**	**6,678**	**4,674**
1988 Average	**97**	**71**	**315**	**254**	**242**	**0**	**487**	**196**	**3,882**	**2,411**	**7,402**	**5,107**
1989 Average	**94**	**73**	**215**	**160**	**321**	**0**	**457**	**197**	**3,921**	**2,467**	**8,061**	**5,843**
1990 Average	**96**	**76**	**189**	**155**	**282**	**0**	**417**	**180**	**3,721**	**2,381**	**8,018**	**5,894**
1991 Average	**88**	**72**	**138**	**106**	**243**	**0**	**282**	**137**	**3,535**	**2,405**	**7,627**	**5,782**
1992 Average	**95**	**70**	**230**	**200**	**249**	**0**	**335**	**149**	**3,796**	**2,676**	**7,888**	**6,083**
1993 Average	**74**	**55**	**350**	**312**	**254**	**0**	**452**	**240**	**[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 January	52	34	242	160	300	0	529	386	5,605	4,342	10,424	8,393
February	48	38	260	165	295	0	583	372	5,540	4,134	10,650	8,468
March	28	18	314	261	319	0	460	254	5,549	4,382	10,658	8,739
April	49	37	319	143	271	0	756	300	5,939	4,288	11,618	9,256
May	41	18	569	471	298	0	659	344	6,432	4,725	11,511	9,098
June	52	33	373	317	290	0	689	357	6,119	4,645	11,160	8,888
July	57	31	644	537	278	0	646	300	6,681	5,175	11,697	9,391
August	53	36	321	256	206	0	617	278	6,005	4,481	11,142	8,908
September	83	67	445	366	305	16	499	244	5,831	4,483	10,657	8,527
October	75	66	344	267	284	0	592	318	5,951	4,593	10,595	8,613
November	66	42	336	281	277	0	421	254	5,602	4,381	10,033	8,224
December	92	64	198	174	236	0	450	244	5,501	4,357	10,065	8,234
Average	**58**	**40**	**365**	**284**	**280**	**1**	**575**	**304**	**5,899**	**4,502**	**10,852**	**8,731**
2000 January	89	71	273	171	255	0	486	194	5,971	4,355	10,140	7,829
February	71	52	241	149	306	0	660	255	6,095	4,159	11,003	8,318
March	60	37	283	240	226	0	574	150	5,997	4,411	11,052	8,790
April	96	70	444	348	312	0	476	232	6,387	4,808	11,558	9,341
May	77	51	560	449	307	0	645	262	6,512	4,935	11,415	9,085
June	107	52	349	282	356	0	671	286	6,474	4,672	12,032	9,533
July	93	54	476	458	267	0	703	307	6,410	4,821	11,588	9,398
August	80	55	405	343	297	0	526	184	6,268	4,591	12,173	9,939
September	97	58	291	248	323	0	695	186	6,430	4,625	11,900	9,484
October	95	56	381	275	237	0	593	175	5,983	4,248	11,290	8,969
November	80	56	332	263	299	0	613	174	6,073	4,301	11,309	8,913
December	75	55	342	252	318	0	775	164	6,478	4,376	12,053	9,229
Average	**85**	**56**	**366**	**291**	**291**	**0**	**618**	**214**	**6,257**	**4,526**	**11,459**	**9,071**
2001 January	95	55	376	253	339	0	730	164	6,714	4,306	12,118	8,791
February	45	16	361	232	273	0	820	186	6,463	4,138	11,462	8,484
March	67	57	253	167	263	0	452	211	6,159	4,377	11,942	9,477
April	85	60	239	140	195	0	633	216	6,329	4,584	12,311	9,821
May	49	38	417	358	212	0	780	164	6,283	4,415	12,243	9,655
June	70	59	241	192	339	0	728	202	5,985	4,134	11,499	8,901
July	83	58	344	286	310	0	714	380	6,110	4,453	11,576	9,406
August	86	51	237	197	202	0	865	418	6,084	4,380	11,318	9,092
September	90	51	196	132	283	0	639	188	5,978	4,161	11,498	9,054
9-Month Average	**74**	**50**	**296**	**218**	**268**	**0**	**706**	**237**	**6,233**	**4,330**	**11,778**	**9,194**
2000 9-Month Average	**86**	**56**	**370**	**300**	**294**	**0**	**603**	**228**	**6,283**	**4,600**	**11,428**	**9,081**
1999 9-Month Average	**51**	**35**	**389**	**299**	**284**	**2**	**604**	**315**	**5,972**	**4,522**	**11,061**	**8,856**

[a] The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

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

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

(s)=Less than 500 barrels per day.

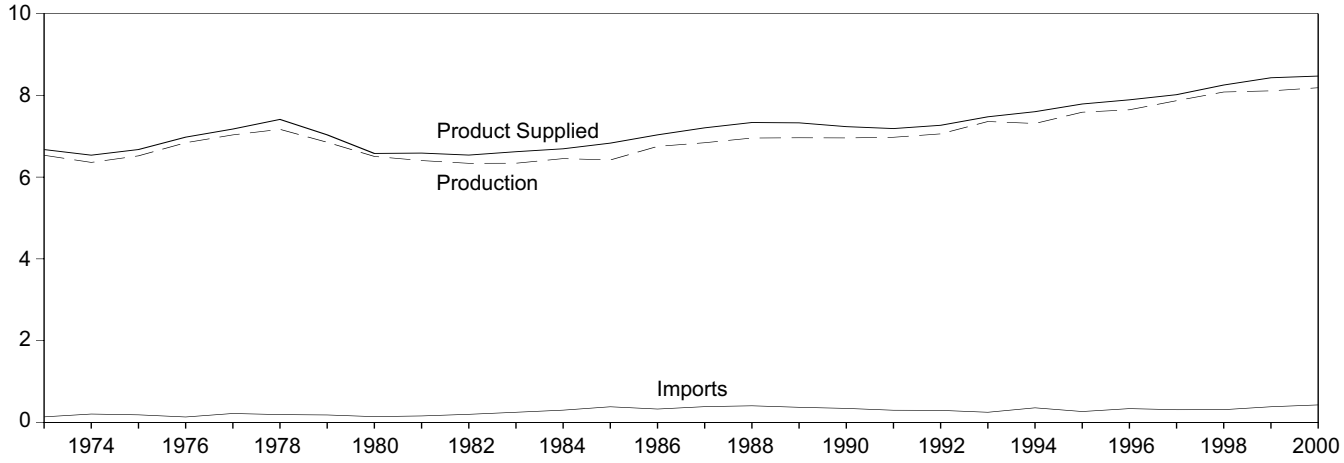
Notes: Beginning in October 1977, Strategic Petroleum Reserve imports are included. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

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

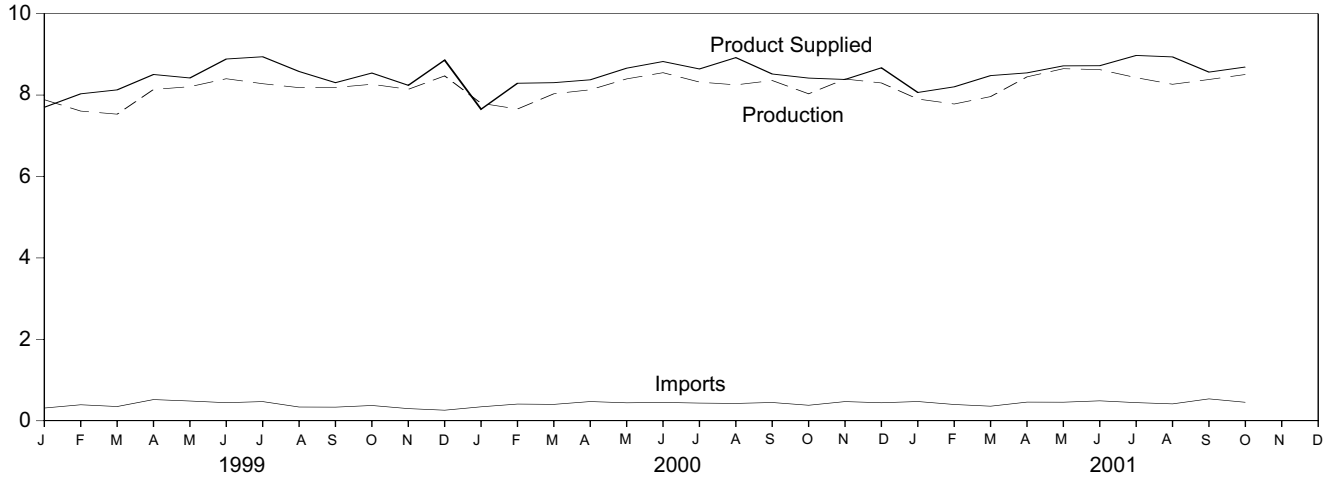
Figure 3.2 Finished Motor Gasoline

(Million Barrels per Day, Except as Noted)

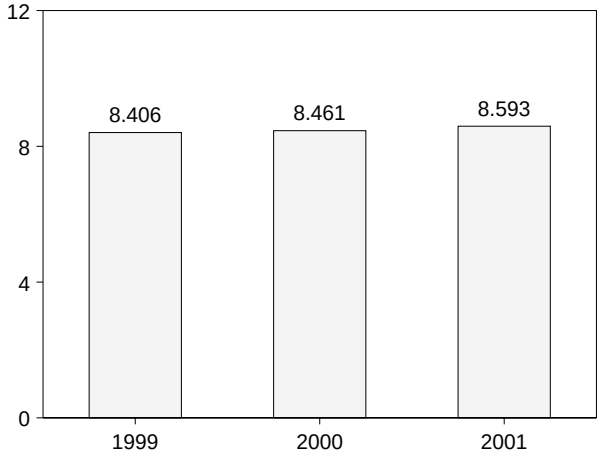
Overview, 1973-2000



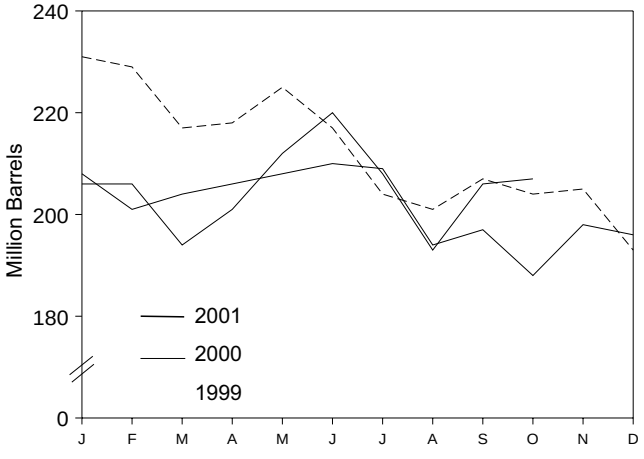
Overview, Monthly



Product Supplied, January-October



Stocks, End of Month



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

Table 3.4 Finished Motor Gasoline Supply and Disposition

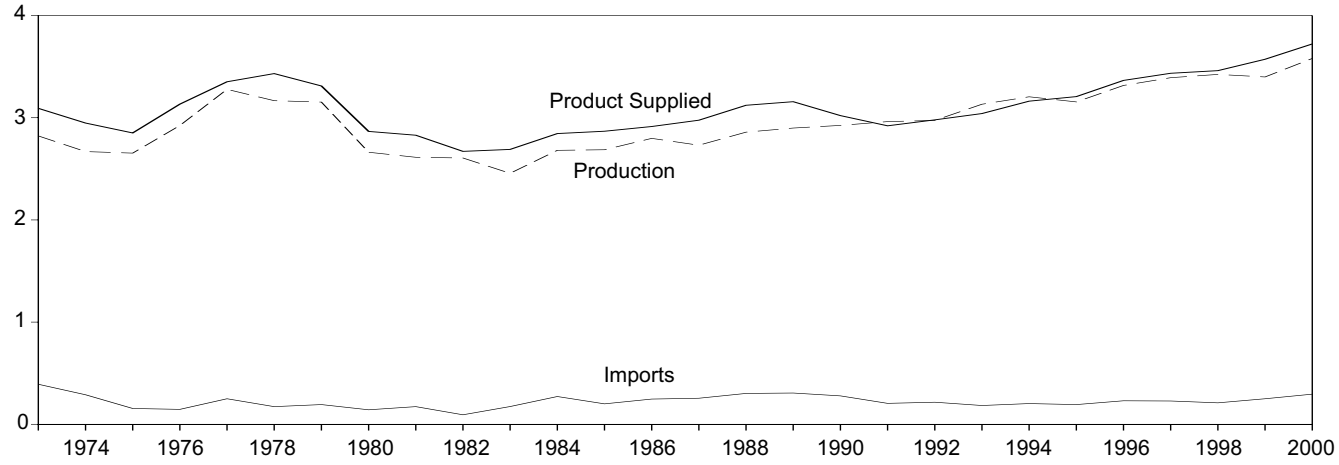
	Supply		Disposition			Motor Gasoline Stocks[a]		Oxygenates Stocks[a]
	Total Production	Imports[b]	Stock Change[b,c]	Exports	Product Supplied	Total[d]	Finished	
	Thousand Barrels per Day					Million Barrels		
1973 Average	**6,535**	**134**	**-9**	**4**	**6,674**	**209**	**NA**	**NA**
1974 Average	**6,360**	**204**	**24**	**2**	**6,537**	**[e]218**	**NA**	**NA**
1975 Average	**6,520**	**184**	**[e]28**	**2**	**6,675**	**235**	**NA**	**NA**
1976 Average	**6,841**	**131**	**-10**	**3**	**6,978**	**231**	**NA**	**NA**
1977 Average	**7,033**	**217**	**72**	**2**	**7,177**	**258**	**NA**	**NA**
1978 Average	**7,169**	**190**	**-54**	**1**	**7,412**	**238**	**NA**	**NA**
1979 Average	**6,852**	**181**	**-2**	**(s)**	**7,034**	**237**	**NA**	**NA**
1980 Average	**6,506**	**140**	**66**	**1**	**6,579**	**[e]261**	**NA**	**NA**
1981 Average[f]	**6,405**	**157**	**[e]-28**	**2**	**6,588**	**253**	**203**	**NA**
1982 Average	**6,338**	**197**	**-25**	**20**	**6,539**	**[e]235**	**[e]194**	**NA**
1983 Average	**6,340**	**247**	**[e]-45**	**10**	**6,622**	**222**	**186**	**NA**
1984 Average	**6,453**	**299**	**54**	**6**	**6,693**	**243**	**205**	**NA**
1985 Average	**6,419**	**381**	**-41**	**10**	**6,831**	**223**	**190**	**NA**
1986 Average	**6,752**	**326**	**11**	**33**	**7,034**	**233**	**194**	**NA**
1987 Average	**6,841**	**384**	**-15**	**35**	**7,206**	**226**	**189**	**NA**
1988 Average	**6,956**	**405**	**3**	**22**	**7,336**	**228**	**190**	**NA**
1989 Average	**6,963**	**369**	**-35**	**39**	**7,328**	**213**	**177**	**NA**
1990 Average	**6,959**	**342**	**10**	**55**	**7,235**	**220**	**181**	**NA**
1991 Average	**6,975**	**297**	**3**	**82**	**7,188**	**219**	**182**	**NA**
1992 Average	**7,058**	**294**	**-11**	**96**	**7,268**	**216**	**178**	**NA**
1993 Average	**[g]7,360**	**247**	**26**	**105**	**[g]7,476**	**226**	**187**	**[h]13**
1994 Average	**7,312**	**356**	**-31**	**97**	**7,601**	**215**	**176**	**17**
1995 Average	**7,588**	**265**	**-40**	**104**	**7,789**	**202**	**161**	**12**
1996 Average	**7,647**	**336**	**-12**	**104**	**7,891**	**195**	**157**	**13**
1997 Average	**7,870**	**309**	**26**	**137**	**8,017**	**210**	**166**	**12**
1998 Average	**8,082**	**311**	**15**	**125**	**8,253**	**216**	**172**	**14**
1999 January	7,886	313	368	130	7,701	231	183	14
February	7,607	393	-136	105	8,031	229	179	16
March	7,531	350	-328	81	8,128	217	169	15
April	8,138	521	68	85	8,506	218	171	13
May	8,207	485	173	100	8,420	225	177	15
June	8,402	444	-111	71	8,886	217	173	14
July	8,280	471	-280	89	8,942	204	165	13
August	8,183	338	-160	101	8,579	201	160	14
September	8,187	335	90	128	8,305	207	162	15
October	8,266	375	-31	130	8,542	204	161	15
November	8,142	299	72	128	8,240	205	164	13
December	8,471	260	-305	177	8,859	193	154	14
Average	**8,111**	**382**	**-49**	**111**	**8,431**	**193**	**154**	**14**
2000 January	7,798	343	362	127	7,653	208	165	14
February	7,658	410	-306	83	8,291	201	156	15
March	8,032	403	22	108	8,305	204	157	14
April	8,130	472	117	111	8,375	206	161	13
May	8,398	441	52	126	8,661	208	162	14
June	8,550	451	76	100	8,824	210	165	14
July	8,320	435	3	110	8,642	209	165	14
August	8,251	426	-438	194	8,921	194	151	13
September	8,358	449	106	184	8,518	197	154	13
October	8,031	381	-221	217	8,417	188	147	14
November	8,394	471	311	170	8,384	198	157	14
December	8,298	443	-120	190	8,670	196	153	12
Average	**8,186**	**427**	**-3**	**144**	**8,472**	**196**	**153**	**12**
2001 January	7,903	473	188	125	8,064	206	159	12
February	7,781	400	-151	128	8,203	206	155	12
March	7,963	358	-302	145	8,479	194	146	12
April	8,447	458	216	143	8,546	201	152	12
May	8,648	456	284	102	8,718	212	161	12
June	8,625	490	266	127	8,722	220	169	12
July	8,428	446	-230	129	8,974	208	162	13
August	8,265	415	-375	117	8,938	193	150	13
September	[R]8,383	[R]538	[R]242	[R]115	[R]8,564	[R]206	158	14
October	[E]8,506	[E]454	[E]121	[E]148	[E]8,690	[E]207	[E]162	NA
10-Month Average	**[E]8,298**	**[E]449**	**[E]26**	**[E]128**	**[E]8,593**	**[E]207**	**[E]162**	**NA**
2000 10-Month Average	**8,154**	**421**	**-22**	**136**	**8,461**	**188**	**147**	**14**
1999 10-Month Average	**8,071**	**402**	**-34**	**102**	**8,406**	**204**	**161**	**15**

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

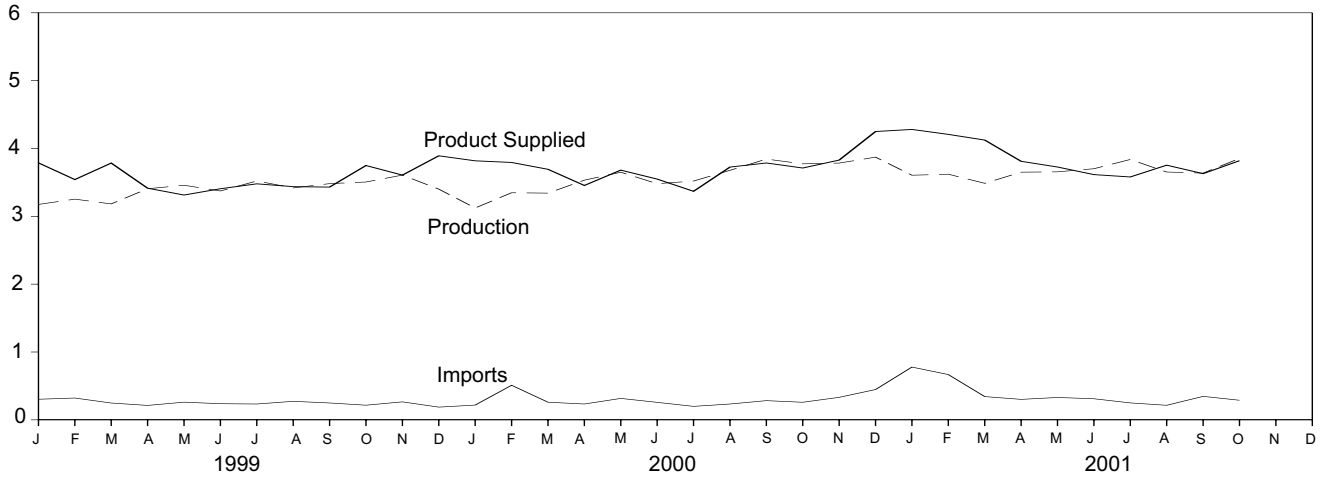
Figure 3.3 Distillate Fuel Oil

(Million Barrels per Day, Except as Noted)

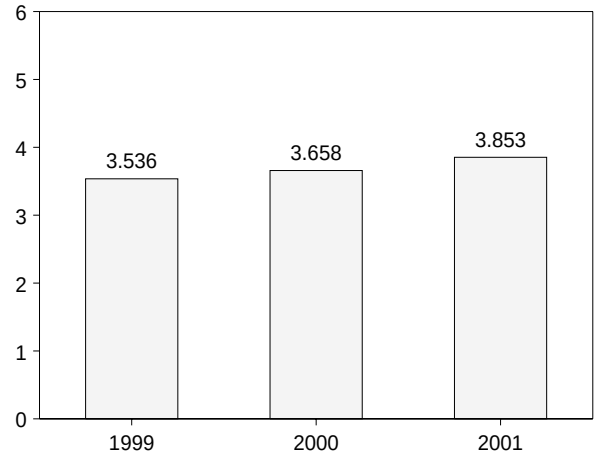
Overview, 1973-2000



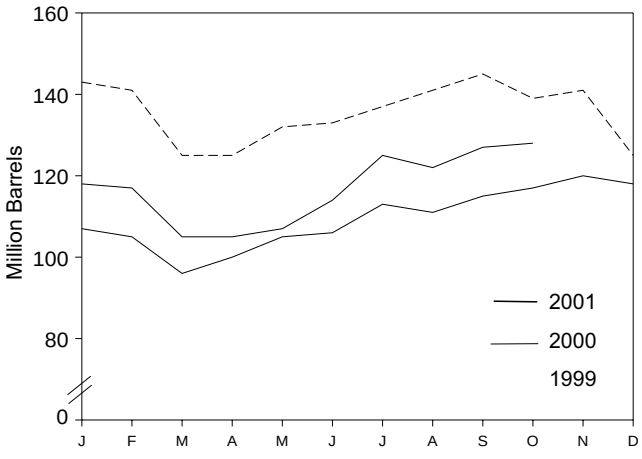
Overview, Monthly



Product Supplied, January-October



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
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 January	3,176	304	–	-426	117	3,788	143	74	69
February	3,253	322	–	-83	116	3,542	141	73	67
March	3,183	248	–	-513	159	3,785	125	69	56
April	3,407	213	–	14	191	3,415	125	68	57
May	3,458	261	–	219	187	3,314	132	70	62
June	3,374	238	–	25	180	3,407	133	68	65
July	3,521	234	–	153	123	3,479	137	71	66
August	3,419	273	–	126	130	3,437	141	69	73
September	3,482	249	–	139	162	3,431	145	73	72
October	3,506	216	–	-219	192	3,749	139	69	69
November	3,608	265	–	94	170	3,608	141	72	69
December	3,401	188	–	-514	212	3,892	125	69	56
Average	**3,399**	**250**	**–**	**-84**	**162**	**3,572**	**125**	**69**	**56**
2000 January	3,123	218	–	-609	132	3,818	107	66	41
February	3,348	510	–	-49	112	3,794	105	64	41
March	3,342	260	–	-302	211	3,693	96	60	36
April	3,533	234	–	135	178	3,455	100	66	34
May	3,650	316	–	158	127	3,681	105	67	38
June	3,481	258	–	41	149	3,549	106	68	38
July	3,520	199	–	219	132	3,369	113	72	41
August	3,678	234	–	-67	253	3,726	111	66	44
September	3,844	283	–	147	194	3,786	115	68	47
October	3,774	259	–	66	255	3,712	117	68	49
November	3,785	332	–	97	191	3,829	120	71	49
December	3,872	447	–	-65	135	4,250	118	72	46
Average	**3,580**	**295**	**–**	**-20**	**173**	**3,722**	**118**	**72**	**46**
2001 January	3,606	778	–	5	97	4,281	118	68	50
February	3,621	668	–	-35	116	4,208	117	70	47
March	3,487	343	–	-395	101	4,124	105	68	37
April	3,651	302	–	3	139	3,811	105	67	38
May	3,656	330	–	77	181	3,727	107	64	43
June	3,702	311	–	231	167	3,615	114	68	46
July	3,838	250	–	346	162	3,580	125	74	51
August	3,653	215	–	-101	216	3,754	122	68	54
September	[R] 3,637	[R] 346	–	[R] 153	[R] 201	[R] 3,629	[R] 127	[R] 71	55
October	[E] 3,853	[E] 289	–	[E] 151	[E] 170	[E] 3,820	[E] 128	[E] 70	[E] 59
10-Month Average	**[E] 3,671**	**[E] 381**	**–**	**[E] 43**	**[E] 155**	**[E] 3,853**	**[E] 128**	**[E] 70**	**[E] 59**
2000 10-Month Average	**3,530**	**276**	**–**	**-27**	**175**	**3,658**	**117**	**68**	**49**
1999 10-Month Average	**3,379**	**255**	**–**	**-58**	**156**	**3,536**	**139**	**69**	**69**

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

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

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

[d] By weight.

[e] See Note 6 at end of section.

[f] See Note 4 at end of section.

[g] See Note 3 at end of section.

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

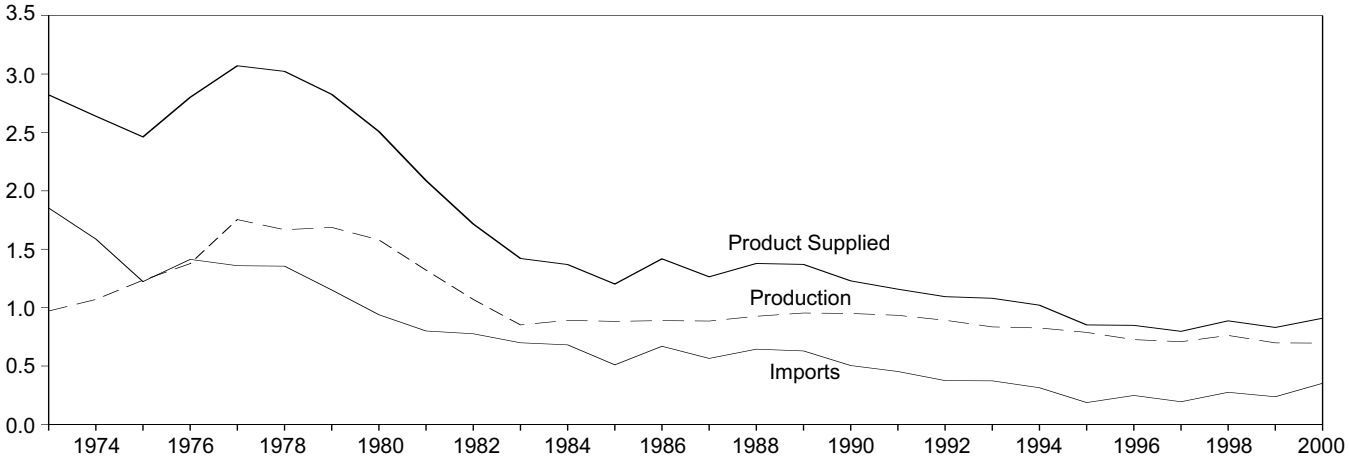
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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

Figure 3.4 Residual Fuel Oil

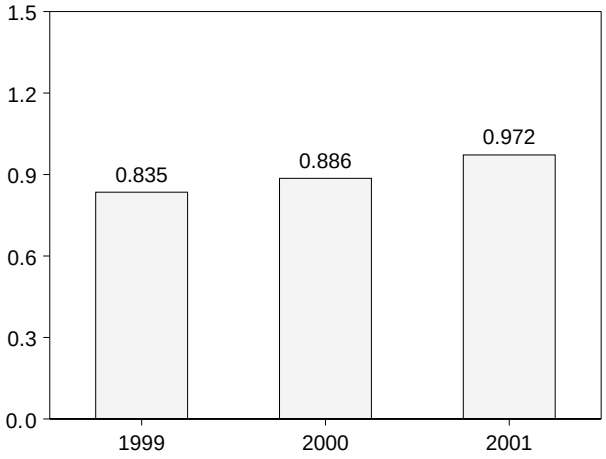
(Million Barrels per Day, Except as Noted)

Overview, 1973-2000

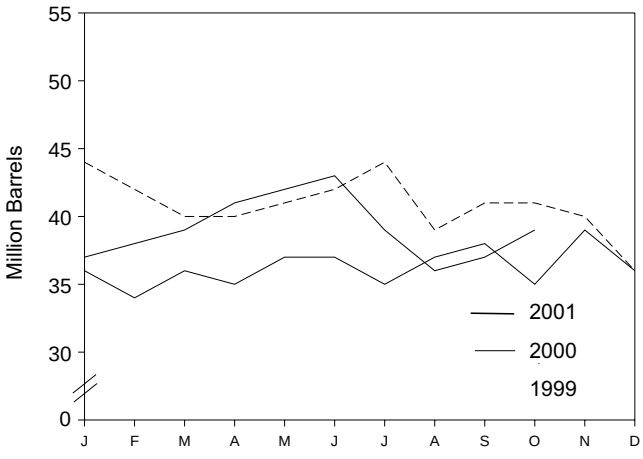


Overview, Monthly

Product Supplied, January-October



Stocks, End of Month



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

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			
	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 January	775	218	–	-33	133	893	44
February	726	248	–	-62	70	967	42
March	683	249	–	-84	72	943	40
April	679	234	–	26	185	702	40
May	725	334	–	9	153	898	41
June	706	228	–	63	151	721	42
July	736	261	–	62	182	753	44
August	701	236	–	-183	124	996	39
September	702	258	–	68	136	756	41
October	658	183	–	-7	130	719	41
November	596	222	–	-5	60	763	40
December	690	168	–	-147	154	852	36
Average	**698**	**237**	**–**	**-25**	**129**	**830**	**36**
2000 January	640	336	–	10	137	830	36
February	627	316	–	-60	149	854	34
March	649	269	–	66	167	685	36
April	620	267	–	-37	139	784	35
May	640	265	–	63	123	719	37
June	679	390	–	-8	133	945	37
July	741	409	–	-54	113	1,091	35
August	760	333	–	57	94	941	37
September	702	360	–	19	148	895	38
October	747	497	–	-87	221	1,110	35
November	778	341	–	133	100	885	39
December	768	440	–	-90	143	1,156	36
Average	**696**	**352**	**–**	**1**	**139**	**909**	**36**
2001 January	815	512	–	35	141	1,151	37
February	743	423	–	46	171	950	38
March	749	375	–	24	166	934	39
April	817	402	–	54	160	1,005	41
May	786	449	–	54	224	958	42
June	783	415	–	12	185	1,001	43
July	639	415	–	-117	113	1,057	39
August	622	412	–	-114	174	974	36
September	[R] 656	[R] 343	–	[R] 51	[R] 125	[R] 823	37
October	[E] 685	[E] 356	–	[E] 41	[E] 142	[E] 858	[E] 39
10-Month Average	[E] **729**	[E] **410**	**–**	[E] **8**	[E] **160**	[E] **972**	[E] **39**
2000 10-Month Average	**681**	**344**	**–**	**-3**	**142**	**886**	**35**
1999 10-Month Average	**709**	**245**	**–**	**-14**	**134**	**835**	**41**

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

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

[c] Stocks are at end of period.

[d] See Note 4 at end of section.

[e] See Note 3 at end of section.

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

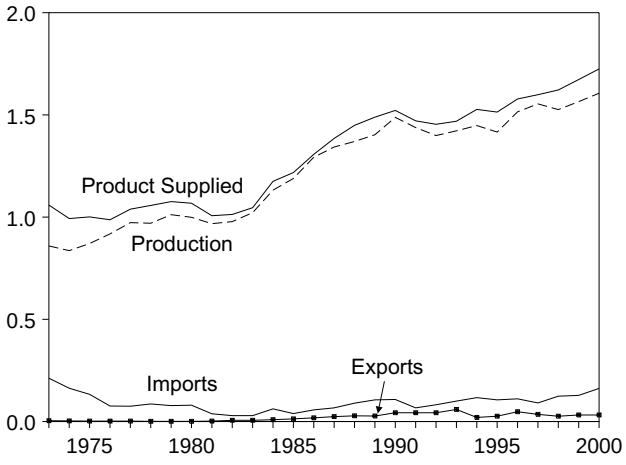
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S6. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S6.

Figure 3.5 Jet Fuel

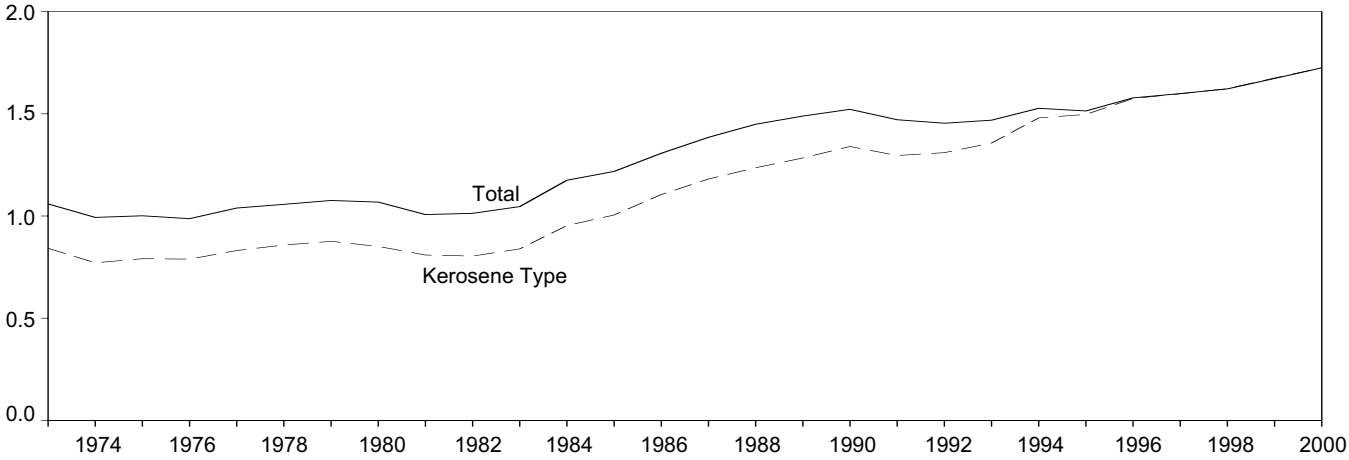
(Million Barrels per Day, Except as Noted)

Overview, 1973-2000

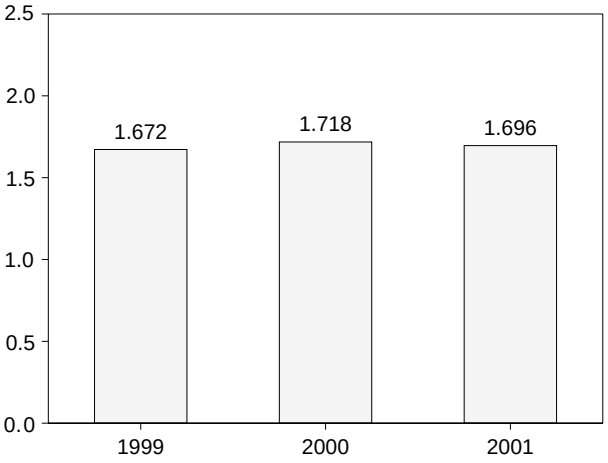


Overview, Monthly

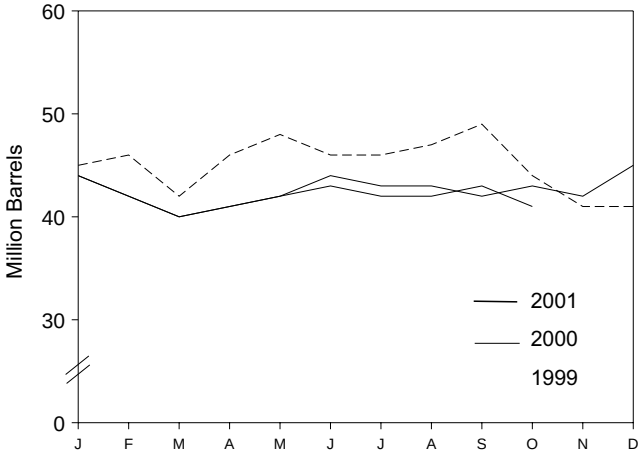
Product Supplied by Type, 1973-2000



Product Supplied, January-October



Stocks, End of Month



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

Table 3.7 Jet Fuel Supply and Disposition

	Supply			Disposition					
	Production					Product Supplied		Stocks[a]	
	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 January	1,594	1,594	132	3	26	1,697	1,698	45	45
February	1,567	1,566	157	26	9	1,689	1,689	46	45
March	1,521	1,520	85	-109	23	1,691	1,692	42	42
April	1,642	1,641	162	126	29	1,647	1,652	46	46
May	1,545	1,545	148	51	33	1,609	1,609	48	47
June	1,542	1,541	65	-60	36	1,631	1,640	46	46
July	1,551	1,550	155	22	39	1,644	1,648	46	46
August	1,575	1,575	176	3	9	1,739	1,739	47	46
September	1,600	1,600	152	74	34	1,643	1,645	49	49
October	1,501	1,500	97	-154	28	1,724	1,725	44	44
November	1,530	1,530	82	-89	64	1,637	1,640	41	41
December	1,616	1,615	128	-25	53	1,717	1,717	41	40
Average	**1,565**	**1,565**	**128**	**-11**	**32**	**1,673**	**1,675**	**41**	**40**
2000 January	1,595	1,595	122	99	13	1,604	1,604	44	44
February	1,450	1,450	173	-70	17	1,676	1,677	42	41
March	1,561	1,561	120	-35	33	1,683	1,682	40	40
April	1,615	1,615	127	28	37	1,677	1,677	41	41
May	1,589	1,589	144	28	35	1,669	1,669	42	42
June	1,600	1,600	194	52	27	1,715	1,715	44	44
July	1,650	1,649	125	-25	21	1,779	1,779	43	43
August	1,636	1,636	221	-8	19	1,846	1,846	43	43
September	1,644	1,643	128	-13	34	1,750	1,750	42	42
October	1,645	1,645	186	12	42	1,778	1,778	43	43
November	1,620	1,620	162	-11	64	1,729	1,729	42	42
December	1,665	1,665	239	71	39	1,794	1,796	45	44
Average	**1,606**	**1,606**	**162**	**11**	**32**	**1,725**	**1,725**	**45**	**44**
2001 January	1,508	1,508	238	-27	27	1,746	1,747	44	44
February	1,497	1,497	222	-44	18	1,744	1,743	42	42
March	1,513	1,513	145	-91	41	1,708	1,708	40	40
April	1,547	1,546	153	35	17	1,648	1,648	41	41
May	1,620	1,619	181	52	17	1,733	1,735	42	42
June	1,638	1,637	161	26	18	1,754	1,755	43	43
July	1,633	1,633	129	-20	23	1,758	1,755	42	42
August	1,597	1,597	123	-25	24	1,721	1,724	42	42
September	[R] 1,419	[R] 1,419	[R] 162	[R] 40	[R] 21	[R] 1,521	[R] 1,519	[R] 43	[R] 43
October	[E] 1,442	[E] 1,441	[E] 88	[E] -123	[E] 32	[E] 1,621	[E] 1,621	[E] 41	[E] 41
10-Month Average	[E] **1,542**	[E] **1,542**	[E] **160**	[E] **-18**	[E] **24**	[E] **1,696**	[E] **1,696**	[E] **41**	[E] **41**
2000 10-Month Average	**1,599**	**1,599**	**154**	**7**	**28**	**1,718**	**1,718**	**43**	**43**
1999 10-Month Average	**1,563**	**1,563**	**133**	**-2**	**27**	**1,672**	**1,674**	**44**	**44**

[a] Stocks are at end of period.

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

[c] See Note 4 at end of section.

R=Revised. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

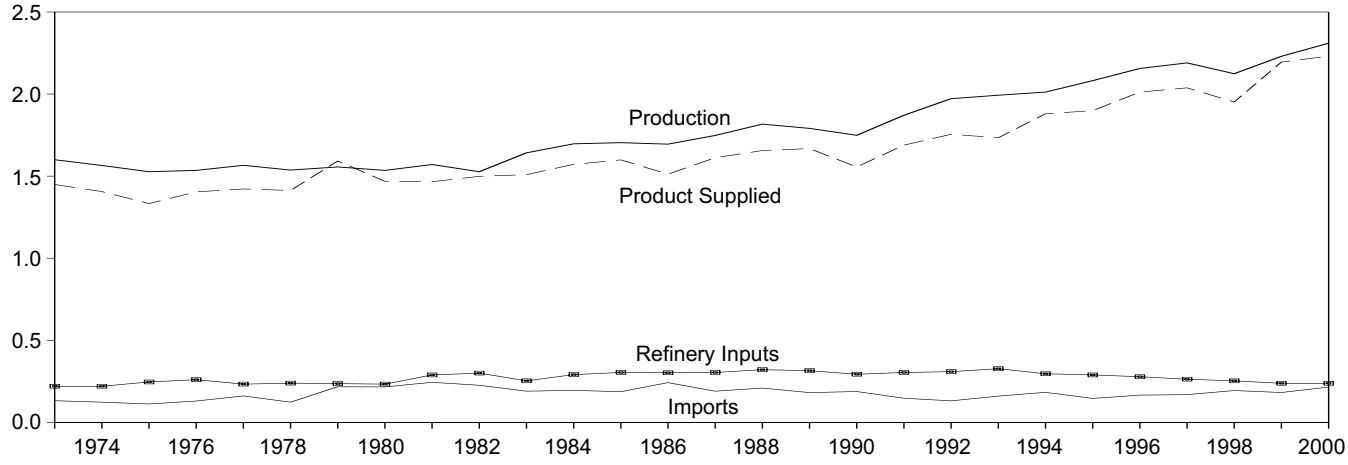
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S7. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S7.

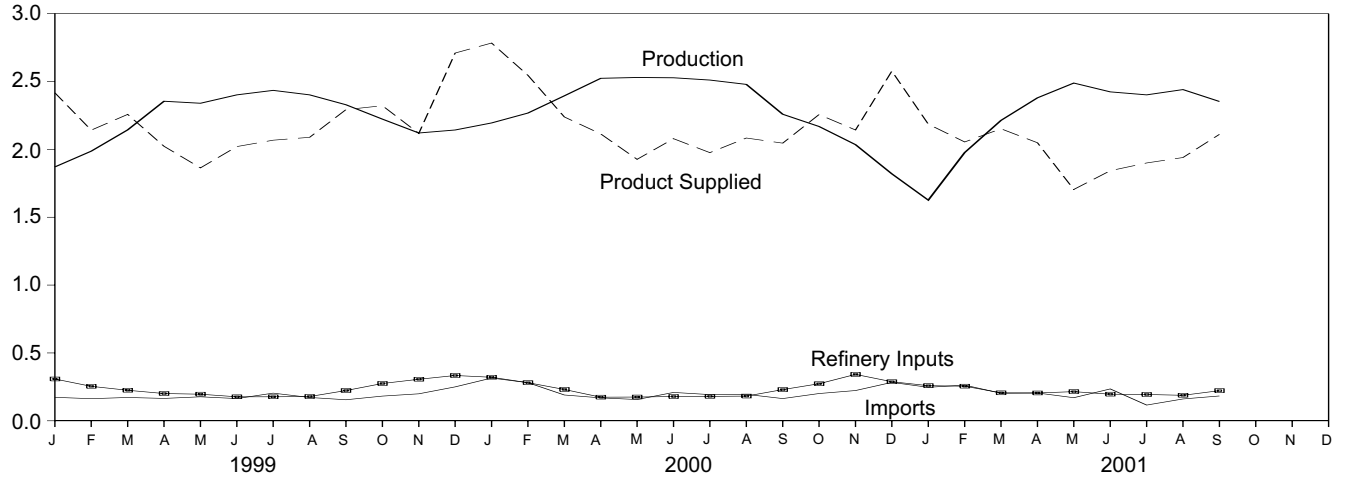
Figure 3.6 Liquefied Petroleum Gases

(Million Barrels per Day, Except as Noted)

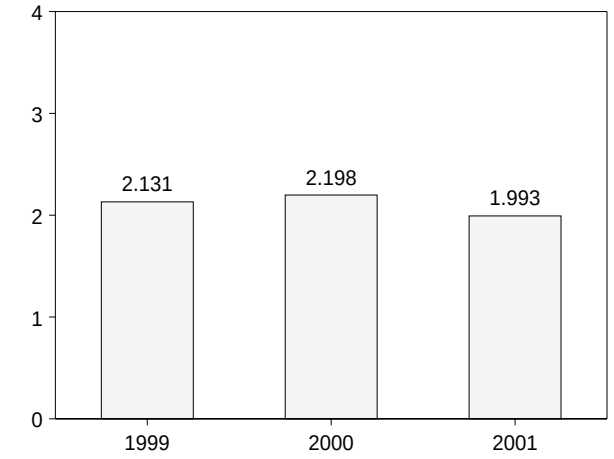
Overview, 1973-2000



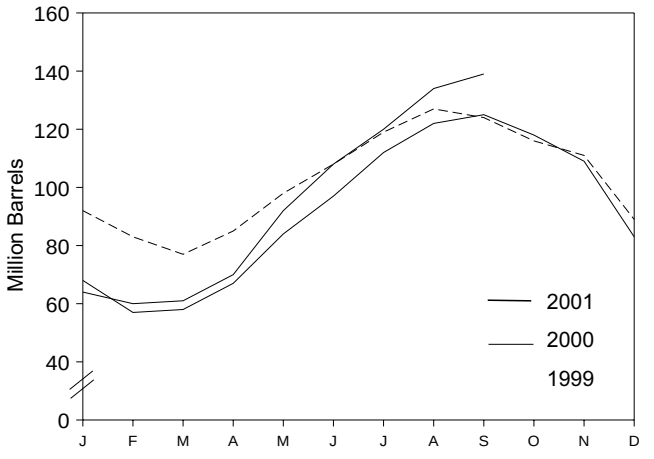
Overview, Monthly



Product Supplied, January-September



Stocks, End of Month



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

Table 3.8 Liquefied Petroleum Gases Supply and Disposition

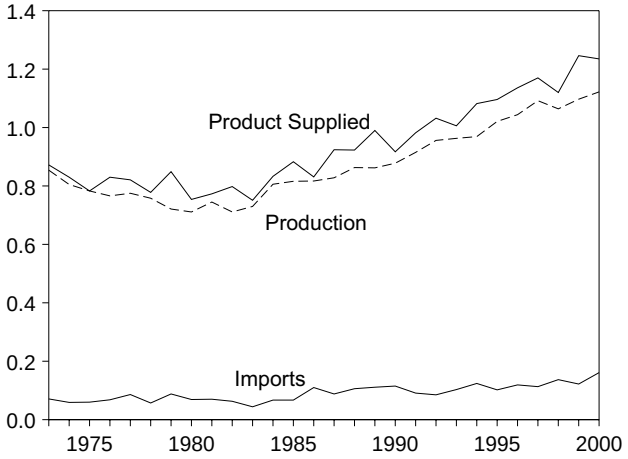
	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Product Supplied	Stocks[b]
	Thousand Barrels per Day						Million Barrels
1973 Average	**1,600**	**132**	**35**	**220**	**27**	**1,449**	**99**
1974 Average	**1,565**	**123**	**38**	**220**	**25**	**1,406**	[c] **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 January	1,871	173	-757	308	75	2,417	92
February	1,987	163	-311	254	64	2,142	83
March	2,144	172	-200	225	32	2,258	77
April	2,355	165	276	201	21	2,023	85
May	2,340	177	424	196	33	1,864	98
June	2,402	164	331	177	37	2,021	108
July	2,435	204	354	177	39	2,068	119
August	2,402	172	259	179	47	2,089	127
September	2,329	155	-89	223	58	2,293	124
October	2,223	182	-273	275	81	2,322	116
November	2,121	199	-151	306	47	2,118	111
December	2,143	250	-712	334	61	2,710	89
Average	**2,230**	**182**	**-71**	**238**	**50**	**2,195**	**89**
2000 January	2,195	315	-696	321	101	2,784	68
February	2,268	281	-359	281	81	2,546	57
March	2,395	190	6	231	109	2,239	58
April	2,524	169	330	174	75	2,114	67
May	2,530	157	548	175	38	1,927	84
June	2,528	209	410	179	69	2,079	97
July	2,511	193	486	180	63	1,976	112
August	2,479	195	333	182	76	2,084	122
September	2,259	164	84	230	62	2,046	125
October	2,169	201	-225	273	65	2,257	118
November	2,035	223	-299	342	72	2,143	109
December	1,820	283	-843	288	81	2,577	83
Average	**2,310**	**215**	**-19**	**238**	**74**	**2,231**	**83**
2001 January	1,626	247	-647	259	75	2,186	64
February	1,977	263	-129	255	59	2,055	60
March	2,214	203	27	206	33	2,152	61
April	2,380	205	296	205	35	2,049	70
May	2,489	170	707	215	31	1,705	92
June	2,424	235	564	196	56	1,843	108
July	2,402	116	373	194	51	1,900	120
August	2,441	161	440	188	34	1,940	134
September	2,353	183	167	222	35	2,111	139
9-Month Average	**2,258**	**197**	**202**	**215**	**45**	**1,993**	**139**
2000 9-Month Average	**2,411**	**208**	**129**	**217**	**75**	**2,198**	**125**
1999 9-Month Average	**2,253**	**172**	**34**	**215**	**45**	**2,131**	**124**

[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are at end of period.
[c] See Note 4 at end of section.
[d] See Note 6 at end of section.
Notes: Liquefied petroleum gases include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane and isobutylene. Geographic coverage is the 50 States and the District of Columbia.
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S8. **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, Table S9.

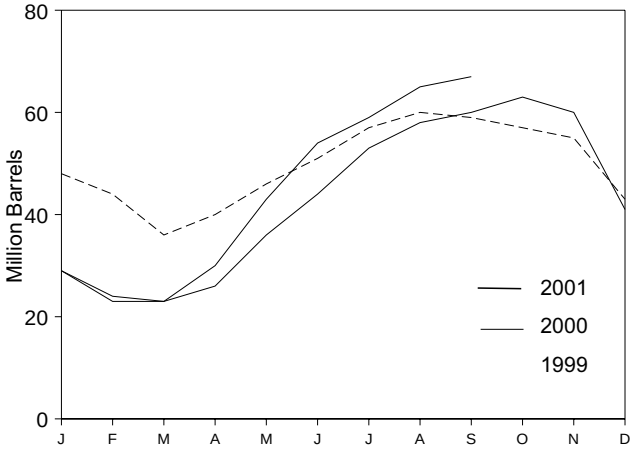
Figure 3.7 Propane and Propylene

(Million Barrels per Day, Except as Noted)

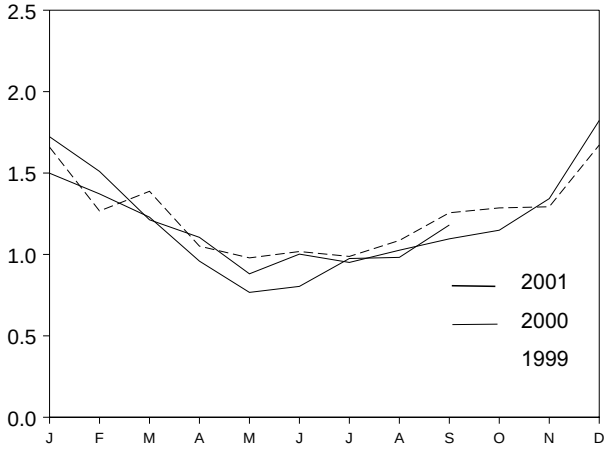
Overview, 1973-2000



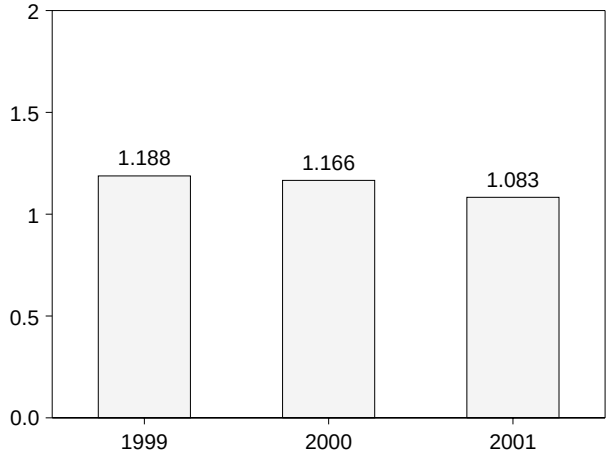
Stocks, End of Month



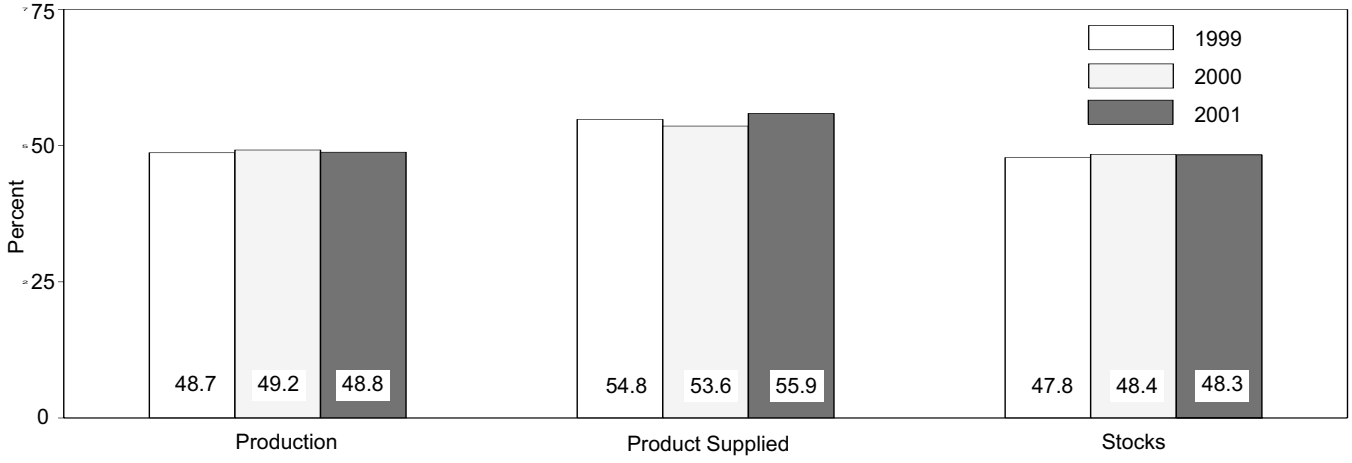
Product Supplied, Monthly



Product Supplied, January-September



Share of Liquefied Petroleum Gases, September



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

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

	Supply		Disposition				
	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 January	1,041	118	-550	0	50	1,659	48
February	1,050	125	-133	0	41	1,267	44
March	1,031	135	-240	0	19	1,388	36
April	1,073	116	126	0	13	1,051	40
May	1,085	98	183	0	20	979	46
June	1,105	92	156	0	23	1,018	51
July	1,107	122	213	0	27	988	57
August	1,112	113	108	0	32	1,086	60
September	1,134	108	-34	0	20	1,256	59
October	1,132	125	-93	0	65	1,286	57
November	1,127	136	-64	0	34	1,293	55
December	1,169	178	-375	0	49	1,672	43
Average	**1,097**	**122**	**-59**	**0**	**33**	**1,246**	**43**
2000 January	1,133	244	-439	0	94	1,723	29
February	1,127	221	-215	0	53	1,510	23
March	1,136	142	-19	0	84	1,213	23
April	1,143	125	101	0	62	1,105	26
May	1,153	102	347	0	27	881	36
June	1,163	132	252	0	40	1,002	44
July	1,133	125	278	0	28	951	53
August	1,123	124	166	0	55	1,026	58
September	1,110	114	87	0	41	1,096	60
October	1,103	167	80	0	41	1,149	63
November	1,112	189	-97	0	55	1,343	60
December	1,031	248	-603	0	58	1,823	41
Average	**1,122**	**161**	**-5**	**0**	**53**	**1,235**	**41**
2001 January	945	213	-403	0	62	1,499	29
February	1,031	222	-160	0	41	1,372	24
March	1,069	151	-31	0	22	1,229	23
April	1,106	105	234	0	18	959	30
May	1,117	80	415	0	15	767	43
June	1,088	103	355	0	32	804	54
July	1,098	89	170	0	42	975	59
August	1,110	95	195	0	27	982	65
September	1,149	115	56	0	27	1,181	67
9-Month Average	**1,079**	**130**	**94**	**0**	**32**	**1,083**	**67**
2000 9-Month Average	**1,136**	**147**	**63**	**0**	**54**	**1,166**	**60**
1999 9-Month Average	**1,082**	**114**	**-19**	**0**	**27**	**1,188**	**59**

[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are at end of period.
[c] See Note 4 at end of section.
(s)=Less than 500 barrels per day.
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973 through 1975:** U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys,* "Petroleum Statement, Annual." **1976 through 1980:** Energy Information Administration (EIA), *Energy Data Reports,* Petroleum Statement, Annual." **1981 forward:** EIA, *Petroleum Supply Monthly,* November 2001, 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**
1997 Average	**3,204**	**945**	**30**	**985**	**402**	**2,733**	**213**
1998 Average	**3,253**	**888**	**18**	**1,002**	**380**	**2,741**	**219**
1999 January	3,097	891	390	759	307	2,532	232
February	3,159	900	276	775	272	2,736	239
March	3,145	815	375	593	302	2,691	251
April	3,108	1,067	-76	1,041	352	2,859	249
May	3,363	1,007	21	1,427	321	2,602	249
June	3,216	1,132	-520	1,387	311	3,170	234
July	3,271	981	-302	1,295	325	2,935	224
August	3,465	1,040	-190	1,083	359	3,253	218
September	3,373	981	-139	1,094	345	3,054	214
October	3,124	929	-192	1,105	327	2,812	208
November	3,120	743	-110	856	396	2,722	205
December	3,083	835	-292	1,300	439	2,470	196
Average	**3,211**	**943**	**-64**	**1,061**	**338**	**2,819**	**196**
2000 January	2,802	977	314	808	319	2,338	206
February	2,945	994	358	710	397	2,473	216
March	3,001	1,019	205	817	387	2,612	222
April	3,146	948	174	1,041	468	2,411	228
May	3,272	1,009	-158	1,117	372	2,949	223
June	3,427	997	-143	1,188	438	2,941	218
July	3,454	828	38	959	446	2,839	220
August	3,341	826	-328	1,095	421	2,979	210
September	3,319	1,032	-159	1,192	415	2,904	205
October	3,202	797	-9	998	484	2,525	204
November	3,135	868	8	1,128	509	2,358	205
December	2,798	971	76	835	490	2,368	207
Average	**3,154**	**938**	**30**	**991**	**429**	**2,642**	**207**
2001 January	2,704	1,079	394	434	483	2,471	220
February	2,982	1,003	566	482	499	2,438	236
March	2,806	1,040	158	770	424	2,495	240
April	2,946	971	16	919	451	2,531	241
May	3,078	1,003	-57	1,024	465	2,650	239
June	3,205	986	-240	1,327	430	2,674	232
July	3,193	814	-342	1,340	393	2,615	221
August	3,162	898	-288	1,100	492	2,757	212
September	3,183	872	263	1,025	334	2,434	220
9-Month Average	**3,028**	**963**	**47**	**939**	**441**	**2,564**	**220**
2000 9-Month Average	**3,190**	**958**	**32**	**992**	**407**	**2,718**	**205**
1999 9-Month Average	**3,245**	**979**	**-19**	**1,052**	**322**	**2,870**	**214**

[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are at end of period.
[c] See Note 4 at end of section.
[d] See Note 6 at end of section.
[e] Beginning in 1993, other petroleum products production, exports, and products supplied include an adjustment to oxygenates and motor gasoline blending components.
(s)=Less than +500 barrels per day and greater than -500 barrels per day.

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

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

Petroleum Notes

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

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

In 1991, the EIA conducted a frame identifier survey of companies that produce, blend, store, or import oxygenates. A summary of the results from the identification survey was published in the *Weekly Petroleum Status Report* dated February 12, 1992, and in the February 1992 issue of the *Petroleum Supply Monthly.* In order to continue to provide relevant information about U.S. and regional gasoline supply, the EIA conducted a second frame identifier survey of those companies during 1992. As a result, numerous respondents were added to the monthly surveys effective in January 1993. See Explanatory Note 7 in the *Petroleum Supply Monthly.*

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

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

3. Distillate and Residual Fuel Oils: The requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils typically exceeded the available supply of unfinished oils. That discrepancy was assumed to be due to the redesignation of distillate and residual fuel oils received as such but used as unfinished oil inputs by the receiving refinery. The imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

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

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

Crude Oil: 1982—645 (Total) and 351 (Other Primary).

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

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

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

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

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

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

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

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

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

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in the "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks now appear in the "Liquefied Petroleum Gases Supply and Disposition" table. This change affects stocks reported and stock change calculations in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been: 108 for liquefied petroleum gases, 55 for propane and propylene, and 210 for other petroleum products.

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

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

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

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

Section 4. Natural Gas

Total dry natural gas production in the United States during October 2001 was forecast as 1.6 trillion cubic feet, 1 percent higher than production during October 2000.

Consumption of natural and supplemental gas in October 2001 was forecast as 1.5 trillion cubic feet, 6 percent lower than the level in October 2000.

Deliveries to residential consumers in October 2001 were forecast as 205 billion cubic feet, 12 percent lower than the previous October's deliveries. Total deliveries to industrial consumers during October 2001 were forecast as 799 billion cubic feet, 1 percent lower than the previous October's level.

Net imports of natural gas in October 2001 were forecast as 293 billion cubic feet, 3 percent lower than net imports in the previous October.

Stocks of working gas[1] in underground natural gas storage reservoirs at the end of October 2001 were forecast as 3.1 trillion cubic feet, 16 percent higher than the level of stocks available 1 year earlier.

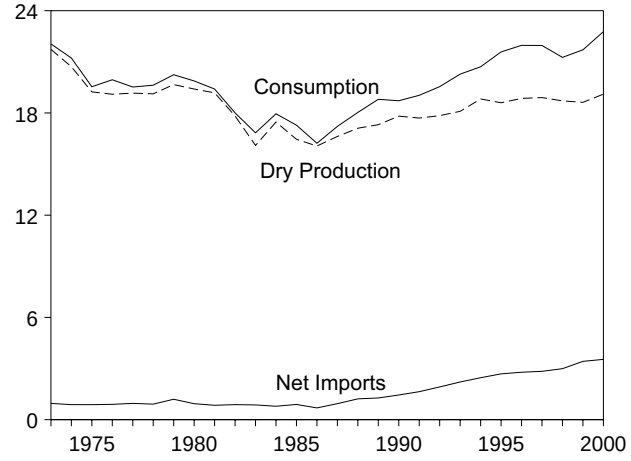
Net injections into underground storage during October 2001 were forecast as 154 billion cubic feet, 32 percent lower than the amount of net injections during October 2000.

[1]Gas available for withdrawal.

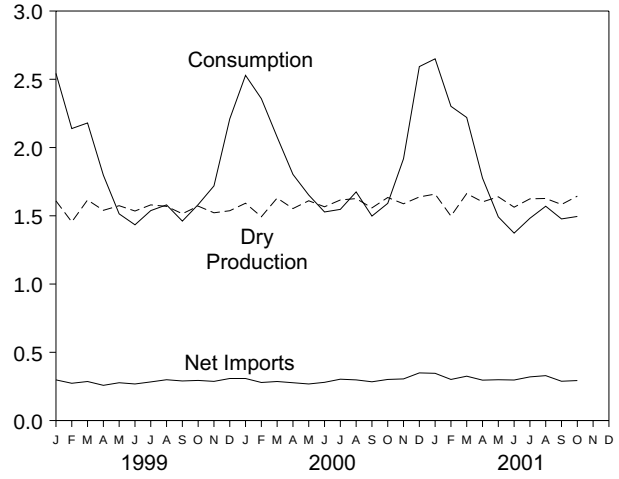
Figure 4.1 Natural Gas

(Trillion Cubic Feet)

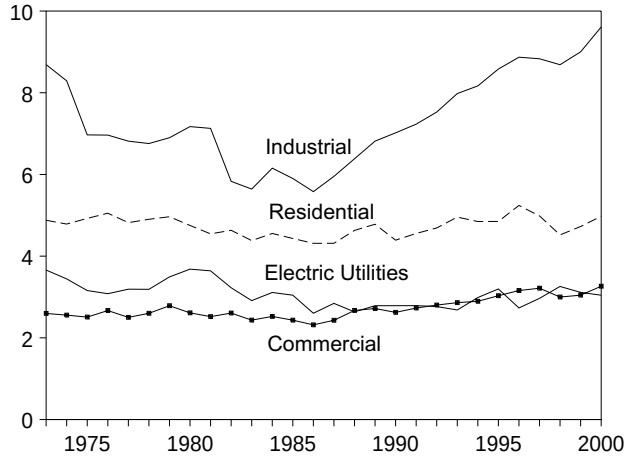
Overview, 1973-2000



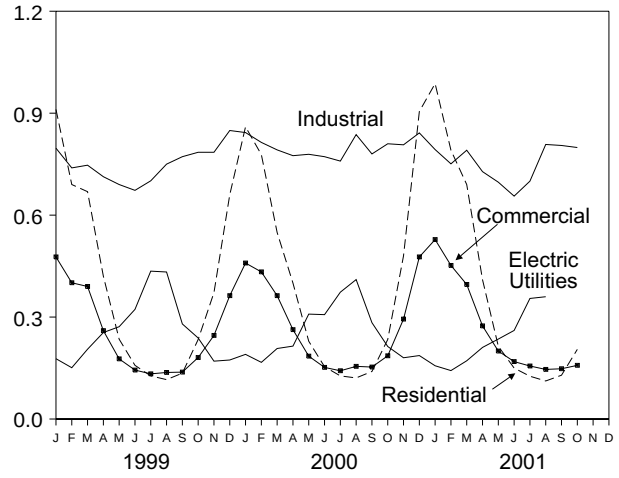
Overview, Monthly



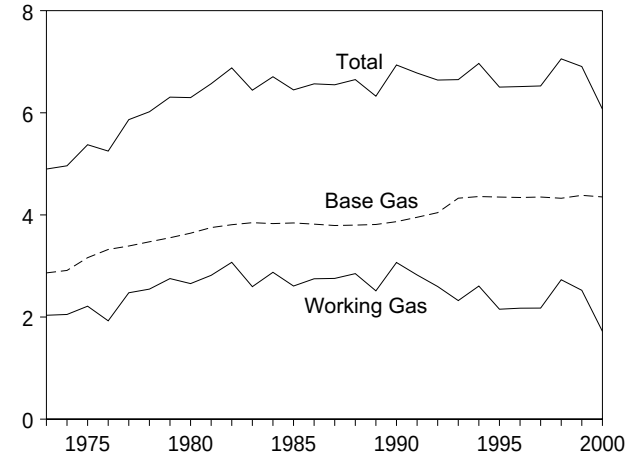
Consumption by Sector, 1973-2000



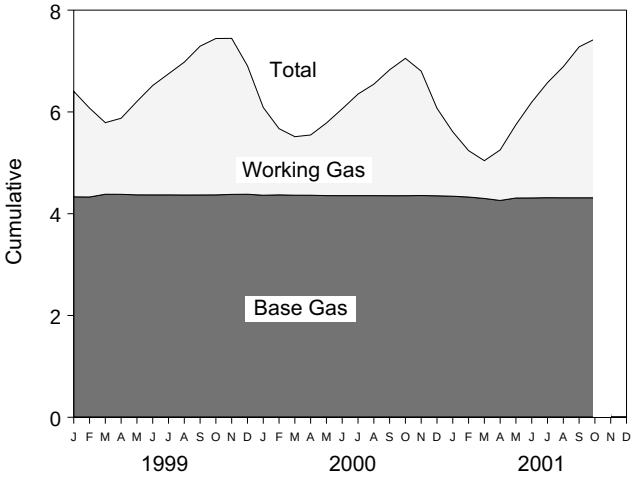
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2000



Underground Storage, End of Month



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

Table 4.1 Natural Gas Overview

(Billion Cubic Feet)

	Dry Gas Production[a]	Supplemental Gaseous Fuels[b]	Net Imports[c]	Net Withdrawals From Storage[d]	Balancing Item[e]	Consumption[f,g]
1973 Total	[h]**21,731**	**NA**	**956**	**-442**	**-196**	**22,049**
1974 Total	[h]**20,713**	**NA**	**882**	**-84**	**-289**	**21,223**
1975 Total	[h]**19,236**	**NA**	**880**	**-344**	**-235**	**19,538**
1976 Total	[h]**19,098**	**NA**	**899**	**165**	**-216**	**19,946**
1977 Total	[h]**19,163**	**NA**	**955**	**-557**	**-41**	**19,521**
1978 Total	[h]**19,122**	**NA**	**913**	**-120**	**-287**	**19,627**
1979 Total	[h]**19,663**	**NA**	**1,198**	**-248**	**-372**	**20,241**
1980 Total	**19,403**	**155**	**936**	**23**	**-640**	**19,877**
1981 Total	**19,181**	**176**	**845**	**-297**	**-500**	**19,404**
1982 Total	**17,820**	**145**	**882**	**-308**	[h]**-537**	**18,001**
1983 Total	**16,094**	**132**	**864**	**447**	[h]**-703**	**16,835**
1984 Total	**17,466**	**110**	**788**	**-197**	**-217**	**17,951**
1985 Total	**16,454**	**126**	**894**	**235**	**-428**	**17,281**
1986 Total	**16,059**	**113**	**689**	**-147**	**-493**	**16,221**
1987 Total	**16,621**	**101**	**939**	**-6**	**-444**	**17,211**
1988 Total	**17,103**	**101**	**1,220**	**59**	**-453**	**18,030**
1989 Total	**17,311**	**107**	**1,275**	**326**	**-218**	**18,801**
1990 Total	**17,810**	**123**	**1,447**	**-513**	**-150**	**18,716**
1991 Total	**17,698**	**113**	**1,644**	**80**	**-500**	**19,035**
1992 Total	**17,840**	**118**	**1,921**	**173**	**-508**	**19,544**
1993 Total	**18,095**	**119**	**2,210**	**-36**	**-110**	**20,279**
1994 Total	**18,821**	**111**	**2,462**	**-286**	**-400**	**20,708**
1995 Total	**18,599**	**110**	**2,687**	**415**	**-230**	**21,581**
1996 Total	**18,854**	**109**	**2,784**	**2**	**217**	**21,966**
1997 Total	**18,902**	**103**	**2,837**	**24**	**92**	**21,959**
1998 Total	**18,708**	**102**	**2,993**	**-530**	**-11**	**21,262**
1999 January	1,609	10	298	659	-33	2,543
February	1,455	8	273	339	63	2,139
March	1,616	9	286	314	-45	2,180
April	1,540	8	258	-96	87	1,797
May	1,574	8	277	-358	13	1,514
June	1,535	6	268	-327	-48	1,434
July	1,580	8	283	-231	-102	1,538
August	1,569	8	299	-236	-60	1,580
September	1,515	7	290	-335	-15	1,461
October	1,571	8	294	-165	-125	1,582
November	1,522	8	287	34	-132	1,719
December	1,537	10	308	573	-218	2,210
Total	**18,623**	**98**	**3,422**	**171**	**-612**	**21,703**
2000 January	[E]1,592	[E]10	308	780	-161	2,529
February	[E]1,493	[E]9	279	454	124	2,358
March	[E]1,630	[E]8	286	162	-9	2,077
April	[E]1,553	[E]7	277	-36	2	1,803
May	[E]1,610	[E]7	268	-232	[R]-1	[R]1,652
June	[E]1,566	[E]6	280	-272	-52	1,528
July	[E]1,616	[E]8	303	-290	-89	1,547
August	[E]1,626	[E]8	298	-193	-64	1,675
September	[E]1,558	[E]7	284	-282	-70	1,498
October	[E]1,634	[E]8	301	-227	-125	1,591
November	[E]1,588	[E]9	305	293	-276	1,918
December	[E]1,638	[E]10	349	690	[R]-93	[R]2,593
Total	[E]**19,103**	[E]**98**	**3,538**	**845**	[R]**-815**	[R]**22,768**
2001 January	[RE]1,659	[E]10	[R]346	467	[R]170	2,650
February	[E]1,498	[E]8	301	338	[R]157	[R]2,302
March	[RE]1,663	[E]9	[R]325	181	[R]43	[R]2,220
April	[RE]1,602	[E]7	[R]296	-276	[R]147	[R]1,776
May	[RE]1,639	[E]6	[R]299	-448	[R]-5	[R]1,492
June	[RE]1,563	[E]6	[R]297	-422	[R]-70	[R]1,373
July	[E]1,624	[E]8	[RE]320	-376	[R]-94	[R]1,482
August	[E]1,627	[RE]7	[RE]329	[R]-305	[RE]-87	[RF]1,570
September	[F]1,583	[F]8	[RF]288	[F]-390	[RF]-12	[RF]1,477
October	[F]1,644	[F]9	[F]293	[F]-154	[F]-297	[F]1,495
10-Month Total	[E]**16,100**	[E]**77**	[E]**3,094**	[E]**-1,387**	[E]**-48**	[E]**17,837**
2000 10-Month Total	[E]**15,878**	[E]**79**	**2,884**	**-137**	**-446**	**18,257**
1999 10-Month Total	**15,564**	**80**	**2,828**	**-436**	**-267**	**17,768**

[a] "Marketed Production (Wet)" minus "Extraction Loss." See Table 4.2.
[b] See Note 4 at end of section.
[c] "Imports" minus "Exports." See Table 4.3.
[d] "Withdrawals" minus "Injections." Data for 1980-1999 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See also Note 8 at end of section.
[e] See Note 7 at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).
[f] See Note 6 at end of section.
[g] For 1990-1999, annual values include natural gas used by vehicles, whereas monthly values do not. See Table 4.4.
[h] May include unknown quantities of nonhydrocarbon gases.
R=Revised. NA=Not available. E=Estimate. F=Forecast.

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

Sources: **1973-1994:** Energy Information Administration (EIA), *Natural Gas Annual 1999,* Table 93. **1995 forward:** EIA, *Natural Gas Monthly,* October 2001, Table 2, except for Balancing Item and Consumption, which incorporate the most current electric utilities data from Table 4.4 of this report.

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

Table 4.2 Natural Gas Production

(Billion Cubic Feet)

	Gross Withdrawals[a]	Repressuring[b]	Nonhydrocarbon Gases Removed[c]	Vented and Flared[d]	Marketed Production[e]	Extraction Loss[f]	Dry Gas Production[g]
1973 Total	**24,067**	**1,171**	**NA**	**248**	**[h] 22,648**	**917**	**[h] 21,731**
1974 Total	**22,850**	**1,080**	**NA**	**169**	**[h] 21,601**	**887**	**[h] 20,713**
1975 Total	**21,104**	**861**	**NA**	**134**	**[h] 20,109**	**872**	**[h] 19,236**
1976 Total	**20,944**	**859**	**NA**	**132**	**[h] 19,952**	**854**	**[h] 19,098**
1977 Total	**21,097**	**935**	**NA**	**137**	**[h] 20,025**	**863**	**[h] 19,163**
1978 Total	**21,309**	**1,181**	**NA**	**153**	**[h] 19,974**	**852**	**[h] 19,122**
1979 Total	**21,883**	**1,245**	**NA**	**167**	**[h] 20,471**	**808**	**[h] 19,663**
1980 Total	**21,870**	**1,365**	**199**	**125**	**20,180**	**777**	**19,403**
1981 Total	**21,587**	**1,312**	**222**	**98**	**19,956**	**775**	**19,181**
1982 Total	**20,272**	**1,388**	**208**	**93**	**18,582**	**762**	**17,820**
1983 Total	**18,659**	**1,458**	**222**	**95**	**16,884**	**790**	**16,094**
1984 Total	**20,267**	**1,630**	**224**	**108**	**18,304**	**838**	**17,466**
1985 Total	**19,607**	**1,915**	**326**	**95**	**17,270**	**816**	**16,454**
1986 Total	**19,131**	**1,838**	**337**	**98**	**16,859**	**800**	**16,059**
1987 Total	**20,140**	**2,208**	**376**	**124**	**17,433**	**812**	**16,621**
1988 Total	**20,999**	**2,478**	**460**	**143**	**17,918**	**816**	**17,103**
1989 Total	**21,074**	**2,475**	**362**	**142**	**18,095**	**785**	**17,311**
1990 Total	**21,523**	**2,489**	**289**	**150**	**18,594**	**784**	**17,810**
1991 Total	**21,750**	**2,772**	**276**	**170**	**18,532**	**835**	**17,698**
1992 Total	**22,132**	**2,973**	**280**	**168**	**18,712**	**872**	**17,840**
1993 Total	**22,726**	**3,103**	**414**	**227**	**18,982**	**886**	**18,095**
1994 Total	**23,581**	**3,231**	**412**	**228**	**19,710**	**889**	**18,821**
1995 Total	**23,744**	**3,565**	**388**	**284**	**19,506**	**908**	**18,599**
1996 Total	**24,114**	**3,511**	**518**	**272**	**19,812**	**958**	**18,854**
1997 Total	**24,213**	**3,492**	**599**	**256**	**19,866**	**964**	**18,902**
1998 Total	**23,924**	**3,433**	**611**	**234**	**19,646**	**938**	**18,708**
1999 January	2,064	296	54	21	1,693	84	1,609
February	1,878	280	49	19	1,531	76	1,455
March	2,070	298	51	20	1,701	84	1,616
April	1,964	274	50	20	1,620	80	1,540
May	1,984	255	53	20	1,657	82	1,574
June	1,945	262	48	20	1,615	80	1,535
July	1,988	253	52	21	1,663	83	1,580
August	1,984	263	50	21	1,651	82	1,569
September	1,931	265	50	23	1,594	79	1,515
October	2,012	286	53	21	1,653	82	1,571
November	1,953	282	49	20	1,601	79	1,522
December	1,982	293	52	20	1,618	80	1,537
Total	**23,755**	**3,305**	**610**	**245**	**19,596**	**973**	**18,623**
2000 January	[E] 2,065	[E] 313	[E] 54	[E] 23	[E] 1,675	[E] 83	[E] 1,592
February	[E] 1,935	[E] 298	[E] 45	[E] 21	[E] 1,571	[E] 78	[E] 1,493
March	[E] 2,083	[E] 301	[E] 45	[E] 23	[E] 1,715	[E] 85	[E] 1,630
April	[E] 2,007	[E] 305	[E] 46	[E] 22	[E] 1,634	[E] 81	[E] 1,553
May	[E] 2,066	[E] 304	[E] 46	[E] 22	[E] 1,694	[E] 84	[E] 1,610
June	[E] 1,989	[E] 274	[E] 45	[E] 22	[E] 1,648	[E] 82	[E] 1,566
July	[E] 2,044	[E] 275	[E] 46	[E] 22	[E] 1,701	[E] 85	[E] 1,616
August	[E] 2,058	[E] 277	[E] 46	[E] 23	[E] 1,711	[E] 85	[E] 1,626
September	[E] 1,977	[E] 270	[E] 45	[E] 22	[E] 1,640	[E] 82	[E] 1,558
October	[E] 2,097	[E] 308	[E] 47	[E] 23	[E] 1,719	[E] 85	[E] 1,634
November	[E] 2,045	[E] 304	[E] 48	[E] 23	[E] 1,671	[E] 83	[E] 1,588
December	[E] 2,113	[E] 316	[E] 50	[E] 24	[E] 1,723	[E] 86	[E] 1,638
Total	**[E] 24,479**	**[E] 3,543**	**[E] 564**	**[E] 270**	**[E] 20,102**	**[E] 999**	**[E] 19,103**
2001 January	[RE] 2,130	[RE] 316	[RE] 44	[RE] 25	[RE] 1,746	[RE] 87	[RE] 1,659
February	[E] 1,926	[E] 288	[E] 41	[E] 22	[E] 1,576	[E] 78	[E] 1,498
March	[RE] 2,154	[E] 334	[RE] 44	[RE] 25	[RE] 1,750	[RE] 87	[RE] 1,663
April	[RE] 2,057	[RE] 305	[RE] 42	[RE] 24	[RE] 1,686	[RE] 84	[RE] 1,602
May	[RE] 2,087	[RE] 299	[RE] 41	[E] 23	[RE] 1,724	[E] 86	[RE] 1,639
June	[RE] 1,990	[RE] 282	[RE] 42	[E] 22	[RE] 1,644	[RE] 82	[RE] 1,563
July	[RE] 2,074	[RE] 300	[RE] 42	[E] 23	[E] 1,709	[E] 85	[E] 1,624
August	[E] 2,074	[E] 297	[E] 42	[E] 23	[E] 1,712	[E] 85	[E] 1,627
September	NA	NA	NA	NA	[F] 1,665	[F] 82	[F] 1,583
October	NA	NA	NA	NA	[F] 1,729	[F] 85	[F] 1,644
10-Month Total	**NA**	**NA**	**NA**	**NA**	**[E] 16,941**	**[E] 841**	**[E] 16,100**
2000 10-Month Total	**[E] 20,321**	**[E] 2,923**	**[E] 467**	**[E] 223**	**[E] 16,708**	**[E] 830**	**[E] 15,878**
1999 10-Month Total	**19,821**	**2,730**	**509**	**205**	**16,377**	**813**	**15,564**

[a] Gas withdrawn from gas and oil wells.
[b] The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.
[c] See Note 1 at end of section.
[d] Vented: Natural gas released into the air on the base site or at processing plants. Flared: Natural gas burned in flares on the base site or at gas processing plants.
[e] "Gross Withdrawals" minus "Repressuring," "Nonhydrocarbon Gases Removed," and "Vented and Flared." See Note 2 at end of section.
[f] See Note 3 at end of section.
[g] "Marketed Production (Wet)" minus "Extraction Loss."
[h] May include unknown quantities of nonhydrocarbon gases.
R=Revised. NA=Not available. E=Estimate. F=Forecast.

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

Sources: **1973-1994:** Energy Information Administration (EIA), *Natural Gas Annual 1999,* Table 92. **1995 forward:** EIA, *Natural Gas Monthly,* October 2001, Table 1. **Forecast values:** Derived from EIA's Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.3 Natural Gas Trade by Country

(Billion Cubic Feet)

	Imports								Exports			
	Algeria[a]	Australia[a]	Canada[b]	Mexico[b]	Qatar[a]	Trinidad and Tobago[a]	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 January	13	0	293	5	0	0	0	311	2	6	5	12
February	8	3	269	4	3	0	0	286	3	6	5	13
March	13	0	288	1	0	0	0	302	4	6	6	16
April	8	0	257	4	2	0	0	271	2	6	5	13
May	4	0	275	7	0	5	0	291	2	6	6	14
June	3	2	260	5	2	7	0	279	2	4	5	11
July	5	0	278	4	2	7	0	296	2	6	6	13
August	3	2	289	6	0	10	3	312	2	6	5	13
September	8	0	281	5	5	4	0	302	2	6	5	13
October	5	2	287	4	0	6	0	305	2	4	4	10
November	2	0	285	6	2	7	3	305	8	6	5	19
December	5	2	306	3	2	5	0	324	6	6	4	16
Total	**76**	**12**	**3,368**	**55**	**20**	**51**	**5**	**3,586**	**39**	**64**	**61**	**163**
2000 January	5	0	310	3	0	8	0	326	6	6	6	18
February	5	0	289	1	0	5	0	300	9	6	6	21
March	4	0	291	(s)	2	8	0	307	9	4	8	21
April	3	2	274	1	7	7	0	294	3	6	8	17
May	2	0	275	0	0	11	0	288	4	6	10	20
June	3	0	279	0	2	7	5	296	4	4	9	16
July	3	2	293	(s)	5	14	5	322	4	6	10	20
August	2	0	295	(s)	7	8	5	318	4	6	11	21
September	3	1	283	(s)	8	5	5	305	5	6	10	21
October	8	0	296	1	7	7	5	325	5	8	10	23
November	3	(s)	309	1	7	7	2	330	10	6	9	25
December	8	0	349	4	0	10	0	371	10	6	7	23
Total	**47**	**6**	**3,544**	**12**	**46**	**99**	**28**	**3,782**	**73**	**66**	**106**	**244**
2001 January	5	0	R 352	2	0	9	2	R 371	12	6	8	R 26
February	8	0	R 306	1	0	7	8	R 329	16	4	8	R 28
March	8	0	R 334	1	2	9	3	R 358	20	6	7	32
April	5	0	R 295	R 2	2	8	R 7	R 319	R 12	6	R 5	R 23
May	8	0	R 301	R 0	5	10	R 5	R 328	R 13	6	R 10	R 29
June	R 3	0	R 296	R 0	3	10	R 9	R 321	R 10	4	R 11	R 25
July	8	2	R 323	1	2	7	2	RE 346	R 14	6	E 7	RE 26
August	5	0	E 329	E 1	3	8	7	E 352	E 11	6	E 7	E 24
8-Month Total	**48**	**2**	**E 2,537**	**E 10**	**18**	**67**	**43**	**E 2,725**	**E 108**	**41**	**E 64**	**E 212**
2000 8-Month Total	**26**	**5**	**2,307**	**5**	**24**	**69**	**15**	**2,451**	**43**	**41**	**69**	**153**
1999 8-Month Total	**56**	**7**	**2,209**	**36**	**10**	**29**	**3**	**2,349**	**20**	**43**	**43**	**106**

[a] As liquefied natural gas.

[b] By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981 and exported to Mexico beginning in 1998. See Note 5 at end of section.

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

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

Notes: See Note 5 at end of section. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1993:** Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." **1994 forward:** EIA, *Natural Gas Monthly,* October 2001, Tables 5 and 6.

Table 4.4 Natural Gas Consumption by Sector

(Billion Cubic Feet)

	Lease and Plant Fuel	Pipeline Fuel[a]	Delivered to Consumers						Total Consumption[c]
			Residential	Commercial	Industrial[b]	Vehicles	Electric Utilities	Total	
1973 Total	**1,496**	**728**	**4,879**	**2,597**	**8,689**	**NA**	**3,660**	**19,825**	**22,049**
1974 Total	**1,477**	**669**	**4,786**	**2,556**	**8,292**	**NA**	**3,443**	**19,077**	**21,223**
1975 Total	**1,396**	**583**	**4,924**	**2,508**	**6,968**	**NA**	**3,158**	**17,558**	**19,538**
1976 Total	**1,634**	**548**	**5,051**	**2,668**	**6,964**	**NA**	**3,081**	**17,764**	**19,946**
1977 Total	**1,659**	**533**	**4,821**	**2,501**	**6,815**	**NA**	**3,191**	**17,329**	**19,521**
1978 Total	**1,648**	**530**	**4,903**	**2,601**	**6,757**	**NA**	**3,188**	**17,449**	**19,627**
1979 Total	**1,499**	**601**	**4,965**	**2,786**	**6,899**	**NA**	**3,491**	**18,141**	**20,241**
1980 Total	**1,026**	**635**	**4,752**	**2,611**	**7,172**	**NA**	**3,682**	**18,216**	**19,877**
1981 Total	**928**	**642**	**4,546**	**2,520**	**7,128**	**NA**	**3,640**	**17,834**	**19,404**
1982 Total	**1,109**	**596**	**4,633**	**2,606**	**5,831**	**NA**	**3,226**	**16,295**	**18,001**
1983 Total	**978**	**490**	**4,381**	**2,433**	**5,643**	**NA**	**2,911**	**15,367**	**16,835**
1984 Total	**1,077**	**529**	**4,555**	**2,524**	**6,154**	**NA**	**3,111**	**16,345**	**17,951**
1985 Total	**966**	**504**	**4,433**	**2,432**	**5,901**	**NA**	**3,044**	**15,811**	**17,281**
1986 Total	**923**	**485**	**4,314**	**2,318**	**5,579**	**NA**	**2,602**	**14,814**	**16,221**
1987 Total	**1,149**	**519**	**4,315**	**2,430**	**5,953**	**NA**	**2,844**	**15,542**	**17,211**
1988 Total	**1,096**	**614**	**4,630**	**2,670**	**6,383**	**NA**	**2,636**	**16,320**	**18,030**
1989 Total	**1,070**	**629**	**4,781**	**2,718**	**6,816**	**NA**	**2,787**	**17,102**	**18,801**
1990 Total	**1,236**	**660**	**4,391**	**2,623**	**7,018**	**(s)**	**2,787**	**16,820**	**18,716**
1991 Total	**1,129**	**601**	**4,556**	**2,729**	**7,231**	**(s)**	**2,789**	**17,305**	**19,035**
1992 Total	**1,171**	**588**	**4,690**	**2,803**	**7,527**	**1**	**2,766**	**17,786**	**19,544**
1993 Total	**1,172**	**624**	**4,956**	**2,862**	**7,981**	**1**	**2,682**	**18,483**	**20,279**
1994 Total	**1,124**	**685**	**4,848**	**2,895**	**8,167**	**2**	**2,987**	**18,899**	**20,708**
1995 Total	**1,220**	**700**	**4,850**	**3,031**	**8,580**	**3**	**3,197**	**19,660**	**21,581**
1996 Total	**1,250**	**711**	**5,241**	**3,158**	**8,870**	**3**	**2,732**	**20,005**	**21,966**
1997 Total	**1,203**	**751**	**4,984**	**3,215**	**8,832**	**4**	**2,968**	**20,004**	**21,959**
1998 Total	**1,157**	**635**	**4,520**	**2,999**	**8,686**	**5**	**3,258**	**19,469**	**21,262**
1999 January	93	87	911	477	797	NA	178	2,362	2,543
February	85	73	690	401	739	NA	151	1,981	2,139
March	94	74	669	390	747	NA	205	2,012	2,180
April	89	61	420	260	713	NA	255	1,647	1,797
May	90	51	235	177	690	NA	272	1,373	1,514
June	88	48	158	144	673	NA	323	1,298	1,434
July	91	52	127	133	701	NA	435	1,395	1,538
August	90	53	116	137	750	NA	433	1,437	1,580
September	88	49	135	138	772	NA	280	1,325	1,461
October	91	53	234	181	785	NA	239	1,438	1,582
November	88	58	372	246	785	NA	170	1,572	1,719
December	90	76	660	363	849	NA	174	2,045	2,210
Total	**1,077**	**735**	**4,726**	**3,045**	**9,001**	**6**	**3,113**	**19,890**	**21,703**
2000 January	E 92	86	860	459	843	NA	190	2,352	2,529
February	E 86	80	778	433	814	NA	167	2,192	2,358
March	E 94	70	549	363	792	NA	208	1,912	2,077
April	E 90	61	400	263	775	NA	215	1,652	1,803
May	E 93	56	229	185	779	NA	309	R 1,503	R 1,652
June	E 91	52	154	152	772	NA	307	1,385	1,528
July	E 94	52	127	142	759	NA	373	1,401	1,547
August	E 94	57	121	155	837	NA	410	1,524	1,675
September	E 90	51	140	153	780	NA	284	1,357	1,498
October	E 95	54	234	186	810	NA	213	1,442	1,591
November	E 92	65	480	294	807	NA	180	1,761	1,918
December	E 95	88	905	R 477	842	NA	187	R 2,411	R 2,593
Total	**E 1,106**	**771**	**4,976**	**R 3,263**	**9,610**	**NA**	**3,043**	**R 20,892**	**R 22,768**
2001 January	E 96	90	987	528	793	NA	157	2,465	2,650
February	E 87	78	R 791	R 452	751	NA	143	R 2,137	R 2,302
March	E 96	75	690	R 396	791	NA	171	R 2,049	R 2,220
April	RE 93	60	410	274	R 728	NA	211	R 1,623	R 1,776
May	RE 95	51	214	200	697	NA	235	R 1,346	R 1,492
June	RE 90	R 46	150	169	R 656	NA	261	R 1,236	R 1,373
July	E 94	R 50	R 126	R 156	R 700	NA	355	R 1,338	R 1,482
August	RF 93	RF 51	RF 112	RF 146	RF 808	NA	R 360	RF 1,426	RF 1,570
September	RF 90	RF 48	RF 129	RF 148	RF 805	NA	NA	RF 1,339	RF 1,477
October	F 95	F 52	F 205	F 158	F 799	NA	NA	F 1,348	F 1,495
10-Month Total	**E 929**	**E 601**	**E 3,816**	**E 2,627**	**E 7,528**	**NA**	**NA**	**E 16,306**	**E 17,837**
2000 10-Month Total	**919**	**618**	**3,591**	**2,492**	**7,961**	**NA**	**2,676**	**16,720**	**18,257**
1999 10-Month Total	**899**	**601**	**3,694**	**2,436**	**7,368**	**NA**	**2,769**	**16,268**	**17,768**

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

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

[c] For 1990-1999, annual values include natural gas used by vehicles, whereas monthly values do not.

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

Notes: Natural gas includes supplemental gaseous fuels. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: **1973-1994:** Energy Information Administration (EIA), *Natural Gas Annual 1999,* Table 94. **1995 forward:** EIA, *Natural Gas Monthly,* October 2001, Table 3, except for the electric utilities values, which come from Table 7.7 of this report, and the totals in this table, which incorporate the electric utilities data. **Forecast values:** Derived from EIA's Short-Term Integrated Forecasting System.

Table 4.5 Natural Gas in Underground Storage

(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period			Change in Working Gas From Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[a]	Volume	Percent	Withdrawals	Injections	Net[b,c]
1973 Total	**2,864**	**2,034**	**4,898**	**305**	**17.6**	**1,533**	**1,974**	**-442**
1974 Total	**2,912**	**2,050**	**4,962**	**16**	**.8**	**1,701**	**1,784**	**-84**
1975 Total	**3,162**	**2,212**	**5,374**	**162**	**7.9**	**1,760**	**2,104**	**-344**
1976 Total	**3,323**	**1,926**	**5,250**	**-286**	**-12.9**	**1,921**	**1,756**	**165**
1977 Total	**3,391**	**2,475**	**5,866**	**549**	**28.5**	**1,750**	**2,307**	**-557**
1978 Total	**3,473**	**2,547**	**6,020**	**72**	**2.9**	**2,158**	**2,278**	**-120**
1979 Total	**3,553**	**2,753**	**6,306**	**207**	**8.1**	**2,047**	**2,295**	**-248**
1980 Total	**3,642**	**2,655**	**6,297**	**-99**	**-3.6**	**1,910**	**1,896**	**14**
1981 Total	**3,752**	**2,817**	**6,569**	**162**	**6.1**	**1,887**	**2,180**	**-293**
1982 Total	**3,808**	**3,071**	**6,879**	**255**	**9.0**	**2,094**	**2,399**	**-306**
1983 Total	**3,847**	**2,595**	**6,442**	**-476**	**-15.5**	**2,142**	**1,700**	**442**
1984 Total	**3,830**	**2,876**	**6,706**	**281**	**10.8**	**2,064**	**2,252**	**-188**
1985 Total	**3,842**	**2,607**	**6,448**	**-270**	**-9.4**	**2,359**	**2,128**	**231**
1986 Total	**3,819**	**2,749**	**6,567**	**142**	**5.5**	**1,812**	**1,952**	**-140**
1987 Total	**3,792**	**2,756**	**6,548**	**7**	**.3**	**1,881**	**1,887**	**-6**
1988 Total	**3,800**	**2,850**	**6,650**	**94**	**3.4**	**2,244**	**2,174**	**69**
1989 Total	**3,812**	**2,513**	**6,325**	**-337**	**-11.8**	**2,804**	**2,491**	**313**
1990 Total	**3,868**	**3,068**	**6,936**	**555**	**22.1**	**1,934**	**2,433**	**-499**
1991 Total	**3,954**	**2,824**	**6,778**	**-244**	**-8.0**	**2,689**	**2,608**	**80**
1992 Total	**4,044**	**2,597**	**6,641**	**-227**	**-8.0**	**2,724**	**2,555**	**168**
1993 Total	**4,327**	**2,322**	**6,649**	**-275**	**-10.6**	**2,717**	**2,760**	**-43**
1994 Total	**4,360**	**2,606**	**6,966**	**284**	**12.2**	**2,508**	**2,796**	**-288**
1995 Total	**4,349**	**2,153**	**6,503**	**-453**	**-17.4**	**2,974**	**2,566**	**408**
1996 Total	**4,341**	**2,173**	**6,513**	**19**	**.9**	**2,911**	**2,906**	**6**
1997 Total	**4,350**	**2,175**	**6,525**	**2**	**.1**	**2,824**	**2,800**	**24**
1998 Total	**4,326**	**2,730**	**7,056**	**554**	**25.5**	**2,379**	**2,905**	**-526**
1999 January	4,332	2,073	6,404	361	21.1	682	58	624
February	4,329	1,746	6,075	319	22.4	385	63	321
March	4,383	1,406	5,789	223	18.9	384	87	297
April	4,381	1,495	5,876	109	7.9	120	210	-90
May	4,371	1,835	6,206	61	3.4	45	381	-337
June	4,370	2,149	6,519	36	1.7	42	349	-307
July	4,370	2,379	6,749	-41	-2.0	81	298	-217
August	4,368	2,610	6,978	-88	-3.3	90	311	-221
September	4,369	2,923	7,292	-5	-.2	43	358	-315
October	4,370	3,073	7,443	-118	-3.7	92	247	-155
November	4,380	3,065	7,445	-90	-2.8	205	173	32
December	4,383	2,523	6,906	-207	-7.6	606	63	543
Total	**4,383**	**2,523**	**6,906**	**-207**	**-7.6**	**2,772**	**2,598**	**174**
2000 January	4,363	1,725	6,088	-370	-17.6	829	48	780
February	4,371	1,300	5,672	-491	-27.4	532	78	454
March	4,364	1,150	5,514	-280	-19.6	294	132	162
April	4,363	1,184	5,547	-329	-21.8	145	181	-36
May	4,356	1,426	5,782	-420	-22.8	75	308	-232
June	4,355	1,706	6,061	-450	-20.9	67	339	-272
July	4,355	1,996	6,351	-394	-16.5	77	368	-290
August	4,355	2,190	6,544	-442	-16.8	102	296	-193
September	4,354	2,473	6,827	-450	-15.4	72	354	-282
October	4,354	2,699	7,053	-374	-12.2	87	313	-227
November	4,358	2,443	6,801	-622	-20.3	401	108	293
December	4,352	1,720	6,072	-803	-31.8	755	65	690
Total	**4,352**	**1,720**	**6,072**	**-803**	**-31.8**	**3,436**	**2,591**	**845**
2001 January	4,344	1,265	5,609	-459	-26.6	559	93	467
February	4,328	912	5,241	-388	-29.8	409	71	338
March	4,300	742	5,042	-408	-35.5	293	113	181
April	4,261	992	5,253	-192	-16.2	68	345	-276
May	4,309	1,440	5,749	14	1.0	41	488	-448
June	4,310	1,882	6,193	176	10.3	48	470	-422
July	4,315	2,261	6,576	265	13.3	64	441	-376
August	R 4,313	R 2,576	R 6,889	R 386	R 17.6	79	384	R -305
September	RF 4,313	RF 2,966	RF 7,279	RF 493	RF 19.9	NA	NA	F -390
October	F 4,313	F 3,120	F 7,433	F 420	F 15.6	NA	NA	F -154

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

[b] For 1980-1998, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

[c] Positive numbers indicate that withdrawals are greater than injections. Negative numbers indicate that injections are greater than withdrawals. Net withdrawals or injections may not equal the difference between applicable ending stocks. See Note 8 at end of section.

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

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

Sources: See end of section.

Natural Gas Notes

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

2. Production.

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

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

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

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

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

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

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

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

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

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

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

5. Imports and Exports: The United States imports natural gas via pipeline from Canada and Mexico and imports liquefied natural gas (LNG) via tanker from Algeria, Australia, 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*.

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

Final data are from the EIA *NGA*. Monthly data are considered preliminary until after publication of the EIA *NGA*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *NGM*.

7. Balancing Item: The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data

reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

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

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

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

1975	6,280	1984	8,043	1993	7,989
1976	6,544	1985	8,087	1994	8,043
1977	6,678	1986	8,145	1995	7,953
1978	6,890	1987	8,124	1996	7,980
1979	6,929	1988	8,124	1997	8,332
1980	7,434	1989	8,124	1998	8,179
1981	7,805	1990	8,125	1999	8,229
1982	7,915	1991	7,993		
1983	7,985	1992	7,932		

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Form FERC-8 (interstate data) and EIA Form EIA-191 (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 1980-1998 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

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

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

Sources for Table 4.5

Storage Activity
1973-1975: Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2,* Table 9.
1976-1979: EIA**,** *Natural Gas Production and Consumption 1979,* Table 1.
1980-1993: EIA, *Historical Natural Gas Annual 1930 Through 1999,* Table 11.
1994 forward: EIA, *Natural Gas Monthly,* October 2001, Table 9.
Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Other Data
1973 and 1974: American Gas Association (AGA), *Gas Facts, 1972 Data,* Table 57, *Gas Facts, 1973 Data*, Table 57, and *Gas Facts, 1974 Data,* Table 40.
1975 and 1976: Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."
1977 and 1978: EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report."
1979-1993: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."
1994 forward: EIA, *Natural Gas Monthly,* October 2001, Table 9.
Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Section 5. Oil and Gas Resource Development

The October 2001 rotary rig count was 1,111, 7 percent lower than the count in September 2001 but 5 percent higher than the count in October 2000. Of the total number of rigs in operation, 978 were onshore and 133 were offshore. For October 2001, the number of onshore rigs was up 8 percent, while the number of offshore rigs was down 10 percent from the October 2000 count. Rotary rigs drilling for natural gas as a share of total rigs stood at 82 percent in October 2001.

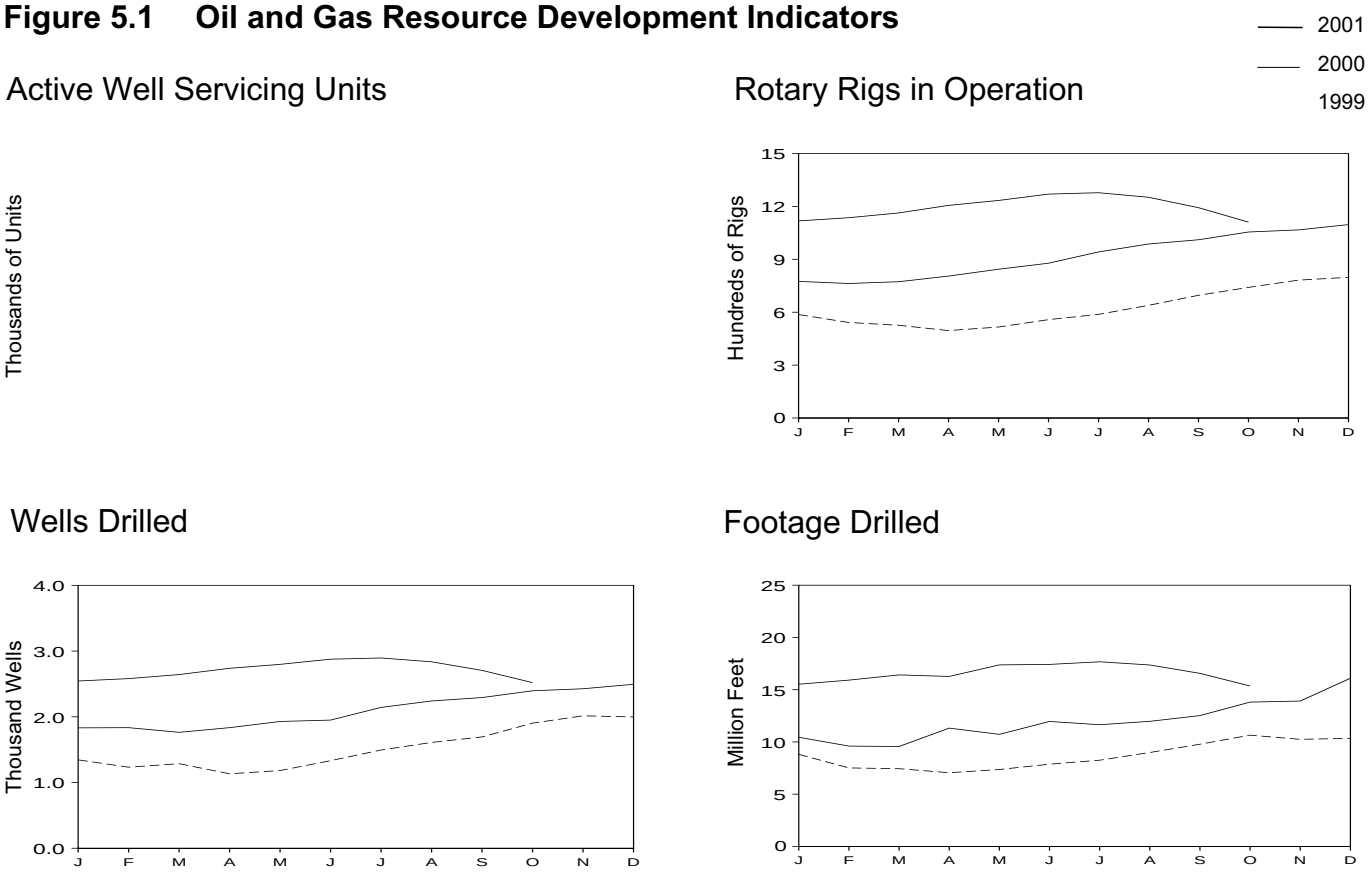
Total footage drilled in October 2001 was 15.4 million feet, 7 percent lower than the footage drilled in September 2001 but up 11 percent from that drilled in October 2000.

The estimated number of exploratory and development oil and gas wells drilled during October 2001 was 2,000, 7 percent less than the number drilled in September 2001 but 5 percent higher than the number drilled in October 2000. The estimated number of oil wells drilled was 386, and the estimated number of gas wells was 1,614, 7 percent lower and 8 percent higher, respectively, than their October 2000 levels.

The estimated number of dry holes drilled in October 2001 was 520, down 7 percent from the number drilled in September 2001 but up 5 percent from the number drilled in October 2000.

There were an estimated 2.7 thousand well servicing units active in October 2001, 2 percent lower than in October 2000.

Figure 5.1 Oil and Gas Resource Development Indicators



Sources: Tables 5.1 and 5.2.

Table 5.1 Oil and Gas Drilling Activity Measurements

	Crews Engaged in Seismic Exploration			Rotary Rigs in Operation[a]					Total Footage Drilled[c]	Active Well Servicing Units[d]
				By Site		By Type				
	Offshore	Onshore	Total	Offshore	Onshore	Oil	Gas	Total[b]		
	Monthly Average			Weekly Average					Thousand Feet	Number
1973 Average	**23**	**227**	**250**	**84**	**1,110**	**NA**	**NA**	**1,194**	**138,223**	**NA**
1974 Average	**31**	**274**	**305**	**94**	**1,378**	**NA**	**NA**	**1,472**	**153,374**	**NA**
1975 Average	**30**	**254**	**284**	**106**	**1,554**	**NA**	**NA**	**1,660**	**180,494**	**NA**
1976 Average	**25**	**237**	**262**	**129**	**1,529**	**NA**	**NA**	**1,658**	**186,982**	**2,601**
1977 Average	**27**	**281**	**308**	**167**	**1,834**	**NA**	**NA**	**2,001**	**215,866**	**2,828**
1978 Average	**25**	**327**	**352**	**185**	**2,074**	**NA**	**NA**	**2,259**	**238,669**	**2,988**
1979 Average	**30**	**370**	**400**	**207**	**1,970**	**NA**	**NA**	**2,177**	**244,798**	**3,399**
1980 Average	**37**	**493**	**530**	**231**	**2,678**	**NA**	**NA**	**2,909**	**314,654**	**4,089**
1981 Average	**44**	**637**	**681**	**256**	**3,714**	**NA**	**NA**	**3,970**	**413,112**	**4,850**
1982 Average	**57**	**531**	**588**	**243**	**2,862**	**NA**	**NA**	**3,105**	**378,295**	**4,248**
1983 Average	**47**	**426**	**473**	**199**	**2,033**	**NA**	**NA**	**2,232**	**317,986**	**3,732**
1984 Average	**49**	**445**	**494**	**213**	**2,215**	**NA**	**NA**	**2,428**	**371,392**	**4,663**
1985 Average	**45**	**333**	**378**	**206**	**1,774**	**NA**	**NA**	**1,980**	**313,045**	**4,716**
1986 Average	**24**	**176**	**200**	**99**	**865**	**NA**	**NA**	**964**	**181,856**	**3,036**
1987 Average	**24**	**153**	**177**	**95**	**841**	**NA**	**NA**	**936**	**162,178**	**3,060**
1988 Average	**29**	**153**	**182**	**123**	**813**	**554**	**354**	**936**	**156,354**	**3,341**
1989 Average	**23**	**109**	**132**	**105**	**764**	**453**	**401**	**869**	**134,439**	**3,391**
1990 Average	**23**	**102**	**125**	**108**	**902**	**532**	**464**	**1,010**	**153,701**	**3,658**
1991 Average	**19**	**85**	**104**	**81**	**779**	**482**	**351**	**860**	**143,021**	**3,331**
1992 Average	**12**	**64**	**76**	**52**	**669**	**373**	**331**	**721**	**121,124**	**2,732**
1993 Average	**16**	**63**	**79**	**82**	**672**	**373**	**364**	**754**	**135,118**	**3,158**
1994 Average	**NA**	**NA**	**NA**	**102**	**673**	**335**	**427**	**775**	**124,809**	**2,961**
1995 Average	**NA**	**NA**	**NA**	**101**	**622**	**323**	**385**	**723**	**117,832**	**3,043**
1996 Average	**NA**	**NA**	**NA**	**108**	**671**	**306**	**464**	**779**	**129,045**	**3,425**
1997 Average	**NA**	**NA**	**NA**	**122**	**821**	**376**	**564**	**943**	**156,661**	**3,499**
1998 Average	**NA**	**NA**	**NA**	**123**	**703**	**264**	**560**	**827**	**149,627**	**3,030**
1999 January	NA	NA	NA	104	483	125	461	587	8,817	1,932
February	NA	NA	NA	101	441	117	425	542	7,511	1,904
March	NA	NA	NA	106	420	114	412	526	7,438	1,994
April	NA	NA	NA	99	397	125	371	496	7,052	2,054
May	NA	NA	NA	102	414	136	380	516	7,362	2,076
June	NA	NA	NA	100	458	124	434	558	7,870	2,133
July	NA	NA	NA	99	489	108	478	588	8,250	2,391
August	NA	NA	NA	106	533	111	527	639	8,990	2,388
September	NA	NA	NA	109	587	130	565	696	9,781	2,445
October	NA	NA	NA	111	630	137	601	741	10,648	2,472
November	NA	NA	NA	119	663	145	635	782	10,247	2,472
December	NA	NA	NA	122	676	161	636	798	10,341	2,500
Average	**NA**	**NA**	**NA**	**106**	**519**	**128**	**496**	**625**	**104,307**	**2,230**
2000 January	NA	NA	NA	125	650	143	632	775	10,450	2,550
February	NA	NA	NA	122	641	147	616	763	9,602	2,705
March	NA	NA	NA	124	649	173	600	773	9,563	2,734
April	NA	NA	NA	125	680	196	609	805	11,324	2,702
May	NA	NA	NA	139	705	199	645	844	10,725	2,675
June	NA	NA	NA	139	739	201	677	878	11,959	2,619
July	NA	NA	NA	158	784	208	733	942	11,648	2,694
August	NA	NA	NA	159	828	206	779	987	11,972	2,717
September	NA	NA	NA	146	865	199	810	1,011	12,521	2,722
October	NA	NA	NA	147	908	212	842	1,055	13,813	2,719
November	NA	NA	NA	151	916	234	832	1,067	13,912	2,732
December	NA	NA	NA	147	950	242	854	1,097	16,097	2,738
Average	**NA**	**NA**	**NA**	**140**	**778**	**197**	**720**	**918**	**143,586**	**2,692**
2001 January	NA	NA	NA	174	944	239	879	1,118	15,525	2,741
February	NA	NA	NA	163	973	237	898	1,136	15,916	2,755
March	NA	NA	NA	167	996	248	913	1,163	16,416	2,734
April	NA	NA	NA	169	1,037	247	957	1,206	16,268	2,728
May	NA	NA	NA	171	1,063	235	997	1,234	17,374	2,770
June	NA	NA	NA	163	1,107	219	1,050	1,270	17,418	2,760
July	NA	NA	NA	157	1,121	219	1,058	1,278	17,672	2,793
August	NA	NA	NA	147	1,105	219	1,032	1,252	17,363	2,775
September	NA	NA	NA	144	1,049	220	972	1,193	[R] 16,563	2,820
October	NA	NA	NA	133	978	198	913	1,111	15,353	[E] 2,665
10-Month Average	**NA**	**NA**	**NA**	**158**	**1,040**	**228**	**969**	**1,198**	**165,868**	**[E] 2,754**
2000 10-Month Average	**NA**	**NA**	**NA**	**138**	**745**	**188**	**694**	**883**	**113,577**	**2,684**
1999 10-Month Average	**NA**	**NA**	**NA**	**103**	**487**	**123**	**467**	**590**	**83,719**	**2,179**

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

[b] Sum of oil, gas, and miscellaneous other rigs (not shown).

[c] Values shown are totals.

[d] See Glossary.

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

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

Sources: **Crews Engaged in Seismic Exploration:** Society of Exploration Geophysicists, Tulsa, Oklahoma, *Monthly Seismic Crew Count.* **Rotary Rigs in Operation:** By Site - Baker Hughes, Inc., Houston, Texas, *Rotary Rigs Running--by State.* By Type - Baker Hughes, Inc., Houston, Texas, weekly phone recording. **Total Footage Drilled:** Energy Information Administration computations, which are based on well reports submitted to the American Petroleum Institute by the Petroleum Information Corporation, Denver, Colorado. **Active Well Servicing Units: 1976 - July 1998**—Association of Energy Service Companies, Dallas, Texas, *Field Reports;* **August 1998 forward**—Guiberson Well Service Products, a Halliburton Company, Carrollton, Texas.

Table 5.2 Oil and Gas Wells Drilled

(Number of Wells)

	Exploratory				Development				Total			
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
1973 Total	**642**	**1,067**	**5,952**	**7,661**	**9,525**	**5,866**	**4,368**	**19,759**	**10,167**	**6,933**	**10,320**	**27,420**
1974 Total	**859**	**1,190**	**6,833**	**8,882**	**12,788**	**5,948**	**5,283**	**24,019**	**13,647**	**7,138**	**12,116**	**32,901**
1975 Total	**982**	**1,248**	**7,129**	**9,359**	**15,966**	**6,879**	**6,517**	**29,362**	**16,948**	**8,127**	**13,646**	**38,721**
1976 Total	**1,086**	**1,346**	**6,772**	**9,204**	**16,602**	**8,063**	**6,986**	**31,651**	**17,688**	**9,409**	**13,758**	**40,855**
1977 Total	**1,164**	**1,548**	**7,283**	**9,995**	**17,581**	**10,574**	**7,702**	**35,857**	**18,745**	**12,122**	**14,985**	**45,852**
1978 Total	**1,171**	**1,771**	**7,965**	**10,907**	**18,010**	**12,642**	**8,586**	**39,238**	**19,181**	**14,413**	**16,551**	**50,145**
1979 Total	**1,321**	**1,907**	**7,437**	**10,665**	**19,530**	**13,347**	**8,662**	**41,539**	**20,851**	**15,254**	**16,099**	**52,204**
1980 Total	**1,764**	**2,081**	**9,039**	**12,884**	**30,875**	**15,252**	**11,599**	**57,726**	**32,639**	**17,333**	**20,638**	**70,610**
1981 Total	**2,636**	**2,514**	**12,349**	**17,499**	**40,962**	**17,652**	**15,440**	**74,054**	**43,598**	**20,166**	**27,789**	**91,553**
1982 Total	**2,431**	**2,125**	**11,247**	**15,803**	**36,768**	**16,854**	**14,972**	**68,594**	**39,199**	**18,979**	**26,219**	**84,397**
1983 Total	**2,023**	**1,593**	**10,148**	**13,764**	**35,097**	**12,971**	**14,005**	**62,073**	**37,120**	**14,564**	**24,153**	**75,837**
1984 Total	**2,198**	**1,521**	**11,278**	**14,997**	**40,407**	**15,606**	**14,403**	**70,416**	**42,605**	**17,127**	**25,681**	**85,413**
1985 Total	**1,679**	**1,190**	**8,924**	**11,793**	**33,439**	**12,978**	**12,132**	**58,549**	**35,118**	**14,168**	**21,056**	**70,342**
1986 Total	**1,084**	**793**	**5,549**	**7,426**	**18,013**	**7,723**	**7,129**	**32,865**	**19,097**	**8,516**	**12,678**	**40,291**
1987 Total	**925**	**754**	**5,049**	**6,728**	**15,239**	**7,301**	**6,063**	**28,603**	**16,164**	**8,055**	**11,112**	**35,331**
1988 Total	**855**	**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	**303**	**579**	**1,816**	**2,698**	**6,761**	**11,527**	**3,097**	**21,385**	**7,064**	**12,106**	**4,913**	**24,083**
1999 January	13	37	104	154	282	746	163	1,191	295	783	267	1,345
February	13	36	99	148	215	715	155	1,085	228	751	254	1,233
March	9	35	96	140	234	762	151	1,147	243	797	247	1,287
April	10	31	90	131	234	625	143	1,002	244	656	233	1,133
May	15	38	94	147	250	634	151	1,035	265	672	245	1,182
June	10	37	102	149	290	730	164	1,184	300	767	266	1,333
July	15	40	113	168	341	805	181	1,327	356	845	294	1,495
August	9	45	117	171	371	886	182	1,439	380	931	299	1,610
September	19	56	127	202	350	943	199	1,492	369	999	326	1,694
October	13	70	158	241	477	996	190	1,663	490	1,066	348	1,904
November	14	62	143	219	513	1,060	223	1,796	527	1,122	366	2,015
December	17	56	146	219	422	1,068	289	1,779	439	1,124	435	1,998
Total	**157**	**543**	**1,389**	**2,089**	**3,979**	**9,970**	**2,191**	**16,140**	**4,136**	**10,513**	**3,580**	**18,229**
2000 January	13	53	142	208	339	1,064	221	1,624	352	1,117	363	1,832
February	13	58	139	210	327	1,037	261	1,625	340	1,095	400	1,835
March	14	54	141	209	324	1,009	222	1,555	338	1,063	363	1,764
April	16	51	147	214	366	1,024	231	1,621	382	1,075	378	1,835
May	16	60	154	230	372	1,085	242	1,699	388	1,145	396	1,929
June	16	55	170	241	376	1,085	248	1,709	392	1,140	418	1,950
July	17	62	172	251	389	1,233	270	1,892	406	1,295	442	2,143
August	16	66	180	262	386	1,311	282	1,979	402	1,377	462	2,241
September	16	68	184	268	372	1,364	289	2,025	388	1,432	473	2,293
October	17	71	193	281	397	1,417	301	2,115	414	1,488	494	2,396
November	19	70	195	284	438	1,400	305	2,143	457	1,470	500	2,427
December	19	72	200	291	453	1,437	314	2,204	472	1,509	514	2,495
Total	**192**	**740**	**2,017**	**2,949**	**4,539**	**14,466**	**3,186**	**22,191**	**4,731**	**15,206**	**5,203**	**25,140**
2001 January	19	74	204	297	447	1,480	321	2,248	466	1,554	525	2,545
February	19	76	207	302	443	1,511	325	2,279	462	1,587	532	2,581
March	20	77	212	309	464	1,537	333	2,334	484	1,614	545	2,643
April	20	81	220	321	462	1,610	345	2,417	482	1,691	565	2,738
May	19	84	225	328	440	1,678	352	2,470	459	1,762	577	2,798
June	17	89	232	338	410	1,767	362	2,539	427	1,856	594	2,877
July	17	89	234	340	410	1,781	364	2,555	427	1,870	598	2,895
August	17	87	229	333	410	1,737	357	2,504	427	1,824	586	2,837
September	18	82	218	318	411	1,636	341	2,388	429	1,718	559	2,706
October	16	77	203	296	370	1,537	317	2,224	386	1,614	520	2,520
10-Month Total	**182**	**816**	**2,184**	**3,182**	**4,267**	**16,274**	**3,417**	**23,958**	**4,449**	**17,090**	**5,601**	**27,140**
2000 10-Month Total	**154**	**598**	**1,622**	**2,374**	**3,648**	**11,629**	**2,567**	**17,844**	**3,802**	**12,227**	**4,189**	**20,218**
1999 10-Month Total	**126**	**425**	**1,100**	**1,651**	**3,044**	**7,842**	**1,679**	**12,565**	**3,170**	**8,267**	**2,779**	**14,216**

Notes: These well counts include only the original drilling of a hole intended to discover or further develop already discovered oil or gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than oil or gas are excluded. Due to the methodology used to estimate ultimate well counts from the available partially reported data, the counts shown on this page are frequently revised. See end of section. Geographic coverage is the 50 States and the District of Columbia.

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

Oil and Gas Resource Development Notes

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

Prior to the March 1985 *MER,* drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration(EIA) estimates 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 October 2001 totaled 99 million short tons, 6 percent higher than in October 2000.

Coal consumed by the electric power sector in August 2001 was estimated as 93 million short tons, 1 percent higher than the level in August 2000.

Electric power sector coal stocks were estimated as 109 million short tons at the end of August 2001, 7 percent lower than the level a year earlier.

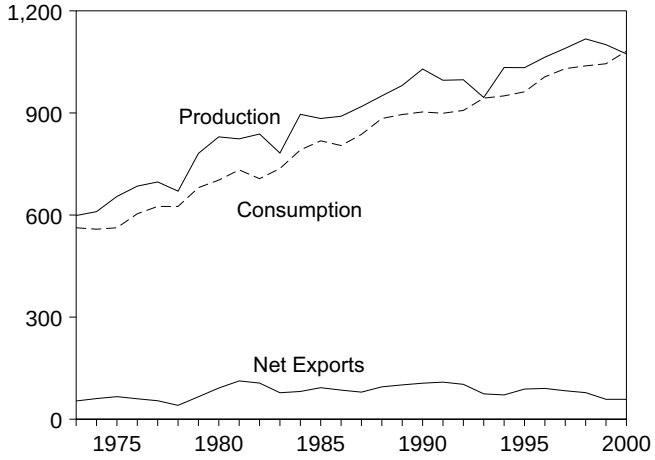
Coal exports in August 2001 totaled 4 million short tons, 32 percent lower than exports in August 2000.

Coal imports in August 2001 totaled 2 million short tons, 26 percent higher than imports in August 2000.

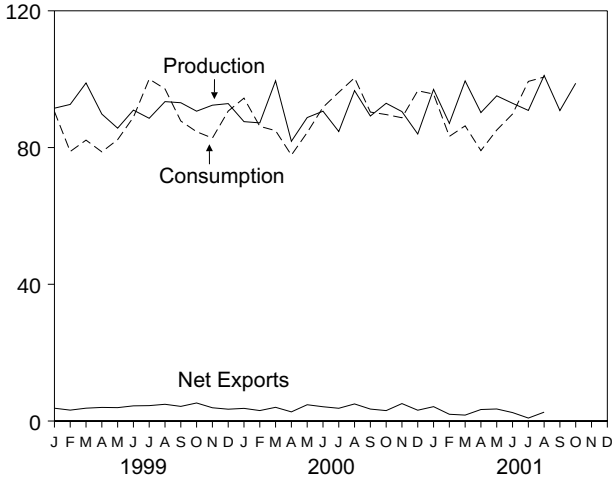
Figure 6.1 Coal

(Million Short Tons)

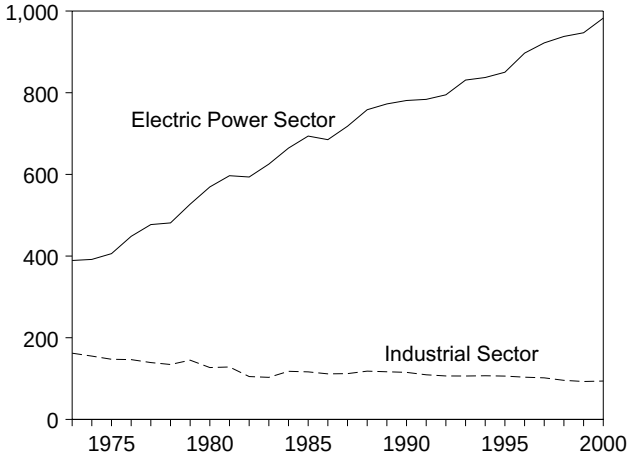
Overview, 1973-2000



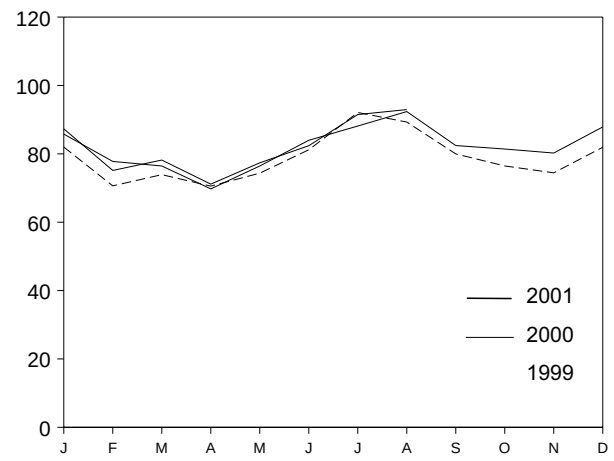
Overview, Monthly



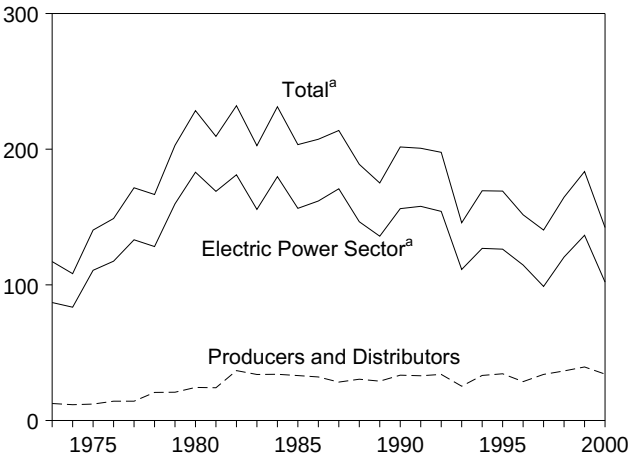
Consumption by Sector, 1973-2000



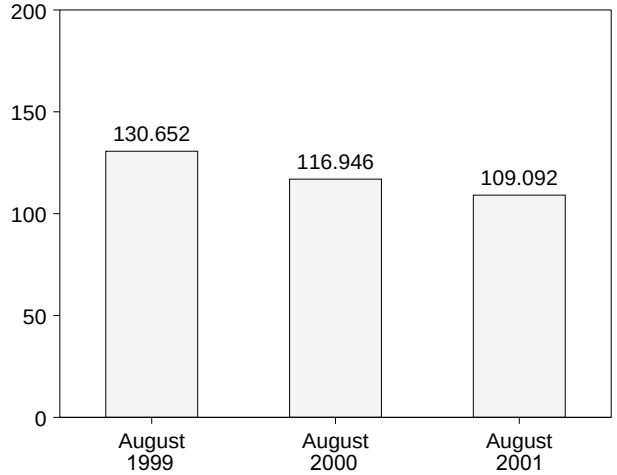
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2000



Electric Power Sector Stocks, End of Month



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

Table 6.1 Coal Overview

(Thousand Short Tons)

	Production	Consumption	Imports[a]	Exports	Stocks[b]
1973 Total	**598,568**	**562,584**	**127**	**53,587**	**117,155**
1974 Total	**610,023**	**558,402**	**2,080**	**60,661**	**108,237**
1975 Total	**654,641**	**562,640**	**940**	**66,309**	**140,391**
1976 Total	**684,913**	**603,790**	**1,203**	**60,021**	**148,899**
1977 Total	**697,205**	**625,291**	**1,647**	**54,312**	**171,543**
1978 Total	**670,164**	**625,225**	**2,953**	**40,714**	**166,606**
1979 Total	**781,134**	**680,524**	**2,059**	**66,042**	**202,812**
1980 Total	**829,700**	**702,730**	**1,194**	**91,742**	**228,407**
1981 Total	**823,775**	**732,627**	**1,043**	**112,541**	**209,423**
1982 Total	**838,112**	**706,911**	**742**	**106,277**	**232,038**
1983 Total	**782,091**	**736,672**	**1,271**	**77,772**	**202,584**
1984 Total	**895,921**	**791,296**	**1,286**	**81,483**	**231,300**
1985 Total	**883,638**	**818,049**	**1,952**	**92,680**	**203,367**
1986 Total	**890,315**	**804,231**	**2,212**	**85,518**	**207,319**
1987 Total	**918,762**	**836,941**	**1,747**	**79,607**	**213,780**
1988 Total	**950,265**	**883,642**	**2,134**	**95,023**	**188,831**
1989 Total	**980,729**	**[c]895,369**	**2,851**	**100,815**	**175,087**
1990 Total	**1,029,076**	**902,893**	**2,699**	**105,804**	**201,629**
1991 Total	**995,984**	**899,067**	**3,390**	**108,969**	**200,682**
1992 Total	**997,545**	**907,378**	**3,803**	**102,516**	**197,685**
1993 Total	**945,424**	**943,467**	**8,181**	**74,519**	**145,742**
1994 Total	**1,033,504**	**950,141**	**8,870**	**71,359**	**169,358**
1995 Total	**1,032,974**	**962,038**	**9,473**	**88,547**	**169,083**
1996 Total	**1,063,856**	**1,006,306**	**8,115**	**90,473**	**151,627**
1997 Total	**1,089,932**	**1,030,145**	**7,487**	**83,545**	**140,374**
1998 Total	**1,117,535**	**1,038,292**	**8,724**	**78,048**	**[d]164,602**
1999 January	91,518	90,541	739	4,492	166,868
February	92,616	78,849	726	3,922	176,703
March	98,891	82,174	782	4,548	186,414
April	89,792	78,747	715	4,698	191,636
May	85,669	82,309	421	4,345	195,534
June	90,958	88,874	961	5,405	194,114
July	88,554	100,041	670	5,175	181,245
August	93,434	97,157	900	5,800	174,841
September	93,112	87,758	818	5,100	176,075
October	90,638	84,639	684	5,966	178,133
November	92,394	82,768	1,097	4,986	181,919
December	92,856	90,679	575	4,039	[R]183,524
Total	**1,100,431**	**1,044,536**	**9,089**	**58,476**	**[R]183,524**
2000 January	87,579	94,464	1,002	4,710	175,019
February	87,219	86,208	698	3,765	182,613
March	99,540	84,940	1,115	5,123	185,576
April	81,839	77,794	823	3,503	185,975
May	88,775	84,396	770	5,536	185,666
June	90,644	91,777	1,152	5,339	177,686
July	84,694	96,168	1,212	4,948	164,164
August	96,659	100,405	1,404	6,405	158,845
September	89,224	90,379	946	4,447	157,452
October	92,959	89,650	1,442	4,492	157,657
November	90,519	88,715	854	5,958	155,434
December	83,961	96,630	1,095	4,264	142,319
Total	**1,073,612**	**1,081,527**	**12,513**	**58,489**	**142,319**
2001 January	97,023	95,644	1,303	5,512	140,411
February	87,077	83,264	1,252	3,236	147,386
March	99,499	86,352	1,355	3,094	160,826
April	[R]90,237	[R]79,102	1,253	4,623	163,050
May	[R]95,139	[R]85,127	1,435	4,966	171,345
June	[R]92,954	[R]89,806	1,436	3,911	170,442
July	90,863	99,352	2,289	3,166	163,110
August	101,080	100,627	1,772	4,364	150,949
September	90,823	NA	NA	NA	NA
October	98,803	NA	NA	NA	NA
10-Month Total	**943,499**	**NA**	**NA**	**NA**	**NA**
2000 10-Month Total	**899,132**	**896,182**	**10,564**	**48,267**	**157,657**
1999 10-Month Total	**915,182**	**871,089**	**7,417**	**49,452**	**178,133**

[a] Includes Puerto Rico.

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

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

[d] Beginning in 1998, includes coal stocks at "Other Power Producers." See Table 6.3.

R=Revised. NA=Not available.

Notes: Data through 1997 are final. Subsequent data are preliminary. For methodology used to calculate production, consumption, and stocks, see Notes 1, 2, and 3 at end of section. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section for sources.

Table 6.2 Coal Consumption by Sector

(Thousand Short Tons)

	End-Use Sectors[a]					Electric Power Sector			
		Industrial							
	Residential and Commercial	Coke Plants	Other	Total	Transportation	Electric Utilities	Other Power Producers[a,b]	Total	Total
1973 Total	**11,117**	**94,101**	**68,038**	**162,139**	**116**	**389,212**	**NA**	**[c]389,212**	**562,584**
1974 Total	**11,417**	**90,191**	**64,903**	**155,094**	**80**	**391,811**	**NA**	**[c]391,811**	**558,402**
1975 Total	**9,410**	**83,598**	**63,646**	**147,244**	**24**	**405,962**	**NA**	**[c]405,962**	**562,640**
1976 Total	**8,916**	**84,704**	**61,787**	**146,491**	**12**	**448,371**	**NA**	**[c]448,371**	**603,790**
1977 Total	**8,954**	**77,739**	**61,463**	**139,202**	**9**	**477,126**	**NA**	**[c]477,126**	**625,291**
1978 Total	**9,511**	**71,394**	**63,085**	**134,479**	**([d])**	**481,235**	**NA**	**[c]481,235**	**625,225**
1979 Total	**8,388**	**77,368**	**67,717**	**145,085**	**([d])**	**527,051**	**NA**	**[c]527,051**	**680,524**
1980 Total	**6,452**	**66,657**	**60,347**	**127,004**	**([d])**	**569,274**	**NA**	**[c]569,274**	**702,730**
1981 Total	**7,421**	**61,014**	**67,395**	**128,409**	**([d])**	**596,797**	**NA**	**[c]596,797**	**732,627**
1982 Total	**8,240**	**40,908**	**64,097**	**105,005**	**([d])**	**593,666**	**NA**	**[c]593,666**	**706,911**
1983 Total	**8,448**	**37,033**	**65,980**	**103,013**	**([d])**	**625,211**	**NA**	**[c]625,211**	**736,672**
1984 Total	**9,130**	**44,022**	**73,745**	**117,767**	**([d])**	**664,399**	**NA**	**[c]664,399**	**791,296**
1985 Total	**7,779**	**41,056**	**75,372**	**116,429**	**([d])**	**693,841**	**NA**	**[c]693,841**	**818,049**
1986 Total	**7,667**	**35,924**	**75,583**	**111,508**	**([d])**	**685,056**	**NA**	**[c]685,056**	**804,231**
1987 Total	**6,914**	**36,957**	**75,175**	**112,132**	**([d])**	**717,894**	**NA**	**[c]717,894**	**836,941**
1988 Total	**7,130**	**41,888**	**76,252**	**118,140**	**([d])**	**758,372**	**NA**	**[c]758,372**	**883,642**
1989 Total	**6,167**	**40,508**	**76,134**	**116,643**	**([d])**	**766,888**	**5,670**	**[e]772,558**	**[e]895,369**
1990 Total	**6,724**	**38,877**	**76,330**	**115,207**	**([d])**	**773,549**	**7,413**	**780,962**	**902,893**
1991 Total	**6,094**	**33,854**	**75,405**	**109,259**	**([d])**	**772,268**	**11,446**	**783,714**	**899,067**
1992 Total	**6,153**	**32,366**	**74,042**	**106,408**	**([d])**	**779,860**	**14,957**	**794,817**	**907,378**
1993 Total	**6,221**	**31,323**	**74,892**	**106,215**	**([d])**	**813,508**	**17,523**	**831,031**	**943,467**
1994 Total	**6,013**	**31,740**	**75,179**	**106,919**	**([d])**	**817,270**	**19,940**	**837,210**	**950,141**
1995 Total	**5,807**	**33,011**	**73,055**	**106,067**	**([d])**	**829,007**	**21,158**	**850,165**	**962,038**
1996 Total	**6,006**	**31,706**	**71,689**	**103,395**	**([d])**	**874,681**	**22,224**	**896,905**	**1,006,306**
1997 Total	**6,463**	**30,203**	**71,515**	**101,718**	**([d])**	**900,361**	**21,603**	**921,964**	**1,030,145**
1998 Total	**4,856**	**28,189**	**67,439**	**95,628**	**([d])**	**910,867**	**26,941**	**937,808**	**1,038,292**
1999 January	670	2,287	5,593	7,879	([d])	78,576	[E] 3,415	[E] 81,991	90,541
February	502	2,122	5,595	7,717	([d])	67,229	[E] 3,401	[E] 70,630	78,849
March	292	2,387	5,588	7,975	([d])	70,680	[E] 3,227	[E] 73,907	82,174
April	419	2,496	5,268	7,764	([d])	66,948	[E] 3,615	[E] 70,563	78,747
May	257	2,448	5,261	7,710	([d])	70,545	[E] 3,797	[E] 74,342	82,309
June	299	2,128	5,261	7,389	([d])	76,624	[E] 4,562	[E] 81,186	88,874
July	407	2,363	5,181	7,544	([d])	87,357	[E] 4,733	[E] 92,090	100,041
August	329	2,351	5,181	7,532	([d])	84,575	[E] 4,721	[E] 89,296	97,157
September	240	2,310	5,226	7,536	([d])	75,406	[E] 4,576	[E] 79,982	87,758
October	305	2,389	5,494	7,882	([d])	71,826	[E] 4,626	[E] 76,452	84,639
November	424	2,352	5,553	7,905	([d])	69,184	[E] 5,255	[E] 74,439	82,768
December	735	2,476	5,538	8,013	([d])	75,168	[E] 6,763	[E] 81,931	90,679
Total	**4,879**	**28,108**	**64,738**	**92,846**	**([d])**	**894,120**	**52,691**	**946,811**	**1,044,536**
2000 January	630	2,473	5,583	8,056	([d])	77,090	[E] 8,689	[E] 85,779	94,464
February	469	2,343	5,608	7,951	([d])	69,442	[E] 8,346	[E] 77,788	86,208
March	364	2,506	5,624	8,130	([d])	67,925	[E] 8,521	[E] 76,446	84,940
April	415	2,499	5,122	7,622	([d])	61,214	[E] 8,543	[E] 69,757	77,794
May	278	2,548	5,125	7,672	([d])	67,428	[E] 9,017	[E] 76,445	84,396
June	282	2,399	5,136	7,535	([d])	73,910	[E] 10,050	[E] 83,960	91,777
July	340	2,447	5,250	7,697	([d])	77,051	[E] 11,079	[E] 88,130	96,168
August	348	2,434	5,254	7,688	([d])	80,021	[E] 12,348	[E] 92,369	100,405
September	288	2,392	5,272	7,664	([d])	70,725	[E] 11,703	[E] 82,428	90,379
October	228	2,251	5,764	8,015	([d])	69,835	[E] 11,572	[E] 81,407	89,650
November	473	2,270	5,734	8,004	([d])	69,114	[E] 11,123	[E] 80,237	88,715
December	763	2,356	5,638	7,994	([d])	75,579	[E] 12,294	[E] 87,873	96,630
Total	**4,879**	**28,918**	**65,110**	**94,028**	**([d])**	**859,335**	**123,285**	**982,620**	**1,081,527**
2001 January	579	2,300	5,469	7,769	([d])	74,379	[E] 12,917	[E] 87,296	95,644
February	462	2,180	5,478	7,658	([d])	63,505	[E] 11,640	[E] 75,145	83,264
March	423	2,332	5,420	7,751	([d])	66,066	[E] 12,112	[E] 78,178	86,352
April	418	2,453	[R] 5,087	[R] 7,540	([d])	59,839	[E] 11,305	[E] 71,144	[R] 79,102
May	263	2,407	[R] 5,086	[R] 7,493	([d])	66,185	[E] 11,187	[E] 77,372	[R] 85,127
June	295	2,092	[R] 5,042	[R] 7,134	([d])	70,125	[E] 12,252	[E] 82,377	[R] 89,806
July	[F] 299	[F] 2,231	[F] 5,336	[F] 7,567	([d])	77,613	[E] 13,873	[E] 91,486	99,352
August	[F] 276	[F] 2,224	[F] 5,187	[F] 7,411	([d])	79,010	[E] 13,930	[E] 92,940	100,627
8-Month Total	**[E] 3,014**	**[E] 18,219**	**[E] 42,104**	**[E] 60,323**	**([d])**	**556,720**	**[E] 99,216**	**[E] 655,936**	**719,273**
2000 8-Month Total	**3,128**	**19,648**	**42,702**	**62,351**	**([d])**	**574,081**	**[E] 76,593**	**[E] 650,674**	**716,152**
1999 8-Month Total	**3,175**	**18,581**	**42,928**	**61,509**	**([d])**	**602,536**	**[E] 31,471**	**[E] 634,007**	**698,691**

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

[b] Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors.

[c] Electric utilities only.

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

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

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

Notes: For sector-specific reporting and estimating information, see Note 2 at end of section. Data through 1997 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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

Table 6.3 Coal Stocks

(Thousand Short Tons)

	Producers and Distributors	Consumers								Total
		Residential and Commercial	Industrial			Electric Power Sector			Total	
			Coke Plants	Other	Total	Electric Utilities	Other Power Producers[a]	Total[b]		
1973 Year	**12,530**	**290**	**6,998**	**10,370**	**17,368**	**86,967**	**NA**	**86,967**	**104,625**	**117,155**
1974 Year	**11,634**	**280**	**6,209**	**6,605**	**12,814**	**83,509**	**NA**	**83,509**	**96,603**	**108,237**
1975 Year	**12,108**	**233**	**8,797**	**8,529**	**17,326**	**110,724**	**NA**	**110,724**	**128,283**	**140,391**
1976 Year	**14,221**	**240**	**9,902**	**7,100**	**17,002**	**117,436**	**NA**	**117,436**	**134,678**	**148,899**
1977 Year	**14,225**	**220**	**12,816**	**11,063**	**23,879**	**133,219**	**NA**	**133,219**	**157,318**	**171,543**
1978 Year	**20,695**	**360**	**8,278**	**9,048**	**17,326**	**128,225**	**NA**	**128,225**	**145,911**	**166,606**
1979 Year	**20,826**	**340**	**10,155**	**11,777**	**21,932**	**159,714**	**NA**	**159,714**	**181,986**	**202,812**
1980 Year	**24,379**	**(c)**	**9,067**	**11,951**	**21,018**	**183,010**	**NA**	**183,010**	**204,028**	**228,407**
1981 Year	**24,149**	**(c)**	**6,475**	**9,906**	**16,381**	**168,893**	**NA**	**168,893**	**185,274**	**209,423**
1982 Year	**36,784**	**(c)**	**4,642**	**9,479**	**14,121**	**181,132**	**NA**	**181,132**	**195,254**	**232,038**
1983 Year	**33,931**	**(c)**	**4,346**	**8,710**	**13,056**	**155,598**	**NA**	**155,598**	**168,654**	**202,584**
1984 Year	**34,090**	**(c)**	**6,166**	**11,317**	**17,483**	**179,727**	**NA**	**179,727**	**197,211**	**231,300**
1985 Year	**33,133**	**(c)**	**3,420**	**10,438**	**13,857**	**156,376**	**NA**	**156,376**	**170,234**	**203,367**
1986 Year	**32,093**	**(c)**	**2,992**	**10,429**	**13,420**	**161,806**	**NA**	**161,806**	**175,226**	**207,319**
1987 Year	**28,321**	**(c)**	**3,884**	**10,777**	**14,662**	**170,797**	**NA**	**170,797**	**185,459**	**213,780**
1988 Year	**30,418**	**(c)**	**3,137**	**8,768**	**11,906**	**146,507**	**NA**	**146,507**	**158,413**	**188,831**
1989 Year	**29,000**	**(c)**	**2,864**	**7,363**	**10,227**	**135,860**	**NA**	**135,860**	**146,087**	**175,087**
1990 Year	**33,418**	**(c)**	**3,329**	**8,716**	**12,044**	**156,166**	**NA**	**156,166**	**168,210**	**201,629**
1991 Year	**32,971**	**(c)**	**2,773**	**7,061**	**9,835**	**157,876**	**NA**	**157,876**	**167,711**	**200,682**
1992 Year	**33,993**	**(c)**	**2,597**	**6,965**	**9,562**	**154,130**	**NA**	**154,130**	**163,692**	**197,685**
1993 Year	**25,284**	**(c)**	**2,401**	**6,716**	**9,117**	**111,341**	**NA**	**111,341**	**120,458**	**145,742**
1994 Year	**33,219**	**(c)**	**2,657**	**6,585**	**9,243**	**126,897**	**NA**	**126,897**	**136,139**	**169,358**
1995 Year	**34,444**	**(c)**	**2,632**	**5,702**	**8,334**	**126,304**	**NA**	**126,304**	**134,639**	**169,083**
1996 Year	**28,648**	**(c)**	**2,667**	**5,688**	**8,355**	**114,623**	**NA**	**114,623**	**122,979**	**151,627**
1997 Year	**33,973**	**(c)**	**1,978**	**5,597**	**7,576**	**98,826**	**NA**	**98,826**	**106,401**	**140,374**
1998 Year	**36,530**	**(c)**	**2,026**	**5,545**	**7,571**	**120,501**	**NA**	**120,501**	**128,072**	**164,602**
1999 January	38,216	(c)	1,983	5,278	7,261	119,836	E 1,556	E 121,392	128,652	166,868
February	40,288	(c)	1,941	5,010	6,951	127,886	E 1,579	E 129,465	136,415	176,703
March	42,682	(c)	1,898	4,743	6,640	135,332	E 1,760	E 137,092	143,732	186,414
April	42,085	(c)	1,957	4,716	6,673	140,124	E 2,754	E 142,878	149,551	191,636
May	41,809	(c)	2,016	4,690	6,706	143,863	E 3,156	E 147,019	153,725	195,534
June	41,701	(c)	2,075	4,663	6,739	141,779	E 3,896	E 145,675	152,413	194,114
July	39,377	(c)	2,042	4,811	6,853	131,137	E 3,877	E 135,014	141,868	181,245
August	37,221	(c)	2,009	4,959	6,968	127,408	E 3,244	E 130,652	137,620	174,841
September	36,645	(c)	1,975	5,107	7,083	129,071	E 3,277	E 132,348	139,430	176,075
October	34,830	(c)	1,965	5,255	7,219	132,534	E 3,550	E 136,084	143,303	178,133
November	34,595	(c)	1,954	5,396	7,349	134,883	E 5,092	E 139,975	147,324	181,919
December	**39,475**	**(c)**	**1,943**	**5,569**	**7,512**	R **129,041**	E **7,496**	RE **136,537**	R **144,049**	R **183,524**
2000 January	38,166	(c)	1,940	5,168	7,108	123,661	E 6,084	E 129,745	136,853	175,019
February	39,708	(c)	1,938	4,767	6,704	129,055	E 7,146	E 136,201	142,905	182,613
March	44,423	(c)	1,935	4,366	6,301	127,130	E 7,722	E 134,852	141,153	185,576
April	41,453	(c)	1,903	4,429	6,332	128,669	E 9,521	E 138,190	144,522	185,975
May	41,656	(c)	1,871	4,492	6,363	127,090	E 10,557	E 137,647	144,010	185,666
June	40,440	(c)	1,839	4,555	6,394	119,634	E 11,218	E 130,852	137,246	177,686
July	35,732	(c)	1,745	4,601	6,346	111,494	E 10,592	E 122,086	128,432	164,164
August	35,606	(c)	1,652	4,642	6,294	106,201	E 10,745	E 116,946	123,239	158,845
September	37,143	(c)	1,558	4,677	6,235	102,876	E 11,199	E 114,075	120,309	157,452
October	35,191	(c)	1,537	4,647	6,184	104,422	E 11,861	E 116,283	122,466	157,657
November	34,903	(c)	1,515	4,611	6,127	102,227	E 12,177	E 114,404	120,531	155,434
December	**34,204**	**(c)**	**1,494**	**4,587**	**6,081**	**90,115**	E **11,919**	E **102,034**	**108,115**	**142,319**
2001 January	38,166	(c)	1,630	4,545	6,175	85,759	E 10,311	E 96,070	102,245	140,411
February	42,156	(c)	1,766	4,503	6,269	87,499	E 11,462	E 98,961	105,230	147,386
March	46,897	(c)	1,902	4,461	6,363	95,801	E 11,765	E 107,566	113,929	160,826
April	40,265	(c)	1,813	4,500	6,313	103,851	E 12,621	E 116,472	122,785	163,050
May	40,762	(c)	1,724	4,538	6,263	110,956	E 13,365	E 124,321	130,583	171,345
June	41,858	(c)	1,635	4,577	6,212	108,953	E 13,419	E 122,372	128,584	170,442
July	F 40,732	(c)	F 1,391	F 4,294	F 5,685	104,009	E 12,684	E 116,693	122,378	163,110
August	F 36,284	(c)	F 1,334	F 4,239	F 5,573	97,694	E 11,398	E 109,092	114,665	150,949

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

[b] Beginning in 1999, includes coal stocks at "Other Power Producers."

[c] Beginning in 1980, the Energy Information Administration ceased collecting data on residential and commercial coal stocks.

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

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

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

Coal Notes

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

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figure. The adjustment procedure uses State-level production data and is explained in EIA's *Quarterly Coal Report*. Initial estimates of annual production published in January of the following year are based on preliminary production data covering the first 9 months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the *Monthly Energy Review* in the fall of the following year.

2. Consumption: Coal consumption data are reported by major end-use sector. Forecast data for the most recent months (designated by an "F") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "U.S. Coal Supply and Demand: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Prior to 1980, monthly consumption estimates for the residential and commercial sector were derived by using reported data to modify baseline figures developed by the Bureau of Mines. From 1980-1987, monthly estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-2. During 1981 and 1982, the estimates were also modified to reflect air temperature degree-days. Quarterly consumption data were taken directly from reported data and were defined as distribution to the residential and commercial sector as reported by coal producers and distributors on Form EIA-6. Beginning in January 1988, monthly residential and commercial consumption estimates are derived from reported quarterly data by using monthly national average population weighted heating/cooling degree-days obtained from the National Oceanic and Atmospheric Administration. The monthly ratios are the monthly national sum of heating and cooling degree-days as a proportion of the quarterly national sum. Quarterly consumption data are taken directly from reported data.

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

Industrial Other—Prior to 1978, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. From 1980-1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Quarterly consumption data were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts were the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, mining, and construction consumption data were included where appropriate. Starting in January 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of Governors of the Federal Reserve System. Indices for six major industry groups are used as the basis for calculating the ratios: 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 Utilities—Monthly consumption data for electric utility plants are taken directly from reported data.

3. Stocks: Coal stocks data are reported by major end-use sector. Forecast data for the most recent months (designated by an "F") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "U.S. Coal Supply and Demand: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

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

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

Industrial Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. From 1980 forward, coke plant stocks are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.

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

Electric Utilities—Monthly stocks data at electric utility plants are taken directly from reported data.

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

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

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

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

Sources for Table 6.1

Production
1973-September 1977—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977 forward—Energy Information Administration, *Weekly Coal Production.*

Consumption—See Table 6.2.

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

Stocks—See Table 6.3.

Sources for Table 6.2

Residential and Commercial
1973-1976—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook***.**
January-September 1977—DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."
October 1977-1979—Energy Information Administration (EIA), Form EIA-2, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

1980-1997—EIA, Form EIA-6, "Coal Distribution Report," quarterly.
1998 forward—DOI, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production."

Industrial Coke Plants
1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977-1980—EIA, Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual Supplement."
1981-1984—EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement."
1985 forward—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

Industrial Other
1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977-1979—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants."
1980 forward—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

Transportation
1973-1976—DOI, BOM, *Minerals Yearbook*.
January-September 1977—DOI, BOM, Form 6-1400,"Monthly Coal Report, Retail Dealers-Upper Lake Docks."
October-December 1977—EIA, Form EIA-6, "Coal Distribution Report," quarterly.

Electric Utilities
1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977 forward—EIA, Form EIA-759 (formerly Form FPC-4), "Monthly Power Plant Report."

Other Power Producers
Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), "Annual Electric Generator Report - Nonutility."
Monthly Estimates—Through 1997, derived from the daily rate of each annual total. For 1998 forward, estimated by EIA from industry analysis.

Sources for Table 6.3

Producers and Distributors
1973-1979—DOI, BOM, Form 6-1419Q, "Distribution of Bituminous Coal and Lignite Shipments."
1980 forward—Energy Information Administration (EIA), Form EIA-6, "Coal Distribution Report," quarterly.

Residential and Commercial
1973-1976—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*.
January-September 1977—DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."
October 1977-1979—EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

Industrial Coke Plants
1973-September 1977—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977-1980—Energy Information Administration (EIA), Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual."
1981-1984—EIA, Form EIA 5/5A, "Coke Plant Report-Quarterly/Annual Supplement."
1985 forward—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

Industrial Other
1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977-1979—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants."
1980 forward—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

Electric Utilities
See Table 7.9.

Other Power Producers
Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), "Annual Electric Generator Report - Nonutility."
Monthly Estimates—Estimated by EIA from industry analysis.

Section 7. Electricity

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

In 2000, U.S. electricity net generation totaled 3.8 trillion kilowatthours. Electric utilities generated 3.0 trillion kilowatthours (79 percent of the total) and nonutility power producers generated 0.8 trillion kilowatthours (21 percent). The Nation imported 50 billion kilowatthours of electricity and exported 15 billion kilowatthours.

Net Generation. In August 2001, total net generation of electricity was 373 billion kilowatthours, 2 percent higher than in August 2000. At utilities, net generation was 262 billion kilowatthours, down 8 percent, while at nonutility power plants, net generation was 111 billion kilowatthours, up 39 percent, compared to 1 year earlier.

At utilities in August 2001, fossil fuels (primarily coal) accounted for 75 percent of net generation, nuclear 18 percent, and renewable resources 7 percent. At nonutility power plants, fossil fuels were estimated to account for 74 percent of net generation, nuclear accounted for 18 percent, and renewable resources were estimated to be 8 percent of the total.

Electric Utility Retail Sales. August 2001 total utility sales of electricity to end-users were 332 billion kilowatthours, less than 1 percent lower than in August 2000. August 2001 electricity sales to residential consumers were 129 billion kilowatthours (39 percent of the month's total), commercial users 107 billion kilowatthours (32 percent), industrial consumers 85 billion kilowatthours of electricity (25 percent), and other users 11 billion kilowatthours (3 percent).

Consumption of Fossil Fuels. In August 2001, 97 million short tons of coal were consumed to generate electricity, 4 percent more than in August 2000. Of the total, 79 million short tons (1 percent less than a year earlier) were consumed at electric utilities and 18 million short tons (33 percent more than a year earlier) were consumed by nonutility power producers.

In August 2001, 800 billion cubic feet of natural gas were estimated as consumed to generate electricity, 5 percent more than in August 2000. Of the total, 360 billion cubic feet (12 percent less than a year earlier) were consumed by electric utilities and 440 billion cubic feet (25 percent more than a year earlier) were estimated as consumed by nonutility power plants.

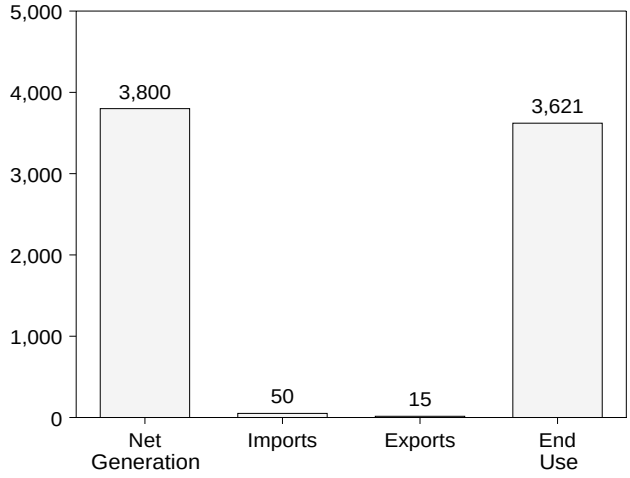
Stocks of Coal and Petroleum. At the end of August 2001, 124 million short tons of coal were held in storage for electricity generation, 1 percent more than in August 2000. Of the total, 98 million short tons (8 percent less than a year earlier) were held at electric utilities and 26 million short tons (58 percent more than a year earlier) were held by nonutility power plants.

At the end of August 2001, 49 million barrels of petroleum liquids (i.e., heavy and light oil) were held in storage by electric utilities and nonutility power producers, 11 percent more than in August 2000.

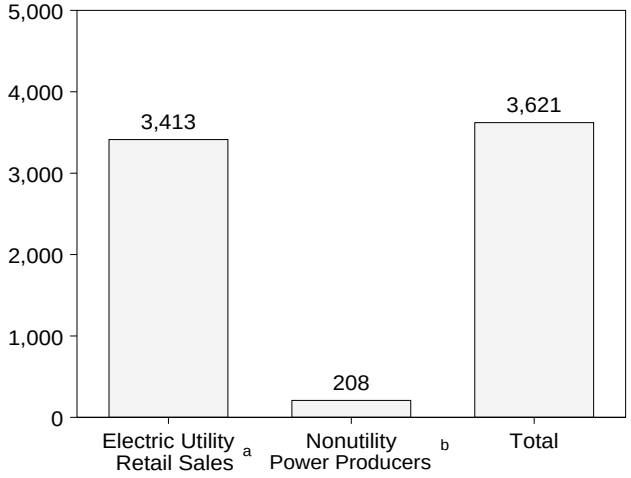
Figure 7.1 Electricity Overview

(Billion Kilowatthours)

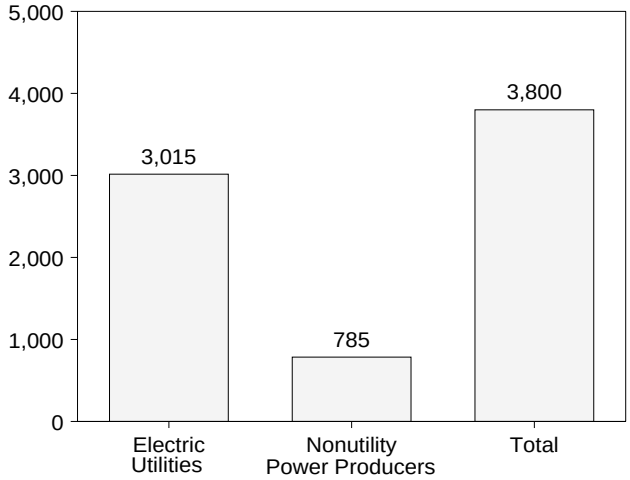
Overview, 2000



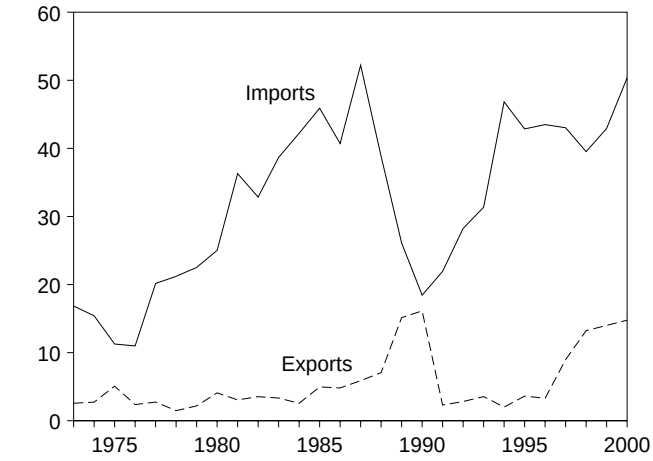
End Use, 2000



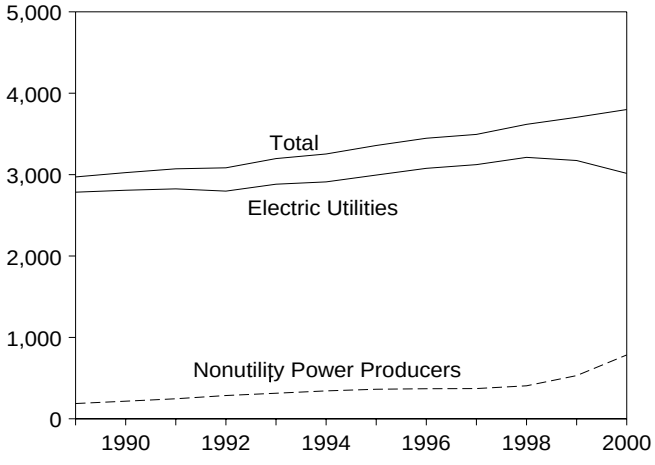
Net Generation, 2000



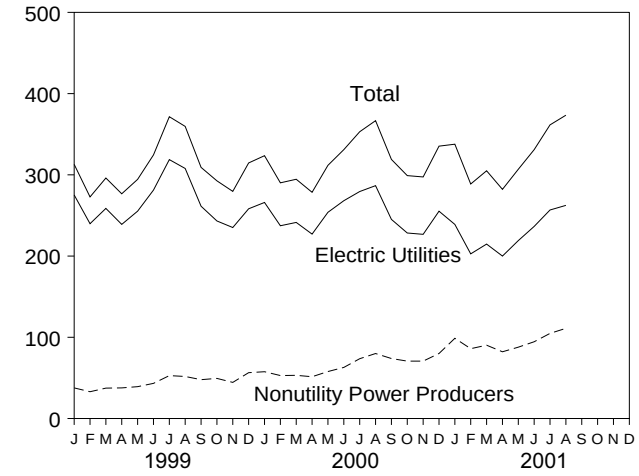
Trade, 1973-2000



Net Generation, 1989-2000



Net Generation, Monthly



[a]Includes nonutility sales of electricity to utilities for distribution to end users, and sales to ultimate consumers by power marketers.
[b]Nonutility facility use of onsite net generation, and nonutility sales of electricity to end users.
Note: Because vertical scales differ, graphs should not be compared.
Source: Table 7.1.

Table 7.1 Electricity Overview

(Billion Kilowatthours)

	Net Generation			Imports[a]	Exports[a]	Losses and Unaccounted for[b]	End Use		
	Electric Utilities	Nonutility Power Producers	Total				Electric Utility Retail Sales[c]	Nonutility Power Producers[d]	Total[c]
1973 Total	**1,861**	**NA**	**1,861**	**17**	**3**	**NA**	**1,713**	**NA**	**NA**
1974 Total	**1,867**	**NA**	**1,867**	**15**	**3**	**NA**	**1,706**	**NA**	**NA**
1975 Total	**1,918**	**NA**	**1,918**	**11**	**5**	**NA**	**1,747**	**NA**	**NA**
1976 Total	**2,038**	**NA**	**2,038**	**11**	**2**	**NA**	**1,855**	**NA**	**NA**
1977 Total	**2,124**	**NA**	**2,124**	**20**	**3**	**NA**	**1,948**	**NA**	**NA**
1978 Total	**2,206**	**NA**	**2,206**	**21**	**1**	**NA**	**2,018**	**NA**	**NA**
1979 Total	**2,247**	**NA**	**2,247**	**23**	**2**	**NA**	**2,071**	**NA**	**NA**
1980 Total	**2,286**	**NA**	**2,286**	**25**	**4**	**NA**	**2,094**	**NA**	**NA**
1981 Total	**2,295**	**NA**	**2,295**	**36**	**3**	**NA**	**2,147**	**NA**	**NA**
1982 Total	**2,241**	**NA**	**2,241**	**33**	**4**	**NA**	**2,086**	**NA**	**NA**
1983 Total	**2,310**	**NA**	**2,310**	**39**	**3**	**NA**	**2,151**	**NA**	**NA**
1984 Total	**2,416**	**NA**	**2,416**	**42**	**3**	**NA**	**2,286**	**NA**	**NA**
1985 Total	**2,470**	**NA**	**2,470**	**46**	**5**	**NA**	**2,324**	**NA**	**NA**
1986 Total	**2,487**	**NA**	**2,487**	**41**	**5**	**NA**	**2,369**	**NA**	**NA**
1987 Total	**2,572**	**NA**	**2,572**	**52**	**6**	**NA**	**2,457**	**NA**	**NA**
1988 Total	**2,704**	**NA**	**2,704**	**39**	**7**	**NA**	**2,578**	**NA**	**NA**
1989 Total	**2,784**	**[e]188**	**2,972**	**26**	**15**	**236**	**2,647**	**100**	**2,747**
1990 Total	**2,808**	**[e]217**	**3,025**	**18**	**16**	**210**	**2,713**	**104**	**2,817**
1991 Total	**2,825**	**[e]246**	**3,071**	**22**	**2**	**218**	**2,762**	**111**	**2,873**
1992 Total	**2,797**	**286**	**3,083**	**28**	**3**	**224**	**2,763**	**122**	**2,885**
1993 Total	**2,883**	**314**	**3,197**	**31**	**4**	**236**	**2,861**	**127**	**2,988**
1994 Total	**2,911**	**343**	**3,254**	**47**	**2**	**223**	**2,935**	**141**	**3,075**
1995 Total	**2,995**	**363**	**3,358**	**43**	**4**	**235**	**3,013**	**149**	**3,162**
1996 Total	**3,077**	**370**	**3,447**	**43**	**3**	**237**	**3,101**	**149**	**3,250**
1997 Total	**3,123**	**372**	**3,494**	**43**	**9**	**234**	**3,146**	**149**	**3,295**
1998 Total	**3,212**	**406**	**3,618**	**40**	**13**	**220**	**3,264**	**160**	**3,424**
1999 January	275	38	313	2	2	NA	284	NA	NA
February	240	33	273	2	1	NA	251	NA	NA
March	259	37	296	3	2	NA	261	NA	NA
April	239	38	277	4	1	NA	247	NA	NA
May	255	39	294	4	1	NA	254	NA	NA
June	281	43	325	4	1	NA	285	NA	NA
July	319	53	372	4	1	NA	324	NA	NA
August	308	52	360	4	1	NA	323	NA	NA
September	261	48	309	5	1	NA	295	NA	NA
October	243	49	293	5	1	NA	265	NA	NA
November	235	44	280	5	1	NA	253	NA	NA
December	258	56	315	4	1	NA	271	NA	NA
Total	**3,174**	**531**	**3,705**	**43**	**14**	**233**	**3,312**	**189**	**3,501**
2000 January	266	58	324	4	1	NA	287	NA	NA
February	237	53	290	4	1	NA	271	NA	NA
March	241	53	295	4	1	NA	259	NA	NA
April	227	51	278	4	1	NA	246	NA	NA
May	254	58	312	5	1	NA	267	NA	NA
June	268	63	331	5	2	NA	299	NA	NA
July	279	74	353	5	1	NA	317	NA	NA
August	287	80	367	6	1	NA	331	NA	NA
September	245	74	319	5	1	NA	305	NA	NA
October	228	71	299	3	1	NA	274	NA	NA
November	227	71	297	4	1	NA	265	NA	NA
December	255	80	335	3	3	NA	292	NA	NA
Total	**3,015**	**785**	**3,800**	**50**	**15**	**214**	**3,413**	**[F]208**	**[E]3,621**
2001 January	239	99	338	3	2	NA	310	NA	NA
February	203	86	289	3	3	NA	272	NA	NA
March	215	90	305	4	2	NA	268	NA	NA
April	200	82	282	4	2	NA	255	NA	NA
May	219	88	307	5	2	NA	262	NA	NA
June	236	95	331	4	1	NA	289	NA	NA
July	257	105	361	4	1	NA	316	NA	NA
August	262	111	373	4	1	NA	332	NA	NA
8-Month Total	**1,831**	**755**	**2,586**	**30**	**14**	**NA**	**2,304**	**NA**	**NA**
2000 8-Month Total	**2,060**	**489**	**2,549**	**36**	**9**	**NA**	**2,277**	**NA**	**NA**
1999 8-Month Total	**2,176**	**333**	**2,509**	**25**	**10**	**NA**	**2,229**	**NA**	**NA**

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

[b] 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.

[c] Includes nonutility sales of electricity to utilities for distribution to end users. Beginning in 1996, also includes sales to ultimate consumers by power marketers. See box on Table 7.5 for additional information.

[d] Nonutility facility use of onsite net electricity generation, and nonutility sales of electricity to end users.

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

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

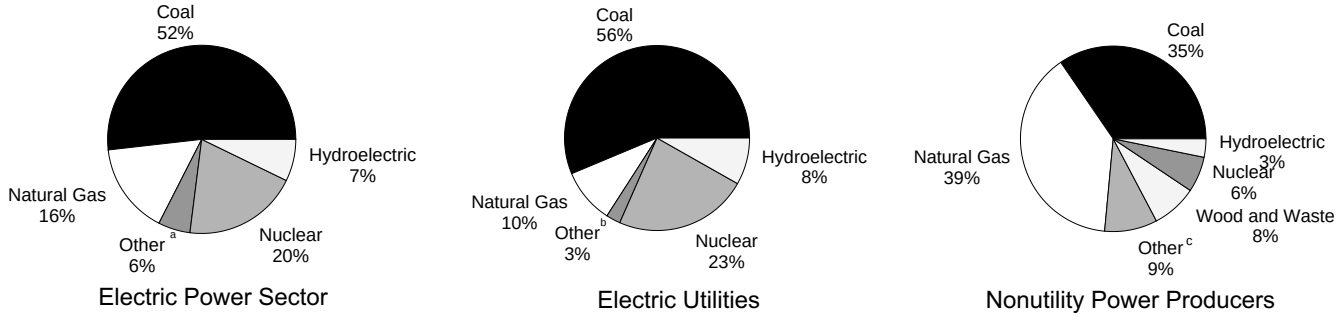
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 states and the District of Columbia.

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

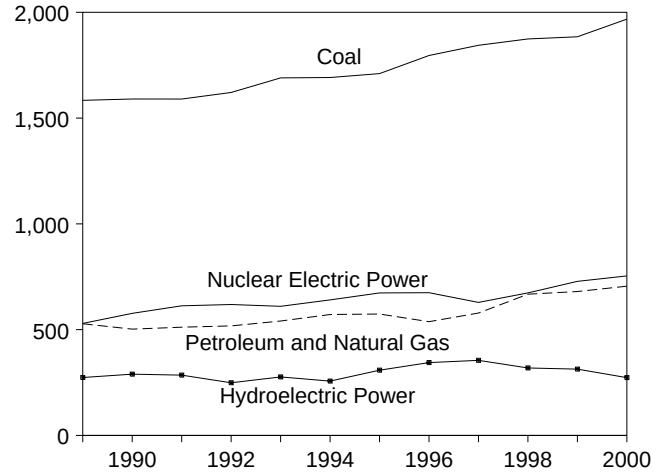
Figure 7.2 Electricity Net Generation

(Billion Kilowatthours, Except as Noted)

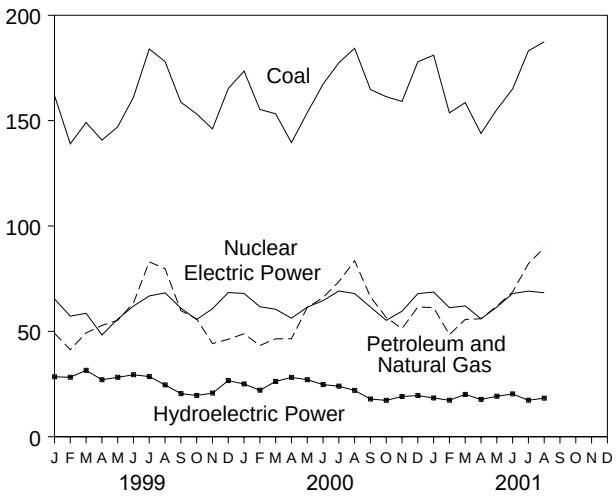
By Selected Source, 2000



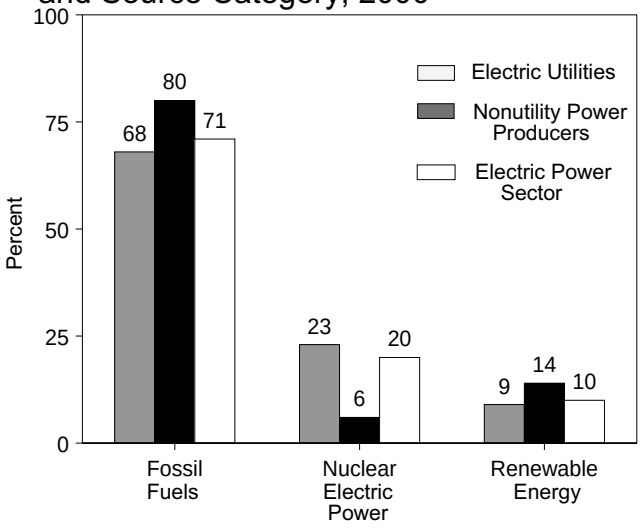
By Major Source, 1989-2000



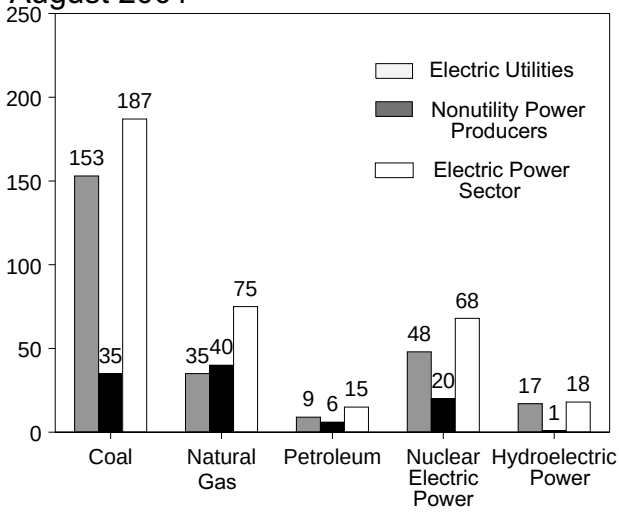
By Major Source, Monthly



Shares of Net Generation by Producer Type and Source Category, 2000



By Producer Type and Selected Source, August 2001



[a]Petroleum, other gases, geothermal, wood, waste, wind, solar, batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.
[b]Petroleum, geothermal, wood, waste, wind, and solar.
[c]Petroleum, other gases, geothermal, wind, solar, batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.
Note: Because vertical scales differ, graphs should not be compared.
Source: Tables 7.2-7.4.

Table 7.2 Electricity Net Generation

(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	Geothermal	Wood[f]	Waste[g,h]	Wind	Solar[i]	Total[h]
1989 Total	**1,583,824**	**163,861**	**363,942**	**(j)**	**529,402**	**(k)**	**273,665**	**14,879**	**27,728**	**9,958**	**2,280**	**623**	**2,971,863**
1990 Total	**1,590,305**	**124,048**	**378,342**	**(j)**	**576,974**	**-3,508**	**293,013**	**15,788**	**30,413**	**13,163**	**3,035**	**646**	**3,024,867**
1991 Total	**1,589,940**	**118,957**	**392,590**	**(j)**	**612,642**	**-4,541**	**289,506**	**16,040**	**33,165**	**15,750**	**3,019**	**759**	**3,071,329**
1992 Total	**1,621,085**	**99,424**	**418,301**	**(j)**	**618,841**	**-4,177**	**253,088**	**16,422**	**35,580**	**17,777**	**2,888**	**727**	**3,083,367**
1993 Total	**1,690,010**	**112,353**	**428,417**	**(j)**	**610,367**	**-4,036**	**280,494**	**17,025**	**36,788**	**18,520**	**3,022**	**874**	**3,196,924**
1994 Total	**1,691,690**	**105,503**	**465,928**	**12,110**	**640,492**	**-3,378**	**260,166**	**16,756**	**37,804**	**19,084**	**3,447**	**803**	**3,253,799**
1995 Total	**1,710,176**	**75,260**	**498,541**	**13,506**	**673,402**	**-2,725**	**311,004**	**14,359**	**36,396**	**20,279**	**3,164**	**803**	**3,357,837**
1996 Total	**1,795,710**	**81,683**	**455,835**	**14,169**	**674,729**	**-3,088**	**347,448**	**15,126**	**36,779**	**20,672**	**3,376**	**879**	**3,446,994**
1997 Total	**1,844,104**	**93,025**	**485,440**	**11,175**	**628,644**	**-4,041**	**358,946**	**14,569**	**34,231**	**20,585**	**3,222**	**870**	**3,494,222**
1998 Total	**1,873,946**	**126,932**	**540,638**	**8,514**	**673,702**	**-4,441**	**323,330**	**14,726**	**31,789**	**21,286**	**2,988**	**856**	**3,617,873**
1999 January	161,945	13,304	E 35,783	E 950	65,399	-554	28,983	1,118	3,442	E 2,321	207	9	312,906
February	138,978	10,377	E 30,951	E 836	57,235	-357	28,585	983	2,803	E 2,171	226	17	272,806
March	149,106	11,353	E 37,930	E 925	58,578	-380	31,895	1,091	3,009	E 2,240	296	27	296,071
April	140,751	9,989	E 42,820	E 947	48,315	-464	27,515	1,046	2,959	E 2,346	392	47	276,664
May	147,072	10,521	E 44,746	E 966	55,809	-676	28,874	1,115	3,002	E 2,357	586	86	294,459
June	161,201	11,692	E 51,832	E 1,076	62,025	-571	29,989	1,294	2,930	E 2,311	581	142	324,501
July	184,002	15,343	E 67,660	E 1,377	66,807	-606	29,167	1,406	3,355	E 2,321	568	141	371,539
August	178,009	12,828	E 66,902	E 1,374	68,283	-761	25,335	1,455	3,257	E 2,303	487	142	359,616
September	158,731	8,675	E 51,157	E 1,256	61,032	-424	20,887	1,395	3,788	E 2,192	361	114	309,164
October	153,217	7,230	E 48,673	E 1,308	55,597	-472	20,059	1,448	3,136	E 2,031	294	67	292,588
November	146,083	5,766	E 38,440	E 1,129	60,754	-449	21,165	1,335	2,922	E 2,199	225	39	279,607
December	165,225	6,481	E 39,754	E 1,185	68,420	-393	27,032	1,329	2,997	E 2,309	266	17	314,623
Total	**1,884,322**	**123,560**	**E 556,649**	**E 13,330**	**728,254**	**-6,107**	**319,484**	**15,015**	**37,600**	**E 27,101**	**4,488**	**848**	**3,704,544**
2000 January	173,505	8,318	E 40,546	E 1,147	68,013	-489	25,515	1,199	3,409	E 2,008	390	35	323,596
February	155,324	5,713	E 37,583	E 1,097	61,688	-417	22,497	1,073	3,225	E 1,978	367	47	290,175
March	153,252	4,893	E 41,580	E 1,096	60,494	-547	26,794	1,065	3,370	E 2,077	427	60	294,561
April	139,585	4,900	E 41,591	E 1,058	56,252	-383	28,546	1,109	3,237	E 2,026	493	69	278,481
May	153,764	7,829	E 53,495	E 1,247	61,479	-492	27,540	1,133	3,055	E 2,118	460	76	311,703
June	167,315	10,076	E 55,997	E 1,371	64,595	-561	25,312	1,144	3,203	E 2,042	427	105	331,025
July	177,445	9,659	E 63,950	E 1,479	69,171	-319	24,316	1,218	3,516	E 2,104	398	102	353,039
August	184,350	12,198	E 71,295	E 1,686	67,954	-390	22,385	1,250	3,318	E 2,120	407	104	366,678
September	164,770	10,224	E 56,172	E 1,475	61,549	-641	18,515	1,208	3,243	E 1,995	380	94	318,985
October	161,372	8,989	E 47,586	E 1,377	55,240	-415	17,677	1,244	3,396	E 2,067	442	49	299,027
November	159,094	8,222	E 43,084	E 1,319	59,579	-367	19,467	1,251	3,233	E 2,039	418	57	297,395
December	177,949	17,761	E 43,829	E 1,320	67,881	-530	20,070	1,303	3,294	E 2,014	343	44	335,280
Total	**1,967,726**	**108,781**	**E 596,708**	**E 15,672**	**753,893**	**-5,552**	**278,633**	**14,197**	**39,498**	**E 24,590**	**4,953**	**844**	**3,799,944**
2001 January	181,047	19,194	E 42,059	E 1,358	68,655	-428	18,825	1,307	3,344	E 1,983	358	E 12	337,714
February	153,674	10,530	E 37,914	E 1,250	61,225	-502	17,821	1,169	2,993	E 2,131	469	E 13	288,689
March	158,573	11,519	E 44,112	E 1,406	62,092	-539	20,606	1,208	3,346	E 2,027	614	E 44	305,007
April	143,937	10,935	E 45,069	E 1,255	55,953	-598	18,317	1,107	3,093	E 2,309	691	E 60	282,128
May	155,261	10,823	E 51,187	E 1,456	61,518	-329	19,523	1,085	3,171	E 2,299	786	E 91	306,871
June	165,025	12,001	E 56,703	E 1,585	67,941	-410	20,705	1,101	3,277	E 2,231	715	E 112	330,988
July	183,147	11,327	E 70,755	E 1,843	69,115	-528	17,859	1,192	3,714	E 2,252	687	E 122	361,484
August	187,390	14,666	E 75,025	E 2,048	68,339	-351	18,643	1,171	3,480	E 2,207	677	E 122	373,417
8-Month Total	**1,328,053**	**100,993**	**E 422,824**	**E 12,202**	**514,838**	**-3,684**	**152,299**	**9,341**	**26,418**	**E 17,441**	**4,998**	**E 577**	**2,586,299**
2000 8-Month Total	**1,304,540**	**63,585**	**E 406,037**	**E 10,180**	**509,644**	**-3,598**	**202,904**	**9,191**	**26,332**	**E 16,474**	**3,370**	**598**	**2,549,257**
1999 8-Month Total	**1,261,065**	**95,408**	**E 378,625**	**E 8,452**	**482,451**	**-4,369**	**230,342**	**9,508**	**24,758**	**E 18,370**	**3,342**	**610**	**2,508,561**

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

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

[c] Includes supplemental gaseous fuels at electric utilities.

[d] Blast furnace gas, coke oven gas, butane gas, propane gas, refinery gas, and other process and waste gases derived from coal, petroleum, and natural gas.

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

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

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

[h] "Total" includes batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam, which are not separately displayed. Beginning in 1999, these components are also included in "Waste."

[i] Solar thermal and photovoltaic energy.

[j] Included in natural gas.

[k] Included in conventional hydroelectric power.

E=Estimate.

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

Sources: Tables 7.3 and 7.4.

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

Table 7.3 Electricity Net Generation at Electric Utilities

(Million Kilowatthours)

	Fossil Fuels			Nuclear Electric Power	Hydroelectric Pumped Storage[c]	Renewable Energy						Total
	Coal	Petroleum[a]	Natural Gas[b]			Conventional Hydroelectric Power	Geothermal	Wood[d]	Waste[e]	Wind	Solar[f]	
1973 Total	**847,651**	**314,343**	**340,858**	**83,479**	**(g)**	**272,083**	**1,966**	**130**	**198**	**0**	**0**	**1,860,710**
1974 Total	**828,433**	**300,931**	**320,065**	**113,976**	**(g)**	**301,032**	**2,453**	**69**	**182**	**0**	**0**	**1,867,140**
1975 Total	**852,786**	**289,095**	**299,778**	**172,505**	**(g)**	**300,047**	**3,246**	**18**	**174**	**0**	**0**	**1,917,649**
1976 Total	**944,391**	**319,988**	**294,624**	**191,104**	**(g)**	**283,707**	**3,616**	**84**	**182**	**0**	**0**	**2,037,696**
1977 Total	**985,219**	**358,179**	**305,505**	**250,883**	**(g)**	**220,475**	**3,582**	**308**	**173**	**0**	**0**	**2,124,323**
1978 Total	**975,742**	**365,060**	**305,391**	**276,403**	**(g)**	**280,419**	**2,978**	**197**	**140**	**0**	**0**	**2,206,331**
1979 Total	**1,075,037**	**303,525**	**329,485**	**255,155**	**(g)**	**279,783**	**3,889**	**300**	**198**	**0**	**0**	**2,247,372**
1980 Total	**1,161,562**	**245,994**	**346,240**	**251,116**	**(g)**	**276,021**	**5,073**	**275**	**158**	**0**	**0**	**2,286,439**
1981 Total	**1,203,203**	**206,421**	**345,777**	**272,674**	**(g)**	**260,684**	**5,686**	**245**	**123**	**0**	**0**	**2,294,812**
1982 Total	**1,192,004**	**146,797**	**305,260**	**282,773**	**(g)**	**309,213**	**4,843**	**196**	**125**	**0**	**0**	**2,241,211**
1983 Total	**1,259,424**	**144,499**	**274,098**	**293,677**	**(g)**	**332,130**	**6,075**	**216**	**163**	**3**	**0**	**2,310,285**
1984 Total	**1,341,681**	**119,808**	**297,394**	**327,634**	**(g)**	**321,150**	**7,741**	**461**	**425**	**6**	**5**	**2,416,304**
1985 Total	**1,402,128**	**100,202**	**291,946**	**383,691**	**(g)**	**281,149**	**9,325**	**743**	**640**	**6**	**11**	**2,469,841**
1986 Total	**1,385,831**	**136,585**	**248,508**	**414,038**	**(g)**	**290,844**	**10,308**	**492**	**685**	**4**	**14**	**2,487,310**
1987 Total	**1,463,781**	**118,493**	**272,621**	**455,270**	**(g)**	**249,695**	**10,775**	**783**	**694**	**4**	**10**	**2,572,127**
1988 Total	**1,540,653**	**148,900**	**252,801**	**526,973**	**(g)**	**222,940**	**10,300**	**936**	**738**	**1**	**9**	**2,704,250**
1989 Total	**1,553,661**	**158,318**	**266,598**	**529,355**	**(g)**	**265,063**	**9,342**	**972**	**993**	**(s)**	**3**	**2,784,304**
1990 Total	**1,559,606**	**117,017**	**264,089**	**576,862**	**-3,508**	**283,434**	**8,581**	**810**	**1,257**	**(s)**	**2**	**2,808,151**
1991 Total	**1,551,167**	**111,463**	**264,172**	**612,565**	**-4,541**	**280,061**	**8,087**	**732**	**1,314**	**(s)**	**3**	**2,825,023**
1992 Total	**1,575,895**	**88,916**	**263,872**	**618,776**	**-4,177**	**243,736**	**8,104**	**816**	**1,276**	**(s)**	**3**	**2,797,219**
1993 Total	**1,639,151**	**99,539**	**258,915**	**610,291**	**-4,036**	**269,098**	**7,571**	**890**	**1,100**	**(s)**	**4**	**2,882,525**
1994 Total	**1,635,493**	**91,039**	**291,115**	**640,440**	**-3,378**	**247,071**	**6,941**	**765**	**1,224**	**(s)**	**3**	**2,910,712**
1995 Total	**1,652,914**	**60,844**	**307,306**	**673,402**	**-2,725**	**296,378**	**4,745**	**633**	**1,016**	**11**	**4**	**2,994,529**
1996 Total	**1,737,453**	**67,346**	**262,730**	**674,729**	**-3,088**	**331,058**	**5,234**	**788**	**1,179**	**10**	**3**	**3,077,442**
1997 Total	**1,787,806**	**77,753**	**283,625**	**628,644**	**-4,041**	**341,273**	**5,469**	**739**	**1,244**	**6**	**3**	**3,122,522**
1998 Total	**1,807,480**	**110,158**	**309,222**	**673,702**	**-4,441**	**308,844**	**5,176**	**719**	**1,305**	**3**	**3**	**3,212,171**
1999 January	155,041	9,803	17,243	65,399	-548	27,708	414	70	99	2	(s)	275,230
February	133,097	7,789	14,621	57,235	-356	26,931	352	49	105	2	(s)	239,825
March	141,629	8,326	19,867	58,578	-377	30,110	397	39	107	2	(s)	258,678
April	133,508	7,021	24,322	48,315	-462	25,660	429	57	117	2	(s)	238,969
May	139,559	7,261	25,878	55,809	-672	27,216	14	75	124	1	(s)	255,266
June	152,057	8,007	30,826	62,025	-558	28,690	13	52	119	1	(s)	281,233
July	172,418	11,566	40,781	66,519	-595	27,863	13	66	112	2	(s)	318,745
August	166,740	9,602	40,068	67,842	-746	24,146	13	63	105	2	(s)	307,835
September	148,651	6,019	26,631	60,666	-407	19,609	13	56	107	2	(s)	261,347
October	141,561	5,024	23,133	55,099	-454	18,681	14	46	107	2	(s)	243,212
November	135,402	3,440	16,391	60,285	-434	19,864	13	61	106	2	(s)	235,129
December	148,018	3,071	16,619	67,265	-373	23,437	14	50	102	3	(s)	258,205
Total	**1,767,679**	**86,929**	**296,381**	**725,036**	**-5,982**	**299,914**	**1,698**	**684**	**1,307**	**23**	**3**	**3,173,674**
2000 January	153,871	4,771	18,152	66,214	-470	23,281	14	44	111	3	(s)	265,991
February	137,477	3,184	16,166	60,053	-401	20,654	13	59	115	4	(s)	237,324
March	135,329	2,974	20,186	58,704	-534	24,531	13	61	131	2	(s)	241,397
April	122,437	3,110	20,937	54,514	-342	26,172	13	58	131	2	(s)	227,031
May	134,171	5,743	29,146	59,864	-435	25,190	13	55	140	2	(s)	253,890
June	145,722	7,395	29,226	62,973	-500	23,136	13	48	113	2	(s)	268,128
July	150,690	7,004	35,077	64,538	-247	22,167	13	59	118	2	(s)	279,421
August	156,643	8,689	38,381	62,905	-317	20,193	13	61	113	2	(s)	286,682
September	139,802	7,488	27,366	54,521	-570	16,352	11	55	108	2	(s)	245,137
October	137,211	5,758	20,693	49,097	-354	15,788	12	67	116	2	(s)	228,389
November	134,200	4,914	17,332	52,841	-314	17,602	12	65	107	4	(s)	226,765
December	149,065	11,150	18,054	59,209	-475	18,088	13	67	55	2	(s)	255,229
Total	**1,696,619**	**72,180**	**290,715**	**705,433**	**-4,960**	**253,155**	**151**	**700**	**1,358**	**29**	**3**	**3,015,383**
2001 January	146,431	11,271	15,549	48,823	-372	17,056	14	81	109	5	(s)	238,967
February	123,805	6,101	13,501	43,500	-460	16,090	12	70	92	4	(s)	202,716
March	129,514	6,836	16,658	43,428	-490	18,619	14	59	132	4	(s)	214,773
April	117,933	6,879	20,565	38,992	-546	15,947	13	52	130	5	(s)	199,971
May	128,666	7,062	22,761	43,285	-279	17,337	(s)	33	151	4	(s)	219,021
June	136,566	7,835	25,749	47,801	-355	18,669	15	48	145	3	(s)	236,477
July	150,077	7,305	34,766	48,396	-473	16,435	16	55	135	3	(s)	256,716
August	152,643	9,056	35,040	48,215	-294	17,510	16	64	138	3	(s)	262,393
8-Month Total	**1,085,636**	**62,347**	**184,589**	**362,441**	**-3,267**	**137,662**	**99**	**461**	**1,032**	**32**	**2**	**1,831,035**
2000 8-Month Total	**1,136,340**	**42,870**	**207,271**	**489,764**	**-3,247**	**185,324**	**103**	**446**	**971**	**19**	**2**	**2,059,864**
1999 8-Month Total	**1,194,048**	**69,376**	**213,607**	**481,722**	**-4,315**	**218,324**	**1,645**	**471**	**886**	**(s)**	**2**	**2,175,781**

[a] Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, and petroleum coke.
[b] Includes supplemental gaseous fuels.
[c] Pumped storage facility production minus energy used for pumping.
[d] Wood, wood waste, wood liquors, wood sludge, peat, railroad ties, and utility poles.
[e] Municipal solid waste, landfill gas, methane, digester gas, waste alcohol, sludge waste, solid byproducts, and tires.
[f] Solar thermal and photovoltaic energy.
[g] Included in conventional hydroelectric power.
(s)=Less than 0.5 million kilowatthours.
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 states and the District of Columbia.
Sources: See end of section.

Table 7.4 Electricity Net Generation at Nonutility Power Producers

(Million Kilowatthours)

	Fossil Fuels						Renewable Energy						
	Coal[a]	Petroleum[b]	Natural Gas[c]	Other Gases[d]	Nuclear Electric Power	Hydroelectric Pumped Storage[e]	Conventional Hydroelectric Power	Geothermal	Wood[f]	Waste[g,h]	Wind	Solar[i]	Total[h]
1989 Total[j]	**30,163**	**5,543**	**97,343**	**(k)**	**47**	**0**	**8,602**	**5,537**	**26,756**	**8,965**	**2,279**	**621**	**187,558**
1990 Total[j]	**30,699**	**7,031**	**114,253**	**(k)**	**113**	**0**	**9,580**	**7,207**	**29,603**	**11,906**	**3,035**	**644**	**216,716**
1991 Total[j]	**38,773**	**7,494**	**128,419**	**(k)**	**77**	**0**	**9,446**	**7,953**	**32,433**	**14,435**	**3,019**	**756**	**246,306**
1992 Total	**45,189**	**10,508**	**154,429**	**(k)**	**65**	**0**	**9,352**	**8,318**	**34,764**	**16,500**	**2,887**	**724**	**286,148**
1993 Total	**50,859**	**12,814**	**169,502**	**(k)**	**76**	**0**	**11,396**	**9,454**	**35,898**	**17,420**	**3,022**	**870**	**314,399**
1994 Total	**56,197**	**14,464**	**174,813**	**12,110**	**52**	**0**	**13,095**	**9,816**	**37,039**	**17,860**	**3,447**	**799**	**343,087**
1995 Total	**57,261**	**14,416**	**191,235**	**13,506**	**0**	**0**	**14,626**	**9,614**	**35,763**	**19,263**	**3,153**	**799**	**363,308**
1996 Total	**58,257**	**14,337**	**193,106**	**14,169**	**0**	**0**	**16,390**	**9,892**	**35,991**	**19,493**	**3,366**	**876**	**369,552**
1997 Total	**56,298**	**15,272**	**201,816**	**11,175**	**0**	**0**	**17,673**	**9,100**	**33,492**	**19,341**	**3,216**	**866**	**371,700**
1998 Total	**66,466**	**16,775**	**231,415**	**8,514**	**0**	**0**	**14,486**	**9,550**	**31,070**	**19,981**	**2,985**	**854**	**405,702**
1999 January	6,904	3,501	E 18,540	E 950	0	-6	1,275	703	3,372	E 2,222	205	9	37,675
February	5,881	2,588	E 16,331	E 836	0	-1	1,653	631	2,754	E 2,067	224	17	32,981
March	7,478	3,026	E 18,063	E 925	0	-3	1,785	695	2,970	E 2,134	294	27	37,393
April	7,243	2,969	E 18,498	E 947	0	-2	1,855	616	2,902	E 2,230	390	47	37,695
May	7,513	3,260	E 18,868	E 966	0	-4	1,658	1,102	2,927	E 2,233	584	86	39,193
June	9,143	3,685	E 21,006	E 1,076	0	-12	1,299	1,281	2,878	E 2,193	579	141	43,269
July	11,584	3,778	E 26,879	E 1,377	287	-11	1,304	1,393	3,289	E 2,209	566	141	52,794
August	11,270	3,226	E 26,834	E 1,374	442	-14	1,188	1,442	3,194	E 2,198	485	141	51,781
September	10,081	2,656	E 24,526	E 1,256	367	-17	1,278	1,382	3,731	E 2,085	359	114	47,817
October	11,657	2,206	E 25,540	E 1,308	499	-18	1,378	1,434	3,090	E 1,924	292	66	49,376
November	10,681	2,327	E 22,049	E 1,129	469	-16	1,301	1,322	2,861	E 2,093	223	39	44,478
December	17,207	3,409	E 23,136	E 1,185	1,155	-20	3,596	1,315	2,948	E 2,207	263	17	56,419
Total	**116,642**	**36,631**	**E 260,268**	**E 13,330**	**3,218**	**-124**	**19,570**	**13,316**	**36,916**	**E 25,794**	**4,465**	**845**	**530,871**
2000 January	19,634	3,547	E 22,394	E 1,147	1,799	-19	2,234	1,186	3,365	E 1,897	387	35	57,605
February	17,847	2,528	E 21,417	E 1,097	1,635	-16	1,842	1,061	3,167	E 1,863	364	47	52,851
March	17,923	1,919	E 21,394	E 1,096	1,790	-13	2,263	1,052	3,308	E 1,946	426	60	53,164
April	17,148	1,791	E 20,654	E 1,058	1,737	-41	2,374	1,095	3,179	E 1,896	491	69	51,450
May	19,593	2,086	E 24,349	E 1,247	1,615	-57	2,350	1,120	2,999	E 1,978	458	76	57,814
June	21,593	2,681	E 26,771	E 1,371	1,622	-61	2,176	1,132	3,155	E 1,929	424	104	62,896
July	26,755	2,656	E 28,873	E 1,479	4,633	-71	2,148	1,205	3,456	E 1,986	397	102	73,618
August	27,707	3,509	E 32,915	E 1,686	5,049	-73	2,192	1,237	3,257	E 2,008	405	104	79,996
September	24,967	2,735	E 28,806	E 1,475	7,028	-71	2,162	1,197	3,188	E 1,887	379	94	73,849
October	24,161	3,232	E 26,894	E 1,377	6,143	-60	1,889	1,232	3,330	E 1,951	440	49	70,637
November	24,894	3,307	E 25,752	E 1,319	6,737	-54	1,865	1,238	3,167	E 1,932	414	57	70,630
December	28,884	6,611	E 25,776	E 1,320	8,672	-56	1,983	1,290	3,227	E 1,959	341	44	80,051
Total	**271,106**	**36,601**	**E 305,993**	**E 15,672**	**48,460**	**-592**	**25,478**	**14,046**	**38,798**	**E 23,232**	**4,925**	**842**	**784,561**
2001 January	34,616	7,923	E 26,510	E 1,358	19,831	-56	1,768	1,294	3,263	E 1,875	353	E 12	98,746
February	29,869	4,429	E 24,413	E 1,250	17,725	-42	1,731	1,157	2,923	E 2,039	465	E 13	85,972
March	29,058	4,682	E 27,454	E 1,406	18,664	-49	1,987	1,195	3,287	E 1,895	610	E 44	90,234
April	26,003	4,055	E 24,504	E 1,255	16,961	-52	2,370	1,094	3,041	E 2,179	686	E 60	82,157
May	26,595	3,761	E 28,426	E 1,456	18,233	-50	2,186	1,085	3,138	E 2,149	782	E 91	87,851
June	28,459	4,166	E 30,954	E 1,585	20,140	-55	2,037	1,086	3,229	E 2,086	712	E 112	94,511
July	33,070	4,021	E 35,989	E 1,843	20,719	-56	1,425	1,176	3,659	E 2,117	684	E 121	104,768
August	34,747	5,609	E 39,985	E 2,048	20,123	-57	1,133	1,155	3,415	E 2,069	674	E 122	111,024
8-Month Total	**242,417**	**38,647**	**E 238,235**	**E 12,202**	**152,397**	**-418**	**14,637**	**9,241**	**25,956**	**E 16,409**	**4,966**	**E 575**	**755,263**
2000 8-Month Total	**168,200**	**20,716**	**E 198,766**	**E 10,180**	**19,880**	**-351**	**17,579**	**9,088**	**25,886**	**E 15,502**	**3,352**	**597**	**489,393**
1999 8-Month Total	**67,016**	**26,033**	**E 165,018**	**E 8,452**	**729**	**-54**	**12,018**	**7,863**	**24,287**	**E 17,484**	**3,327**	**608**	**332,781**

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

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

[c] Natural gas only.

[d] Blast furnace gas, coke oven gas, butane gas, propane gas, refinery gas, and other process and waste gases derived from coal, petroleum, and natural gas.

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

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

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

[h] "Total" includes batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam, which are not separately displayed. Beginning in 1999, these components are also included in "Waste."

[i] Solar thermal and photovoltaic energy.

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

[k] Included in natural gas.

E=Estimate.

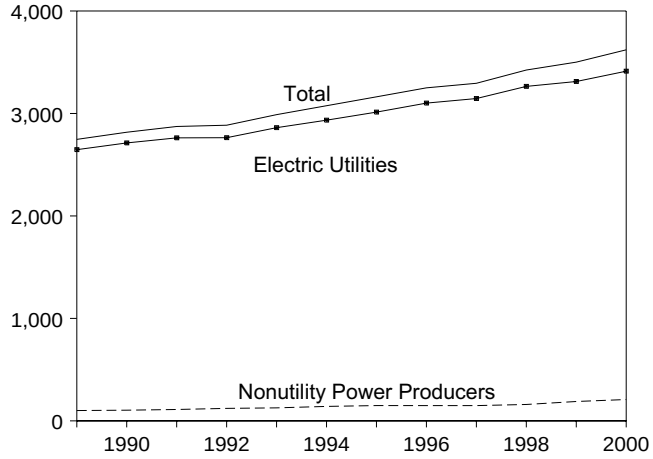
Notes: Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility plants. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 states and the District of Columbia.

Sources: **1989-1998:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form. **1999 and 2000**: EIA, Form EIA-900, "Monthly Nonutility Power Report." **2001:** EIA, Form EIA-906, "Power Plant Report."

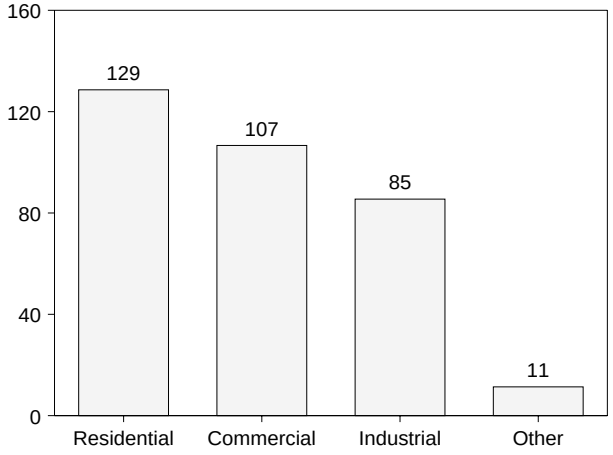
Figure 7.3 Electricity End Use

(Billion Kilowatthours)

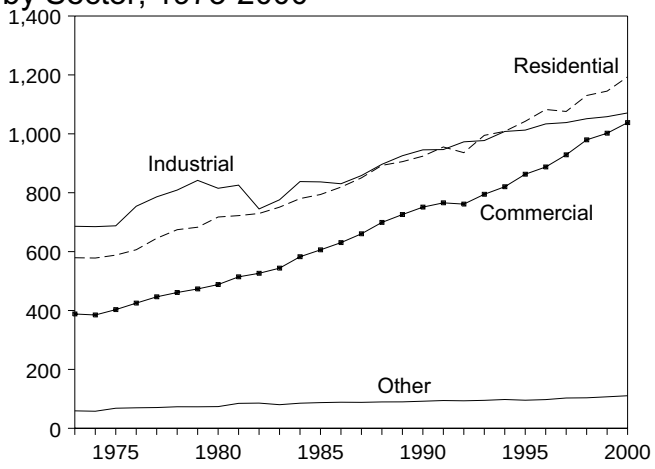
Electricity End Use Overview, 1989-2000



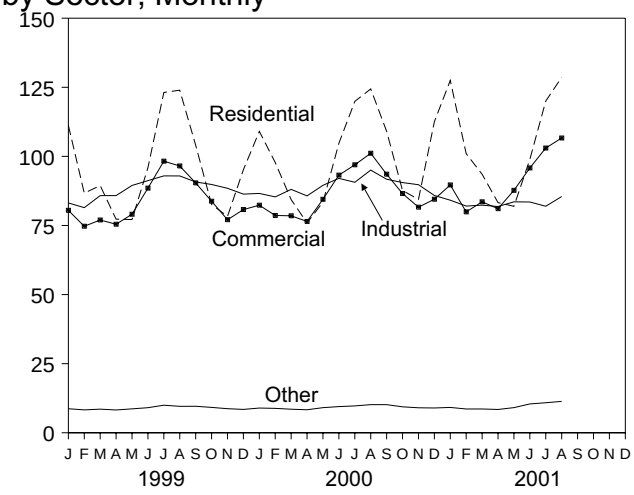
Electric Utility Retail Sales by Sector, August 2001



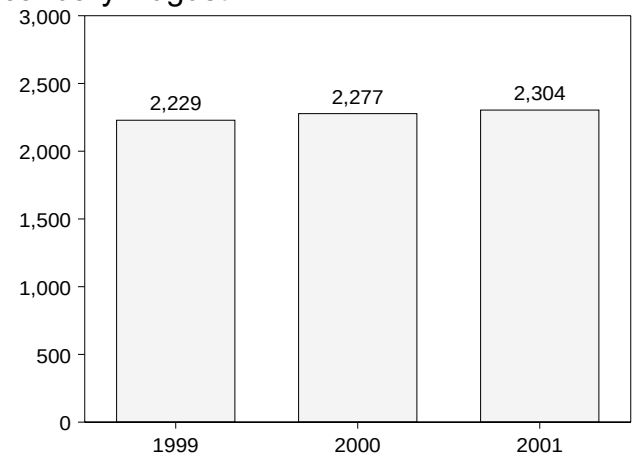
Electric Utility Retail Sales by Sector, 1973-2000



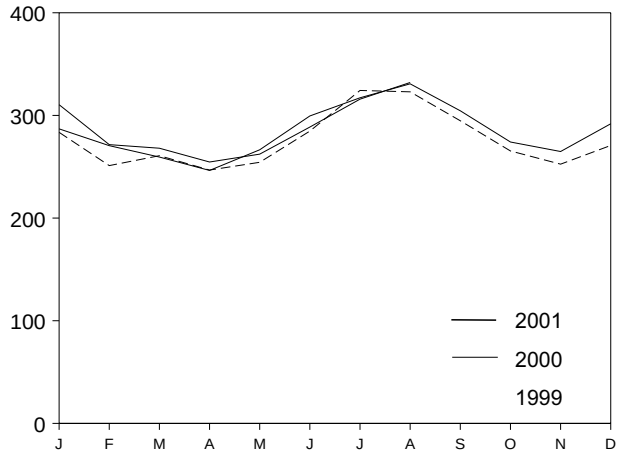
Electric Utility Retail Sales by Sector, Monthly



Electric Utility Retail Sales Total, January-August



Electric Utility Retail Sales Total, Monthly



Notes: • Electric utility data include nonutility sales of electricity to utilities for distribution to end users; beginning in 1996, they also include sales to ultimate consumers by power marketers. • Nonutility data are for nonutility facility use of onsite net electricity generation, and nonutility sales of electricity to end users. • Because vertical scales differ, graphs should not be compared.
Source: Table 7.5.

Table 7.5 Electricity End Use

(Million Kilowatthours)

	Electric Utility Retail Sales[a]					Nonutility Power Producers			
	Residential	Commercial	Industrial	Other[b]	Total	Direct Use[c]	Sales to End Users	Total	Total[a]
1973 Total	**579,231**	**388,266**	**686,085**	**59,326**	**1,712,909**	**NA**	**NA**	**NA**	**NA**
1974 Total	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**	**NA**	**NA**	**NA**	**NA**
1975 Total	**588,140**	**403,049**	**687,680**	**68,222**	**1,747,091**	**NA**	**NA**	**NA**	**NA**
1976 Total	**606,452**	**425,094**	**754,069**	**69,631**	**1,855,246**	**NA**	**NA**	**NA**	**NA**
1977 Total	**645,239**	**446,514**	**786,037**	**70,571**	**1,948,361**	**NA**	**NA**	**NA**	**NA**
1978 Total	**674,466**	**461,163**	**809,078**	**73,215**	**2,017,922**	**NA**	**NA**	**NA**	**NA**
1979 Total	**682,819**	**473,307**	**841,903**	**73,070**	**2,071,099**	**NA**	**NA**	**NA**	**NA**
1980 Total	**717,495**	**488,155**	**815,067**	**73,732**	**2,094,449**	**NA**	**NA**	**NA**	**NA**
1981 Total	**722,265**	**514,338**	**825,743**	**84,756**	**2,147,103**	**NA**	**NA**	**NA**	**NA**
1982 Total	**729,520**	**526,397**	**744,949**	**85,575**	**2,086,441**	**NA**	**NA**	**NA**	**NA**
1983 Total	**750,948**	**543,788**	**775,999**	**80,219**	**2,150,955**	**NA**	**NA**	**NA**	**NA**
1984 Total	**780,092**	**582,621**	**837,836**	**85,248**	**2,285,796**	**NA**	**NA**	**NA**	**NA**
1985 Total	**793,934**	**605,989**	**836,772**	**87,279**	**2,323,974**	**NA**	**NA**	**NA**	**NA**
1986 Total	**819,088**	**630,520**	**830,531**	**88,615**	**2,368,753**	**NA**	**NA**	**NA**	**NA**
1987 Total	**850,410**	**660,433**	**858,233**	**88,196**	**2,457,272**	**NA**	**NA**	**NA**	**NA**
1988 Total	**892,866**	**699,100**	**896,498**	**89,598**	**2,578,062**	**NA**	**NA**	**NA**	**NA**
1989 Total	**905,525**	**725,861**	**925,659**	**89,765**	**2,646,809**	**[d]82,742**	**[d]17,687**	**[d]100,430**	**2,747,239**
1990 Total	**924,019**	**751,027**	**945,522**	**91,988**	**2,712,555**	**[d]84,367**	**[d]19,824**	**[d]104,191**	**2,816,746**
1991 Total	**955,417**	**765,664**	**946,583**	**94,339**	**2,762,003**	**[d]99,623**	**[d]11,419**	**[d]111,042**	**2,873,045**
1992 Total	**935,939**	**761,271**	**972,714**	**93,442**	**2,763,365**	**110,988**	**10,786**	**121,774**	**2,885,140**
1993 Total	**994,781**	**794,573**	**977,164**	**94,944**	**2,861,462**	**111,322**	**15,569**	**126,891**	**2,988,353**
1994 Total	**1,008,482**	**820,269**	**1,007,981**	**97,830**	**2,934,563**	**123,283**	**17,626**	**140,909**	**3,075,472**
1995 Total	**1,042,501**	**862,685**	**1,012,693**	**95,407**	**3,013,287**	**133,609**	**15,548**	**149,157**	**3,162,443**
1996 Total	**1,082,512**	**887,445**	**1,033,631**	**97,539**	**3,101,127**	**134,644**	**14,284**	**148,928**	**3,250,055**
1997 Total	**1,075,880**	**928,633**	**1,038,197**	**102,901**	**3,145,610**	**130,836**	**18,147**	**148,983**	**3,294,593**
1998 Total	**1,130,109**	**979,401**	**1,051,203**	**103,518**	**3,264,231**	**134,041**	**25,777**	**159,818**	**3,424,049**
1999 January	111,219	80,473	83,152	8,689	283,533	NA	NA	NA	NA
February	86,705	74,720	81,448	8,277	251,150	NA	NA	NA	NA
March	89,450	76,978	85,802	8,544	260,773	NA	NA	NA	NA
April	77,285	75,453	85,814	8,236	246,788	NA	NA	NA	NA
May	77,152	79,060	89,495	8,650	254,356	NA	NA	NA	NA
June	95,915	88,513	91,226	9,079	284,733	NA	NA	NA	NA
July	123,126	98,260	92,951	9,978	324,315	NA	NA	NA	NA
August	123,960	96,523	92,930	9,568	322,980	NA	NA	NA	NA
September	104,055	90,406	90,750	9,588	294,798	NA	NA	NA	NA
October	82,605	83,776	89,839	9,180	265,399	NA	NA	NA	NA
November	78,288	77,076	88,454	8,711	252,529	NA	NA	NA	NA
December	95,163	80,759	86,356	8,453	270,732	NA	NA	NA	NA
Total	**1,144,923**	**1,001,996**	**1,058,217**	**106,952**	**3,312,087**	**147,161**	**41,683**	**188,844**	**3,500,931**
2000 January	109,058	82,339	86,602	8,937	286,936	NA	NA	NA	NA
February	97,785	78,627	85,341	8,826	270,580	NA	NA	NA	NA
March	84,358	78,497	88,061	8,533	259,448	NA	NA	NA	NA
April	75,934	76,460	85,708	8,330	246,434	NA	NA	NA	NA
May	83,429	84,479	89,535	9,085	266,528	NA	NA	NA	NA
June	104,742	93,219	92,042	9,471	299,473	NA	NA	NA	NA
July	119,907	96,943	90,629	9,719	317,198	NA	NA	NA	NA
August	124,424	101,128	95,043	10,174	330,768	NA	NA	NA	NA
September	109,078	93,563	91,737	10,167	304,545	NA	NA	NA	NA
October	87,664	86,559	90,521	9,382	274,125	NA	NA	NA	NA
November	84,449	81,625	89,753	9,036	264,863	NA	NA	NA	NA
December	112,551	84,497	85,855	8,963	291,866	NA	NA	NA	NA
Total	**1,193,380**	**1,037,936**	**1,070,827**	**110,622**	**3,412,766**	**NA**	**NA**	**[F]208,400**	**[E]3,621,166**
2001 January	127,490	89,662	84,146	9,164	310,462	NA	NA	NA	NA
February	100,988	79,921	82,038	8,598	271,545	NA	NA	NA	NA
March	93,534	83,565	82,357	8,615	268,071	NA	NA	NA	NA
April	83,273	81,066	81,859	8,431	254,629	NA	NA	NA	NA
May	81,937	87,702	83,566	9,095	262,300	NA	NA	NA	NA
June	98,910	95,812	83,502	10,439	288,662	NA	NA	NA	NA
July	120,006	103,024	81,957	10,862	315,849	NA	NA	NA	NA
August	128,616	106,647	85,471	11,358	332,093	NA	NA	NA	NA
8-Month Total	**834,754**	**727,400**	**664,896**	**76,563**	**2,303,612**	**NA**	**NA**	**NA**	**NA**
2000 8-Month Total	**799,638**	**691,692**	**712,962**	**73,074**	**2,277,366**	**NA**	**NA**	**NA**	**NA**
1999 8-Month Total	**784,812**	**669,980**	**702,818**	**71,020**	**2,228,629**	**NA**	**NA**	**NA**	**NA**

[a] Includes nonutility sales of electricity to utilities for distribution to end users. Beginning in 1996, also includes sales to ultimate consumers by power marketers. See box below for additional information.

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

[c] Nonutility facility use of onsite net electricity generation.

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

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

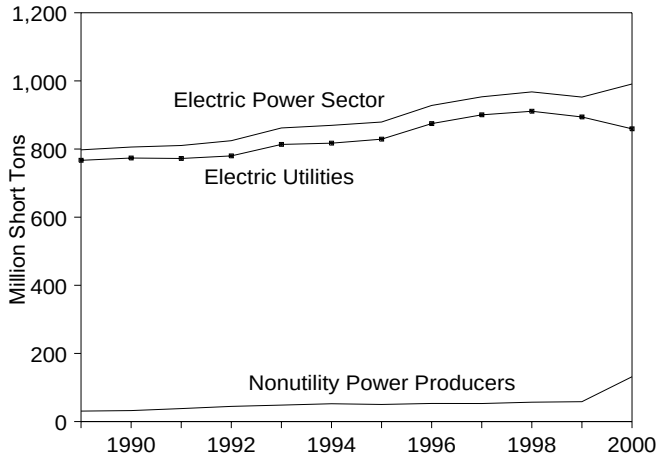
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

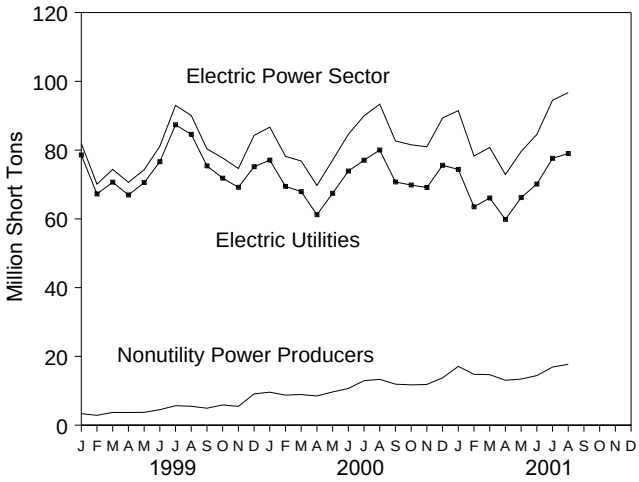
Beginning in 1996, data include sales to ultimate consumers by power marketers in several State 'retail wheeling" pilot programs. In million kilowatthours, these were 3,317 in 1996; 5,849 in 1997; and 24,412 in 1998. In 1999 these sales totaled 76,188 million kilowatthours, of which 4,162 were to the residential sector; 31,395 to the commercial sector; 40,434 to the industrial sector; and 198 to other. See EIA, *Electric Sales and Revenue 1999,* Appendix C, for more information.

Figure 7.4 Consumption of Fossil Fuels To Generate Electricity

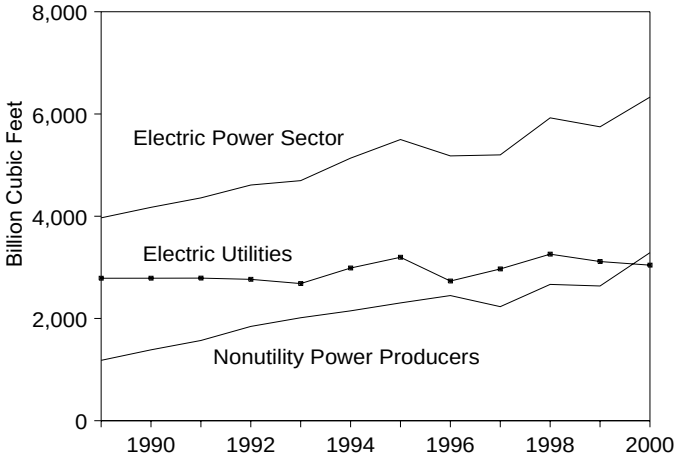
Coal Consumption, 1989-2000



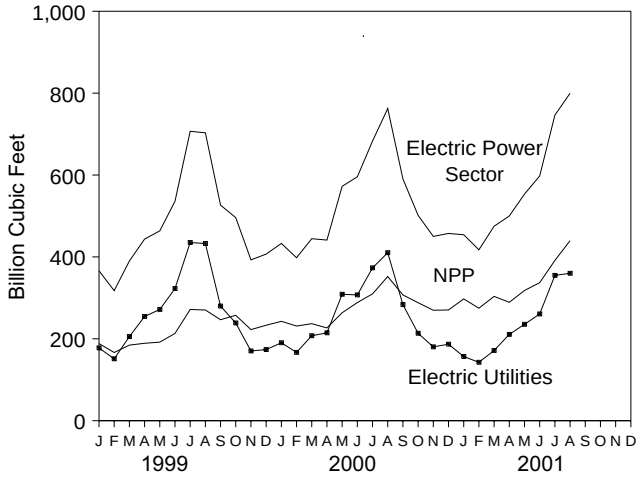
Coal Consumption, Monthly



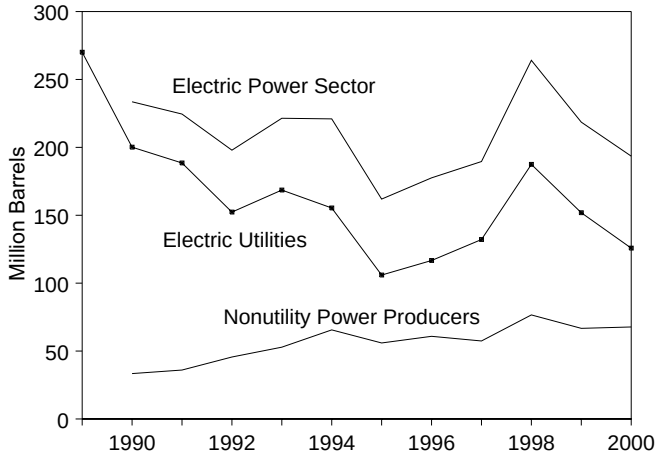
Natural Gas Consumption, 1989-2000



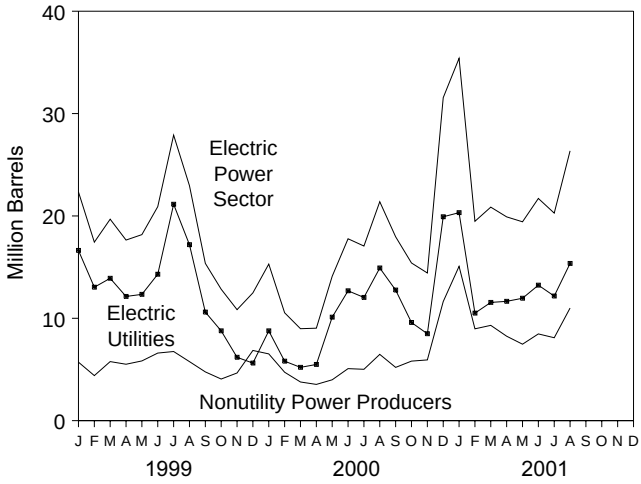
Natural Gas Consumption, Monthly



Petroleum Consumption, 1989-2000



Petroleum Consumption, Monthly



NPP=Nonutility Power Producers.
Note: • Electric utility data for all years are for fuels consumed to produce electricity only. • Nonutility data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; monutility data for 1999 forward are for fuels consumed to produce electricity only. • Petroleum includes petroleum coke, which is converted to liquid units at 5 barrels per short ton. • Because vertical scales differ, graphs should not be compared.
Sources: Tables 7.6, 7.7, and 7.8.

Table 7.6 Consumption of Fossil Fuels To Generate Electricity

	Coal[a]	Petroleum			Natural Gas[d]
		Liquids[b]	Petroleum Coke[c]	Total[c]	
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1989 Total	**797,650**	**295,828**	**NA**	**NA**	**3,968,027**
1990 Total	**805,860**	**223,932**	**1,927**	**233,570**	**4,174,073**
1991 Total	**810,387**	**212,768**	**2,351**	**224,521**	**4,358,864**
1992 Total	**824,467**	**179,211**	**3,749**	**197,955**	**4,610,465**
1993 Total	**861,851**	**199,414**	**4,402**	**221,426**	**4,696,228**
1994 Total	**869,531**	**192,893**	**5,615**	**220,966**	**5,136,392**
1995 Total	**879,336**	**137,181**	**4,949**	**161,927**	**5,500,451**
1996 Total	**927,880**	**151,718**	**5,165**	**177,544**	**5,179,827**
1997 Total	**953,274**	**160,740**	**5,764**	**189,561**	**5,199,816**
1998 Total	**967,716**	**232,889**	**6,239**	**264,086**	**5,924,484**
1999 January	81,915	20,668	335	22,345	E 366,000
February	70,100	16,191	250	17,439	E 317,635
March	74,384	16,993	537	19,680	E 390,024
April	70,630	15,533	422	17,645	E 443,689
May	74,281	16,423	350	18,175	E 463,608
June	81,126	19,133	355	20,907	E 535,881
July	93,017	26,318	316	27,896	E 706,794
August	90,068	21,075	376	22,956	E 703,143
September	80,346	14,009	271	15,366	E 526,514
October	77,714	11,539	260	12,839	E 496,054
November	74,656	8,628	444	10,848	E 392,792
December	84,277	9,460	605	12,483	E 406,811
Total	**952,516**	**195,971**	**4,523**	**218,584**	**E 5,748,944**
2000 January	86,680	13,136	432	15,295	E 433,009
February	78,180	8,610	386	10,540	E 398,053
March	76,835	7,139	369	8,986	E 444,525
April	69,715	7,282	350	9,034	E 441,203
May	77,092	12,550	310	14,102	E 572,447
June	84,601	16,127	329	17,772	E 595,733
July	89,976	15,450	321	17,057	E 683,015
August	93,366	19,648	349	21,391	E 762,448
September	82,656	16,231	346	17,962	E 590,715
October	81,549	13,778	326	15,406	E 501,618
November	80,967	12,801	325	14,426	E 450,103
December	89,348	30,016	308	31,554	E 457,314
Total	**990,966**	**172,769**	**4,153**	**193,533**	**E 6,330,184**
2001 January	91,489	32,988	482	35,397	E 454,194
February	78,296	17,256	444	19,478	E 417,363
March	80,761	18,755	421	20,861	E 474,958
April	72,901	18,109	360	19,910	E 499,942
May	79,598	17,241	438	19,430	E 553,409
June	84,558	19,414	460	21,711	E 597,704
July	94,518	17,684	518	20,276	E 746,286
August	96,709	23,781	515	26,358	E 799,750
8-Month Total	**678,830**	**165,228**	**3,638**	**183,421**	**E 4,543,606**
2000 8-Month Total	**656,445**	**99,942**	**2,846**	**114,177**	**E 4,330,433**
1999 8-Month Total	**635,521**	**152,334**	**2,941**	**167,043**	**E 3,926,774**

[a] Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.
[b] Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.
[c] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[d] Includes supplemental gaseous fuels at electric utilities.
NA=Not available. E=Estimate.

Notes: Electric utility data for all years are for fuels consumed to produce electricity only. Nonutility data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; nonutility data for 1999 forward are for fuels consumed to produce electricity only. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: Tables 7.7 and 7.8.

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

Table 7.7 Consumption of Fossil Fuels To Generate Electricity at Electric Utilities

	Coal				Petroleum					
	Anthracite[a]	Bituminous Coal[b]	Lignite	Total	Heavy Oil[c]	Light Oil[d]	Total Liquids	Petroleum Coke[e]	Total[e]	Natural Gas[f]
	Thousand Short Tons				Thousand Barrels			Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1973 Total	**1,443**	**376,975**	**10,794**	**389,212**	**513,190**	**47,058**	**560,248**	**507**	**562,781**	**3,660,172**
1974 Total	**1,498**	**378,643**	**11,670**	**391,811**	**483,146**	**53,128**	**536,274**	**625**	**539,399**	**3,443,428**
1975 Total	**1,480**	**388,523**	**15,960**	**405,962**	**467,221**	**38,907**	**506,128**	**70**	**506,479**	**3,157,669**
1976 Total	**1,350**	**425,205**	**21,817**	**448,371**	**514,077**	**41,843**	**555,920**	**68**	**556,261**	**3,080,868**
1977 Total	**1,425**	**451,051**	**24,650**	**477,126**	**574,869**	**48,837**	**623,705**	**98**	**624,193**	**3,191,200**
1978 Total	**1,064**	**448,763**	**31,407**	**481,235**	**588,319**	**47,520**	**635,839**	**398**	**637,830**	**3,188,363**
1979 Total	**1,046**	**488,129**	**37,876**	**527,051**	**492,606**	**30,691**	**523,297**	**268**	**524,636**	**3,490,523**
1980 Total	**951**	**526,680**	**41,642**	**569,274**	**391,163**	**29,051**	**420,214**	**179**	**421,110**	**3,681,595**
1981 Total	**1,221**	**550,784**	**44,792**	**596,797**	**329,798**	**21,313**	**351,111**	**139**	**351,806**	**3,640,154**
1982 Total	**1,075**	**543,346**	**49,245**	**593,666**	**234,434**	**15,337**	**249,771**	**149**	**250,517**	**3,225,518**
1983 Total	**1,036**	**570,108**	**54,067**	**625,211**	**228,984**	**16,512**	**245,497**	**261**	**246,804**	**2,910,767**
1984 Total	**1,070**	**606,339**	**56,990**	**664,399**	**189,289**	**15,190**	**204,479**	**252**	**205,736**	**3,111,342**
1985 Total	**1,033**	**631,885**	**60,923**	**693,841**	**158,779**	**14,635**	**173,414**	**231**	**174,571**	**3,044,083**
1986 Total	**829**	**616,134**	**68,093**	**685,056**	**216,156**	**14,326**	**230,482**	**313**	**232,046**	**2,602,370**
1987 Total	**972**	**647,824**	**69,098**	**717,894**	**184,011**	**15,367**	**199,378**	**348**	**201,116**	**2,844,051**
1988 Total	**1,063**	**681,048**	**76,260**	**758,372**	**229,327**	**18,769**	**248,096**	**409**	**250,141**	**2,635,613**
1989 Total	**1,049**	**688,504**	**77,335**	**766,888**	**241,960**	**25,491**	**267,451**	**517**	**270,038**	**2,787,012**
1990 Total	**1,031**	**694,317**	**78,201**	**773,549**	**181,231**	**14,823**	**196,054**	**819**	**200,152**	**2,787,332**
1991 Total	**994**	**691,275**	**79,999**	**772,268**	**171,157**	**13,729**	**184,886**	**722**	**188,494**	**2,789,014**
1992 Total	**986**	**698,626**	**80,248**	**779,860**	**135,779**	**11,556**	**147,335**	**999**	**152,329**	**2,765,608**
1993 Total	**951**	**732,736**	**79,821**	**813,508**	**149,287**	**13,168**	**162,454**	**1,220**	**168,556**	**2,682,440**
1994 Total	**1,123**	**737,102**	**79,045**	**817,270**	**134,666**	**16,338**	**151,004**	**875**	**155,377**	**2,987,146**
1995 Total	**978**	**749,951**	**78,078**	**829,007**	**86,584**	**15,565**	**102,150**	**761**	**105,956**	**3,196,507**
1996 Total	**1,009**	**795,252**	**78,421**	**874,681**	**96,382**	**16,892**	**113,274**	**681**	**116,680**	**2,732,107**
1997 Total	**1,014**	**821,823**	**77,524**	**900,361**	**109,989**	**15,157**	**125,146**	**1,400**	**132,147**	**2,968,453**
1998 Total	**867**	**832,094**	**77,906**	**910,867**	**156,573**	**22,041**	**178,614**	**1,769**	**187,461**	**3,258,054**
1999 January	84	71,651	6,842	78,576	13,630	2,348	15,978	130	16,630	177,596
February	87	61,221	5,921	67,229	11,615	884	12,499	108	13,037	151,052
March	102	65,264	5,314	70,680	12,140	1,083	13,223	137	13,910	205,440
April	93	61,590	5,264	66,948	9,861	1,656	11,517	123	12,134	254,657
May	2	64,497	6,046	70,545	10,384	1,262	11,646	138	12,338	271,710
June	58	69,760	6,807	76,624	11,536	2,070	13,607	139	14,301	322,696
July	78	80,043	7,236	87,357	15,503	4,795	20,298	169	21,141	435,201
August	75	77,298	7,202	84,575	13,297	2,960	16,257	186	17,188	432,719
September	48	68,614	6,744	75,406	8,777	1,249	10,025	115	10,602	279,787
October	59	65,239	6,529	71,826	7,176	1,017	8,193	116	8,773	238,553
November	NA	62,679	6,505	69,184	4,495	1,155	5,650	108	6,190	170,290
December	NA	68,054	7,115	75,168	3,887	1,048	4,936	138	5,624	173,719
Total	**686**	**815,909**	**77,525**	**894,120**	**122,303**	**21,528**	**143,830**	**1,608**	**151,868**	**3,113,419**
2000 January	NA	70,591	6,499	77,090	6,194	1,769	7,963	162	8,772	190,316
February	NA	63,085	6,357	69,442	4,083	1,068	5,150	132	5,810	166,842
March	NA	61,921	6,004	67,925	3,859	913	4,772	87	5,209	207,545
April	NA	56,301	4,912	61,214	4,222	824	5,046	89	5,493	214,599
May	NA	61,750	5,678	67,428	7,781	1,921	9,702	81	10,109	308,787
June	NA	67,458	6,452	73,910	10,533	1,659	12,192	99	12,687	307,218
July	NA	69,993	7,058	77,051	9,792	1,957	11,749	58	12,041	373,256
August	NA	72,974	7,046	80,021	12,149	2,198	14,347	114	14,915	410,344
September	NA	64,397	6,328	70,725	10,836	1,485	12,321	87	12,757	283,535
October	NA	63,225	6,610	69,835	8,222	1,023	9,245	69	9,588	213,487
November	NA	62,711	6,404	69,114	6,827	1,292	8,120	74	8,490	180,318
December	NA	69,129	6,450	75,579	12,852	6,668	19,520	80	19,918	186,846
Total	**NA**	**783,536**	**75,799**	**859,335**	**97,350**	**22,779**	**120,129**	**1,132**	**125,788**	**3,043,094**
2001 January	NA	68,277	6,101	74,379	13,375	6,408	19,783	108	20,322	156,734
February	NA	58,125	5,380	63,505	8,304	1,699	10,003	100	10,505	142,626
March	NA	60,317	5,749	66,066	9,226	1,924	11,150	80	11,551	171,432
April	NA	54,418	5,421	59,839	9,526	1,866	11,392	53	11,658	210,784
May	NA	60,211	5,975	66,185	9,902	1,673	11,575	77	11,959	235,381
June	NA	64,126	5,999	70,125	11,276	1,403	12,679	112	13,236	260,613
July	NA	71,016	6,597	77,613	10,167	1,309	11,476	139	12,173	354,834
August	NA	72,309	6,700	79,010	12,637	1,835	14,472	177	15,359	359,940
8-Month Total	**NA**	**508,799**	**47,922**	**556,720**	**84,412**	**18,118**	**102,530**	**847**	**106,764**	**1,892,344**
2000 8-Month Total	**NA**	**524,075**	**50,007**	**574,081**	**58,613**	**12,310**	**70,923**	**822**	**75,036**	**2,178,908**
1999 8-Month Total	**579**	**551,324**	**50,633**	**602,536**	**97,967**	**17,059**	**115,026**	**1,131**	**120,680**	**2,251,070**

[a] Includes anthracite silt stored off-site.
[b] Includes subbituminous coal.
[c] For 1973-1979, steam plant consumption of petroleum; for 1980 forward, fuel oil nos. 5 and 6 (and small amounts of fuel oil no. 4).
[d] For 1973-1979, gas turbine and internal combustion plant use of petroleum; for 1980 forward, fuel oil nos. 1 and 2 (and small amounts of kerosene and jet fuel).
[e] Petroleum coke is converted from short tons to barrels by multiplying by 5.
[f] Includes supplemental gaseous fuels.

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.
Sources: **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." **October 1977-1979:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." **1980-1989:** Energy Information Administration (EIA), *Electric Power Monthly,* March issues. **1990 forward:** EIA, *Electric Power Monthly,* November 2001, Table 14.

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

	Coal[a]	Petroleum			Natural Gas[d]
		Liquids[b]	Petroleum Coke	Total[c]	
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1989 Total[e]	**30,762**	**28,377**	**NA**	**NA**	**1,181,015**
1990 Total[e]	**32,311**	**27,878**	**1,108**	**33,418**	**1,386,741**
1991 Total[e]	**38,119**	**27,882**	**1,629**	**36,027**	**1,569,850**
1992 Total	**44,607**	**31,876**	**2,750**	**45,626**	**1,844,857**
1993 Total	**48,343**	**36,960**	**3,182**	**52,870**	**2,013,788**
1994 Total	**52,261**	**41,889**	**4,740**	**65,589**	**2,149,246**
1995 Total	**50,329**	**35,031**	**4,188**	**55,971**	**2,303,944**
1996 Total	**53,199**	**38,444**	**4,484**	**60,864**	**2,447,720**
1997 Total	**52,913**	**35,594**	**4,364**	**57,414**	**2,231,363**
1998 Total	**56,849**	**54,275**	**4,470**	**76,625**	**2,666,430**
1999 January	3,339	4,690	205	5,715	[E] 188,404
February	2,871	3,692	142	4,402	[E] 166,583
March	3,704	3,770	400	5,770	[E] 184,584
April	3,682	4,016	299	5,511	[E] 189,032
May	3,736	4,777	212	5,837	[E] 191,898
June	4,502	5,526	216	6,606	[E] 213,185
July	5,660	6,020	147	6,755	[E] 271,593
August	5,493	4,818	190	5,768	[E] 270,424
September	4,940	3,984	156	4,764	[E] 246,727
October	5,888	3,346	144	4,066	[E] 257,501
November	5,472	2,978	336	4,658	[E] 222,502
December	9,109	4,524	467	6,859	[E] 233,092
Total	**58,396**	**52,141**	**2,915**	**66,716**	[E] **2,635,525**
2000 January	9,590	5,173	270	6,523	[E] 242,693
February	8,738	3,460	254	4,730	[E] 231,211
March	8,910	2,367	282	3,777	[E] 236,980
April	8,501	2,236	261	3,541	[E] 226,604
May	9,664	2,848	229	3,993	[E] 263,660
June	10,691	3,935	230	5,085	[E] 288,515
July	12,925	3,701	263	5,016	[E] 309,759
August	13,345	5,301	235	6,476	[E] 352,104
September	11,931	3,910	259	5,205	[E] 307,180
October	11,714	4,533	257	5,818	[E] 288,131
November	11,853	4,681	251	5,936	[E] 269,785
December	13,769	10,496	228	11,636	[E] 270,468
Total	**131,631**	**52,640**	**3,021**	**67,745**	[E] **3,287,090**
2001 January	17,110	13,205	374	15,075	[E] 297,460
February	14,791	7,253	344	8,973	[E] 274,737
March	14,695	7,605	341	9,310	[E] 303,526
April	13,062	6,717	307	8,252	[E] 289,158
May	13,413	5,666	361	7,471	[E] 318,028
June	14,433	6,735	348	8,475	[E] 337,091
July	16,905	6,208	379	8,103	[E] 391,452
August	17,699	9,309	338	10,999	[E] 439,810
8-Month Total	**122,108**	**62,698**	**2,792**	**76,658**	[E] **2,651,262**
2000 8-Month Total	**82,364**	**29,021**	**2,024**	**39,141**	[E] **2,151,526**
1999 8-Month Total	**32,987**	**37,309**	**1,811**	**46,364**	[E] **1,675,703**

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

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

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

[d] Natural gas only.

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

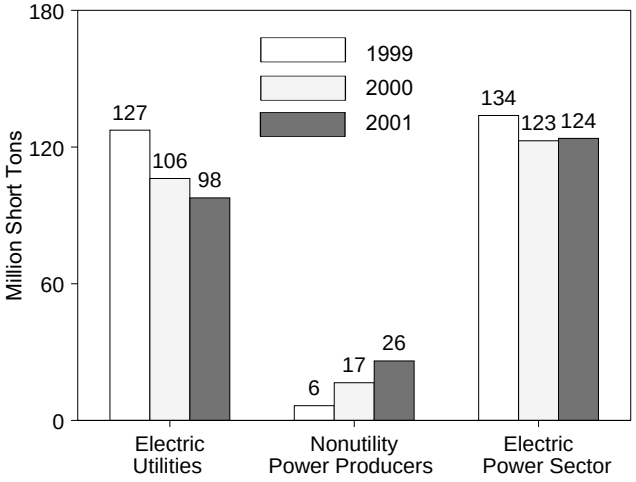
NA=Not available. E=Estimate.

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

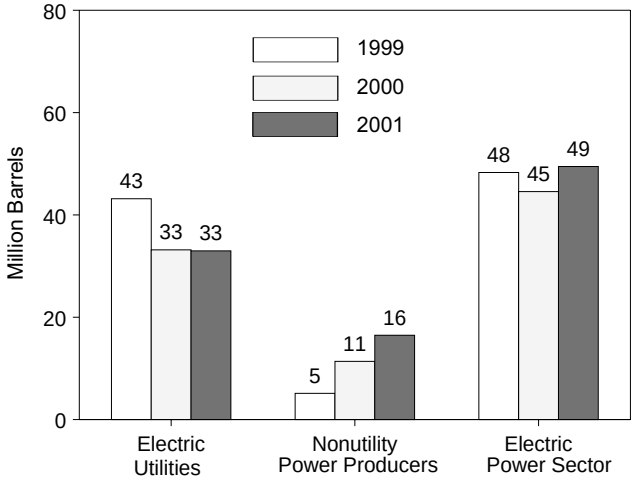
Sources: **1989-1998:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form. **1999 and 2000:** EIA, Form EIA-900, "Monthly Nonutility Power Report." **2001:** EIA, Form EIA-906, "Power Plant Report."

Figure 7.5 Electric Power Sector Stocks of Coal and Petroleum

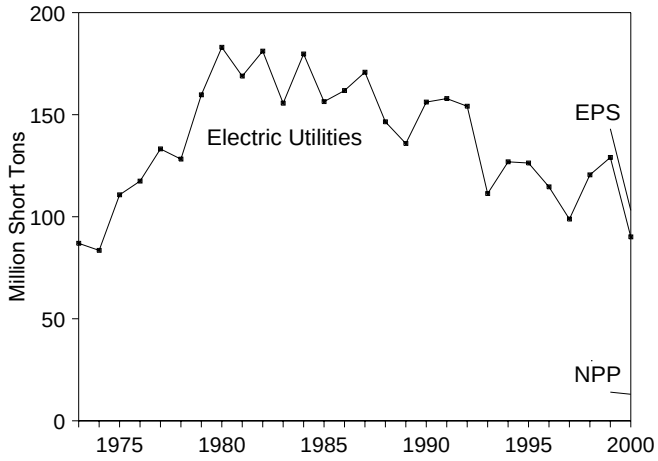
Coal Stocks, August



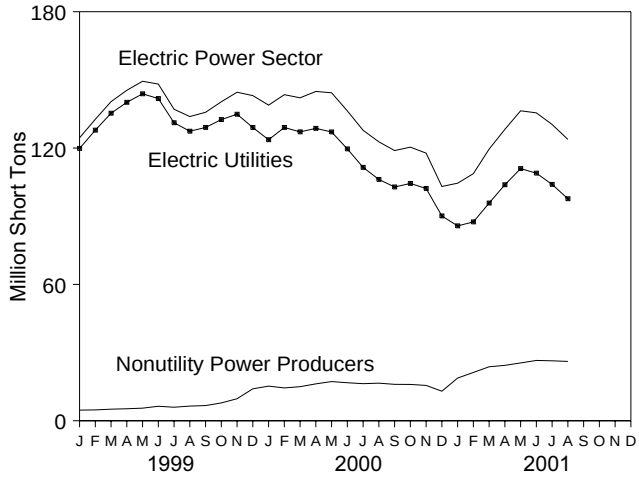
Petroleum Liquids Stocks, August



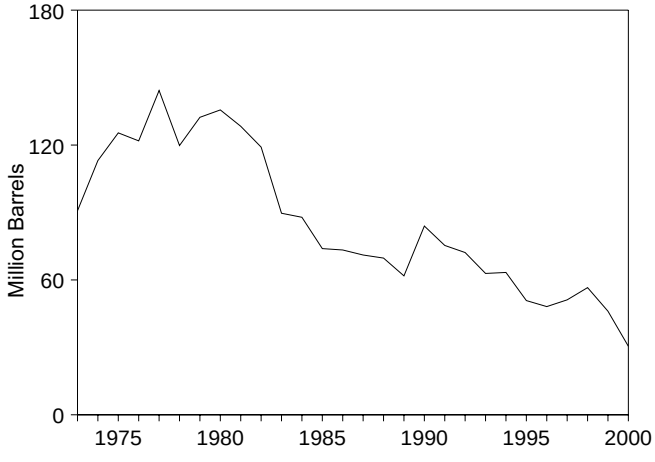
Coal Stocks, 1973-2000



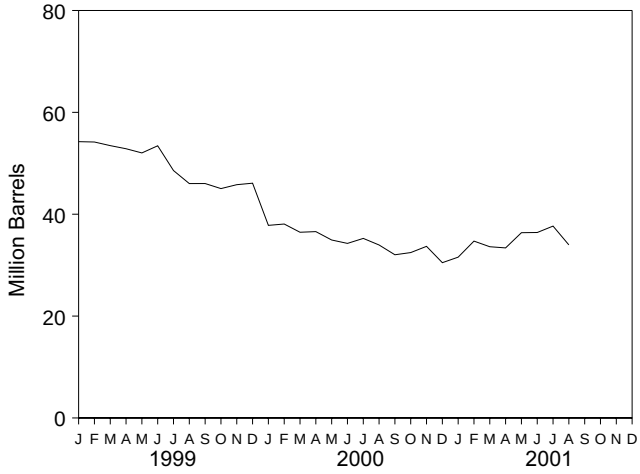
Coal Stocks, Monthly



Petroleum Total Stocks at Electric Utilities, 1973-2000



Petroleum Total Stocks at Electric Utilities, Monthly



EPS=Electric Power Sector.
NPP=Nonutility Power Producers.
Notes: • Data are for fuels available to produce electricity; they may include some fuels available to produce useful thermal outpu t at cogeneration plants. • Petroleum includes petroleum coke, which is converted to liquid units at 5 barrels per short ton. • Because vertical scales differ, graphs should not be compared.
Source: Table 7.9.

Table 7.9 Electric Power Sector Stocks of Coal and Petroleum

	Coal			Petroleum							
				Electric Utilities				Nonutility Power Producers			
	Electric Utilities	Nonutility Power Producers	Total Electric Power Sector	Heavy Oil[a]	Light Oil[b]	Petroleum Coke[c]	Total[c]	Liquids	Petroleum Coke	Total[c]	Total Electric Power Sector
	Thousand Short Tons			Thousand Barrels		Thousand Short Tons	Thousand Barrels	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Thousand Barrels
1973 Total	**86,967**	**NA**	**NA**	**79,121**	**10,095**	**312**	**90,776**	**NA**	**NA**	**NA**	**NA**
1974 Total	**83,509**	**NA**	**NA**	**97,718**	**15,199**	**35**	**113,091**	**NA**	**NA**	**NA**	**NA**
1975 Total	**110,724**	**NA**	**NA**	**108,825**	**16,432**	**31**	**125,413**	**NA**	**NA**	**NA**	**NA**
1976 Total	**117,436**	**NA**	**NA**	**106,993**	**14,703**	**32**	**121,857**	**NA**	**NA**	**NA**	**NA**
1977 Total	**133,219**	**NA**	**NA**	**124,750**	**19,281**	**44**	**144,252**	**NA**	**NA**	**NA**	**NA**
1978 Total	**128,225**	**NA**	**NA**	**102,402**	**16,386**	**198**	**119,778**	**NA**	**NA**	**NA**	**NA**
1979 Total	**159,714**	**NA**	**NA**	**111,121**	**20,301**	**183**	**132,338**	**NA**	**NA**	**NA**	**NA**
1980 Total	**183,010**	**NA**	**NA**	**105,351**	**30,023**	**52**	**135,635**	**NA**	**NA**	**NA**	**NA**
1981 Total	**168,893**	**NA**	**NA**	**102,042**	**26,094**	**42**	**128,345**	**NA**	**NA**	**NA**	**NA**
1982 Total	**181,132**	**NA**	**NA**	**95,515**	**23,369**	**41**	**119,090**	**NA**	**NA**	**NA**	**NA**
1983 Total	**155,598**	**NA**	**NA**	**70,573**	**18,801**	**55**	**89,652**	**NA**	**NA**	**NA**	**NA**
1984 Total	**179,727**	**NA**	**NA**	**68,503**	**19,116**	**50**	**87,870**	**NA**	**NA**	**NA**	**NA**
1985 Total	**156,376**	**NA**	**NA**	**57,304**	**16,386**	**49**	**73,933**	**NA**	**NA**	**NA**	**NA**
1986 Total	**161,806**	**NA**	**NA**	**56,841**	**16,269**	**40**	**73,313**	**NA**	**NA**	**NA**	**NA**
1987 Total	**170,797**	**NA**	**NA**	**55,069**	**15,759**	**51**	**71,084**	**NA**	**NA**	**NA**	**NA**
1988 Total	**146,507**	**NA**	**NA**	**54,187**	**15,099**	**86**	**69,714**	**NA**	**NA**	**NA**	**NA**
1989 Total	**135,860**	**NA**	**NA**	**47,446**	**13,824**	**105**	**61,795**	**NA**	**NA**	**NA**	**NA**
1990 Total	**156,166**	**NA**	**NA**	**67,030**	**16,471**	**94**	**83,970**	**NA**	**NA**	**NA**	**NA**
1991 Total	**157,876**	**NA**	**NA**	**58,636**	**16,357**	**70**	**75,343**	**NA**	**NA**	**NA**	**NA**
1992 Total	**154,130**	**NA**	**NA**	**56,135**	**15,714**	**67**	**72,183**	**NA**	**NA**	**NA**	**NA**
1993 Total	**111,341**	**NA**	**NA**	**46,769**	**15,674**	**89**	**62,889**	**NA**	**NA**	**NA**	**NA**
1994 Total	**126,897**	**NA**	**NA**	**46,342**	**16,644**	**69**	**63,331**	**NA**	**NA**	**NA**	**NA**
1995 Total	**126,304**	**NA**	**NA**	**35,102**	**15,392**	**65**	**50,821**	**NA**	**NA**	**NA**	**NA**
1996 Total	**114,623**	**NA**	**NA**	**32,473**	**15,216**	**91**	**48,146**	**NA**	**NA**	**NA**	**NA**
1997 Total	**98,826**	**NA**	**NA**	**33,336**	**15,456**	**469**	**51,138**	**NA**	**NA**	**NA**	**NA**
1998 Total	**120,501**	**NA**	**NA**	**37,447**	**16,343**	**559**	**56,586**	**NA**	**NA**	**NA**	**NA**
1999 January	119,836	4,678	124,513	34,179	17,329	548	54,247	3,258	NA	NA	NA
February	127,886	4,777	132,663	34,184	17,155	568	54,177	2,957	NA	NA	NA
March	135,332	5,098	140,430	33,948	16,819	540	53,466	3,042	NA	NA	NA
April	140,124	5,282	145,406	32,433	17,465	592	52,861	3,319	NA	NA	NA
May	143,863	5,546	149,409	31,763	17,362	582	52,036	4,579	NA	NA	NA
June	141,779	6,374	148,152	32,508	17,476	690	53,436	4,504	NA	NA	NA
July	131,137	5,948	137,085	29,433	15,978	633	48,577	5,353	NA	NA	NA
August	127,408	6,462	133,870	26,716	16,448	570	46,016	5,129	NA	NA	NA
September	129,071	6,677	135,747	26,560	16,702	553	46,028	5,453	NA	NA	NA
October	132,534	7,848	140,382	25,765	16,735	507	45,035	6,561	NA	NA	NA
November	134,883	9,694	144,577	27,116	16,512	435	45,801	6,185	NA	NA	NA
December	R **129,041**	**14,050**	R **143,091**	**27,763**	**16,549**	**355**	**46,089**	**8,666**	**NA**	**NA**	**NA**
2000 January	123,661	15,233	138,894	21,678	14,655	297	37,816	6,710	NA	NA	NA
February	129,055	14,446	143,501	22,055	15,048	195	38,076	6,611	NA	NA	NA
March	127,130	14,983	142,113	20,966	14,643	171	36,462	6,587	NA	NA	NA
April	128,669	16,235	144,904	21,135	14,698	150	36,584	7,336	NA	NA	NA
May	127,090	17,240	144,330	20,169	14,206	113	34,942	7,621	NA	NA	NA
June	119,634	16,719	136,353	19,145	14,693	87	34,274	9,344	NA	NA	NA
July	111,494	16,317	127,811	20,136	14,579	108	35,253	12,470	NA	NA	NA
August	106,201	16,546	122,746	18,759	14,419	157	33,964	11,383	NA	NA	NA
September	102,876	16,020	118,896	17,265	13,780	199	32,039	11,784	NA	NA	NA
October	104,422	15,980	120,402	17,302	13,932	247	32,470	12,365	NA	NA	NA
November	102,227	15,537	117,765	18,451	14,020	245	33,694	12,701	NA	NA	NA
December	**90,115**	**13,001**	**103,117**	**16,899**	**12,655**	**186**	**30,486**	**11,089**	**NA**	**NA**	**NA**
2001 January	85,759	18,779	104,538	15,629	14,945	200	31,571	13,964	NA	NA	NA
February	87,499	21,249	108,748	18,485	15,456	156	34,721	16,180	NA	NA	NA
March	95,801	23,743	119,544	18,123	14,723	155	33,619	15,346	NA	NA	NA
April	103,851	24,386	128,238	18,051	14,637	140	33,390	16,061	NA	NA	NA
May	110,956	25,434	136,390	21,309	14,417	130	36,375	19,487	NA	NA	NA
June	108,953	26,542	135,495	20,199	14,985	246	36,413	17,895	NA	NA	NA
July	104,009	26,369	130,379	21,534	14,979	232	37,671	19,788	NA	NA	NA
August	97,694	26,114	123,808	18,155	14,826	200	33,979	16,486	NA	NA	NA

[a] For 1973-1979, steam plant stocks of petroleum; for 1980 forward, fuel oil nos. 5 and 6 (and small amounts of fuel oil no. 4).

[b] For 1973-1979, gas turbine and internal combustion plant stocks of petroleum; for 1980 forward, fuel oil nos. 1 and 2 (and small amounts of kerosene and jet fuel).

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

R=Revised. NA=Not available.

Notes: Stocks are at end of period. Data are for fuels available to produce electricity; they may include some fuels available to produce useful thermal output at cogeneration plants. Nonutility facilities that are not required to report on Form EIA-900 are not included. Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility plants. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Sources for Table 7.1, Imports and Exports of Electricity

1973-September 1977—Unpublished Federal Power Commission data.
October 1977-1980—Unpublished Economic Regulatory Administration (ERA) data.
1981—DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
1982 and 1983—DOE, ERA, *Electricity Exchanges Across International Borders*.
1984-1986—DOE, ERA, *Electricity Transactions Across International Borders*.
1987 and 1988—DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data."
1989—DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data."
1990-1998—Mexico's data: DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Annual Report of International Electrical Export/Import Data." Canada's data (metered energy, firm and interruptible): the National Energy Board of Canada.
1999 forward—EIA estimates based on preliminary data from DOE, Fossil Energy, and actual data from the National Energy Board of Canada.

Sources for Table 7.3

1973-September 1977—Federal Power Commission Form FPC-4, "Monthly Power Plant Report."
October 1977-1979—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."
1980-1989—Energy Information Administration (EIA), *Electric Power Monthly,* March issues, and (for small components) EIA, Form EIA-759, "Monthly Power Plant Report" and predecessor form.
1990-2000—EIA, *Electric Power Monthly*, October 2001, Tables 4 and 5, and (for small components) EIA, Form EIA-759, "Monthly Power Plant Report."
2001—EIA, *Electric Power Monthly*, November 2001, Tables 4 and 5, and (for small components) EIA, Form EIA-906, "Power Plant Report."

Sources for Table 7.5

Electric Utilities
1973-September 1977—Federal Power Commission (FPC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."
October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."
March 1980-1982—FERC, Form FPC-5, "Electric Utility Company Monthly Statement."
1983—Energy Information Administration (EIA), Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions" (formerly "Electric Utility Company Monthly Statement").
1984-1989—EIA, Form EIA-861, "Annual Electric Utility Report.
1990 forward—EIA, *Electric Power Monthly,* November 2001, Table 44.

Nonutility Power Producers
1989-1999—EIA, Form EIA-860B, "Annual Electric Generator Report--Nonutility" and predecessor form.
2000—Derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Sources for Table 7.9

Electric Utilities
1973-September 1977—FPC, Form FPC-4, "Monthly Power Plant Report."
October 1977-1979—FERC, Form FPC-4 "Monthly Power Plant Report."
1980-1989—EIA, *Electric Power Monthly*, March issues.
1990 forward—EIA, *Electric Power Monthly,* November 2001, Table 21.

Nonutility Power Producers
1999 forward—EIA, *Electric Power Monthly*, November 2001, Table 72.

Section 8. Nuclear Energy

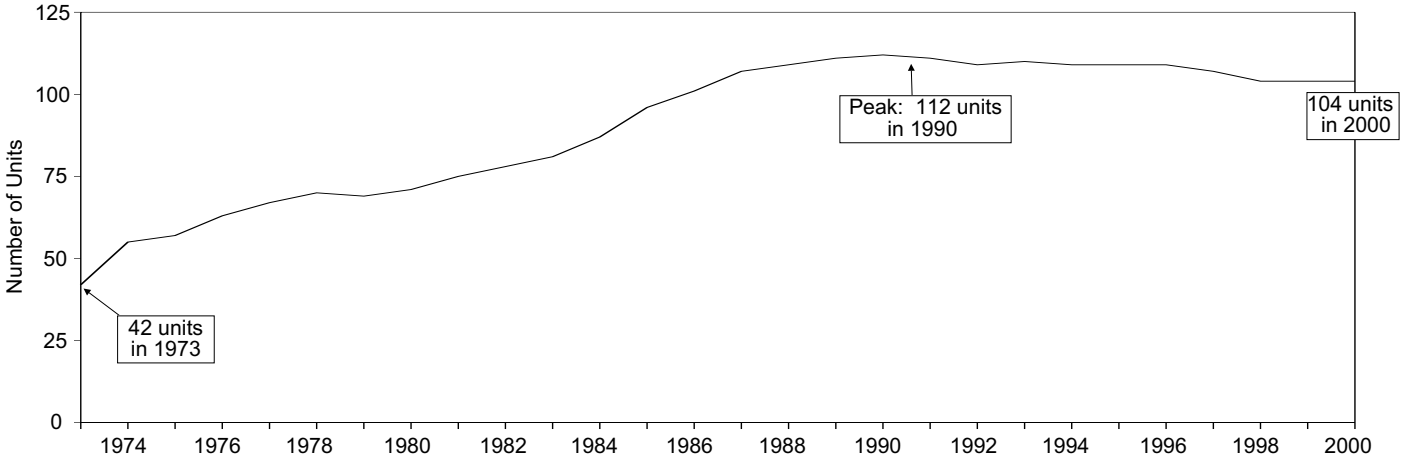
U.S. nuclear electricity net generation during August 2001 was 68 net terawatthours (billion kilowatthours) of electricity, 1 percent higher than in August 2000. Nuclear units generated at an average capacity factor of 94.3 percent, 0.5 percentage point higher the capacity factor in August 2000.

On August 31, 2001, there were 104 operable nuclear generating units in the United States, with a collective net summer capability of 97.4 million kilowatts of electricity. Of the 104 operable units, 1 unit generated no electricity during the month because of maintenance, refueling, or repair outage, and 67 units reported operating at 90 percent of capacity or more. Of these 67 units, 19 operated at 100 percent or greater (based on net summer capability).

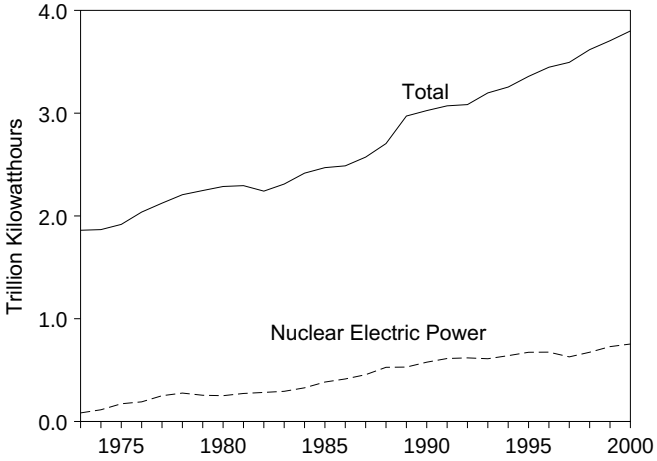
In addition, there were three other units with construction permits, but construction for all three units has been halted. Their combined design capacity is 3.6 million kilowatts.

Figure 8.1 Nuclear Power Plant Operations

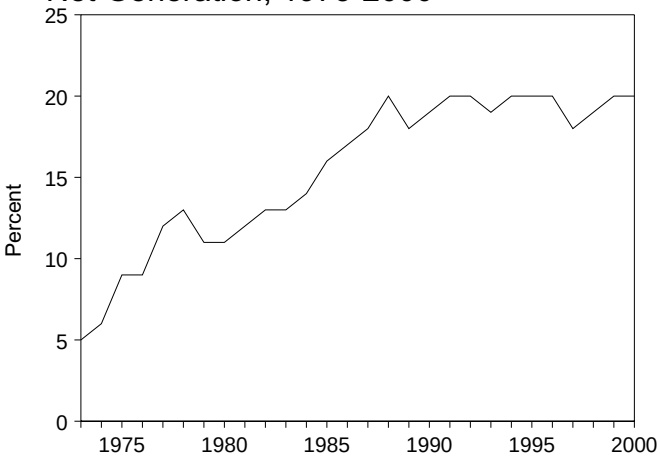
Operable Units, End of Year, 1973-2000



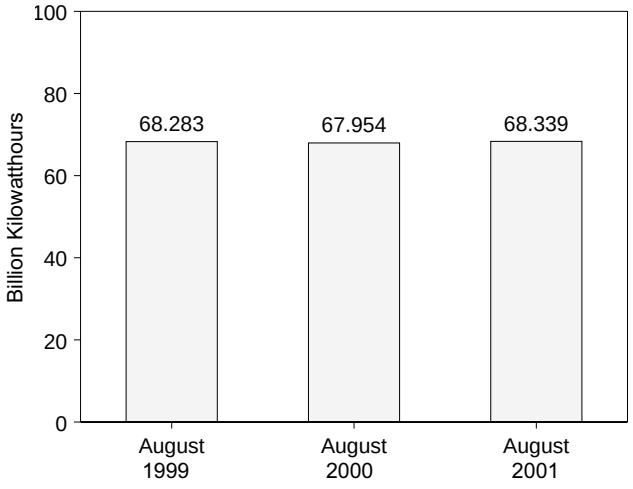
Electricity Net Generation, 1973-2000



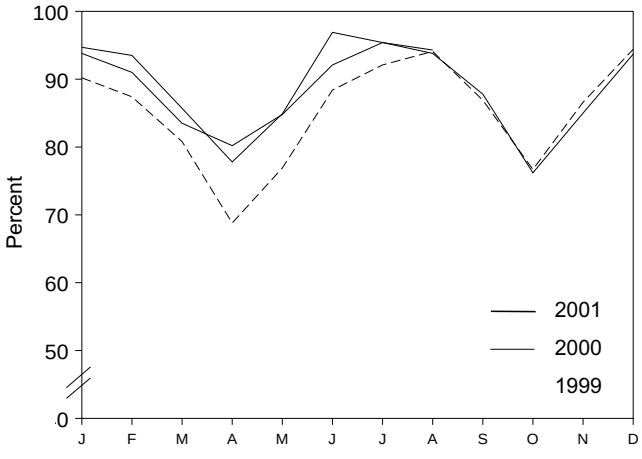
Nuclear Share of Electricity Net Generation, 1973-2000



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Notes: • Includes all units that contributed power to the commercial grid whether they were owned by an electric utility or a nonutility power plant. See Note 1 at end of section for additional information. • Because vertical scales differ, graphs should not be compared.
Sources: Tables 7.1, 8.1, and 8.2.

Table 8.1 Nuclear Power Plant Operations

	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Net Summer Capability of Operable Units[a,b]	Capacity Factor[c]
	Million Kilowatthours	Percent	Million Kilowatts	Percent
1973 Year	**83,479**	**4.5**	**22.683**	**53.5**
1974 Year	**113,976**	**6.1**	**31.867**	**47.8**
1975 Year	**172,505**	**9.0**	**37.267**	**55.9**
1976 Year	**191,104**	**9.4**	**43.822**	**54.7**
1977 Year	**250,883**	**11.8**	**46.303**	**63.3**
1978 Year	**276,403**	**12.5**	**50.824**	**64.5**
1979 Year	**255,155**	**11.4**	**49.747**	**58.4**
1980 Year	**251,116**	**11.0**	**51.810**	**56.3**
1981 Year	**272,674**	**11.9**	**56.042**	**58.2**
1982 Year	**282,773**	**12.6**	**60.035**	**56.6**
1983 Year	**293,677**	**12.7**	**63.009**	**54.4**
1984 Year	**327,634**	**13.6**	**69.652**	**56.3**
1985 Year	**383,691**	**15.5**	**79.397**	**58.0**
1986 Year	**414,038**	**16.6**	**85.241**	**56.9**
1987 Year	**455,270**	**17.7**	**93.583**	**57.4**
1988 Year	**526,973**	**19.5**	**94.695**	**63.5**
1989 Year	[d]**529,402**	[d]**17.8**	[d]**98.179**	[d]**62.2**
1990 Year	**576,974**	**19.1**	**99.642**	**66.0**
1991 Year	**612,642**	**19.9**	**99.608**	**70.2**
1992 Year	**618,841**	**20.1**	**99.004**	**70.9**
1993 Year	**610,367**	**19.1**	**99.060**	**70.5**
1994 Year	**640,492**	**19.7**	**99.148**	**73.8**
1995 Year	**673,402**	**20.1**	**99.515**	**77.4**
1996 Year	**674,729**	**19.6**	**100.784**	**76.2**
1997 Year	**628,644**	**18.0**	**99.716**	**71.1**
1998 Year	**673,702**	**18.6**	**97.070**	**78.2**
1999 January	65,399	20.9	97.502	90.2
February	57,235	21.0	97.502	87.4
March	58,578	19.8	97.502	80.8
April	48,315	17.5	97.502	68.8
May	55,809	19.0	97.502	76.9
June	62,025	19.1	97.502	88.4
July	66,807	18.0	97.502	92.1
August	68,283	19.0	97.502	94.1
September	61,032	19.7	97.502	86.9
October	55,597	19.0	97.502	76.7
November	60,754	21.7	97.502	86.6
December	68,420	21.7	97.411	94.4
Year	**728,254**	**19.7**	**97.411**	**85.3**
2000 January	68,013	21.0	97.411	93.8
February	61,688	21.3	97.411	91.0
March	60,494	20.5	97.411	83.5
April	56,252	20.2	97.411	80.2
May	61,479	19.7	97.411	84.8
June	64,595	19.5	97.411	92.1
July	69,171	19.6	97.411	95.4
August	67,954	18.5	97.411	93.8
September	61,549	19.3	97.411	87.8
October	55,240	18.5	97.411	76.2
November	59,579	20.0	97.411	85.0
December	67,881	20.2	97.411	93.7
Year	**753,893**	**19.8**	**97.411**	**88.1**
2001 January	68,655	20.3	97.411	94.7
February	61,225	21.2	97.411	93.5
March	62,092	20.4	97.411	85.7
April	55,953	19.8	97.411	77.8
May	61,518	20.0	97.411	84.9
June	67,941	20.5	97.411	96.9
July	69,115	19.1	97.411	95.4
August	68,339	18.3	97.411	94.3
8-Month Total	**514,838**	**19.9**	**97.411**	**90.6**
2000 8-Month Total	**509,644**	**20.0**	**97.411**	**89.3**
1999 8-Month Total	**482,451**	**19.2**	**97.502**	**84.9**

[a] At end of period.

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

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

[d] Beginning in 1989, includes nonutility facilities.

Notes: The performance data shown in this table are based on a universe of reactor units that differs in some respects from the reactor universe used to profile the nuclear power industry in Table 8.2. See Note 1 at end of section for further discussion. Nuclear electricity net generation totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 8.2 Nuclear Generating Units

	Orders[a]	Construction Permits[b]	Low Power Operating Licenses[c]	New Operable Units[d]	Shutdowns[e]	Total Operable Units[f]	Cancellations[g]	Cumulative Cancellations
1973 Year	**42**	**14**	**12**	**15**	**0**	**42**	**0**	**7**
1974 Year	**28**	**23**	**14**	**15**	**2**	**55**	**9**	**16**
1975 Year	**4**	**9**	**3**	**2**	**0**	**57**	**13**	**29**
1976 Year	**3**	**9**	**7**	**7**	**1**	**63**	**1**	**30**
1977 Year	**4**	**15**	**4**	**4**	**0**	**67**	**10**	**40**
1978 Year	**2**	**13**	**3**	**4**	**1**	**70**	**13**	**53**
1979 Year	**0**	**2**	**0**	**0**	**1**	**69**	**6**	**59**
1980 Year	**0**	**0**	**5**	**2**	**0**	**71**	**15**	**74**
1981 Year	**0**	**0**	**3**	**4**	**0**	**75**	**9**	**83**
1982 Year	**0**	**0**	**6**	**4**	**1**	**78**	**18**	**101**
1983 Year	**0**	**0**	**3**	**3**	**0**	**81**	**6**	**107**
1984 Year	**0**	**0**	**7**	**6**	**0**	**87**	**6**	**113**
1985 Year	**0**	**0**	**7**	**9**	**0**	**96**	**2**	**115**
1986 Year	**0**	**0**	**7**	**5**	**0**	**101**	**2**	**117**
1987 Year	**0**	**0**	**6**	**8**	**2**	**107**	**0**	**117**
1988 Year	**0**	**0**	**1**	**2**	**0**	**109**	**3**	**120**
1989 Year	**0**	**0**	**3**	**4**	**2**	**111**	**0**	**120**
1990 Year	**0**	**0**	**1**	**2**	**1**	**112**	**1**	**121**
1991 Year	**0**	**0**	**0**	**0**	**1**	**111**	**0**	**121**
1992 Year	**0**	**0**	**0**	**0**	**2**	**109**	**0**	**121**
1993 Year	**0**	**0**	**1**	**1**	**0**	**110**	**0**	**121**
1994 Year	**0**	**0**	**0**	**0**	**1**	**109**	**1**	**122**
1995 Year	**0**	**0**	**1**	**0**	**0**	**109**	**2**	**124**
1996 Year	**0**	**0**	**0**	**1**	**1**	**109**	**0**	**124**
1997 Year	**0**	**0**	**0**	**0**	**2**	**107**	**0**	**124**
1998 Year	**0**	**0**	**0**	**0**	**3**	**104**	**0**	**124**
1999 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124
November	0	0	0	0	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	**0**	**0**	**0**	**0**	**0**	**104**	**0**	**124**
2000 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124
November	0	0	0	0	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	**0**	**0**	**0**	**0**	**0**	**104**	**0**	**124**
2001 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124

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

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

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

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

[e] Ceased operating permanently, irrespective of intent.

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

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

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

Sources: See end of section.

Nuclear Energy Notes

1. In 1997 EIA undertook a major revision of the data categories in Table 8.2 to make them more relevant to current conditions and trends in the U.S. commercial nuclear electric power industry. To acquire the data for the revised categories it was necessary to develop a reactor unit database employing different sources than those used previously for Table 8.2 and still used for Table 8.1. Because of differences in definitions and tally protocols, the year-by-year tallies of operable reactors in the two databases diverge in some years, although this divergence does not change the overall trends.

The data in Table 8.2 apply to commercial nuclear power units, which means that the units contributed power to the commercial electricity grid whether or not they were owned by an electric utility. A total of 259 units ever ordered was identified. (Many of the orders were placed before 1973 and thus do not appear in the table. Annual data on orders and other characteristics from 1953 forward can be found in EIA's *Annual Energy Review 2000*, Tables 9.1 and 9.2.) Although most orders were placed by electric utilities, several units are or were ordered, owned, and operated wholly or in part by the Federal government, including BONUS (Boiling Nuclear Superheater Power Station), Elk River, Experimental Breeder Reactor 2, Hallam, Hanford N, Piqua, and Shippingport.

A reactor is generally defined as operable in Table 8.2 while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to soperate, 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 treated as operable during 1989 and shut down in 1990, because counting it as operable and shut down in the same year would introduce a statistical discrepancy in the tallies. A major accident closed Three Mile Island 2 in 1979, and although the unit retained its full-power license for several years, it is considered permanently shut down since that year.

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

(a) Net Summer Capability—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.
(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a unit, specified by the utility and used for plant design.

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

Sources for Table 8.1

Nuclear Electricity Net Generation and **Nuclear Share of Electricity Net Generation—** See Table 7.2 for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).
Net Summer Capability of Operable Units—
1973-1982—Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."
1983 forward—Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate.
Capacity Factor—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Sources for Table 8.2

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

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

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

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

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

Total Operable Units—Commercial reactors fully licensed to operate, excluding permanent shutdowns.

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

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil at the wellhead was $23.10 per barrel in August 2001, 17 percent below the level of August 2000. The refiner acquisition cost of imported crude oil in August 2001 was $23.77 per barrel, 17 percent below the August 2000 level. The average cost of domestic crude oil in August 2001 was $25.44, 13 percent less than the August 2000 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was $1.53 per gallon in September 2001, 3 percent lower than the price in September 2000. The price of unleaded premium gasoline averaged $1.73 in September 2001, 2 percent lower than the price in September 2000.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in August 2001 was 51 cents per gallon, 1 percent lower than the previous month's price and 11 percent lower than the August 2000 average. The average resale price, excluding taxes, of residual fuel oil in August 2001 was 46 cents, 1 percent lower than the July 2001 price and 15 percent lower than the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in August 2001 was $1.36 per gallon, 1 percent higher than the previous month's average. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in August 2001 was 78 cents per gallon, 1 percent higher than the previous month's average price but 12 percent lower than the August 2000 average price.

No. 2 Distillate Fuel Oil. The August 2001 national average price, excluding taxes, of heating oil sold to residential customers was $1.14 per gallon, 1 percent higher than the July 2001 price but 4 percent lower than the August 2000 price. The average price of No. 2 fuel oil sold to all end users was 82 cents per gallon in August 2001, 5 percent higher than the July 2001 price but 10 percent lower than the price 1 year earlier.

Electricity. The average price of electricity sold by electric utilities to all ultimate consumers in the United States in August 2001 was 7.61 cents per kilowatthour, 6 percent higher than the August 2000 mean price. The price of electricity sold to residential consumers in August 2001 averaged 8.88 cents per kilowatthour, 3 percent higher than the August 2000 price. The price of electricity sold to commercial consumers averaged 8.10 cents per kilowatthour in August 2001, 5 percent higher than the August 2000 price. The price of electricity sold to other consumers was 5.89 cents per kilowatthour, 10 percent lower than the August 2000 price. The price of electricity sold to industrial users in August 2001 averaged 5.32 cents per kilowatthour, 10 percent higher than the price 1 year earlier.

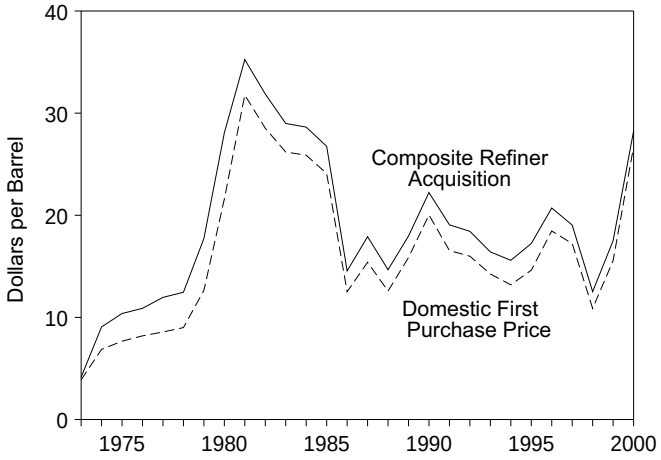
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The average wellhead price of natural gas for September 2001 was estimated as $2.55 per thousand cubic feet, 40 percent lower than the September 2000 price.

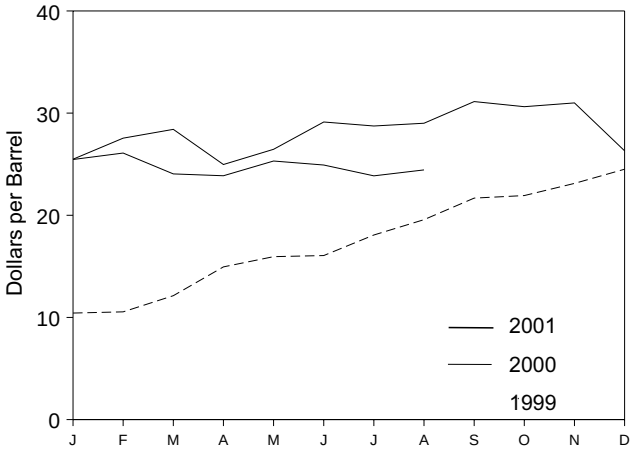
The average price of natural gas delivered to electric utility plants was $4.51 per thousand cubic feet in June 2001 (latest date for which data are available), 1 percent higher than the June 2000 price. The average price of natural gas used by residential consumers in July 2001 was $11.00 per thousand cubic feet, 8 percent higher than the July 2000 price. The average price of natural gas used by commercial consumers in July 2001 was $6.91 per thousand cubic feet, 18 percent higher than the July 2000 price. The average price of natural gas used by industrial consumers in July 2001 was $4.26 per thousand cubic feet, 8 percent below the July 2000 price.

Figure 9.1 Petroleum Prices

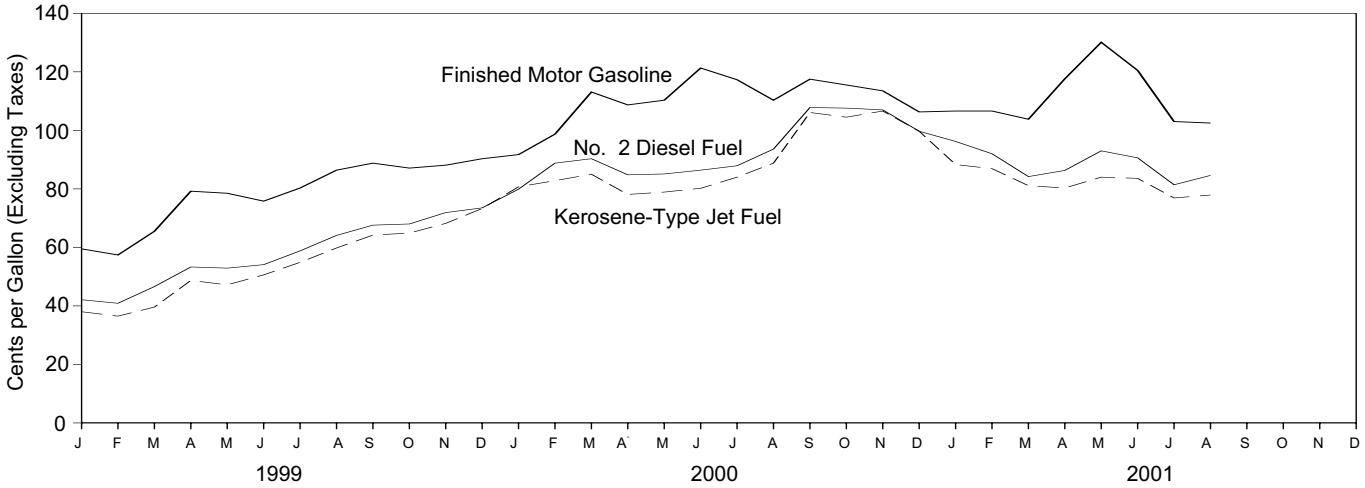
Crude Oil Prices, 1973-2000



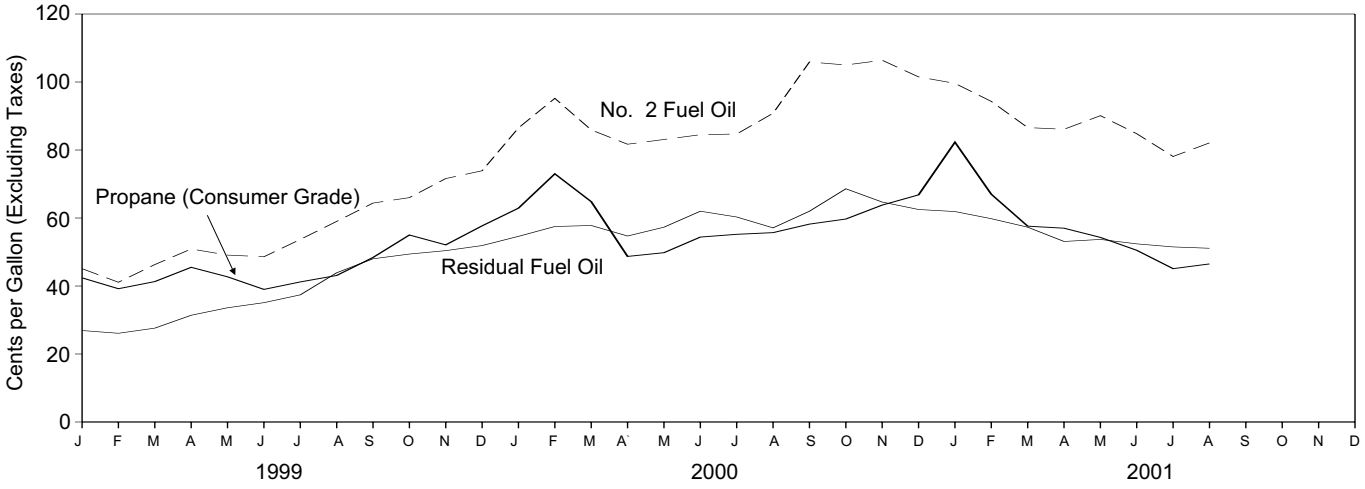
Composite Refiner Acquisition Cost, Monthly



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



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



Sources: Tables 9.1, 9.5, and 9.7.

Table 9.1 Crude Oil Price Summary

(Dollars per Barrel)

	Domestic First Purchase Price[b]	F.O.B. Cost of Imports[c]	Landed Cost of Imports[d]	Refiner Acquisition Cost[a]		
				Domestic	Imported	Composite
1973 Average	**3.89**	[e] **5.21**	[e] **6.41**	[E] **4.17**	[E] **4.08**	[E] **4.15**
1974 Average	**6.87**	**10.91**	**12.32**	**7.18**	**12.52**	**9.07**
1975 Average	**7.67**	**11.18**	**12.70**	**8.39**	**13.93**	**10.38**
1976 Average	**8.19**	**12.15**	**13.32**	**8.84**	**13.48**	**10.89**
1977 Average	**8.57**	**13.24**	**14.36**	**9.55**	**14.53**	**11.96**
1978 Average	**9.00**	**13.29**	**14.35**	**10.61**	**14.57**	**12.46**
1979 Average	**12.64**	**20.07**	**21.45**	**14.27**	**21.67**	**17.72**
1980 Average	**21.59**	**32.37**	**33.67**	**24.23**	**33.89**	**28.07**
1981 Average	**31.77**	**35.15**	**36.47**	**34.33**	**37.05**	**35.24**
1982 Average	**28.52**	**32.02**	**33.18**	**31.22**	**33.55**	**31.87**
1983 Average	**26.19**	**27.81**	**28.93**	**28.87**	**29.30**	**28.99**
1984 Average	**25.88**	**27.60**	**28.54**	**28.53**	**28.88**	**28.63**
1985 Average	**24.09**	**25.84**	**26.67**	**26.66**	**26.99**	**26.75**
1986 Average	**12.51**	**12.52**	**13.49**	**14.82**	**14.00**	**14.55**
1987 Average	**15.40**	**16.69**	**17.65**	**17.76**	**18.13**	**17.90**
1988 Average	**12.58**	**13.25**	**14.08**	**14.74**	**14.56**	**14.67**
1989 Average	**15.86**	**16.89**	**17.68**	**17.87**	**18.08**	**17.97**
1990 Average	**20.03**	**20.37**	**21.13**	**22.59**	**21.76**	**22.22**
1991 Average	**16.54**	**16.89**	**18.02**	**19.33**	**18.70**	**19.06**
1992 Average	**15.99**	**16.77**	**17.75**	**18.63**	**18.20**	**18.43**
1993 Average	**14.25**	**14.71**	**15.72**	**16.67**	**16.14**	**16.41**
1994 Average	**13.19**	**14.18**	**15.18**	**15.67**	**15.51**	**15.59**
1995 Average	**14.62**	**15.69**	**16.78**	**17.33**	**17.14**	**17.23**
1996 Average	**18.46**	**19.32**	**20.31**	**20.77**	**20.64**	**20.71**
1997 Average	**17.23**	**16.94**	**18.11**	**19.61**	**18.53**	**19.04**
1998 Average	**10.87**	**10.76**	**11.84**	**13.18**	**12.04**	**12.52**
1999 January	8.57	9.17	10.18	10.89	10.16	10.43
February	8.60	9.34	10.59	10.92	10.33	10.55
March	10.76	11.83	12.90	12.19	12.10	12.13
April	12.82	14.14	15.05	15.17	14.82	14.95
May	13.92	14.43	15.50	16.55	15.57	15.95
June	14.39	15.13	16.08	16.30	15.91	16.06
July	16.12	17.30	18.13	18.10	18.05	18.07
August	17.58	19.10	19.75	19.57	19.56	19.57
September	20.03	21.04	21.70	21.75	21.64	21.68
October	19.71	20.89	21.78	22.40	21.62	21.93
November	21.35	22.46	23.06	23.08	23.14	23.12
December	22.55	22.91	23.83	24.73	24.35	24.51
Average	**15.56**	**16.47**	**17.23**	**17.90**	**17.26**	**17.51**
2000 January	23.53	24.56	25.61	25.79	25.29	25.49
February	25.48	26.51	27.01	27.80	27.39	27.55
March	26.19	25.71	26.94	29.53	27.70	28.41
April	23.20	23.39	24.72	26.05	24.29	24.97
May	25.58	25.95	26.71	26.62	26.35	26.46
June	27.62	27.73	28.56	29.46	28.91	29.13
July	26.81	26.53	28.29	29.94	28.00	28.74
August	27.91	27.94	29.03	29.36	28.80	29.01
September	29.72	28.84	30.51	32.01	30.56	31.13
October	29.65	27.74	29.54	32.09	29.71	30.63
November	30.36	27.40	28.74	32.43	30.00	31.00
December	24.46	22.79	24.77	27.90	25.19	26.31
Average	**26.72**	**26.27**	**27.53**	**29.11**	**27.70**	**28.26**
2001 January	24.58	22.49	24.17	26.84	24.49	25.46
February	25.27	23.11	24.31	27.67	24.97	26.09
March	23.02	20.96	22.88	25.64	23.01	24.05
April	23.41	21.89	23.13	25.12	22.99	23.87
May	24.06	22.85	24.19	26.37	24.63	25.31
June	23.43	22.73	[R] 23.82	26.30	23.95	24.92
July	[R] 22.94	[R] 21.37	[R] 22.84	25.27	22.83	23.86
August	23.10	21.84	23.51	25.44	23.77	24.44

[a] See Note 4 at end of section.
[b] See Note 1 at end of section.
[c] See Note 2 at end of section.
[d] See Note 3 at end of section.
[e] Based on October, November, and December data only.
R=Revised. E=Estimate.

Notes: Values for Domestic First Purchase Price and Refiner Acquisition Cost for the current month and for F.O.B. and Landed Costs of Imports for the current 2 months are preliminary. F.O.B. and landed costs through 1980 reflect the period of reporting; prices since then reflect the period of loading.

Annual averages are the averages of the monthly prices, weighted by volume. Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions.

Sources: See end of section.

Table 9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries

(Dollars per Barrel)

	Selected Countries							Persian Gulf Nations[a]	Total OPEC[b]	Total Non-OPEC
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[c]	**W**	**W**	**NA**	**7.81**	**3.25**	**NA**	**5.39**	**3.68**	**5.43**	**4.80**
1974 Average	**11.87**	**W**	**W**	**12.44**	**10.17**	**NA**	**10.71**	**10.60**	**11.33**	**9.59**
1975 Average	**10.97**	**(d)**	**11.44**	**11.82**	**10.87**	**NA**	**11.04**	**10.88**	**11.34**	**10.62**
1976 Average	**12.02**	**(d)**	**12.22**	**13.08**	**11.62**	**W**	**11.39**	**11.65**	**12.23**	**11.70**
1977 Average	**13.29**	**(d)**	**13.42**	**14.44**	**12.38**	**14.11**	**12.63**	**12.56**	**13.29**	**12.97**
1978 Average	**13.32**	**(d)**	**13.24**	**14.05**	**12.70**	**13.82**	**12.38**	**12.77**	**13.31**	**13.23**
1979 Average	**19.85**	**(d)**	**20.27**	**21.69**	**17.28**	**21.70**	**16.90**	**18.77**	**19.88**	**20.92**
1980 Average	**33.45**	**W**	**31.06**	**35.93**	**28.17**	**34.36**	**24.81**	**28.92**	**32.21**	**32.85**
1981 Average	**35.55**	**(d)**	**33.01**	**38.31**	**32.60**	**36.06**	**28.95**	**33.00**	**35.17**	**35.12**
1982 Average	**31.86**	**(d)**	**28.08**	**35.13**	**33.73**	**33.42**	**23.74**	**33.55**	**33.48**	**30.58**
1983 Average	**28.14**	**(d)**	**25.20**	**29.81**	**27.53**	**29.91**	**21.48**	**27.70**	**28.46**	**27.20**
1984 Average	**27.46**	**(d)**	**26.39**	**29.51**	**27.67**	**28.87**	**24.23**	**27.48**	**27.79**	**27.45**
1985 Average	**26.30**	**(d)**	**25.33**	**28.04**	**22.04**	**27.64**	**23.64**	**23.31**	**25.67**	**25.96**
1986 Average	**13.30**	**12.34**	**11.84**	**14.35**	**11.36**	**13.84**	**10.92**	**11.35**	**12.21**	**12.87**
1987 Average	**17.27**	**17.84**	**16.36**	**18.47**	**15.12**	**18.28**	**15.08**	**15.97**	**16.43**	**16.99**
1988 Average	**13.70**	**13.61**	**12.18**	**15.16**	**12.16**	**14.80**	**12.96**	**12.38**	**13.43**	**13.05**
1989 Average	**17.66**	**17.89**	**15.96**	**18.31**	**16.29**	**17.89**	**16.09**	**16.61**	**17.06**	**16.72**
1990 Average	**20.23**	**20.75**	**19.26**	**22.46**	**20.36**	**23.43**	**19.55**	**18.54**	**20.40**	**20.32**
1991 Average	**18.47**	**18.49**	**15.37**	**20.29**	**14.62**	**20.81**	**14.91**	**15.22**	**16.99**	**16.77**
1992 Average	**18.41**	**18.02**	**15.26**	**19.98**	**15.85**	**19.61**	**14.39**	**16.35**	**16.87**	**16.66**
1993 Average	**16.23**	**15.87**	**13.74**	**17.79**	**13.77**	**16.64**	**12.46**	**14.21**	**14.78**	**14.65**
1994 Average	**15.40**	**14.99**	**13.68**	**16.32**	**14.12**	**15.66**	**12.21**	**13.97**	**14.00**	**14.34**
1995 Average	**16.58**	**16.73**	**15.64**	**17.40**	**W**	**16.94**	**13.86**	**W**	**15.36**	**16.02**
1996 Average	**20.71**	**21.33**	**19.14**	**21.27**	**19.28**	**19.43**	**17.73**	**19.22**	**18.94**	**19.65**
1997 Average	**18.81**	**18.85**	**16.72**	**19.43**	**15.16**	**18.59**	**15.33**	**15.24**	**16.26**	**17.51**
1998 Average	**12.11**	**12.56**	**10.49**	**12.97**	**8.87**	**12.52**	**9.31**	**9.09**	**10.20**	**11.21**
1998 Average	**12.11**	**12.56**	**10.49**	**12.97**	**8.87**	**12.52**	**9.31**	**9.09**	**10.20**	**11.21**
1999 January	10.75	10.96	8.67	10.78	9.36	(d)	6.33	8.97	8.26	9.81
February	10.16	10.47	8.52	10.50	11.59	W	7.06	11.18	8.93	9.57
March	11.92	13.33	10.92	13.67	13.26	W	10.70	12.97	12.04	11.69
April	15.06	15.95	13.77	16.12	W	W	12.53	13.64	13.68	14.51
May	14.88	15.87	14.05	15.46	W	15.39	12.26	15.11	13.99	14.75
June	15.56	16.43	14.40	16.50	W	16.03	13.82	16.61	15.11	15.13
July	19.10	18.27	16.99	18.81	W	16.96	15.80	17.41	16.93	17.55
August	20.31	19.88	18.74	20.69	W	19.79	17.55	19.00	18.73	19.32
September	22.48	23.12	20.52	22.68	20.64	21.97	19.18	20.21	20.29	21.57
October	21.65	22.39	20.08	22.19	22.15	20.65	18.82	21.60	20.56	21.07
November	24.90	24.95	21.94	W	22.33	22.62	19.84	22.43	21.71	22.96
December	24.73	25.89	22.42	W	23.57	24.89	20.21	23.05	21.86	23.50
Average	**17.46**	**17.20**	**15.89**	**17.32**	**17.65**	**19.14**	**14.33**	**17.15**	**15.90**	**16.84**
2000 January	25.99	27.12	23.31	W	25.57	24.47	23.36	25.37	24.45	24.64
February	27.71	29.56	26.25	29.07	23.73	26.22	24.93	24.46	25.89	26.98
March	27.89	29.43	25.37	26.09	23.64	27.76	23.92	23.17	24.30	26.70
April	22.72	25.40	21.91	24.34	27.64	23.62	22.73	25.39	23.92	23.03
May	28.36	26.50	25.27	28.85	24.31	25.91	25.12	24.53	25.71	26.07
June	29.15	29.98	26.90	30.04	24.82	29.09	26.26	24.54	26.84	28.25
July	28.48	27.50	24.89	28.93	26.84	26.92	23.29	26.24	25.77	27.13
August	30.40	30.47	26.66	31.06	26.41	26.41	26.45	26.66	27.74	28.09
September	30.16	32.66	28.00	30.54	27.81	30.24	26.04	26.87	27.80	29.65
October	29.13	32.36	27.29	30.71	23.61	29.05	26.63	24.27	26.71	28.54
November	30.27	32.24	27.07	31.92	22.10	30.91	24.08	22.74	25.43	28.80
December	24.96	25.66	21.46	25.45	21.65	24.80	20.98	21.63	22.07	23.34
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	21.35	26.46	20.55	26.16	21.15	20.78	21.99	22.87
February	25.69	27.06	21.39	26.82	21.35	W	20.43	21.60	22.39	23.71
March	22.98	23.63	18.81	24.70	20.46	W	19.12	20.43	20.84	21.08
April	24.75	25.04	19.78	W	21.11	26.99	21.18	20.78	21.91	21.87
May	27.66	26.23	21.20	28.74	21.41	28.19	20.10	20.94	22.03	23.67
June	26.82	26.81	21.39	27.63	R 20.68	W	17.92	R 20.61	R 21.41	23.70
July	R 23.84	25.86	R 19.08	R 24.98	R 20.76	24.88	R 18.70	R 20.97	R 20.54	R 22.20
August	23.61	25.13	20.64	25.41	22.19	W	19.64	21.85	20.86	22.47

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

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

[c] Based on October, November, and December data only.

[d] No data reported.

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

Notes: The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 at end of section. Values for the current 2 months are preliminary. Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are averages of the monthly prices, including prices not published, weighted by volume.

Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries

(Dollars per Barrel)

	Selected Countries								Persian Gulf Nations[a]	Total OPEC[b]	Total Non-OPEC
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[c]	**W**	**5.33**	**W**	**NA**	**9.08**	**5.37**	**NA**	**5.99**	**5.91**	**6.85**	**5.64**
1974 Average	**12.48**	**11.48**	**W**	**W**	**13.16**	**11.63**	**NA**	**11.25**	**12.21**	**12.49**	**11.81**
1975 Average	**11.81**	**12.84**	**([d])**	**12.61**	**12.70**	**12.50**	**NA**	**12.36**	**12.64**	**12.70**	**12.70**
1976 Average	**12.71**	**13.36**	**([d])**	**12.64**	**13.81**	**13.06**	**W**	**11.89**	**13.03**	**13.32**	**13.35**
1977 Average	**14.04**	**14.13**	**([d])**	**13.82**	**15.29**	**13.69**	**14.83**	**13.11**	**13.85**	**14.35**	**14.42**
1978 Average	**14.07**	**14.41**	**([d])**	**13.56**	**14.88**	**13.94**	**14.53**	**12.84**	**14.01**	**14.34**	**14.38**
1979 Average	**21.06**	**20.22**	**([d])**	**20.77**	**22.97**	**18.95**	**22.97**	**17.65**	**20.42**	**21.29**	**22.10**
1980 Average	**34.76**	**30.11**	**W**	**31.77**	**37.15**	**29.80**	**35.68**	**25.92**	**30.59**	**33.56**	**33.99**
1981 Average	**36.84**	**32.32**	**([d])**	**33.70**	**39.66**	**34.20**	**37.29**	**29.91**	**34.61**	**36.60**	**36.14**
1982 Average	**33.08**	**27.15**	**([d])**	**28.63**	**36.16**	**34.99**	**34.25**	**24.93**	**34.94**	**34.81**	**31.47**
1983 Average	**29.31**	**25.63**	**([d])**	**25.78**	**30.85**	**29.27**	**30.87**	**22.94**	**29.37**	**29.84**	**28.08**
1984 Average	**28.49**	**26.56**	**([d])**	**26.85**	**30.36**	**29.20**	**29.45**	**25.19**	**29.07**	**29.06**	**28.14**
1985 Average	**27.39**	**25.71**	**([d])**	**25.63**	**28.96**	**24.72**	**28.36**	**24.43**	**25.50**	**26.86**	**26.53**
1986 Average	**14.09**	**13.43**	**12.85**	**12.17**	**15.29**	**12.84**	**14.63**	**11.52**	**12.92**	**13.46**	**13.52**
1987 Average	**18.20**	**17.04**	**18.43**	**16.69**	**19.32**	**16.81**	**18.78**	**15.76**	**17.47**	**17.64**	**17.66**
1988 Average	**14.48**	**13.50**	**14.47**	**12.58**	**15.88**	**13.37**	**15.82**	**13.66**	**13.51**	**14.18**	**13.96**
1989 Average	**18.36**	**16.81**	**18.10**	**16.35**	**19.19**	**17.34**	**18.74**	**16.78**	**17.37**	**17.78**	**17.54**
1990 Average	**21.51**	**20.48**	**22.34**	**19.64**	**23.33**	**21.82**	**22.65**	**20.31**	**20.55**	**21.23**	**20.98**
1991 Average	**19.90**	**17.16**	**19.55**	**15.89**	**21.39**	**17.22**	**21.37**	**15.92**	**17.34**	**18.08**	**17.93**
1992 Average	**19.36**	**17.04**	**18.46**	**15.60**	**20.78**	**17.48**	**20.63**	**15.13**	**17.58**	**17.81**	**17.67**
1993 Average	**17.40**	**15.27**	**16.54**	**14.11**	**18.73**	**15.40**	**17.92**	**13.39**	**15.26**	**15.68**	**15.78**
1994 Average	**16.36**	**14.83**	**15.80**	**14.09**	**17.21**	**15.11**	**16.64**	**13.12**	**15.00**	**15.08**	**15.29**
1995 Average	**17.66**	**16.65**	**17.45**	**16.19**	**18.25**	**16.84**	**17.91**	**14.81**	**16.78**	**16.61**	**16.95**
1996 Average	**21.86**	**19.94**	**22.02**	**19.64**	**21.95**	**20.49**	**20.88**	**18.59**	**20.45**	**20.14**	**20.47**
1997 Average	**20.24**	**17.63**	**19.71**	**17.30**	**20.64**	**17.52**	**20.64**	**16.35**	**17.44**	**17.73**	**18.45**
1998 Average	**13.37**	**11.62**	**13.26**	**11.04**	**14.14**	**11.16**	**13.55**	**10.16**	**11.18**	**11.46**	**12.22**
1999 January	11.77	10.66	11.49	9.27	11.32	10.17	11.34	7.93	10.08	9.75	10.66
February	11.33	10.97	11.15	8.86	11.21	11.98	11.47	8.16	11.53	10.72	10.46
March	13.42	12.81	13.83	11.20	13.98	14.17	11.76	11.57	13.77	13.22	12.53
April	16.06	15.20	16.62	14.26	15.72	15.33	15.17	13.79	15.16	14.89	15.23
May	16.25	15.84	16.30	14.45	16.27	16.32	16.18	13.62	15.98	15.40	15.61
June	16.66	15.68	16.67	14.71	16.80	17.38	16.67	14.90	16.98	16.32	15.87
July	20.01	17.80	18.78	17.32	19.16	18.90	18.00	16.96	18.33	18.09	18.17
August	21.26	19.22	20.43	19.10	20.84	19.82	20.12	18.55	19.84	19.69	19.80
September	22.82	21.63	23.10	21.05	23.01	21.40	22.81	20.45	21.19	21.28	22.11
October	22.52	21.91	22.84	20.42	23.30	22.44	22.06	19.95	21.99	21.67	21.88
November	25.71	22.06	24.95	22.28	25.02	22.99	23.64	21.09	22.99	22.76	23.29
December	25.53	23.32	26.08	22.78	26.92	24.20	25.89	21.95	24.00	23.65	23.99
Average	**18.37**	**17.54**	**18.09**	**16.12**	**17.63**	**17.48**	**18.26**	**15.58**	**17.37**	**16.94**	**17.51**
2000 January	27.21	24.66	27.39	23.77	26.99	26.79	25.86	24.31	26.47	25.86	25.37
February	28.77	26.14	29.74	26.52	29.05	25.42	27.48	25.90	25.94	26.61	27.45
March	29.14	27.27	29.67	26.29	29.04	24.95	28.99	25.55	25.37	26.23	27.76
April	24.50	24.86	26.34	22.53	25.78	25.77	25.60	23.72	25.20	24.97	24.46
May	29.49	25.25	27.40	25.66	27.93	26.66	26.79	26.19	26.64	26.84	26.60
June	30.79	28.01	30.60	27.61	31.06	26.71	30.61	27.80	26.90	28.06	29.07
July	30.74	27.98	29.40	25.75	31.14	27.81	30.57	25.21	27.68	27.96	28.69
August	32.41	28.09	30.34	27.25	31.59	28.37	29.27	28.16	28.17	29.00	29.06
September	32.46	29.94	33.84	28.94	32.63	30.03	31.95	28.33	29.77	30.13	30.90
October	31.87	28.32	33.68	28.10	33.10	27.47	31.06	28.54	27.97	29.06	30.08
November	32.80	26.91	33.36	27.76	34.02	25.69	32.93	26.34	26.61	27.86	29.74
December	27.05	23.47	28.12	21.91	27.77	24.52	28.86	23.13	24.64	24.82	24.72
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	21.53	28.37	23.79	28.27	23.04	23.81	24.29	24.03
February	27.48	22.47	28.71	21.61	28.74	23.24	29.12	22.15	23.18	24.04	24.62
March	24.87	21.62	26.21	19.55	27.40	22.47	26.29	21.13	22.42	23.17	22.48
April	26.63	21.39	26.71	19.57	27.01	22.68	26.45	22.53	22.35	23.33	22.87
May	28.58	22.63	27.83	21.22	29.33	22.86	28.27	21.91	22.65	23.77	24.73
June	R 28.40	R 22.53	28.86	21.34	29.31	R 22.61	26.91	20.35	R 22.20	23.21	R 24.42
July	R 25.62	R 22.60	27.45	R 19.58	R 26.68	R 22.38	R 26.02	R 20.23	R 22.15	R 22.36	R 23.49
August	25.62	23.89	26.24	21.20	27.02	23.81	26.13	21.11	23.38	23.09	23.84

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

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

[c] Based on October, November, and December data only.

[d] No data reported.

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

Notes: See Note 3 at end of section. Values for the current 2 months are preliminary. Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are averages of the monthly prices, including prices not published, weighted by volume.

Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: **October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." **October 1977-December 1977:** Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." **1978 forward:** EIA, *Petroleum Marketing Monthly,* November 2001, Table 25.

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

(Cents per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium	All Types[a]
1973 Average	**38.8**	**NA**	**NA**	**NA**
1974 Average	**53.2**	**NA**	**NA**	**NA**
1975 Average	**56.7**	**NA**	**NA**	**NA**
1976 Average	**59.0**	**61.4**	**NA**	**NA**
1977 Average	**62.2**	**65.6**	**NA**	**NA**
1978 Average	**62.6**	**67.0**	**NA**	**65.2**
1979 Average	**85.7**	**90.3**	**NA**	**88.2**
1980 Average	**119.1**	**124.5**	**NA**	**122.1**
1981 Average[b]	**131.1**	**137.8**	[c] **147.0**	**135.3**
1982 Average	**122.2**	**129.6**	**141.5**	**128.1**
1983 Average	**115.7**	**124.1**	**138.3**	**122.5**
1984 Average	**112.9**	**121.2**	**136.6**	**119.8**
1985 Average	**111.5**	**120.2**	**134.0**	**119.6**
1986 Average	**85.7**	**92.7**	**108.5**	**93.1**
1987 Average	**89.7**	**94.8**	**109.3**	**95.7**
1988 Average	**89.9**	**94.6**	**110.7**	**96.3**
1989 Average	**99.8**	**102.1**	**119.7**	**106.0**
1990 Average	**114.9**	**116.4**	**134.9**	**121.7**
1991 Average	**NA**	**114.0**	**132.1**	**119.6**
1992 Average	**NA**	**112.7**	**131.6**	**119.0**
1993 Average	**NA**	**110.8**	**130.2**	**117.3**
1994 Average	**NA**	**111.2**	**130.5**	**117.4**
1995 Average	**NA**	**114.7**	**133.6**	**120.5**
1996 Average	**NA**	**123.1**	**141.3**	**128.8**
1997 Average	**NA**	**123.4**	**141.6**	**129.1**
1998 Average	**NA**	**105.9**	**125.0**	**111.5**
1999 January	NA	97.2	117.1	103.1
February	NA	95.5	115.5	101.4
March	NA	99.1	118.6	104.8
April	NA	117.7	136.7	123.2
May	NA	117.8	137.0	123.3
June	NA	114.8	133.9	120.4
July	NA	118.9	137.8	124.4
August	NA	125.5	144.1	130.9
September	NA	128.0	146.8	133.4
October	NA	127.4	146.4	132.9
November	NA	126.4	145.4	131.9
December	NA	129.8	148.6	135.3
Average	**NA**	**116.5**	**135.7**	**122.1**
2000 January	NA	130.1	148.6	135.6
February	NA	136.9	155.1	142.2
March	NA	154.1	172.3	159.4
April	NA	150.6	169.8	156.1
May	NA	149.8	168.2	155.2
June	NA	161.7	178.6	166.6
July	NA	159.3	177.3	164.2
August	NA	151.0	168.9	155.9
September	NA	158.2	176.4	163.5
October	NA	155.9	174.4	161.3
November	NA	155.5	173.8	160.8
December	NA	148.9	167.9	154.4
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

[a] Also includes types of motor gasoline not shown separately.

[b] In September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, gasohol is included in the average for all types, and unleaded premium is weighted more heavily.

[c] Based on September through December data only.

NA=Not available.

Notes: See Note 5 at end of section. Geographic coverage for 1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

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

Table 9.5 Refiner Prices of Residual Fuel Oil

(Cents per Gallon, Excluding Taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average	**29.3**	**31.4**	**24.5**	**27.5**	**26.3**	**29.8**
1979 Average	**45.0**	**46.8**	**36.6**	**38.9**	**39.9**	**43.6**
1980 Average	**60.8**	**67.5**	**47.9**	**52.3**	**52.8**	**60.7**
1981 Average	**74.8**	**82.9**	**62.2**	**67.3**	**66.3**	**75.6**
1982 Average	**69.5**	**74.7**	**57.2**	**61.1**	**61.2**	**67.6**
1983 Average	**64.3**	**69.5**	**59.1**	**61.1**	**60.9**	**65.1**
1984 Average	**68.5**	**72.0**	**63.9**	**65.9**	**65.4**	**68.7**
1985 Average	**61.0**	**64.4**	**56.0**	**58.2**	**57.7**	**61.0**
1986 Average	**32.8**	**37.2**	**28.9**	**31.7**	**30.5**	**34.3**
1987 Average	**41.2**	**44.7**	**36.2**	**39.6**	**38.5**	**42.3**
1988 Average	**33.3**	**37.2**	**27.1**	**30.0**	**30.0**	**33.4**
1989 Average	**40.7**	**43.6**	**33.1**	**34.4**	**36.0**	**38.5**
1990 Average	**47.2**	**50.5**	**37.2**	**40.0**	**41.3**	**44.4**
1991 Average	**36.4**	**40.2**	**29.2**	**30.6**	**31.4**	**34.0**
1992 Average	**35.1**	**38.9**	**28.6**	**31.2**	**30.8**	**33.6**
1993 Average	**33.7**	**39.7**	**25.6**	**30.3**	**29.3**	**33.7**
1994 Average	**34.5**	**40.1**	**28.7**	**33.0**	**31.7**	**35.2**
1995 Average	**38.3**	**43.6**	**33.8**	**37.7**	**36.3**	**39.2**
1996 Average	**45.6**	**52.6**	**38.9**	**43.3**	**42.0**	**45.5**
1997 Average	**41.5**	**48.8**	**36.6**	**40.3**	**38.7**	**42.3**
1998 Average	**29.9**	**35.4**	**26.9**	**28.7**	**28.0**	**30.5**
1999 January	27.5	32.4	23.9	25.2	25.6	26.9
February	21.8	30.6	21.9	24.5	21.9	26.1
March	27.2	31.4	24.0	26.2	25.1	27.6
April	30.9	32.9	30.0	30.8	30.4	31.4
May	34.6	36.6	29.5	32.0	32.5	33.6
June	35.0	37.5	31.2	34.0	32.6	35.1
July	38.6	40.9	34.5	35.7	36.1	37.4
August	44.8	45.7	40.1	43.1	42.7	43.9
September	49.8	47.1	43.6	48.2	46.7	48.0
October	47.3	52.5	43.1	48.4	44.8	49.4
November	48.5	54.4	44.2	49.1	46.8	50.4
December	50.3	56.9	44.0	49.9	47.2	51.9
Average	**38.2**	**40.5**	**32.9**	**36.2**	**35.4**	**37.4**
2000 January	55.3	66.3	44.6	50.0	49.0	54.6
February	59.2	68.8	48.6	54.0	53.9	57.5
March	53.2	66.5	50.7	55.9	51.9	57.8
April	52.3	65.1	44.5	52.5	48.2	54.7
May	58.9	63.2	51.7	54.9	54.9	57.3
June	65.8	70.2	54.7	59.0	60.0	62.0
July	65.1	69.7	50.8	57.3	58.9	60.3
August	61.5	67.0	46.7	53.6	53.9	57.1
September	71.9	75.8	58.6	59.2	64.5	62.0
October	73.7	76.8	57.3	65.4	63.8	68.6
November	71.3	77.1	52.8	59.2	61.3	64.7
December	66.6	75.8	50.6	57.0	57.9	62.5
Average	**62.7**	**70.8**	**51.2**	**56.6**	**56.6**	**60.2**
2001 January	64.5	73.1	48.5	56.2	55.6	61.9
February	61.9	68.4	49.5	55.2	54.9	59.8
March	57.2	66.1	47.8	52.8	51.4	57.3
April	57.3	63.8	41.8	48.8	48.0	53.1
May	58.2	63.4	44.2	50.1	49.8	53.7
June	53.0	64.1	42.4	49.0	47.9	52.4
July	50.0	63.2	R 42.2	R 47.2	R 46.3	R 51.5
August	50.4	60.0	41.3	48.0	45.7	51.1

R=Revised.

Notes: Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. Values for the current month are preliminary. Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. Geographic coverage is the 50 States and the District of Columbia.

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

Table 9.6 Refiner Prices of Petroleum Products for Resale

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline[a]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**43.4**	**53.7**	**38.6**	**40.4**	**36.9**	**36.5**	**23.7**
1979 Average	**63.7**	**72.1**	**66.0**	**62.4**	**56.9**	**57.4**	**29.1**
1980 Average	**94.1**	**112.8**	**86.8**	**86.4**	**80.3**	**80.1**	**41.5**
1981 Average	**106.4**	**125.0**	**101.2**	**106.6**	**97.6**	**97.2**	**46.6**
1982 Average	**97.3**	**122.8**	**95.3**	**101.8**	**91.4**	**91.4**	**42.7**
1983 Average	**88.2**	**117.8**	**85.4**	**89.2**	**81.5**	**80.8**	**48.4**
1984 Average	**83.2**	**116.5**	**83.0**	**91.6**	**82.1**	**80.3**	**45.0**
1985 Average	**83.5**	**113.0**	**79.4**	**87.4**	**77.6**	**77.2**	**39.8**
1986 Average	**53.1**	**91.2**	**49.5**	**60.6**	**48.6**	**45.2**	**29.0**
1987 Average	**58.9**	**85.9**	**53.8**	**59.2**	**52.7**	**53.4**	**25.2**
1988 Average	**57.7**	**85.0**	**49.5**	**54.9**	**47.3**	**47.3**	**24.0**
1989 Average	**65.4**	**95.0**	**58.3**	**66.9**	**56.5**	**56.7**	**24.7**
1990 Average	**78.6**	**106.3**	**77.3**	**83.9**	**69.7**	**69.4**	**38.6**
1991 Average	**69.9**	**100.1**	**65.0**	**72.2**	**62.2**	**61.5**	**34.9**
1992 Average	**67.7**	**99.1**	**60.5**	**63.2**	**57.9**	**59.1**	**32.8**
1993 Average	**62.6**	**96.5**	**57.7**	**60.4**	**54.4**	**57.0**	**35.1**
1994 Average	**59.9**	**93.3**	**53.4**	**61.8**	**50.6**	**52.9**	**32.4**
1995 Average	**62.6**	**97.5**	**53.9**	**58.0**	**51.1**	**53.8**	**34.4**
1996 Average	**71.3**	**105.5**	**64.6**	**71.4**	**63.9**	**65.9**	**46.1**
1997 Average	**70.0**	**106.5**	**61.3**	**65.3**	**59.0**	**60.6**	**41.6**
1998 Average	**52.6**	**91.2**	**45.0**	**46.5**	**42.2**	**44.4**	**28.8**
1999 January	44.5	81.2	37.3	42.0	36.3	36.2	26.5
February	42.9	79.2	35.2	37.8	33.1	35.1	26.1
March	52.1	86.3	39.5	43.7	39.8	43.2	26.8
April	62.8	98.9	46.6	47.3	44.7	48.8	28.7
May	62.1	99.2	46.8	43.8	43.8	47.9	29.1
June	61.5	94.8	48.6	45.4	44.7	50.4	29.1
July	68.6	103.6	53.7	53.0	51.2	56.4	34.7
August	74.1	107.6	59.1	59.6	56.2	61.6	38.3
September	75.9	111.7	62.7	66.0	60.9	64.9	42.6
October	72.4	109.3	63.8	64.7	61.0	65.0	43.7
November	75.2	108.1	66.5	72.8	66.2	69.9	42.6
December	76.0	110.2	72.1	76.5	67.8	70.5	41.8
Average	**64.5**	**100.7**	**53.3**	**55.0**	**49.3**	**54.6**	**34.2**
2000 January	78.6	111.5	80.4	97.9	84.1	77.7	49.4
February	88.4	119.8	83.6	101.2	92.4	85.2	60.2
March	98.9	130.3	83.4	84.4	79.6	85.1	52.9
April	88.5	125.5	77.4	76.7	76.4	79.9	48.8
May	97.9	130.8	77.9	77.6	78.4	81.4	49.3
June	109.3	141.9	79.9	80.0	80.3	82.4	53.9
July	99.3	138.8	83.6	83.1	81.0	83.6	54.8
August	96.9	133.8	87.9	89.8	88.3	92.1	60.3
September	104.8	142.5	105.1	107.7	100.9	105.0	65.9
October	102.2	138.1	104.4	108.1	98.8	104.0	64.3
November	100.2	137.6	105.1	112.8	100.4	103.2	63.3
December	87.9	128.3	99.0	105.8	94.1	93.8	76.7
Average	**96.3**	**133.0**	**88.0**	**96.9**	**88.6**	**89.8**	**59.5**
2001 January	94.2	131.0	88.2	107.3	90.3	90.7	86.4
February	93.9	131.9	86.8	93.4	82.5	85.8	66.9
March	91.0	129.3	80.5	83.6	76.3	78.1	60.1
April	106.4	140.5	79.5	83.0	79.2	82.6	58.6
May	115.5	147.8	83.5	86.6	82.7	89.8	56.2
June	98.7	135.0	82.6	83.3	79.3	85.3	48.7
July	84.3	120.9	75.9	75.4	72.8	75.5	[R] 43.6
August	90.7	125.9	77.7	81.5	77.0	80.9	45.5

[a] See Note 5 at end of section.

R=Revised.

Notes: Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Values for the current month are preliminary. Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. Geographic coverage is the 50 States and the District of Columbia.

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

Table 9.7 Refiner Prices of Petroleum Products to End Users

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline[a]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**48.4**	**51.6**	**38.7**	**42.1**	**40.0**	**37.7**	**33.5**
1979 Average	**71.3**	**68.9**	**54.7**	**58.5**	**51.6**	**58.5**	**35.7**
1980 Average	**103.5**	**108.4**	**86.8**	**90.2**	**78.8**	**81.8**	**48.2**
1981 Average	**114.7**	**130.3**	**102.4**	**112.3**	**91.4**	**99.5**	**56.5**
1982 Average	**106.0**	**131.2**	**96.3**	**108.9**	**90.5**	**94.2**	**59.2**
1983 Average	**95.4**	**125.5**	**87.8**	**96.1**	**91.6**	**82.6**	**70.9**
1984 Average	**90.7**	**123.4**	**84.2**	**103.6**	**91.6**	**82.3**	**73.7**
1985 Average	**91.2**	**120.1**	**79.6**	**103.0**	**84.9**	**78.9**	**71.7**
1986 Average	**62.4**	**101.1**	**52.9**	**79.0**	**56.0**	**47.8**	**74.5**
1987 Average	**66.9**	**90.7**	**54.3**	**77.0**	**58.1**	**55.1**	**70.1**
1988 Average	**67.3**	**89.1**	**51.3**	**73.8**	**54.4**	**50.0**	**71.4**
1989 Average	**75.6**	**99.5**	**59.2**	**70.9**	**58.7**	**58.5**	**61.5**
1990 Average	**88.3**	**112.0**	**76.6**	**92.3**	**73.4**	**72.5**	**74.5**
1991 Average	**79.7**	**104.7**	**65.2**	**83.8**	**66.5**	**64.8**	**73.0**
1992 Average	**78.7**	**102.7**	**61.0**	**78.8**	**62.7**	**61.9**	**64.3**
1993 Average	**75.9**	**99.0**	**58.0**	**75.4**	**60.2**	**60.2**	**67.3**
1994 Average	**73.8**	**95.7**	**53.4**	**66.0**	**57.2**	**55.4**	**53.0**
1995 Average	**76.5**	**100.5**	**54.0**	**58.9**	**56.2**	**56.0**	**49.2**
1996 Average	**84.7**	**111.6**	**65.1**	**74.0**	**67.3**	**68.1**	**60.5**
1997 Average	**83.9**	**112.8**	**61.3**	**74.5**	**63.6**	**64.2**	**55.2**
1998 Average	**67.3**	**97.5**	**45.2**	**50.1**	**48.2**	**49.4**	**40.5**
1999 January	59.5	87.1	38.0	51.5	45.1	42.1	42.4
February	57.4	85.1	36.5	49.9	41.1	40.9	39.2
March	65.5	90.1	39.6	53.6	46.3	46.6	41.3
April	79.2	101.4	48.7	51.4	50.9	53.3	45.5
May	78.5	104.2	47.2	53.7	49.1	52.9	42.7
June	75.8	104.1	50.6	50.4	48.6	54.1	39.0
July	80.3	107.9	54.9	60.4	53.7	58.8	41.2
August	86.4	113.2	59.8	63.9	59.0	64.1	43.1
September	88.8	115.4	64.2	70.4	64.4	67.6	48.4
October	87.1	117.6	64.9	79.2	66.0	68.0	55.0
November	88.1	116.4	68.2	84.8	71.6	71.9	52.1
December	90.3	119.6	73.3	89.1	73.9	73.5	57.7
Average	**78.1**	**105.9**	**54.3**	**60.5**	**55.8**	**58.4**	**45.8**
2000 January	91.7	118.7	80.7	111.1	86.5	79.9	62.9
February	98.7	119.5	82.8	130.1	95.2	88.8	73.0
March	113.1	129.1	85.0	107.7	85.9	90.3	64.8
April	108.7	124.3	78.1	99.6	81.7	84.8	48.7
May	110.3	126.8	78.9	86.8	83.1	85.1	49.8
June	121.3	139.8	80.2	88.4	84.5	86.4	54.4
July	117.3	142.6	84.0	90.1	84.7	87.9	55.2
August	110.3	NA	88.8	96.5	90.8	93.6	55.7
September	117.5	138.2	106.1	116.2	105.9	107.8	58.2
October	115.5	134.9	104.5	116.0	105.0	107.6	59.7
November	113.5	134.9	106.6	122.9	106.4	107.0	63.8
December	106.3	126.1	99.7	122.7	101.5	99.7	66.8
Average	**110.6**	**130.6**	**89.9**	**112.3**	**92.7**	**93.5**	**60.3**
2001 January	106.6	128.5	88.3	126.0	99.6	96.2	82.3
February	106.6	130.3	86.9	122.1	94.3	92.0	67.0
March	103.8	124.5	81.1	112.8	86.6	84.2	57.6
April	117.6	132.8	80.3	100.5	86.1	86.3	57.0
May	130.1	146.5	84.0	94.1	90.1	93.0	54.3
June	120.5	145.1	83.6	93.8	84.8	90.6	50.5
July	103.0	[R] 134.6	76.9	83.4	78.1	81.4	45.1
August	102.5	136.3	77.9	84.2	82.1	84.6	46.5

[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.

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

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

(Cents per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average	**48.6**	**50.3**	**50.8**	**48.8**	**50.7**	**50.1**	**50.1**	**49.6**	**48.8**
1979 Average	**68.8**	**72.5**	**72.5**	**70.9**	**72.8**	**72.0**	**71.2**	**71.0**	**69.8**
1980 Average	**96.3**	**100.4**	**101.5**	**97.8**	**101.1**	**98.3**	**98.2**	**97.9**	**96.4**
1981 Average	**120.4**	**123.7**	**125.4**	**121.3**	**123.8**	**121.7**	**123.2**	**121.5**	**118.1**
1982 Average	**115.5**	**117.4**	**120.1**	**117.6**	**120.1**	**118.3**	**120.5**	**117.4**	**113.7**
1983 Average	**102.8**	**104.1**	**112.9**	**109.1**	**110.5**	**109.1**	**112.1**	**107.9**	**105.8**
1984 Average	**103.9**	**108.4**	**111.9**	**111.6**	**111.4**	**112.1**	**115.5**	**111.0**	**107.9**
1985 Average	**99.7**	**102.4**	**107.7**	**107.0**	**106.7**	**108.0**	**111.3**	**105.9**	**102.3**
1986 Average	**74.4**	**75.9**	**86.6**	**82.1**	**82.8**	**89.0**	**91.1**	**90.2**	**81.4**
1987 Average	**74.7**	**76.5**	**81.1**	**80.6**	**82.5**	**83.4**	**85.2**	**84.3**	**76.9**
1988 Average	**77.7**	**78.2**	**82.6**	**82.1**	**83.6**	**85.3**	**86.3**	**84.8**	**77.8**
1989 Average	**89.4**	**89.3**	**90.5**	**92.6**	**93.9**	**92.9**	**95.8**	**91.8**	**85.1**
1990 Average	**98.9**	**102.8**	**107.0**	**108.4**	**108.6**	**109.8**	**112.5**	**108.7**	**102.6**
1991 Average	**96.0**	**91.6**	**101.9**	**103.0**	**99.9**	**106.2**	**111.3**	**104.0**	**99.7**
1992 Average	**87.1**	**85.6**	**92.1**	**92.5**	**91.2**	**94.7**	**102.8**	**93.9**	**89.0**
1993 Average	**82.6**	**82.8**	**90.4**	**89.7**	**89.3**	**91.9**	**100.1**	**92.4**	**86.3**
1994 Average	**81.8**	**79.2**	**87.6**	**87.0**	**88.5**	**89.0**	**96.6**	**89.5**	**85.7**
1995 Average	**78.7**	**77.9**	**85.3**	**84.4**	**87.4**	**86.4**	**95.5**	**88.8**	**82.6**
1996 Average	**97.2**	**94.0**	**96.9**	**97.6**	**98.6**	**98.6**	**106.3**	**102.4**	**95.3**
1997 Average	**94.2**	**94.2**	**98.7**	**96.0**	**98.9**	**96.3**	**106.5**	**103.3**	**95.0**
1998 Average	**78.8**	**78.8**	**87.3**	**81.8**	**86.8**	**83.1**	**94.8**	**89.2**	**81.4**
1999 January	72.0	70.8	80.6	76.1	79.9	78.6	90.3	83.5	77.8
February	71.6	70.4	79.7	75.6	79.4	77.3	89.6	83.4	77.3
March	74.3	70.4	79.5	76.1	79.3	77.9	90.6	83.6	77.3
April	79.3	70.2	80.4	76.9	79.2	79.6	94.2	88.6	75.4
May	79.2	69.0	79.8	77.6	79.5	76.7	95.6	87.0	75.0
June	77.5	68.5	78.5	76.1	78.2	74.6	96.2	84.4	73.3
July	79.9	69.7	80.1	77.6	79.0	77.3	95.5	86.1	72.8
August	83.1	74.5	82.4	80.4	81.2	79.5	NA	88.0	73.9
September	89.0	82.0	88.2	86.1	90.6	85.2	98.6	94.9	81.1
October	91.4	87.8	92.4	91.0	93.0	90.9	105.6	100.8	86.0
November	97.2	92.0	95.7	96.5	96.8	95.8	111.0	105.7	91.3
December	100.4	99.0	99.6	100.0	101.6	100.9	114.7	111.8	95.4
Average	**81.3**	**77.0**	**85.4**	**83.6**	**85.8**	**85.2**	**96.9**	**91.3**	**81.5**
2000 January	126.4	120.9	117.2	123.7	118.8	124.5	141.6	134.7	117.3
February	140.5	140.3	133.2	139.6	132.8	141.5	162.9	154.7	133.1
March	120.8	123.0	118.5	116.8	114.8	120.7	135.8	131.6	114.3
April	113.5	116.4	114.0	111.7	112.2	114.0	127.4	124.8	108.2
May	115.1	117.9	112.3	114.3	114.2	114.4	127.5	125.2	106.5
June	117.1	117.0	117.3	112.9	114.2	113.7	128.1	125.0	106.2
July	118.9	117.9	119.5	111.6	112.6	114.1	127.7	124.8	104.0
August	124.8	121.4	122.2	117.4	115.1	115.8	129.0	128.0	109.7
September	136.2	132.3	133.8	128.7	132.6	129.4	140.5	139.8	123.2
October	138.9	131.5	130.9	132.1	134.0	134.5	147.2	144.2	127.2
November	141.1	135.8	133.4	135.1	138.3	137.2	150.3	149.9	131.3
December	137.3	136.4	132.7	137.0	136.9	139.2	152.2	147.2	135.1
Average	**129.7**	**128.1**	**125.5**	**127.3**	**125.9**	**129.1**	**144.2**	**140.4**	**122.4**
2001 January	132.8	134.8	132.7	132.8	134.2	136.7	148.6	146.4	133.4
February	129.5	132.9	130.6	129.6	129.5	132.0	143.5	140.7	128.3
March	125.6	130.1	128.9	125.6	125.6	129.0	139.6	133.9	121.9
April	122.9	126.9	127.7	124.3	124.1	127.2	139.6	132.5	117.5
May	121.9	124.4	124.9	122.7	122.3	125.1	137.3	130.9	112.0
June	121.6	125.5	124.7	119.8	121.6	119.1	133.2	128.8	106.3
July	R 117.8	R 121.2	122.2	113.7	117.2	113.6	126.9	123.3	101.9
August	115.2	119.0	121.5	113.5	118.0	111.3	125.9	118.5	104.3

R=Revised. NA=Not available.

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

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

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

(Cents per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average	**47.8**	**50.7**	**49.2**	**49.1**	**46.2**	**47.4**	**47.9**	**48.5**	**46.5**	**44.7**	**47.8**
1979 Average	**68.2**	**74.2**	**70.1**	**70.4**	**65.1**	**68.6**	**70.9**	**72.7**	**68.8**	**67.3**	**72.4**
1980 Average	**95.4**	**102.6**	**97.9**	**98.5**	**92.2**	**91.9**	**97.8**	**99.6**	**95.8**	**91.5**	**99.9**
1981 Average	**117.3**	**127.4**	**121.4**	**120.5**	**115.0**	**113.2**	**118.3**	**118.5**	**114.9**	**109.1**	**118.4**
1982 Average	**111.3**	**124.5**	**117.1**	**117.7**	**109.3**	**110.2**	**113.9**	**114.3**	**110.9**	**107.8**	**115.1**
1983 Average	**106.0**	**117.0**	**110.3**	**108.7**	**101.0**	**101.3**	**106.4**	**100.7**	**100.4**	**101.2**	**103.1**
1984 Average	**109.6**	**118.7**	**113.5**	**110.5**	**102.1**	**102.1**	**105.0**	**103.1**	**100.1**	**101.0**	**104.1**
1985 Average	**104.6**	**114.3**	**108.8**	**106.3**	**98.0**	**99.7**	**102.1**	**99.1**	**97.5**	**98.3**	**101.9**
1986 Average	**85.0**	**93.1**	**91.4**	**86.6**	**74.6**	**77.7**	**81.0**	**74.8**	**NA**	**75.6**	**79.2**
1987 Average	**79.3**	**91.8**	**86.6**	**79.5**	**76.4**	**74.7**	**77.5**	**75.4**	**79.8**	**75.1**	**74.6**
1988 Average	**80.1**	**91.6**	**87.0**	**80.5**	**74.2**	**74.7**	**77.5**	**75.4**	**77.6**	**73.9**	**73.5**
1989 Average	**88.2**	**98.6**	**93.8**	**87.0**	**83.0**	**81.6**	**85.3**	**83.2**	**80.9**	**81.1**	**82.4**
1990 Average	**105.8**	**107.8**	**111.9**	**110.6**	**99.1**	**98.1**	**100.9**	**99.3**	**96.1**	**94.2**	**101.4**
1991 Average	**99.7**	**112.2**	**108.4**	**101.1**	**93.4**	**91.0**	**94.2**	**91.8**	**92.7**	**89.5**	**91.1**
1992 Average	**92.3**	**105.7**	**100.0**	**92.8**	**86.4**	**83.6**	**87.2**	**81.2**	**87.7**	**81.6**	**82.6**
1993 Average	**89.9**	**104.5**	**98.1**	**89.3**	**85.6**	**84.0**	**87.2**	**81.0**	**84.4**	**82.3**	**83.2**
1994 Average	**89.4**	**100.0**	**95.0**	**85.3**	**80.9**	**81.2**	**86.3**	**81.2**	**78.4**	**81.1**	**80.6**
1995 Average	**87.0**	**101.0**	**93.6**	**84.4**	**81.5**	**80.8**	**86.0**	**81.6**	**78.5**	**81.2**	**80.1**
1996 Average	**98.4**	**117.8**	**106.3**	**95.2**	**96.0**	**92.1**	**97.7**	**91.2**	**89.3**	**89.9**	**90.9**
1997 Average	**98.4**	**117.4**	**105.7**	**94.8**	**96.2**	**91.3**	**94.2**	**86.5**	**87.0**	**93.3**	**89.9**
1998 Average	**85.8**	**102.2**	**90.2**	**85.6**	**81.8**	**76.7**	**80.4**	**74.8**	**73.5**	**80.1**	**73.8**
1999 January	82.1	W	85.7	81.2	74.6	72.9	76.2	71.4	68.6	75.0	68.0
February	80.4	W	86.1	81.4	72.6	71.9	76.5	71.0	65.9	73.9	67.0
March	82.9	W	86.8	81.6	78.4	76.4	77.7	73.7	67.8	76.4	69.5
April	88.7	W	86.9	85.8	71.9	76.0	81.5	75.6	63.4	77.8	73.5
May	NA	W	84.5	83.5	71.2	76.1	NA	72.9	60.2	77.3	72.5
June	77.0	W	81.8	82.6	66.2	77.3	NA	74.0	W	76.4	72.4
July	76.0	W	84.4	83.0	69.7	78.8	NA	76.3	62.8	79.8	74.0
August	78.1	W	85.9	84.8	75.8	80.3	NA	84.5	80.6	86.7	81.5
September	85.0	W	92.4	88.8	79.4	86.9	NA	91.7	85.7	91.6	85.3
October	90.3	W	95.7	92.9	NA	89.9	NA	90.9	89.2	95.3	89.7
November	97.0	W	102.2	99.2	NA	96.2	NA	96.8	92.6	99.0	93.9
December	104.2	W	107.9	103.7	NA	97.5	NA	99.3	95.7	101.1	99.1
Average	**88.4**	**101.1**	**90.7**	**87.0**	**78.9**	**82.0**	**88.3**	**79.3**	**71.6**	**84.7**	**77.4**
2000 January	124.2	W	123.6	120.9	116.1	110.5	NA	109.6	100.6	105.7	101.9
February	137.3	W	141.5	131.9	130.6	120.1	NA	116.1	109.3	110.2	109.8
March	120.6	W	126.3	122.4	119.7	116.7	NA	117.6	108.3	111.8	109.5
April	115.2	W	119.9	114.5	110.3	111.2	NA	112.4	104.6	110.2	107.5
May	109.6	W	119.6	111.9	110.0	111.9	NA	108.6	98.6	109.8	110.2
June	103.7	W	115.1	109.2	109.7	112.5	NA	115.1	96.0	109.9	112.8
July	103.7	W	115.6	108.2	110.2	110.4	NA	112.3	NA	105.3	111.4
August	112.8	W	120.4	117.7	117.1	111.8	NA	118.8	106.8	114.6	110.6
September	124.9	W	133.3	130.2	130.3	129.5	NA	134.0	124.4	127.8	122.4
October	129.7	W	141.5	133.0	132.7	133.7	NA	135.0	123.1	131.8	128.4
November	139.7	W	147.4	135.8	136.6	134.0	NA	131.5	124.2	130.1	128.5
December	140.0	W	150.1	137.0	137.4	132.4	NA	127.0	123.2	130.2	125.7
Average	**127.0**	**W**	**135.1**	**126.9**	**125.1**	**122.0**	**NA**	**120.7**	**109.5**	**117.1**	**115.6**
2001 January	140.1	W	150.3	141.5	137.1	131.8	NA	127.1	122.2	128.0	124.5
February	138.0	W	146.5	133.5	127.6	126.8	NA	123.1	118.2	126.5	120.6
March	129.7	W	140.8	122.8	119.2	117.4	NA	114.1	115.3	120.0	115.2
April	123.2	W	137.2	117.4	117.1	117.5	NA	112.3	NA	118.7	119.5
May	113.3	W	128.7	112.9	114.4	120.5	NA	117.8	109.6	122.0	121.3
June	110.8	W	123.2	112.7	112.5	113.0	NA	109.8	103.9	117.1	114.0
July	102.0	W	R 116.9	106.6	104.5	R 104.7	NA	102.9	100.3	R 110.5	R 106.4
August	101.9	W	117.0	107.7	109.3	110.4	121.2	111.8	110.4	118.7	115.5

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

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

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

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

(Cents per Gallon, Excluding Taxes)

	Idaho	Washington	Oregon	Alaska	U.S. Average
1978 Average	**43.6**	**48.6**	**45.8**	**53.2**	**49.0**
1979 Average	**62.1**	**69.7**	**68.0**	**68.2**	**70.4**
1980 Average	**91.6**	**100.8**	**97.3**	**97.8**	**97.4**
1981 Average	**110.4**	**116.5**	**111.4**	**118.0**	**119.4**
1982 Average	**110.4**	**117.6**	**111.6**	**117.4**	**116.0**
1983 Average	**101.8**	**109.0**	**103.6**	**108.8**	**107.8**
1984 Average	**98.5**	**102.6**	**99.3**	**106.9**	**109.1**
1985 Average	**97.2**	**101.1**	**97.1**	**108.3**	**105.3**
1986 Average	**73.8**	**77.5**	**70.4**	**94.9**	**83.6**
1987 Average	**68.8**	**79.5**	**72.5**	**86.5**	**80.3**
1988 Average	**68.8**	**78.5**	**70.9**	**86.9**	**81.3**
1989 Average	**77.8**	**87.4**	**80.2**	**96.4**	**90.0**
1990 Average	**97.4**	**102.9**	**97.0**	**110.1**	**106.3**
1991 Average	**95.1**	**101.6**	**93.3**	**105.0**	**101.9**
1992 Average	**85.7**	**94.0**	**87.6**	**94.1**	**93.4**
1993 Average	**86.2**	**99.9**	**91.8**	**96.1**	**91.1**
1994 Average	**78.9**	**95.0**	**88.7**	**86.5**	**88.4**
1995 Average	**83.9**	**96.2**	**89.4**	**83.4**	**86.7**
1996 Average	**93.3**	**108.0**	**98.9**	**90.9**	**98.9**
1997 Average	**95.3**	**113.9**	**103.1**	**97.3**	**98.4**
1998 Average	**78.4**	**97.8**	**86.1**	**85.2**	**85.2**
1999 January	68.5	93.1	82.1	80.5	80.5
February	67.8	93.6	80.5	81.8	80.0
March	70.9	101.6	88.4	84.8	81.0
April	74.1	111.6	98.1	NA	83.0
May	75.4	107.6	95.8	96.0	82.0
June	75.7	110.3	105.2	96.8	80.7
July	78.2	110.3	103.6	99.2	81.5
August	81.6	107.9	102.9	NA	83.5
September	89.7	111.3	100.6	103.9	90.1
October	87.5	114.0	102.2	108.6	94.9
November	89.7	116.8	104.8	111.7	100.1
December	92.7	118.5	106.0	117.1	104.5
Average	**76.2**	**106.5**	**93.8**	**96.6**	**87.6**
2000 January	93.5	127.5	115.6	122.0	125.8
February	97.7	134.0	124.9	126.3	142.5
March	109.2	145.4	136.1	131.3	123.9
April	105.9	133.8	127.7	130.3	117.7
May	96.6	132.0	121.2	124.7	117.2
June	NA	128.1	122.8	120.4	116.3
July	109.6	NA	126.4	121.8	115.0
August	114.1	133.3	131.3	130.8	119.0
September	133.3	156.6	154.4	140.8	132.0
October	140.8	162.8	156.0	NA	136.6
November	140.5	160.5	150.6	154.1	139.7
December	128.4	162.5	155.8	152.9	141.1
Average	**117.0**	**144.5**	**136.8**	**133.7**	**131.1**
2001 January	120.9	144.0	134.3	NA	138.7
February	114.1	145.4	134.4	149.4	134.2
March	108.9	141.9	129.7	152.3	129.4
April	110.3	141.8	130.3	NA	127.2
May	114.2	144.6	133.8	145.6	124.9
June	111.9	141.3	129.9	140.6	120.2
July	R 100.9	R 122.7	R 115.4	R 131.8	R 113.6
August	103.8	119.1	118.2	124.6	114.3

R=Revised. NA=Not available.

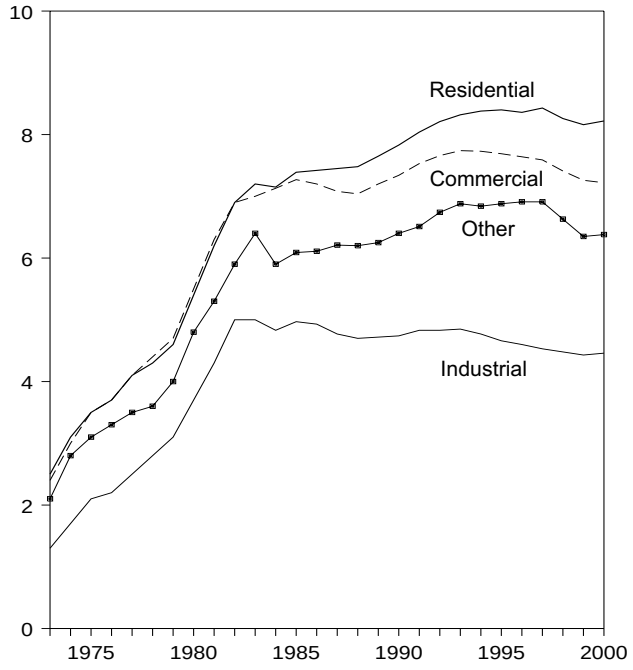
Notes: States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. Values for the current month are preliminary. Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

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

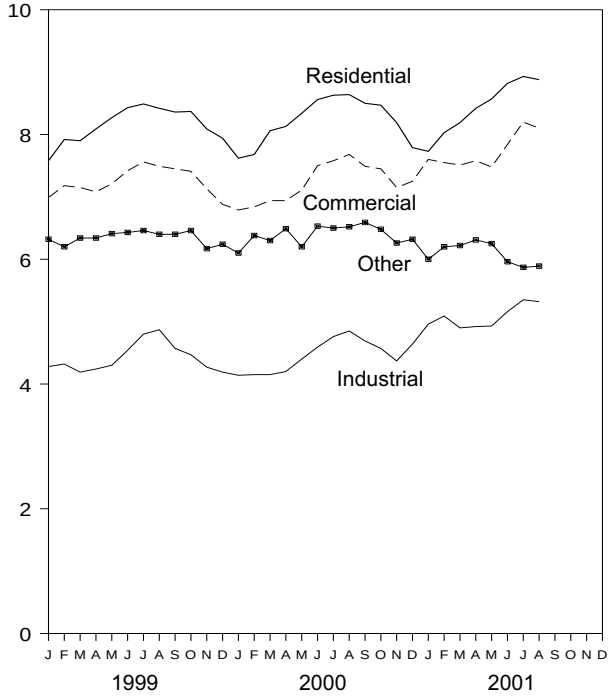
Figure 9.2 Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

By Sector, 1973-2000



By Sector, Monthly

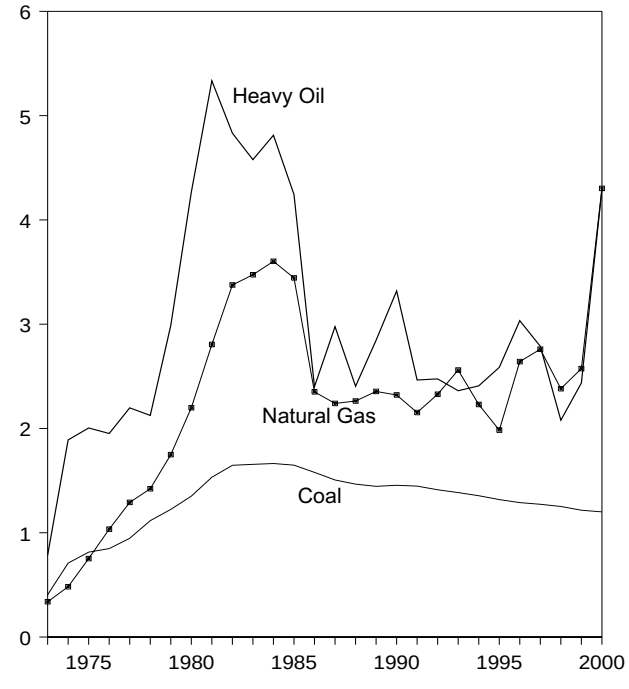


Source: Table 9.9.

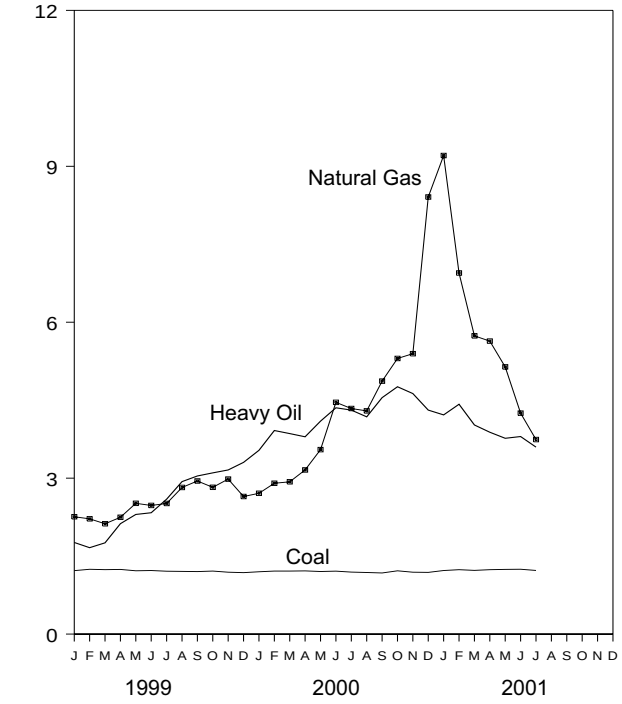
Figure 9.3 Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants

(Dollars per Million Btu)

Costs, 1973-2000



Costs, Monthly



Note: Beacause vertical scales differ, graphs should not be compared.
Source: Table 9.10.

Table 9.9 Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

	Residential	Commercial	Industrial	Other[a]	Total
1973 Average	**2.5**	**2.4**	**1.3**	**2.1**	**2.0**
1974 Average	**3.1**	**3.0**	**1.7**	**2.8**	**2.5**
1975 Average	**3.5**	**3.5**	**2.1**	**3.1**	**2.9**
1976 Average	**3.7**	**3.7**	**2.2**	**3.3**	**3.1**
1977 Average	**4.1**	**4.1**	**2.5**	**3.5**	**3.4**
1978 Average	**4.3**	**4.4**	**2.8**	**3.6**	**3.7**
1979 Average	**4.6**	**4.7**	**3.1**	**4.0**	**4.0**
1980 Average	**5.4**	**5.5**	**3.7**	**4.8**	**4.7**
1981 Average	**6.2**	**6.3**	**4.3**	**5.3**	**5.5**
1982 Average	**6.9**	**6.9**	**5.0**	**5.9**	**6.1**
1983 Average	**7.2**	**7.0**	**5.0**	**6.4**	**6.3**
1984 Average	**7.15**	**7.13**	**4.83**	**5.90**	**6.25**
1985 Average	**7.39**	**7.27**	**4.97**	**6.09**	**6.44**
1986 Average	**7.42**	**7.20**	**4.93**	**6.11**	**6.44**
1987 Average	**7.45**	**7.08**	**4.77**	**6.21**	**6.37**
1988 Average	**7.48**	**7.04**	**4.70**	**6.20**	**6.35**
1989 Average	**7.65**	**7.20**	**4.72**	**6.25**	**6.45**
1990 Average	**7.83**	**7.34**	**4.74**	**6.40**	**6.57**
1991 Average	**8.04**	**7.53**	**4.83**	**6.51**	**6.75**
1992 Average	**8.21**	**7.66**	**4.83**	**6.74**	**6.82**
1993 Average	**8.32**	**7.74**	**4.85**	**6.88**	**6.93**
1994 Average	**8.38**	**7.73**	**4.77**	**6.84**	**6.91**
1995 Average	**8.40**	**7.69**	**4.66**	**6.88**	**6.89**
1996 Average	**8.36**	**7.64**	**4.60**	**6.91**	**6.86**
1997 Average	**8.43**	**7.59**	**4.53**	**6.91**	**6.85**
1998 Average	**8.26**	**7.41**	**4.48**	**6.63**	**6.74**
1999 January	7.58	6.99	4.28	6.32	6.42
February	7.92	7.18	4.32	6.20	6.50
March	7.90	7.15	4.19	6.34	6.43
April	8.09	7.08	4.24	6.34	6.40
May	8.27	7.21	4.30	6.41	6.50
June	8.43	7.42	4.54	6.43	6.83
July	8.49	7.56	4.80	6.46	7.11
August	8.42	7.49	4.87	6.40	7.08
September	8.36	7.45	4.57	6.40	6.87
October	8.37	7.41	4.47	6.46	6.70
November	8.09	7.13	4.27	6.17	6.41
December	7.94	6.88	4.19	6.24	6.39
Average	**8.16**	**7.26**	**4.43**	**6.35**	**6.66**
2000 January	7.62	6.79	4.14	6.10	6.29
February	7.68	6.84	4.15	6.38	6.28
March	8.06	6.94	4.15	6.30	6.34
April	8.13	6.94	4.20	6.49	6.34
May	8.34	7.11	4.40	6.20	6.56
June	8.56	7.50	4.59	6.53	6.94
July	8.63	7.58	4.76	6.50	7.14
August	8.64	7.68	4.85	6.52	7.19
September	8.50	7.49	4.69	6.59	6.98
October	8.47	7.45	4.57	6.48	6.79
November	8.19	7.15	4.37	6.26	6.51
December	7.79	7.25	4.64	6.32	6.66
Average	**8.22**	**7.22**	**4.46**	**6.38**	**6.68**
2001 January	7.73	7.60	4.96	6.00	6.89
February	8.03	7.55	5.09	6.20	6.94
March	8.19	7.51	4.90	6.22	6.90
April	8.42	7.58	4.92	6.31	6.96
May	8.57	7.48	4.93	6.25	6.96
June	8.82	7.84	5.16	5.96	7.33
July	8.93	8.20	5.35	5.87	7.66
August	8.88	8.10	5.32	5.89	7.61
8-Month Average	**8.45**	**7.76**	**5.08**	**6.07**	**7.18**
2000 8-Month Average	**8.23**	**7.20**	**4.41**	**6.38**	**6.66**
1999 8-Month Average	**8.15**	**7.28**	**4.45**	**6.37**	**6.67**

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

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

Sources: See end of section.

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

	Coal		Petroleum				Natural Gas[a]		All Fossil Fuels[b]
			Heavy Oil[b]		Total[b,c]				
	Quantity (thousand short tons)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
1973 Year	**374,842**	**40.5**	**512,650**	**78.5**	**535,859**	**80.0**	**3,382,677**	**33.8**	**47.6**
1974 Year	**384,868**	**70.9**	**479,166**	**189.0**	**515,217**	**191.0**	**3,225,203**	**48.2**	**91.4**
1975 Year	**431,527**	**81.4**	**457,582**	**200.5**	**510,352**	**202.3**	**3,034,808**	**75.2**	**104.4**
1976 Year	**454,858**	**84.8**	**495,363**	**195.2**	**549,973**	**199.0**	**2,962,811**	**103.4**	**111.9**
1977 Year	**490,415**	**94.7**	**563,685**	**219.8**	**635,556**	**224.9**	**3,106,403**	**129.1**	**129.7**
1978 Year	**476,169**	**111.6**	**546,197**	**212.5**	**616,040**	**219.1**	**3,140,654**	**142.2**	**141.1**
1979 Year	**556,558**	**122.4**	**479,705**	**298.8**	**515,695**	**307.2**	**3,368,976**	**174.9**	**163.9**
1980 Year	**593,995**	**135.1**	**394,159**	**426.7**	**419,140**	**435.1**	**3,588,814**	**219.9**	**192.8**
1981 Year	**579,374**	**153.2**	**327,477**	**533.4**	**345,544**	**542.5**	**3,573,558**	**280.5**	**225.6**
1982 Year	**601,427**	**164.7**	**228,200**	**483.2**	**239,111**	**492.2**	**3,161,348**	**337.6**	**224.9**
1983 Year	**592,728**	**165.6**	**211,705**	**457.8**	**219,652**	**462.8**	**2,732,248**	**347.4**	**220.6**
1984 Year	**684,111**	**166.4**	**193,832**	**481.2**	**202,372**	**486.3**	**2,878,808**	**360.3**	**219.1**
1985 Year	**666,743**	**164.8**	**156,410**	**424.4**	**164,947**	**431.7**	**2,808,921**	**344.4**	**209.4**
1986 Year	**686,964**	**157.9**	**220,585**	**240.1**	**228,522**	**243.7**	**2,387,622**	**235.1**	**175.0**
1987 Year	**721,298**	**150.6**	**187,300**	**297.6**	**194,578**	**301.1**	**2,605,191**	**224.0**	**170.6**
1988 Year	**727,775**	**146.6**	**230,234**	**240.5**	**236,924**	**243.9**	**2,362,721**	**226.3**	**164.3**
1989 Year	**753,217**	**144.5**	**237,668**	**284.6**	**246,422**	**289.3**	**2,472,506**	**235.5**	**167.5**
1990 Year	**786,627**	**145.5**	**202,281**	**331.9**	**209,350**	**338.4**	**2,490,979**	**232.1**	**168.9**
1991 Year	**769,923**	**144.7**	**163,106**	**246.5**	**169,625**	**254.8**	**2,630,818**	**215.3**	**160.3**
1992 Year	**775,963**	**141.2**	**138,537**	**247.5**	**144,390**	**255.1**	**2,637,678**	**232.8**	**159.0**
1993 Year	**769,152**	**138.5**	**141,719**	**236.2**	**147,902**	**243.3**	**2,574,523**	**256.0**	**159.5**
1994 Year	**831,929**	**135.5**	**135,184**	**240.9**	**142,940**	**248.8**	**2,863,904**	**223.0**	**152.6**
1995 Year	**826,860**	**131.8**	**78,216**	**258.6**	**84,292**	**267.9**	**3,023,327**	**198.4**	**145.3**
1996 Year	**862,701**	**128.9**	**98,926**	**303.4**	**106,629**	**315.7**	**2,604,663**	**264.1**	**151.9**
1997 Year	**880,588**	**127.3**	**110,906**	**278.8**	**117,789**	**288.0**	**2,764,734**	**276.0**	**152.2**
1998 Year	**929,448**	**125.2**	**156,852**	**207.9**	**165,191**	**213.6**	**2,922,957**	**238.1**	**143.8**
1999 January	76,346	122.1	13,215	176.3	14,028	181.9	163,114	225.8	134.7
February	73,956	124.7	10,013	166.2	10,417	171.5	138,852	221.7	134.5
March	76,771	124.0	11,001	175.6	11,471	180.6	187,369	212.3	135.4
April	71,933	124.4	10,647	212.4	11,099	217.6	229,069	224.7	141.3
May	74,458	121.8	10,701	230.2	11,289	236.0	253,352	251.6	144.3
June	74,427	122.3	11,176	233.5	11,959	240.5	278,473	247.5	146.0
July	76,496	121.0	13,249	259.6	14,198	267.9	367,060	251.3	151.9
August	81,351	120.6	12,129	293.3	13,203	303.7	379,367	282.1	157.2
September	76,745	120.3	9,557	304.2	10,126	312.0	262,342	294.5	151.4
October	77,114	121.3	8,052	310.2	8,636	320.9	220,823	282.4	146.7
November	73,998	119.1	7,449	315.8	8,035	329.0	164,874	298.2	142.7
December	74,638	118.2	6,030	330.4	6,946	353.9	164,761	264.7	138.5
Total	**908,232**	**121.6**	**123,219**	**243.6**	**131,407**	**252.7**	**2,809,455**	**257.4**	**144.1**
2000 January	69,471	119.9	2,668	353.6	3,035	378.4	170,117	270.9	139.4
February	67,199	121.2	3,846	391.7	4,271	419.6	151,152	290.2	143.2
March	69,703	121.2	3,764	385.8	4,066	402.7	191,465	293.0	146.0
April	63,890	121.6	4,961	379.6	5,258	389.5	199,696	315.8	153.0
May	67,779	120.4	7,708	409.7	8,331	422.8	268,772	354.9	167.2
June	65,615	121.1	10,034	435.4	10,650	444.4	270,015	445.9	187.2
July	68,217	119.3	11,397	431.0	12,027	439.8	323,950	434.0	191.6
August	69,160	118.5	10,992	418.0	11,412	426.5	332,154	429.4	189.2
September	64,642	117.6	9,696	454.9	10,168	466.9	240,233	486.7	187.8
October	61,904	121.7	8,944	475.9	9,355	487.2	177,839	530.3	185.9
November	61,175	119.1	8,184	462.8	8,676	477.8	147,630	539.5	177.1
December	61,520	118.7	10,454	431.0	12,607	471.8	156,963	840.9	217.4
Total	**790,274**	**120.0**	**92,648**	**429.4**	**99,855**	**445.0**	**2,629,986**	**430.2**	**173.8**
2001 January	67,470	122.3	13,773	421.7	17,254	471.4	134,549	920.7	214.5
February	57,397	123.9	9,166	442.2	9,799	455.8	114,039	694.7	189.3
March	64,359	122.6	8,685	402.3	9,635	419.6	141,653	573.8	178.5
April	60,277	123.9	9,422	388.4	10,152	404.7	178,222	563.7	192.2
May	68,369	124.5	12,171	376.7	12,897	389.6	203,724	514.1	186.5
June	63,667	124.8	10,717	380.1	11,240	391.2	212,536	425.1	178.7
July	65,920	122.5	10,872	359.7	11,282	367.0	282,929	374.3	176.6
7 Months	**447,458**	**123.5**	**74,806**	**395.4**	**82,260**	**416.9**	**1,267,651**	**541.2**	**188.0**
2000 7 Months	**471,873**	**120.7**	**44,378**	**410.7**	**47,638**	**423.4**	**1,575,167**	**359.0**	**161.9**
1999 7 Months	**524,386**	**122.9**	**80,003**	**208.7**	**84,462**	**215.1**	**1,617,288**	**237.3**	**141.4**

[a] Includes supplemental gaseous fuels.

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

[c] Data for 1973-1982 do not include small quantities of rerefined motor oil, bunker oil, and liquefied petroleum gas.

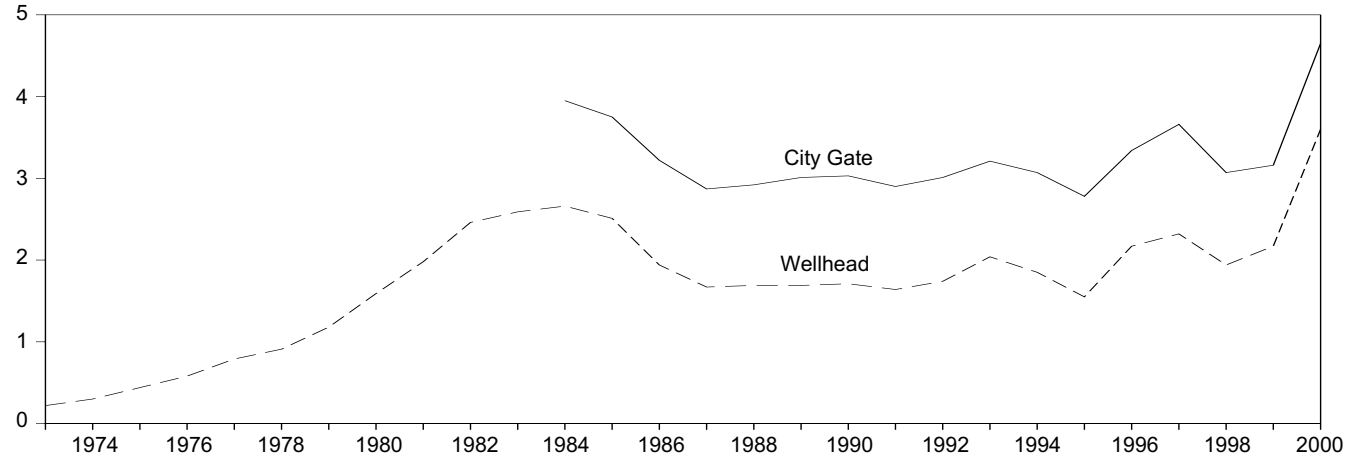
Notes: Receipts are purchases of fuel. Yearly costs are averages of monthly values, weighted by quantities in Btu. See Note 8 at end of section. Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

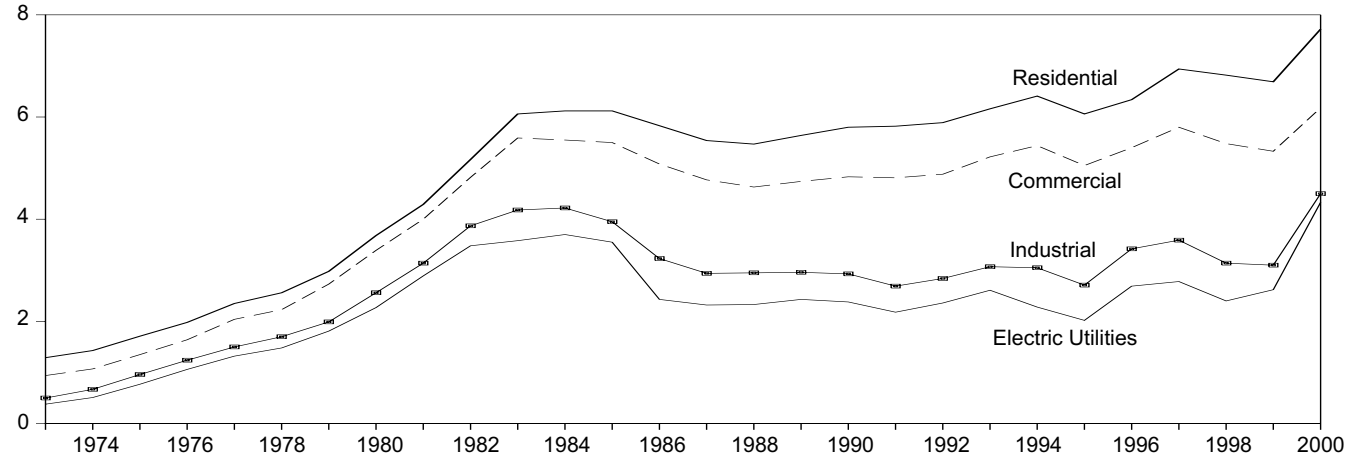
Figure 9.4 Natural Gas Prices

(Dollars per Thousand Cubic Feet)

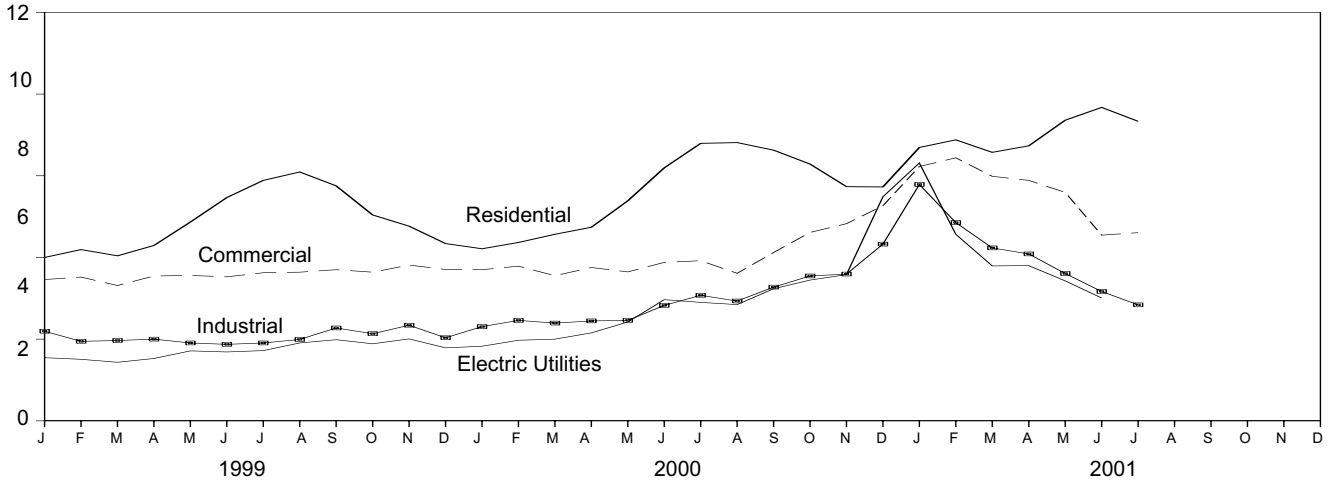
Selected Prices, 1973-2000



Delivered to Consumers, 1973-2000



Delivered to Consumers, Monthly



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

Table 9.11 Natural Gas Prices

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

	Wellhead	City Gate	Delivered to Consumers[a,b]					
			Residential	Commercial		Industrial		Electric Utilities[c]
				Price	Share of Total Volume Delivered	Price	Share of Total Volume Delivered	
1973 Average	**0.22**	**NA**	**1.29**	**0.94**	**NA**	**0.50**	**NA**	**0.38**
1974 Average	**.30**	**NA**	**1.43**	**1.07**	**NA**	**.67**	**NA**	**.51**
1975 Average	**.44**	**NA**	**1.71**	**1.35**	**NA**	**.96**	**NA**	**.77**
1976 Average	**.58**	**NA**	**1.98**	**1.64**	**NA**	**1.24**	**NA**	**1.06**
1977 Average	**.79**	**NA**	**2.35**	**2.04**	**NA**	**1.50**	**NA**	**1.32**
1978 Average	**.91**	**NA**	**2.56**	**2.23**	**NA**	**1.70**	**NA**	**1.48**
1979 Average	**1.18**	**NA**	**2.98**	**2.73**	**NA**	**1.99**	**NA**	**1.81**
1980 Average	**1.59**	**NA**	**3.68**	**3.39**	**NA**	**2.56**	**NA**	**2.27**
1981 Average	**1.98**	**NA**	**4.29**	**4.00**	**NA**	**3.14**	**NA**	**2.89**
1982 Average	**2.46**	**NA**	**5.17**	**4.82**	**NA**	**3.87**	**85.1**	**3.48**
1983 Average	**2.59**	**NA**	**6.06**	**5.59**	**NA**	**4.18**	**80.7**	**3.58**
1984 Average	**2.66**	**3.95**	**6.12**	**5.55**	**NA**	**4.22**	**74.7**	**3.70**
1985 Average	**2.51**	**3.75**	**6.12**	**5.50**	**NA**	**3.95**	**68.8**	**3.55**
1986 Average	**1.94**	**3.22**	**5.83**	**5.08**	**NA**	**3.23**	**59.8**	**2.43**
1987 Average	**1.67**	**2.87**	**5.54**	**4.77**	**93.1**	**2.94**	**47.4**	**2.32**
1988 Average	**1.69**	**2.92**	**5.47**	**4.63**	**90.8**	**2.95**	**42.6**	**2.33**
1989 Average	**1.69**	**3.01**	**5.64**	**4.74**	**89.1**	**2.96**	**36.9**	**2.43**
1990 Average	**1.71**	**3.03**	**5.80**	**4.83**	**86.6**	**2.93**	**35.2**	**2.38**
1991 Average	**1.64**	**2.90**	**5.82**	**4.81**	**85.1**	**2.69**	**32.7**	**2.18**
1992 Average	**1.74**	**3.01**	**5.89**	**4.88**	**83.2**	**2.84**	**30.3**	**2.36**
1993 Average	**2.04**	**3.21**	**6.16**	**5.22**	**83.9**	**3.07**	**29.7**	**2.61**
1994 Average	**1.85**	**3.07**	**6.41**	**5.44**	**79.3**	**3.05**	**25.5**	**2.28**
1995 Average	**1.55**	**2.78**	**6.06**	**5.05**	**76.7**	**2.71**	**24.5**	**2.02**
1996 Average	**2.17**	**3.34**	**6.34**	**5.40**	**77.6**	**3.42**	**19.4**	**2.69**
1997 Average	**2.32**	**3.66**	**6.94**	**5.80**	**70.8**	**3.59**	**18.1**	**2.78**
1998 Average	**1.94**	**3.07**	**6.82**	**5.48**	**67.0**	**3.14**	**16.1**	**2.40**
1999 January	1.84	2.87	6.00	5.19	73.1	3.29	16.9	2.32
February	1.75	2.93	6.29	5.28	69.7	2.92	16.8	2.26
March	1.68	2.69	6.06	4.97	69.3	2.95	17.4	2.15
April	1.86	2.94	6.44	5.32	65.4	3.00	16.6	2.29
May	2.16	3.41	7.30	5.34	61.1	2.86	16.0	2.57
June	2.12	3.28	8.20	5.29	61.1	2.81	15.8	2.53
July	2.18	3.23	8.83	5.44	58.2	2.86	15.7	2.58
August	2.49	3.53	9.14	5.46	56.6	2.99	18.8	2.86
September	2.61	3.72	8.63	5.55	60.0	3.41	17.5	2.98
October	2.50	3.31	7.56	5.46	61.7	3.20	17.5	2.83
November	2.67	3.76	7.15	5.72	63.0	3.51	17.7	3.01
December	2.20	3.24	6.51	5.56	67.6	3.05	21.3	2.68
Average	**2.17**	**3.16**	**6.69**	**5.33**	**66.2**	**3.10**	**17.4**	**2.62**
2000 January	E 2.12	3.30	6.32	5.55	67.0	3.46	16.0	2.74
February	E 2.30	3.50	6.55	5.68	68.4	3.69	16.6	2.96
March	E 2.36	3.54	6.85	5.33	65.7	3.59	16.2	3.00
April	E 2.55	3.70	7.11	5.63	63.3	3.67	15.7	3.23
May	E 2.90	4.15	8.08	R 5.47	R 64.1	3.69	14.3	3.63
June	E 3.73	5.17	9.29	5.82	61.3	4.24	15.2	4.45
July	E 3.70	5.15	10.19	5.88	60.8	4.61	14.8	4.35
August	E 3.67	4.59	10.22	5.42	62.3	4.40	14.2	4.27
September	E 4.26	5.17	9.94	6.18	60.9	4.91	14.2	4.85
October	E 4.61	5.64	9.43	6.92	62.4	5.32	14.0	5.17
November	E 4.62	5.20	8.60	7.24	64.9	5.39	17.9	5.37
December	E 6.35	6.81	8.59	7.90	68.4	6.49	18.4	8.23
Average	E **3.60**	**4.65**	**7.72**	**6.18**	R **65.2**	**4.50**	**15.6**	**4.33**
2001 January	E 8.06	8.90	10.04	9.34	68.9	8.68	15.8	9.47
February	E 5.84	R 7.25	R 10.32	9.66	67.0	R 7.28	15.6	R 6.85
March	E 5.15	6.19	9.86	8.98	66.0	6.35	14.4	5.69
April	E 5.21	R 6.44	R 10.10	R 8.83	63.3	6.13	13.8	5.70
May	E 4.56	5.89	11.04	R 8.39	55.8	5.41	12.0	5.14
June	E 3.88	5.36	R 11.51	6.82	61.2	R 4.75	R 12.4	4.51
July	E 3.39	4.13	11.00	6.91	53.5	4.26	12.1	NA
August	E 3.23	NA	NA	NA	NA	NA	NA	NA
September	E 2.55	NA	NA	NA	NA	NA	NA	NA
Year-to-Date Avg.[d]	E **4.65**	**6.89**	**10.24**	**8.87**	**64.4**	**6.34**	**13.8**	**5.93**
2000 Year-to-Date Avg.[d]	E **3.07**	**3.82**	**7.01**	**5.58**	**65.4**	**3.83**	**15.6**	**3.45**
1999 Year-to-Date Avg.[d]	**2.08**	**2.96**	**6.44**	**5.21**	**67.7**	**2.97**	**16.5**	**2.38**

[a] Includes supplemental gaseous fuels.
[b] See Note 9 at end of section.
[c] See Note 8 at end of section.
[d] Based on number of months with data in the current year.
R=Revised. NA=Not available. E=Estimate.
Notes: Prices shown on this page are intended to include all taxes. See Note 9 at end of section. Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. Geographic coverage is the 50 States and the District of Columbia.
Sources: See end of section.

Energy Prices Notes

1. The average domestic first purchase price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the price represented an estimate of the average of posted prices; beginning with February 1976, the price represents an average of actual first purchase prices. The data series was previously called "Actual Domestic Wellhead Price."

2. F.O.B. literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

3. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

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

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

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on Federal Energy Administration (FEA) Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report," included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-14 include either unfinished oils or SPR.

5. Several different series of motor gasoline prices are published in this section. U.S. city average retail prices of motor gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. From 1974-1977, prices were collected in 56 urban areas. From 1978 forward, prices were collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

Refiner prices of finished motor gasoline for resale and to end users are determined by the EIA in a monthly survey of refiners and gas plant operators (Form EIA-782A). The prices do not include any Federal, State, or local taxes paid at the time of sale. Estimates of prices prior to January 1983 are based on Form FEA-P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices," and also exclude all Federal, State, or local taxes paid at the time of sale. Sales for resale are those made to purchasers who are other-than-ultimate consumers. Sales to end users are sales made directly to the consumer of the product, including bulk consumers (such as agriculture, industry, and utilities) and residential and commercial consumers.

6. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous series were generated for annual data 1978-1982 and for monthly data 1981 and 1982 by estimating the prices that would have been published had Form EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment was made for product and sales type matching and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale and between retail and end user. The resale category continues to in-

clude 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.

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

8. Data for 1973-1982 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974-1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983-1990 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991 forward cover all electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater.

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

Sources for Table 9.1

Domestic First Purchase Price
1973-1976—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook,* "Crude Petroleum and Petroleum Products" chapter.
1977—Federal Energy Administration (FEA), based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."
1978 forward—Energy Information Administration (EIA), *Petroleum Marketing Monthly,* November 2001, Table 1.

F.O.B. and Landed Cost of Imports
December 1973-September 1977—Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."
October-December 1977—EIA, Form FEA-F701-M-0, "Transfer Pricing Report."
1978 forward—EIA, *Petroleum Marketing Monthly,* November 2001, Table 1.

Refiner Acquisition Cost
1973—EIA estimates. The domestic price was derived by adding estimated transportation costs to the reported domestic first purchase price. The imported price was derived by adding an estimated ocean transport cost to the average "Free Alongside Ship" value published by the U.S. Bureau of the Census.
1974-1976—DOI, BOM, *Minerals Yearbook,* "Crude Petroleum and Petroleum Products" chapter.
1977—January-September, FEA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report." October-December, EIA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report."
1978 forward—EIA, *Petroleum Marketing Monthly*, November 2001, Table 1.

Sources for Table 9.2

October 1973-September 1977—Federal Energy Administration, Form FsEA-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*, November 2001, Table 24.

Sources for Table 9.9

1973-September 1977—Federal Power Commission (FPC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income."
October 1977-February 1980—Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly

Statement of Electric Operating Revenues and Income."
March 1980-1982—FERC, Form FERC-5, "Electric Utility Company Monthly Statement."
1983—Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement."
1984-1989—EIA, Form EIA-861, "Annual Electric Utility Report."
1990 forward—EIA, *Electric Power Monthly*, November 2001, Table 52.

Sources for Table 9.10

1973-June 1977—Federal Power Commission, Form FPC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
June 1977-December 1977—Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
1978 and 1979—Energy Information Administration (EIA), Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
1980-1989—EIA, *Electric Power Monthly,* April issues.
1990 forward—EIA, *Electric Power Monthly*, November 2001, Table 26.

Sources for Table 9.11

Prices, 1973-1993
Wellhead—Energy Information Administration (EIA), *Natural Gas Annual 1999,* Table 92.
City Gate, 1984-1987—EIA, *Natural Gas Monthly,* March 1990, Table 4.
City Gate, 1988-1992— EIA, *Natural Gas Monthly,* March 1995, Table 4.
City Gate, 1993—EIA, *Natural Gas Monthly,* October 2001, Table 4.
Delivered to Consumers, 1973-1993—EIA**,** *Natural Gas Annual* 1999, Table 95.

Prices, 1994 forward
EIA, *Natural Gas Monthly*, October 2001, Table 4.

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

Share of Total Volume Delivered, Monthly
EIA, table titlesd, "Percentage of Total Deliveries Represented by Onsystem Sales, by State," in the *Natural Gas Monthly* issues as follows:

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

Section 10. International Energy

Crude Oil Production. World crude oil production during August 2001 was 68 million barrels per day, up by 0.4 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during August 2001 averaged 29 million barrels per day, up by 0.5 million barrels per day from the level during the previous month. During August 2001, production increased in Iraq by 730 thousand barrels per day; Nigeria by 67 thousand barrels per day; Kuwait by 15 thousand barrels per day. Production decreased in Saudi Arabia by 180 thousand barrels per day; Iran by 90 thousand barrels per day; the United Arab Emirates by 13 thousand barrels per day; and Venezuela, Indonesia, and Qatar each by 10 thousand barrels per day. Production remained unchanged in Libya and Algeria.

Among the non-OPEC nations, production during August 2001 increased in the United Kingdom by 187 thousand barrels per day; China by 41 thousand barrels per day; the United States by 17 thousand barrels per day; Canada by 15 thousand barrels per day; Egypt by 4 thousand barrels per day; and Russia by 1 thousand barrels per day. Production decreased in Norway by 382 thousand barrels per day and Mexico by 10 thousand barrels per day.

Petroleum Consumption. In June 2001, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 41.8 million barrels per day, 1 percent[1] lower than the June 2000 rate. Comparing June rates in 2001 and 2000, consumption was higher in 2001 in Germany (+5 percent) and France and the United Kingdom (each less than +1 percent). The June 2001 consumption rate was lower in Italy (-7 percent); the United States (-2 percent); and Canada and Japan (each -1 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of June 2001 totaled 3.6 billion barrels, 2 percent higher than the ending stock level in June 2000. Stock levels were higher in June 2001 in Canada and the United Kingdom (each +6 percent) and the United States and Japan (each +2 percent). Stock levels were lower in Germany (-5 percent) and Italy and France (each -2 percent), compared with levels 1 year earlier.

Nuclear Electricity Generation. Based on *Nucleonics Week*[2] information for August 2001, all reporting countries with nuclear capacity generated 215.1 gross terawatthours (one terawatthour equals 1 billion kilowatthours) of nuclear-generated electricity.

As of August 31, 2001, there were 439 operable nuclear generating units in the world.

[1] Percentage changes are based on unrounded data.
[2] A copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.1a World Oil Production: OPEC Members

(Thousand Barrels per Day)

	Algeria	Indonesia	Iran	Iraq	Kuwait[a]	Libya	Nigeria	Qatar	Saudi Arabia[a]	United Arab Emirates	Venezuela	OPEC[b]
1973 Average	**1,097**	**1,339**	**5,861**	**2,018**	**3,020**	**2,175**	**2,054**	**570**	**7,596**	**1,533**	**3,366**	**30,629**
1974 Average	**1,009**	**1,375**	**6,022**	**1,971**	**2,546**	**1,521**	**2,255**	**518**	**8,480**	**1,679**	**2,976**	**30,351**
1975 Average	**983**	**1,307**	**5,350**	**2,262**	**2,084**	**1,480**	**1,783**	**438**	**7,075**	**1,664**	**2,346**	**26,771**
1976 Average	**1,075**	**1,504**	**5,883**	**2,415**	**2,145**	**1,933**	**2,067**	**497**	**8,577**	**1,936**	**2,294**	**30,327**
1977 Average	**1,152**	**1,686**	**5,663**	**2,348**	**1,969**	**2,063**	**2,085**	**445**	**9,245**	**1,999**	**2,238**	**30,893**
1978 Average	**1,231**	**1,635**	**5,242**	**2,563**	**2,131**	**1,983**	**1,897**	**487**	**8,301**	**1,831**	**2,165**	**29,464**
1979 Average	**1,224**	**1,591**	**3,168**	**3,477**	**2,500**	**2,092**	**2,302**	**508**	**9,532**	**1,831**	**2,356**	**30,581**
1980 Average	**1,106**	**1,577**	**1,662**	**2,514**	**1,656**	**1,787**	**2,055**	**472**	**9,900**	**1,709**	**2,168**	**26,606**
1981 Average	**1,002**	**1,605**	**1,380**	**1,000**	**1,125**	**1,140**	**1,433**	**405**	**9,815**	**1,474**	**2,102**	**22,481**
1982 Average	**987**	**1,339**	**2,214**	**1,012**	**823**	**1,150**	**1,295**	**330**	**6,483**	**1,250**	**1,895**	**18,778**
1983 Average	**968**	**1,343**	**2,440**	**1,005**	**1,064**	**1,105**	**1,241**	**295**	**5,086**	**1,149**	**1,801**	**17,497**
1984 Average	**1,014**	**1,412**	**2,174**	**1,209**	**1,157**	**1,087**	**1,388**	**394**	**4,663**	**1,146**	**1,798**	**17,442**
1985 Average	**1,037**	**1,325**	**2,250**	**1,433**	**1,023**	**1,059**	**1,495**	**301**	**3,388**	**1,193**	**1,677**	**16,181**
1986 Average	**945**	**1,390**	**2,035**	**1,690**	**1,419**	**1,034**	**1,467**	**308**	**4,870**	**1,330**	**1,787**	**18,275**
1987 Average	**1,048**	**1,343**	**2,298**	**2,079**	**1,585**	**972**	**1,341**	**293**	**4,265**	**1,541**	**1,752**	**18,517**
1988 Average	**1,040**	**1,342**	**2,240**	**2,685**	**1,492**	**1,175**	**1,450**	**346**	**5,086**	**1,565**	**1,903**	**20,324**
1989 Average	**1,095**	**1,409**	**2,810**	**2,897**	**1,783**	**1,150**	**1,716**	**380**	**5,064**	**1,860**	**1,907**	**22,071**
1990 Average	**1,175**	**1,462**	**3,088**	**2,040**	**1,175**	**1,375**	**1,810**	**406**	**6,410**	**2,117**	**2,137**	**23,195**
1991 Average	**1,230**	**1,592**	**3,312**	**305**	**190**	**1,483**	**1,892**	**395**	**8,115**	**2,386**	**2,375**	**23,275**
1992 Average	**1,214**	**1,504**	**3,429**	**425**	**1,058**	**1,433**	**1,943**	**423**	**8,332**	**2,266**	**2,371**	**24,398**
1993 Average	**1,162**	**1,511**	**3,540**	**512**	**1,852**	**1,361**	**1,960**	**413**	**8,198**	**2,159**	**2,450**	**25,119**
1994 Average	**1,180**	**1,510**	**3,618**	**553**	**2,025**	**1,378**	**1,931**	**415**	**8,120**	**2,193**	**2,588**	**25,510**
1995 Average	**1,202**	**1,503**	**3,643**	**560**	**2,057**	**1,390**	**1,993**	**442**	**8,231**	**2,233**	**2,750**	**26,004**
1996 Average	**1,242**	**1,547**	**3,686**	**579**	**2,062**	**1,401**	**2,001**	**510**	**8,218**	**2,278**	**2,938**	**26,461**
1997 Average	**1,277**	**1,520**	**3,664**	**1,155**	**2,083**	**1,446**	**2,332**	**649**	**8,562**	**2,316**	**3,315**	**28,320**
1998 Average	**1,246**	**1,518**	**3,634**	**2,150**	**2,085**	**1,390**	**2,153**	**696**	**8,389**	**2,345**	**3,167**	**28,774**
1999 January	1,230	1,508	3,665	2,515	1,995	1,360	2,080	666	8,065	2,239	3,019	28,342
February	1,240	1,488	3,925	2,655	2,005	1,360	2,010	666	8,165	2,329	2,999	28,842
March	1,250	1,498	3,795	2,430	2,020	1,360	2,160	742	8,220	2,234	2,960	28,669
April	1,210	1,498	3,485	2,655	1,785	1,320	2,160	675	7,665	2,180	2,800	27,433
May	1,190	1,498	3,435	2,705	1,815	1,300	2,190	656	7,665	2,130	2,780	27,364
June	1,180	1,478	3,415	2,355	1,830	1,290	2,150	627	7,610	2,110	2,760	26,805
July	1,180	1,458	3,515	2,805	1,830	1,290	2,130	656	7,610	2,130	2,760	27,364
August	1,190	1,448	3,535	2,855	1,860	1,290	2,140	656	7,710	2,140	2,760	27,584
September	1,190	1,448	3,485	2,855	1,885	1,300	2,150	656	7,735	2,145	2,760	27,609
October	1,190	1,448	3,535	2,670	1,925	1,310	2,170	656	7,845	2,145	2,760	27,654
November	1,190	1,448	3,485	2,205	1,905	1,320	2,160	656	7,865	2,105	2,780	27,119
December	1,190	1,448	3,435	1,405	1,922	1,330	2,050	666	7,863	2,155	2,780	26,243
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 January	1,190	1,460	3,465	2,215	1,962	1,330	2,010	695	7,863	2,245	2,790	27,225
February	1,190	1,430	3,525	2,595	2,015	1,380	2,060	705	7,865	2,250	2,850	27,865
March	1,190	1,430	3,735	2,215	2,040	1,390	2,080	705	7,865	2,300	2,850	27,800
April	1,230	1,460	3,675	2,655	2,100	1,400	2,140	715	8,100	2,380	2,900	28,755
May	1,240	1,490	3,685	3,055	2,100	1,400	2,110	735	8,200	2,380	2,930	29,325
June	1,250	1,490	3,705	2,565	2,150	1,420	2,140	735	8,250	2,280	2,950	28,935
July	1,250	1,490	3,750	2,525	2,170	1,425	2,180	755	8,390	2,320	2,970	29,225
August	1,260	1,490	3,750	2,995	2,173	1,420	2,160	755	8,823	2,380	2,980	30,185
September	1,250	1,490	3,755	2,875	2,170	1,430	2,110	755	8,975	2,390	2,980	30,180
October	1,270	1,460	3,835	3,005	2,210	1,440	2,210	760	8,800	2,410	3,050	30,450
November	1,265	1,450	3,830	2,815	2,215	1,440	2,260	765	8,900	2,415	3,050	30,405
December	1,280	1,455	3,905	1,355	2,210	1,445	2,265	765	8,800	2,420	3,080	28,980
Average	**1,239**	**1,466**	**3,719**	**2,571**	**2,126**	**1,410**	**2,144**	**737**	**8,404**	**2,348**	**2,949**	**29,113**
2001 January	1,280	1,435	3,935	1,735	2,200	1,450	2,285	775	8,700	2,440	3,100	29,335
February	1,250	1,440	3,785	2,195	2,130	1,400	2,255	735	8,320	2,380	3,030	28,920
March	1,250	1,395	3,835	2,855	2,100	1,390	2,285	735	8,300	2,420	3,000	29,565
April	1,235	1,352	3,785	2,930	2,010	1,380	2,210	715	7,950	2,330	2,920	28,817
May	1,250	1,362	3,685	2,905	1,993	1,360	2,140	725	8,000	2,277	2,890	28,587
June	1,270	1,382	3,785	1,105	2,030	1,370	2,205	735	8,050	2,260	2,900	27,092
July	1,280	1,370	3,875	2,145	2,020	1,380	2,140	735	8,250	2,240	2,890	28,325
August	1,280	1,360	3,785	2,875	2,035	1,380	2,207	725	8,070	2,227	2,880	28,824
8-Mo. Avg.	**1,262**	**1,387**	**3,809**	**2,348**	**2,064**	**1,389**	**2,215**	**735**	**8,205**	**2,321**	**2,951**	**28,686**
2000 8-Mo. Avg.	**1,225**	**1,468**	**3,662**	**2,603**	**2,089**	**1,396**	**2,110**	**725**	**8,172**	**2,317**	**2,903**	**28,669**
1999 8-Mo. Avg.	**1,208**	**1,484**	**3,593**	**2,622**	**1,892**	**1,321**	**2,129**	**668**	**7,836**	**2,185**	**2,854**	**27,793**

[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 August 2001, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 630 thousand barrels per day.

[b] Current members of OPEC are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Ecuador and Gabon, which withdrew from OPEC membership at the end of 1992 and 1994, respectively, are excluded from all OPEC totals.

Notes: Crude oil includes lease condensate but excludes natural gas plant liquids. Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: See end of section.

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

(Thousand Barrels per Day)

	Persian Gulf Nations[a]	Selected Non-OPEC Producers									Total Non-OPEC	World
		Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States		
1973 Average	**20,668**	**1,798**	**1,090**	**165**	**465**	**32**	**8,324**	**NA**	**2**	**9,208**	**25,050**	**55,679**
1974 Average	**21,282**	**1,551**	**1,315**	**150**	**571**	**35**	**8,912**	**NA**	**2**	**8,774**	**25,366**	**55,716**
1975 Average	**18,934**	**1,430**	**1,490**	**235**	**705**	**189**	**9,523**	**NA**	**12**	**8,375**	**26,058**	**52,828**
1976 Average	**21,514**	**1,314**	**1,670**	**330**	**831**	**279**	**10,060**	**NA**	**245**	**8,132**	**27,018**	**57,344**
1977 Average	**21,725**	**1,321**	**1,874**	**415**	**981**	**280**	**10,603**	**NA**	**768**	**8,245**	**28,814**	**59,707**
1978 Average	**20,606**	**1,316**	**2,082**	**485**	**1,209**	**356**	**11,105**	**NA**	**1,082**	**8,707**	**30,694**	**60,158**
1979 Average	**21,066**	**1,500**	**2,122**	**525**	**1,461**	**403**	**11,384**	**NA**	**1,568**	**8,552**	**32,094**	**62,674**
1980 Average	**17,961**	**1,435**	**2,114**	**595**	**1,936**	**528**	**11,706**	**NA**	**1,622**	**8,597**	**32,994**	**59,600**
1981 Average	**15,245**	**1,285**	**2,012**	**598**	**2,313**	**501**	**11,850**	**NA**	**1,811**	**8,572**	**33,595**	**56,076**
1982 Average	**12,156**	**1,271**	**2,045**	**670**	**2,748**	**520**	**11,912**	**NA**	**2,065**	**8,649**	**34,703**	**53,481**
1983 Average	**11,081**	**1,356**	**2,120**	**727**	**2,689**	**614**	**11,972**	**NA**	**2,291**	**8,688**	**35,759**	**53,256**
1984 Average	**10,784**	**1,438**	**2,296**	**822**	**2,780**	**697**	**11,861**	**NA**	**2,480**	**8,879**	**37,047**	**54,489**
1985 Average	**9,630**	**1,471**	**2,505**	**887**	**2,745**	**788**	**11,585**	**NA**	**2,530**	**8,971**	**37,801**	**53,982**
1986 Average	**11,696**	**1,474**	**2,620**	**813**	**2,435**	**870**	**11,895**	**NA**	**2,539**	**8,680**	**37,952**	**56,227**
1987 Average	**12,103**	**1,535**	**2,690**	**896**	**2,548**	**1,022**	**12,050**	**NA**	**2,406**	**8,349**	**38,149**	**56,666**
1988 Average	**13,457**	**1,616**	**2,730**	**848**	**2,512**	**1,158**	**12,053**	**NA**	**2,232**	**8,140**	**38,413**	**58,737**
1989 Average	**14,837**	**1,560**	**2,757**	**865**	**2,520**	**1,554**	**11,715**	**NA**	**1,802**	**7,613**	**37,792**	**59,863**
1990 Average	**15,278**	**1,553**	**2,774**	**873**	**2,553**	**1,704**	**10,975**	**NA**	**1,820**	**7,355**	**37,371**	**60,566**
1991 Average	**14,741**	**1,548**	**2,835**	**874**	**2,680**	**1,890**	**9,992**	**NA**	**1,797**	**7,417**	**36,932**	**60,207**
1992 Average	**15,970**	**1,605**	**2,845**	**881**	**2,669**	**2,229**	**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	**18,470**	**1,922**	**3,200**	**856**	**3,023**	**3,143**	**–**	**5,920**	**2,518**	**6,452**	**38,100**	**66,420**
1998 Average	**19,337**	**1,981**	**3,198**	**834**	**3,070**	**3,017**	**–**	**5,854**	**2,616**	**6,252**	**38,188**	**66,962**
1999 January	19,182	1,892	3,219	860	3,144	3,002	–	E 5,962	2,721	5,963	38,549	66,891
February	19,782	1,878	3,224	860	3,020	3,004	–	E 5,897	2,728	5,966	38,369	67,211
March	19,479	1,835	3,204	870	3,053	2,975	–	E 6,024	2,708	5,883	38,220	66,888
April	18,482	1,832	3,179	870	2,893	2,953	–	E 6,021	2,746	5,887	38,013	65,446
May	18,443	1,882	3,179	860	2,926	2,948	–	E 6,036	2,597	5,875	37,890	65,253
June	17,984	1,936	3,179	850	2,801	2,727	–	E 6,026	2,429	5,760	37,398	64,202
July	18,583	1,959	3,250	840	2,920	3,094	–	E 6,148	2,672	5,798	38,362	65,725
August	18,793	1,906	3,159	840	2,848	2,868	–	E 6,139	2,699	5,780	38,019	65,603
September	18,798	1,857	3,134	850	2,861	2,864	–	E 6,141	2,670	5,804	38,033	65,642
October	18,813	1,892	3,166	840	2,766	3,070	–	E 6,153	2,762	5,947	38,503	66,156
November	18,258	2,006	3,234	840	2,852	3,300	–	E 6,153	2,782	5,960	39,025	66,143
December	17,482	2,002	3,214	840	2,793	3,404	–	E 6,231	2,697	5,959	39,094	65,337
Average	**18,667**	**1,907**	**3,195**	**852**	**2,906**	**3,018**	**–**	**E 6,079**	**2,684**	**5,881**	**38,291**	**65,870**
2000 January	18,481	1,979	3,250	740	3,032	3,233	–	E 6,239	2,721	5,784	38,938	66,163
February	18,991	1,991	3,280	735	2,897	3,348	–	E 6,248	2,644	5,852	38,919	66,784
March	18,896	1,892	3,280	730	2,998	3,248	–	E 6,321	2,678	5,918	39,016	66,816
April	19,661	1,894	3,300	735	3,041	3,052	–	E 6,308	2,549	5,854	38,712	67,467
May	20,191	1,990	3,250	725	3,040	3,149	–	E 6,352	2,311	5,847	38,625	67,950
June	19,721	2,020	3,295	720	3,056	2,984	–	E 6,421	2,446	5,823	38,813	67,748
July	19,946	1,986	3,280	706	2,876	3,398	–	E 6,494	2,535	5,739	39,153	68,378
August	20,911	1,955	3,205	695	3,162	3,025	–	E 6,546	2,370	5,789	38,979	69,164
September	20,956	2,007	3,220	690	3,173	3,012	–	E 6,590	2,315	5,758	39,009	69,189
October	21,056	1,961	3,210	685	2,861	3,247	–	E 6,711	2,334	5,809	39,176	69,626
November	20,976	2,029	3,206	680	2,965	3,327	–	E 6,737	2,389	5,833	39,769	70,174
December	19,491	2,021	3,212	677	3,043	3,336	–	E 6,771	2,413	5,855	39,930	68,910
Average	**19,941**	**1,977**	**3,249**	**710**	**3,012**	**3,197**	**–**	**E 6,479**	**2,475**	**5,822**	**39,087**	**68,200**
2001 January	19,820	2,032	3,220	669	3,087	3,325	–	E 6,875	2,338	E 5,836	39,737	69,072
February	19,580	2,052	3,330	659	3,136	3,153	–	E 6,966	2,279	E 5,840	39,714	68,634
March	20,280	2,070	3,376	655	3,151	3,215	–	E 6,808	2,323	E 5,878	39,686	69,251
April	19,755	2,046	3,302	652	3,008	3,279	–	E 6,855	2,318	E 5,854	39,519	68,336
May	19,620	2,027	3,310	596	3,031	3,011	–	E 6,917	2,262	E 5,859	39,091	67,678
June	18,000	1,971	3,312	627	3,140	3,013	–	E 6,956	2,128	E 5,799	R 39,030	R 66,122
July	19,300	R 1,953	R 3,262	630	R 3,185	R 3,349	–	E 7,124	R 2,234	E 5,806	R 39,788	R 68,113
August	19,752	1,968	3,303	634	3,175	2,967	–	E 7,125	2,421	E 5,823	39,669	68,493
8-Mo. Avg.	**19,518**	**2,014**	**3,301**	**640**	**3,114**	**3,164**	**–**	**E 6,953**	**2,289**	**E 5,837**	**39,529**	**68,215**
2000 8-Mo. Avg.	**19,604**	**1,963**	**3,267**	**723**	**3,013**	**3,180**	**–**	**E 6,367**	**2,531**	**5,825**	**38,895**	**67,565**
1999 8-Mo. Avg.	**18,834**	**1,890**	**3,199**	**856**	**2,951**	**2,946**	**–**	**E 6,033**	**2,662**	**5,863**	**38,102**	**65,895**

[a] The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Persian Gulf Nations."

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

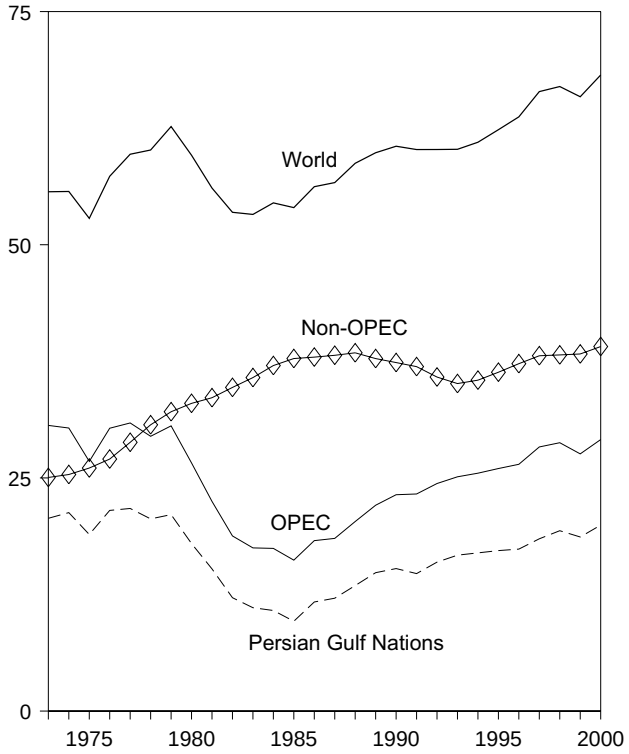
Notes: Crude oil includes lease condensate but excludes natural gas plant liquids. Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. Data for countries may not sum to World totals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

Sources: See end of section.

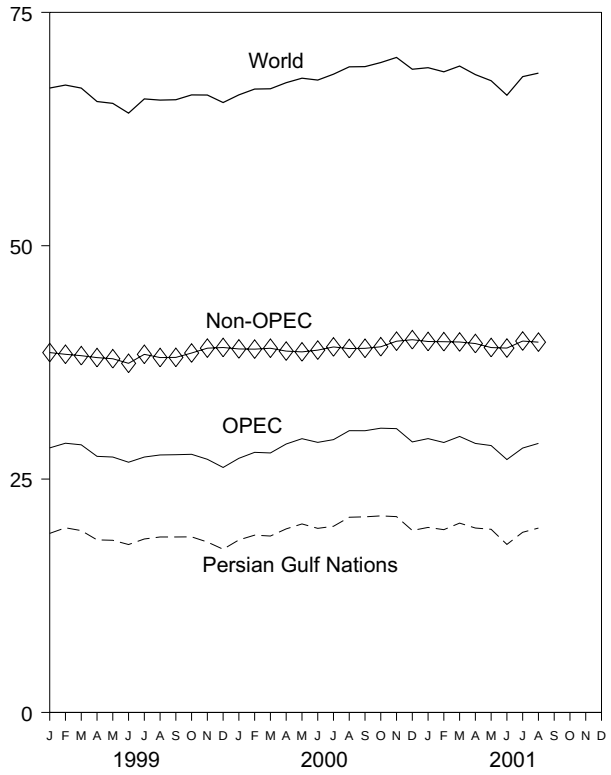
Figure 10.1 Crude Oil Production

(Million Barrels per Day)

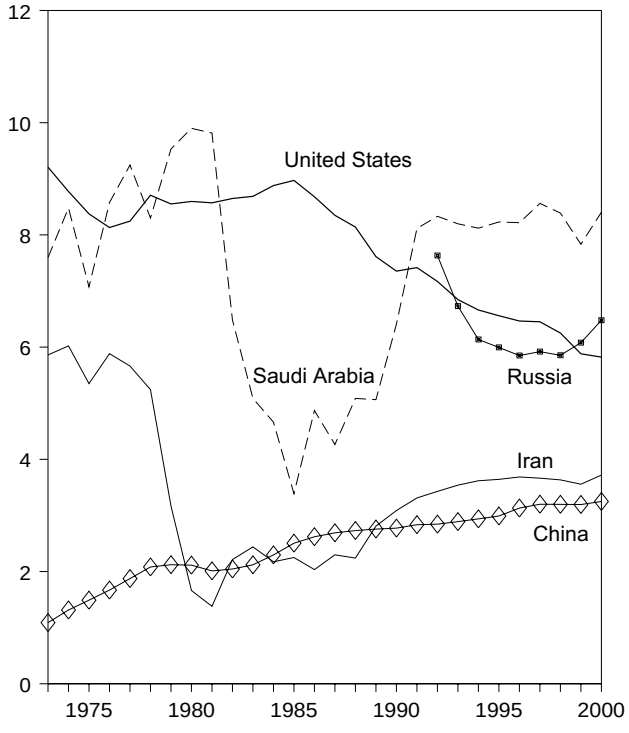
World Production, 1973-2000



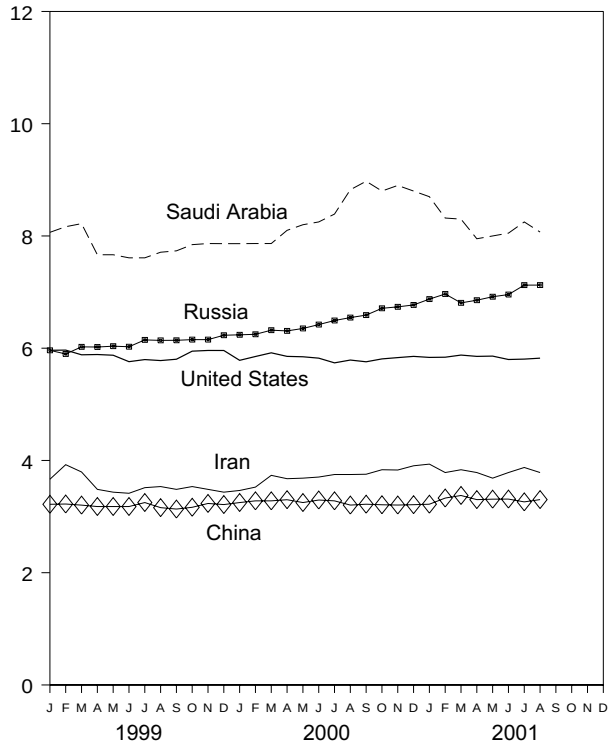
World Production, Monthly



Selected Producers, 1973-2000



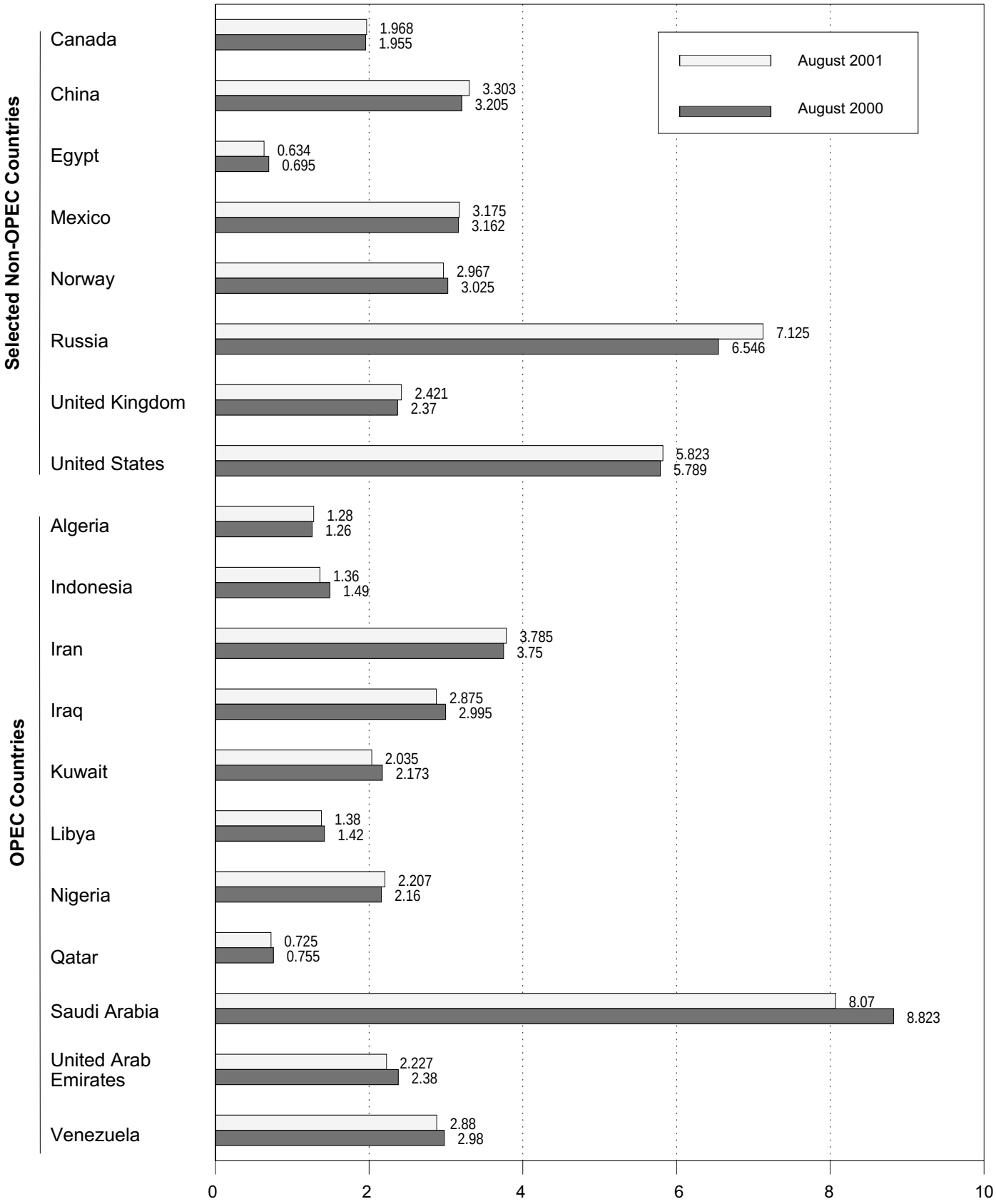
Selected Producers, Monthly



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

Figure 10.2 Crude Oil Production by Selected Country

(Million Barrels per Day)

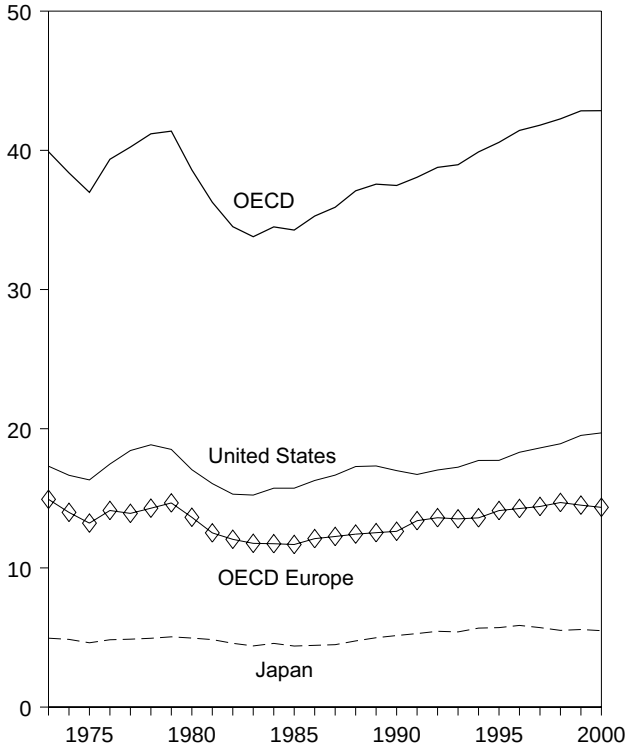


Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

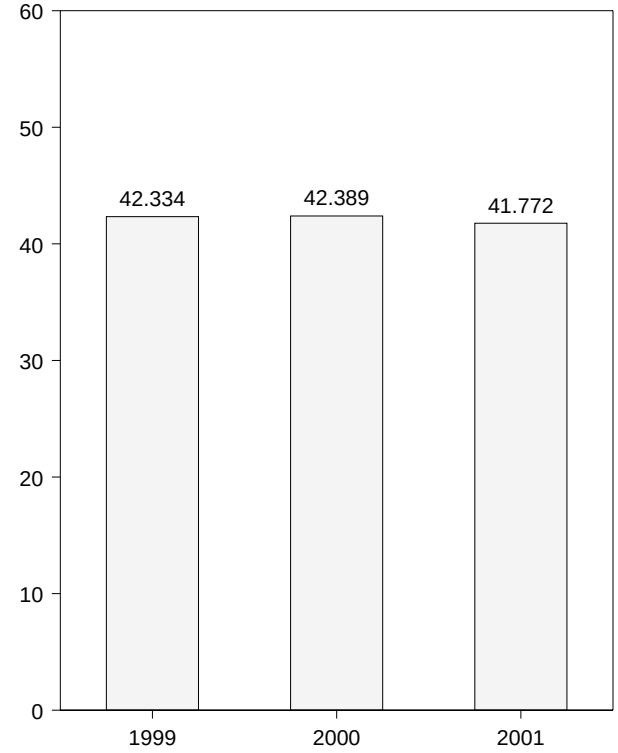
Figure 10.3 Petroleum Consumption in OECD Countries

(Million Barrels per Day)

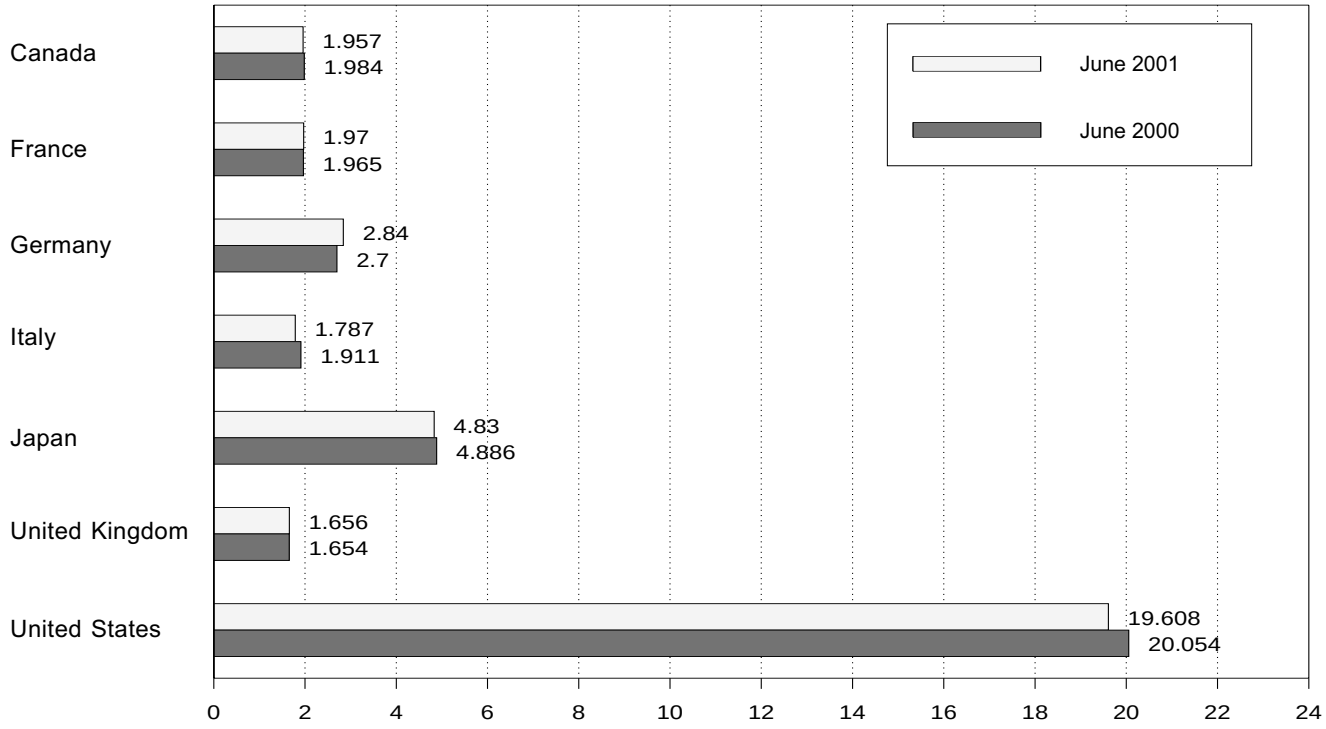
Overview, 1973-2000



OECD Total, June



By Selected OECD Country



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

Table 10.2 Petroleum Consumption in OECD Countries

(Thousand Barrels per Day)

	Canada	France	Germany[a]	Italy	Japan	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]
1973 Average	**1,729**	**2,601**	**3,055**	**2,068**	**4,949**	**2,341**	**17,308**	**14,925**	**988**	**39,900**
1974 Average	**1,779**	**2,447**	**2,748**	**2,004**	**4,864**	**2,210**	**16,653**	**13,988**	**1,095**	**38,379**
1975 Average	**1,779**	**2,252**	**2,650**	**1,855**	**4,621**	**1,911**	**16,322**	**13,217**	**1,041**	**36,980**
1976 Average	**1,818**	**2,420**	**2,877**	**1,971**	**4,837**	**1,892**	**17,461**	**14,124**	**1,119**	**39,358**
1977 Average	**1,850**	**2,294**	**2,865**	**1,897**	**4,880**	**1,905**	**18,431**	**13,916**	**1,160**	**40,237**
1978 Average	**1,902**	**2,408**	**2,927**	**1,952**	**4,945**	**1,938**	**18,847**	**14,290**	**1,204**	**41,187**
1979 Average	**1,971**	**2,463**	**3,003**	**2,039**	**5,050**	**1,971**	**18,513**	**14,667**	**1,178**	**41,379**
1980 Average	**1,873**	**2,256**	**2,707**	**1,934**	**4,960**	**1,725**	**17,056**	**13,634**	**1,072**	**38,595**
1981 Average	**1,768**	**2,023**	**2,449**	**1,874**	**4,848**	**1,590**	**16,058**	**12,515**	**1,080**	**36,269**
1982 Average	**1,578**	**1,880**	**2,372**	**1,781**	**4,582**	**1,590**	**15,296**	**12,053**	**1,008**	**34,517**
1983 Average	**1,448**	**1,835**	**2,324**	**1,750**	**4,395**	**1,531**	**15,231**	**11,765**	**954**	**33,793**
1984 Average	**1,472**	**1,754**	**2,322**	**1,646**	**4,576**	**1,849**	**15,726**	**11,736**	**989**	**34,500**
1985 Average	**1,504**	**1,775**	**2,338**	**1,717**	**4,384**	**1,634**	**15,726**	**11,681**	**976**	**34,271**
1986 Average	**1,506**	**1,772**	**2,498**	**1,738**	**4,439**	**1,649**	**16,281**	**12,102**	**951**	**35,279**
1987 Average	**1,548**	**1,789**	**2,424**	**1,855**	**4,484**	**1,603**	**16,665**	**12,255**	**959**	**35,911**
1988 Average	**1,693**	**1,797**	**2,422**	**1,836**	**4,752**	**1,697**	**17,283**	**12,427**	**939**	**37,093**
1989 Average	**1,733**	**1,857**	**2,280**	**1,930**	**4,983**	**1,738**	**17,325**	**12,531**	**998**	**37,570**
1990 Average	**1,690**	**1,818**	**2,382**	**1,872**	**5,140**	**1,752**	**16,988**	**12,629**	**1,027**	**37,475**
1991 Average	**1,622**	**1,935**	**2,828**	**1,863**	**5,284**	**1,801**	**16,714**	**13,391**	**1,056**	**38,067**
1992 Average	**1,643**	**1,926**	**2,843**	**1,937**	**5,446**	**1,803**	**17,033**	**13,605**	**1,051**	**38,778**
1993 Average	**1,688**	**1,875**	**2,900**	**1,852**	**5,401**	**1,815**	**17,237**	**13,523**	**1,117**	**38,966**
1994 Average	**1,727**	**1,833**	**2,879**	**1,841**	**5,674**	**1,837**	**17,718**	**13,597**	**1,171**	**39,887**
1995 Average	**1,755**	**1,896**	**2,875**	**2,048**	**5,711**	**1,845**	**17,725**	**14,120**	**1,265**	**40,575**
1996 Average	**1,797**	**1,935**	**2,911**	**2,058**	**5,867**	**1,845**	**18,309**	**14,269**	**1,190**	**41,432**
1997 Average	**1,842**	**1,954**	**2,903**	**2,045**	**5,711**	**1,781**	**18,620**	**14,412**	**1,221**	**41,807**
1998 Average	**1,859**	**2,031**	**2,916**	**2,072**	**5,512**	**1,765**	**18,917**	**14,699**	**1,271**	**42,259**
1999 January	1,853	2,022	2,561	2,047	5,887	1,670	19,029	14,106	1,129	42,004
February	1,975	2,218	3,171	2,108	6,471	1,865	19,107	15,659	1,258	44,469
March	1,871	2,123	3,549	2,003	6,192	1,838	19,497	15,911	1,407	44,878
April	1,814	2,004	2,431	1,886	5,323	1,685	19,152	13,900	1,312	41,501
May	1,899	1,728	2,472	1,764	4,788	1,619	18,705	13,150	1,250	39,792
June	1,903	2,007	2,687	1,953	4,968	1,683	19,836	14,261	1,366	42,334
July	1,967	1,998	2,587	1,948	5,091	1,674	19,820	13,950	1,241	42,070
August	1,932	1,890	2,735	1,795	5,277	1,678	20,093	13,759	1,360	42,421
September	2,010	1,988	2,876	2,060	5,359	1,703	19,483	14,486	1,236	42,574
October	1,932	2,015	2,925	1,976	5,088	1,700	19,868	14,413	1,363	42,665
November	2,021	2,155	2,968	2,067	5,732	1,784	19,087	15,233	1,273	43,346
December	2,020	2,196	2,929	2,111	6,744	1,716	20,498	15,379	1,457	46,098
Average	**1,933**	**2,027**	**2,822**	**1,975**	**5,572**	**1,717**	**19,519**	**14,508**	**1,305**	**42,837**
2000 January	1,830	R 2,163	R 2,392	R 1,827	5,410	1,664	19,026	R 13,973	R 1,387	R 41,626
February	2,058	R 2,141	R 2,705	R 1,988	R 6,354	1,753	19,635	R 14,902	1,315	R 44,264
March	1,884	R 2,121	R 2,735	R 1,899	6,217	1,848	19,218	R 14,694	1,407	R 43,420
April	1,793	R 1,946	R 2,641	R 1,777	5,202	1,606	18,816	R 13,674	R 1,254	R 40,741
May	2,014	R 1,857	R 2,677	R 1,752	R 4,877	1,619	19,605	R 13,920	R 1,312	R 41,728
June	1,984	R 1,965	R 2,700	R 1,911	4,886	1,654	20,054	R 14,169	R 1,296	R 42,389
July	1,926	R 1,967	R 2,739	R 1,815	5,237	1,598	19,696	R 13,835	1,280	R 41,974
August	2,005	R 1,978	R 3,057	R 1,817	R 5,489	1,721	20,496	R 14,710	R 1,398	R 44,098
September	2,049	R 1,805	R 2,978	R 1,930	5,435	1,754	19,899	R 14,589	R 1,208	R 43,181
October	R 2,026	R 2,253	R 2,751	R 1,861	5,012	1,751	19,798	R 14,699	1,361	R 42,896
November	R 2,109	R 2,036	R 2,840	R 1,887	R 5,586	R 1,791	19,328	R 14,688	R 1,378	R 43,088
December	R 2,024	R 1,971	R 2,824	R 1,979	6,212	1,603	20,814	R 14,387	1,361	R 44,798
Average	**1,975**	**R 2,017**	**R 2,753**	**R 1,869**	**R 5,491**	**1,696**	**19,701**	**R 14,351**	**R 1,331**	**R 42,848**
2001 January	R 1,980	2,172	2,662	R 1,839	6,037	R 1,694	19,900	R 14,467	1,349	R 43,734
February	R 1,977	R 2,107	R 2,607	R 1,932	R 6,375	R 1,685	19,597	R 14,455	R 1,397	R 43,801
March	R 1,861	2,014	2,760	R 1,817	5,853	R 1,782	19,892	R 14,396	1,432	R 43,434
April	1,783	2,017	2,693	R 1,725	5,103	1,689	19,591	R 13,869	1,354	R 41,700
May	1,908	1,901	2,708	R 1,816	4,897	R 1,651	19,491	R 13,970	1,464	R 41,730
June	1,957	1,970	2,840	1,787	4,830	1,656	19,608	14,030	1,347	41,772
6-Mo. Avg.	**1,910**	**2,029**	**2,713**	**1,818**	**5,508**	**1,693**	**19,682**	**14,197**	**1,391**	**42,688**
2000 6-Mo. Avg.	**1,926**	**2,032**	**2,640**	**1,858**	**5,487**	**1,691**	**19,389**	**14,218**	**1,329**	**42,349**
1999 6-Mo. Avg.	**1,885**	**2,014**	**2,809**	**1,958**	**5,595**	**1,725**	**19,220**	**14,483**	**1,287**	**42,470**

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

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

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

R=Revised.

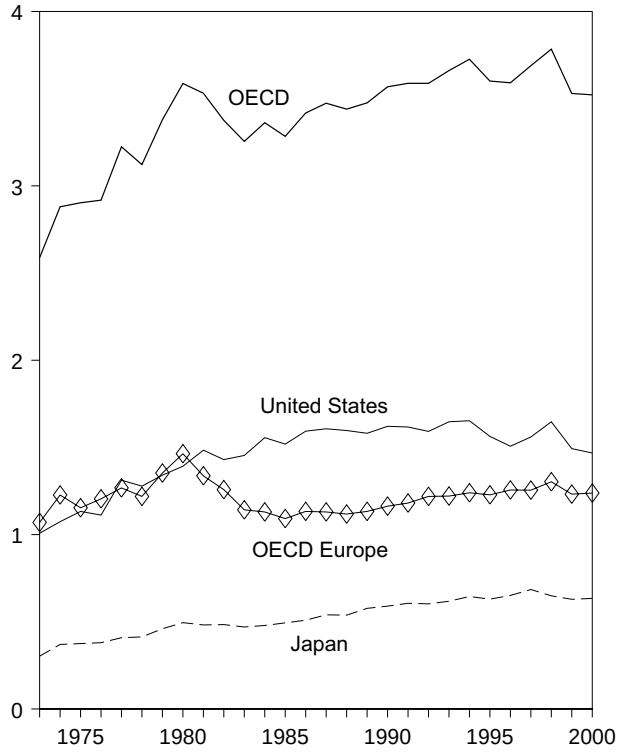
Notes: Data through 1996 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

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

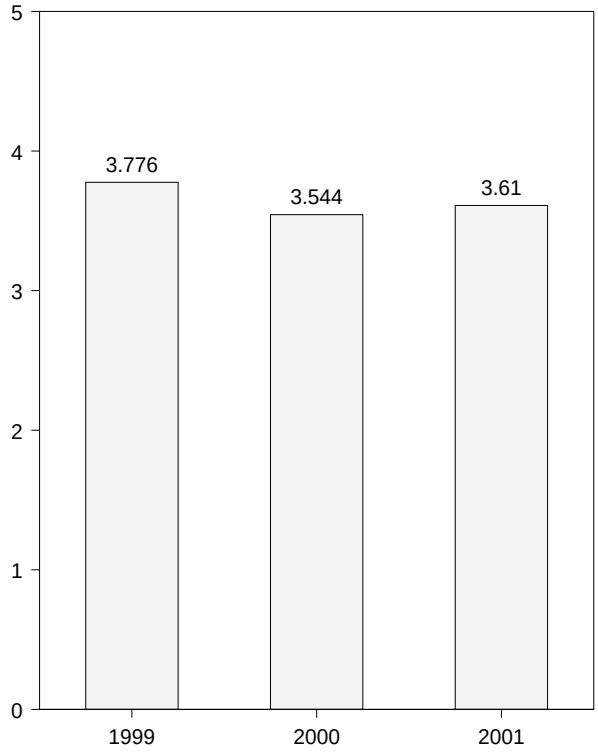
Figure 10.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

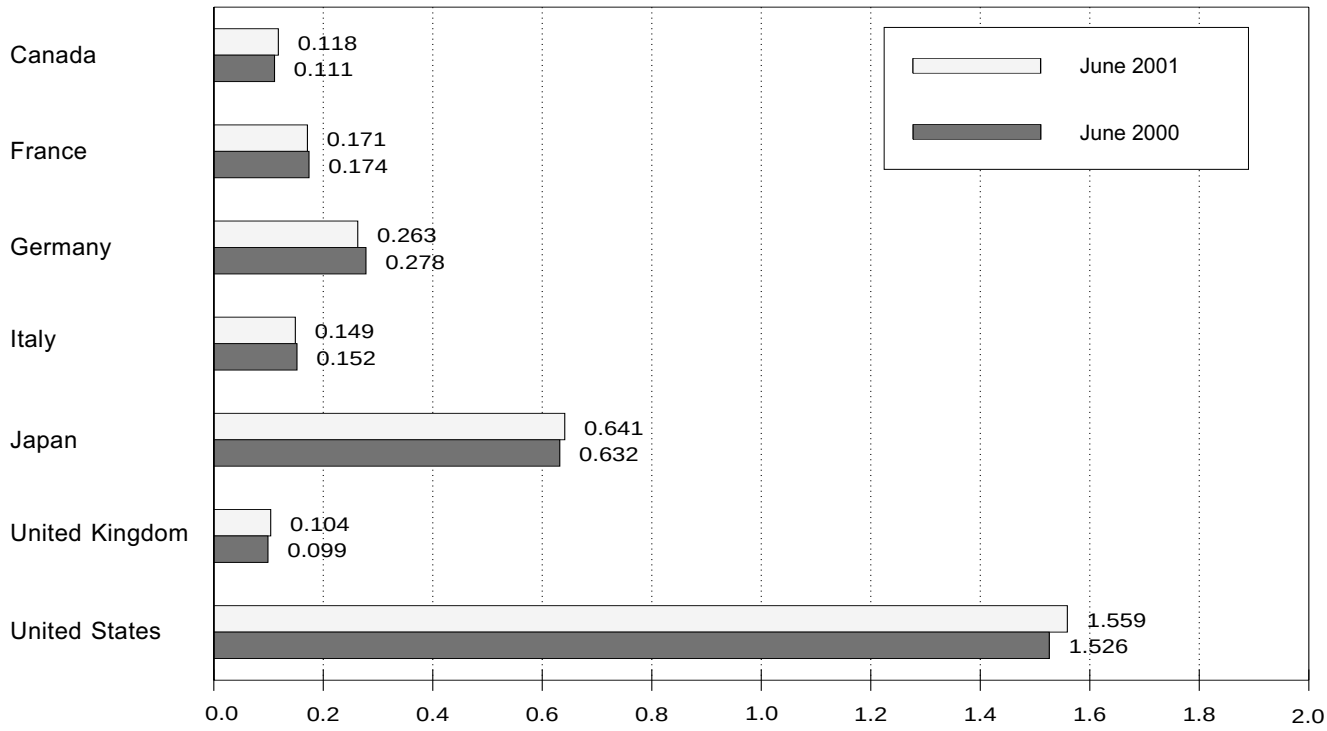
Overview, End of Year, 1973-2000



OECD Stocks, End of Month, June



By Selected Country, End of Month



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

Table 10.3 Petroleum Stocks in OECD Countries

(Million Barrels)

	Canada	France	Germany[a]	Italy	Japan	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]
1973 Year	**140**	**201**	**181**	**152**	**303**	**156**	**1,008**	**1,070**	**67**	**2,588**
1974 Year	**145**	**249**	**213**	**167**	**370**	**191**	**1,074**	**1,227**	**64**	**2,880**
1975 Year	**174**	**225**	**187**	**143**	**375**	**165**	**1,133**	**1,154**	**67**	**2,903**
1976 Year	**153**	**234**	**208**	**143**	**380**	**165**	**1,112**	**1,205**	**68**	**2,918**
1977 Year	**167**	**239**	**225**	**161**	**409**	**148**	**1,312**	**1,268**	**68**	**3,224**
1978 Year	**144**	**201**	**238**	**154**	**413**	**157**	**1,278**	**1,219**	**68**	**3,122**
1979 Year	**150**	**226**	**272**	**163**	**460**	**169**	**1,341**	**1,353**	**75**	**3,379**
1980 Year	**164**	**243**	**319**	**170**	**495**	**168**	**1,392**	**1,464**	**72**	**3,587**
1981 Year	**161**	**214**	**297**	**167**	**482**	**143**	**1,484**	**1,337**	**67**	**3,531**
1982 Year	**136**	**193**	**272**	**179**	**484**	**125**	**1,430**	**1,258**	**68**	**3,376**
1983 Year	**121**	**153**	**249**	**149**	**470**	**118**	**1,454**	**1,142**	**68**	**3,255**
1984 Year	**128**	**152**	**239**	**159**	**479**	**112**	**1,556**	**1,130**	**69**	**3,362**
1985 Year	**113**	**139**	**233**	**157**	**494**	**123**	**1,519**	**1,092**	**66**	**3,284**
1986 Year	**111**	**127**	**252**	**155**	**509**	**124**	**1,593**	**1,133**	**72**	**3,418**
1987 Year	**126**	**127**	**259**	**169**	**540**	**121**	**1,607**	**1,130**	**71**	**3,474**
1988 Year	**116**	**140**	**266**	**155**	**538**	**112**	**1,597**	**1,118**	**71**	**3,440**
1989 Year	**114**	**138**	**271**	**164**	**577**	**118**	**1,581**	**1,133**	**71**	**3,476**
1990 Year	**121**	**140**	**265**	**172**	**590**	**112**	**1,621**	**1,163**	**73**	**3,568**
1991 Year	**119**	**153**	**288**	**160**	**606**	**119**	**1,617**	**1,181**	**65**	**3,588**
1992 Year	**107**	**146**	**310**	**174**	**603**	**113**	**1,592**	**1,219**	**67**	**3,588**
1993 Year	**105**	**158**	**309**	**163**	**618**	**118**	**1,647**	**1,221**	**69**	**3,661**
1994 Year	**119**	**158**	**312**	**164**	**645**	**115**	**1,653**	**1,240**	**69**	**3,726**
1995 Year	**109**	**159**	**301**	**162**	**630**	**107**	**1,563**	**1,228**	**71**	**3,601**
1996 Year	**103**	**158**	**300**	**152**	**651**	**108**	**1,507**	**1,256**	**74**	**3,591**
1997 Year	**115**	**164**	**298**	**147**	**685**	**104**	**1,560**	**1,255**	**74**	**3,689**
1998 Year	**118**	**161**	**321**	**153**	**649**	**108**	**1,647**	**1,303**	**66**	**3,784**
1999 January	118	181	329	154	645	110	1,642	1,364	72	3,841
February	118	175	320	146	633	109	1,635	1,323	74	3,783
March	120	179	306	149	634	109	1,620	1,308	71	3,754
April	119	173	316	153	636	110	1,624	1,333	75	3,787
May	120	182	317	154	637	106	1,658	1,342	74	3,829
June	118	177	310	146	638	102	1,642	1,304	73	3,776
July	115	174	313	145	645	103	1,644	1,310	76	3,790
August	114	178	307	151	661	108	1,622	1,324	78	3,799
September	114	173	300	150	652	105	1,615	1,289	77	3,747
October	118	169	295	151	658	105	1,585	1,288	73	3,723
November	116	169	290	150	659	103	1,571	1,257	76	3,678
December	**108**	**163**	**287**	**148**	**629**	**104**	**1,493**	**1,232**	**69**	**3,530**
2000 January	108	166	297	153	622	104	1,477	1,228	69	3,504
February	108	167	288	149	613	106	1,466	1,220	72	3,480
March	110	170	285	154	606	106	1,476	[R] 1,214	66	[R] 3,472
April	112	171	281	152	618	104	1,505	1,200	69	3,505
May	110	172	280	148	634	97	1,518	1,188	72	3,522
June	111	174	278	152	632	99	1,526	[R] 1,204	71	[R] 3,544
July	117	171	280	150	639	105	1,540	1,218	77	3,590
August	117	171	274	153	639	101	1,532	1,212	66	3,566
September	116	172	274	156	627	99	1,527	[R] 1,221	76	[R] 3,567
October	114	170	276	160	642	102	1,507	1,217	71	3,550
November	116	171	272	162	645	100	1,505	1,223	77	3,565
December	**112**	**174**	**271**	**157**	**634**	**103**	**1,468**	[R] **1,238**	**70**	[R] **3,522**
2001 January	113	168	273	163	628	99	1,477	[R] 1,226	71	[R] 3,515
February	111	172	275	159	620	101	1,471	[R] 1,227	71	[R] 3,500
March	[R] 116	171	270	[R] 158	636	103	1,477	[R] 1,229	70	[R] 3,528
April	116	171	270	[R] 159	646	[R] 101	1,517	[R] 1,224	69	[R] 3,571
May	118	171	270	[R] 156	647	101	1,553	[R] 1,221	68	[R] 3,607
June	118	171	263	149	641	104	1,559	1,219	73	3,610

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

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

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

R=Revised.

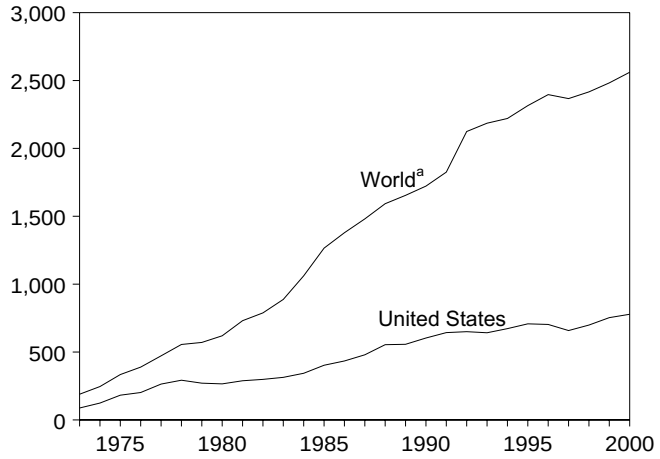
Notes: Stocks are at end of period. Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for storage, regardless of ownership, within each country in bulk terminals, refinery tanks, pipeline tankage, intercoastal tankers, tankers in port, and inland ship bunkers. Data exclude oil held in pipelines (except for those in the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea. In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, thereby affecting subsequent stocks reported. New-basis end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,425 in 1980, and 1,461 in 1982. Data through 1996 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

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

Figure 10.5 Nuclear Electricity Gross Generation

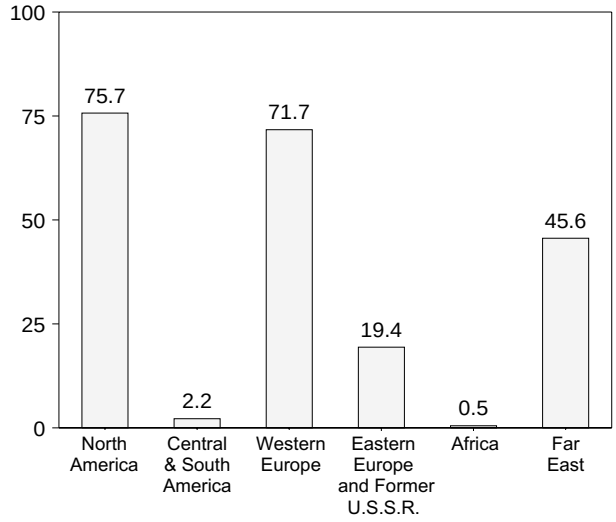
(Billion Kilowatthours)

U.S. and World, 1973-2000

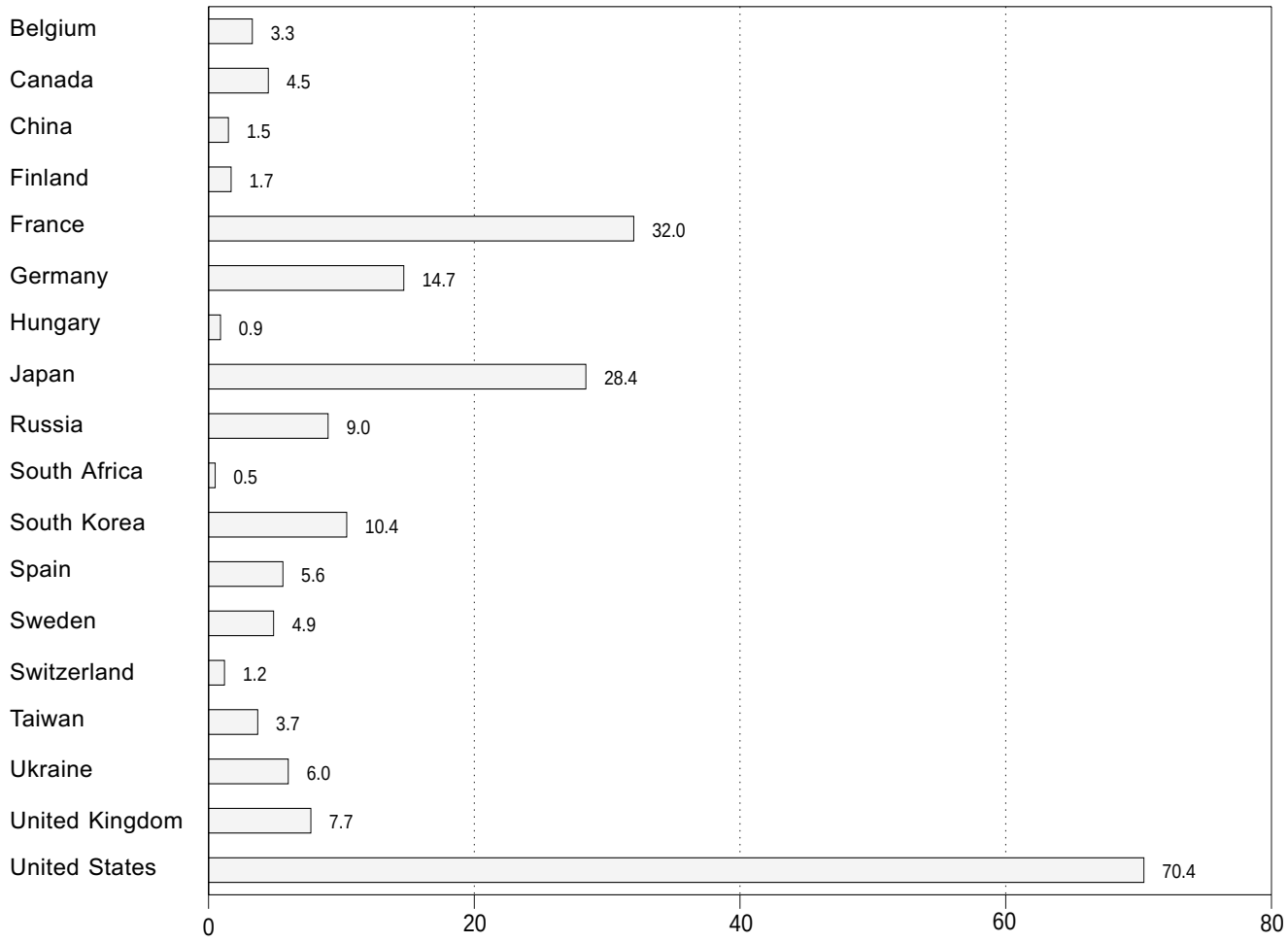


[a]Eastern Europe and the Former U.S.S.R. are included beginning in 1992.

By Region, August 2001



By Selected Country, August 2001



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 10.4a-10.4e.

Table 10.4a Nuclear Electricity Gross Generation: Regions and World

(Billion Kilowatthours)

	North America	Central and South America	Western Europe[a]	Eastern Europe and Former U.S.S.R.[a]	Africa	Far East[a]	World[a,b]
1973 Total	**103.1**	**–**	**73.9**	**NA**	**–**	**12.3**	**189.3**
1974 Total	**139.7**	**1.0**	**83.9**	**NA**	**–**	**21.4**	**246.0**
1975 Total	**195.5**	**2.5**	**111.7**	**NA**	**–**	**24.4**	**334.1**
1976 Total	**219.8**	**2.6**	**126.2**	**NA**	**–**	**40.3**	**388.9**
1977 Total	**290.8**	**1.6**	**148.1**	**NA**	**–**	**31.5**	**472.0**
1978 Total	**325.4**	**2.9**	**166.9**	**NA**	**–**	**60.6**	**555.9**
1979 Total	**309.0**	**2.7**	**184.3**	**NA**	**–**	**74.7**	**570.7**
1980 Total	**305.8**	**2.3**	**214.2**	**NA**	**–**	**97.4**	**619.8**
1981 Total	**331.8**	**2.8**	**293.4**	**NA**	**–**	**102.9**	**730.9**
1982 Total	**341.2**	**1.9**	**321.8**	**NA**	**–**	**123.6**	**788.5**
1983 Total	**366.6**	**3.6**	**377.2**	**NA**	**–**	**140.1**	**887.5**
1984 Total	**397.6**	**6.6**	**485.4**	**NA**	**4.2**	**167.7**	**1,061.5**
1985 Total	**465.6**	**9.1**	**582.8**	**NA**	**5.9**	**202.0**	**1,265.4**
1986 Total	**508.8**	**5.8**	**631.5**	**NA**	**9.3**	**223.6**	**1,378.9**
1987 Total	**560.1**	**6.2**	**648.3**	**NA**	**6.6**	**259.5**	**1,480.7**
1988 Total	**639.7**	**5.5**	**688.1**	**NA**	**11.1**	**248.5**	**1,592.8**
1989 Total	**640.2**	**6.6**	**732.2**	**NA**	**11.7**	**263.4**	**1,654.1**
1990 Total	**681.3**	**9.4**	**738.6**	**NA**	**8.9**	**284.3**	**1,722.5**
1991 Total	**733.4**	**9.2**	**769.7**	**NA**	**9.7**	**303.3**	**1,825.2**
1992 Total	**735.2**	**8.8**	**787.8**	**E 267.5**	**9.9**	**315.2**	**b E 2,124.5**
1993 Total	**744.6**	**8.1**	**820.9**	**E 259.0**	**7.7**	**E 345.2**	**E 2,185.6**
1994 Total	**787.3**	**8.2**	**820.2**	**E 227.8**	**10.3**	**E 366.7**	**E 2,220.4**
1995 Total	**816.1**	**9.6**	**E 835.7**	**E 234.9**	**11.9**	**E 407.0**	**E 2,315.1**
1996 Total	**806.4**	**9.8**	**E 879.5**	**E 261.6**	**12.5**	**E 426.4**	**E 2,396.3**
1997 Total	**E 752.8**	**11.1**	**E 886.5**	**E 247.1**	**13.3**	**E 456.2**	**E 2,367.0**
1998 Total	**E 781.0**	**10.8**	**E 884.2**	**E 248.9**	**14.3**	**E 477.2**	**E 2,416.4**
1999 January	E 74.4	E 1.2	E 84.7	E 27.4	.9	E 40.7	E 229.3
February	E 66.2	1.1	E 75.0	E 24.8	.8	E 35.7	E 203.5
March	E 69.0	1.1	E 79.0	E 26.8	1.4	40.6	E 218.0
April	E 59.9	1.1	E 71.8	E 22.6	1.4	E 39.2	E 195.9
May	E 63.2	.8	66.5	E 20.2	1.2	E 37.7	E 189.7
June	E 68.6	.7	E 67.1	E 18.7	1.3	E 36.2	E 192.6
July	E 74.5	E .7	E 66.3	E 19.2	1.3	E 41.3	E 203.3
August	E 76.9	.8	E 66.6	E 19.2	1.2	E 43.3	E 208.0
September	E 70.9	.7	E 68.1	E 19.5	.9	E 40.1	E 200.3
October	E 66.1	.8	E 74.1	E 19.8	.7	E 40.6	E 202.1
November	E 69.6	1.0	E 77.1	E 21.6	1.2	E 41.4	E 212.0
December	E 78.0	1.1	E 81.7	E 24.6	1.3	E 41.1	E 228.0
Total	**E 837.3**	**E 11.1**	**E 878.1**	**E 264.7**	**13.5**	**E 478.0**	**E 2,482.6**
2000 January	E 77.7	1.2	E 82.0	E 27.3	1.3	E 40.8	E 230.3
February	E 70.4	1.1	E 76.6	E 25.8	1.3	E 37.9	E 213.0
March	E 69.7	.9	E 80.5	E 26.5	1.1	E 42.9	E 221.7
April	E 63.6	E .8	E 72.6	E 21.7	.8	E 41.6	E 201.2
May	E 69.9	.5	E 69.6	E 20.9	.7	E 41.5	E 203.2
June	E 73.8	.7	E 68.7	E 22.0	1.2	E 40.5	E 206.8
July	E 79.1	.8	E 66.5	E 20.7	1.3	E 43.7	E 212.1
August	E 76.5	E 1.0	E 66.6	E 19.3	1.1	E 43.4	E 207.9
September	E 69.2	.8	E 70.1	E 23.9	1.2	E 39.6	E 204.8
October	E 63.2	.8	E 77.6	E 25.5	1.4	E 40.2	E 208.7
November	E 68.5	1.6	E 78.7	E 25.3	1.2	E 41.8	E 217.1
December	E 78.5	1.4	E 83.5	E 26.3	1.1	E 43.2	E 234.0
Total	**E 860.3**	**E 11.5**	**E 893.1**	**E 285.3**	**13.6**	**E 497.1**	**E 2,560.9**
2001 January	E 80.0	1.5	E 82.3	E 27.2	.8	E 41.4	E 233.2
February	E 72.6	1.6	E 75.2	E 26.5	.6	E 39.4	E 215.9
March	E 73.2	1.8	E 77.3	E 26.8	1.1	E 44.6	E 224.8
April	E 65.7	1.3	E 73.3	E 23.3	1.0	E 41.5	E 206.1
May	E 69.8	1.3	68.9	E 21.5	1.3	E 39.7	E 202.5
June	E 74.1	E 1.4	E 67.8	E 19.0	1.3	E 39.4	E 203.0
July	E 77.0	2.1	E 70.0	RE 18.3	.8	E 42.5	RE 210.8
August	E 75.7	2.2	E 71.7	E 19.4	.5	E 45.6	E 215.1
8-Month Total	**E 588.2**	**E 13.1**	**E 586.5**	**E 182.0**	**7.5**	**E 334.1**	**E 1,711.3**
2000 8-Month Total	**E 580.8**	**6.9**	**E 583.1**	**E 184.4**	**8.8**	**E 332.4**	**E 1,696.3**
1999 8-Month Total	**E 552.6**	**7.4**	**E 577.0**	**E 179.0**	**9.4**	**E 314.7**	**E 1,640.2**

[a] Sum of available data only.

[b] There is a discontinuity in this time series between 1991 and 1992; beginning in 1992, includes data for Eastern Europe and the Former U.S.S.R.

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

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for regions may not sum to totals due to independent rounding.

Source: Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4b Nuclear Electricity Gross Generation: North, Central, and South America

(Billion Kilowatthours)

	North America				Central and South America		
	Canada	Mexico	United States	Total	Argentina	Brazil	Total
1973 Total	**15.3**	**–**	**87.8**	**103.1**	**–**	**–**	**–**
1974 Total	**15.4**	**–**	**124.3**	**139.7**	**1.0**	**–**	**1.0**
1975 Total	**13.2**	**–**	**182.3**	**195.5**	**2.5**	**–**	**2.5**
1976 Total	**18.0**	**–**	**201.8**	**219.8**	**2.6**	**–**	**2.6**
1977 Total	**26.6**	**–**	**264.2**	**290.8**	**1.6**	**–**	**1.6**
1978 Total	**33.0**	**–**	**292.4**	**325.4**	**2.9**	**–**	**2.9**
1979 Total	**38.4**	**–**	**270.6**	**309.0**	**2.7**	**–**	**2.7**
1980 Total	**40.4**	**–**	**265.4**	**305.8**	**2.3**	**–**	**2.3**
1981 Total	**43.3**	**–**	**288.5**	**331.8**	**2.8**	**–**	**2.8**
1982 Total	**42.6**	**–**	**298.6**	**341.2**	**1.9**	**0.1**	**1.9**
1983 Total	**53.0**	**–**	**313.6**	**366.6**	**3.4**	**.2**	**3.6**
1984 Total	**53.8**	**–**	**343.8**	**397.6**	**4.5**	**2.1**	**6.6**
1985 Total	**62.9**	**–**	**402.7**	**465.6**	**5.8**	**3.4**	**9.1**
1986 Total	**74.6**	**–**	**434.1**	**508.8**	**5.7**	**.1**	**5.8**
1987 Total	**80.6**	**–**	**479.5**	**560.1**	**5.2**	**1.0**	**6.2**
1988 Total	**85.6**	**–**	**554.1**	**639.7**	**5.1**	**.3**	**5.5**
1989 Total	**83.2**	**–**	**557.0**	**640.2**	**5.0**	**1.6**	**6.6**
1990 Total	**75.8**	**2.1**	**603.4**	**681.3**	**7.4**	**2.0**	**9.4**
1991 Total	**86.1**	**4.2**	**643.0**	**733.4**	**7.7**	**1.4**	**9.2**
1992 Total	**81.3**	**3.9**	**650.0**	**735.2**	**7.1**	**1.8**	**8.8**
1993 Total	**97.6**	**4.9**	**642.0**	**744.6**	**7.7**	**.4**	**8.1**
1994 Total	**110.7**	**4.2**	**672.4**	**787.3**	**8.2**	**.0**	**8.2**
1995 Total	**100.4**	**7.9**	**707.7**	**816.1**	**7.1**	**2.5**	**9.6**
1996 Total	**95.2**	**7.9**	**703.3**	**806.4**	**7.4**	**2.4**	**9.8**
1997 Total	**84.1**	**10.4**	**E 658.3**	**E 752.8**	**8.0**	**3.2**	**11.1**
1998 Total	**E 72.7**	**9.5**	**E 698.7**	**E 781.0**	**7.5**	**3.3**	**10.8**
1999 January	6.3	.9	E 67.2	E 74.4	E .7	.4	E 1.2
February	E 5.7	.8	E 59.6	E 66.2	.7	.4	1.1
March	7.2	.9	E 60.9	E 69.0	.7	.4	1.1
April	6.1	.9	E 52.9	E 59.9	.7	.3	1.1
May	4.7	.9	E 57.6	E 63.2	.5	.3	.8
June	5.5	.9	E 62.2	E 68.6	.5	.2	.7
July	6.1	1.0	E 67.4	E 74.5	.5	E .2	E .7
August	6.8	.6	E 69.5	E 76.9	.5	.3	.8
September	6.6	.5	E 63.8	E 70.9	.4	.3	.7
October	6.1	.7	E 59.3	E 66.1	.5	.3	.8
November	6.1	.9	E 62.7	E 69.6	.7	.3	1.0
December	6.7	1.0	E 70.3	E 78.0	.7	.4	1.1
Total	**E 73.9**	**10.0**	**E 753.4**	**E 837.3**	**E 7.1**	**E 4.0**	**E 11.1**
2000 January	7.1	.7	E 69.9	E 77.7	.7	.4	1.2
February	6.3	.6	E 63.6	E 70.4	.7	.4	1.1
March	6.2	.6	E 63.0	E 69.7	.5	.4	.9
April	5.2	.5	E 57.9	E 63.6	E .5	.4	E .8
May	6.0	.5	E 63.4	E 69.9	.5	.0	.5
June	6.1	.6	E 67.0	E 73.8	.7	.0	.7
July	7.2	.8	E 71.1	E 79.1	.7	(s)	.8
August	6.8	.5	E 69.2	E 76.5	E .7	.2	E 1.0
September	5.1	.5	E 63.6	E 69.2	.4	.4	.8
October	5.0	1.0	E 57.3	E 63.2	.3	.5	.8
November	5.9	.9	E 61.7	E 68.5	.5	1.1	1.6
December	7.0	1.0	E 70.6	E 78.5	.2	1.2	1.4
Total	**73.8**	**8.2**	**E 778.3**	**E 860.3**	**E 6.3**	**5.2**	**E 11.5**
2001 January	7.5	1.0	E 71.4	E 80.0	.5	1.0	1.5
February	E 7.4	.8	E 64.4	E 72.6	.4	1.1	1.6
March	E 7.1	1.0	E 65.1	E 73.2	.5	1.3	1.8
April	5.3	.9	E 59.5	E 65.7	.5	.8	1.3
May	4.5	.4	E 64.9	E 69.8	.5	.8	1.3
June	4.3	.5	E 69.4	E 74.1	.5	E .8	E 1.4
July	4.8	.7	E 71.5	E 77.0	.7	1.4	2.1
August	4.5	.9	E 70.4	E 75.7	.7	1.4	2.2
8-Month Total	**E 45.5**	**6.1**	**E 536.6**	**E 588.2**	**4.3**	**E 8.7**	**E 13.1**
2000 8-Month Total	**50.8**	**4.8**	**E 525.1**	**E 580.8**	**5.0**	**1.9**	**6.9**
1999 8-Month Total	**48.4**	**6.9**	**E 497.3**	**E 552.6**	**4.8**	**2.6**	**7.4**

– =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Source: Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4c Nuclear Electricity Gross Generation: Western Europe

(Billion Kilowatthours)

	Western Europe											
	Belgium	Finland	France	Germany[a]	Italy[b]	Nether-lands	Slovenia	Spain	Sweden	Switzer-land	United Kingdom[c]	Total[d]
1973 Total	**0.0**	**–**	**14.7**	**11.9**	**3.1**	**1.1**	**–**	**6.5**	**2.1**	**6.2**	**28.2**	**73.9**
1974 Total	**.1**	**–**	**14.7**	**12.0**	**3.4**	**3.3**	**–**	**7.2**	**2.3**	**7.0**	**33.8**	**83.9**
1975 Total	**6.8**	**–**	**18.3**	**21.7**	**3.8**	**3.3**	**–**	**7.5**	**12.0**	**7.7**	**30.5**	**111.7**
1976 Total	**10.0**	**–**	**15.8**	**24.5**	**3.8**	**3.9**	**–**	**7.6**	**16.0**	**7.9**	**36.8**	**126.2**
1977 Total	**11.9**	**2.7**	**17.9**	**36.0**	**3.4**	**3.7**	**–**	**6.5**	**19.9**	**8.1**	**38.1**	**148.1**
1978 Total	**12.5**	**3.3**	**30.6**	**35.7**	**4.5**	**4.1**	**–**	**7.6**	**23.8**	**8.3**	**36.6**	**166.9**
1979 Total	**11.4**	**6.7**	**39.9**	**42.2**	**2.6**	**3.5**	**–**	**6.7**	**21.0**	**11.8**	**38.5**	**184.3**
1980 Total	**12.5**	**7.0**	**61.2**	**43.7**	**2.2**	**4.2**	**–**	**5.2**	**26.7**	**14.3**	**37.2**	**214.2**
1981 Total	**12.8**	**14.5**	**105.2**	**53.4**	**2.7**	**3.7**	**–**	**9.4**	**37.7**	**15.2**	**38.9**	**293.4**
1982 Total	**15.6**	**16.5**	**108.9**	**63.4**	**6.8**	**3.9**	**–**	**8.8**	**38.8**	**15.0**	**44.1**	**321.8**
1983 Total	**24.1**	**17.4**	**144.2**	**65.8**	**5.8**	**3.6**	**NA**	**10.7**	**40.4**	**15.5**	**49.6**	**377.2**
1984 Total	**27.7**	**18.5**	**191.2**	**92.6**	**6.9**	**3.8**	**NA**	**23.1**	**51.3**	**16.3**	**54.1**	**485.4**
1985 Total	**34.5**	**18.8**	**224.0**	**125.8**	**7.0**	**3.9**	**NA**	**28.0**	**58.6**	**22.4**	**59.7**	**582.8**
1986 Total	**38.6**	**18.8**	**254.3**	**118.9**	**8.7**	**4.2**	**NA**	**37.5**	**69.9**	**22.5**	**58.2**	**631.5**
1987 Total	**41.9**	**19.4**	**265.5**	**130.2**	**.2**	**3.6**	**NA**	**41.2**	**67.2**	**23.0**	**56.2**	**648.3**
1988 Total	**43.1**	**19.3**	**274.9**	**145.2**	**.0**	**3.7**	**NA**	**50.4**	**69.4**	**22.7**	**59.4**	**688.1**
1989 Total	**41.2**	**18.8**	**302.5**	**149.6**	**.0**	**4.0**	**NA**	**56.1**	**65.6**	**22.8**	**71.6**	**732.2**
1990 Total	**42.7**	**18.9**	**314.1**	**147.2**	**.0**	**3.4**	**NA**	**54.3**	**68.2**	**23.6**	**66.1**	**738.6**
1991 Total	**42.9**	**19.2**	**331.4**	**147.3**	**.0**	**3.3**	**NA**	**55.6**	**76.8**	**22.9**	**70.4**	**769.7**
1992 Total	**43.5**	**19.0**	**337.6**	**158.8**	**.0**	**3.8**	**4.0**	**55.8**	**63.5**	**23.4**	**78.5**	**787.8**
1993 Total	**41.9**	**19.6**	**366.7**	**153.5**	**.0**	**3.9**	**4.0**	**56.1**	**61.4**	**23.3**	**90.4**	**820.9**
1994 Total	**40.6**	**19.1**	**359.1**	**151.1**	**.0**	**4.0**	**4.6**	**55.1**	**72.8**	**24.2**	**89.5**	**820.2**
1995 Total	**41.4**	**18.9**	**377.6**	**154.3**	**.0**	**4.0**	**4.8**	**54.5**	**69.9**	**24.8**	**E 85.5**	**E 835.7**
1996 Total	**43.3**	**19.5**	**397.0**	**161.7**	**.0**	**4.2**	**4.6**	**59.1**	**76.2**	**25.0**	**E 88.8**	**E 879.5**
1997 Total	**47.4**	**20.9**	**389.3**	**170.4**	**.0**	**3.1**	**5.4**	**55.4**	**E 70.6**	**25.3**	**E 98.8**	**E 886.5**
1998 Total	**46.1**	**21.9**	**384.4**	**161.0**	**.0**	**3.8**	**5.3**	**E 58.6**	**73.8**	**25.7**	**E 103.7**	**E 884.2**
1999 January	4.5	2.1	38.0	15.1	.0	.4	.5	5.4	7.6	2.4	E 8.8	E 84.7
February	4.0	1.9	33.6	13.1	.0	.3	.4	4.1	6.9	2.2	E 8.3	E 75.0
March	4.4	2.1	34.3	14.2	.0	.4	.4	4.2	E 7.5	2.3	9.3	E 79.0
April	3.8	2.0	31.5	14.0	.0	.3	.0	3.7	6.7	2.1	E 7.7	E 71.8
May	4.2	1.6	26.6	12.8	.0	.4	.1	5.1	5.9	2.3	7.6	66.5
June	3.9	1.9	E 26.6	13.4	.0	.3	.4	4.7	E 5.2	2.0	8.8	E 67.1
July	3.8	1.9	30.0	E 13.4	.0	.3	.5	4.9	3.7	1.2	6.5	E 66.3
August	3.8	1.7	29.1	13.5	.0	.3	.5	5.5	4.3	1.1	E 7.0	E 66.6
September	3.5	1.7	29.5	E 13.5	.0	.1	.5	4.9	4.8	1.9	7.7	E 68.1
October	4.3	2.1	31.7	E 13.5	.0	.4	.5	5.3	7.0	2.3	7.1	E 74.1
November	4.3	2.0	32.4	15.1	.0	.3	.5	5.5	7.3	2.4	7.3	E 77.1
December	4.5	2.1	34.2	16.2	.0	.4	.5	5.6	7.7	2.5	E 8.1	E 81.7
Total	**49.0**	**23.0**	**E 377.4**	**E 167.8**	**.0**	**3.8**	**4.7**	**58.9**	**E 74.5**	**24.8**	**E 94.1**	**E 878.1**
2000 January	4.3	2.1	E 36.2	15.8	.0	.4	.5	E 5.6	7.1	2.5	7.5	E 82.0
February	3.2	1.9	E 35.3	13.9	.0	.3	.5	5.3	6.8	2.3	7.0	E 76.6
March	4.1	2.1	E 37.4	13.3	.0	.3	.5	5.2	6.5	2.5	8.6	E 80.5
April	3.7	1.9	E 34.0	12.9	.0	.3	E .5	4.7	5.3	2.4	E 6.9	E 72.6
May	3.9	1.5	E 32.8	13.9	.0	.4	.0	5.1	3.3	E 2.4	E 6.4	E 69.6
June	E 3.6	1.8	E 32.8	12.3	.0	.3	.2	5.5	3.0	2.3	7.0	E 68.7
July	3.5	1.8	E 31.0	14.0	.0	.4	.5	5.6	2.1	1.4	6.2	E 66.5
August	4.0	1.5	E 31.7	13.2	.0	.3	.5	5.2	2.6	1.1	6.5	E 66.6
September	E 4.1	1.7	E 33.2	E 13.2	.0	.3	.4	4.2	4.1	2.1	6.9	E 70.1
October	4.5	2.0	E 35.9	15.3	.0	.2	.5	4.6	5.1	2.5	7.0	E 77.6
November	4.4	2.0	E 36.5	14.9	.0	.3	.5	5.3	5.4	2.4	E 7.0	E 78.7
December	4.5	2.1	E 38.4	15.6	.0	.4	.5	5.8	5.8	2.5	7.9	E 83.5
Total	**E 47.8**	**22.5**	**E 415.2**	**E 168.3**	**.0**	**3.9**	**E 5.0**	**E 62.0**	**57.2**	**E 26.3**	**E 84.9**	**E 893.1**
2001 January	4.5	2.1	E 36.3	15.9	.0	.4	.5	5.7	7.0	2.5	7.5	E 82.3
February	3.9	1.9	E 33.5	14.1	.0	.3	.5	5.0	E 6.6	2.3	E 7.1	E 75.2
March	3.4	2.0	E 33.5	15.3	.0	.4	.5	4.9	6.9	2.5	E 7.8	E 77.3
April	3.7	2.0	E 32.2	13.9	.0	.3	.4	4.8	6.2	2.4	E 7.4	E 73.3
May	3.5	1.5	29.8	13.2	.0	.4	.1	5.8	5.8	2.5	6.5	68.9
June	E 3.5	2.0	E 29.8	12.9	.0	.3	.2	5.3	E 4.9	2.2	6.6	E 67.8
July	3.3	2.0	E 32.0	13.6	.0	.3	.5	5.7	4.5	1.5	E 6.6	E 70.0
August	E 3.3	1.7	E 32.0	14.7	.0	.3	.5	5.6	4.9	1.2	7.7	E 71.7
8-Month Total	**E 29.1**	**15.0**	**E 259.1**	**113.5**	**.0**	**2.8**	**3.2**	**42.7**	**E 46.7**	**17.1**	**E 57.2**	**E 586.5**
2000 8-Month Total	**30.3**	**14.6**	**E 271.2**	**109.2**	**.0**	**2.7**	**3.0**	**42.2**	**E 36.7**	**16.8**	**E 56.1**	**E 583.1**
1999 8-Month Total	**32.5**	**15.1**	**E 249.6**	**109.5**	**.0**	**2.6**	**2.8**	**37.5**	**E 47.7**	**15.7**	**E 63.9**	**E 577.0**

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] In 1987, Italy's citizens voted for a nuclear power moratorium, which shut down their nuclear power plants indefinitely.

[c] Monthly data for the United Kingdom are totals for 4- or 5-week reporting periods, not calendar months.

[d] Sum of available data only.

NA=Not available. – =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves.

Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Source: Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc., used with permission, except for France's 2000 values, which are from the Ministry of Industry, General Directorate for Energy and Raw Material, France.

Table 10.4d Nuclear Electricity Gross Generation: Eastern Europe and Former U.S.S.R.

(Billion Kilowatthours)

	Eastern Europe and Former U.S.S.R.										
	Armenia[a]	Bulgaria	Czech Republic[b]	Hungary	Kazakhstan[b]	Lithuania[b]	Romania	Russia	Slovakia[b]	Ukraine	Total[c]
1973 Total	–	–	–	–	NA	–	–	NA	NA	–	NA
1974 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1975 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1976 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1977 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1978 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1979 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1980 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1981 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1982 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1983 Total	–	NA	–	NA	NA	–	–	NA	NA	NA	NA
1984 Total	–	NA	–	NA	NA	–	–	NA	NA	NA	NA
1985 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1986 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1987 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1988 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1989 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1990 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1991 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1992 Total	–	E 12.2	E 12.9	E 13.8	E .5	E 16.4	–	E 125.6	E 11.7	E 74.6	E 267.5
1993 Total	–	14.0	E 13.2	13.8	E .4	E 12.9	–	120.4	E 11.6	E 72.7	E 259.0
1994 Total	–	14.9	E 12.7	14.0	E .4	E 7.0	–	97.7	E 12.7	68.4	E 227.8
1995 Total	–	17.2	E 12.8	14.0	E .4	E 9.7	–	98.3	E 12.0	70.4	E 234.9
1996 Total	NA	18.7	E 13.5	14.2	E .1	E 13.6	E 1.0	108.8	E 11.8	80.0	E 261.6
1997 Total	1.4	E 15.5	.0	14.0	E .3	12.1	3.9	108.1	11.0	80.8	E 247.1
1998 Total	1.6	E 19.2	E 7.6	13.9	NA	13.5	5.1	103.7	10.3	E 74.0	E 248.9
1999 January	.2	E 1.9	NA	1.3	NA	1.3	.5	12.3	.9	7.7	E 27.4
February	.3	E 1.9	NA	1.2	NA	1.1	.5	10.7	.8	7.2	E 24.8
March	.3	E 1.9	NA	1.1	NA	1.0	.5	11.7	.9	8.0	E 26.8
April	.3	E 1.9	NA	1.1	NA	.5	.5	10.2	.8	6.4	E 22.6
May	E .3	E 1.9	1.0	1.1	.0	.6	.5	8.1	.9	5.8	E 20.2
June	E .3	E 1.9	1.0	1.0	.0	.3	.5	7.6	.8	5.2	E 18.7
July	.2	1.9	1.0	1.0	.0	.7	E .5	8.8	.8	4.4	E 19.2
August	.2	E 1.0	.9	1.0	.0	.8	.5	8.9	.8	5.1	E 19.2
September	.1	E 1.0	1.0	1.1	.0	.9	.5	8.7	.9	5.4	E 19.5
October	.0	E 1.0	1.2	1.4	.0	1.0	(s)	8.7	1.0	5.6	E 19.8
November	.0	E 1.0	1.3	E 1.4	.0	.9	.1	10.9	.9	5.1	E 21.6
December	.2	E 1.5	1.2	1.4	.0	.9	.5	11.4	1.1	6.3	E 24.6
Total	E 2.4	E 19.0	13.4	E 14.2	NA	9.9	E 5.2	118.0	10.5	72.2	E 264.7
2000 January	.3	E 1.5	E 1.2	1.4	.0	.9	.5	13.2	1.1	7.2	E 27.3
February	.3	E 1.5	1.2	1.3	.0	.6	.5	12.3	1.3	6.7	E 25.8
March	.3	E 1.8	1.1	1.1	.0	.7	.5	12.9	1.3	6.7	E 26.5
April	.3	E 1.8	1.0	1.0	.0	.5	.5	9.8	1.0	5.8	E 21.7
May	.3	E 1.8	1.0	1.0	.0	.5	.5	9.2	1.1	5.4	E 20.9
June	.3	E 1.8	1.0	1.0	.0	.7	.5	9.5	1.4	5.9	E 22.0
July	E .0	E 1.8	1.1	1.0	.0	.6	.4	8.5	1.3	6.0	E 20.7
August	.0	E 1.8	E 1.1	.9	.0	.7	.4	9.8	1.3	E 3.2	E 19.3
September	.0	E 1.8	E 1.1	1.3	.0	.9	E .5	10.1	1.5	6.7	E 23.9
October	.0	E 1.8	1.2	1.4	.0	.8	.1	10.8	1.6	7.7	E 25.5
November	(s)	E 1.8	1.3	1.3	.0	E .8	.5	10.6	1.7	7.3	E 25.3
December	.3	E 1.8	1.3	1.4	.0	.9	.4	12.2	1.7	6.1	E 26.3
Total	E 1.9	E 21.3	E 13.8	14.2	.0	E 8.7	E 5.5	128.9	16.2	E 74.8	E 285.3
2001 January	.3	E 1.8	1.3	1.4	.0	.8	.5	12.5	1.5	7.0	E 27.2
February	.2	E 1.8	E 1.3	1.3	.0	.9	.4	11.7	1.7	7.1	E 26.5
March	.2	E 1.8	1.2	1.2	.0	.6	.5	12.4	1.3	7.5	E 26.8
April	.2	E 1.8	1.0	1.1	.0	.5	.5	10.4	1.2	6.6	E 23.3
May	.3	E 1.8	1.0	1.1	.0	.6	.5	9.6	1.2	5.4	E 21.5
June	.2	NA	1.0	1.1	.0	.7	E .5	9.5	1.3	4.7	E 19.0
July	.1	NA	1.0	.9	.0	.8	.5	8.9	1.3	4.9	RE 18.3
August	E .1	NA	E 1.0	.9	.0	.8	.1	9.0	1.5	6.0	E 19.4
8-Month Total	E 1.6	NA	E 8.9	9.0	NA	5.7	E 3.6	83.9	10.9	E 49.2	E 182.0
2000 8-Month Total	1.6	14.0	8.8	8.7	.0	5.4	3.9	85.2	9.7	47.0	E 184.4
1999 8-Month Total	2.1	14.5	8.7	8.9	NA	6.1	4.0	78.3	6.7	49.8	E 179.0

[a] According to EIA's *Nuclear Power Generation and Fuel Cycle Report 1996,* Armenia has two units; one came on line in November 1995 but no data are available prior to 1997, and the other is projected to come on line in 2001.

[b] The total gross generation estimates for Czech Republic, Kazakhstan, Lithuania, and Slovakia are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency and published in the Energy Information Administration annual reports**—1992 and 1993:** *World Nuclear Outlook 1994,* December 1994, Table 1. **1994:** *Nuclear Power Generation and Fuel Cycle Report 1996,* October 1996, Table 1. **1995 and 1996:** *Nuclear Power Generation and Fuel Cycle Report 1997,* September 1997, Table D4. **1997 forward:** Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

[c] Sum of available data only.

R=Revised. NA=Not available. – =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Source: **Czech Republic, Kazakhstan, Lithuania, Slovakia, and Eastern European Countries:** See footnote b. **All Other:** Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4e Nuclear Electricity Gross Generation: Africa and Far East

(Billion Kilowatthours)

	Africa	Far East						
	South Africa[a]	China[b]	India	Japan	Pakistan	South Korea	Taiwan	Total[c]
1973 Total	**–**	**–**	**2.5**	**9.4**	**0.5**	**–**	**–**	**12.3**
1974 Total	**–**	**–**	**1.9**	**18.9**	**.6**	**–**	**–**	**21.4**
1975 Total	**–**	**–**	**2.5**	**21.3**	**.5**	**–**	**–**	**24.4**
1976 Total	**–**	**–**	**3.2**	**36.6**	**.5**	**–**	**–**	**40.3**
1977 Total	**–**	**–**	**2.8**	**28.2**	**.3**	**0.1**	**0.1**	**31.5**
1978 Total	**–**	**–**	**2.3**	**53.1**	**.2**	**2.3**	**2.7**	**60.6**
1979 Total	**–**	**–**	**3.2**	**62.0**	**(s)**	**3.2**	**6.3**	**74.7**
1980 Total	**–**	**–**	**2.9**	**82.8**	**.1**	**3.5**	**8.2**	**97.4**
1981 Total	**–**	**–**	**3.1**	**86.0**	**.2**	**2.9**	**10.7**	**102.9**
1982 Total	**–**	**–**	**2.2**	**104.5**	**.1**	**3.8**	**13.1**	**123.6**
1983 Total	**–**	**–**	**2.9**	**109.1**	**.2**	**9.0**	**18.9**	**140.1**
1984 Total	**4.2**	**–**	**4.1**	**127.2**	**.3**	**11.8**	**24.3**	**167.7**
1985 Total	**5.9**	**–**	**4.5**	**152.0**	**.3**	**16.5**	**28.7**	**202.0**
1986 Total	**9.3**	**–**	**5.1**	**164.8**	**.5**	**26.1**	**26.9**	**223.6**
1987 Total	**6.6**	**–**	**5.5**	**182.8**	**.3**	**37.8**	**33.1**	**259.5**
1988 Total	**11.1**	**–**	**6.1**	**173.6**	**.2**	**38.7**	**29.9**	**248.5**
1989 Total	**11.7**	**–**	**4.0**	**183.7**	**.1**	**47.2**	**28.3**	**263.4**
1990 Total	**8.9**	**–**	**6.3**	**191.9**	**.4**	**52.8**	**32.9**	**284.3**
1991 Total	**9.7**	**–**	**5.4**	**205.8**	**.4**	**56.3**	**35.3**	**303.3**
1992 Total	**9.9**	**–**	**6.3**	**218.0**	**.6**	**56.4**	**33.8**	**315.2**
1993 Total	**7.7**	[E] **2.6**	**6.2**	**243.5**	**.4**	**58.1**	**34.3**	[E] **345.2**
1994 Total	**10.3**	[E] **14.2**	**5.0**	**253.8**	**.6**	**58.3**	**34.8**	[E] **366.7**
1995 Total	**11.9**	[E] **13.0**	**8.0**	**286.1**	**.5**	**64.0**	**35.3**	[E] **407.0**
1996 Total	**12.5**	[E] **14.3**	**8.3**	**293.2**	**.4**	**72.5**	**37.8**	[E] **426.4**
1997 Total	**13.3**	[E] **11.4**	[E] **11.0**	**318.0**	**.4**	**78.9**	**36.6**	[E] **456.2**
1998 Total	**14.3**	[E] **14.5**	[E] **11.2**	**326.9**	**.4**	**87.3**	**36.9**	[E] **477.2**
1999 January	.9	1.2	1.2	27.4	.0	7.6	3.3	[E] 40.7
February	.8	[E] .6	1.0	23.8	.0	7.0	3.3	[E] 35.7
March	1.4	1.0	1.1	27.7	.0	7.9	2.9	40.6
April	1.4	[E] 1.4	1.0	26.1	.0	7.9	2.7	[E] 39.2
May	1.2	[E] 1.5	1.2	24.0	.0	7.8	3.2	[E] 37.7
June	1.3	[E] 1.4	1.2	23.1	.0	7.3	3.3	[E] 36.2
July	1.3	[E] 1.4	1.2	28.2	.0	7.2	3.3	[E] 41.3
August	1.2	[E] 1.4	.9	29.1	.0	8.2	3.7	[E] 43.3
September	.9	[E] 1.3	1.1	26.5	.0	8.2	3.0	[E] 40.1
October	.7	[E] 1.3	.9	26.5	.0	8.7	3.2	[E] 40.6
November	1.2	[E] .9	1.2	27.5	(s)	8.7	3.1	[E] 41.4
December	1.3	[E] 1.1	1.1	27.6	(s)	8.2	3.1	[E] 41.1
Total	**13.5**	[E] **14.6**	**13.2**	**317.4**	**.1**	**94.6**	**38.2**	[E] **478.0**
2000 January	1.3	[E] .9	1.2	25.6	(s)	9.4	3.6	[E] 40.8
February	1.3	[E] .7	1.2	24.2	(s)	8.6	3.2	[E] 37.9
March	1.1	[E] 1.3	1.2	28.3	.1	8.9	3.1	[E] 42.9
April	.8	[E] 1.4	[E] 1.2	28.0	.1	8.3	2.6	[E] 41.6
May	.7	[E] 1.4	[E] 1.2	27.0	.1	8.8	3.1	[E] 41.5
June	1.2	[E] 1.4	1.2	25.9	.1	8.4	3.6	[E] 40.5
July	1.3	[E] 1.4	[E] 1.2	28.2	(s)	9.3	3.6	[E] 43.7
August	1.1	[E] 1.5	[E] 1.2	27.5	.1	9.8	3.5	[E] 43.4
September	1.2	[E] 1.4	1.2	24.5	(s)	9.6	2.9	[E] 39.6
October	1.4	[E] 1.4	1.4	25.5	.0	8.9	3.0	[E] 40.2
November	1.2	1.1	[E] 1.4	27.7	.0	8.8	2.8	[E] 41.8
December	1.1	[E] .7	[E] 1.6	27.3	.0	10.1	3.5	[E] 43.2
Total	**13.6**	[E] **14.7**	[E] **14.8**	**319.8**	**.4**	**108.9**	**38.5**	[E] **497.1**
2001 January	.8	[E] 1.0	1.6	25.0	.2	10.1	3.5	[E] 41.4
February	.6	[E] .7	1.6	25.0	.2	9.0	2.9	[E] 39.4
March	1.1	[E] .7	[E] 1.6	30.5	.1	9.0	2.6	[E] 44.6
April	1.0	[E] 1.1	[E] 1.6	27.4	.3	9.5	1.6	[E] 41.5
May	1.3	[E] 1.1	[E] 1.6	25.2	.2	9.1	2.5	[E] 39.7
June	1.3	[E] 1.1	[E] 1.6	24.5	.1	8.5	3.5	[E] 39.4
July	.8	1.4	[E] 1.6	26.7	.1	9.4	3.3	[E] 42.5
August	.5	[E] 1.5	[E] 1.6	28.4	.1	10.4	3.7	[E] 45.6
8-Month Total	**7.5**	[E] **8.7**	[E] **12.8**	**212.6**	**1.3**	**75.0**	**23.6**	[E] **334.1**
2000 8-Month Total	**8.8**	[E] **10.1**	**9.3**	**214.7**	**.4**	**71.5**	**26.3**	[E] **332.4**
1999 8-Month Total	**9.4**	[E] **9.9**	**8.8**	**209.4**	**.0**	**60.9**	**25.7**	[E] **314.7**

[a] South Africa possesses all of Africa's nuclear electricity generation.

[b] The total gross generation estimates for China are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and are published in the Energy Information Administration annual reports—**1993:** *World Nuclear Outlook 1994,* December 1994, Table 1. **1994:** *Nuclear Power Generation and Fuel Cycle Report 1996,* October 1996, Table 1. **1995 and 1996:** *Nuclear Power Generation and Fuel Cycle Report 1997,* September 1997, Table D4. **1997 forward:** Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

[c] Sum of available data only.

– =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Source: **China:** See footnote b. **All Other:** Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Sources for Tables 10.1a and 10.1b

United States—See Table 3.1a.

All Other Countries: Monthly Data
1999-forward: *Petroleum Intelligence Weekly, Oil and Gas Journal,* and other industry sources.

All Other Countries: Annual Data
1973-1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.
1980-1999: Office of Energy Markets and End Use, International Energy Database, December 2000.
2000: Average of monthly data.

World: Monthly Data
1999-forward: EIA, *International Petroleum Monthly,* sum of all countries' monthly data.

World: Annual Data
1973-1979: EIA, *International Energy Annual 1981,* Table 8.
1980-1999: Office of Energy Markets and End Use, International Energy Database, December 2000.
2000: 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.

In general, the annual thermal conversion factors presented in Tables A1 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.

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.

Table A1. Approximate Heat Content of Petroleum Products

(Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Natural Gasoline and Isopentane	4.620
Aviation Gasoline	5.048	Pentanes Plus	4.620
Butane	4.326	Petrochemical Feedstocks	
Butane Propane Mixture[a]	4.130	Naptha Less Than 401° F	5.248
Distillate Fuel Oil	5.825	Other Oils Equal to or Greater Than 401° F	5.825
Ethane	3.082	Still Gas	6.000
Ethane-Propane Mixture[b]	3.308	Petroleum Coke	6.024
Isobutane	3.974	Plant Condensate	5.418
Jet Fuel, Kerosene Type	5.670	Propane	3.836
Jet Fuel, Naphtha Type	5.355	Residual Fuel Oil	6.287
Kerosene	5.670	Road Oil	6.636
Lubricants	6.065	Special Naphthas	5.248
Motor Gasoline		Still Gas	6.000
Conventional[c]	5.253	Unfinished Oils	5.825
Reformulated[c]	5.150	Unfractionated Stream	5.418
Oxygenated[c]	5.150	Waxes	5.537
Fuel Ethanol[d]	3.539	Miscellaneous	5.796

[a] 60 percent butane and 40 percent propane.
[b] 70 percent ethane and 30 percent propane.
[c] See Table A3 for motor gasoline annual weighted averages beginning in 1994.
[d] Fuel ethanol, which is derived from agricultural feedstocks (primarily corn), is not a petroleum product but is blended into motor gasoline. Its gross heat content (3.539 million Btu per barrel) is used in *Monthly Energy Review* calculations; its net heat content (3.192 million Btu per barrel) is used in the Energy Information Administration's *Renewable Energy Annual* calculations.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

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

(Million Btu per Barrel)

	Crude Oil			Crude Oil and Products		Natural Gas Plant Liquids Production
	Production	Imports	Exports	Imports	Exports	
1973	5.800	5.817	5.800	5.897	5.752	4.049
1974	5.800	5.827	5.800	5.884	5.774	4.011
1975	5.800	5.821	5.800	5.858	5.748	3.984
1976	5.800	5.808	5.800	5.856	5.745	3.964
1977	5.800	5.810	5.800	5.834	5.797	3.941
1978	5.800	5.802	5.800	5.839	5.808	3.925
1979	5.800	5.810	5.800	5.810	5.832	3.955
1980	5.800	5.812	5.800	5.796	5.820	3.914
1981	5.800	5.818	5.800	5.775	5.821	3.930
1982	5.800	5.826	5.800	5.775	5.820	3.872
1983	5.800	5.825	5.800	5.774	5.800	3.839
1984	5.800	5.823	5.800	5.745	5.850	3.812
1985	5.800	5.832	5.800	5.736	5.814	3.815
1986	5.800	5.903	5.800	5.808	5.832	3.797
1987	5.800	5.901	5.800	5.820	5.858	3.804
1988	5.800	5.900	5.800	5.820	5.840	3.800
1989	5.800	5.906	5.800	5.833	5.857	3.826
1990	5.800	5.934	5.800	5.849	5.833	3.822
1991	5.800	5.948	5.800	5.873	5.823	3.807
1992	5.800	5.953	5.800	5.877	5.777	3.804
1993	5.800	5.954	5.800	5.883	5.779	3.801
1994	5.800	5.950	5.800	5.861	5.779	3.794
1995	5.800	5.938	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[a]	5.800	5.959	5.800	5.849	5.658	3.733

[a] Preliminary.

Note: Crude oil includes lease condensate.

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

Table A3. Approximate Heat Content of Petroleum Products, Weighted Averages

(Million Btu per Barrel)

	Consumption						Imports	Exports	Liquefied Petroleum Gases Consumption	Motor Gasoline Consumption
	Residential	Commercial	Industrial	Transportation	Electric Utilities	Total				
1973	5.205	5.749	5.568	5.395	6.245	5.515	5.983	5.752	3.746	5.253
1974	5.196	5.740	5.538	5.394	6.238	5.504	5.959	5.773	3.730	5.253
1975	5.192	5.704	5.528	5.392	6.250	5.494	5.935	5.747	3.715	5.253
1976	5.215	5.726	5.538	5.395	6.251	5.504	5.980	5.743	3.711	5.253
1977	5.213	5.733	5.555	5.400	6.249	5.518	5.908	5.796	3.677	5.253
1978	5.213	5.716	5.553	5.404	6.251	5.519	5.955	5.814	3.669	5.253
1979	5.298	5.769	5.418	5.428	6.258	5.494	5.811	5.864	3.680	5.253
1980	5.245	5.803	5.376	5.440	6.254	5.479	5.748	5.841	3.674	5.253
1981	5.191	5.751	5.313	5.432	6.258	5.448	5.659	5.837	3.643	5.253
1982	5.167	5.751	5.263	5.422	6.258	5.415	5.664	5.829	3.615	5.253
1983	5.022	5.642	5.273	5.415	6.255	5.406	5.677	5.800	3.614	5.253
1984	5.129	5.700	5.223	5.422	6.251	5.395	5.613	5.867	3.599	5.253
1985	5.115	5.660	5.221	5.423	6.247	5.387	5.572	5.819	3.603	5.253
1986	5.130	5.691	5.286	5.427	6.257	5.418	5.624	5.839	3.640	5.253
1987	5.095	5.659	5.253	5.430	6.249	5.403	5.599	5.860	3.659	5.253
1988	5.118	5.657	5.248	5.434	6.250	5.410	5.618	5.842	3.652	5.253
1989	5.057	5.615	5.233	5.440	6.241	5.410	5.641	5.869	3.683	5.253
1990	4.952	5.612	5.272	5.445	6.247	5.411	5.614	5.838	3.625	5.253
1991	4.912	5.591	5.192	5.442	6.248	5.384	5.636	5.827	3.614	5.253
1992	4.943	5.579	5.188	5.445	6.243	5.378	5.623	5.774	3.624	5.253
1993	4.943	5.573	5.200	5.438	6.241	5.379	5.620	5.777	3.606	5.253
1994	4.940	5.583	5.170	5.427	6.231	5.361	5.534	5.777	3.635	[b]5.230
1995	4.928	5.549	5.140	5.419	6.210	5.341	5.483	5.740	3.623	5.215
1996	4.871	5.497	5.136	5.421	6.212	5.336	5.468	5.728	3.613	5.216
1997	4.873	5.463	5.139	5.417	6.220	5.336	5.469	5.726	3.616	5.213
1998	4.844	5.447	5.156	5.416	6.220	5.349	5.462	5.710	3.614	5.212
1999	4.751	5.368	5.115	5.419	6.208	5.328	5.421	5.684	3.616	5.211
2000	4.760	5.395	5.089	5.427	6.193	5.326	5.432	5.651	3.607	5.210
2001[a]	4.760	5.395	5.089	5.427	6.193	5.326	5.432	5.651	3.607	5.210

[a] Preliminary.
[b] Beginning in 1994, the single constant factor is replaced with a quantity-weighted average of motor gasoline's major components. See Table A1.
Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A4. Approximate Heat Content of Natural Gas

(Btu per Cubic Foot)

	Production		Consumption				
	Dry	Marketed	Sectors Other Than Electric Utilities	Electric Utilities	Total	Imports	Exports
1973	1,021	1,093	1,020	1,024	1,021	1,026	1,023
1974	1,024	1,097	1,024	1,022	1,024	1,027	1,016
1975	1,021	1,095	1,020	1,026	1,021	1,026	1,014
1976	1,020	1,093	1,019	1,023	1,020	1,025	1,013
1977	1,021	1,093	1,019	1,029	1,021	1,026	1,013
1978	1,019	1,088	1,016	1,034	1,019	1,030	1,013
1979	1,021	1,092	1,018	1,035	1,021	1,037	1,013
1980	1,026	1,098	1,024	1,035	1,026	1,022	1,013
1981	1,027	1,103	1,025	1,035	1,027	1,014	1,011
1982	1,028	1,107	1,026	1,036	1,028	1,018	1,011
1983	1,031	1,115	1,031	1,030	1,031	1,024	1,010
1984	1,031	1,109	1,030	1,035	1,031	1,005	1,010
1985	1,032	1,112	1,031	1,038	1,032	1,002	1,011
1986	1,030	1,110	1,029	1,034	1,030	997	1,008
1987	1,031	1,112	1,031	1,032	1,031	999	1,011
1988	1,029	1,109	1,029	1,028	1,029	1,002	1,018
1989	1,031	1,107	1,031	1,030	1,031	1,004	1,019
1990	1,031	1,105	1,030	1,034	1,031	1,012	1,018
1991	1,030	1,108	1,031	1,024	1,030	1,014	1,022
1992	1,030	1,110	1,031	1,022	1,030	1,011	1,018
1993	1,027	1,106	1,028	1,022	1,027	1,020	1,016
1994	1,028	1,105	1,029	1,022	1,028	1,022	1,011
1995	1,027	1,106	1,027	1,025	1,027	1,021	1,011
1996	1,027	1,109	1,027	1,024	1,027	1,022	1,011
1997	1,026	1,107	1,027	1,019	1,026	1,023	1,011
1998	1,031	1,110	1,033	1,022	1,031	1,023	1,011
1999	1,027	1,111	1,028	1,019	1,027	1,022	1,006
2000[a]	1,027	1,111	1,028	1,019	1,027	1,022	1,006
2001[a]	1,027	1,111	1,028	1,019	1,027	1,022	1,006

[a] Preliminary.

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			Electric Power Sector					
			Industrial							
	Production	Residential and Commercial	Coke Plants	Other[a]	Electric Utilities	Other Power Producers[b]	Total	Imports	Exports	Imports and Exports
1973	23.376	22.831	26.780	22.586	22.246	NA	23.057	25.000	26.596	24.800
1974	23.072	22.479	26.778	22.419	21.781	NA	22.677	25.000	26.700	24.800
1975	22.897	22.261	26.782	22.436	21.642	NA	22.506	25.000	26.562	24.800
1976	22.855	22.774	26.781	22.530	21.679	NA	22.498	25.000	26.601	24.800
1977	22.597	22.919	26.787	22.322	21.508	NA	22.265	25.000	26.548	24.800
1978	22.248	22.466	26.789	22.207	21.275	NA	22.017	25.000	26.478	24.800
1979	22.454	22.242	26.788	22.452	21.364	NA	22.100	25.000	26.548	24.800
1980	22.415	22.543	26.790	22.690	21.295	NA	21.947	25.000	26.384	24.800
1981	22.308	22.474	26.794	22.585	21.085	NA	21.713	25.000	26.160	24.800
1982	22.239	22.695	26.797	22.712	21.194	NA	21.674	25.000	26.223	24.800
1983	22.052	22.775	26.798	22.691	21.133	NA	21.576	25.000	26.291	24.800
1984	22.010	22.844	26.799	22.543	21.101	NA	21.573	25.000	26.402	24.800
1985	21.870	22.646	26.798	22.020	20.959	NA	21.366	25.000	26.307	24.800
1986	21.913	22.947	26.798	22.198	21.084	NA	21.462	25.000	26.292	24.800
1987	21.922	23.404	26.799	22.381	21.136	NA	21.517	25.000	26.291	24.800
1988	21.823	23.571	26.799	22.360	20.900	NA	21.328	25.000	26.299	24.800
1989	21.765	23.650	26.800	22.347	20.848	21.474	21.268	25.000	26.160	24.800
1990	21.822	23.137	26.799	22.457	20.929	20.539	21.324	25.000	26.202	24.800
1991	21.681	23.114	26.799	22.460	20.755	19.933	21.131	25.000	26.188	24.800
1992	21.682	23.105	26.799	22.250	20.787	18.983	21.107	25.000	26.161	24.800
1993	21.418	22.994	26.800	22.123	20.639	19.040	20.947	25.000	26.335	24.800
1994	21.394	23.112	26.800	22.068	20.673	19.485	20.979	25.000	26.329	24.800
1995	21.326	23.118	26.800	21.950	20.495	19.471	20.815	25.000	26.180	24.800
1996	21.322	23.011	26.800	22.105	20.525	19.427	20.826	25.000	26.174	24.800
1997	21.296	22.494	26.800	22.172	20.548	19.596	20.836	25.000	26.251	24.800
1998	21.418	22.620	27.426	23.164	20.513	20.143	20.868	25.000	26.800	24.800
1999	21.070	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.081	24.800
2000[c]	21.072	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.117	24.800
2001[c]	21.072	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.117	24.800

[a] Includes transportation.
[b] Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors.
[c] Preliminary.
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]	Nuclear Steam-Electric Plants	Geothermal Energy Plants[b]	Electricity Consumption
1973	10,389	10,903	21,674	3,412
1974	10,442	11,161	21,674	3,412
1975	10,406	11,013	21,611	3,412
1976	10,373	11,047	21,611	3,412
1977	10,435	10,769	21,611	3,412
1978	10,361	10,941	21,611	3,412
1979	10,353	10,879	21,545	3,412
1980	10,388	10,908	21,639	3,412
1981	10,453	11,030	21,639	3,412
1982	10,454	11,073	21,629	3,412
1983	10,520	10,905	21,290	3,412
1984	10,440	10,843	21,303	3,412
1985	10,447	10,813	21,263	3,412
1986	10,446	10,799	21,263	3,412
1987	10,419	10,776	21,263	3,412
1988	10,324	10,743	21,096	3,412
1989	10,432	10,724	21,096	3,412
1990	10,402	10,680	21,096	3,412
1991	10,436	10,740	20,997	3,412
1992	10,342	10,678	20,914	3,412
1993	10,309	10,682	20,914	3,412
1994	10,316	10,676	20,914	3,412
1995	10,312	10,658	20,914	3,412
1996	10,340	10,623	20,960	3,412
1997	10,357	10,623	20,960	3,412
1998	10,346	10,623	21,017	3,412
1999	10,346	10,623	21,017	3,412
2000[c]	10,346	10,623	21,017	3,412
2001[c]	10,346	10,623	21,017	3,412

[a] Used as the thermal conversion factor for hydroelectric power generation, and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

[b] Used as the thermal conversion factor for geothermal energy consumed at electric utilities.

[c] Preliminary.

Source: See "Thermal Conversion Factor Source Documentation," which follows this table.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Aviation Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.048 million Btu per barrel for "Gasoline, Aviation" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985,* a 1968 release of historical and projected statistics.

Butane. EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Butane-Propane Mixture. EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See **Butane** and **Propane**.

Crude Oil, Exports. Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See **Crude Oil and Lease Condensate, Production**.

Crude Oil, Imports. Calculated annually by EIA by weighting the thermal conversion factor of each type of crude oil imported by the quantity imported. Thermal conversion factors for each type were calculated on a foreign country basis through 1996, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977, or for 1997 and later, by determining the weighted average API gravity from the Form EIA-814, and converting average API gravity to average Btu content by using National Bureau of Standards, Miscellaneous Publication No. 97, *Thermal Properties of Petroleum Products,* 1933.

Crude Oil and Lease Condensate, Production. EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Crude Oil and Petroleum Products, Exports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported and crude oil exported weighted by the quantity of each petroleum product and crude oil exported. See **Crude Oil, Exports** and **Petroleum Products, Exports**.

Crude Oil and Petroleum Products, Imports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product and each type of crude oil imported weighted by the quantity of each petroleum product and each type of crude oil imported. See **Crude Oil, Imports** and **Petroleum Products, Imports**.

Distillate Fuel Oil. EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950."

Ethane. EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Ethane-Propane Mixture. EIA calculated 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

Fuel Ethanol Blended Into Motor Gasoline. EIA adopted the thermal conversion factor of 3.539 million Btu per barrel published in "Oxygenate Flexibility for Future Fuels," a paper presented by William J. Piel of the ARCO Chemical Company at the National Conference on Reformulated Gasolines and Clean Air Act Implementation, Washington, D.C., October 1991.

Isobutane. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Jet Fuel, Kerosene Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985,* a 1968 release of historical and projected statistics.

Jet Fuel, Naphtha Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985,* a 1968 release of historical and projected statistics.

Kerosene. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Liquefied Petroleum Gases. • 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Crude Petroleum and Petroleum Products, 1956,* Table 4 footnote, constant value of 4.011 million Btu per barrel. • 1967 forward: Calculated annually by EIA as a weighted average by multiplying the quantity consumed of each of the component products by each product's conversion factor, listed in this appendix, and dividing the sum of those heat contents by the sum of the quantities consumed.

The component products are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. Quantities consumed are from: 1967 through 1980: EIA, Energy Data Reports, *Petroleum Statement, Annual,* Table 1. 1981 forward: EIA, *Petroleum Supply Annual,* Table 2.

Lubricants. EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Miscellaneous Products. EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Motor Gasoline. • 1960 through 1993: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" as published by the Texas Eastern Transmission Corporation in Appendix V of Competition and Growth in American Energy Markets 1947-1985, a 1968 release of historical and projected statistics. • 1994 forward: EIA calculated national annual quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (shown in appendix Table C1). The factor for conventional motor gasoline is 5.253 million Btu per barrel, as used for previous years. The factors for reformulated and oxygenated gasolines, both currently 5.150 million Btu per barrel, are based on data published in the Environmental Protection Agency, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory report EPA 420-F-95-003, Fuel Economy Impact Analysis of Reformulated Gasoline.

Natural Gas Plant Liquids, Production. Calculated annually by EIA as the average of the thermal conversion factors of each natural gas plant liquid produced weighted by the quantity of each natural gas plant liquid produced.

Natural Gasoline. EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Pentanes Plus. EIA assumed the thermal conversion factor to be 4.620 million Btu per barrel or equal to that for natural gasoline. See **Natural Gasoline**.

Petrochemical Feedstocks, Naphtha Less Than 401 Degrees Fahrenheit. Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphthas. See **Special Naphthas.**

Petrochemical Feedstocks, Oils Equal to or Greater Than 401 Degrees Fahrenheit. Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

Petrochemical Feedstocks, Still Gas. Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See **Still Gas**.

Petroleum Coke. EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30.120 million Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

Petroleum Products, Total Consumption. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed, weighted by the quantity of each petroleum product consumed.

Petroleum Products, Consumption by Electric Utilities. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.*

Petroleum Products, Consumption by Industrial Users. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.*

Petroleum Products, Consumption by Residential and Commercial Users. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Consumption by Transportation Users. Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

Petroleum Products, Exports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product, weighted by the quantity of each petroleum product exported.

Petroleum Products, Imports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported, weighted by the quantity of each petroleum product imported.

Plant Condensate. Estimated to be 5.418 million Btu per barrel by EIA from data provided by McClanahan Consultants, Inc., Houston, Texas.

Propane. EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Residual Fuel Oil. EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Road Oil. EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel, which was assumed to be equal to that of asphalt (see **Asphalt**) and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970.*

Special Naphthas. EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel, which was assumed to be equal to that of total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement, Annual, 1970.*

Still Gas. EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel and first published in the *Petroleum Statement, Annual, 1970*.

Unfinished Oils. EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see **Distillate Fuel Oil**) and first published in the *Annual Report to Congress, Volume 3, 1977.*

Unfractionated Stream. EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see **Plant Condensate**) and first published in the *Annual Report to Congress, Volume 2, 1981.*

Waxes. EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Approximate Heat Content of Natural Gas

Natural Gas, Total Consumption. 1973-1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. The heat content and quantity consumed are from Form EIA-176. Published sources are: 1980-1989: EIA, *Natural Gas Annual 1992, Volume 2,* Table 15. 1990-1992: EIA, *Natural Gas Annual 1992, Volume 2,* Table 16. 1993 forward: 1992 value used as an estimate.

Natural Gas, Consumption by Electric Utilities. Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from Form FERC-423 and predecessor forms.

Natural Gas, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed at electric utilities by the quantity of all natural gas consumed less the quantity of natural gas consumed at electric utilities. Data are from Forms EIA-176, FERC-423, EIA-759, and predecessor forms.

Natural Gas, Exports. Calculated annually by EIA by dividing the heat content of exported natural gas by the quantity of natural gas exported, both reported on Form FPC-14.

Natural Gas, Imports. Calculated annually by EIA by dividing the heat content of imported natural gas by the quantity of natural gas imported, both reported on Form FPC-14.

Natural Gas Production, Dry. Assumed by EIA to be equal to the thermal conversion factor for the consumption of dry natural gas. See **Natural Gas Total Consumption**.

Natural Gas Production, Marketed (Wet). Calculated annually by EIA by adding the heat content of dry natural gas production and the total heat content of natural gas plant liquids production and dividing this sum by the total quantity of marketed (wet) natural gas production.

Approximate Heat Content of Coal and Coal Coke

Coal, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) consumption by the total tonnage.

Coal, Consumption by Electric Utilities. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) received at electric utilities by the sum of the tonnage received.

Coal, Consumption by Other Power Producers. Calculated annually by dividing the total heat content of coal (including anthracite culm and waste coal) consumed by other power producers by their total consumption tonnage.

Coal, Consumption by the Electric Power Sector. Calculated annually by dividing the total heat content of coal (including anthracite culm and waste coal) by total consumption tonnage of the electric power sector.

Coal, Consumption by End-Use Sectors. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) consumed by the end-use sectors by the sum of the total tonnage.

Coal, Exports. Calculated annually by EIA by dividing the sum of the heat content of coal exported by the sum of the total tonnage.

Coal, Imports. Calculated annually by EIA by dividing the sum of the heat content of coal imported by the sum of the total tonnage.

Coal, Production. Calculated annually by EIA by dividing the sum of the total heat content of coal (including some anthracite culm) produced by the sum of the total tonnage.

Coal Coke, Imports and Exports. EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

Approximate Heat Rates for Electricity

Fossil-Fueled Steam-Electric Plant Generation. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA uses data from Form EIA-767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. 1973-1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

Geothermal Energy Plant Generation. 1973-1981: Calculated annually by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

Nuclear Steam-Electric Plant Generation. 1973-1991: Calculated annually by EIA by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation are reported on Form FERC-1, "Annual Report of Major Electric Utilities, Licenses, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. The factors, beginning with 1982 data, are published in the following EIA reports—1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982,* page 215. 1983-1991: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1992 forward: Calculated annually by EIA by dividing the total heat content of the steam leaving the nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in Nuclear Regulatory Commission, *Licensed Operating Reactors—Status Summary Report.*

Appendix B. Metric and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94–168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100–418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. customary units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

Table B1. Metric Conversion Factors

Type of Unit	U.S. Unit	*multiplied by*	Conversion Factor	*equals*	Metric Unit
Mass	short tons (2,000 lb)	x	0.907 184 7	=	metric tons (t)
	long tons	x	1.016 047	=	metric tons (t)
	pounds (lb)	x	.453 592 37[a]	=	kilograms (kg)
	pounds uranium oxide (lb U_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 (^oF)	x	5/9 (after subtracting 32)[a,c]	=	degrees Celsius (^oC)
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 (^oC) to degrees Fahrenheit (^oF) 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.

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9–11, 13, and 16. • National Institute of Standards and Technology, Special Publications 330, 811, and 814. • American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268–1992, pp. 28 and 29.

Table B2. Metric Prefixes

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
10^{1}	deka	da	10^{-1}	deci	d
10^{2}	hecto	h	10^{-2}	centi	c
10^{3}	kilo	k	10^{-3}	milli	m
10^{6}	mega	M	10^{-6}	micro	
10^{9}	giga	G	10^{-9}	nano	n
10^{12}	tera	T	10^{-12}	pico	p
10^{15}	peta	P	10^{-15}	femto	f
10^{18}	exa	E	10^{-18}	atto	a
10^{21}	zetta	Z	10^{-21}	zepto	z
10^{24}	yotta	Y	10^{-24}	yocto	y

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

Table B3. Other Physical Conversion Factors

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

Appendix C. Carbon Dioxide Emission Factors for Coal

Table C1 presents U.S. average carbon dioxide emission factors for coal by sector. The factors measure the emissions produced during the combustion of coal and were derived by the Energy Information Administration (EIA) from 5,426 sample analyses in EIA's Coal Analysis File. The factors are ratios of the carbon dioxide emitted to the heat content of the coal burned, assuming complete combustion. Factors vary according to the rank and geographic origin of the coal. Sectoral factors reflect the rank and origin of the coal consumed in the sector.

Table C1. Average Carbon Dioxide Emission Factors for Coal by Sector
(Pounds of Carbon Dioxide per Million Btu)

Year	Residential and Commercial	Industrial		Electric Utilities	U.S. Average[b]
		Coke Plants[a]	Other Coal		
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	209.5	206.2	206.8	207.6	207.4
1991	210.2	206.2	206.9	207.7	207.5
1992	211.2	206.2	207.1	207.7	207.6
1993	209.9	206.2	207.0	207.8	207.7
1994	209.8	206.3	207.2	207.9	207.8
1995	210.2	206.4	207.2	208.1	207.9
1996	209.5	206.5	207.0	208.1	208.0
1997	210.2	206.6	207.2	208.2	208.0
1998	209.7	206.7	206.9	204.4	206.9
1999	208.8	206.7	207.0	204.6	204.8

[a]No allowances have been made for carbon retained in non-energy coal chemical byproducts from the carbonization process.
[b]Weighted average. The weights used are consumption values by sector.
Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Appendix D. List of Features

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are several categories of features on the list: "Energy Plugs" are 1-page descriptions of recently released EIA products. "Articles" cover a wide range of energy-related subjects in depth; "Highlights" summarize the most important information presented in the subject Energy Information Administration (EIA) report; "Energy Previews" provide brief overviews of EIA preliminary energy data on a given topic; "EIA Data News" items present information on recent changes in the scope, design, methodology, and findings of EIA's energy surveys and databases; and "Energy Snapshots" use graphics to set off key data from EIA survey reports.

Feature	Cover Date
2001	
Energy Plug: Energy Education Resources	January 2001
Energy Plug: *Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand*	February 2001
Energy Plug: *Performance Profiles of Major Energy Producers 1999*	February 2001
Energy Plug: *Renewable Energy 2000: Issues and Trends*	March 2001
Energy Plug: *Summer 2001 Motor Gasoline Outlook*	April 2001
Energy Plug: *International Energy Outlook 2001*	April 2001
Energy Plug: *State Energy Data Report 1999: Consumption Estimates*	May 2001
Energy Plug: *The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply*	May 2001
Energy Plug: Energy Market Maps	June 2001
Energy Plug: *Coal Industry Annual 1999*	July 2001
Energy Plug: *Annual Energy Review 2000*	August 2001
Energy Plug: *World Energy "Areas To Watch"*	August 2001
Energy Plug: *Electric Power Annual 2000, Volume I*	September 2001
Energy Plug: *Winter Fuels Outlook: 2001-2002*	October 2001
Energy Plug: *Fuel Oil and Kerosene Sales 2000*	October 2001
Energy Plug: *The Majors' Shift to Natural Gas*	October 2001
2000	
Energy Plug: *Inventory of Nonutility Electric Power Plants in the United States 1998*	January 2000
Energy Plug: *The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations*	January 2000
Energy Plug: *International Energy Annual 1998*	February 2000
Energy Plug: *Performance Profiles of Major Energy Producers 1998*	February 2000
Energy Plug: OPEC Revenues Fact Sheet	March 2000
Energy Plug: *Country Analysis Brief: Iran*	March 2000
Energy Plug: *International Energy Outlook 2000*	April 2000
Energy Plug: *Outlook for Biomass Ethanol Production and Demand*	April 2000
Energy Plug: *Summer 2000 Motor Gasoline Outlook*	May 2000
Energy Plug: *State Energy Price and Expenditure Report 1997*	June 2000
Energy Plug: *Energy Consumption and Renewable Energy Development Potential on Indian Lands*	June 2000
Energy Plug: *Annual Energy Review 1999*	July 2000
Energy Plug: *A Primer on Gasoline Prices*	August 2000
Energy Plug: *Long-Term World Oil Supply: A Resource Base/Production Path Analysis*	August 2000
Energy Plug: *Propane Prices: What Consumers Should Know*	October 2000
Energy Plug: *Winter Fuels Outlook: 2000-2001*	October 2000
Energy Plug: *Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report*	October 2000
Energy Plug: *Residential Natural Gas Prices: What Consumers Should Know*	November 2000
Energy Plug: *The Changing Structure of the Electric Power Industry 2000: An Update*	November 2000
Energy Plug: *Annual Energy Outlook 2001 Early Release*	December 2000
Energy Plug: *Residential Heating Oil Prices: What Consumers Should Know*	December 2000

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

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Energy Plug: *Performance Profiles of Major Energy Producers 1996* . . . . . January 1998
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Energy Plug: *The Changing Structure of the Electric Power Industry: Selected Issues, 1998* . . . . . June 1998
Energy Plug: *Annual Energy Review 1997*. . . . . July 1998
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Energy Plug: 25th Anniversary of the 1973 Oil Embargo: Energy Trends Since the First Major U.S. Energy Crisis . . . . . September 1998
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Energy Plug: *Annual Energy Outlook 1997* . . . . . January 1997
Energy Plug: *The Changing Structure of the Electric Power Industry: An Update* . . . . . January 1997
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Energy Plug: *The Effects of Title IV of the Clean Air Act Amendments of 1990 on Electric Utilities: An Update* . . . . . March 1997
Energy Plug: *International Energy Outlook 1997* . . . . . April 1997
Energy Plug: *Restructuring Energy Industries: Lessons From Natural Gas* . . . . . May 1997
Energy Plug: *An Analysis of U.S. Propane Markets: Winter 1996-97*. . . . . June 1997
Energy Plug: *State Energy Price and Expenditure Report 1994* . . . . . June 1997
Energy Plug: *Annual Energy Review 1996*. . . . . July 1997
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Energy Plug: *Oil and Gas Resources of the West Siberian Basin, Russia* . . . . . December 1997

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Energy Snapshot: Describing Current and Potential Markets for Alternative-Fuel Vehicles . . . . . March 1996
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Energy Plug: *Residential Lighting: Use and Potential Savings* . . . August 1996
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Energy Plug: *Emissions of Greenhouse Gases in the United States 1995* . . . October 1996
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Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data . . . December 1995

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Article: Carbon Dioxide Emission Factors for Coal: A Summary Waste-to-Energy Industry . . . September 1994
EIA Data News: Data Collection on Alternative-Fuel Vehicles . . . October 1994
Highlights: *Energy End-Use Intensities in Commercial Buildings* . . . October 1994
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Article: Comparability of Supply- and Consumption-Derived Estimates of Manufacturing Energy Consumption . . . October 1994
Energy Preview: Housing Characteristics 1993, Selected Preliminary Estimates . . . November 1994
Energy Preview: Propane-Provider Fleet Survey 1993, Preliminary Estimates . . . November 1994
Energy Preview: Atlanta Private Fleet Survey 1994, Preliminary Estimates . . . December 1994

1993

Energy Preview: Residential Transportation Energy Consumption Survey, Preliminary Estimates, 1991 . . . January 1993
EIA Data News: Natural Gas Transported for the Account of Others . . . February 1993
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Highlights: *Household Energy Consumption and Expenditures 1990* . . . August 1993
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Energy Preview: Manufacturing Energy Consumption Survey, Preliminary Estimates, 1991 . . . September 1993
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1992

Energy Preview: Residential Energy Consumption and Expenditures Preliminary Estimates, 1990 . . . April 1992
EIA Data News: Oxygenate Data Collection Begins . . . May 1992
Highlights: *Lighting in Commercial Buildings* . . . June 1992
Article: Demand, Supply, and Price Outlook for Oxygenated Gasoline, Winter 1992-1993 . . . August 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management . . . September 1992

1992 (Continued

EIA Data News: EIA Statistics on Nonutility Power Producers . . . October 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management . . . November 1992
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1991

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1989

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Highlights: *Household Energy Consumption and Expenditures 1987, Part 1: National Data* . . . November 1989
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1988

Article: Measures of Energy Consumption, Expenditures, and Prices . . . May 1988
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Highlights: *Manufacturing Energy Consumption Survey: Fuel Switching, 1985* . . . November 1988
Article: Increased Refining Income Led U.S. Energy Industry Financial Recovery in 1988 . . . December 1988

1987

Article: Manufacturing Sector Energy Consumption, 1985 Provisional Estimates . . . January 1987
Highlights: *Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data* . . . April 1987
Highlights: *Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data* . . . May 1987
Article: U.S. Energy Industry Financial Developments, 1987 Second Quarter . . . June 1987
Article: End-Use Consumption of Residential Energy . . . July 1987
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1986

Article: State Motor Gasoline Taxes, 1960-1985 . . . March 1986
Article: The Impact of Low Oil Prices on Electric Utility Fuel Choice . . . June 1986
Article: U.S. Energy Industry Financial Developments, 1986 Second Quarter . . . June 1986
Highlights: *International Energy Annual 1985* . . . September 1986
Article: U.S. Energy Industry Financial Developments, 1986 . . . December 1986

1985

Highlights: *Annual Energy Review 1984* . . . January 1985
Highlights: *Performance Profiles of Major Energy Producers 1983* . . . February 1985
Article: Estimating Well Completions . . . March 1985
Highlights: *State Energy Price and Expenditure Report 1970-1982* . . . March 1985
Highlights: *State Energy Data Report, Consumption Estimates, 1960-1983* . . . April 1985
Highlights: *Annual Outlook for U.S. Electric Power 1985* . . . June 1985
Highlights: *Short-Term Energy Outlook, Volume 1, October 1985* . . . August 1985
Highlights: Analysis of Growth in Electricity Demand, 1980-1984 . . . August 1985
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1984

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1983

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1982

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1981

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1980

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Article: Energy From Urban Waste . . . August 1980
Article: Natural Gas Liquids: Revisions to 1979 Data . . . October 1980
Article: EIA Weekly Petroleum Data: Data Collection and Methods of Estimation . . . November 1980
Article: The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration . . . December 1980

1979

Article: The Energy Requirements of U.S. Agriculture . . . July 1979
Article: Three Mile Island—Possible Regulatory Responses and Their Impacts on the Nation's Short-Term Electric Utility Fuel Outlook . . . October 1979
Article: Reduction in Natural Gas Requirements Due to Fuel Switching . . . December 1979

1978

Article: Short-Term Petroleum Supply and Demand . . . May 1978

1977

Article: Crude Oil Entitlements Program . . . January 1977
Article: Motor Gasoline Supply and Demand . . . July 1977

1976

Article: Curtailments of Natural Gas Service . . . January 1976
Article: Home Heating Conservation Alternatives and the Solar Collector Industry . . . March 1976
Article: Trends in United States Petroleum Imports . . . September 1976

1975

Article: Energy Consumption . . . March 1975
Article: Nuclear Power . . . April 1975
Article: The Price of Crude Oil . . . June 1975
Article: U.S. Coal Resources and Reserves . . . July 1975
Article: Propane—A National Energy Resource . . . September 1975
Article: Short-Term Energy Supply and Demand Forecasting at FEA . . . October 1975

Appendix E. Renewable Energy

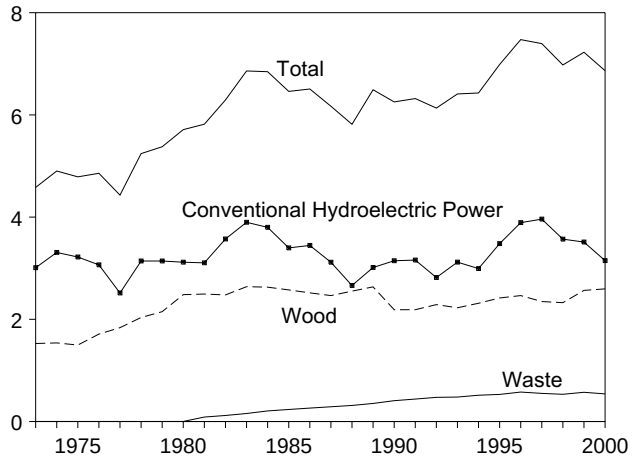
Beginning with the January 2001 issue of the *Monthly Energy Review* (*MER*), previously uncounted portions of renewable energy data (including renewable nonutility generation and all nonelectric energy) were fully incorporated into the *MER* summaries in Sections 1 and 2. The addition of these data into the summaries raised the U.S. energy consumption total by 3 to 4 quadrillion Btu per year in recent years.

The tables presented in this appendix organize and summarize the renewable energy data and estimates that are now used in Sections 1 and 2 summary tables. Caution is warranted in using some of the monthly values; in particular, monthly data on Table E2 are not available from data collection systems but are estimated instead from daily rates of the annual data.

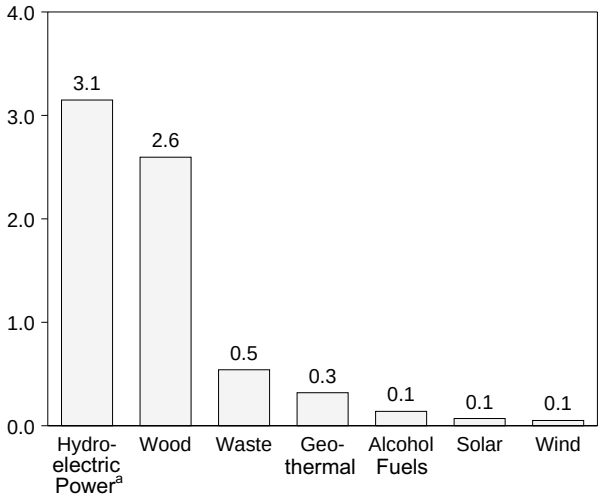
Figure E1. Renewable Energy Consumption

(Quadrillion Btu, Except as Noted)

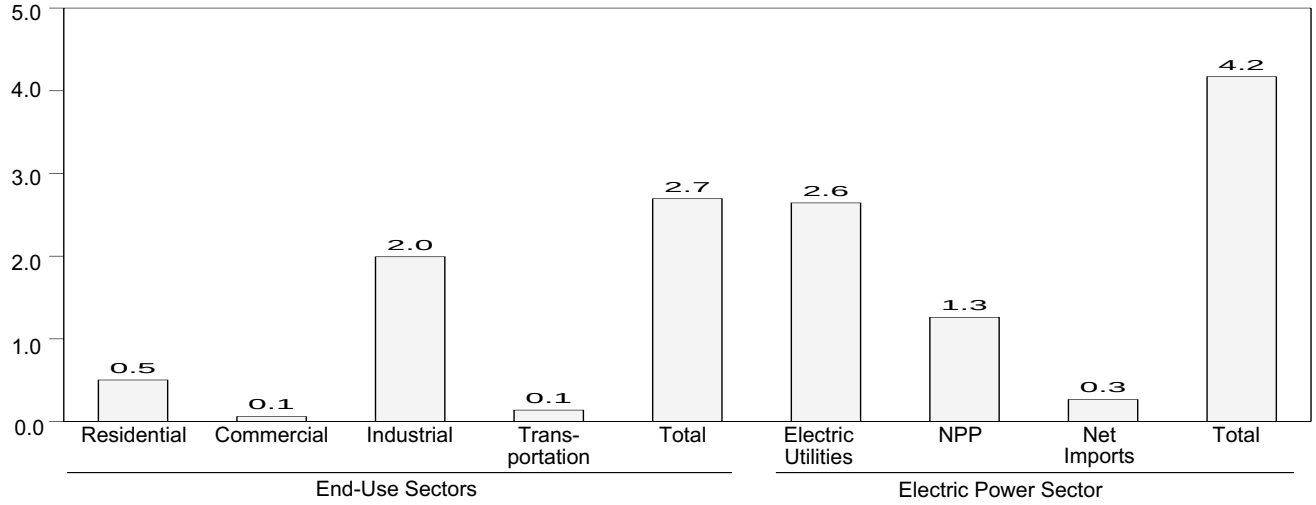
Total and Major Sources, 1973-2000



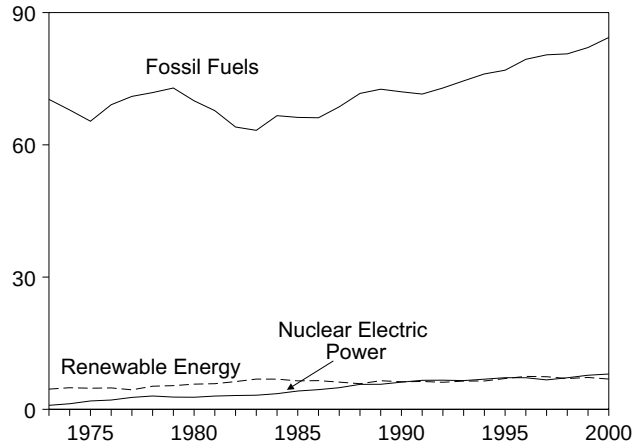
By Source, 2000



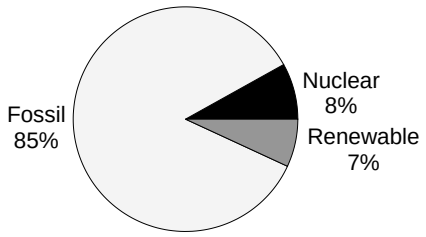
By Sector, 2000



Compared With Other Resources, 1973-2000



As Share of Total Consumption, 2000



NPP=Nonutility Power Producers.
[a]Conventional
Sources: Tables 1.4 and E1-E3b.

Table E1. Renewable Energy Consumption by Source

(Trillion Btu)

	Conventional Hydroelectric Power[a,b]	Wood[c]	Waste[d]	Alcohol Fuels[e]	Geothermal[f]	Solar[g]	Wind[h]	Total
1973 Total	**3,010**	**1,527**	**2**	**NA**	**43**	**NA**	**NA**	**4,581**
1974 Total	**3,309**	**1,538**	**2**	**NA**	**53**	**NA**	**NA**	**4,902**
1975 Total	**3,219**	**1,497**	**2**	**NA**	**70**	**NA**	**NA**	**4,788**
1976 Total	**3,066**	**1,711**	**2**	**NA**	**78**	**NA**	**NA**	**4,857**
1977 Total	**2,515**	**1,837**	**2**	**NA**	**77**	**NA**	**NA**	**4,431**
1978 Total	**3,141**	**2,036**	**1**	**NA**	**64**	**NA**	**NA**	**5,243**
1979 Total	**3,141**	**2,150**	**2**	**NA**	**84**	**NA**	**NA**	**5,377**
1980 Total	E **3,118**	**2,483**	**2**	**NA**	**110**	**NA**	**NA**	**5,712**
1981 Total	E **3,105**	**2,495**	**88**	**7**	**123**	**NA**	**NA**	**5,818**
1982 Total	E **3,572**	**2,477**	**119**	**19**	**105**	**NA**	**NA**	**6,292**
1983 Total	E **3,899**	**2,639**	**157**	**35**	**129**	**NA**	**(s)**	**6,860**
1984 Total	E **3,800**	**2,629**	**208**	**43**	**165**	**(s)**	**(s)**	**6,845**
1985 Total	E **3,398**	E **2,576**	E **236**	E **52**	**198**	**(s)**	**(s)**	**6,460**
1986 Total	E **3,446**	E **2,518**	E **263**	E **60**	**219**	**(s)**	**(s)**	**6,507**
1987 Total	E **3,117**	E **2,465**	**289**	**69**	**229**	**(s)**	**(s)**	**6,170**
1988 Total	E **2,662**	E **2,552**	E **315**	E **70**	**217**	**(s)**	**(s)**	**5,817**
1989 Total	**3,014**	E **2,635**	**354**	**71**	**334**	**59**	**24**	**6,492**
1990 Total	**3,146**	E **2,188**	**408**	**63**	**355**	**63**	**32**	**6,254**
1991 Total	**3,159**	E **2,188**	**440**	**73**	**363**	**66**	**32**	**6,320**
1992 Total	**2,818**	E **2,288**	**473**	**83**	**374**	**67**	**30**	**6,134**
1993 Total	**3,119**	**2,226**	**479**	**97**	**387**	**71**	**31**	**6,410**
1994 Total	**2,993**	**2,314**	**515**	**109**	**391**	**72**	**36**	**6,429**
1995 Total	**3,481**	**2,418**	**531**	**117**	**333**	**73**	**33**	**6,987**
1996 Total	**3,892**	**2,465**	**577**	**84**	**346**	**75**	**35**	**7,473**
1997 Total	**3,961**	**2,348**	**551**	**106**	**322**	**74**	**33**	**7,395**
1998 Total	**3,569**	**2,326**	**533**	**117**	**328**	**74**	**31**	**6,977**
1999 January	E 306	E 220	E 49	11	E 25	E 6	2	619
February	E 302	E 196	E 45	9	E 22	E 5	2	581
March	E 337	E 216	E 48	10	E 25	E 6	3	643
April	E 303	E 210	E 48	9	E 24	E 6	4	603
May	E 317	E 216	E 49	9	E 25	E 6	6	628
June	E 328	E 209	E 48	10	E 29	E 7	6	636
July	E 320	E 220	E 49	8	E 31	E 7	6	641
August	E 282	E 219	E 49	10	E 32	E 7	5	603
September	E 243	E 218	E 47	10	E 31	E 6	4	558
October	E 231	E 217	E 46	12	E 32	E 6	3	547
November	E 243	E 209	E 47	12	E 30	E 6	2	549
December	E 300	E 216	E 49	14	E 30	E 6	3	617
Total	**3,512**	**2,566**	E **572**	**122**	**335**	**73**	**46**	**7,226**
2000 January	E 286	E 220	E 45	12	E 27	E 6	4	599
February	E 257	E 207	E 43	9	E 24	E 5	4	549
March	E 298	E 220	E 46	12	E 24	E 6	4	610
April	E 315	E 213	E 44	10	E 25	E 6	5	618
May	E 309	E 217	E 46	12	E 26	E 6	5	620
June	E 286	E 212	E 45	7	E 26	E 6	4	586
July	E 283	E 222	E 46	13	E 27	E 6	4	602
August	E 265	E 220	E 46	12	E 28	E 6	4	581
September	E 217	E 213	E 44	11	E 27	E 6	4	522
October	E 196	E 220	E 46	13	E 28	E 6	5	514
November	E 221	E 213	E 45	13	E 28	E 6	4	529
December	E 217	E 219	E 45	14	E 29	E 6	4	534
Total	E **3,149**	E **2,596**	E **541**	**139**	E **319**	E **70**	**51**	**6,865**
2001 January	E 210	E 220	E 45	15	E 29	E 5	E 4	529
February	E 194	E 199	E 44	12	E 26	E 5	E 5	484
March	E 229	E 220	E 45	12	E 27	E 6	E 6	546
April	E 208	E 212	E 47	11	E 25	E 6	7	516
May	E 225	E 219	E 48	11	E 25	E 6	E 8	541
June	E 233	E 214	E 47	12	E 25	E 6	7	544
July	E 204	E 224	E 48	11	E 27	E 6	7	528
August	E 213	E 222	E 47	10	E 26	E 6	7	532
8-Month Total	E **1,717**	E **1,729**	E **371**	**94**	E **210**	E **47**	**52**	**4,219**
2000 8-Month Total	E **2,298**	E **1,730**	E **361**	**87**	E **207**	E **47**	**35**	**4,766**
1999 8-Month Total	E **2,495**	E **1,705**	E **384**	**74**	E **213**	E **49**	**35**	**4,955**

[a] Hydroelectricity generated by pumped storage is not included in renewable energy.

[b] Through 1988, includes all electricity net imports. From 1989, includes only the portion of electricity net imports derived from hydroelectric power.

[c] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

[d] 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. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.

[e] Ethanol blended into motor gasoline.

[f] Geothermal electricity net generation, heat pump, and direct use energy. From 1989, also includes electricity imports derived from geothermal energy.

[g] Solar thermal and photovoltaic electricity net generation, and solar thermal direct use energy.

[h] Wind electricity net generation.

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

Sources: Tables E2, E3a, and E3b.

Table E2. Renewable Energy Consumption by End-Use Sector

(Trillion Btu)

	Residential				Commercial			Industrial[a]				Trans-portation	
	Wood[b]	Geo-thermal[c]	Solar[d]	Total	Wood[b]	Geo-thermal[c]	Total	Wood[e]	Waste[f]	Geo-thermal[c]	Total	Alcohol Fuels[g]	End-Use Total
1973 Total	**354**	**NA**	**NA**	**354**	**7**	**NA**	**7**	**1,165**	**NA**	**NA**	**1,165**	**NA**	**1,526**
1974 Total	**371**	**NA**	**NA**	**371**	**7**	**NA**	**7**	**1,159**	**NA**	**NA**	**1,159**	**NA**	**1,537**
1975 Total	**425**	**NA**	**NA**	**425**	**8**	**NA**	**8**	**1,063**	**NA**	**NA**	**1,063**	**NA**	**1,497**
1976 Total	**482**	**NA**	**NA**	**482**	**9**	**NA**	**9**	**1,220**	**NA**	**NA**	**1,220**	**NA**	**1,711**
1977 Total	**542**	**NA**	**NA**	**542**	**10**	**NA**	**10**	**1,281**	**NA**	**NA**	**1,281**	**NA**	**1,833**
1978 Total	**622**	**NA**	**NA**	**622**	**12**	**NA**	**12**	**1,400**	**NA**	**NA**	**1,400**	**NA**	**2,034**
1979 Total	**728**	**NA**	**NA**	**728**	**14**	**NA**	**14**	**1,405**	**NA**	**NA**	**1,405**	**NA**	**2,147**
1980 Total	**859**	**NA**	**NA**	**859**	**21**	**NA**	**21**	**1,600**	**NA**	**NA**	**1,600**	**NA**	**2,480**
1981 Total	**869**	**NA**	**NA**	**869**	**21**	**NA**	**21**	**1,602**	**87**	**NA**	**1,689**	**7**	**2,586**
1982 Total	**937**	**NA**	**NA**	**937**	**22**	**NA**	**22**	**1,516**	**118**	**NA**	**1,634**	**19**	**2,612**
1983 Total	**925**	**NA**	**NA**	**925**	**22**	**NA**	**22**	**1,690**	**155**	**NA**	**1,845**	**35**	**2,827**
1984 Total	**923**	**NA**	**NA**	**923**	**22**	**NA**	**22**	**1,679**	**204**	**NA**	**1,883**	**43**	**2,871**
1985 Total	I **899**	**NA**	**NA**	I **899**	I **24**	**NA**	I **24**	I **1,645**	I **230**	**NA**	E **1,875**	I **52**	**2,850**
1986 Total	I **876**	**NA**	**NA**	I **876**	I **27**	**NA**	I **27**	I **1,610**	I **256**	**NA**	E **1,866**	I **60**	**2,829**
1987 Total	**852**	**NA**	**NA**	**852**	I **29**	**NA**	I **29**	**1,576**	**282**	**NA**	**1,858**	**69**	**2,808**
1988 Total	I **885**	**NA**	**NA**	I **885**	I **32**	**NA**	I **32**	I **1,625**	I **308**	**NA**	E **1,933**	I **70**	**2,920**
1989 Total	**918**	**5**	**53**	**976**	I **34**	**3**	E **37**	**1,394**	**250**	**2**	**1,646**	**71**	**2,729**
1990 Total	**581**	**6**	**56**	**642**	I **37**	**3**	E **40**	**1,254**	**271**	**2**	**1,527**	**63**	**2,272**
1991 Total	**613**	**6**	**58**	**677**	I **39**	**3**	E **42**	**1,190**	**275**	**2**	**1,467**	**73**	**2,259**
1992 Total	**645**	**6**	**60**	**711**	I **42**	**3**	E **45**	**1,233**	**289**	**2**	**1,525**	**83**	**2,365**
1993 Total	**548**	**7**	**62**	**616**	**44**	**3**	**47**	**1,255**	**288**	**2**	**1,546**	**97**	**2,307**
1994 Total	**537**	**6**	**64**	**607**	**45**	**4**	**49**	**1,342**	**318**	**3**	**1,663**	**109**	**2,428**
1995 Total	**596**	**7**	**65**	**667**	**45**	**5**	**50**	**1,402**	**322**	**3**	**1,727**	**117**	**2,561**
1996 Total	**595**	**7**	**66**	**668**	**49**	**5**	**54**	**1,441**	**363**	**3**	**1,807**	**84**	**2,612**
1997 Total	**433**	**7**	**65**	**506**	**47**	**6**	**53**	**1,513**	**338**	**3**	**1,854**	**106**	**2,518**
1998 Total	**387**	**8**	**65**	**459**	**47**	**7**	**54**	**1,564**	**312**	**3**	**1,879**	**117**	**2,509**
1999 January	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	11	227
February	A 32	A 1	A 5	A 37	A 4	A 1	A 4	A 131	A 22	A (s)	A 154	9	205
March	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	10	226
April	A 34	A 1	A 5	A 40	A 4	A 1	A 5	A 141	A 24	A (s)	A 165	9	218
May	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	9	226
June	A 34	A 1	A 5	A 40	A 4	A 1	A 5	A 141	A 24	A (s)	A 165	10	219
July	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	8	225
August	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	10	226
September	A 34	A 1	A 5	A 40	A 4	A 1	A 5	A 141	A 24	A (s)	A 165	10	219
October	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	12	229
November	A 34	A 1	A 5	A 40	A 4	A 1	A 5	A 141	A 24	A (s)	A 165	12	222
December	A 35	A 1	A 5	A 41	A 4	A 1	A 5	A 145	A 25	A (s)	A 170	14	230
Total	**414**	**8**	**64**	**486**	**51**	**7**	**58**	**1,711**	**291**	**4**	**2,007**	**122**	**2,673**
2000 January	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	12	228
February	A 34	A 1	A 5	A 40	A 4	A 1	A 5	A 135	A 23	A (s)	A 158	9	212
March	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	12	228
April	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 139	A 23	A (s)	A 163	10	220
May	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	12	228
June	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 139	A 23	A (s)	A 163	7	216
July	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	13	230
August	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	12	229
September	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 139	A 23	A (s)	A 163	11	221
October	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	13	230
November	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 139	A 23	A (s)	A 163	13	223
December	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 144	A 24	A (s)	A 169	14	230
Total	E **433**	E **9**	E **62**	E **503**	E **52**	E **8**	E **60**	E **1,702**	E **287**	E **4**	E **1,993**	**139**	**2,695**
2001 January	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 145	A 24	A (s)	A 169	15	232
February	A 33	A 1	A 5	A 39	A 4	A 1	A 5	A 131	A 22	A (s)	A 153	12	208
March	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 145	A 24	A (s)	A 169	12	229
April	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 140	A 24	A (s)	A 164	11	221
May	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 145	A 24	A (s)	A 169	11	228
June	A 36	A 1	A 5	A 41	A 4	A 1	A 5	A 140	A 24	A (s)	A 164	12	222
July	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 145	A 24	A (s)	A 169	11	228
August	A 37	A 1	A 5	A 43	A 4	A 1	A 5	A 145	A 24	A (s)	A 169	10	227
8-Month Total	A **289**	A **6**	A **41**	A **335**	A **35**	A **5**	A **40**	A **1,133**	A **191**	A **3**	A **1,327**	**94**	**1,795**
2000 8-Month Total	A **289**	A **6**	A **41**	A **336**	A **35**	A **5**	A **40**	A **1,134**	A **191**	A **3**	A **1,328**	**87**	**1,791**
1999 8-Month Total	A **276**	A **6**	A **42**	A **324**	A **34**	A **4**	A **39**	A **1,139**	A **194**	A **3**	A **1,336**	**74**	**1,773**

[a] Through 1988, includes industrial sector use of wood and waste to produce both useful thermal output and electricity. From 1989, includes the portion of nonutility power producers' use of renewable energy to produce useful thermal output; excludes the portion used to produce electricity, which is included under "Nonutility Power Producers" on Table E3b.

[b] Wood only.

[c] Geothermal heat pump and direct use energy.

[d] Solar thermal direct use and photovoltaic energy. Includes small amounts of commercial sector use.

[e] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

[f] 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.

[g] Ethanol blended into motor gasoline.

NA=Not available. E=Estimate. (s)=Less than 0.5 trillion Btu. I=Interpolated value. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the 2000 annual value by 365 and multiplying by the number of days in the month.

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

Sources: See end of section.

Table E3a. Renewable Energy Consumption by the Electric Power Sector (Part 1 of 2)

(Trillion Btu)

	Electric Power Sector						
	Electric Utilities						
	Conventional Hydroelectric Power[a]	Wood[b]	Waste[c]	Geothermal[d]	Solar[e]	Wind[f]	Total
1973 Total	**2,827**	**1**	**2**	**43**	**0**	**NA**	**2,873**
1974 Total	**3,143**	**1**	**2**	**53**	**0**	**NA**	**3,199**
1975 Total	**3,122**	**(s)**	**2**	**70**	**0**	**NA**	**3,194**
1976 Total	**2,943**	**1**	**2**	**78**	**0**	**NA**	**3,024**
1977 Total	**2,301**	**3**	**2**	**77**	**0**	**NA**	**2,383**
1978 Total	**2,905**	**2**	**1**	**64**	**0**	**NA**	**2,973**
1979 Total	**2,897**	**3**	**2**	**84**	**0**	**NA**	**2,986**
1980 Total	**2,867**	**3**	**2**	**110**	**0**	**NA**	**2,982**
1981 Total	**2,725**	**3**	**1**	**123**	**0**	**NA**	**2,852**
1982 Total	**3,233**	**2**	**1**	**105**	**0**	**NA**	**3,341**
1983 Total	**3,494**	**2**	**2**	**129**	**0**	**(s)**	**3,627**
1984 Total	**3,353**	**5**	**4**	**165**	**(s)**	**(s)**	**3,527**
1985 Total	**2,937**	**8**	**7**	**198**	**(s)**	**(s)**	**3,150**
1986 Total	**3,038**	**5**	**7**	**219**	**(s)**	**(s)**	**3,270**
1987 Total	**2,602**	**8**	**7**	**229**	**(s)**	**(s)**	**2,846**
1988 Total	**2,302**	**10**	**8**	**217**	**(s)**	**(s)**	**2,536**
1989 Total	**2,765**	**10**	**10**	**197**	**(s)**	**(s)**	**2,983**
1990 Total	**2,948**	**8**	**13**	**181**	**(s)**	**(s)**	**3,151**
1991 Total	**2,923**	**8**	**14**	**170**	**(s)**	**(s)**	**3,114**
1992 Total	**2,521**	**8**	**13**	**169**	**(s)**	**(s)**	**2,712**
1993 Total	**2,774**	**9**	**11**	**158**	**(s)**	**(s)**	**2,953**
1994 Total	**2,549**	**8**	**13**	**145**	**(s)**	**(s)**	**2,714**
1995 Total	**3,056**	**7**	**10**	**99**	**(s)**	**(s)**	**3,173**
1996 Total	**3,423**	**8**	**12**	**110**	**(s)**	**(s)**	**3,553**
1997 Total	**3,535**	**8**	**13**	**115**	**(s)**	**(s)**	**3,670**
1998 Total	**3,195**	**7**	**14**	**109**	**(s)**	**(s)**	**3,325**
1999 January	287	1	1	9	(s)	(s)	297
February	279	1	1	7	(s)	(s)	288
March	312	(s)	1	8	(s)	(s)	321
April	265	1	1	9	(s)	(s)	276
May	282	1	1	(s)	(s)	(s)	284
June	297	1	1	(s)	(s)	(s)	299
July	288	1	1	(s)	(s)	(s)	290
August	250	1	1	(s)	(s)	(s)	252
September	203	1	1	(s)	(s)	(s)	205
October	193	(s)	1	(s)	(s)	(s)	195
November	206	1	1	(s)	(s)	(s)	208
December	242	1	1	(s)	(s)	(s)	244
Total	**3,103**	**7**	**14**	**36**	**(s)**	**(s)**	**3,159**
2000 January	241	(s)	1	(s)	(s)	(s)	243
February	214	1	1	(s)	(s)	(s)	216
March	254	1	1	(s)	(s)	(s)	256
April	271	1	1	(s)	(s)	(s)	273
May	261	1	1	(s)	(s)	(s)	263
June	239	1	1	(s)	(s)	(s)	241
July	229	1	1	(s)	(s)	(s)	231
August	209	1	1	(s)	(s)	(s)	211
September	169	1	1	(s)	(s)	(s)	171
October	163	1	1	(s)	(s)	(s)	166
November	182	1	1	(s)	(s)	(s)	184
December	187	1	1	(s)	(s)	(s)	189
Total	**2,619**	**7**	**14**	**3**	**(s)**	**(s)**	**2,644**
2001 January	176	1	1	(s)	(s)	(s)	179
February	166	1	1	(s)	(s)	(s)	168
March	193	1	1	(s)	(s)	(s)	195
April	165	1	1	(s)	(s)	(s)	167
May	179	(s)	2	(s)	(s)	(s)	181
June	193	(s)	2	(s)	(s)	(s)	195
July	170	1	1	(s)	(s)	(s)	172
August	181	1	1	(s)	(s)	(s)	184
8-Month Total	**1,424**	**5**	**11**	**2**	**(s)**	**(s)**	**1,442**
2000 8-Month Total	**1,917**	**5**	**10**	**2**	**(s)**	**(s)**	**1,934**
1999 8-Month Total	**2,259**	**5**	**9**	**35**	**(s)**	**(s)**	**2,308**

[a] Through 1989, includes hydroelectricity generated by both conventional and pumped storage facilities; from 1990, includes only conventional hydroelectric generation.

[b] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

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

[d] Geothermal electricity net generation.

[e] Solar thermal and photovoltaic electricity net generation.

[f] Wind electricity net generation.

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

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

Sources: Tables 7.3 and A6.

Table E3b. Renewable Energy Consumption by the Electric Power Sector (Part 2 of 2)

(Trillion Btu)

	Electric Power Sector											
	Nonutility Power Producers[a]							Electricity Trade[b]				
								Hydropower[c]				
	Hydro-power[c]	Wood[d]	Waste[e]	Geo-thermal[f]	Solar[g]	Wind[h]	Total	Imports	Exports	Geo-thermal Imports	Total Net Imports	Electric Power Sector Total
1973 Total	**35**	**NA**	**NA**	**NA**	**NA**	**NA**	**35**	**175**	**27**	**(i)**	**148**	**3,056**
1974 Total	**33**	**NA**	**NA**	**NA**	**NA**	**NA**	**33**	**161**	**28**	**(i)**	**133**	**3,365**
1975 Total	**32**	**NA**	**NA**	**NA**	**NA**	**NA**	**32**	**117**	**53**	**(i)**	**64**	**3,291**
1976 Total	**33**	**NA**	**NA**	**NA**	**NA**	**NA**	**33**	**114**	**25**	**(i)**	**89**	**3,146**
1977 Total	**33**	**NA**	**NA**	**NA**	**NA**	**NA**	**33**	**210**	**29**	**(i)**	**182**	**2,597**
1978 Total	**32**	**NA**	**NA**	**NA**	**NA**	**NA**	**32**	**220**	**15**	**(i)**	**204**	**3,209**
1979 Total	**34**	**NA**	**NA**	**NA**	**NA**	**NA**	**34**	**233**	**23**	**(i)**	**211**	**3,230**
1980 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**260**	**43**	**(i)**	**217**	**3,232**
1981 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**379**	**32**	**(i)**	**347**	**3,232**
1982 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**343**	**37**	**(i)**	**306**	**3,680**
1983 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**407**	**35**	**(i)**	**372**	**4,032**
1984 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**441**	**27**	**(i)**	**414**	**3,974**
1985 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**479**	**52**	**(i)**	**428**	**3,611**
1986 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**425**	**50**	**(i)**	**375**	**3,678**
1987 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**544**	**61**	**(i)**	**483**	**3,362**
1988 Total	**E 33**	**NA**	**NA**	**NA**	**NA**	**NA**	**E 33**	**401**	**73**	**(i)**	**328**	**2,897**
1989 Total	**90**	**279**	**94**	**117**	**6**	**24**	**609**	**200**	**40**	**11**	**171**	**3,763**
1990 Total	**100**	**308**	**124**	**152**	**7**	**32**	**722**	**99**	**(s)**	**11**	**110**	**3,982**
1991 Total	**99**	**338**	**151**	**167**	**8**	**32**	**794**	**138**	**(s)**	**15**	**153**	**4,061**
1992 Total	**97**	**360**	**171**	**174**	**7**	**30**	**838**	**201**	**(s)**	**19**	**219**	**3,769**
1993 Total	**117**	**370**	**180**	**198**	**9**	**31**	**905**	**238**	**11**	**18**	**246**	**4,104**
1994 Total	**135**	**382**	**184**	**205**	**8**	**36**	**951**	**309**	**(s)**	**27**	**337**	**4,002**
1995 Total	**151**	**369**	**199**	**201**	**8**	**33**	**960**	**291**	**17**	**19**	**293**	**4,426**
1996 Total	**169**	**372**	**202**	**207**	**9**	**35**	**994**	**306**	**7**	**14**	**313**	**4,861**
1997 Total	**183**	**347**	**200**	**191**	**9**	**33**	**963**	**281**	**37**	**(s)**	**244**	**4,877**
1998 Total	**150**	**321**	**207**	**201**	**9**	**31**	**918**	**269**	**46**	**1**	**225**	**4,468**
1999 January	13	35	E 23	15	(s)	2	E 88	j 14	j 8	j (s)	E 6	392
February	17	28	E 21	13	(s)	2	E 83	j 13	j 7	j (s)	E 6	377
March	18	31	E 22	15	(s)	3	E 89	j 16	j 10	j (s)	E 7	417
April	19	30	E 23	13	(s)	4	E 90	j 25	j 7	j (s)	E 18	384
May	17	30	E 23	23	1	6	E 101	j 25	j 6	j (s)	E 18	403
June	13	30	E 23	27	1	6	E 100	j 23	j 5	j (s)	E 18	417
July	13	34	E 23	29	1	6	E 107	j 23	j 5	j (s)	E 19	416
August	12	33	E 23	30	1	5	E 105	j 23	j 3	j (s)	E 20	377
September	13	39	E 22	29	1	4	E 107	j 30	j 3	j (s)	E 27	339
October	14	32	E 20	30	1	3	E 100	j 30	j 7	j (s)	E 23	319
November	13	30	E 22	28	(s)	2	E 95	j 30	j 5	j (s)	E 25	327
December	37	30	E 23	28	(s)	3	E 121	j 27	j 7	j (s)	E 21	386
Total	**202**	**382**	**E 267**	**280**	**9**	**46**	**E 1,186**	**280**	**73**	**1**	**208**	**4,553**
2000 January	23	35	E 20	25	(s)	4	E 107	j 25	j 3	0	E 22	371
February	19	33	E 19	22	(s)	4	E 98	j 27	j 3	0	E 24	338
March	23	34	E 20	22	1	4	E 105	j 25	j 4	0	E 20	381
April	25	33	E 20	23	1	5	E 106	j 25	j 5	0	E 20	399
May	24	31	E 20	24	1	5	E 105	j 29	j 6	0	E 24	391
June	23	33	E 20	24	1	4	E 104	j 31	j 6	0	E 25	370
July	22	36	E 21	25	1	4	E 109	j 35	j 3	0	E 32	372
August	23	34	E 21	26	1	4	E 108	j 37	j 4	0	E 33	353
September	22	33	E 20	25	1	4	E 105	j 29	j 4	0	E 25	301
October	20	34	E 20	26	1	5	E 105	j 17	j 4	0	E 13	284
November	19	33	E 20	26	1	4	E 103	j 23	j 4	0	E 19	306
December	21	33	E 20	27	(s)	4	E 105	j 22	j 12	0	E 10	304
Total	**264**	**401**	**E 240**	**295**	**9**	**51**	**E 1,260**	**325**	**59**	**0**	**266**	**4,170**
2001 January	18	34	E 19	27	E (s)	4	E 102	j 22	j 7	0	E 15	297
February	18	30	E 21	24	E (s)	5	E 99	j 21	j 11	0	E 9	276
March	21	34	E 20	25	E (s)	6	E 106	j 24	j 8	0	E 16	317
April	25	31	E 23	23	E 1	7	E 109	j 25	j 7	0	E 19	295
May	23	32	E 22	23	E 1	8	E 109	j 29	j 7	0	E 23	313
June	21	33	E 22	23	E 1	7	E 107	j 25	j 6	0	E 19	322
July	15	38	E 22	25	E 1	7	E 108	j 25	j 6	0	E 19	299
August	12	35	E 21	24	E 1	7	E 101	j 25	j 5	0	E 20	305
8-Month Total	**151**	**269**	**E 170**	**194**	**E 6**	**51**	**E 841**	**E 197**	**E 56**	**0**	**E 141**	**2,424**
2000 8-Month Total	**182**	**268**	**E 160**	**191**	**6**	**35**	**E 842**	**E 233**	**E 35**	**0**	**E 199**	**2,975**
1999 8-Month Total	**124**	**251**	**E 181**	**165**	**6**	**34**	**E 762**	**E 163**	**E 51**	**E (s)**	**E 112**	**3,182**

[a] Includes the portion of nonutility power producers' use of renewable energy to produce electricity; excludes the portion used to produce useful thermal output, which is included in "Industrial" on Table E2.

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

[c] Conventional hydroelectric power.

[d] Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

[e] 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. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.

[f] Geothermal electricity net generation.

[g] Solar thermal and photovoltaic electricity net generation.

[h] Wind electricity net generation.

[i] Included in "Hydropower Imports."

[j] 1999 and 2000 monthly data are estimated by allocating the annual values into the months in proportion to each month's share of the year's total electricity imports or exports (see Table 7.1). Monthly 2001 estimates use the 2000 shares.

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

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

Sources: See end of section.

Sources for Table E2

Wood, Residential
1973-1979—Energy Information Administration (EIA), *Estimates of U.S. Wood Energy Consumption from 1949 to 1981,* Table A2.
1980-1983—EIA, *Estimates of U.S. Wood Energy Consumption 1980-1983*, Table ES1.
1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 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.
1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6.
1994-1997—EIA, *Renewable Energy Annual 1999*, Table 6.
1998 and 1999—EIA, *Renewable Energy Annual 2000*, Table 6.
2000 forward—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

Wood, Commercial
1973-1979—EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981,* Table A2.
1980-1983—EIA, *Estimates of U.S. Wood Energy Consumption 1980-1983*, Table ES1.
1984—EIA, CNEAF, estimate.
1985-1992—Values interpolated.
1993—EIA, *Renewable Energy Annual 1995*, Table 6.
1994-1996—EIA, *Renewable Energy Annual 1999*, Table 6.
1997—EIA, *Renewable Energy Annual 2000*, Table 6.
1998 forward—EIA, CNEAF, estimates.

Wood, Industrial
1973-1979—EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981,* Table A2.
1980-1983—EIA, *Estimates of U.S. Wood Energy Consumption 1980-1983*, Table ES1.
1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.
1985 and 1986—Values interpolated.
1987—EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.
1988—Value interpolated.
1989—American Paper Institute, *Fact Sheet on 1990 Energy Use in the U.S. Pulp and Paper Industry* (July 1991), total pulp and paper industry wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).
1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6, total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).
1994-1997—EIA, *Renewable Energy Annual 1999*, Table 6, total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).
1998 forward—EIA, CNEAF, estimates for total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table E3b).

Waste, Industrial
1981—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).
1982 and 1983—EIA, CNEAF, estimates for total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).
1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).
1985 and 1986—Values interpolated.
1987—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table E3a).
1988—Value interpolated.
1989 forward—EIA, CNEAF, estimates for total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables E3a and E3b).

Alcohol Fuels
1981—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.
1982 and 1983—EIA, CNEAF, estimates.
1984—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.
1985 and 1986—Values interpolated.
1987—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.
1988—Value interpolated.
1989—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.
1990-1992—EIA, *Renewable Energy Annual 1995*, Table 6.
1993 forward—*EIA, Petroleum Supply Monthly*, Tables 2 and 28; and Table A1.

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

Solar
1989-1991—EIA, CNEAF, estimates.
1992 and 1993—EIA *Renewable Energy Annual 1997*, Table 2.
1994-1998—EIA *Renewable Energy Annual 1999*, Table 2.
1999—EIA, *Renewable Energy Annual 2000*, Table 2.
2000 forward—EIA, CNEAF, estimates.

Sources for Table E3b

Nonutility Power Producers, Hydropower
1973-1978—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants; and Table A6.
1979—FPC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and EIA estimates for all other plants; and Table A6.
1980-1988—Estimated by EIA as the average generation over the 6-year period of 1974-1979; and Table A6.
1989 forward—Tables 7.4 and A6.

Nonutility Power Producers, All Other Fuels
1989 forward—Tables 7.4 and A6.

Electricity Trade
1973-1988—Tables 7.1 and A6.
1989 forward—Trade data from National Energy Board of Canada, the California Energy Commission, analysis by EIA, CNEAF, and Table A6.

Glossary

Alcohol Fuels: See **Fuel Ethanol**.

Anthracite: The highest rank of coal. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. It is used primarily for residential and commercial space heating. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980s anthracite refuse or mine waste has been used for steam-electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

Anthracite Culm: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton.

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols and ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: All special grades of gasoline used in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. gallons.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

Bituminous Coal: A dense, black coal, often with well-defined bands of bright and dull material. Bituminous coal is the most abundant coal in active U.S. mining regions. It is used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1^{o} F at or near 39.2^{o} F. See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Bunker Oil: Fuels supplied to ships and aircraft in international transportation, irrespective of the flag of the carrier, consisting primarily of residual, distillate, and jet fuel oils.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9^{o} F. It is extracted from natural gas or refinery gas streams.

Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1^{o} 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 Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the U.S. classification, the ranks include lignite, subbituminous coal, bituminous coal, and anthracite, and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of the period.

Cogenerator: A generating facility that produces electricity and another form of useful energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes. See **Nonutility Power Producers.**

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

Commercial Sector: An energy-consuming sector that consists of service-providing facilities of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes **institutional living quarters**. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment.

Completion: The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

Constant Dollars: See **Chained Dollars.**

Conventional Gasoline: Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. Note: This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

Conventional Hydroelectric Power: **Hydroelectric power** that is not generated by **pumped storage**.

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors can be used to translate physical units of measure for various fuels into Btu equivalents. See **British Thermal Unit.**

Cost, Insurance, Freight (CIF): A 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 pro-

cessing plants and mixed with crude oil are likewise excluded.

Crude Oil Landed Cost: The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Crude Oil Refinery Input: The total crude oil put into processing units at refineries.

Crude Oil Stocks: Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Cubic Foot (Natural Gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

Degree-Day Normals: Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days, Cooling (CDD): 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. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

Dry Hole: An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

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 Capacity: The maximum load of electric power, commonly expressed in **kilowatts** (kW) or megawatts (MW), by which generators, turbines, transformers, transmission circuits, stations, and systems are rated.

Electricity Generation: The process of producing electric energy, or the amount of electric energy produced by transforming other forms of energy, commonly expressed in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Gross: The total amount of electric energy produced by generating units and measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Net: The amount of **gross electricity generation** less the electrical energy consumed at the generating station(s) for station service or auxiliaries. *Note:* Electricity required for pumping at **pumped-storage** plants is regarded as electricity for station service and is deducted from gross generation.

Electricity Sales: The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Electric Power: The rate at which electric energy is transferred. Electric power is measured by capacity and is commonly expressed in **kilowatts** (kW) or megawatts (MW).

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Power Sector: An energy-consuming sector that consists of all utility and nonutility facilities and equipment used to generate, transmit, and/or distribute electricity. See **Electric Utility** and **Nonutility Power Producer**.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy for use primarily by the public. Utilities provide electricity within a designated franchised service area and file forms listed in the *Code of Federal Regulations*, Title 18, Part 141. *Note:* Facilities that qualify as **cogenerators** or **small power producers** under the Public Utility Regulatory Policies Act (PURPA) are not considered electric utilities. See **Nonutility Power Producer**.

End-Use Sectors: The **residential**, **commercial**, **industrial**, and **transportation** sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy-Use Sectors: A group of major energy-consuming components of U.S. society developed to measure and analyze energy use. The sectors most commonly referred to in EIA are: **residential**, **commercial**, **industrial**, **transportation**, and **electric power**.

Ethane: A normally gaseous straight-chain hydrocarbon (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol: See **Fuel Ethanol**.

Ethylene: An olefinic hydrocarbon (C_2H_4) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

Exports: Shipments of goods from the 50 States and the District of Columbia to foreign countries and to Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

f.a.s.: See **Free Alongside Ship**.

Federal Energy Administration (FEA): A predecessor of the Energy Information Administration.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

Federal Power Commission (FPC): The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

First Purchase Price: The marketed first sales price of domestic crude oil, consistent with the removal price defined by the provisions of the Windfall Profits Tax on Domestic Crude Oil (Public Law 96-223, Sec. 4998 (c)).

Flared Natural Gas: Natural gas burned in flares on the base site or at gas processing plants.

f.o.b.: See **Free on Board**.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See **U.S.S.R.**

Fossil Fuel: 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.

Free Alongside Ship (f.a.s.): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation.

Free on Board (f.o.b.): A sales transaction in which the seller makes the product available at a given port and price and the buyer pays for the transportation and insurance.

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 10 percent or less alcohol (generally ethanol but sometimes methanol). See **Motor Gasoline, Oxygenated**.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the earth's crust 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.

Household: A family, an individual, or a group of up to nine unrelated persons occupying the same housing unit. "Occupy" means that the housing unit is the person's usual or permanent place of residence.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon 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 foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality which is a wholesale electricity producer that operates within the franchised service territory of a host **electric utility** and is usually authorized to sell at market-based rates. Unlike traditional electric utilities, independent power producers do not possess transmission facilities, unless authorized by law, nor do they sell electricity in the retail market. Independent power producers are considered to be **nonutility power producers.**

Industrial Sector: An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing; agriculture, forestry, and fisheries; mining; and construction. Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Institutional Living Quarters: Space provided by a business or organization for long-term housing of individuals whose reason for shared residence is their association with the business or organization. Such quarters commonly have both individual and group living spaces, and the business or organization is responsible for some aspects of resident life beyond the simple provision of living quarters. Examples include prisons; nursing homes and other long-term medical care facilities; military barracks; college dormitories; and convents and monasteries.

Internal Combustion Electric Power Plant: A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal

types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

Isobutane: A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9 F. It is extracted from natural gas or refinery gas streams. See **Butane.**

Isobutylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isopentane: A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400 F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290 to 470 F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate having a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Kilowatt: A unit of electrical power equal to 1,000 **watts**.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 **kilowatt** (1,000 **watts**) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour.**

Landed Costs: The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

Lease Condensate: A mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. Note: This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

Light Oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

Lignite: The lowest rank of coal. Often referred to as brown coal, it is used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 14 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Liquefied Natural Gas (LNG): Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

Low-Power Testing: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

Marketed Production: Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

Metallurgical Coal: Coking coal and pulverized coal consumed in making steel.

Methane: A 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.**

Nameplate Capacity: The maximum design production capacity specified by the manufacturer of a processing unit or the maximum amount of a product that can be produced running the manufacturing unit at full capacity.

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

Natural Gas: A 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 Capability: 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.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for electric generation and is not an **electric utility**. Nonutility power producers include qualifying **cogenerators**, qualifying **small power producers**, and other nonutility generators (including **independent power producers**). Nonutility power producers are without a designated, franchised service area and do not file forms listed in the Code of Federal Regulations, Title 18, Part 141.

Nuclear Electric Power: Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Nuclear Reactor: An apparatus in which the nuclear fission chain can be initiated, maintained, and controlled so that energy is released at a specific rate. The reactor includes fissionable material (fuel), such as uranium or plutonium; fertile material; moderating material (unless it is a fast reactor); a heavy-walled pressure vessel; shielding to protect personnel; provision for heat removal; and control elements and instrumentation.

Octane Rating: A number used to indicate gasoline's antiknock performance in motor vehicle engines. The two recognized laboratory engine test methods for determining the antiknock rating of gasolines are the Research method and the Motor method. To provide a single number as guidance to the consumer, the antiknock index (R + M)/2, which is the average of the Research and Motor octane numbers, was developed.

Offshore: That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

Oil: See **Crude Oil**.

Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Operable Unit (Nuclear): In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

Organization for Economic Cooperation and Development (OECD): Members are Australia, Austria, Belgium, Canada, Denmark, Faeroe Islands, Finland, France, Germany, Greece, Greenland, Hawaiian Trade Zone, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and its territories (Guam, Puerto Rico, and the Virgin Islands). In addition, Czech Republic, Hungary, Poland, and South Korea joined the OECD in 1996.

Organization of Petroleum Exporting Countries (OPEC): Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, MTBE, and methanol are common oxygenates.

PAD Districts: Petroleum Administration for Defense Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

Pentanes Plus: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks: Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

Petroleum: A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke: See **Coke, Petroleum.**

Petroleum Coke, Catalyst: The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

Petroleum Coke, Marketable: Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or may be further purified by calcining.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

Petroleum Imports: Imports of petroleum into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. territories and possessions. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

Petroleum Products: Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Products Supplied: An approximate measure of consumption. It measures the disappearance of the products from primary sources, i.e., refineries, blending plants, and bulk terminals. In general, products supplied in any given period is computed as follows: field production, plus imports, plus unaccounted-for crude oil (plus net receipts when calculated on a PAD District basis) minus stock change, minus crude oil losses, minus refinery inputs, and minus exports. See also **Petroleum Consumption.**

Petroleum Stocks, Primary: For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

Photovoltaic Energy: Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Plant Condensate: One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquid at gas inlet separators or scrubbers in processing plants.

Prime Mover: The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly.

Primary Consumption: 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 -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C_3H_6) recovered from refinery or petrochemical processes.

Pumped Storage: See **Hydroelectric Pumped Storage.**

Refiner Acquisition Cost of Crude Oil: The cost of crude oil to the refiner, including transportation and fees. The composite cost is the weighted average of domestic and imported crude oil costs.

Refinery (Petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Renewable Energy: Energy obtained from sources that are essentially inexhaustible (unlike, for example, the **fossil fuels**, of which there is a finite supply). Renew-

able sources of energy include **conventional hydroelectric 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**.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

Rotary Rig: A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Short Ton (Coal): A unit of weight equal to 2,000 pounds.

SIC: See **Standard Industrial Classification**.

Small Power Producer: Under the Public Utility Regulatory Policies Act, a small power production facility (small power producer) generates electricity by using waste or renewable energy (biomass, conventional hydroelectric, wind, solar, and geothermal) as a primary energy source. Fossil fuels can be used, but renewable resources must provide at least 75 percent of the total energy input. See **Nonutility Power Producer.**

Solar Energy: See **solar thermal energy** and **photovoltaic energy**.

Solar Thermal Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or **electricity**. Electricity produced from solar energy heats a medium that powers an electricity-generating device.

Special Naphthas: All finished products within the naphtha boiling ranges that are used as paint thinner, cleaners or solvents. Those products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

Spent Liquor: The liquid residue left after an industrial process; can be a component of waste materials used as fuel.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and Budget which categorizes industries into groups with similar economic activities.

Startup Test Phase of Nuclear Power Plant: A nuclear power plant that has been licensed by the Nuclear Regulatory Commission to operate but is still in the initial testing phase, during which the production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer and places it in commercial operation status. A request is then submitted to the appropriate utility rate commission to include the power plant in the rate base calculation.

Steam Coal: All nonmetallurgical coal.

Steam-Electric Power Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Still Gas (Refinery Gas): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and petrochemical feedstock.

Strategic Petroleum Reserve (SPR): Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Subbituminous Coal: A coal that ranges in properties from those of lignite to those of bituminous coal. It may be dull, dark brown or black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. It is used primarily as fuel for steam-electric power generation. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

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

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons. It may easily be substituted for, or interchanged with, pipeline quality natural gas. Also referred to as substitute natural gas.

Thermal Conversion Factor: See **Conversion Factor.**

Transportation Sector: An energy-consuming sector that consists of all vehicles whose primary purpose is

transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use.

Unaccounted-for Crude Oil: Arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports, less changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils: All oils requiring further refinery processing except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils and residuum.

Unfractionated Stream: Mixtures of unsegregated natural gas liquid components, excluding those in plant condensate. This product is extracted from natural gas.

Underground Storage: The storage of natural gas in underground reservoirs at a different location from which it was produced.

United States: Unless otherwise noted, "United States" in this publication means the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Useful Thermal Output: The thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: The Union of Soviet Socialist Republics consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. As a political entity, the U.S.S.R. ceased to exist as of December 31, 1991.

Vented Natural Gas: Gas released into the air on the base site or at processing plants.

Vessel Bunkering: Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

Waste Energy: Industrial, agricultural, and urban refuse used to generate electricity, such as municipal solid waste, landfill gas, methane, digester gas, liquid acetronitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

Watt (W): The unit of electrical power equal to 1 ampere under a pressure of 1 volt. A watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to 1 **watt** of power supplied to, or taken from, an electric circuit steadily for 1 hour.

Waxes: Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (e.g., blades rotating from a hub) that drive generators to produce electricity.

Withdrawals (Natural Gas): Total volume of gas withdrawn during the applicable reporting period.

Wood Energy: Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

Working Gas: The gas in a reservoir that is in addition to the base (cushion) gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any given season.

State Energy Data

...from the Energy Information Administration

State Energy Data Report, Consumption Estimates

Energy consumption estimates for all major forms of energy (including petroleum by individual product) by consuming sectors from 1960 through 1999; rankings of States by consumption of major energy sources and total consumption per capita; carbon emission factors for coal; resident population.

State Energy Price and Expenditure Report

Energy prices and expenditures by energy sources within consuming sectors from 1970 through 1999 based on the consumption values estimated in the *State Energy Data Report*; rankings of States by prices and expenditures for major energy sources and total expenditures per capita.

State Electricity Profiles

Data on electricity capability, generation, retail sales, revenues, prices, and fuel use. Includes capacity factors for nuclear plants and pollutant emissions for all 50 States and the District of Columbia. Includes discussion of each State's unique features and circumstances with respect to electricity generation.

State Coal Profiles

Coal deposits and production in the 16 coal-producing States. Includes estimates of reserves by mining method and sulfur content, production, number of mines and miners, productivity, average mine price of coal, disposition, and consumption for selected years. Appendix A contains production and consumption rankings of States and percent of U.S. total.

Fuel Oil and Kerosene Sales (Annual)

Sales and adjusted sales of distillate fuel oil, residual fuel oil, and kerosene by the following sectors: residential, commercial, industrial, farm, electric utilities, oil companies, military, off-highway, railroad, vessel bunkering, and "all other."

Natural Gas Annual

Natural gas production, transmission, and consumption balances; gross withdrawals and marketed production; offshore withdrawals; number of producing wells and gas condensate wells; estimated total dry natural gas proved reserves; prices, wellhead value, and marketed production value; natural gas processed, liquids extracted, and estimated extraction loss; interstate movements and movements across U.S. borders; additions to and withdrawals from gas storage; underground storage capacity; and many other kinds of data.

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (Annual)

Crude oil proved reserves and indicated additional reserves, reserves changes, and production; total, nonassociated, and associated-dissolved natural gas proved reserves, reserves changes, and production (wet after lease separation); coalbed methane proved reserves and production; dry natural gas and natural gas liquids proved reserves, reserves changes, and production; and natural gas plant liquids and lease condensate proved reserves and production; historical reserves statistics, 1977 forward.

For additional State-level energy information from the EIA website, go to www.eia.doe.gov and click on By Geography, then States and Multi-State Information. For general energy information, see the EIA Home Page or contact the National Energy Information Center at 202–586–8800 or infoctr@eia.doe.gov.

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