

Monthly Energy Review

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Energy Information Administration

Energy Plugs:
Winter Fuels Outlook
Fuel Oil and Kerosene
Majors Shift to Natural Gas

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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Energy Information Administration
Forrestal Building, Room 1E-238
Washington, DC 20585
202-586-8800
Fax: 202-586-0727
Internet E-Mail: infoctr@eia.doe.gov
TTY: For people who are deaf
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Monthly Energy Review

October 2001

Energy Information Administration
Office of Energy Markets and End Use
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Contacts

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

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

Section 1. Energy Overview	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.doe.gov
Section 2. Energy Consumption by Sector	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.doe.gov
Section 3. Petroleum	Michael Conner	202-586-1795 michael.conner@eia.doe.gov
Section 4. Natural Gas	Margaret Natof	202-586-6303 margaret.natof@eia.doe.gov
Section 5. Oil and Gas Resource Development	Robert F. King	202-586-4787 robert.king@eia.doe.gov
Section 6. Coal	Mary L. Lilly	202-287-1742 mary.lilly@eia.doe.gov
Section 7. Electricity		
Electric Utilities	Melvin E. Johnson	202-287-1754 melvin.johnson@eia.doe.gov
Nonutility Power Producers	Barbara A. Rucker	202-287-1765 barbara.rucker@eia.doe.gov
Retail Sales	Deborah Johnson	202-287-1970 deborah.johnson@eia.doe.gov
Section 8. Nuclear Energy	John R. Moens	202-287-1976 john.moens@eia.doe.gov
Section 9. Energy Prices		
Petroleum	Patricia Wells	202-586-4885 patricia.wells@eia.doe.gov
Natural Gas	Roy Kass	202-586-4790 nathaniel.kass@eia.doe.gov
Electricity Retail Prices	Deborah Johnson	202-287-1970 deborah.johnson@eia.doe.gov
Electricity Fossil-Fuel Receipts	Kenneth M. McClevey	202-287-1732 kenneth.mcclevey@eia.doe.gov
Section 10. International Energy		
Petroleum Production	Patricia Smith	202-586-6925 patricia.smith@eia.doe.gov
Petroleum Consumption and Stocks	H. Vicky McLaine	202-586-9412 harriet.mclaine@eia.doe.gov
Nuclear Electricity Gross Generation	John R. Moens	202-287-1976 john.moens@eia.doe.gov

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Energy Plug

Winter Fuels Outlook: 2001-2002

Consumers of winter heating fuels—natural gas, heating oil, and propane—should benefit from lower fuel prices, generally higher inventories, and the likelihood of milder weather this winter compared with last, according to forecasts in the Energy Information Administration's *Winter Fuels Outlook: 2001-2002*.

Natural gas. Overall demand for natural gas this winter is expected to drop slightly from last year's level, mainly because of lower winter heating demand. Unusually low temperatures during the winter of 2000-2001 drove heating degree-days to 7 percent above normal. Assuming a return to more normal weather, residential and commercial natural gas consumption is expected to average 6.0 percent and 5.2 percent below last winter's levels, respectively.

Coincidentally, industrial demand for natural gas is down, while natural gas production activity is up 1.8 percent compared with last winter. The result is the collapse of spot and well-

head prices. The prospects for a mild recession suggest that industrial-sector demand is unlikely to recover swiftly. The base-case forecast puts the average natural gas wellhead price at \$2.21 per thousand cubic feet, a sharp 62 percent below last winter's average price. The price paid by residential consumers is expected to drop 30 percent to an average of \$6.69 per thousand cubic feet (see table).

Heating oil. The chief market for heating oil is the Northeast, where heating degree-days are expected to decline almost 5 percent from last winter's level. In addition, electric utilities are expected to reduce their consumption of heating oil this winter, as are industrial facilities and nonutility power producers. Although transportation-sector demand for diesel fuel is expected to grow, the forecast overall effect will be to depress distillate fuel oil demand by about 2.5 percent.

Supplies—from domestic refinery output, net imports, and primary inventories—are projected to be

adequate, even if cold snaps cause demand to spike. As for prices, the weaker economy and expected milder winter should help push down crude oil costs to U.S. refineries by nearly 20 percent below last year's level. Base-case retail heating oil prices are projected to average \$1.19 per gallon during the heating season.

Propane. Propane demand last winter fell from the previous year's level and is expected to decline further this winter, suppressed by the economic slump and a smaller corn harvest, which will reduce the need for crop-drying propane. Supplies are expected to be adequate and prices lower.

Effects of extreme weather. Relatively ample supplies of heating fuels should reduce the risk of weather-linked price shocks. A winter 10 percent colder (or warmer) in degree-days than is assumed in the base case might raise (or lower) household heating bills about 13 percent in the case of natural gas and about 15 percent in the cases of heating oil and propane.

Illustrative Residential Consumer Prices and Expenditures for Winter Heating Fuels

	1998-1999 Actual	1999-2000 Actual	2000-2001 Actual	2001-2002 Base Forecast
Natural Gas (Midwest)				
Consumption (mcf)	84.5	81.7	97.3	90.8
Average Price (dollars/mcf)	6.29	6.67	9.49	6.69
Expenditures (dollars)	532	545	923	607
Heating Oil (Northeast)				
Consumption (gallons)	650	644	727	692
Average Price (dollars/gallon)	0.80	1.18	1.37	1.19
Expenditures (dollars)	520	760	996	824
Propane (Midwest)				
Consumption (gallons)	835	807	961	897
Average Price (dollars/gallon)	0.85	1.02	1.36	1.13
Expenditures (dollars)	710	825	1,309	1,013

Notes: • Mcf=thousand cubic feet. • Prices are national averages. Expenditures are based on typical per-household consumption by region. Prices and expenditures are in nominal dollars.

Source: Energy Information Administration.

Winter Fuels Outlook: 2001-2002 is available only on the EIA website. Go to www.eia.doe.gov and select Forecasts, Short-term, and Winter Fuels Outlook. Contact wmaster@eia.doe.gov or call 202-586-8959 if you have problems. Questions about the report's content should be directed to Dave Costello, Office of Energy Markets and End Use, at dave.costello@eia.doe.gov or 202-586-1468. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202-586-8800.

Energy Plug

Fuel Oil and Kerosene Sales 2000

Fuel Oil and Kerosene Sales 2000 is the 75th edition of a report series that began as the National Survey of Fuel Oil Distribution in 1926. The latter report resulted from a cooperative agreement between the U.S. Bureau of Mines and the American Petroleum Institute to conduct a survey in response to many requests for information on the consumption of “gas oil and fuel oil” in the United States.

The modern report continues the tradition of recording fuel oil sales by end-use category and by State. The three petroleum products covered by this report—distillate fuel oil, residual fuel oil, and kerosene—together accounted for nearly one-fourth of all petroleum products consumed in the United States in 2000. Because of the three fuels’ large market share, knowing how and where they are used is fundamental in energy analysis.

The report’s data are used to derive the Energy Information Administration’s end-use consumption estimates for these three petroleum products in the historical integrated energy consumption summaries that appear in the *Monthly Energy Review*, the *Annual Energy Review*, and the State-level detail in the *State Energy Data Report*. The end-use sales groupings are aggregated to the five traditional sectors covered by those reports: residential, commercial, industrial (formed from the report’s industrial, oil company, farm, off-highway, and other sales categories), transportation (from the railroad, vessel bunkering, on-highway, and military sales categories), and electric utilities.

Transportation uses accounted for nearly two-thirds of total distillate fuel oil sales in 2000. Diesel fuel for on-highway driving accounted for over

half. The next largest share went for heating homes.

Residual fuel oil was heavily used for vessel bunkering in 2000, which accounted for almost half of all sales. Another third went to electric utilities, although sales in this category declined in 1999 and 2000.

Residences accounted for over two-thirds of 2000 kerosene sales; another fifth went to commercial sites. Industrial end uses and farms accounted for most of the balance.

The report presents national end-use sales data for 1996 through 2000 and State-level end-use sales data for 1999 and 2000. Technical Notes describe the sampling frame, sample design, collection methods, data processing, and data reliability. Also included is a copy of the survey form (“Annual Fuel Oil and Kerosene Sales Report”) used to collect the data.

Fuel Oil and Kerosene Sales by End Use, 2000

End Use	Distillate Fuel Oil		Residual Fuel Oil		Kerosene	
	Volume (Million Gallons)	Percent Share	Volume (Million Gallons)	Percent Share	Volume (Million Gallons)	Percent Share
Residential	6,830	11.5	—	—	701	67.6
Commercial	3,706	6.2	664	5.0	220	21.2
Industrial	2,331	3.9	1,585	12.0	87	8.4
Oil Company	686	1.2	154	1.2	—	—
Farm	3,455	5.8	—	—	23	2.2
Electric Utilities	1,015	1.7	4,363	33.0	—	—
Railroad	3,291	5.5	—	—	—	—
Vessel Bunkering	2,261	3.8	6,410	48.5	—	—
On-Highway	33,130	55.6	—	—	—	—
Military	306	0.5	28	0.2	—	—
Off-Highway	2,589	4.3	—	—	—	—
Other	0	0.0	7	0.1	6	0.6
Total	59,600	100.0	13,211	100.0	1,036	100.0

— = Not applicable.

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

Source: Energy Information Administration.

Fuel Oil and Kerosene Sales 2000 is available only on the EIA website. Go to www.eia.doe.gov and select Publications and Petroleum, then scroll down to the title. Contact wmaster@eia.doe.gov or call 202-586-8959 if you have problems. Questions about the report’s content should be directed to Daniel Walzer, Office of Oil and Gas, at daniel.walzer@eia.doe.gov or 202-586-3511. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202-586-8800.

Energy Plug



The Majors' Shift to Natural Gas

Interest in natural gas has risen in recent years, stimulated by environmental concerns, price volatility, and deregulation of natural gas markets, and major U.S. energy companies have made it an increasingly important investment focus. Since the mid-1980s, the “majors”—energy companies reporting to the Energy Information Administration’s (EIA’s) Financial Reporting System (FRS)—have shifted production toward natural gas. The share of natural gas in their combined oil and gas production in the United States reached 52 percent in 1999. The majors’ natural gas production share in Canada and elsewhere outside the United States followed similar trends. This shift and the forces underlying it are explored in a newly released article from EIA, *The Majors’ Shift to Natural Gas*.

The FRS companies are those that were U.S.-based publicly owned companies, or U.S.-based subsidiaries of publicly owned companies, that had at least 1 percent of either production or reserves of oil or gas in the United States or 1 percent of either refining capacity or petroleum product sales. Current FRS data extend through 1999, when the cohort included 32 major energy companies.

The FRS companies’ production of natural gas rose from 7.1 trillion cubic feet in 1986 to a peak of 8.4 trillion cubic feet in 1998 before subsiding to 8.0 trillion cubic feet the following year. Higher rates of extraction and new reserve additions accounted for the production increases. Nevertheless, the companies’ reserves declined 15 percent during the period.

Two key factors appear to underlie the majors’ growth in natural gas production. One factor is Section 29 of the 1980 Windfall Profit Tax Act,

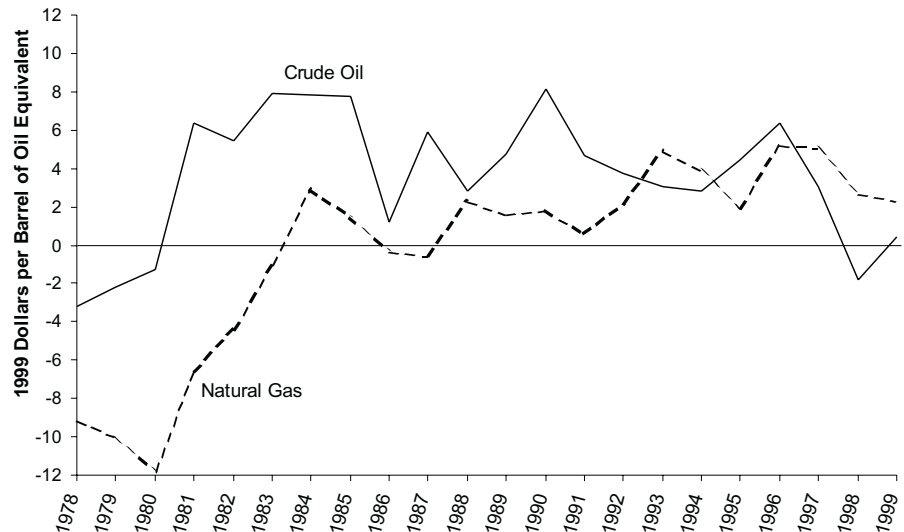
which allows tax credits for domestic production of certain qualifying fuels, including gas derived from coal seams, tight sands, shale, and other sources. The credit, which applies to fuels from wells drilled between 1980 and 1992 and is scheduled to expire in 2002, averaged \$1.02 per thousand cubic feet of gas during the 1990s and boosted the effective price received by over 50 percent. Nearly half of the FRS companies reported taking Section 29 credits, mostly from coalbed methane production.

However, the most important factor behind the majors’ shift to natural gas appears to be gains in the profitability of natural gas production compared to the profitability of oil production. The article analyzes changes in profitability using crude oil and natural gas upstream margins (prices received less extraction and reserve replacement costs) as surrogates for di-

rect data on income and assets associated with oil and natural gas. By this measure, the profitability of natural gas improved relative to that of crude oil during the 1990s (see figure). The natural gas margin generally rose during the early 1980s, exceeding the oil margin first in 1993 and in 4 of the following 6 years. The majors’ shift in production toward natural gas, though lagging a bit in response, followed this trend.

Natural gas appears likely to remain an attractive investment for the FRS companies. The estimated margin for gas was at a record high in 2000 and is forecast to move even higher in 2001. These margins have stimulated much new exploration and development pursuant to greater production. The majors also seem likely to take a larger role in the supply of natural gas, through increased imports of both natural gas (especially from Canada) and liquefied natural gas.

FRS Companies’ Oil and Gas Margins in U.S. Production



Notes: • FRS = Financial Reporting System. See text for explanation. • Natural gas is converted to barrels of oil equivalent at 1 thousand cubic feet = 0.178 barrels.

Source: Energy Information Administration.

The Majors’ Shift to Natural Gas is available only on the EIA website. Go to www.eia.doe.gov and select Analyses, Finance, Analysis, and Current Publications. Contact wmaster@eia.doe.gov or call 202-586-8959 if you have problems. Questions about the report’s content should be directed to Jon Rasmussen, Office of Energy Markets and End Use, at jon.rasmussen@eia.doe.gov or 202-586-1449. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202-586-8800.

Section 1. Energy Overview

Energy production during July 2001 totaled 6.1 quadrillion Btu, a 1.3-percent increase compared with the level of production during July 2000. Production of coal increased 7.3 percent; natural gas plant liquids decreased 2.2 percent; crude oil increased 1.2 percent; natural gas (dry) increased 0.5 percent; and nuclear electric power decreased 0.1 percent, compared with the level of production during July 2000.

Energy consumption during July 2001 totaled 8.2 quadrillion Btu, 0.4 percent above the level of consumption during July 2000. Consumption of coal

increased 3.3 percent; natural gas increased 1.6 percent; petroleum increased 1.0 percent; and nuclear electric power decreased 0.1 percent, compared with the level 1 year earlier.

Net imports of energy during July 2001 totaled 2.3 quadrillion Btu, 2.3 percent above the level of net imports 1 year earlier. Net imports of natural gas rose 1.3 percent; petroleum products decreased 0.5 percent; and crude oil increased 0.1 percent. Net exports of coal decreased 74.3 percent while net imports of coal coke decreased 91.0 percent, compared with the level in July 2000.

Table 1.1 Energy Summary for July 2001
(Quadrillion Btu)

	July			Cumulative January Through July				
	2001	2000	Percent Change ^a	2001	2001 Daily Rate	2000	2000 Daily Rate	Percent Change ^b
Production^c	6.082	6.002	1.3	42.452	0.200	41.866	0.197	1.9
Fossil Fuels	4.845	4.700	3.1	34.177	.161	33.187	.156	3.5
Coal	1.915	1.785	7.3	13.999	.066	13.071	.061	7.6
Natural Gas (Dry)	^E 1.668	^E 1.660	.5	^E 11.585	^E .055	^E 11.358	^E .053	2.5
Crude Oil ^d	^E 1.044	1.032	1.2	^E 7.180	^E .034	7.203	.034	.1
Natural Gas Plant Liquids .....	.219	.224	-2.2	1.413	.007	1.556	.007	-8.7
Nuclear Electric Power .....	.734	.735	-1	4.743	.022	4.692	.022	1.6
Renewable Energy .....	.508	.570	-10.9	3.567	.017	4.019	.019	-10.8
Consumption^e	8.211	8.178	.4	57.213	.270	57.561	.270	-1
Fossil Fuels^f	6.966	6.858	1.6	48.900	.231	48.793	.229	.7
Coal	2.062	1.996	3.3	12.822	.060	12.779	.060	.8
Natural Gas ^g	^F 1.614	1.589	1.6	^E 13.757	^E .065	13.858	.065	-3
Petroleum ^h	3.283	3.252	1.0	22.257	.105	22.047	.104	1.4
Nuclear Electric Power .....	.734	.735	-1	4.743	.022	4.692	.022	1.6
Renewable Energy^e .....	.528	.602	-12.4	3.688	.017	4.185	.020	-11.5
Net Imports	2.262	2.211	2.3	15.397	.073	14.470	.068	6.9
Fossil Fuelsⁱ	2.243	2.179	2.9	15.277	.072	14.305	.067	7.3
Coal ^j	-.025	-.099	-74.3	-.486	-.002	-.691	-.003	-29.2
Coal Coke .....	.000	.006	-91.0	.020	(s)	.041	(s)	-50.1
Natural Gas	^E .314	.310	1.3	^E 2.180	^E .010	2.047	.010	7.0
Crude Oil ^k	1.735	1.733	.1	11.621	.055	11.202	.053	4.2
Petroleum Products ^l .....	.213	.214	-5	1.919	.009	1.637	.008	17.8
Renewable Energy^m .....	.019	.032	-39.1	.121	.001	.166	.001	-26.8

^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.

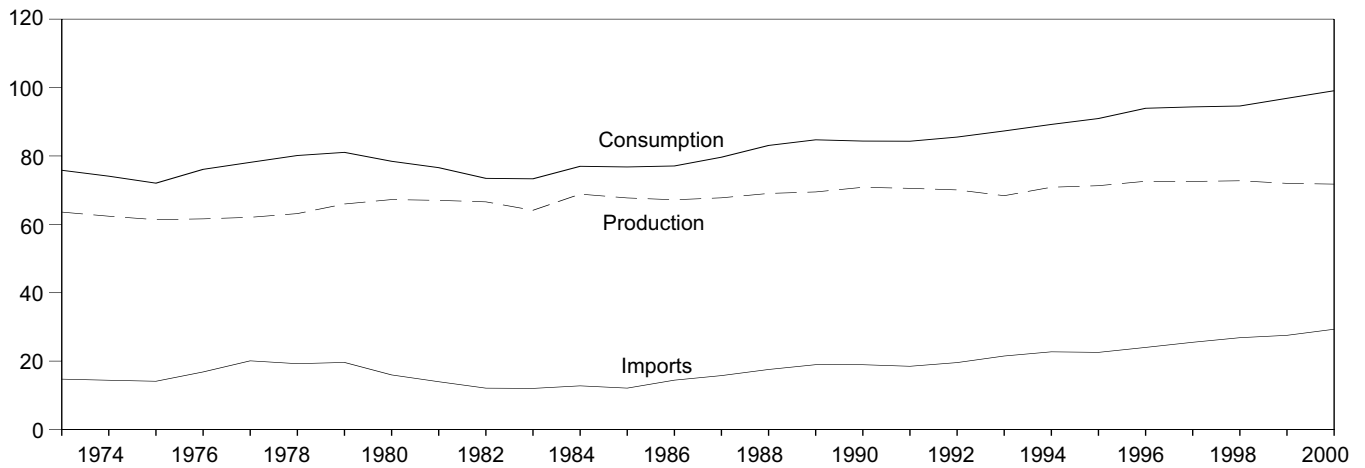
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: Tables 1.3, 1.4, and 1.5.

Figure 1.1 Energy Overview

(Quadrillion Btu)

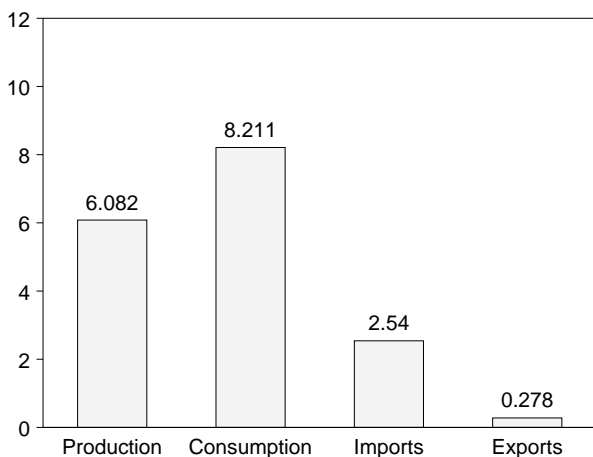
Consumption, Production, and Imports, 1973-2000



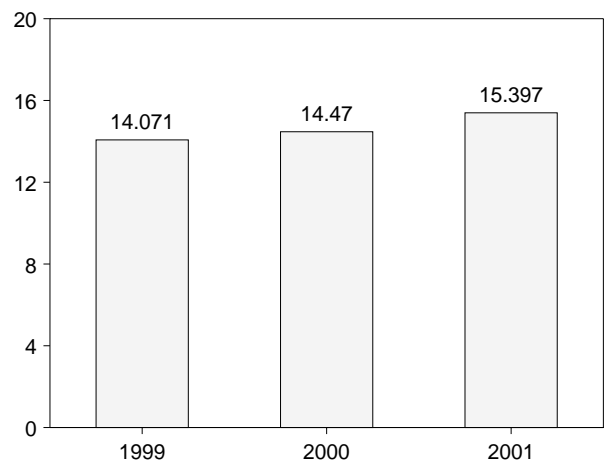
Consumption, Production, and Imports, Monthly



Overview, July 2001



Net Imports, January-July



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

Table 1.2 Energy Overview
(Quadrillion Btu)

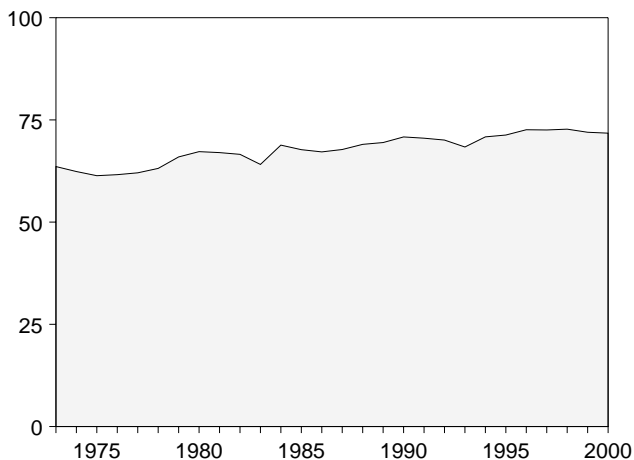
	Production	Consumption ^a	Imports	Exports	Net Imports
1973 Total	63.585	75.808	14.731	2.051	12.680
1974 Total	62.372	74.080	14.413	2.223	12.190
1975 Total	61.357	72.042	14.111	2.359	11.752
1976 Total	61.602	76.072	16.837	2.188	14.648
1977 Total	62.052	78.122	20.090	2.071	18.019
1978 Total	63.137	80.123	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	R 6.042	R 9.019	2.238	.327	1.911
February	R 5.746	R 8.453	2.236	.270	1.966
March	R 6.292	R 8.317	2.394	.372	2.022
April	R 5.750	R 7.687	2.400	.316	2.084
May	R 6.044	R 7.956	2.442	.333	2.109
June	R 5.989	R 7.951	2.499	.331	2.168
July	R 6.002	R 8.178	2.528	.317	2.211
August	R 6.238	R 8.499	2.642	.388	2.254
September	R 5.842	R 7.769	2.481	.330	2.151
October	R 5.986	7.855	2.452	.381	2.071
November	R 5.902	R 8.055	2.387	.382	2.004
December	R 5.927	R 9.333	2.626	.360	2.266
Total	R 71.761	R 99.072	29.324	4.108	25.216
2001 January	R 6.189	R 9.258	2.635	.358	2.278
February	R 5.622	R 8.131	2.272	.303	1.968
March	6.247	R 8.548	2.606	.301	2.305
April	R 5.926	R 7.692	2.549	.330	2.220
May	R 6.228	R 7.703	2.638	.373	2.265
June	6.157	R 7.671	R 2.413	R .314	R 2.099
July	6.082	8.211	2.540	.278	2.262
7-Month Total	42.452	57.213	17.654	2.257	15.397
2000 7-Month Total	41.866	57.561	16.737	2.267	14.470
1999 7-Month Total	41.915	56.507	16.219	2.148	14.071

^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)

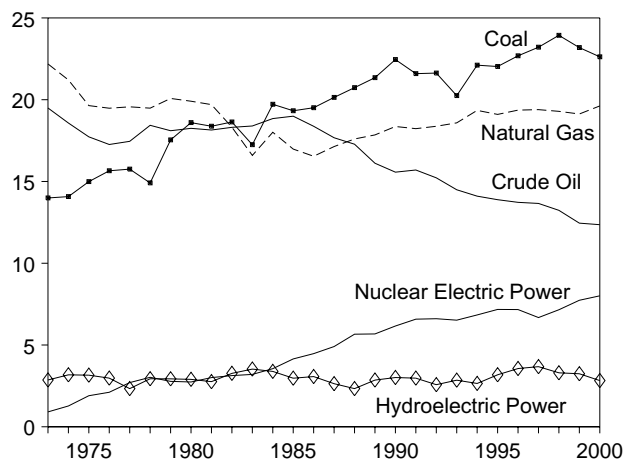
Total, 1973-2000



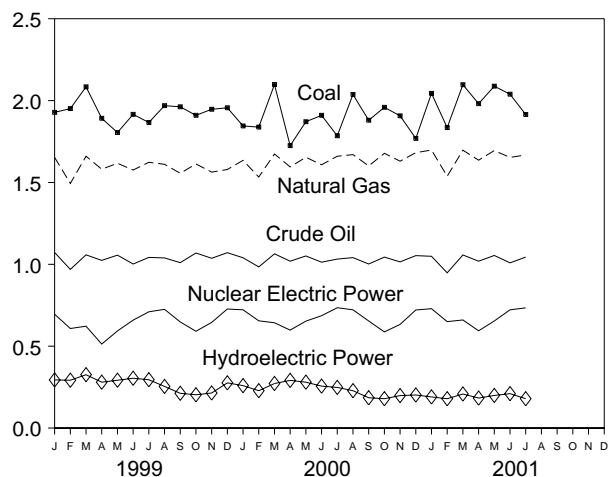
Total, Monthly



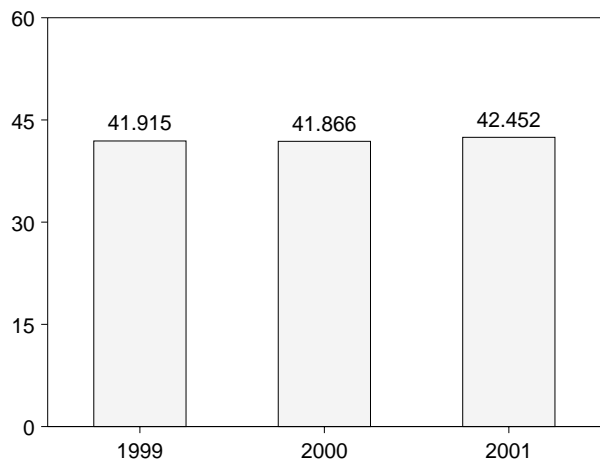
By Major Sources, 1973-2000



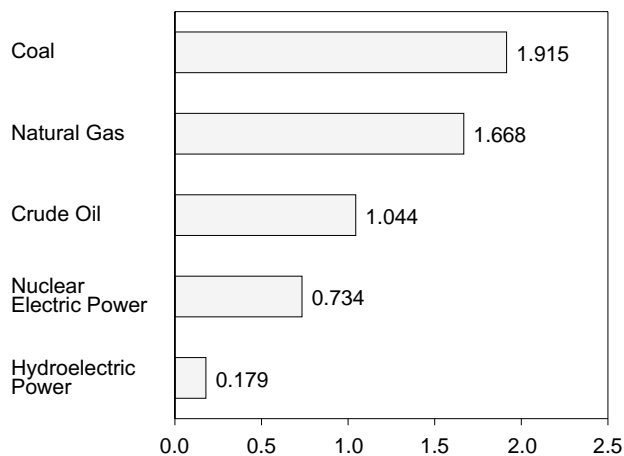
By Major Sources, Monthly



Total, January-July



By Major Sources, July 2001



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

Table 1.3 Energy Production by Source
(Quadrillion Btu)

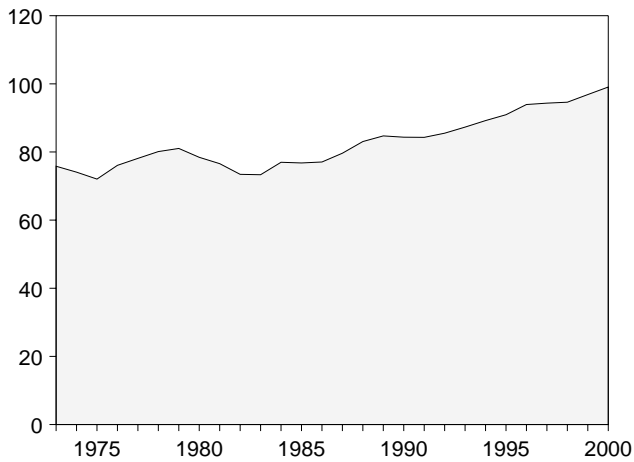
	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ^c	Renewable Energy ^a					Total
	Coal	Natural Gas (Dry)	Crude Oil ^b	Natural Gas Plant Liquids	Total			Conventional Hydroelectric Power	Wood, Waste, Alcohol ^d	Geo-thermal	Solar and Wind	Total	
1973 Total	13.992	22.187	19.493	2.569	58.241	0.910	(e)	2.861	1.529	0.043	NA	4.433	63.585
1974 Total	14.074	21.210	18.575	2.471	56.331	1.272	(e)	3.177	1.540	.053	NA	4.769	62.372
1975 Total	14.989	19.640	17.729	2.374	54.733	1.900	(e)	3.155	1.499	.070	NA	4.723	61.357
1976 Total	15.654	19.480	17.262	2.327	54.723	2.111	(e)	2.976	1.713	.078	NA	4.768	61.602
1977 Total	15.755	19.565	17.454	2.327	55.101	2.702	(e)	2.333	1.838	.077	NA	4.249	62.052
1978 Total	14.910	19.485	18.434	2.245	55.074	3.024	(e)	2.937	2.038	.064	NA	5.039	63.137
1979 Total	17.540	20.076	18.104	2.286	58.006	2.776	(e)	2.931	2.152	.084	NA	5.166	65.948
1980 Total	18.598	19.908	18.249	2.254	59.008	2.739	(e)	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	57.575	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	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	(e)	E 2.660	E 2.660	.343	.094	6.145	70.835
1991 Total	21.594	18.229	15.701	2.306	57.829	6.580	(e)	E 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	(e)	E 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	(e)	2.892	2.803	.369	.102	6.165	68.378
1994 Total	22.111	19.348	14.103	2.391	57.952	6.838	(e)	2.684	2.938	.364	.107	6.093	70.848
1995 Total	22.029	19.101	13.887	2.442	57.458	7.177	(e)	3.207	3.066	.314	.106	6.694	71.301
1996 Total	22.684	19.363	13.723	2.530	58.299	7.168	(e)	3.593	3.126	.332	.110	7.160	72.595
1997 Total	23.211	19.394	13.658	2.495	58.758	6.678	(e)	3.718	3.004	.322	.107	7.151	72.545
1998 Total	23.935	19.288	13.235	2.420	58.879	7.157	(e)	3.345	2.976	.327	.104	6.752	72.742
1999 January	1.928	1.653	1.072	.192	4.845	.695	(e)	.300	E .280	E .025	E .008	.612	6.147
February	1.951	1.494	.969	.181	4.595	.608	(e)	.296	E .250	E .022	E .007	.575	5.774
March	2.084	1.660	1.058	.207	5.009	.622	(e)	.330	E .273	E .025	E .009	.637	6.264
April	1.892	1.581	1.024	.203	4.700	.513	(e)	.285	E .267	E .024	E .010	.585	5.793
May	1.805	1.617	1.056	.208	4.686	.593	(e)	.299	E .274	E .025	E .012	.610	5.882
June	1.916	1.576	1.002	.210	4.706	.659	(e)	.310	E .267	E .029	E .013	.619	5.977
July	1.866	1.623	1.042	.221	4.752	.710	(e)	.302	E .277	E .031	E .013	.622	6.078
August	1.969	1.611	1.039	.217	4.837	.725	(e)	.262	E .277	E .032	E .012	.583	6.137
September	1.962	1.556	1.010	.215	4.743	.648	(e)	.216	E .274	E .031	E .010	.531	5.918
October	1.910	1.613	1.069	.227	4.819	.591	(e)	.208	E .275	E .032	E .009	.524	5.928
November	1.947	1.563	1.037	.219	4.766	.645	(e)	.219	E .268	E .030	E .008	.525	5.931
December	1.956	1.579	1.071	.227	4.834	.727	(e)	.280	E .278	E .030	E .008	.596	6.153
Total	23.186	19.126	12.451	2.528	57.291	7.736	(e)	3.305	E 3.259	.335	.119	7.018	71.982
2000 January	R 1.845	E 1.635	1.040	.226	R 4.747	.722	(e)	.264	E .277	E .027	E .010	.578	R 6.042
February	R 1.838	E 1.533	.984	.215	R 4.570	.655	(e)	.233	E .259	E .024	E .009	.525	R 5.746
March	R 2.098	E 1.674	1.064	.230	R 5.065	.643	(e)	.277	E .278	E .024	E .010	.589	R 6.292
April	R 1.725	E 1.595	1.019	.220	R 4.558	.598	(e)	.295	E .268	E .025	E .011	.599	R 5.750
May	R 1.871	E 1.654	1.051	.225	R 4.800	.653	(e)	.285	E .275	E .026	E .011	.596	R 6.044
June	R 1.910	E 1.608	1.013	.215	R 4.747	.686	(e)	.262	E .264	E .026	E .011	.562	R 5.989
July	R 1.785	E 1.660	1.032	.224	R 4.700	.735	(e)	.252	E .281	E .027	E .010	.570	R 6.002
August	R 2.037	E 1.670	1.041	.225	R 4.972	.722	(e)	.232	E .278	E .028	E .011	.548	R 6.238
September	R 1.880	E 1.601	1.002	.215	R 4.698	.654	(e)	.192	E .268	E .027	E .010	.497	R 5.842
October	R 1.959	E 1.678	1.044	.222	R 4.903	.587	(e)	.183	E .279	E .028	E .010	.500	R 5.986
November	R 1.907	RE 1.630	1.015	.210	R 4.763	.633	(e)	.201	E .271	E .028	E .010	.510	R 5.902
December	R 1.769	RE 1.682	1.053	.183	R 4.687	.721	(e)	.208	E .278	E .029	E .009	.524	R 5.927
Total	R 22.623	RE 19.619	12.358	2.611	R 57.211	8.009	(e)	2.883	E 3.276	E .319	E .121	6.599	R 71.761
2001 January	2.044	RE 1.698	E 1.049	.160	R 4.951	.729	(e)	.195	E .280	E .029	E .009	.513	R 6.189
February	1.835	RE 1.538	E .948	.181	R 4.502	.650	(e)	.184	E .255	E .026	E .010	.475	R 5.622
March	2.097	RE 1.697	E 1.057	.212	5.063	.660	(e)	.213	E .278	E .027	E .012	.530	R 6.247
April	1.981	RE 1.636	E 1.019	.206	R 4.841	.594	(e)	.190	E .270	E .025	E .013	.497	R 5.926
May	2.088	RE 1.695	E 1.054	.222	R 5.060	.654	(e)	.202	E .278	E .025	E .014	.519	R 6.228
June	2.039	E 1.653	E 1.009	.214	4.915	.722	(e)	.214	E .272	E .025	E .014	.524	6.157
July	1.915	E 1.668	E 1.044	.219	4.845	.734	(e)	.185	E .283	E .027	E .014	.508	6.082
7-Month Total	13.999	E 11.585	E 7.180	1.413	34.177	4.743	(e)	1.383	E 1.915	E .184	E .085	3.567	42.452
2000 7-Month Total	13.071	E 11.358	7.203	1.556	33.187	4.692	(e)	1.868	E 1.901	E .179	E .072	4.019	41.866
1999 7-Month Total	13.443	11.204	7.224	1.422	33.293	4.400	(e)	2.121	E 1.887	E .180	E .071	4.260	41.915

^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)

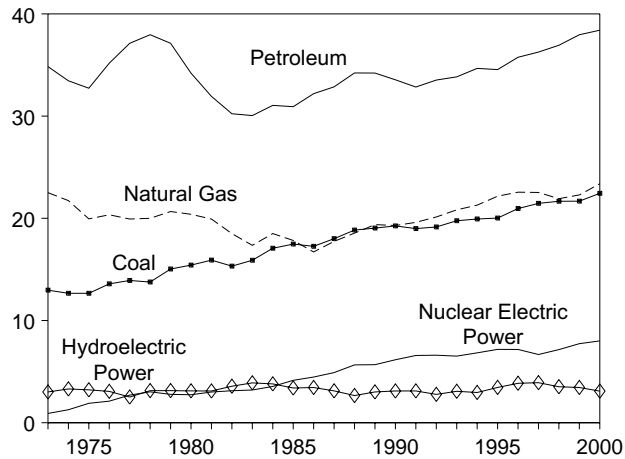
Total, 1973-2000



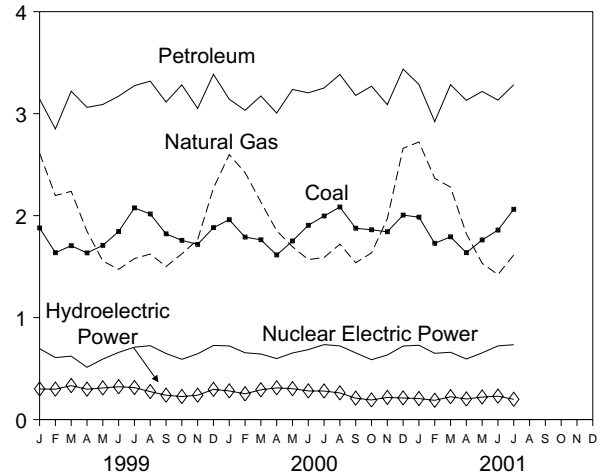
Total, Monthly



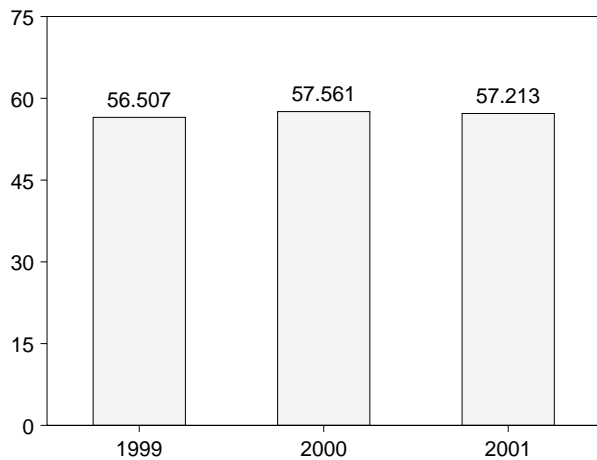
By Major Sources, 1973-2000



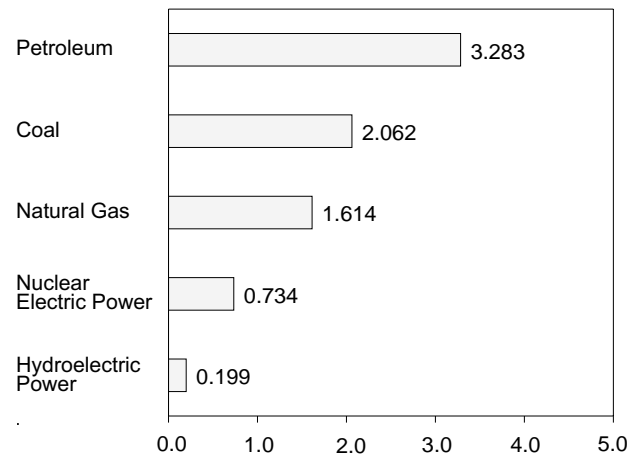
By Major Sources, Monthly



Total, January-July



By Major Sources, July 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				Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy ^a					Total ^f
	Coal	Natural Gas ^b	Petroleum ^c	Total ^d			Conventional Hydroelectric Power	Wood, Waste, Alcohol ^f	Geo-thermal	Solar and Wind	Total	
1973 Total	12.971	22.512	34.840	70.316	0.910	(9)	3.010	1.529	0.043	NA	4.581	75.808
1974 Total	12.663	21.732	33.455	67.906	1.272	(9)	3.309	1.540	.053	NA	4.902	74.080
1975 Total	12.663	19.948	32.731	65.355	1.900	(9)	3.219	1.499	.070	NA	4.788	72.042
1976 Total	13.584	20.345	35.175	69.104	2.111	(9)	3.066	1.713	.078	NA	4.857	76.072
1977 Total	13.922	19.931	37.122	70.989	2.702	(9)	2.515	1.838	.077	NA	4.431	78.122
1978 Total	13.766	20.000	37.965	71.856	3.024	(9)	3.141	2.038	.064	NA	5.243	80.123
1979 Total	15.040	20.666	37.123	72.892	2.776	(9)	3.141	2.152	.084	NA	5.377	81.044
1980 Total	15.423	20.394	34.202	69.984	2.739	(9)	E 3.118	2.485	.110	NA	5.712	78.435
1981 Total	15.908	19.928	31.931	67.750	3.008	(9)	E 3.105	2.590	.123	NA	5.818	76.569
1982 Total	15.322	18.505	30.231	64.036	3.131	(9)	E 3.572	2.615	.105	NA	6.292	73.440
1983 Total	15.894	17.357	30.054	63.290	3.203	(9)	E 3.899	2.831	.129	(s)	6.860	73.317
1984 Total	17.071	18.507	31.051	66.617	3.553	(9)	E 3.800	2.880	.165	(s)	6.845	76.972
1985 Total	17.478	17.834	30.922	66.221	4.149	(9)	E 3.398	E 2.864	.198	(s)	6.460	76.778
1986 Total	17.260	16.708	32.196	66.148	4.471	(9)	E 3.446	E 2.841	.219	(s)	6.507	77.065
1987 Total	18.008	17.744	32.865	68.626	4.906	(9)	E 3.117	E 2.823	.229	(s)	6.170	79.633
1988 Total	18.846	18.522	34.222	71.660	5.661	(9)	E 2.662	E 2.937	.217	(s)	5.817	83.068
1989 Total	19.043	19.384	34.211	72.618	5.677	(9)	3.014	E 3.060	.334	.083	6.492	84.716
1990 Total	19.253	19.296	33.553	72.027	6.162	-0.36	3.146	E 2.660	.355	.094	6.254	84.344
1991 Total	18.998	19.606	32.845	71.519	6.580	-0.47	3.159	E 2.700	.363	.097	6.320	84.298
1992 Total	19.152	20.131	33.527	72.897	6.608	-0.43	2.818	E 2.845	.374	.097	6.134	85.513
1993 Total	19.763	20.827	33.841	74.508	6.520	-0.42	3.119	E 2.803	.387	.102	6.410	87.300
1994 Total	19.933	21.288	34.670	76.089	6.838	-0.35	2.993	E 2.938	.391	.107	6.429	89.213
1995 Total	20.025	22.163	34.553	76.924	7.177	-0.28	3.481	E 3.066	.333	.106	6.987	90.943
1996 Total	20.957	22.559	35.757	79.406	7.168	-0.32	3.892	E 3.126	.346	.110	7.473	93.931
1997 Total	21.464	22.530	36.266	80.415	6.678	-0.42	3.961	E 3.004	.322	.107	7.395	94.340
1998 Total	21.667	21.921	36.934	80.637	7.157	-0.46	3.569	E 2.976	.328	.104	6.977	94.608
1999 January	1.879	2.612	3.143	7.639	.695	-0.06	E .306	E .280	E .025	E .008	.619	8.936
February	1.636	2.197	2.850	6.686	.608	-0.04	E .302	E .250	E .022	E .007	.581	7.863
March	1.705	2.238	3.220	7.171	.622	-0.04	E .337	E .273	E .025	E .009	.643	8.423
April	1.634	1.846	3.061	6.558	.513	-0.05	E .303	E .267	E .024	E .010	.603	7.661
May	1.708	1.555	3.090	6.364	.593	-0.07	E .317	E .274	E .025	E .012	.628	7.569
June	1.844	1.473	3.171	6.498	.659	-0.06	E .328	E .267	E .029	E .013	.636	7.777
July	2.076	1.579	3.274	6.941	.710	-0.06	E .320	E .277	E .031	E .013	.641	8.277
August	2.016	1.623	3.319	6.974	.725	-0.08	E .282	E .277	E .032	E .012	.603	8.285
September	1.821	1.501	3.114	6.452	.648	-0.04	E .243	E .274	E .031	E .010	.558	7.645
October	1.757	1.625	3.282	6.678	.591	-0.05	E .231	E .275	E .032	E .009	.547	7.799
November	1.718	1.765	3.051	6.554	.645	-0.05	E .243	E .268	E .030	E .008	.549	7.732
December	1.882	2.270	3.386	7.553	.727	-0.04	E .300	E .278	E .030	E .008	.617	8.878
Total	21.677	22.289	37.960	82.075	7.736	-0.63	3.512	E 3.259	.335	.119	7.226	96.852
2000 January	1.960	R 2.598	3.141	R 7.713	.722	-0.05	E .286	E .277	E .027	E .010	.599	R 9.019
February	1.789	R 2.422	3.033	R 7.263	.655	-0.04	E .257	E .259	E .024	E .009	.549	R 8.453
March	1.763	R 2.133	3.173	R 7.082	.643	-0.06	E .298	E .278	E .024	E .010	.610	R 8.317
April	1.614	R 1.852	3.006	R 6.486	.598	-0.04	E .315	E .268	E .025	E .011	.618	R 7.687
May	1.751	R 1.695	3.237	R 6.700	.653	-0.05	E .309	E .275	E .026	E .011	.620	R 7.956
June	1.905	R 1.569	3.204	R 6.691	.686	-0.06	E .286	E .264	E .026	E .011	.586	R 7.951
July	1.996	R 1.589	3.252	R 6.858	.735	-0.03	E .283	E .281	E .027	E .010	.602	R 8.178
August	2.084	R 1.720	3.384	R 7.212	.722	-0.04	E .265	E .278	E .028	E .011	.581	R 8.499
September	1.876	R 1.538	3.179	R 6.611	.654	-0.07	E .217	E .268	E .027	E .010	.522	R 7.769
October	1.861	R 1.634	3.269	R 6.773	.587	-0.04	E .196	E .279	E .028	E .010	.514	7.855
November	1.841	R 1.970	3.088	R 6.910	.633	-0.04	E .221	E .271	E .028	E .010	.529	R 8.055
December	2.005	R 2.660	3.437	R 8.097	.721	-0.05	E .217	E .278	E .029	E .009	.534	R 9.333
Total	22.445	R 23.379	38.404	R 84.395	8.009	-0.57	E 3.149	E 3.276	E .319	E .121	6.865	R 99.072
2001 January	R 1.985	R 2.722	3.286	R 8.020	.729	-0.04	E .210	E .280	E .029	E .009	.529	R 9.258
February	1.728	R 2.366	2.922	R 7.013	.650	-0.05	E .194	E .255	E .026	E .010	.484	R 8.131
March	1.792	R 2.279	3.284	R 7.359	.660	-0.06	E .229	E .278	E .027	E .012	.546	R 8.548
April	1.636	R 1.822	3.130	R 6.598	.594	-0.06	E .208	E .270	E .025	E .013	.516	R 7.692
May	1.761	R 1.533	3.218	R 6.522	.654	-0.03	RE 225	E .278	E .025	E .014	.541	R 7.703
June	1.858	R 1.422	3.133	R 6.421	.722	-0.04	RE 233	E .272	E .025	E .014	R .544	R 7.671
July	2.062	F 1.614	3.283	6.966	.734	-0.05	E .204	E .283	E .027	E .014	.528	8.211
7-Month Total	12.822	E 13.757	22.257	48.900	4.743	-0.34	E 1.503	E 1.915	E .184	E .085	3.688	57.213
2000 7-Month Total	12.779	13.858	22.047	48.793	4.692	-0.33	E 2.033	E 1.901	E .179	E .072	4.185	57.561
1999 7-Month Total	12.484	13.499	21.809	47.858	4.400	-0.37	E 2.213	E 1.887	E .181	E .071	4.352	56.507

^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.

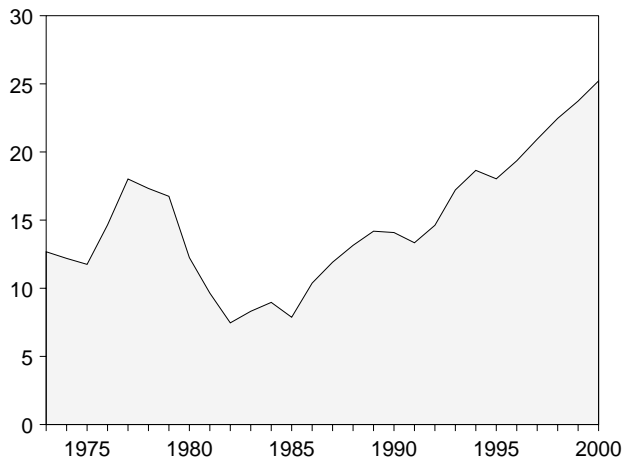
ⁱ Beginning in 1989, includes electricity generated by nonutility nuclear units.

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

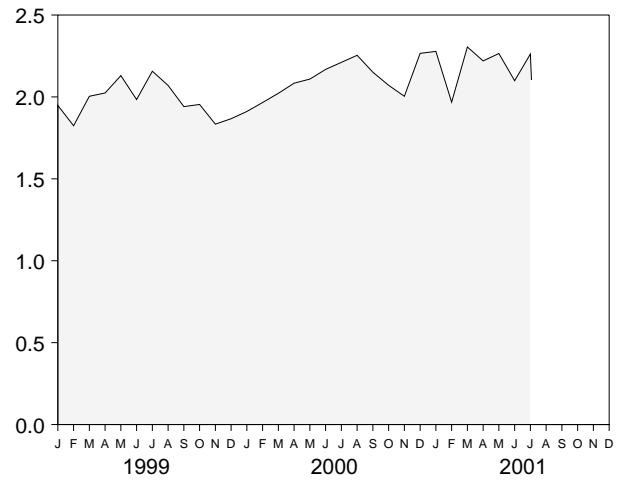
Notes: See Note 2 at end of section. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: Coal: Tables 6.1 and A5. Natural Gas: Tables 4.1 and A4. Petroleum: Tables 3.1a and A3. Nuclear Electric Power: Tables 8.1 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)

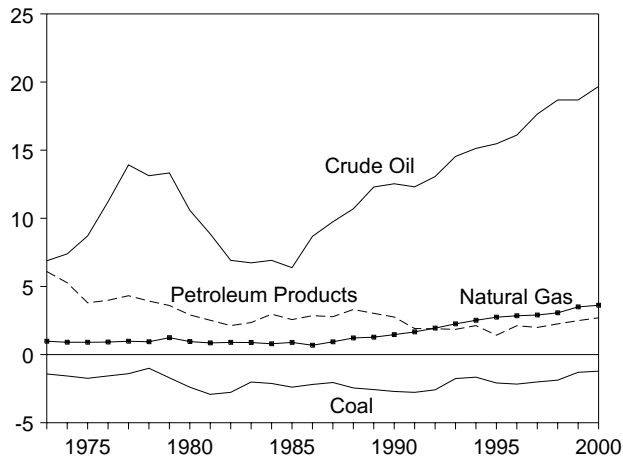
Total, 1973-2000



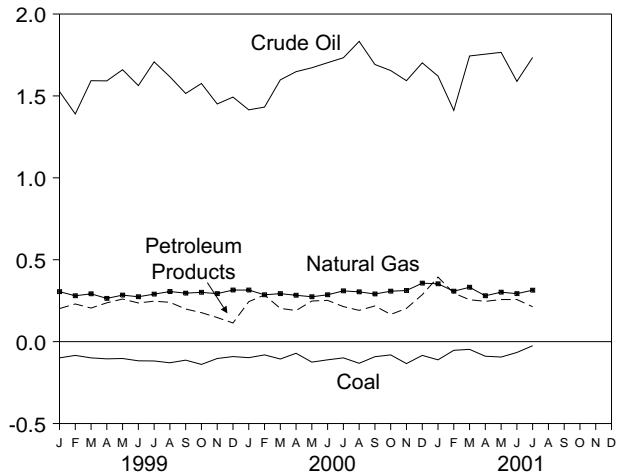
Total, Monthly



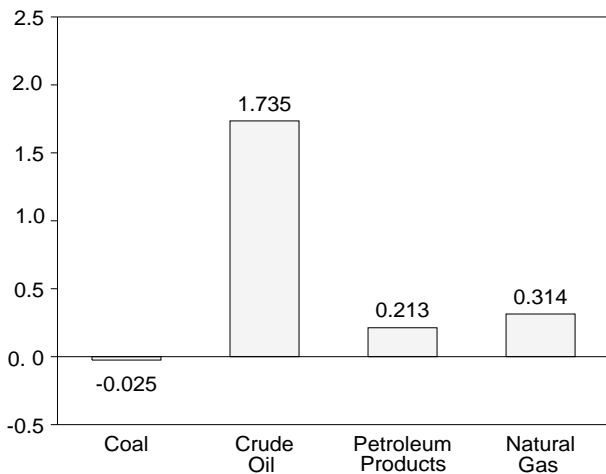
By Major Sources, 1973-2000



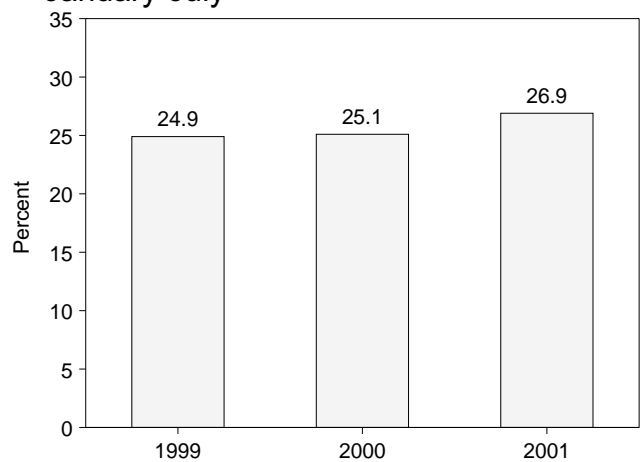
By Major Sources, Monthly



By Major Sources, July 2001



As Share of Consumption, January-July



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

Table 1.5 Energy Net Imports by Source
(Quadrillion Btu)

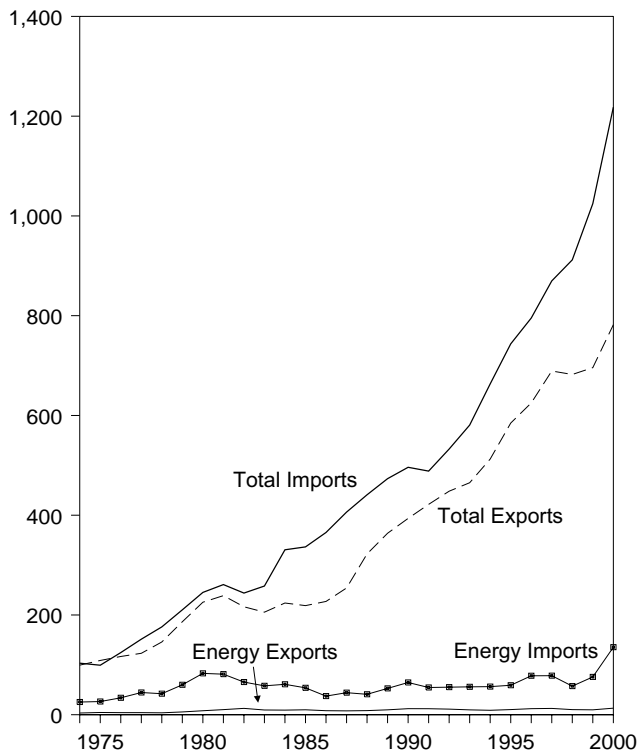
	Fossil Fuels							Renewable Energy			Total
	Coal	Coal Coke	Natural Gas	Crude Oil ^b	Petroleum Products ^c	Electricity ^d	Total	Electricity ^a		Total	
								Hydro-power ^e	Geo-thermal		
1973 Total	-1.422	-0.007	0.981	6.883	6.097	(f)	12.531	0.148	(f)	0.148	12.680
1974 Total	-1.568	.056	.907	7.389	5.273	(f)	12.058	.133	(f)	.133	12.190
1975 Total	-1.738	.014	.904	8.708	3.800	(f)	11.688	.064	(f)	.064	11.752
1976 Total	-1.567	.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	.353	1.621	.394	E .003	2.262	E .015	.000	E .015	2.278
February	-.053	.002	.308	1.412	.296	E -.006	1.959	E .009	.000	E .009	1.968
March	-.047	.003	.332	1.744	.256	E .002	2.289	E .016	.000	E .016	2.305
April	-.089	.005	E .280	1.755	.246	E .005	2.201	E .019	.000	E .019	2.220
May	-.094	.004	E .302	1.766	.257	E .007	R 2.243	E .023	.000	E .023	2.265
June	-.066	.003	E .293	1.589	.257	RE .006	R 2.080	E .019	.000	E .019	R 2.099
July	-.025	.000	E .314	1.735	.213	E .006	2.243	E .019	.000	E .019	2.262
7-Month Total	-.486	.020	E 2.180	11.621	1.919	E .022	15.277	E .121	.000	E .121	15.397
2000 7-Month Total	-.691	.041	2.047	11.202	1.637	E .069	14.305	E .166	.000	E .166	14.470
1999 7-Month Total	-.724	.032	1.989	11.033	1.616	E .034	13.979	E .092	.000	E .092	14.071

^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

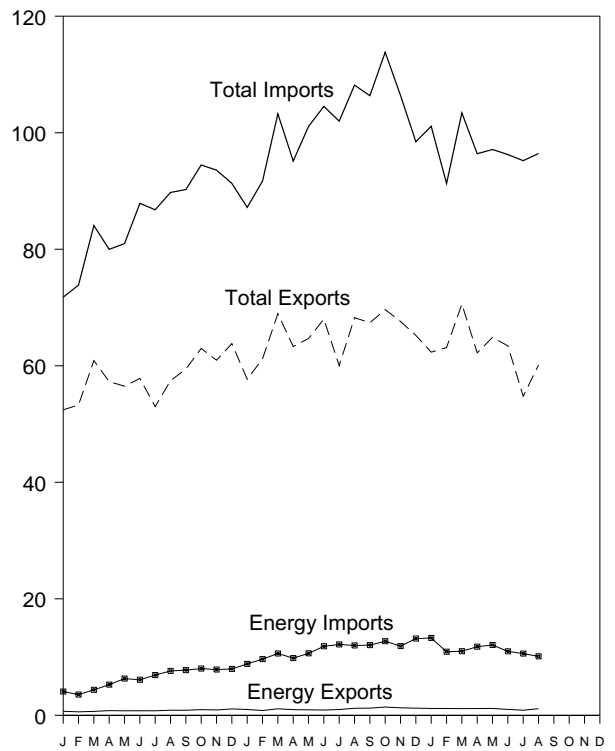
trillion Btu.
Notes: See Notes 3 and 4 at end of section. Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.
Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.
Sources: **Coal:**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

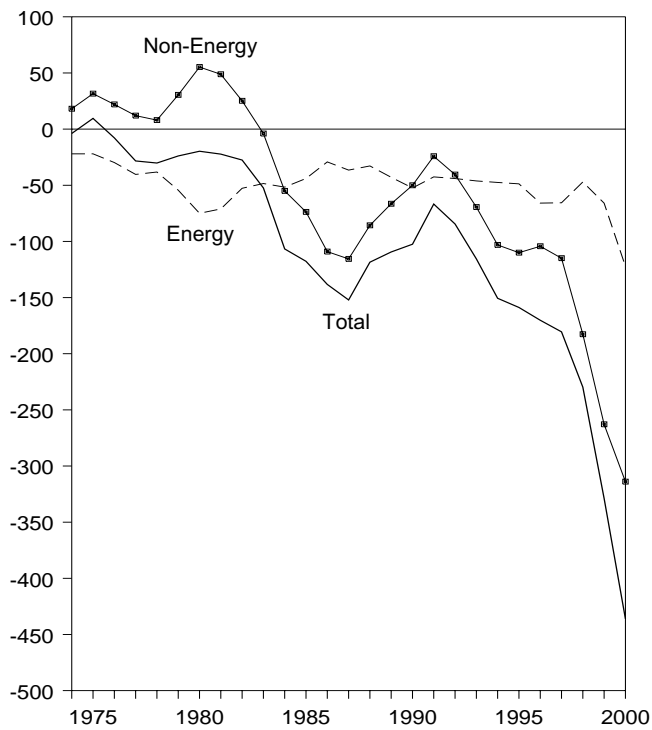
Imports and Exports, 1974-2000



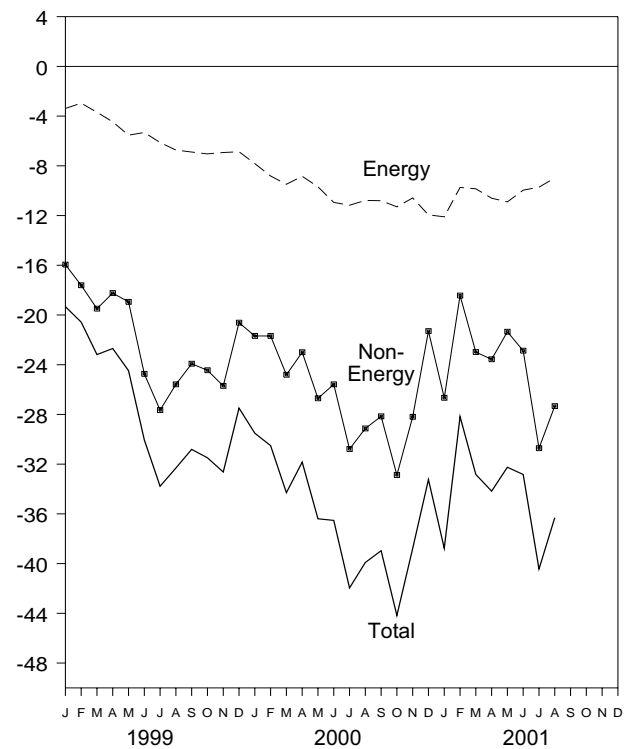
Imports and Exports, Monthly



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	^R -30,719	^R 54,772	^R 95,209	^R -40,437
August	843	8,620	-7,777	1,141	10,119	-8,978	-27,335	60,120	96,433	-36,313
8-Month Total	6,090	74,355	-68,265	8,889	90,730	-81,841	-193,933	501,451	777,225	-275,774
2000 8-Month Total	6,149	82,998	-76,849	7,986	85,537	-77,551	-203,389	512,068	793,007	-280,940
1999 8-Month Total	4,177	38,924	-34,747	6,010	44,205	-38,195	-168,205	448,638	655,036	-206,400

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

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

R=Revised.

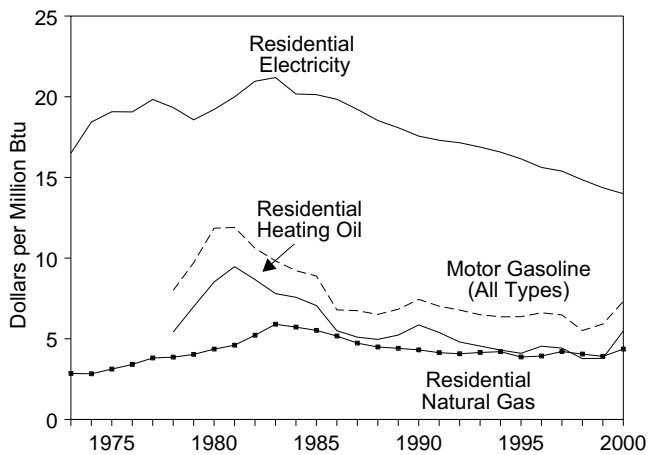
Notes: Monthly data are not adjusted for seasonal variations. See Note 5 at end of section. Totals may not equal sum of components due to independent rounding. The U.S. import statistics reflect both government and

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.

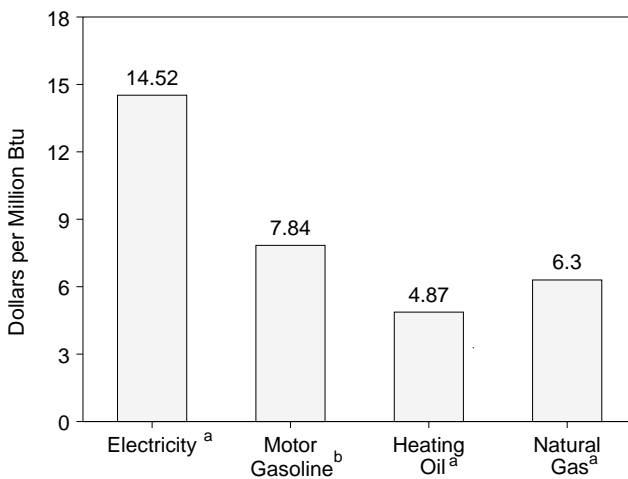
Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this section.

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

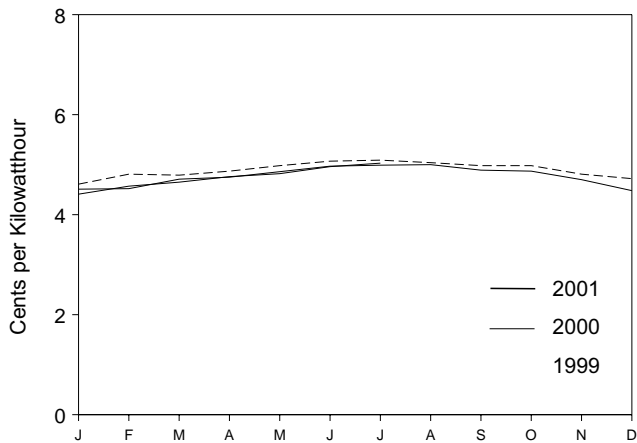
Costs, 1973-2000



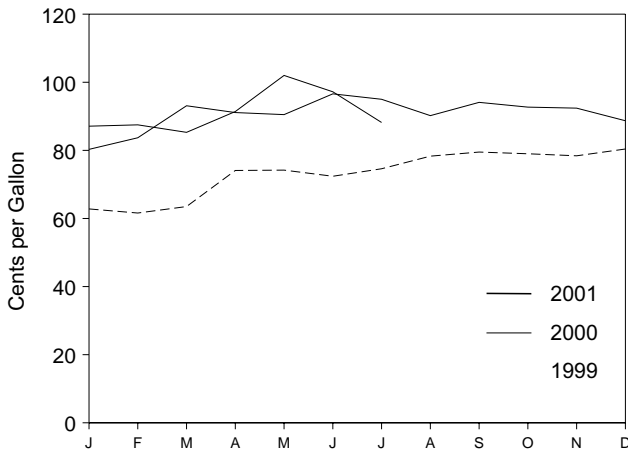
Costs, June 2001



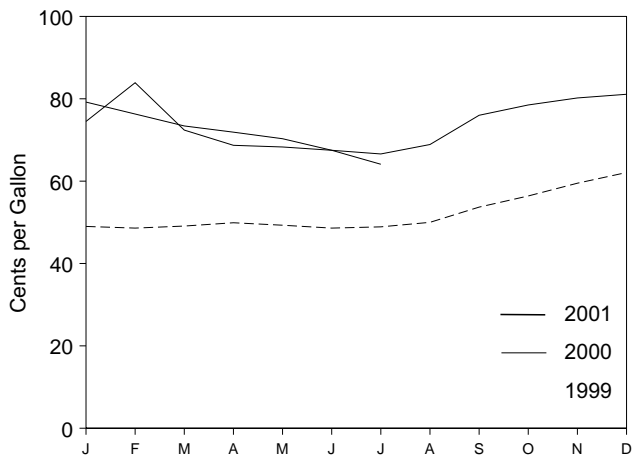
Residential Electricity, Monthly



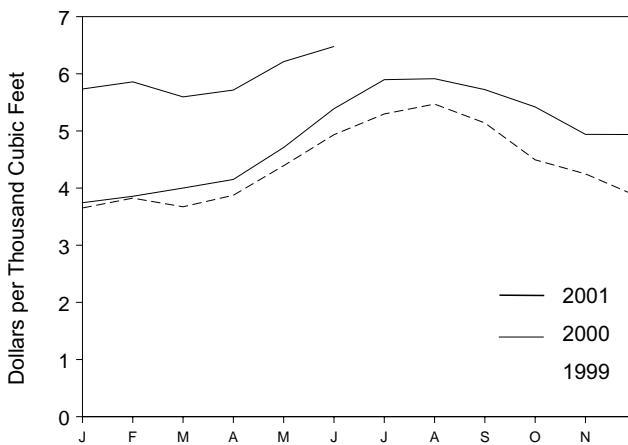
Motor Gasoline (All Types), Monthly



Residential Heating Oil, Monthly



Residential Natural Gas, Monthly



^aResidential.
^bAll types.
 NA=Not available.
 Note: Because vertical scales differ, graphs should not be compared.
 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 Kilowatt-hour	Dollars per Million Btu
1973 Average	44.4	NA	NA	NA	NA	290.5	2.85	5.6	16.50
1974 Average	49.3	NA	NA	NA	NA	290.1	2.83	6.3	18.43
1975 Average	53.8	NA	NA	NA	NA	317.8	3.12	6.5	19.07
1976 Average	56.9	NA	NA	NA	NA	348.0	3.41	6.5	19.06
1977 Average	60.6	NA	NA	NA	NA	387.8	3.81	6.8	19.83
1978 Average	65.2	100.0	8.00	75.2	5.42	392.6	3.86	6.6	19.33
1979 Average	72.6	121.5	9.71	97.0	6.99	410.5	4.03	6.3	18.57
1980 Average	82.4	148.2	11.85	118.2	8.52	446.6	4.36	6.6	19.21
1981 Average	90.9	148.8	11.90	131.4	9.47	471.9	4.60	6.8	19.99
1982 Average	96.5	132.7	10.61	120.2	8.67	535.8	5.22	7.2	20.96
1983 Average	99.6	123.0	9.83	108.2	7.80	608.4	5.90	7.2	21.19
1984 Average	103.9	115.3	9.22	105.0	7.57	589.0	5.72	6.88	20.17
1985 Average	107.6	111.2	8.89	97.9	7.06	568.8	5.52	6.87	20.13
1986 Average	109.6	84.9	6.79	76.3	5.50	531.9	5.17	6.77	19.84
1987 Average	113.6	84.2	6.74	70.7	5.10	487.7	4.73	6.56	19.22
1988 Average	118.3	81.4	6.51	68.7	4.96	462.4	4.49	6.32	18.53
1989 Average	124.0	85.5	6.83	72.6	5.23	454.8	4.41	6.17	18.08
1990 Average	130.7	93.1	7.44	81.3	5.86	443.8	4.31	5.99	17.56
1991 Average	136.2	87.8	7.02	74.8	5.39	427.3	4.14	5.90	17.30
1992 Average	140.3	84.8	6.78	66.6	4.80	419.8	4.07	5.85	17.15
1993 Average	144.5	81.2	6.49	63.0	4.55	426.3	4.15	5.76	16.88
1994 Average	148.2	79.2	6.36	59.6	4.30	432.5	4.20	5.65	16.57
1995 Average	152.4	79.1	6.37	56.9	4.10	397.6	3.87	5.51	16.15
1996 Average	156.9	82.1	6.61	63.0	4.54	404.1	3.93	5.33	15.62
1997 Average	160.5	80.4	6.48	61.3	4.42	432.4	4.21	5.25	15.39
1998 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	^R 83.9	^R 6.05	385.7	3.75	4.52	13.26
March	171.2	93.1	^R 7.51	72.4	5.22	400.1	3.89	4.71	13.80
April	171.3	91.1	^R 7.35	68.7	4.95	415.1	4.04	4.75	13.91
May	171.5	90.5	^R 7.30	^R 68.3	^R 4.93	^R 471.1	^R 4.58	4.86	14.25
June	172.4	96.6	7.79	67.5	4.86	^R 538.9	^R 5.24	4.97	14.55
July	172.8	95.0	7.66	^R 66.6	^R 4.80	^R 589.7	^R 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	^R 76.0	5.48	572.3	5.57	4.89	14.34
October	174.0	92.7	7.47	78.5	5.66	^R 542.0	^R 5.27	4.87	14.27
November	174.1	92.4	^R 7.45	80.2	^R 5.79	494.0	4.81	4.70	13.79
December	174.0	88.7	7.15	^R 81.1	^R 5.85	^R 493.7	^R 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	^R 573.4	^R 5.58	4.41	12.94
February	175.8	87.5	7.05	76.3	5.50	^R 585.9	^R 5.70	4.57	13.39
March	176.2	85.3	6.88	73.4	5.30	^R 559.6	^R 5.44	4.65	13.62
April	176.9	91.4	7.37	71.9	5.18	^R 571.5	^R 5.56	4.76	13.95
May	177.7	102.0	8.22	70.3	5.07	^R 621.3	^R 6.04	4.82	14.13
June	178.0	97.2	7.84	^R 67.5	^R 4.87	647.8	6.30	4.96	14.52
July	177.5	88.2	7.11	64.1	4.62	NA	NA	5.03	14.74

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

R=Revised. NA=Not available.

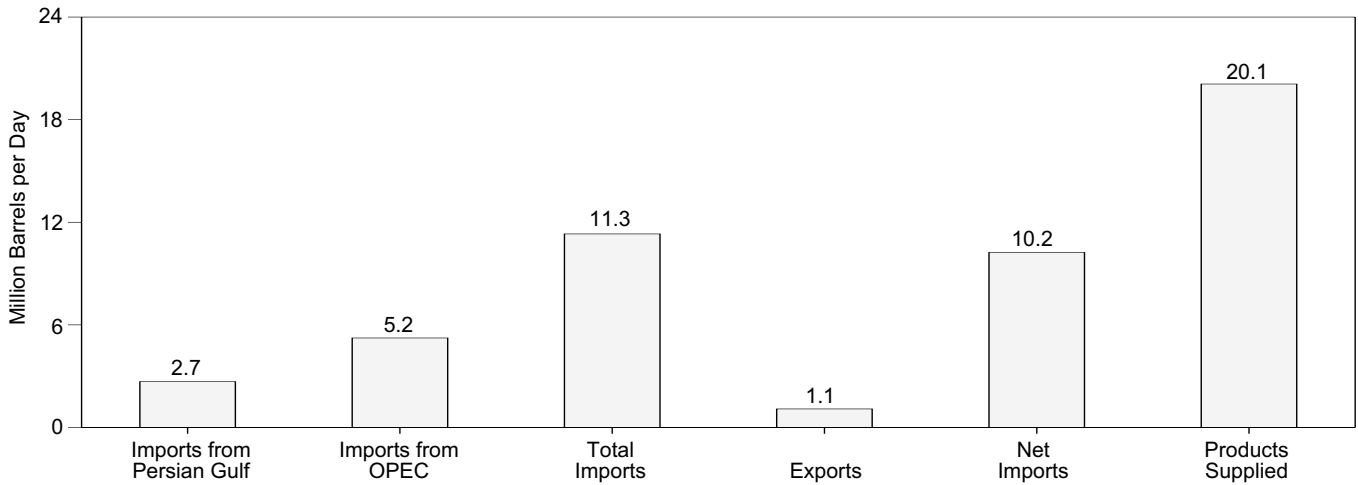
Notes: Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. Annual averages may not equal average of months due to independent rounding.

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

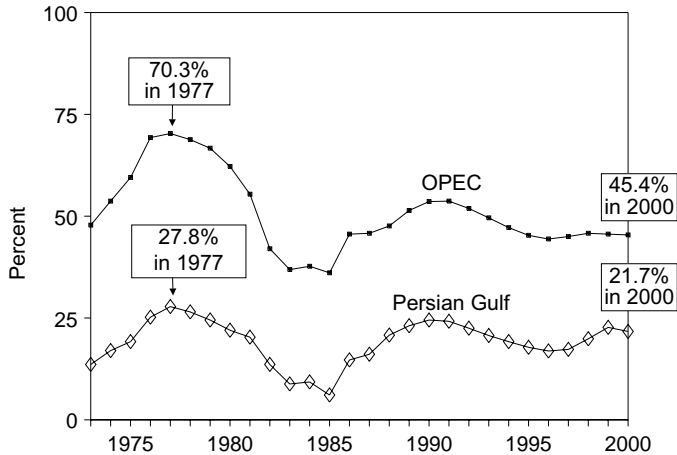
Sources: **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.11, and 9.9, adjusted by the CPI. **CPI: 1973-1997—***Economic Report of the President*, February 2001, Table B-60. **1998 forward—**Council of Economic Advisers, *Economic Indicators*, September 2001, "Consumer Prices - All Urban Consumers."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

Figure 1.7 Overview of U.S. Petroleum Trade

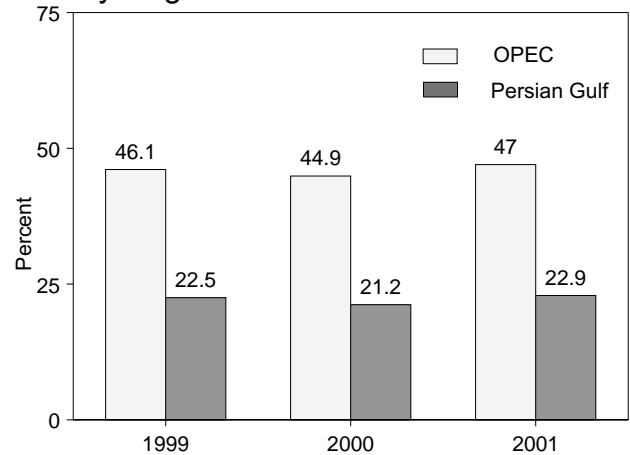
Overview, August 2001



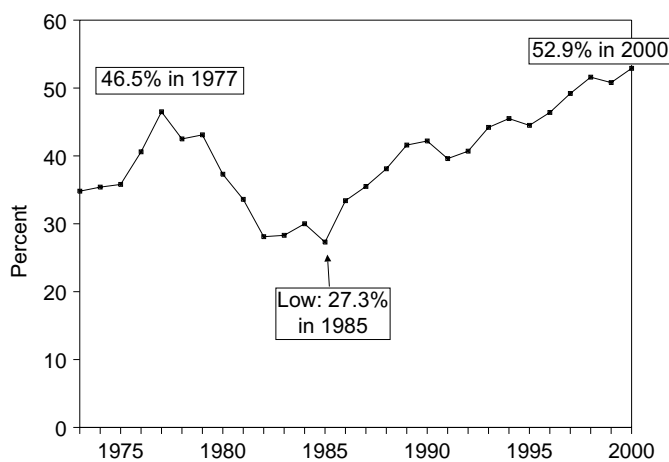
Imports from OPEC and the Persian Gulf as a Share of Total Imports
1973-2000



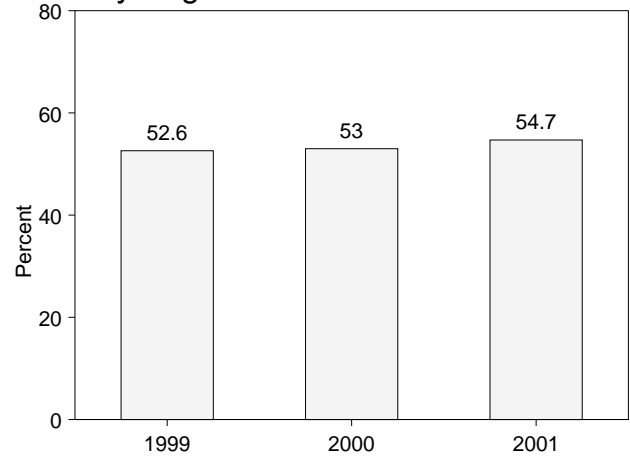
January-August



Net Imports as Share of Products Supplied
1973-2000



January-August



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

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

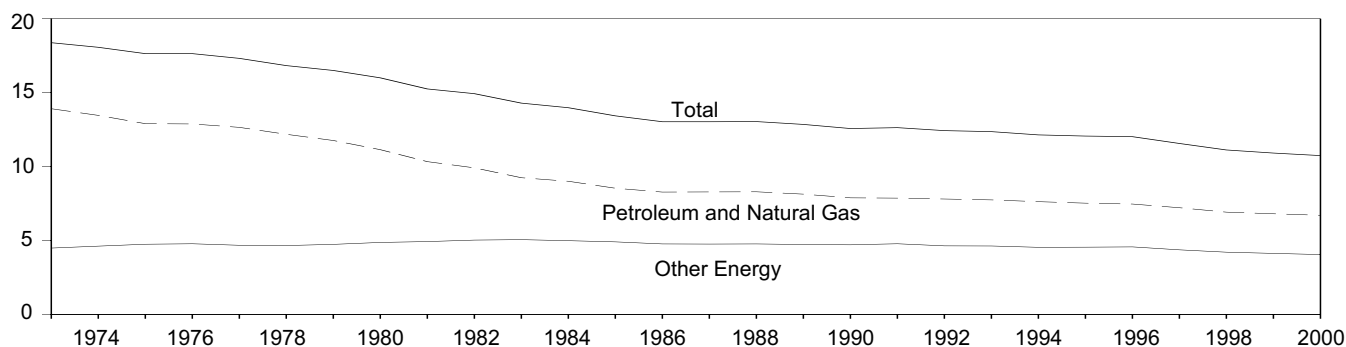


Table 1.9 Energy Consumption per Dollar of Gross Domestic Product
(Seasonally Adjusted at Annual Rates)

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Dollar of GDP		
	Petroleum and Natural Gas	Other Energy ^a	Total		Petroleum and Natural Gas	Other Energy ^a	Total
	Quadrillion Btu				Billion Chained (1996) Dollars	Thousand Btu per Chained (1996) Dollar	
1973 Year	57.352	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 1 st Quarter	60.773	NA	NA	8,733.5	6.96	NA	NA
2 nd Quarter	60.295	NA	NA	8,771.2	6.86	NA	NA
3 rd Quarter	60.280	NA	NA	8,871.5	6.77	NA	NA
4 th Quarter	59.634	NA	NA	9,049.9	6.62	NA	NA
Year	60.248	36.604	96.852	8,856.5	6.80	^R 4.13	^R 10.94
2000 1 st Quarter	^R 61.354	NA	NA	9,102.5	6.74	NA	NA
2 nd Quarter	^R 61.986	NA	NA	9,229.4	^R 6.72	NA	NA
3 rd Quarter	^R 61.151	NA	NA	9,260.1	6.60	NA	NA
4 th Quarter	^R 62.638	NA	NA	9,303.9	6.73	NA	NA
Year	^R 61.783	37.289	^R 99.072	9,224.0	^R 6.70	4.04	10.74
2001 1 st Quarter	^R 63.089	NA	NA	9,334.5	^R 6.76	NA	NA
2 nd Quarter	^R 60.489	NA	NA	^R 9,341.7	^R 6.48	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.

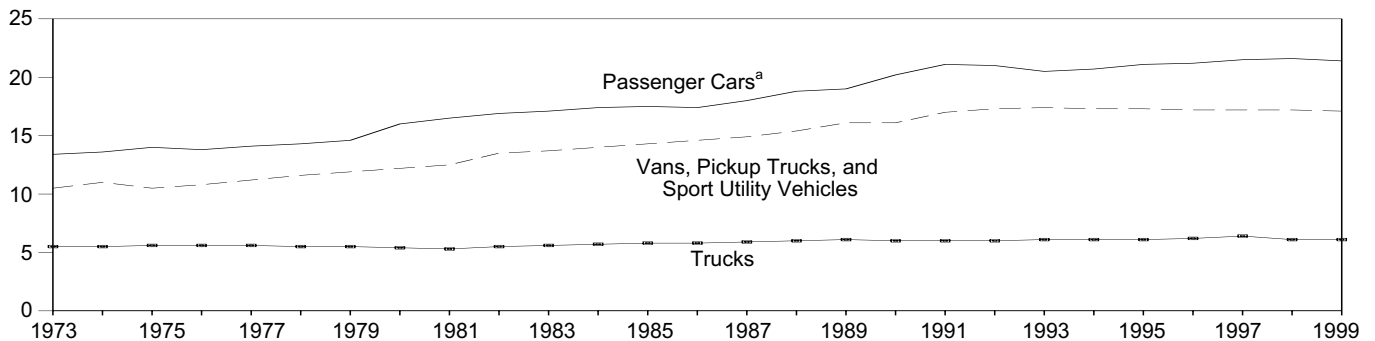
R=Revised. NA=Not available. E=Estimate.

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*, September 28, 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 ^e	11,850	552	21.4	11,958	700	17.1	26,015	4,282	6.1	12,208	729	16.8

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

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

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

^d Includes motorcycles.

^e Preliminary.

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

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

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

Table 1.11 Heating Degree-Days by Census Division

Census Divisions	September 1 through September 30					Cumulative July 1 through September 30				
	Normal ^a	2000	2001	Percent Change		Normal ^a	2000	2001	Percent Change	
				Normal to 2001	2000 to 2001				Normal to 2001	2000 to 2001
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	140	173	127	-9	-27	171	206	150	-12	-27
Middle Atlantic New Jersey, New York, Pennsylvania	89	123	88	(^c)	(^c)	105	127	93	-11	-27
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	102	142	145	42	2	127	167	165	30	-1
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	123	134	141	15	5	155	154	158	2	3
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	19	41	40	(^c)	(^c)	20	41	40	(^c)	(^c)
East South Central Alabama, Kentucky, Mississippi, Tennessee	25	44	54	(^c)	(^c)	25	44	54	(^c)	(^c)
West South Central Arkansas, Louisiana, Oklahoma, Texas	5	19	22	(^c)	(^c)	5	19	22	(^c)	(^c)
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	134	117	68	-49	-42	173	126	75	-57	-40
Pacific^b California, Oregon, Washington	61	36	28	(^c)	(^c)	104	58	46	-56	-21
U.S. Average^b	69	86	76	(^c)	(^c)	89	97	85	(^c)	(^c)

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

^b Excludes Alaska and Hawaii.

^c Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. 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	September 1 through September 30					Cumulative January 1 through September 30				
	Normal ^a	2000	2001	Percent Change		Normal ^a	2000	2001	Percent Change	
				Normal to 2001	2000 to 2001				Normal to 2001	2000 to 2001
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	25	31	33	(^c)	(^c)	419	370	525	25	42
Middle Atlantic New Jersey, New York, Pennsylvania	68	70	56	(^c)	(^c)	669	619	759	14	23
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	69	81	47	(^c)	(^c)	725	655	757	4	16
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	94	130	74	(^c)	(^c)	964	974	1,027	6	5
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	259	254	234	-10	-8	1,728	1,782	1,746	1	-2
East South Central Alabama, Kentucky, Mississippi, Tennessee	218	240	202	-7	-16	1,498	1,683	1,534	2	-9
West South Central Arkansas, Louisiana, Oklahoma, Texas	349	415	317	-9	-24	2,279	2,645	2,392	5	-10
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	153	203	223	46	10	1,118	1,387	1,434	28	3
Pacific^b California, Oregon, Washington	122	133	130	7	-2	651	692	719	10	4
U.S. Average^b	154	172	144	-6	-16	1,120	1,181	1,195	7	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 July 2001 was 8.2 quadrillion Btu, slightly higher than in July 2000.

Residential sector total consumption was 1.5 quadrillion Btu in July 2001, slightly lower than the July 2000 level. The sector accounted for 19 percent of total energy consumption.

Commercial sector total consumption was 1.4 quadrillion Btu in July 2001, 6 percent higher than the July 2000 level. The sector accounted for 17 percent of total energy consumption.

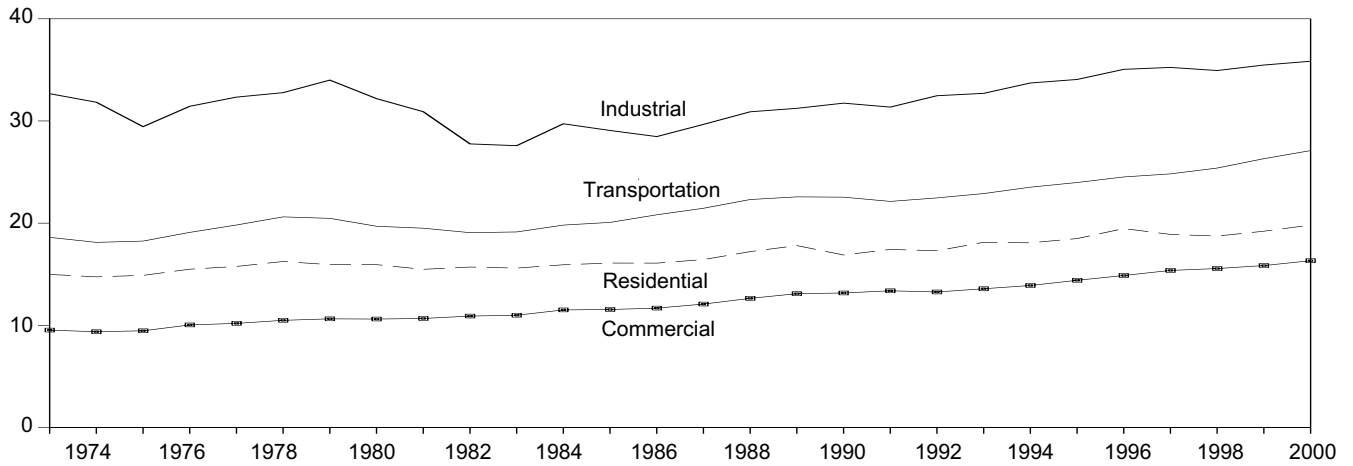
Industrial sector total consumption was 2.8 quadrillion Btu in July 2001, 4 percent lower than the July 2000 level. The sector accounted for 34 percent of total energy consumption.

Transportation sector total consumption was 2.5 quadrillion Btu in July 2001, 3 percent higher than the July 2000 level. The sector accounted for 30 percent of total energy consumption.

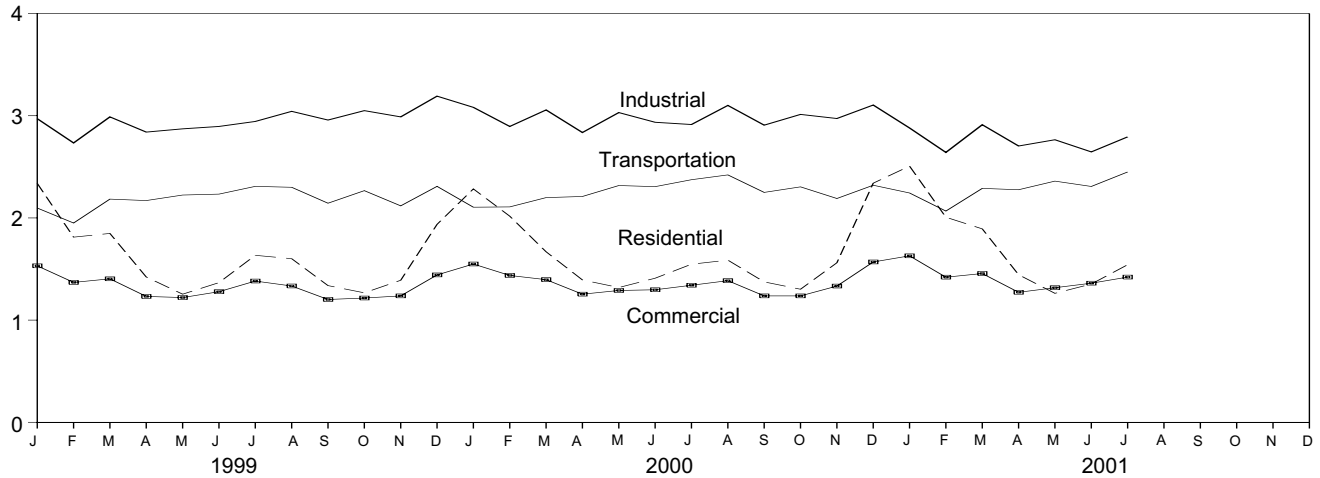
Electric power sector primary consumption was 3.3 quadrillion Btu in July 2001, 1 percent lower than the July 2000 level. Fossil fuels accounted for 69 percent of all primary energy consumed by the electric power sector; nuclear electric power 22 percent; and renewable energy 9 percent.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

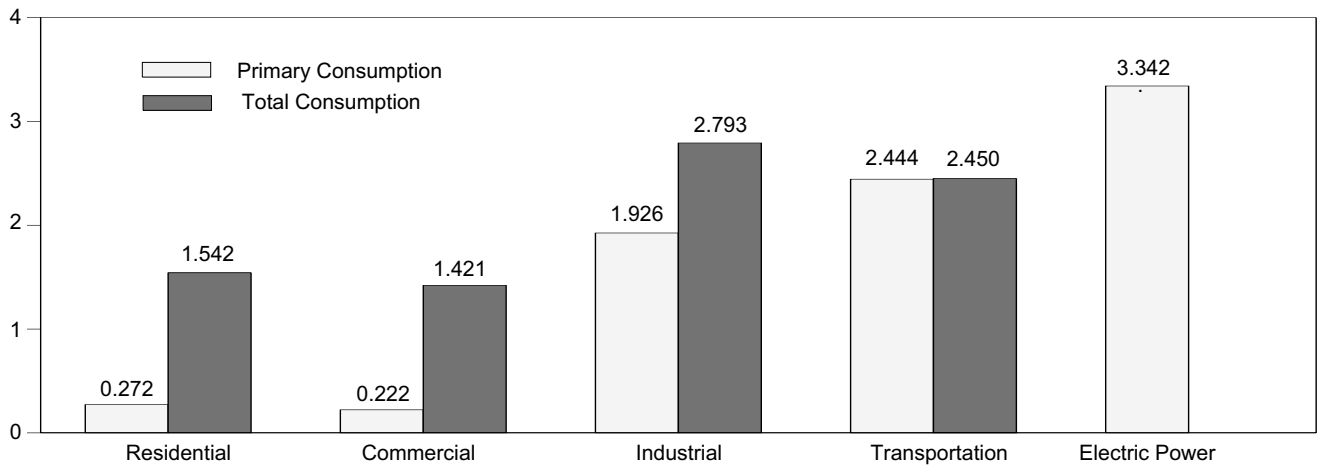
Total Consumption End Use, 1973-2000



Total Consumption End Use, Monthly



By Sector, July 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	Total ^b
	Residential		Commercial		Industrial		Transportation			
	Primary	Total	Primary	Total	Primary	Total	Primary	Total	Primary	
1973 Total	8.258	14.983	4.373	9.534	24.706	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	R 2.147	R 3.082	2.100	2.105	3.099	R 9.019
February	1.006	2.017	.537	1.437	R 2.014	R 2.895	2.103	2.108	2.796	R 8.453
March	.748	1.669	.450	1.396	R 2.096	R 3.057	2.194	2.199	2.832	R 8.317
April	.568	1.393	.337	1.254	R 1.905	R 2.836	2.205	R 2.210	2.678	R 7.687
May	.384	1.319	.246	1.290	R 2.027	R 2.312	2.312	R 2.317	2.988	R 7.956
June	.302	1.410	.216	1.297	R 1.962	R 2.936	2.301	R 2.306	3.167	R 7.951
July	.271	1.547	.210	1.341	R 1.949	R 2.914	2.369	2.374	3.376	R 8.178
August	.276	1.587	.218	1.386	R 2.099	R 3.101	2.415	R 2.421	3.486	R 8.499
September	.295	1.374	.216	1.237	R 2.000	R 2.908	2.245	2.250	3.013	R 7.769
October	.403	1.302	.258	1.237	R 2.085	R 3.013	2.299	2.304	2.812	7.855
November	.662	1.561	.373	1.333	R 2.017	R 2.973	2.185	2.190	2.820	R 8.055
December	R 1.136	R 2.340	.573	1.569	R 2.187	R 3.105	2.315	2.320	3.123	R 9.333
Total	R 7.157	R 19.812	4.203	16.326	R 24.489	R 35.844	R 27.044	R 27.101	36.189	R 99.072
2001 January	R 1.227	2.507	.642	R 1.629	R 2.036	R 2.880	2.239	2.244	3.115	R 9.258
February	1.016	R 2.007	.556	1.420	R 1.837	R 2.641	R 2.063	R 2.067	2.663	R 8.131
March	.910	1.893	.491	1.456	R 2.047	R 2.912	2.285	2.289	2.818	R 8.548
April	R .584	R 1.444	R .352	R 1.272	R 1.858	R 2.704	R 2.272	2.276	2.631	R 7.692
May	R .367	R 1.262	R .264	R 1.317	R 1.852	R 2.765	2.355	2.360	2.866	R 7.703
June	R .298	R 1.353	R .234	R 1.361	R 1.756	R 2.646	R 2.302	R 2.308	R 3.078	R 7.671
July	.272	1.542	.222	1.421	1.926	2.793	2.444	2.450	3.342	8.211
7-Month Total	4.674	12.007	2.760	9.877	13.311	19.342	15.960	15.993	20.513	57.213
2000 7-Month Total	4.386	11.639	2.565	9.564	14.100	20.752	15.585	15.617	20.935	57.561
1999 7-Month Total	4.460	11.675	2.510	9.417	13.580	20.245	15.135	15.167	20.819	56.507

^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.

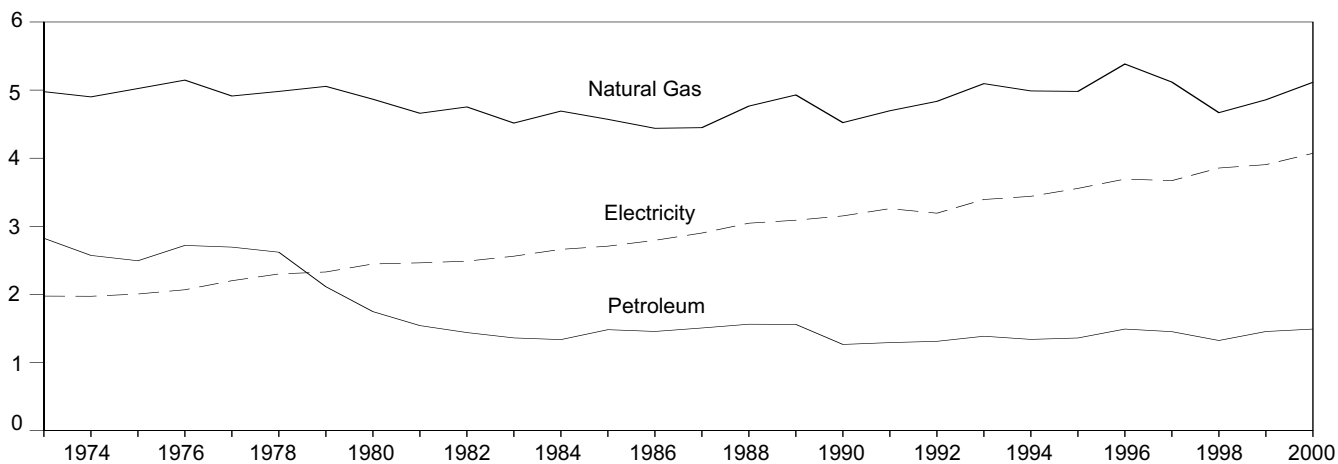
Notes: Primary consumption includes coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity. Total consumption includes primary consumption; electric utility retail sales of 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.

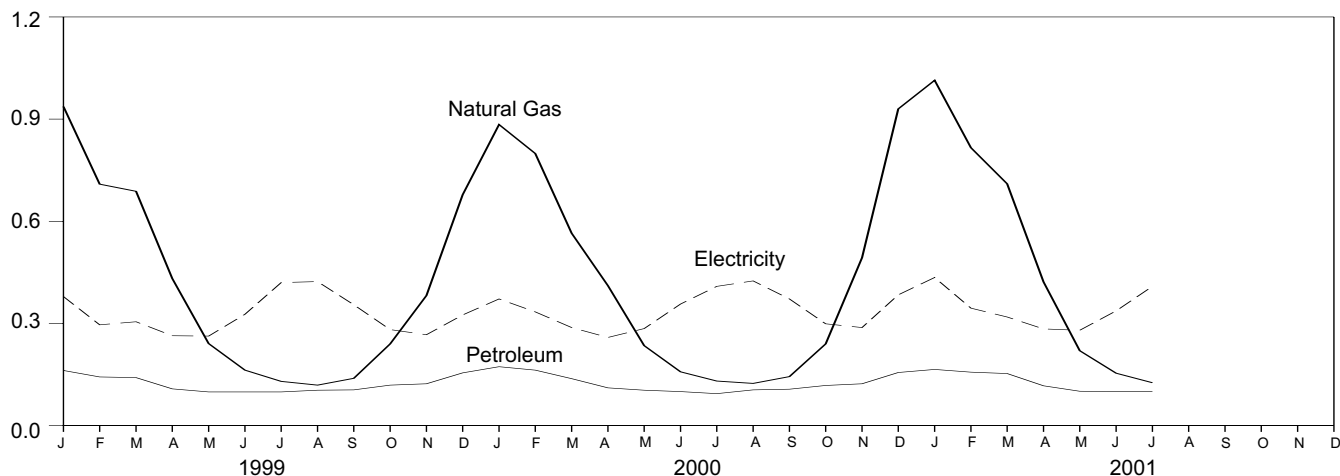
Figure 2.2 Residential Sector Energy Consumption

(Quadrillion Btu)

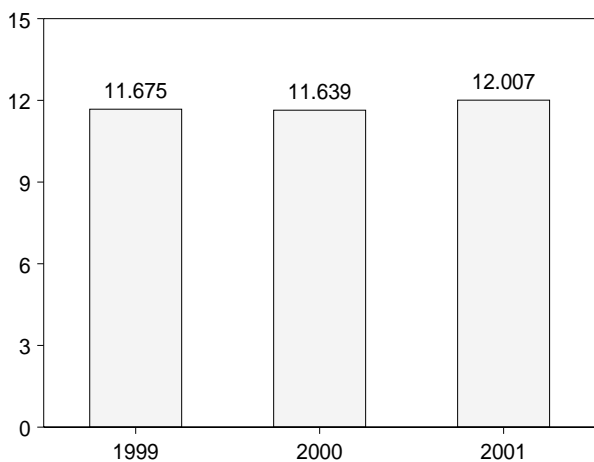
By Major Sources, 1973-2000



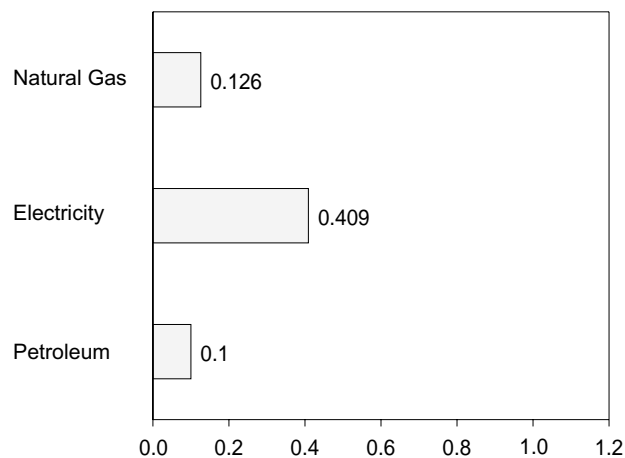
By Major Sources, Monthly



Total, January-July



By Major Sources, July 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									Electricity ^f	Electrical System Energy Losses ^g	Total
	Fossil Fuels ^a				Renewable Energy				Total Primary			
	Coal	Natural Gas ^b	Petroleum	Total	Wood ^c	Geo-thermal ^d	Solar ^e	Total				
1973 Total	0.102	4.977	2.825	7.904	0.354	NA	NA	0.354	8.258	1.976	4.749	14.983
1974 Total	.103	4.901	2.573	7.577	.371	NA	NA	.371	7.948	1.973	4.824	14.745
1975 Total	.084	5.023	2.495	7.601	.425	NA	NA	.425	8.027	2.007	4.855	14.888
1976 Total	.081	5.147	2.720	7.949	.482	NA	NA	.482	8.431	2.069	4.994	15.493
1977 Total	.082	4.913	2.695	7.690	.542	NA	NA	.542	8.232	2.202	5.331	15.765
1978 Total	.085	4.981	2.620	7.687	.622	NA	NA	.622	8.309	2.301	5.639	16.249
1979 Total	.075	5.055	2.114	7.243	.728	NA	NA	.728	7.971	2.330	5.636	15.937
1980 Total	.060	4.866	1.748	6.674	.859	NA	NA	.859	7.533	2.448	5.958	15.938
1981 Total	.070	4.660	1.543	6.273	.869	NA	NA	.869	7.142	2.464	5.876	15.482
1982 Total	.075	4.753	1.441	6.269	.937	NA	NA	.937	7.206	2.489	6.008	15.704
1983 Total	.075	4.516	1.362	5.954	.925	NA	NA	.925	6.879	2.525	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	A .414	A .008	A .064	A .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	R .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	R .621	A .036	A .001	A .005	A .041	.662	.288	.611	1.561
December	.007	R .930	.156	R 1.093	A .037	A .001	A .005	A .043	R 1.136	.384	.820	R 2.340
Total	.047	R 5.115	1.492	R 6.654	E .433	E .009	E .062	E .503	R 7.157	4.072	8.583	R 19.812
2001 January	.006	R 1.014	.165	1.185	A .037	A .001	A .005	A .043	R 1.227	.435	.844	2.507
February	.004	.816	.157	R .978	A .033	A .001	A .005	A .039	1.016	.345	.646	R 2.007
March	.004	.710	.153	.867	A .037	A .001	A .005	A .043	.910	.319	.664	1.893
April	.004	R .422	.117	RE .542	A .036	A .001	A .005	A .041	R .584	.284	.576	R 1.444
May	.003	R .220	.101	RE .324	A .037	A .001	A .005	A .043	R .367	.280	.616	R 1.262
June	.003	R .154	.100	RE .257	A .036	A .001	A .005	A .041	R .298	.337	R .717	R 1.353
July	.003	F .126	.100	E .229	A .037	A .001	A .005	A .043	.272	.409	.860	1.542
7-Month Total	.026	E 3.463	.892	E 4.382	A .252	A .005	A .036	A .292	4.674	2.409	4.924	12.007
2000 7-Month Total	.027	3.183	.883	4.093	A .252	A .005	A .036	A .293	4.386	2.304	4.949	11.639
1999 7-Month Total	.027	3.300	.850	4.177	A .240	A .005	A .037	A .282	4.460	2.255	4.960	11.675

^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.

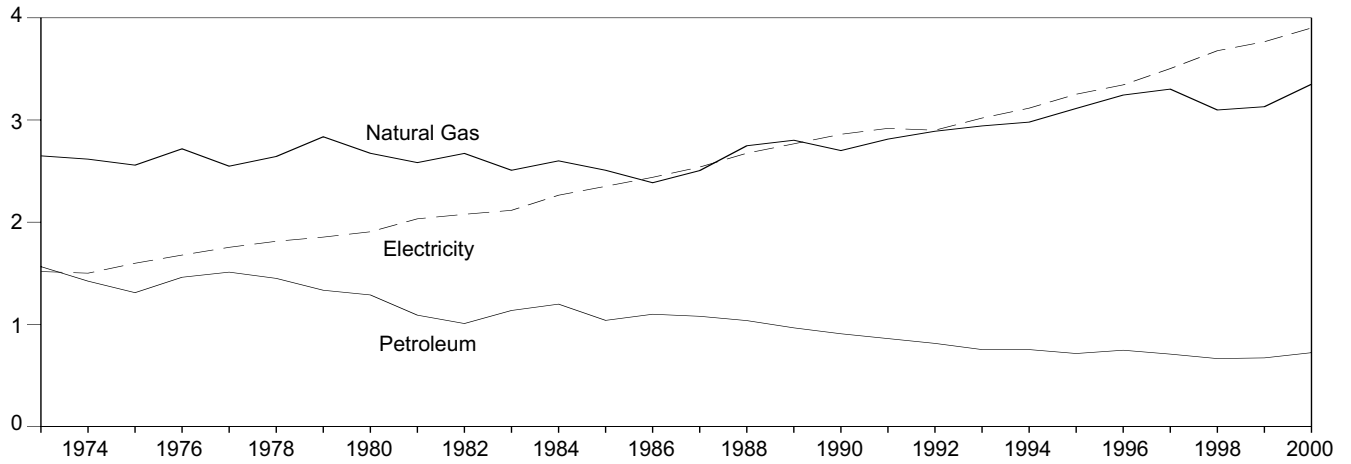
R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the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

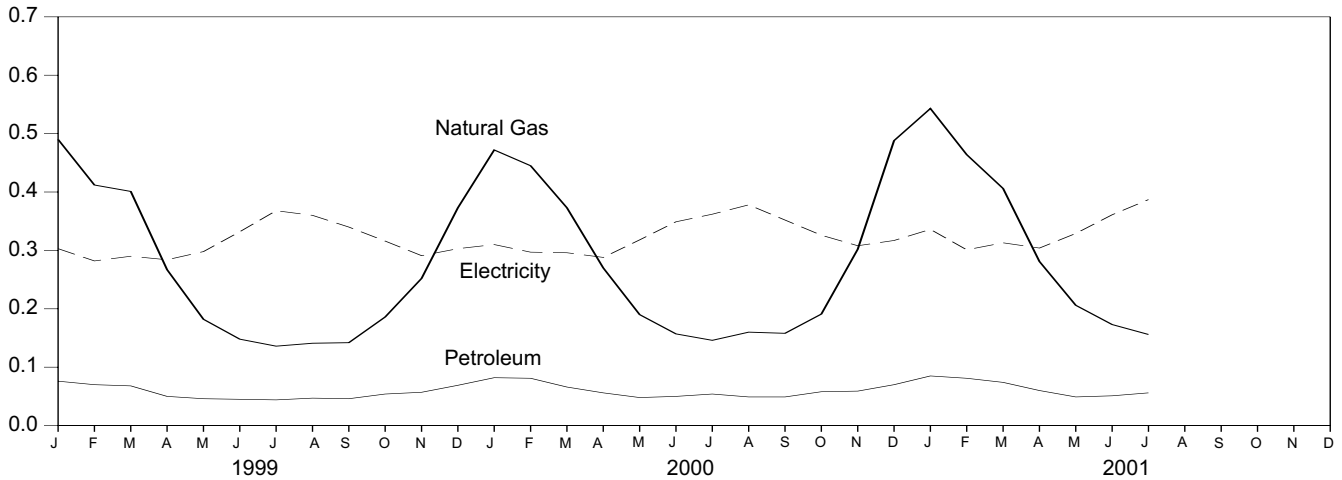
Additional Notes and Sources: See end of section.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

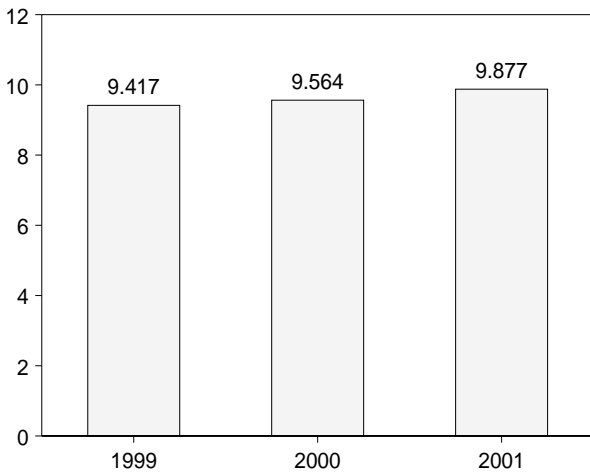
By Major Sources, 1973-2000



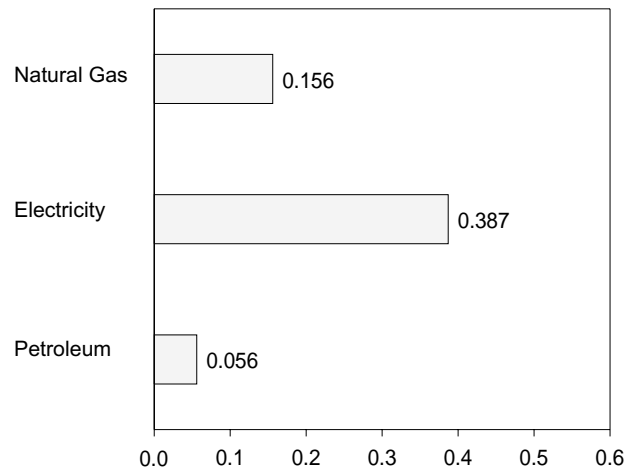
By Major Sources, Monthly



Total, January-July



By Major Sources, July 2001



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

Table 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

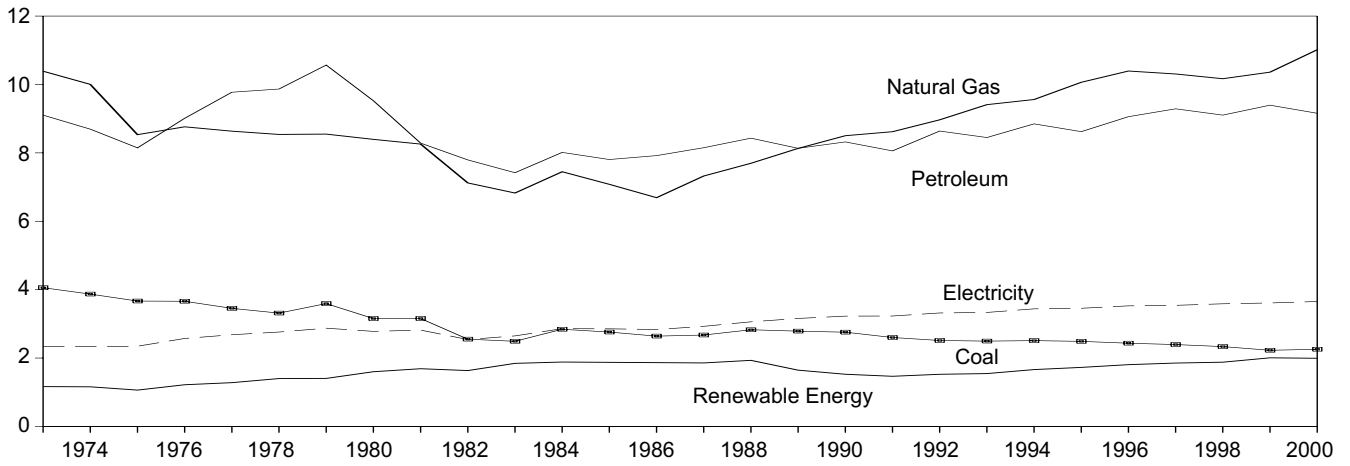
	Primary Consumption							Total Primary	Electricity ^e	Electrical System Energy Losses ^f	Total
	Fossil Fuels ^a				Renewable Energy						
	Coal	Natural Gas ^b	Petroleum	Total	Wood ^c	Geo-thermal ^d	Total				
1973 Total	0.152	2.649	1.565	4.367	0.007	NA	0.007	4.373	1.517	3.644	9.534
1974 Total	.154	2.617	1.423	4.194	.007	NA	.007	4.201	1.501	3.672	9.374
1975 Total	.126	2.558	1.310	3.994	.008	NA	.008	4.002	1.598	3.865	9.465
1976 Total	.122	2.718	1.461	4.301	.009	NA	.009	4.310	1.678	4.049	10.038
1977 Total	.123	2.548	1.511	4.182	.010	NA	.010	4.193	1.754	4.247	10.194
1978 Total	.128	2.643	1.450	4.221	.012	NA	.012	4.233	1.813	4.443	10.489
1979 Total	.112	2.836	1.334	4.282	.014	NA	.014	4.296	1.854	4.485	10.635
1980 Total	.086	2.674	1.288	4.047	.021	NA	.021	4.068	1.906	4.639	10.613
1981 Total	.097	2.583	1.090	3.770	.021	NA	.021	3.791	2.033	4.848	10.672
1982 Total	.112	2.673	1.008	3.794	.022	NA	.022	3.816	2.077	5.014	10.906
1983 Total	.117	2.508	1.136	3.761	.022	NA	.022	3.783	2.116	5.090	10.989
1984 Total	.125	2.600	1.198	3.923	.022	NA	.022	3.945	2.264	5.300	11.510
1985 Total	.106	2.508	1.039	3.652	.024	NA	.024	3.676	2.351	5.522	11.550
1986 Total	.106	2.386	1.099	3.590	.027	NA	.027	3.617	2.439	5.628	11.684
1987 Total	.097	2.505	1.079	3.681	.029	NA	.029	3.710	2.539	5.829	12.078
1988 Total	.101	2.748	1.037	3.886	.032	NA	.032	3.918	2.675	6.047	12.640
1989 Total	.088	2.802	.966	3.855	.034	.003	.037	3.892	2.767	6.441	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	R .270	.056	.332	A .004	A .001	A .005	.337	.288	.629	1.254
May	.004	R .190	.048	.241	A .004	A .001	A .005	.246	.318	.726	1.290
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	.488	.070	.568	A .004	A .001	A .005	.573	.317	.678	1.569
Total	.070	R 3.350	.723	4.143	E .052	E .008	E .060	4.203	3.901	8.222	16.326
2001 January	.008	R .543	.085	.637	A .004	A .001	A .005	.642	.336	.652	R 1.629
February	.007	.464	.081	.551	A .004	A .001	A .005	.556	.301	.563	1.420
March	.006	.406	.074	.486	A .004	A .001	A .005	.491	.313	.652	1.456
April	.006	R .281	.060	RE .347	A .004	A .001	A .005	R .352	.304	.616	R 1.272
May	.004	R .206	.049	RE .259	A .004	A .001	A .005	R .264	.329	.724	R 1.317
June	.004	R .173	.051	RE .229	A .004	A .001	A .005	R .234	.361	R .767	R 1.361
July	.004	F .156	.056	E .217	A .004	A .001	A .005	.222	.387	.813	1.421
7-Month Total	.039	E 2.230	.457	E 2.726	A .030	A .004	A .035	2.760	2.330	4.787	9.877
2000 7-Month Total	.040	2.053	.438	2.531	A .030	A .004	A .035	2.565	2.219	4.779	9.564
1999 7-Month Total	.041	2.036	.400	2.476	A .030	A .004	A .034	2.510	2.156	4.751	9.417

^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.

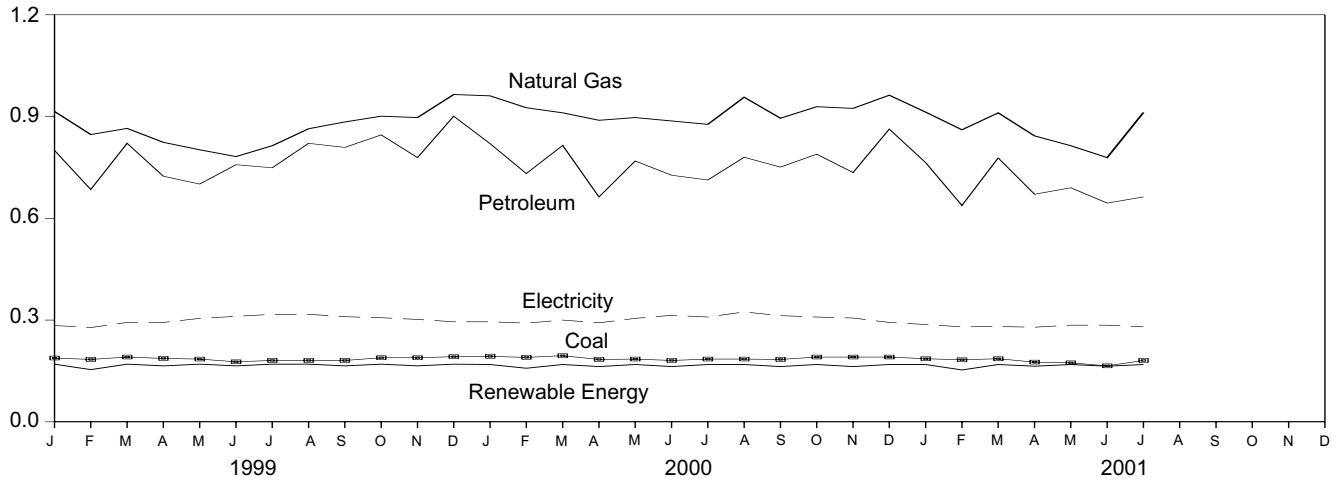
R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the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

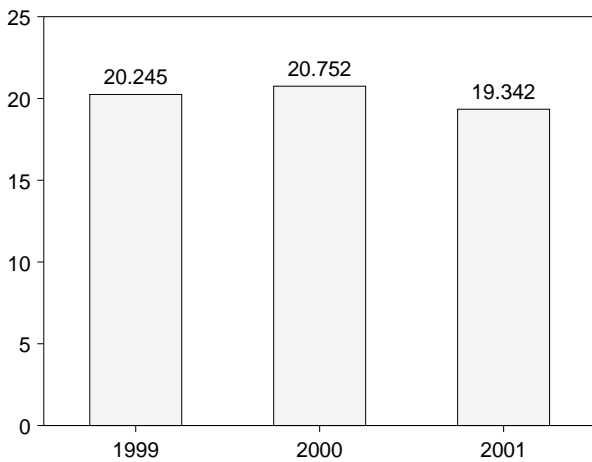
By Major Sources, 1973-2000



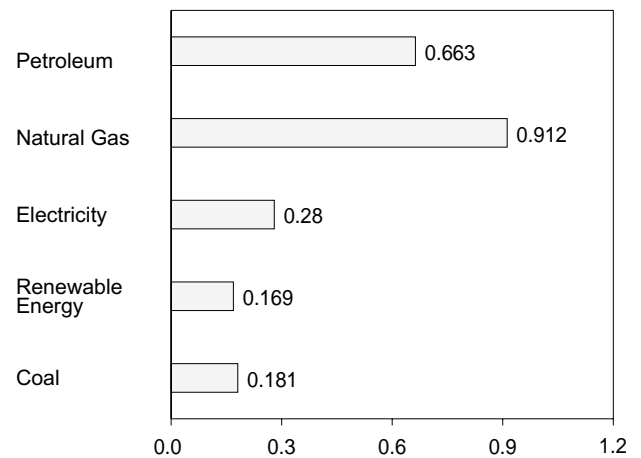
By Major Sources, Monthly



Total, January-July



By Major Sources, July 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									Electricity ^f	Electrical System Energy Losses ^g	Total
	Fossil Fuels ^a					Renewable Energy			Total Primary			
	Coal	Coal Coke Net Imports	Natural Gas ^b	Petroleum	Total	Wood ^c and Waste ^d	Geo-thermal ^e	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	R.961	.820	R.1.978	A.168	A(s)	A.169	R.2.147	.295	.640	R.3.082
February	.190	.007	R.926	.732	R.1.856	A.158	A(s)	A.158	R.2.014	.291	.591	R.2.895
March	.195	.006	R.911	.815	R.1.927	A.168	A(s)	A.169	R.2.096	.300	.661	R.3.057
April	.184	.006	R.889	.663	R.1.741	A.163	A(s)	A.163	R.1.905	.292	.639	R.2.836
May	.185	.008	R.897	.769	R.1.859	A.168	A(s)	A.169	R.2.027	.305	.698	R.3.031
June	.181	.004	R.887	.727	R.1.799	A.163	A(s)	A.163	R.1.962	.314	.659	R.2.936
July	.185	.006	R.877	.713	R.1.781	A.168	A(s)	A.169	R.1.949	.309	.655	R.2.914
August	.185	.008	R.957	.780	R.1.930	A.168	A(s)	A.169	R.2.099	.324	.677	R.3.101
September	.184	.007	R.895	.751	R.1.837	A.163	A(s)	A.163	R.2.000	.313	.595	R.2.908
October	.191	.006	.929	.789	R.1.916	A.168	A(s)	A.169	R.2.085	.309	.620	R.3.013
November	.191	.004	R.924	.735	R.1.854	A.163	A(s)	A.163	R.2.017	.306	.649	R.2.973
December	.191	(s)	R.963	.863	R.2.018	A.168	A(s)	A.169	R.2.187	.293	.626	R.3.105
Total	2.257	.065	R.11.016	9.158	R.22.496	E.1.988	E.0.004	E.1.993	R.24.489	3.654	7.701	R.35.844
2001 January	.186	.003	R.913	.764	R.1.867	A.169	A(s)	A.169	R.2.036	.287	.557	R.2.880
February	.183	.002	R.861	.638	R.1.684	A.153	A(s)	A.153	R.1.837	.280	.525	R.2.641
March	.186	.003	R.911	.778	R.1.877	A.169	A(s)	A.169	R.2.047	.281	.585	R.2.912
April	.176	.005	R.843	.671	RE.1.694	A.163	A(s)	A.164	R.1.858	.279	.566	R.2.704
May	.174	.004	R.814	.690	RE.1.682	A.169	A(s)	A.169	R.1.852	.285	.628	R.2.765
June	.165	.003	R.779	.645	RE.1.592	A.163	A(s)	A.164	R.1.756	.285	R.605	R.2.646
July	.181	(s)	F.912	.663	E.1.757	A.169	A(s)	A.169	1.926	.280	.588	2.793
7-Month Total	1.250	.020	E.6.034	4.849	E.12.154	A.1.155	A(s)	A.1.157	13.311	1.977	4.054	19.342
2000 7-Month Total	1.314	.041	6.347	5.238	12.941	A.1.157	A(s)	A.1.160	14.100	2.108	4.543	20.752
1999 7-Month Total	1.294	.032	5.849	5.239	12.414	A.1.163	A(s)	A.1.166	13.580	2.081	4.584	20.245

^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.

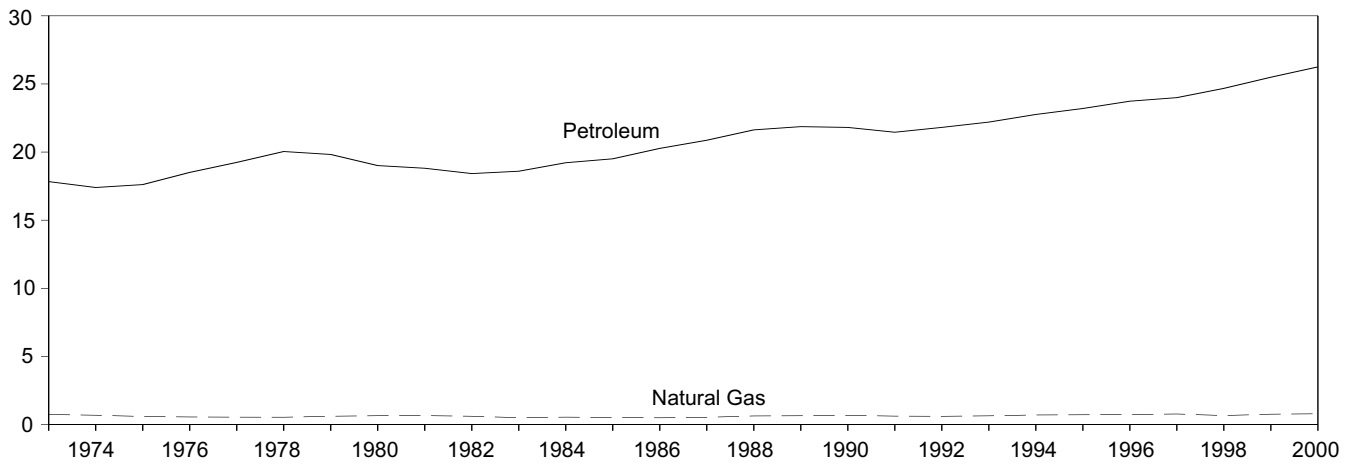
^g See Note 12 at end of section.

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.

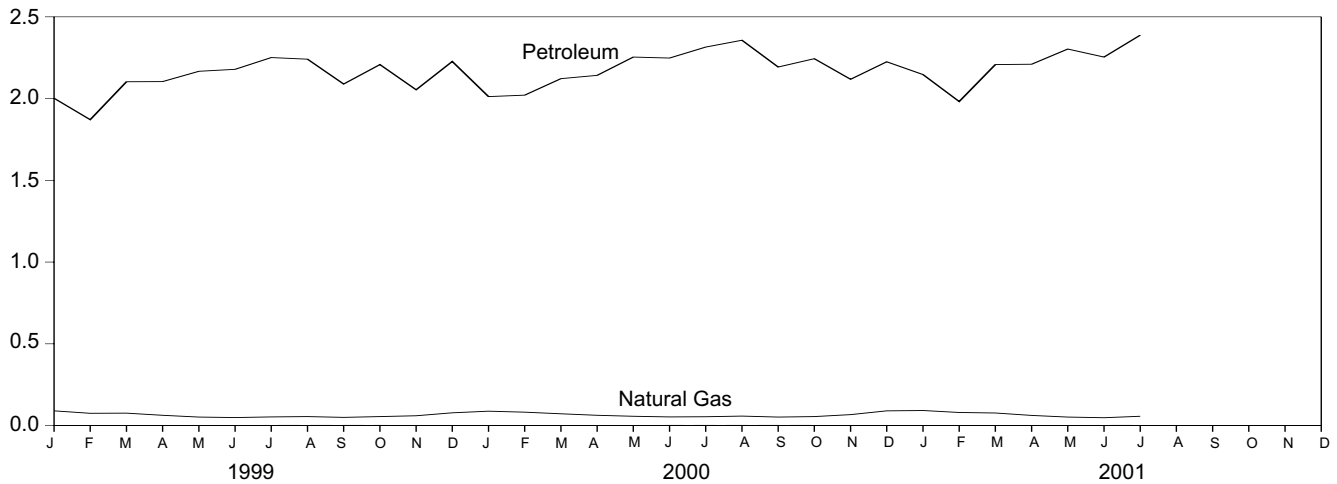
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia. Additional Notes and Sources: See end of section.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

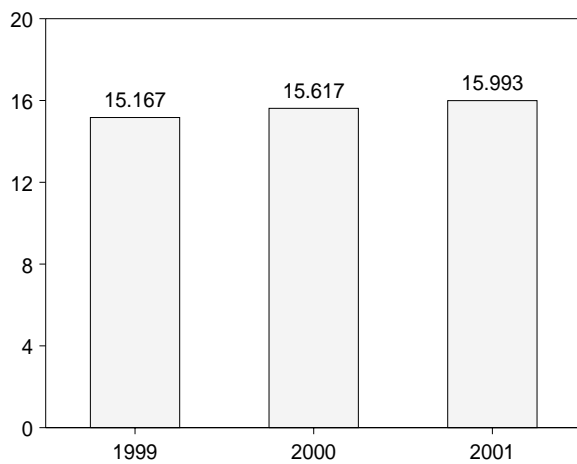
By Major Sources, 1973-2000



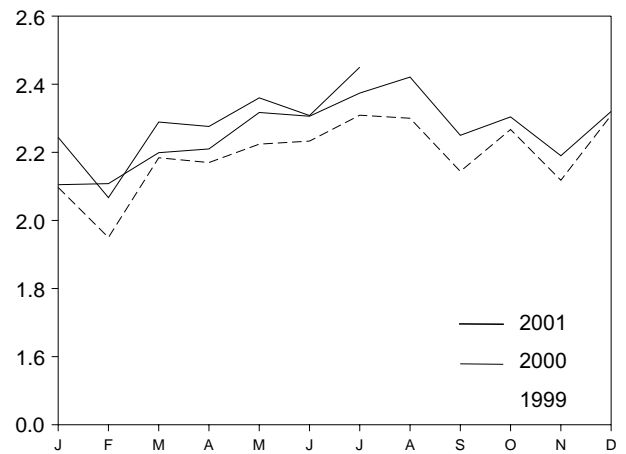
By Major Sources, Monthly



Total, January-July



Total, Monthly



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

Table 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption						Electricity ^d	Electrical System Energy Losses ^e	Total ^c
	Fossil Fuels ^a				Renewable Energy	Total Primary ^c			
	Coal	Natural Gas ^b	Petroleum	Total	Alcohol Fuels ^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	R 2.210
May	(f)	.057	2.254	2.312	.012	2.312	.001	.003	R 2.317
June	(f)	.053	2.248	2.301	.007	2.301	.002	.003	R 2.306
July	(f)	.054	2.315	2.369	.013	2.369	.002	.003	R 2.374
August	(f)	.058	2.357	2.415	.012	2.415	.002	.003	R 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)	R .793	26.252	R 27.044	.139	R 27.044	.018	.038	R 27.101
2001 January	(f)	.092	2.147	2.239	.015	2.239	.001	.003	2.244
February	(f)	.080	1.982	R 2.063	.012	R 2.063	.001	.003	R 2.067
March	(f)	.077	2.208	2.285	.012	2.285	.001	.003	2.289
April	(f)	R .062	2.210	R 2.272	.011	R 2.272	.001	.003	2.276
May	(f)	.052	2.303	2.355	.011	2.355	.001	.003	2.360
June	(f)	R .048	2.254	R 2.302	.012	R 2.302	.002	.004	R 2.308
July	(f)	F .057	2.388	E 2.444	.011	2.444	.002	.004	2.450
7-Month Total	(f)	E .468	15.492	E 15.960	.084	15.960	.011	.022	15.993
2000 7-Month Total	(f)	.470	15.115	15.585	.075	15.585	.010	.022	15.617
1999 7-Month Total	(f)	.458	14.677	15.135	.065	15.135	.010	.022	15.167

^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.

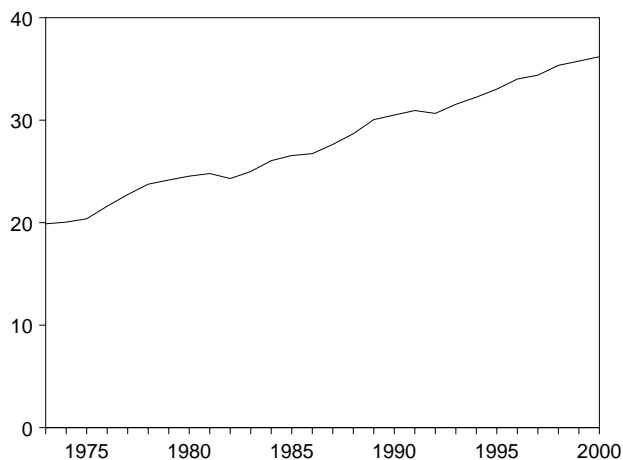
R=Revised. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 0.5 trillion Btu.

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

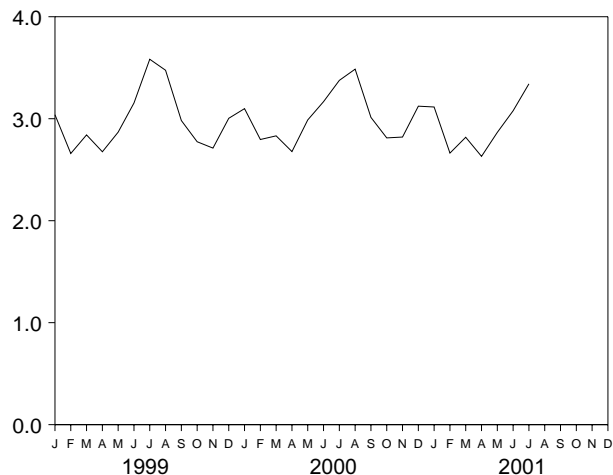
Additional Notes and Sources: See end of section.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

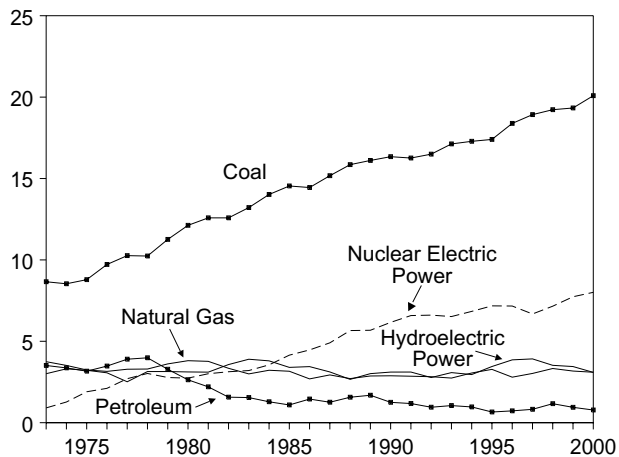
Total, 1973-2000



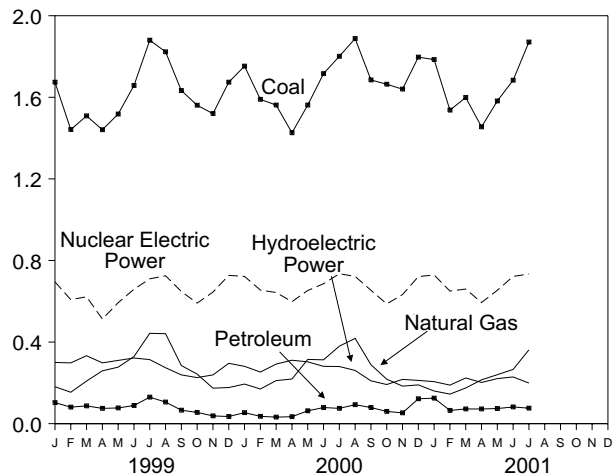
Total, Monthly



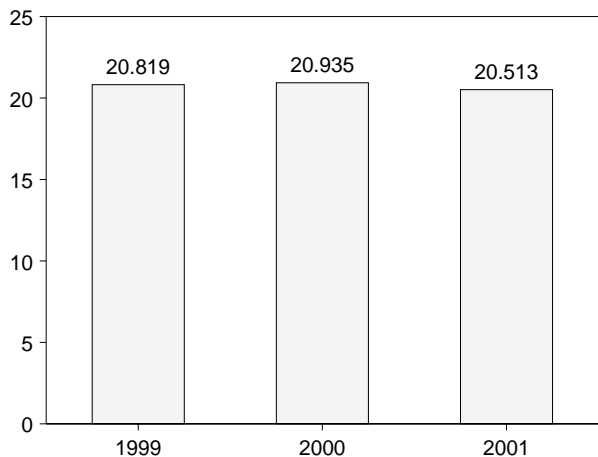
By Major Sources, 1973-2000



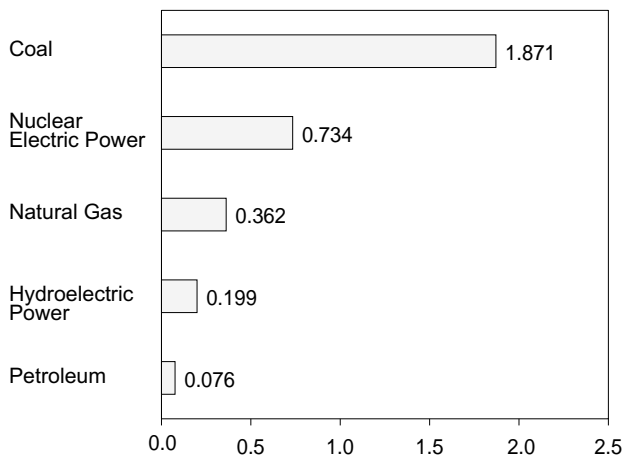
By Major Sources, Monthly



Total, January-July



By Major Sources, July 2001



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

Energy Consumption by Sector Notes and Sources

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

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

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

1. 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 railroads 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 imports¹ averaged 11.2 million barrels per day in September 2001, 1 percent lower than the previous month's rate and 6 percent lower than the September 2000 rate.

In September 2001, 19.0 million barrels per day of petroleum products were supplied for domestic use, 4 percent lower than the September 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 September 2001 averaged 8.5 million barrels per day, 5 percent lower than the previous month's rate and 1 percent lower than the September 2000 rate. Total motor gasoline stocks were 205 million barrels at the end of September 2001, 12 million barrels above the stock

level in the previous month and 8 million barrels above the level 1 year earlier.

Distillate fuel oil product supplied during September 2001 averaged 3.7 million barrels per day, 3 percent lower than both the previous month's rate and the September 2000 rate. Distillate fuel oil ending stocks for September 2001 were 123 million barrels, 1 million barrels above the stock level in the previous month and 8 million barrels above the level 1 year earlier.

Kerosene-type jet fuel product supplied in September 2001 averaged 1.5 million barrels per day, 14 percent lower than the previous month's rate and 16 percent lower than the September 2000 rate. Kerosene-type jet fuel stocks measured 44 million barrels at the end of September 2001, 2 million barrels above 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 June 2001.

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

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

	Field Production			Stock Change ^a		Petroleum Products Supplied	Stocks ^b
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products		Crude Oil ^d and Petroleum Products
Thousand Barrels per Day							Million Barrels
1973 Average	10,975	9,208	1,738	-11	146	17,308	1,008
1974 Average	10,498	8,774	1,688	62	117	16,653	^e 1,074
1975 Average	10,045	8,375	1,633	^e 17	^e 15	16,322	1,133
1976 Average	9,774	8,132	^f 1,604	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	^e 1,392
1981 Average	10,230	8,572	1,609	^e 290	^e -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	^e 1,430
1983 Average	10,299	8,688	1,559	^e 214	^e -234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 Average	9,818	8,140	1,625	1	-29	17,283	1,597
1989 Average	9,219	7,613	1,546	86	-129	17,325	1,581
1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
1991 Average	9,168	7,417	1,659	-42	32	16,714	1,617
1992 Average	8,996	7,171	1,697	-1	-68	17,033	^e 1,592
1993 Average	^g 8,836	6,847	1,736	81	^e 70	17,237	^e 1,647
1994 Average	8,645	6,662	1,727	18	-2	17,718	1,653
1995 Average	8,626	6,560	1,762	-93	-153	17,725	1,563
1996 Average	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	^{RE} 8,137	^{RE} 5,823	^R 1,946	^R -165	^R -463	^R 20,085	^R 1,545
September	^E 8,081	^{PE} 5,785	^E 1,908	^E 196	^E 673	^E 19,032	^E 1,572
9-Month Average	^E 8,027	^{PE} 5,831	^E 1,817	^E 96	^E 266	^E 19,679	^E 1,572
2000 9-Month Average	8,148	5,818	1,951	-13	137	19,605	1,527
1999 9-Month Average	8,045	5,857	1,815	-58	-59	19,416	1,615

^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*, October 2001, Table S1.

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

	Imports			Exports			Net Imports ^b
	Total	Crude Oil ^a	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	^c 471	235	^c 236	^c 7,985
1980 Average	6,909	5,263	1,646	544	287	258	6,365
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 Average	7,402	5,107	2,295	815	155	661	6,587
1989 Average	8,061	5,843	2,217	859	142	717	7,202
1990 Average	8,018	5,894	2,123	857	109	748	7,161
1991 Average	7,627	5,782	1,844	1,001	116	885	6,626
1992 Average	7,888	6,083	1,805	950	89	861	6,938
1993 Average	8,620	6,787	1,833	1,003	98	904	7,618
1994 Average	8,996	7,063	1,933	942	99	843	8,054
1995 Average	8,835	7,230	1,605	949	95	855	7,886
1996 Average	9,478	7,508	1,971	981	110	871	8,498
1997 Average	10,162	8,225	1,936	1,003	108	896	9,158
1998 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	^R 11,318	^R 9,092	^R 2,225	^R 1,084	^R 28	^R 1,056	^R 10,234
September	^E 11,242	^E 8,947	^E 2,295	^E 1,035	^E 93	^E 942	^E 10,207
9-Month Average	^E 11,750	^E 9,182	^E 2,568	^E 999	^E 37	^E 962	^E 10,751
2000 9-Month Average	11,428	9,081	2,346	998	64	934	10,430
1999 9-Month Average	11,061	8,856	2,205	905	127	778	10,156

^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.

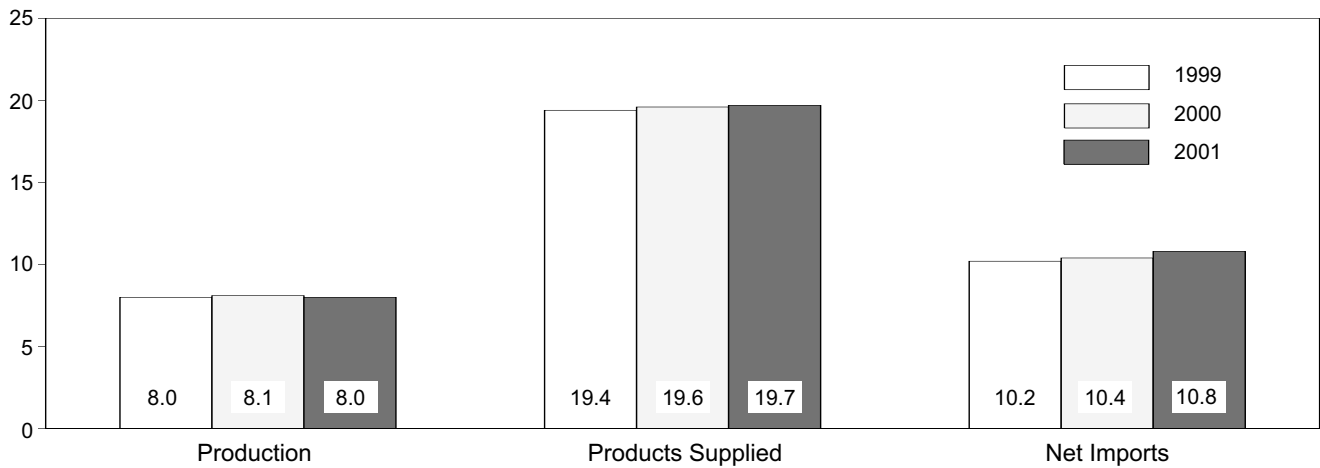
Notes: Crude oil includes lease condensate. Totals may not equal sum

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

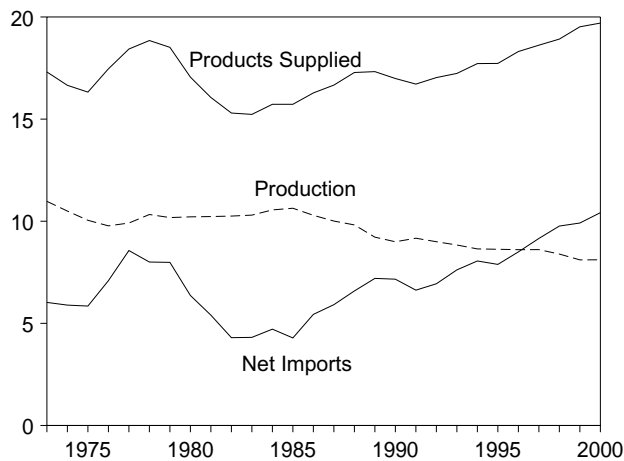
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S1. **1981 forward:** EIA, *Petroleum Supply Monthly*, October 2001, Table S1.

Figure 3.1a Petroleum Overview
(Million Barrels per Day)

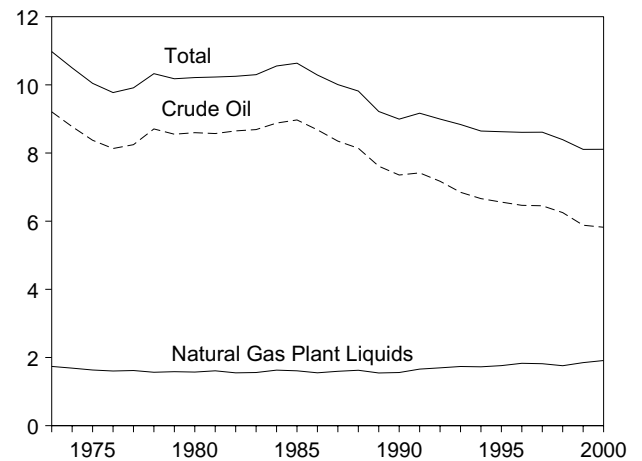
Overview, January-September



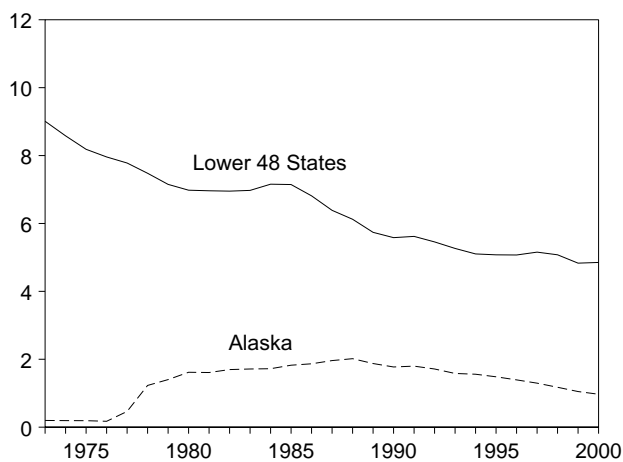
Overview, 1973-2000



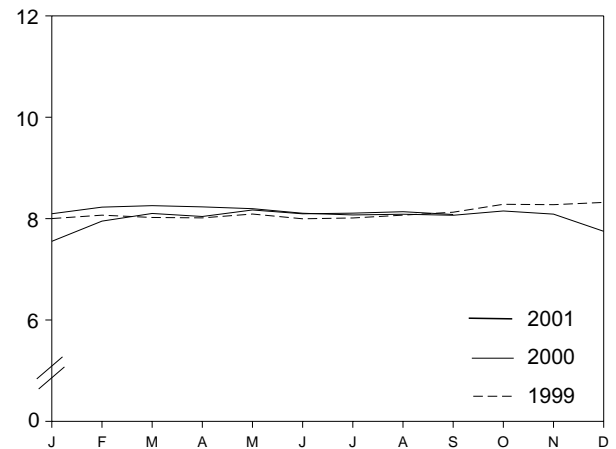
Production, 1973-2000



Crude Oil Production, 1973-2000



Total Production, Monthly

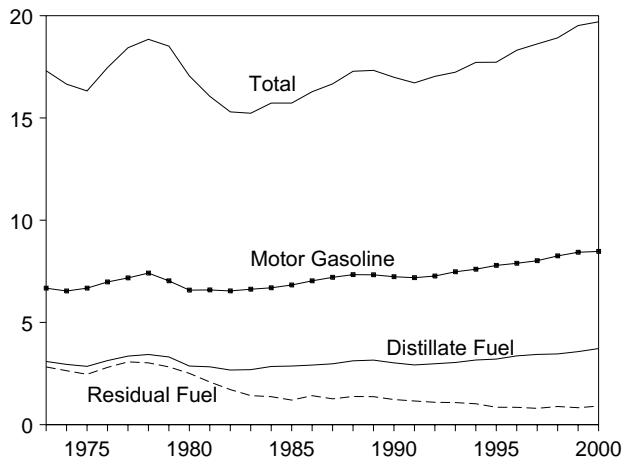


Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 3.1a, 3.1b, and 3.2a.

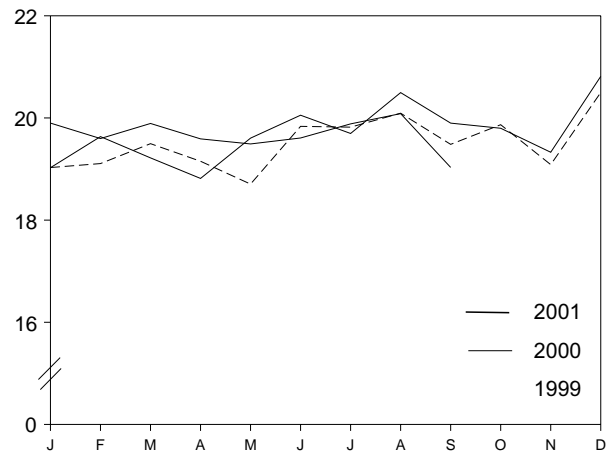
Figure 3.1b Petroleum Overview

(Million Barrels per Day, Except as Noted)

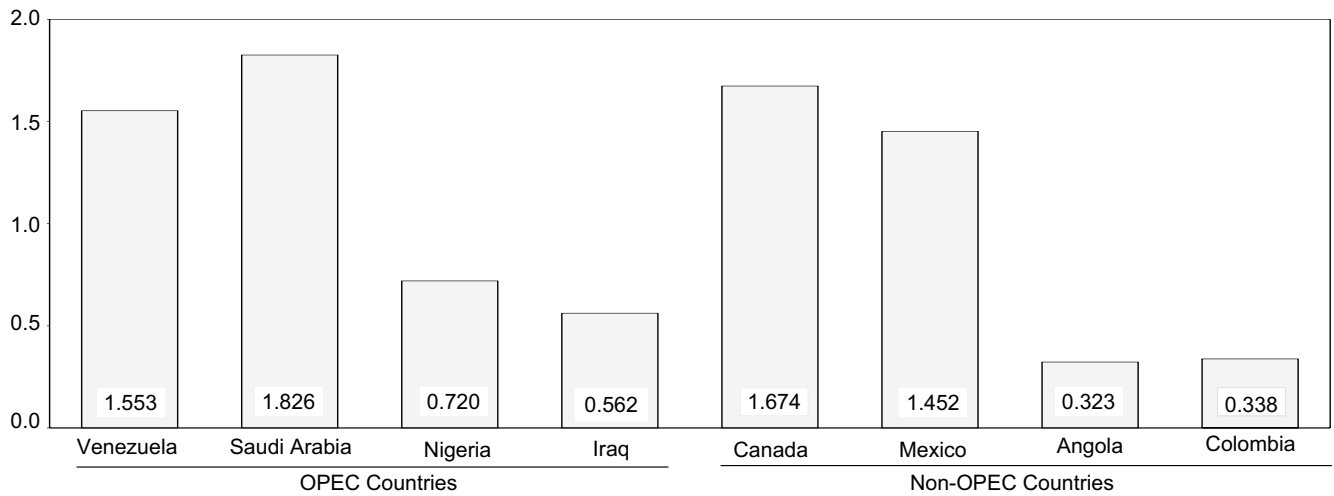
Products Supplied, 1973-2000



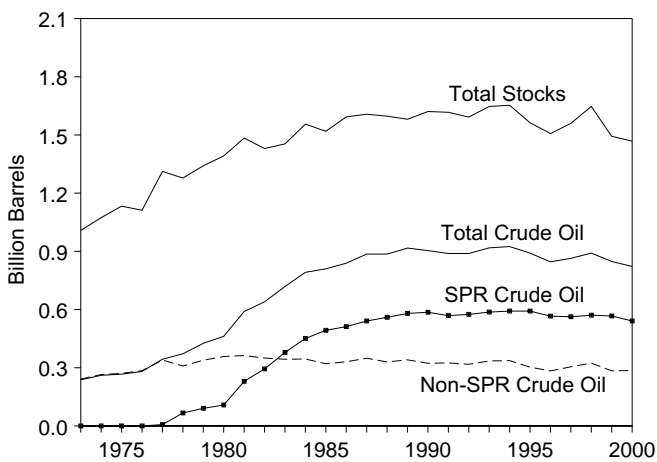
Products Supplied, Monthly



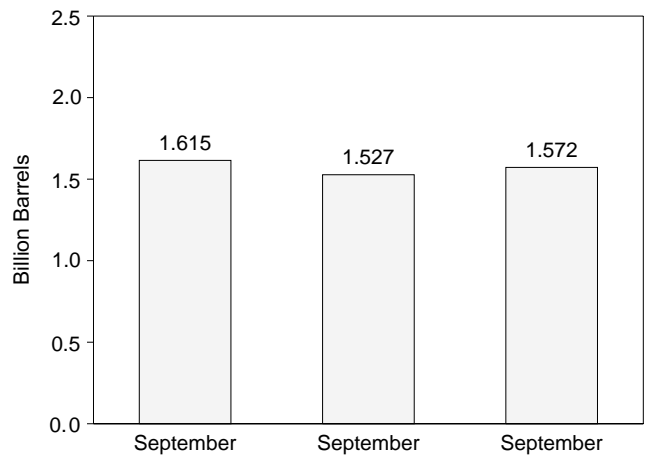
Imports from Selected Countries, August 2001



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						Unaccounted-for Crude Oil ^b	Crude Oil Used Directly ^c
	Field Production		Imports					
	Total Domestic	Alaskan	Total	SPR ^a	Other			
	Thousand Barrels per Day							
1973 Average	9,208	198	3,244	-	3,244	3	-19	
1974 Average	8,774	193	3,477	-	3,477	-25	-15	
1975 Average	8,375	191	4,105	-	4,105	17	-17	
1976 Average	8,132	173	5,287	-	5,287	77	d -19	
1977 Average	8,245	464	6,615	21	6,594	-6	-14	
1978 Average	8,707	1,229	6,356	d 161	6,195	-57	d -15	
1979 Average	8,552	1,401	6,519	67	6,452	-11	d -14	
1980 Average	8,597	1,617	5,263	44	5,219	34	d -14	
1981 Average	8,572	1,609	4,396	256	4,141	83	-58	
1982 Average	8,649	1,696	3,488	165	3,323	71	-59	
1983 Average	8,688	1,714	3,329	234	3,096	114	-	
1984 Average	8,879	1,722	3,426	197	3,229	185	-	
1985 Average	8,971	1,825	3,201	118	3,083	145	-	
1986 Average	8,680	1,867	4,178	48	4,130	139	-	
1987 Average	8,349	1,962	4,674	73	4,601	145	-	
1988 Average	8,140	2,017	5,107	51	5,055	196	-	
1989 Average	7,613	1,874	5,843	56	5,787	200	-	
1990 Average	7,355	1,773	5,894	27	5,867	258	-	
1991 Average	7,417	1,798	5,782	0	5,782	195	-	
1992 Average	7,171	1,714	6,083	10	6,073	258	-	
1993 Average	6,847	1,582	6,787	15	6,772	168	-	
1994 Average	6,662	1,559	7,063	12	7,051	266	-	
1995 Average	6,560	1,484	7,230	0	7,230	193	-	
1996 Average	6,465	1,393	7,508	0	7,508	215	-	
1997 Average	6,452	1,296	8,225	0	8,225	145	-	
1998 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	RE 5,823	RE 963	R 9,092	0	R 9,092	R 214	-	
September	PE 5,785	PE 909	E 8,947	E 0	E 8,947	E 678	-	
9-Month Average	PE 5,831	PE 960	E 9,182	E 10	E 9,172	E 339	-	
2000 9-Month Average	5,818	E 965	9,081	6	9,076	209	-	
1999 9-Month Average	5,857	E 1,050	8,856	5	8,850	240	-	

^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*, October 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	^R -165	^R 15,267	^R 28	0	^R 850	544	^R 306
September	^E 0	^E 34	^E 161	^E 15,122	^E 93	^E 0	^E 852	^E 545	^E 307
9-Month Average	^E 0	^E 15	^E 81	^E 15,220	^E 37	^E 0	^E 852	^E 545	^E 307
2000 9-Month Average	0	11	-24	15,057	64	0	848	570	278
1999 9-Month Average	(s)	15	-73	14,884	127	0	879	575	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*, October 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
8-Month Average	1	0	0	0	619	619	264	252
2000 8-Month Average	0	0	0	0	614	614	248	242
1999 8-Month Average	0	0	0	0	707	707	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*, October 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
8-Month Average	15	(s)	1,758	1,705	48	26	2,706	2,603
2000 8-Month Average	9	0	1,521	1,465	15	4	2,407	2,325
1999 8-Month Average	10	0	1,512	1,417	3	0	2,495	2,386

^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*, October 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
8-Month Average	274	12	(b)	(b)	(c)	(c)	58	46	0	0
2000 8-Month Average	228	1	(b)	(b)	(c)	(c)	45	38	0	0
1999 8-Month Average	272	35	(b)	(b)	(c)	(c)	74	66	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*, October 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
8-Month Average	894	852	1,617	1,348	2,842	2,257	5,548	4,860
2000 8-Month Average	907	880	1,519	1,191	2,699	2,110	5,105	4,435
1999 8-Month Average	716	682	1,565	1,202	2,627	1,984	5,122	4,370

^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*, October 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
8-Month Average	341	335	48	37	7	0	84	13	1,784	1,317	29	17
2000 8-Month Average	305	298	65	57	0	0	55	6	1,812	1,366	44	29
1999 8-Month Average	359	355	44	33	5	0	28	0	1,520	1,160	27	15

^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*, October 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
8-Month Average	288	250	108	102	140	140	41	0	34	12	1,355	1,311
2000 8-Month Average	356	337	115	113	133	132	25	0	45	27	1,372	1,304
1999 8-Month Average	492	474	100	95	158	158	10	0	34	22	1,365	1,290

^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*, October 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
8-Month Average	46	0	90	0	362	295	6	0	108	0	31	0
2000 8-Month Average	26	1	82	0	368	325	14	0	70	8	29	0
1999 8-Month Average	33	0	80	0	301	261	11	0	87	20	9	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*, October 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										Total Imports	
	Trinidad and Tobago		United Kingdom		U.S. Virgin Islands		Other Non-OPEC ^b		Total			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	255	60	15	0	329	0	153	36	3,263	1,149	6,256	3,244
1974 Average	251	63	8	0	391	0	122	30	2,832	937	6,112	3,477
1975 Average	242	115	14	(s)	406	0	120	14	2,454	893	6,056	4,105
1976 Average	274	104	31	13	422	0	203	101	2,247	742	7,313	5,287
1977 Average	289	134	126	97	466	0	287	157	2,614	971	8,807	6,615
1978 Average	253	142	180	169	428	0	239	146	2,612	1,172	8,363	6,356
1979 Average	190	123	202	197	431	0	269	192	2,819	1,407	8,456	6,519
1980 Average	176	115	176	173	388	0	219	162	2,609	1,399	6,909	5,263
1981 Average	133	102	375	369	327	0	236	163	2,672	1,474	5,996	4,396
1982 Average	112	92	456	441	316	0	306	174	2,968	1,754	5,113	3,488
1983 Average	96	83	382	365	282	0	378	215	3,189	1,853	5,051	3,329
1984 Average	94	87	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985 Average	113	98	310	278	247	0	394	137	3,237	1,888	5,067	3,201
1986 Average	125	93	350	317	244	0	426	144	3,387	2,065	6,224	4,178
1987 Average	106	75	352	304	272	0	459	196	3,617	2,274	6,678	4,674
1988 Average	97	71	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989 Average	94	73	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990 Average	96	76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991 Average	88	72	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992 Average	95	70	230	200	249	0	335	149	3,796	2,676	7,888	6,083
1993 Average	74	55	350	312	254	0	452	240	^c 4,347	^c 3,178	8,620	6,787
1994 Average	77	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995 Average	70	62	383	341	278	0	302	181	4,833	3,889	8,835	7,230
1996 Average	76	58	308	216	313	0	440	265	5,267	4,070	9,478	7,508
1997 Average	61	56	226	169	300	0	422	250	5,593	4,450	10,162	8,225
1998 Average	66	53	250	161	293	0	531	288	5,803	4,537	10,708	8,706
1999 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
8-Month Average	73	50	308	229	267	0	714	244	6,264	4,351	11,812	9,211
2000 8-Month Average	84	55	380	306	290	0	592	233	6,264	4,596	11,370	9,032
1999 8-Month Average	48	31	382	291	282	0	617	323	5,989	4,527	11,111	8,897

^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.

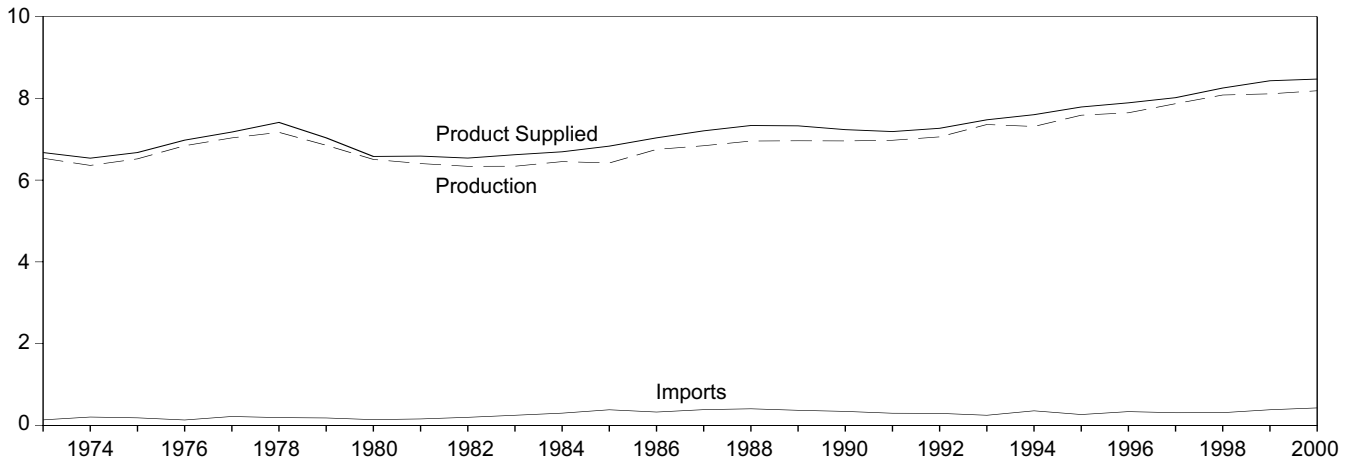
(s)=Less than 500 barrels per day.

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.

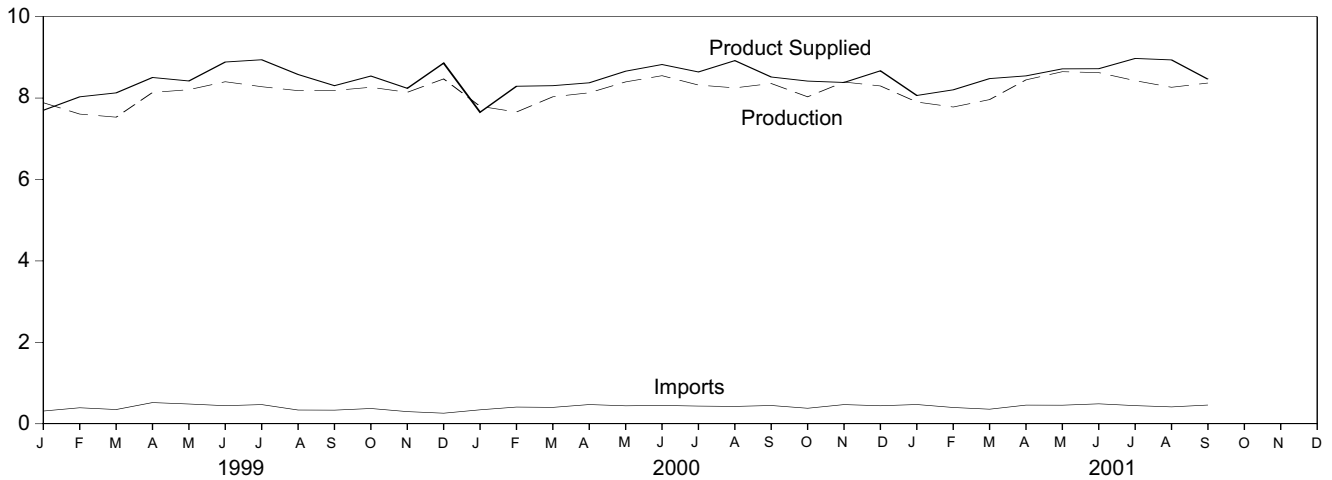
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. **1981 forward:** EIA, *Petroleum Supply Monthly*, October 2001, Table S3.

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

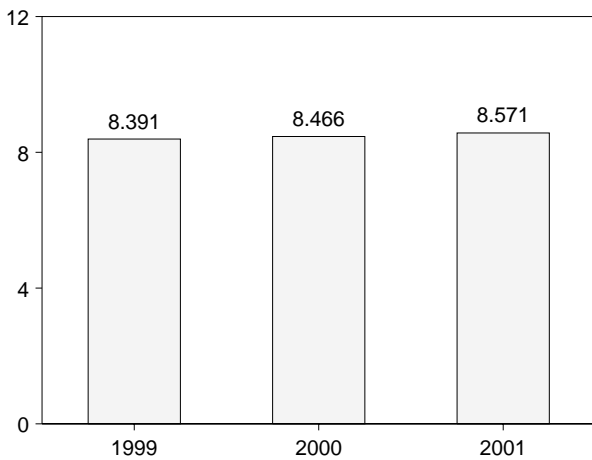
Overview, 1973-2000



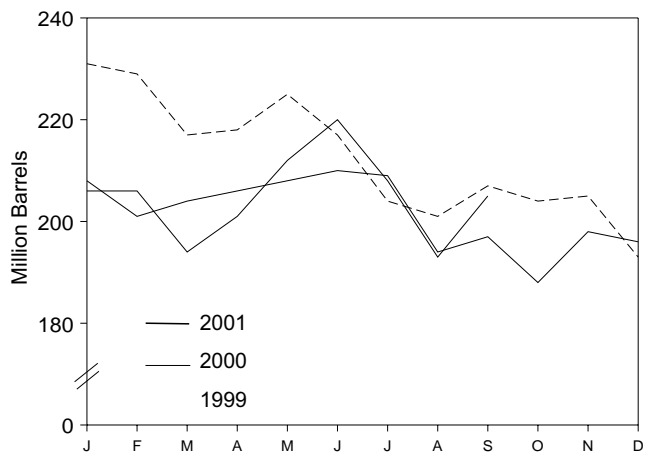
Overview, Monthly



Product Supplied, January-September



Stocks, End of Month



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

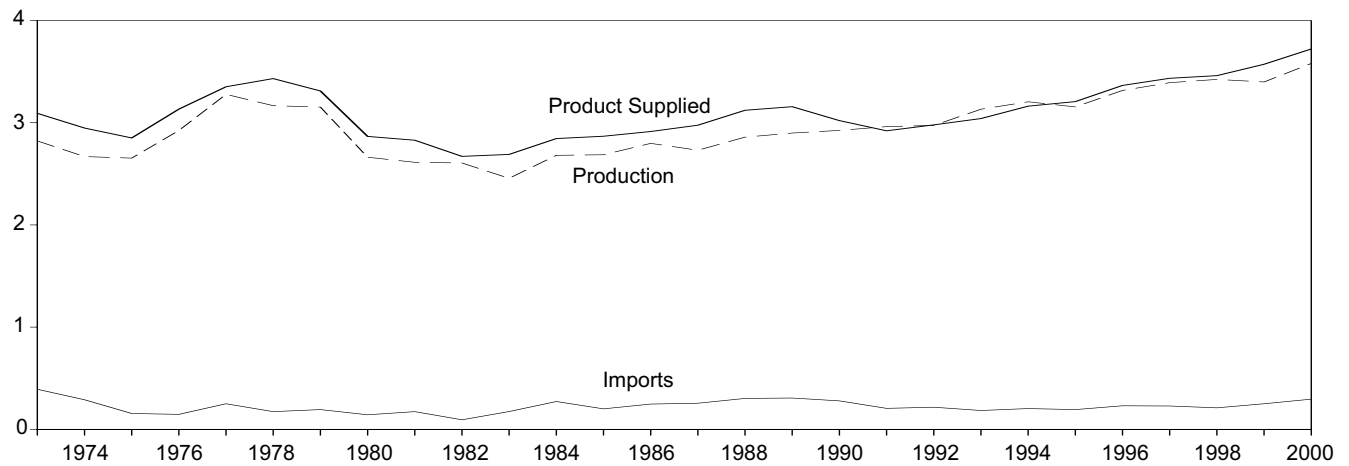
Table 3.4 Finished Motor Gasoline Supply and Disposition

	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	^R 8,265	^R 415	^R -375	^R 117	^R 8,938	^R 193	^R 150	13
September	^E 8,370	^E 460	^E 221	^E 147	^E 8,463	^E 205	^E 158	NA
9-Month Average	^E 8,273	^E 440	^E 12	^E 129	^E 8,571	^E 205	^E 158	NA
2000 9-Month Average	8,168	425	1	127	8,466	197	154	13
1999 9-Month Average	8,049	405	-35	99	8,391	207	162	15

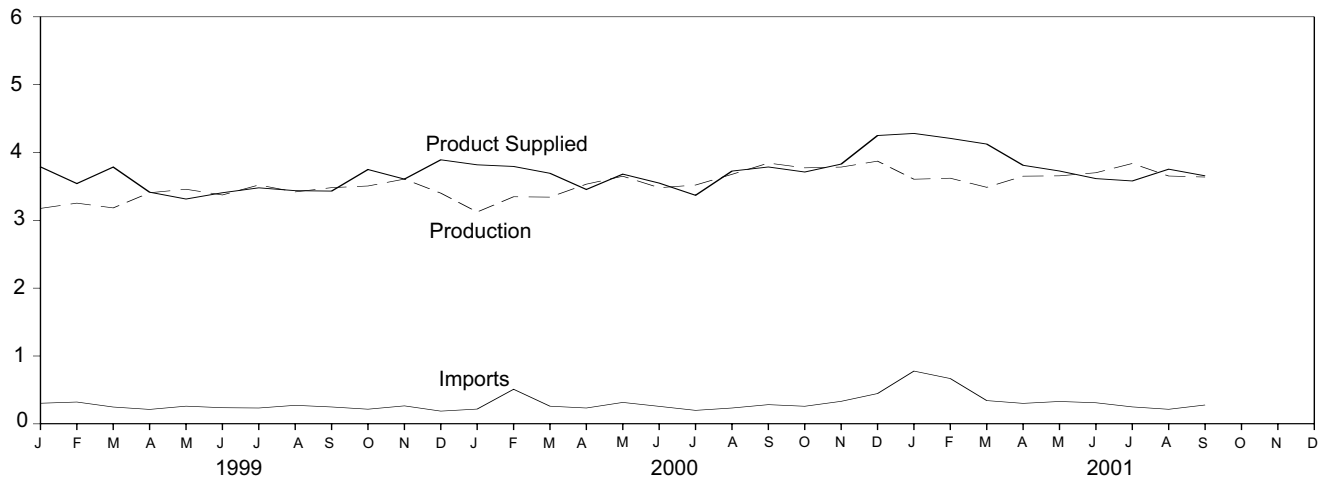
^a Stocks are at end of period.
^b From 1981 forward, blending components are excluded.
^c A negative number indicates a decrease in stocks and a positive number indicates an increase.
^d Includes motor gasoline blending components and gasohol, but excludes oxygenates, which are reported separately.
^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*, October 2001, Table S4.

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

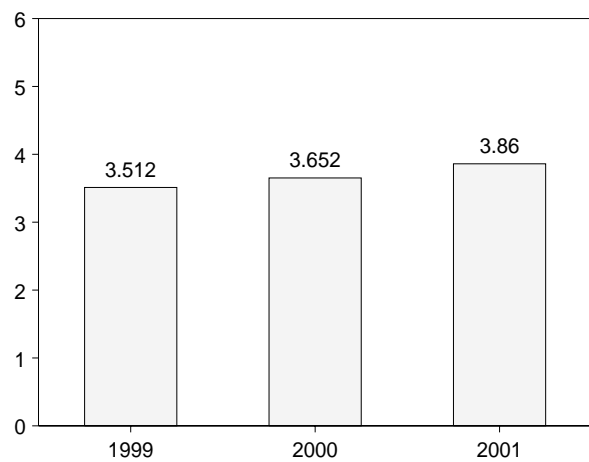
Overview, 1973-2000



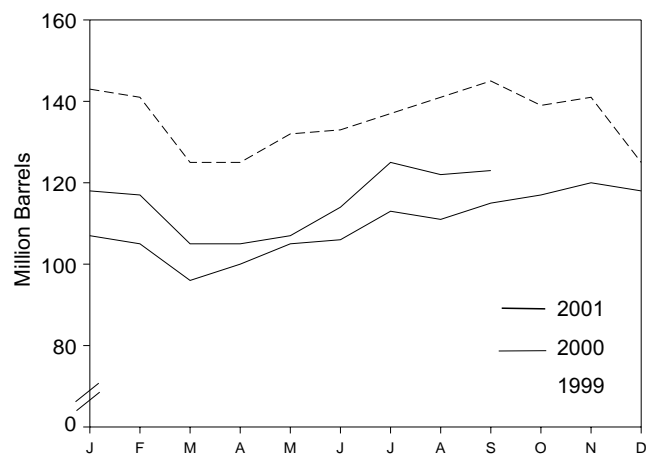
Overview, Monthly



Product Supplied, January-September



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.5.

Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^a		
	Total Production	Imports	Crude Oil Used Directly ^b	Stock Change ^c	Exports	Product Supplied ^b	Total	Sulfur Content	
								0.05 Percent or Less ^d	Greater Than 0.05 Percent ^d
Thousand Barrels per Day							Million Barrels		
1973 Average	2,822	392	2	115	9	3,092	196	NA	NA
1974 Average	2,669	289	2	^e 10	2	2,948	^f 200	NA	NA
1975 Average	2,654	155	2	^{e,f} -41	1	2,851	209	NA	NA
1976 Average	2,924	146	1	-62	1	3,133	186	NA	NA
1977 Average	3,278	250	1	176	1	3,352	250	NA	NA
1978 Average	3,167	173	1	-93	3	3,432	216	NA	NA
1979 Average	3,153	193	1	34	3	3,311	229	NA	NA
1980 Average	2,662	142	1	-64	3	2,866	^f 205	NA	NA
1981 Average ^g	2,613	173	10	^f -38	5	2,829	192	NA	NA
1982 Average	2,606	93	10	-35	74	2,671	^f 179	NA	NA
1983 Average	2,456	174	-	^f -124	64	2,690	140	NA	NA
1984 Average	2,681	272	-	57	51	2,845	161	NA	NA
1985 Average	2,687	200	-	-48	67	2,868	144	NA	NA
1986 Average	2,798	247	-	31	100	2,914	155	NA	NA
1987 Average	2,731	255	-	-56	66	2,976	134	NA	NA
1988 Average	2,859	302	-	-30	69	3,122	124	NA	NA
1989 Average	2,899	306	-	-49	97	3,157	106	NA	NA
1990 Average	2,925	278	-	73	109	3,021	132	NA	NA
1991 Average	2,962	205	-	31	215	2,921	144	NA	NA
1992 Average	2,974	216	-	-8	219	2,979	141	NA	NA
1993 Average	3,132	184	-	1	274	3,041	141	^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	^R 3,653	^R 215	-	^R -101	^R 216	^R 3,754	^R 122	^R 68	^R 54
September	^E 3,638	^E 278	-	^E 99	^E 161	^E 3,656	^E 123	^E 69	^E 55
9-Month Average	^E 3,650	^E 384	-	^E 25	^E 149	^E 3,860	^E 123	^E 69	^E 55
2000 9-Month Average	3,502	278	-	-38	166	3,652	115	68	47
1999 9-Month Average	3,364	260	-	-39	152	3,512	145	73	72

^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.

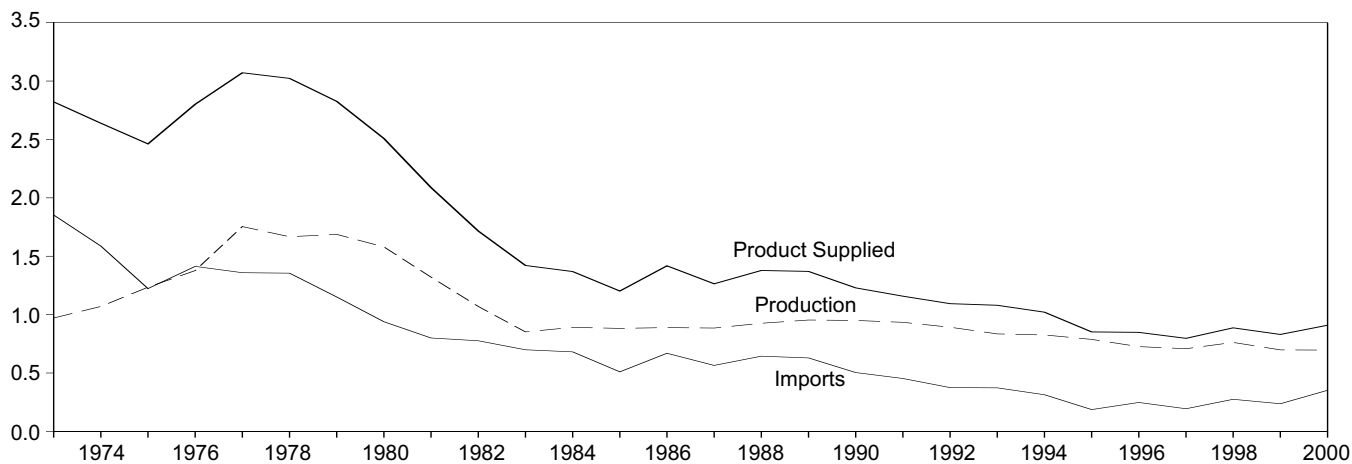
R=Revised. NA=Not available. --=Not applicable. E=Estimate.

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*, October 2001, Table S5.

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

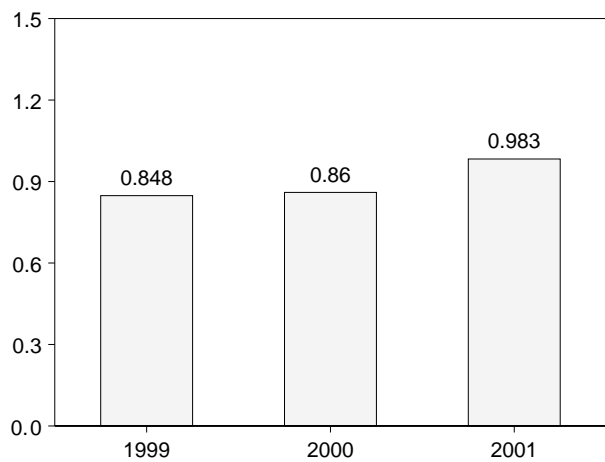
Overview, 1973-2000



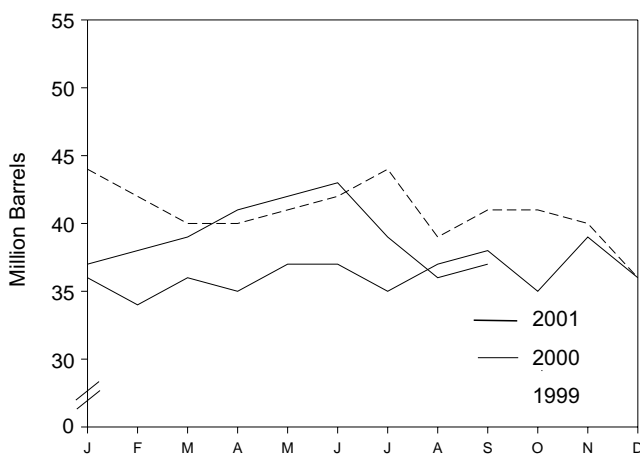
Overview, Monthly



Product Supplied, January-September



Stocks, End of Month



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

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^c
	Total Production	Imports	Crude Oil Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	
	Thousand Barrels per Day							Million Barrels
1973 Average	971	1,853	17	-5	23	2,822	53
1974 Average	1,070	1,587	13	17	14	2,639	^d 60
1975 Average	1,235	1,223	15	^d -2	15	2,462	74
1976 Average	1,377	1,413	17	-5	12	2,801	72
1977 Average	1,754	1,359	13	48	6	3,071	90
1978 Average	1,667	1,355	13	1	13	3,023	90
1979 Average	1,687	1,151	12	15	9	2,826	96
1980 Average	1,580	939	12	-10	33	2,508	^d 92
1981 Average ^e	1,321	800	48	^d -37	118	2,088	78
1982 Average	1,070	776	48	-32	209	1,716	^d 66
1983 Average	852	699	-	^d -55	185	1,421	49
1984 Average	891	681	-	12	190	1,369	53
1985 Average	882	510	-	-7	197	1,202	50
1986 Average	889	669	-	-8	147	1,418	47
1987 Average	885	565	-	(s)	186	1,264	47
1988 Average	926	644	-	-8	200	1,378	45
1989 Average	954	629	-	-2	215	1,370	44
1990 Average	950	504	-	13	211	1,229	49
1991 Average	934	453	-	4	226	1,158	50
1992 Average	892	375	-	-20	193	1,094	43
1993 Average	835	373	-	4	123	1,080	44
1994 Average	826	314	-	-6	125	1,021	42
1995 Average	788	187	-	-13	136	852	37
1996 Average	726	248	-	24	102	848	46
1997 Average	708	194	-	-15	120	797	40
1998 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	^R 622	^R 412	-	^R -114	^R 174	^R 974	36
September	^E 634	^E 382	-	^E 54	^E 149	^E 812	^E 37
9-Month Average	^E 732	^E 421	-	^E 5	^E 165	^E 983	^E 37
2000 9-Month Average	674	327	-	7	133	860	38
1999 9-Month Average	715	252	-	-15	134	848	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.

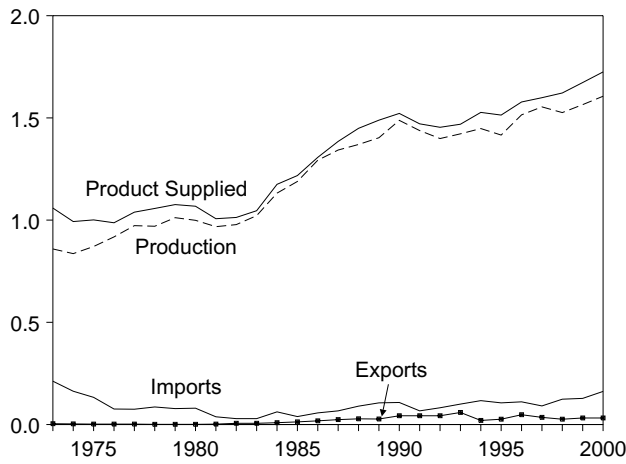
^e See Note 3 at end of section.

^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*, October 2001, Table S6.

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

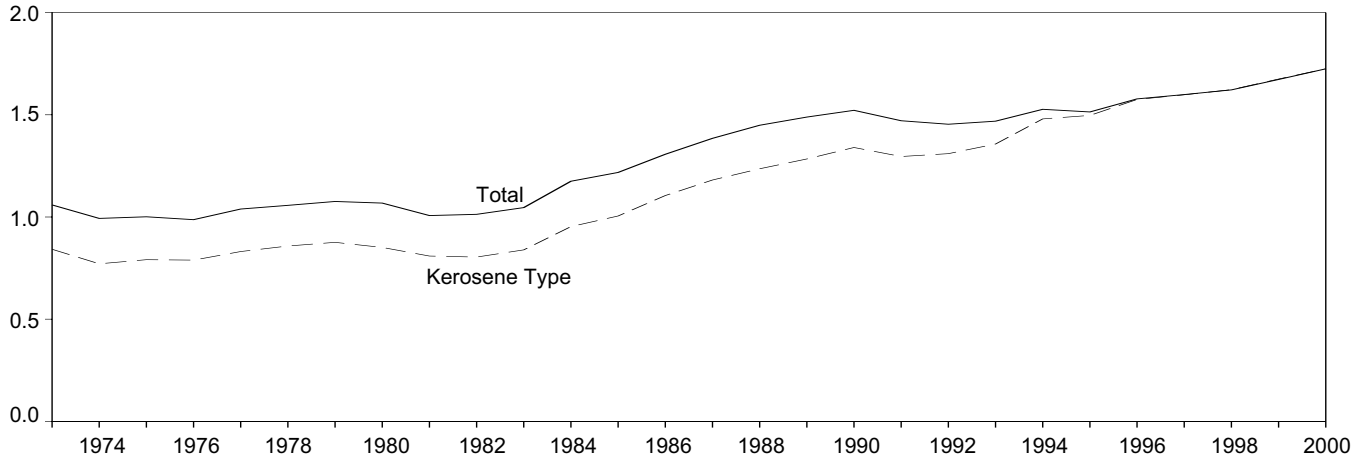
Overview, 1973-2000



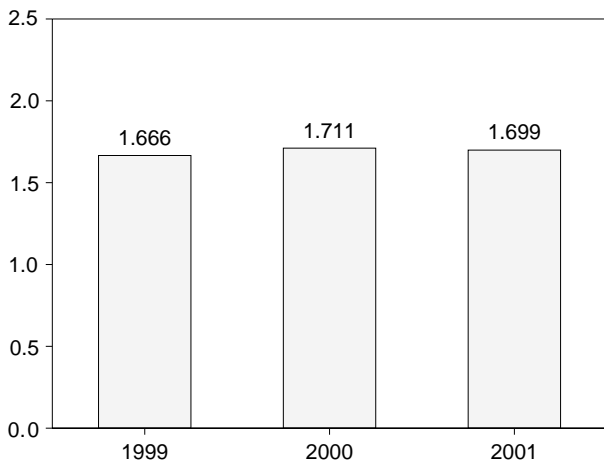
Overview, Monthly



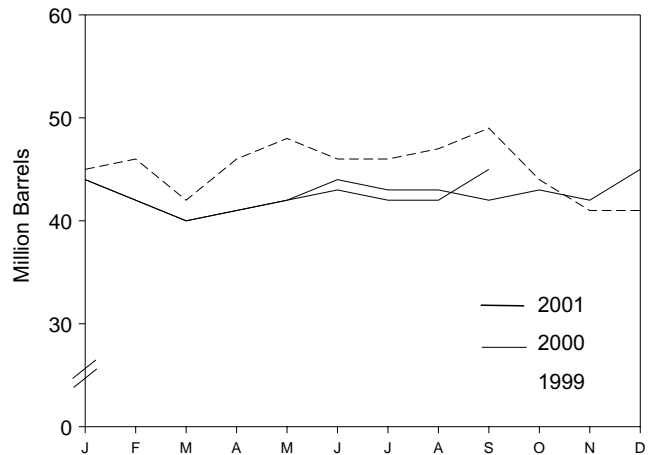
Product Supplied by Type, 1973-2000



Product Supplied, January-September



Stocks, End of Month



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

Table 3.7 Jet Fuel Supply and Disposition

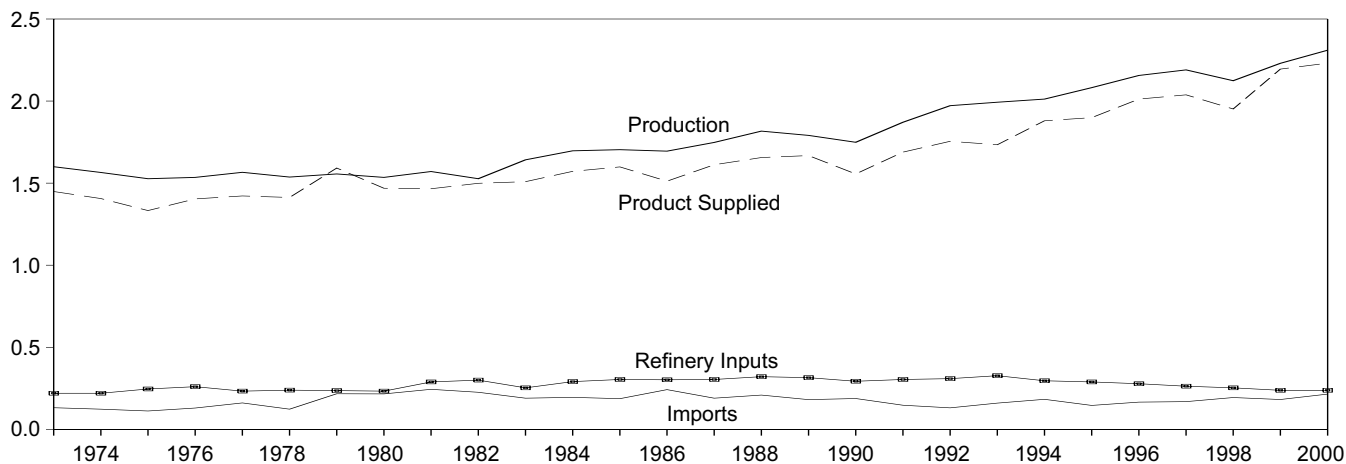
	Supply			Disposition				Stocks ^a	
	Production		Imports	Stock Change ^b	Exports	Product Supplied			
	Total	Kerosene Type				Total	Kerosene Type	Total	Kerosene Type
	Thousand Barrels per Day							Million Barrels	
1973 Average	859	679	212	8	4	1,059	842	29	23
1974 Average	836	641	163	2	3	993	771	^c 29	^c 24
1975 Average	871	691	133	^c 2	2	1,001	791	30	25
1976 Average	918	731	76	5	2	987	789	32	26
1977 Average	973	787	75	7	2	1,039	831	35	28
1978 Average	970	791	86	-2	1	1,057	858	34	28
1979 Average	1,012	835	78	13	1	1,076	876	39	33
1980 Average	999	811	80	10	1	1,068	851	^c 42	^c 36
1981 Average	968	775	38	^c -4	2	1,007	809	41	34
1982 Average	978	778	29	-12	6	1,013	804	^c 37	^c 31
1983 Average	1,022	817	29	^c (s)	6	1,046	839	39	32
1984 Average	1,132	919	62	9	9	1,175	953	42	35
1985 Average	1,189	983	39	-4	13	1,218	1,005	40	34
1986 Average	1,293	1,097	57	25	18	1,307	1,105	50	43
1987 Average	1,343	1,138	67	(s)	24	1,385	1,181	50	42
1988 Average	1,370	1,164	90	-17	28	1,449	1,236	44	38
1989 Average	1,403	1,197	106	-8	27	1,489	1,284	41	34
1990 Average	1,488	1,311	108	31	43	1,522	1,340	52	46
1991 Average	1,438	1,274	67	-9	43	1,471	1,296	49	44
1992 Average	1,399	1,254	82	-16	43	1,454	1,310	43	39
1993 Average	1,422	1,309	100	-7	59	1,469	1,357	40	38
1994 Average	1,448	1,410	117	18	20	1,527	1,480	47	46
1995 Average	1,416	1,407	106	-19	26	1,514	1,497	40	39
1996 Average	1,515	1,513	111	(s)	48	1,578	1,575	40	40
1997 Average	1,554	1,554	91	11	35	1,599	1,598	44	44
1998 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	^R 1,597	^R 1,597	^R 123	^R -25	^R 24	^R 1,721	^R 1,724	^R 42	^R 42
September	^E 1,444	^E 1,443	^E 121	^E 55	^E 33	^E 1,477	^E 1,477	^E 45	^E 44
9-Month Average	^E 1,556	^E 1,556	^E 163	^E -4	^E 24	^E 1,699	^E 1,699	^E 45	^E 44
2000 9-Month Average	1,594	1,594	150	7	26	1,711	1,711	42	42
1999 9-Month Average	1,571	1,570	137	15	27	1,666	1,668	49	49

^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

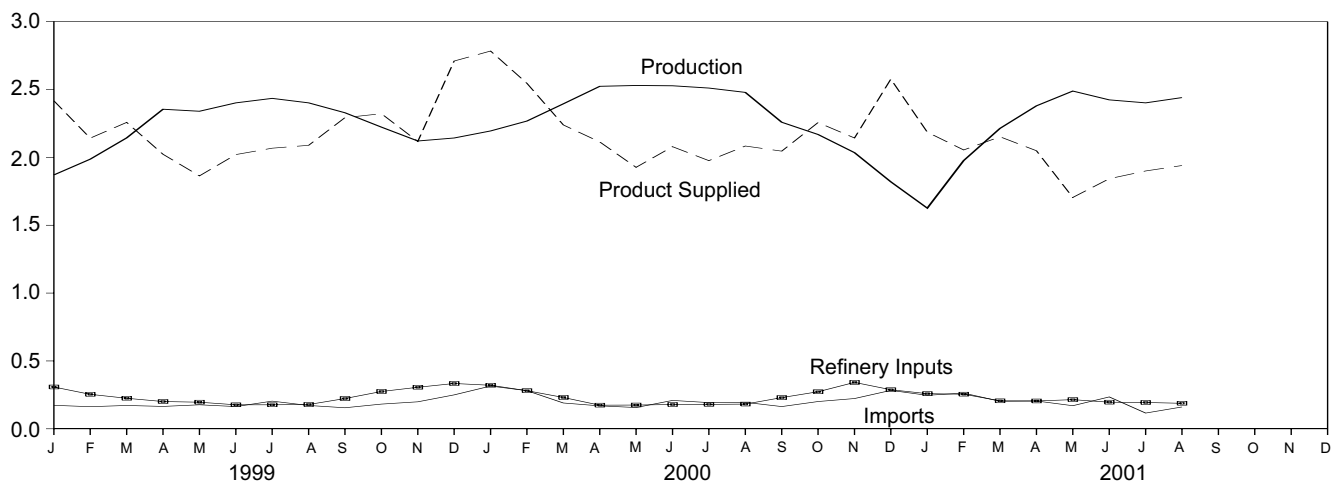
than -500 barrels per day.
 Note: Geographic coverage is the 50 States and the District of Columbia.
 Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S7. **1981 forward:** EIA, *Petroleum Supply Monthly*, October 2001, Table S7.

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

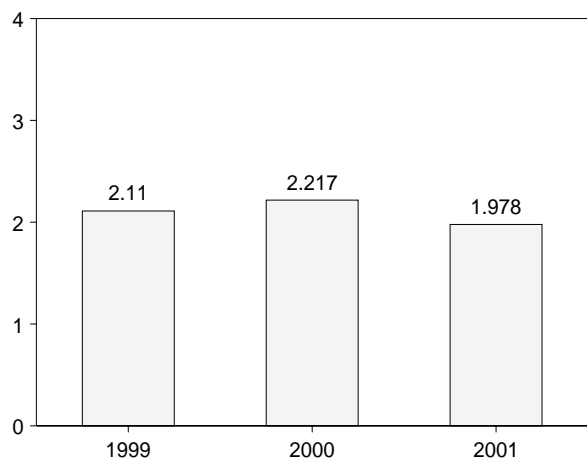
Overview, 1973-2000



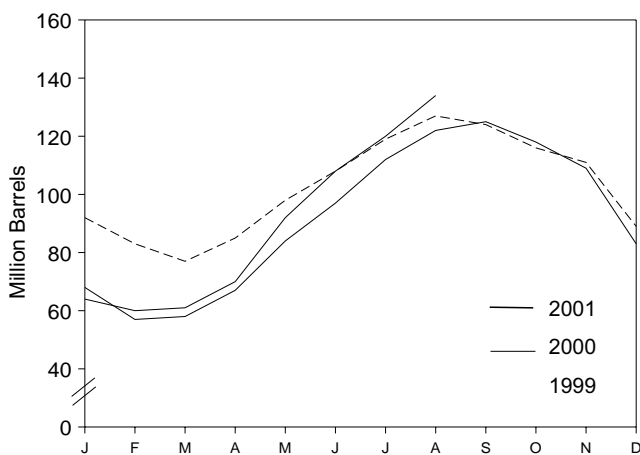
Overview, Monthly



Product Supplied, January-August



Stocks, End of Month



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

Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	1,600	132	35	220	27	1,449	99
1974 Average	1,565	123	38	220	25	1,406	^c 113
1975 Average	1,527	112	^c 35	246	26	1,333	125
1976 Average	1,535	130	-24	260	25	1,404	116
1977 Average	1,566	161	55	233	18	1,422	136
1978 Average	1,537	123	-12	239	20	1,413	^c 132
1979 Average	1,556	217	^c -70	236	15	1,592	111
1980 Average	1,535	216	27	233	21	1,469	^c 120
1981 Average	1,571	244	^c 18	289	42	1,466	135
1982 Average	^d 1,527	226	-111	300	65	1,499	^c 94
1983 Average	1,642	190	^c -4	253	73	1,509	^c 101
1984 Average	1,697	195	^c -19	291	48	1,572	101
1985 Average	1,704	187	-75	304	62	1,599	74
1986 Average	1,695	242	80	302	42	1,512	103
1987 Average	1,748	190	-15	304	38	1,612	97
1988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
1990 Average	1,749	188	48	293	40	1,556	98
1991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
1993 Average	1,993	160	49	327	43	1,734	106
1994 Average	2,012	183	-19	296	38	1,880	99
1995 Average	2,082	146	-17	289	58	1,899	93
1996 Average	2,156	166	-19	278	51	2,012	86
1997 Average	2,190	169	9	263	50	2,038	89
1998 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
8-Month Average	2,246	199	206	214	46	1,978	134
2000 8-Month Average	2,430	213	134	215	76	2,217	122
1999 8-Month Average	2,244	174	49	214	44	2,110	127

^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.

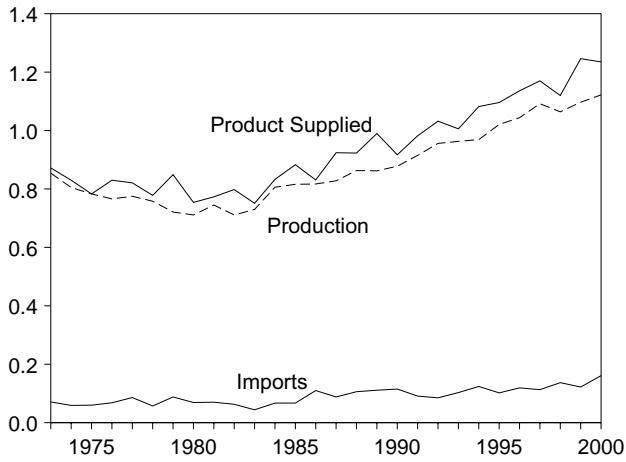
Notes: Liquefied petroleum gases include ethane, ethylene, propane,

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

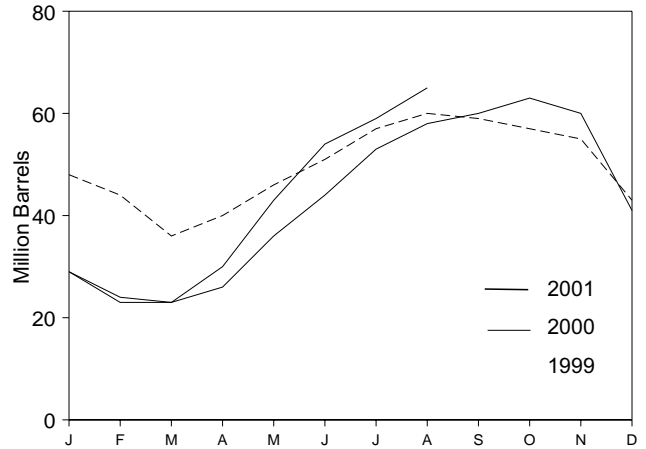
Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S8. **1981 forward:** EIA, *Petroleum Supply Monthly*, October 2001, Table S9.

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

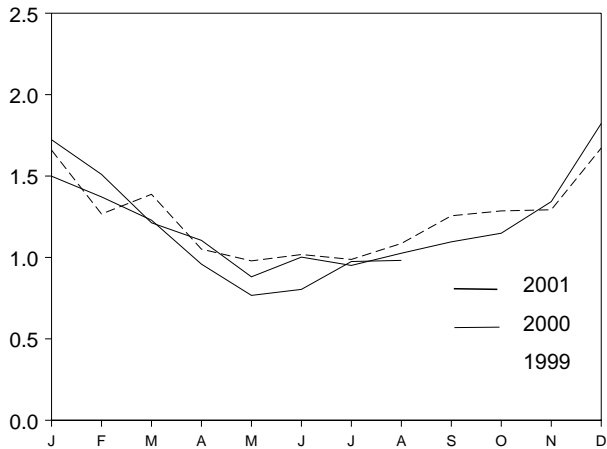
Overview, 1973-2000



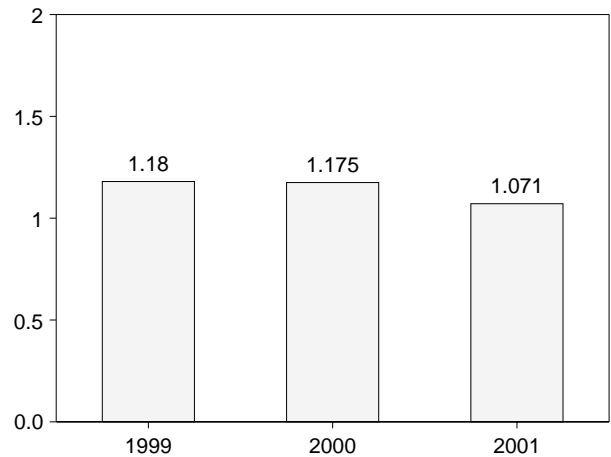
Stocks, End of Month



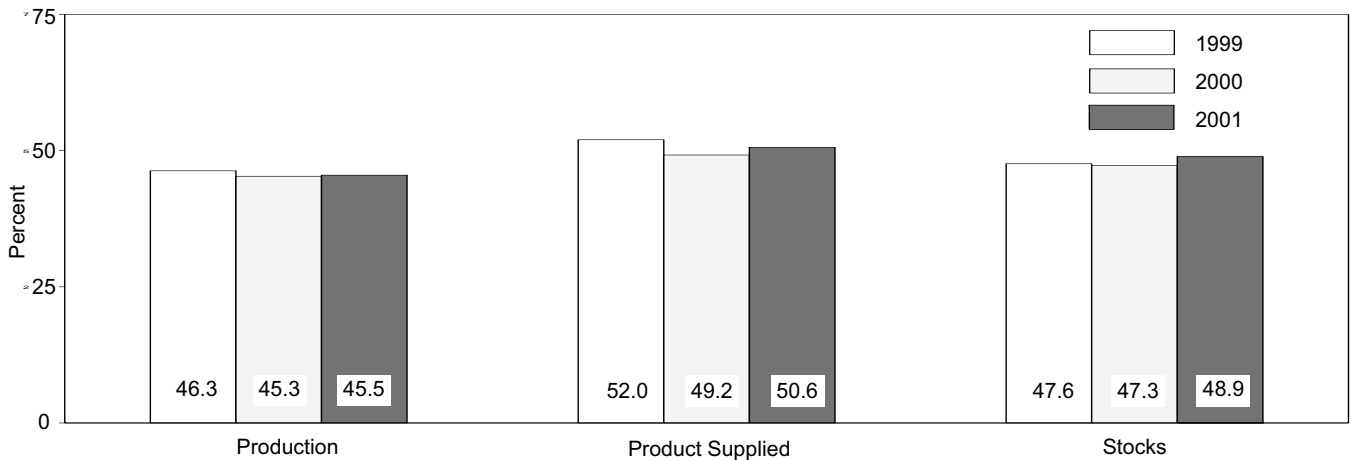
Product Supplied, Monthly



Product Supplied, January-August



Share of Liquefied Petroleum Gases, August



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

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

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	854	71	30	8	15	872	65
1974 Average	805	59	11	9	14	830	69
1975 Average	783	60	36	11	13	783	82
1976 Average	766	68	-22	12	13	830	74
1977 Average	775	86	21	10	10	821	81
1978 Average	758	57	15	13	9	778	^c 87
1979 Average	721	88	^c -61	14	8	849	64
1980 Average	711	69	4	12	10	754	^c 65
1981 Average	745	70	^c 18	5	18	773	76
1982 Average	711	63	-59	4	31	798	^c 54
1983 Average	730	44	^c -24	4	43	751	^c 48
1984 Average	806	67	^c 7	4	30	833	58
1985 Average	816	67	-50	3	48	883	39
1986 Average	817	110	64	4	28	831	63
1987 Average	828	88	-41	8	24	924	48
1988 Average	863	106	7	8	31	923	50
1989 Average	862	111	-52	11	24	990	32
1990 Average	878	115	48	(s)	28	917	49
1991 Average	915	91	-3	(s)	28	982	48
1992 Average	956	85	-24	(s)	33	1,032	39
1993 Average	963	103	34	(s)	26	1,006	51
1994 Average	969	124	-13	0	24	1,082	46
1995 Average	1,021	102	-10	0	38	1,096	43
1996 Average	1,044	119	(s)	0	28	1,136	43
1997 Average	1,092	113	3	0	32	1,170	44
1998 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
8-Month Average	1,071	131	98	0	32	1,071	65
2000 8-Month Average	1,139	151	60	0	55	1,175	58
1999 8-Month Average	1,076	115	-17	0	28	1,180	60

^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*, October 2001, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day							Million Barrels
1973 Average	2,833	290	1	750	162	2,211	179
1974 Average	2,722	269	25	665	172	2,129	^c 188
1975 Average	2,547	144	^c -6	537	158	2,001	188
1976 Average	2,725	129	(s)	524	172	2,158	188
1977 Average	2,939	130	20	514	164	2,371	195
1978 Average	3,076	80	-12	492	165	2,511	191
1979 Average	3,141	116	24	352	208	2,673	200
1980 Average	2,957	130	15	310	197	2,566	^c 205
1981 Average	2,771	188	^c -42	723	197	2,081	241
1982 Average	2,475	305	-68	787	205	^d 1,857	^c 216
1983 Average	2,437	382	^c -6	712	236	1,877	^c 217
1984 Average	2,500	503	^c -32	791	236	2,007	198
1985 Average	2,532	550	22	886	227	1,947	206
1986 Average	2,704	504	-15	888	291	2,045	201
1987 Average	2,737	543	-1	829	264	2,187	200
1988 Average	2,773	645	22	799	294	2,303	208
1989 Average	2,771	627	12	797	305	2,285	213
1990 Average	2,842	705	-32	887	289	2,402	201
1991 Average	2,826	675	18	936	277	2,269	208
1992 Average	2,928	707	-3	906	263	2,470	^c 207
1993 Average	^e 3,035	770	^c -2	1,081	^e 300	^e 2,426	206
1994 Average	2,973	761	24	861	329	2,518	215
1995 Average	3,031	708	-23	958	348	2,457	206
1996 Average	3,108	879	-11	1,014	376	2,608	202
1997 Average	3,204	945	30	985	402	2,733	213
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
7-Month Average	2,987	985	65	903	449	2,555	221
2000 7-Month Average	3,150	967	111	949	404	2,653	220
1999 7-Month Average	3,195	970	23	1,042	313	2,788	224

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

^b Stocks are at end of period.

^c See Note 4 at end of section.

^d See Note 6 at end of section.

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

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

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

Sources: **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S9. **1981 forward:** EIA, *Petroleum Supply Monthly*, October 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 September 2001 was forecast as 1.6 trillion cubic feet, 2 percent higher than production during September 2000.

Consumption of natural and supplemental gas in September 2001 was forecast as 1.5 trillion cubic feet, the same as the level in September 2000.

Deliveries to residential consumers in September 2001 were forecast as 131 billion cubic feet, 6 percent lower than the previous September's deliveries. Total deliveries to industrial consumers during September 2001 were forecast as 819 billion cubic feet, 5 percent higher than the previous September's level.

Net imports of natural gas in September 2001 were forecast as 299 billion cubic feet, 5 percent higher than net imports in the previous September.

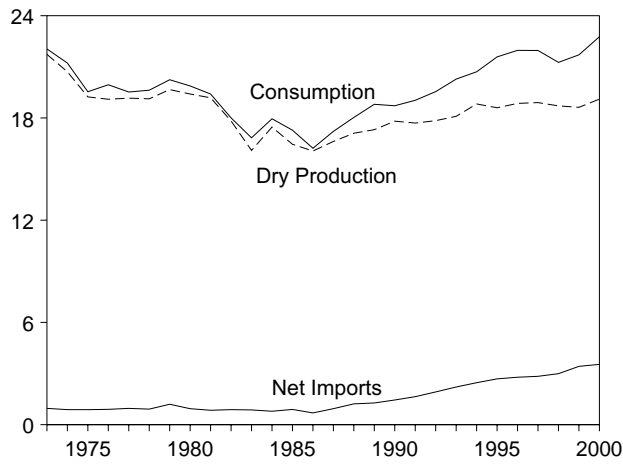
Stocks of working gas¹ in underground natural gas storage reservoirs at the end of September 2001 were forecast as 3.0 trillion cubic feet, 20 percent higher than the level of stocks available 1 year earlier.

Net injections into underground storage during September 2001 were forecast as 390 billion cubic feet, 38 percent higher than the amount of net injections during September 2000.

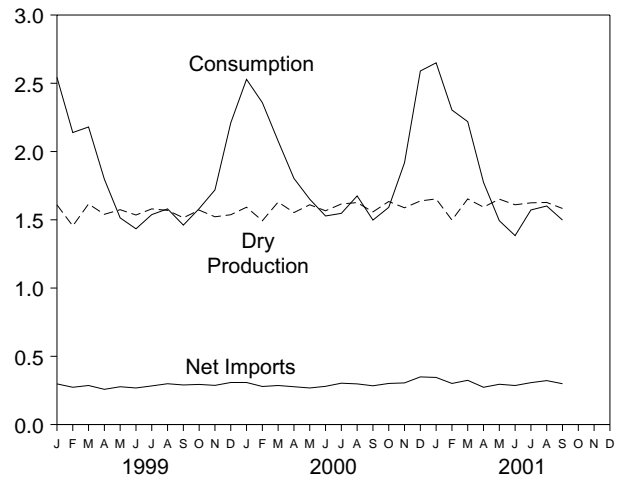
¹Gas available for withdrawal.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

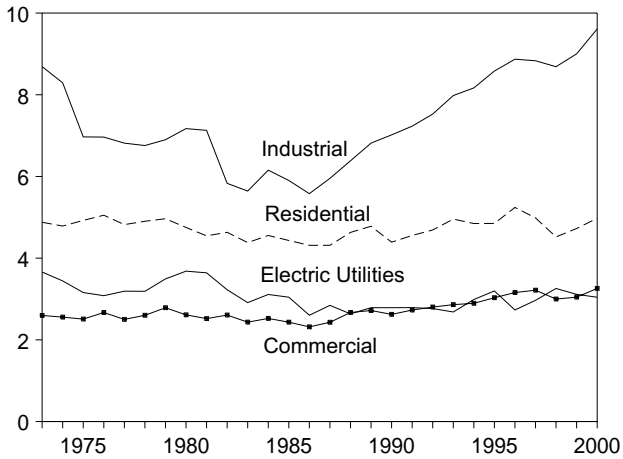
Overview, 1973-2000



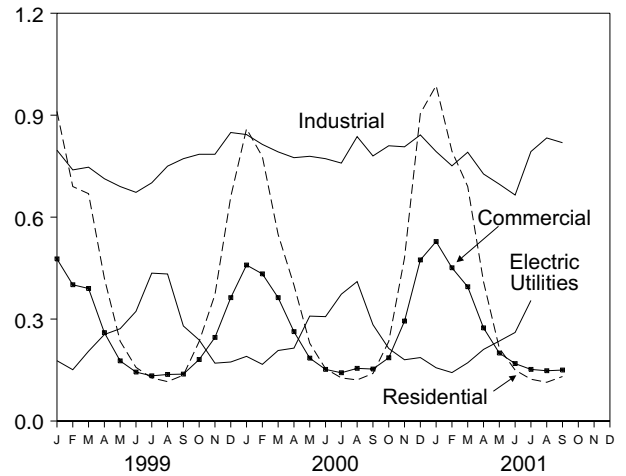
Overview, Monthly



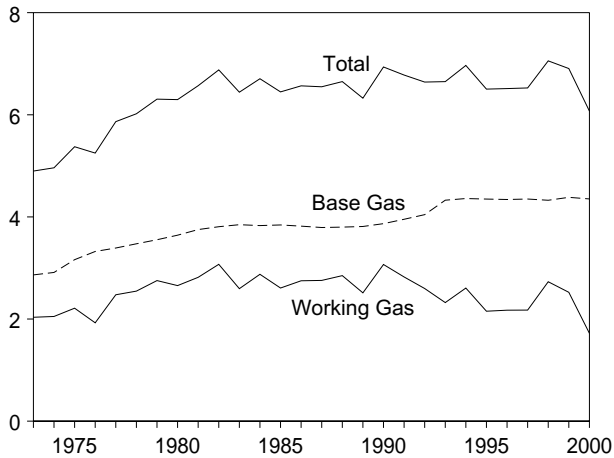
Consumption by Sector, 1973-2000



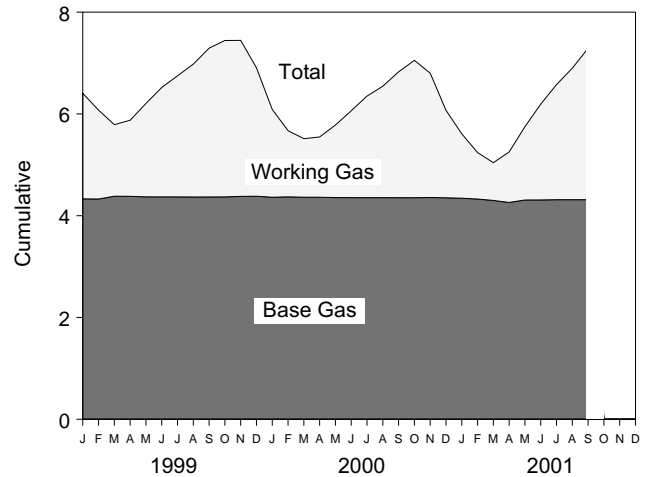
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2000



Underground Storage, End of Month



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

Table 4.1 Natural Gas Overview
(Billion Cubic Feet)

	Dry Gas Production ^a	Supplemental Gaseous Fuels ^b	Net Imports ^c	Net Withdrawals From Storage ^d	Balancing Item ^e	Consumption ^{f,g}
1973 Total	h21,731	NA	956	-442	-196	22,049
1974 Total	h20,713	NA	882	-84	-289	21,223
1975 Total	h19,236	NA	880	-344	-235	19,538
1976 Total	h19,098	NA	899	165	-216	19,946
1977 Total	h19,163	NA	955	-557	-41	19,521
1978 Total	h19,122	NA	913	-120	-287	19,627
1979 Total	h19,663	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	R -161	R 2,529
February	E 1,493	E 9	279	454	R 124	R 2,358
March	E 1,630	E 8	286	162	R -9	R 2,077
April	E 1,553	E 7	277	-36	R 2	R 1,803
May	E 1,610	E 7	268	-232	R -2	R 1,651
June	E 1,566	E 6	280	-272	R -52	R 1,528
July	E 1,616	E 8	303	-290	R -89	R 1,547
August	E 1,626	E 8	298	-193	R -64	R 1,675
September	E 1,558	E 7	284	-282	R -70	R 1,498
October	E 1,634	E 8	301	-227	R -125	R 1,591
November	RE 1,588	E 9	305	293	R -276	R 1,918
December	RE 1,638	E 10	349	690	R -96	R 2,590
Total	RE 19,103	E 98	3,538	845	R -819	R 22,765
2001 January	RE 1,653	E 10	345	467	R 176	R 2,650
February	E 1,498	E 8	301	338	R 160	R 2,304
March	E 1,653	E 9	324	181	R 53	R 2,219
April	RE 1,593	E 7	E 273	-276	R 178	R 1,774
May	RE 1,651	E 6	E 295	-448	R -12	R 1,493
June	E 1,610	E 6	RE 286	R -422	R -95	R 1,384
July	RE 1,624	E 8	RE 307	R -376	RE 10	R 1,572
August	F 1,627	F 8	F 322	RF -323	RF -33	RF 1,601
September	F 1,583	F 8	F 299	F -390	F -1	F 1,498
9-Month Total	E 14,490	E 69	E 2,752	E -1,250	E 434	E 16,495
2000 9-Month Total	E 14,244	E 71	2,583	90	-321	16,666
1999 9-Month Total	13,993	72	2,533	-271	-142	16,186

^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*, September 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	^{RE} 2,045	^E 304	^{RE} 48	^E 23	^{RE} 1,671	^E 83	^{RE} 1,588
December	^{RE} 2,113	^E 316	^{RE} 50	^E 24	^{RE} 1,723	^E 86	^{RE} 1,638
Total	^{RE} 24,479	^E 3,543	^{RE} 564	^E 270	^{RE} 20,102	^{RE} 999	^{RE} 19,103
2001 January	^{RE} 2,122	^{RE} 315	^{RE} 43	^E 24	^{RE} 1,740	^E 86	^{RE} 1,653
February	^{RE} 1,926	^{RE} 288	^{RE} 41	^E 22	^{RE} 1,576	^E 78	^E 1,498
March	^{RE} 2,138	^{RE} 334	^E 42	^E 23	^E 1,739	^E 86	^E 1,653
April	^{RE} 2,041	^{RE} 304	^{RE} 39	^E 22	^{RE} 1,676	^E 83	^{RE} 1,593
May	^{RE} 2,099	^{RE} 298	^{RE} 40	^{RE} 23	^{RE} 1,737	^{RE} 86	^{RE} 1,651
June	^{RE} 2,064	^{RE} 308	^{RE} 40	^{RE} 22	^E 1,694	^E 84	^E 1,610
July	^E 2,076	^E 305	^E 40	^E 23	^E 1,709	^{RE} 85	^{RE} 1,624
August	NA	NA	NA	NA	^F 1,712	^F 85	^F 1,627
September	NA	NA	NA	NA	^F 1,665	^F 82	^F 1,583
9-Month Total	NA	NA	NA	NA	^E 15,248	^E 757	^E 14,490
2000 9-Month Total	^E 18,224	^E 2,616	^E 420	^E 200	^E 14,989	^E 745	^E 14,244
1999 9-Month Total	17,808	2,444	456	184	14,724	731	13,993

^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.
^{RE}=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*, September 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	351	2	0	9	2	370	12	6	8	25
February	8	0	305	1	0	7	8	328	16	4	8	27
March	8	0	333	1	2	9	3	356	20	6	7	32
April	5	0	281	E 1	2	8	4	E 302	17	6	E 7	E 29
May	8	0	298	E 1	5	10	2	E 324	16	6	E 7	E 28
June	4	0	R 287	E 1	3	10	4	RE 310	R 13	4	E 7	RE 24
July	8	2	E 306	E 1	2	7	2	E 329	E 10	6	E 7	E 22
7-Month Total	45	2	E 2,161	E 11	15	60	26	E 2,319	E 103	36	E 50	E 189
2000 7-Month Total	24	5	2,011	5	17	61	10	2,133	39	36	58	132
1999 7-Month Total	53	5	1,921	30	10	19	0	2,037	18	37	37	93

^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*, September 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	R 843	NA	190	R 2,352	R 2,529
February	E 86	80	778	433	R 814	NA	167	R 2,192	R 2,358
March	E 94	70	549	363	R 792	NA	208	R 1,912	R 2,077
April	E 90	61	400	263	R 775	NA	215	R 1,652	R 1,803
May	E 93	56	229	185	R 779	NA	309	R 1,502	R 1,651
June	E 91	52	154	152	R 772	NA	307	R 1,385	R 1,528
July	E 94	52	127	142	R 759	NA	373	R 1,401	R 1,547
August	E 94	57	121	155	R 837	NA	410	R 1,524	R 1,675
September	E 90	51	140	153	R 780	NA	284	R 1,357	R 1,498
October	E 95	54	234	186	R 810	NA	213	R 1,442	R 1,591
November	RE 92	65	R 480	294	R 807	NA	180	R 1,761	R 1,918
December	RE 95	88	R 905	474	842	NA	187	R 2,408	R 2,590
Total	RE 1,106	R 771	R 4,976	3,259	R 9,610	NA	3,043	R 20,888	R 22,765
2001 January	RE 96	90	987	R 528	R 793	NA	157	R 2,465	R 2,650
February	E 87	78	794	451	R 751	NA	143	R 2,139	R 2,304
March	E 96	75	690	395	R 791	NA	171	R 2,048	R 2,219
April	E 92	60	R 410	R 274	R 727	NA	211	R 1,622	R 1,774
May	E 96	R 51	R 214	R 200	R 697	NA	235	R 1,347	R 1,493
June	RE 93	R 47	R 150	R 169	R 665	NA	261	R 1,244	R 1,384
July	F 94	F 55	F 123	F 152	F 793	NA	R 355	RF 1,423	RF 1,572
August	RF 94	RF 56	F 114	F 148	RF 833	NA	NA	RF 1,451	RF 1,601
September	F 92	F 51	F 131	F 150	F 819	NA	NA	F 1,355	F 1,498
9-Month Total	E 839	E 562	E 3,614	E 2,467	E 6,869	NA	NA	E 15,093	E 16,495
2000 9-Month Total	824	564	3,358	2,305	7,151	NA	2,462	15,277	16,666
1999 9-Month Total	808	548	3,461	2,255	6,582	NA	2,531	14,829	16,186

^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*, September 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	R 4,310	R 1,882	R 6,193	R 176	R 10.3	48	R 470	R -422
July	R 4,315	R 2,261	R 6,576	R 265	R 13.3	64	441	R -376
August	RF 4,315	RF 2,584	RF 6,899	RF 394	RF 18.0	NA	NA	RF -323
September	F 4,315	F 2,974	F 7,289	F 501	F 20.3	NA	NA	F -390

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

The final monthly and annual storage and withdrawal data for 1980-1998 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage 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*, September 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*, September 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 September 2001 rotary rig count was 1,193, 5 percent lower than the count in August 2001 but 18 percent higher than the count in September 2000. Of the total number of rigs

in operation, 1,049 were onshore and 144 were offshore. For September 2001, the number of onshore rigs was up 21 percent, while the number of offshore rigs was down 1 percent from the September 2000 count. Rotary rigs drilling for natural gas as a share of total rigs stood at 81 percent in September 2001.

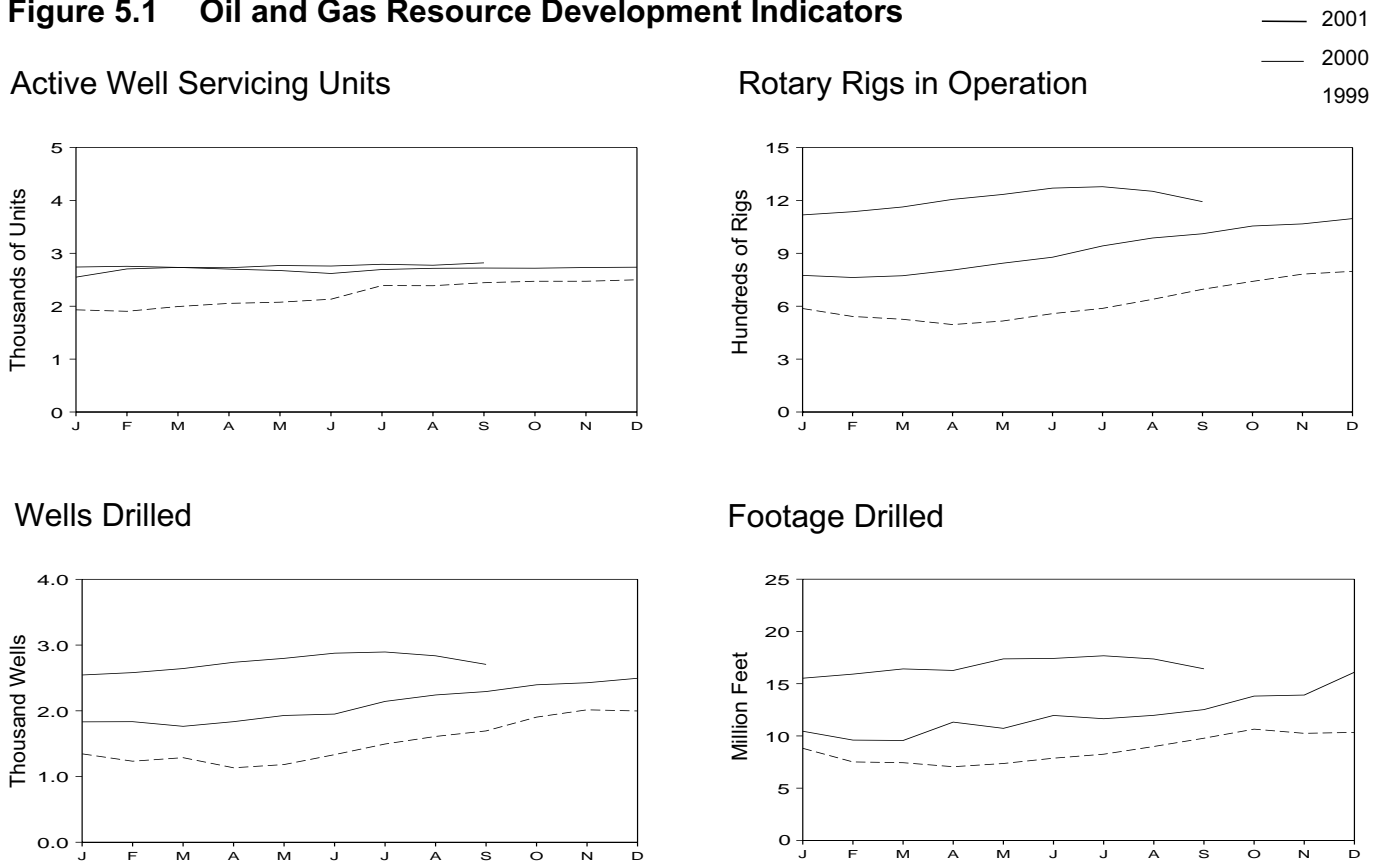
Total footage drilled in September 2001 was 16.4 million feet, 5 percent lower than the footage drilled in August 2001 but up 31 percent from that drilled in September 2000.

The estimated number of exploratory and development oil and gas wells drilled during September 2001 was 2,147, 5 percent less than the number drilled in August 2001 but 18 percent higher than the number drilled in September 2000. The estimated number of oil wells drilled was 429, and the estimated number of gas wells was 1,718, 11 percent higher and 20 percent higher, respectively, than their September 2000 levels.

The estimated number of dry holes drilled in September 2001 was 559, down 5 percent from the number drilled in August 2001 but up 18 percent from the number drilled in September 2000.

There were an estimated 2.8 thousand well servicing units active in September 2001, 4 percent higher than in September 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 Thousand Feet	Active Well Servicing Units ^d Number
	Offshore	Onshore	Total	By Site		By Type		Total ^b		
				Offshore	Onshore	Oil	Gas			
	Monthly Average			Weekly Average						
1973 Average	23	227	250	84	1,110	NA	NA	1,194	138,223	NA
1974 Average	31	274	305	94	1,378	NA	NA	1,472	153,374	NA
1975 Average	30	254	284	106	1,554	NA	NA	1,660	180,494	NA
1976 Average	25	237	262	129	1,529	NA	NA	1,658	186,982	2,601
1977 Average	27	281	308	167	1,834	NA	NA	2,001	215,866	2,828
1978 Average	25	327	352	185	2,074	NA	NA	2,259	238,669	2,988
1979 Average	30	370	400	207	1,970	NA	NA	2,177	244,798	3,399
1980 Average	37	493	530	231	2,678	NA	NA	2,909	314,654	4,089
1981 Average	44	637	681	256	3,714	NA	NA	3,970	413,112	4,850
1982 Average	57	531	588	243	2,862	NA	NA	3,105	378,295	4,248
1983 Average	47	426	473	199	2,033	NA	NA	2,232	317,986	3,732
1984 Average	49	445	494	213	2,215	NA	NA	2,428	371,392	4,663
1985 Average	45	333	378	206	1,774	NA	NA	1,980	313,045	4,716
1986 Average	24	176	200	99	865	NA	NA	964	181,856	3,036
1987 Average	24	153	177	95	841	NA	NA	936	162,178	3,060
1988 Average	29	153	182	123	813	554	354	936	156,354	3,341
1989 Average	23	109	132	105	764	453	401	869	134,439	3,391
1990 Average	23	102	125	108	902	532	464	1,010	153,701	3,658
1991 Average	19	85	104	81	779	482	351	860	143,021	3,331
1992 Average	12	64	76	52	669	373	331	721	121,124	2,732
1993 Average	16	63	79	82	672	373	364	754	135,118	3,158
1994 Average	NA	NA	NA	102	673	335	427	775	124,809	2,961
1995 Average	NA	NA	NA	101	622	323	385	723	117,832	3,043
1996 Average	NA	NA	NA	108	671	306	464	779	129,045	3,425
1997 Average	NA	NA	NA	122	821	376	564	943	156,661	3,499
1998 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	^R 17,672	2,793
August	NA	NA	NA	147	1,105	219	1,032	1,252	^R 17,363	2,775
September	NA	NA	NA	144	1,049	220	972	1,193	16,422	^E 2,820
9-Month Average ...	NA	NA	NA	161	1,046	231	975	1,207	150,374	^E 2,764
2000 9-Month Average ...	NA	NA	NA	137	729	186	679	866	99,764	2,680
1999 9-Month Average ...	NA	NA	NA	102	468	121	449	570	73,071	2,146

^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	R 62	143	R 219	513	R 1,060	223	R 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	R 543	1,389	R 2,089	3,979	R 9,970	2,191	R 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
9-Month Total	166	739	1,981	2,886	3,897	14,737	3,100	21,734	4,063	15,476	5,081	24,620
2000 9-Month Total	137	527	1,429	2,093	3,251	10,212	2,266	15,729	3,388	10,739	3,695	17,822
1999 9-Month Total	113	355	942	1,410	2,567	6,846	1,489	10,902	2,680	7,201	2,431	12,312

R=Revised.

Notes: These well counts include only the original drilling of a hole intended to discover or further develop already discovered oil or gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than oil or gas are excluded. Due to the methodology used to estimate ultimate well counts from the available partially

reported data, the counts shown on this page are frequently revised. See end of section. Geographic coverage is the 50 States and the District of Columbia.

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

Oil and Gas Resource Development Notes

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

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

duced by statistically imputing well counts and footage based on the partial data available from the API. These estimates are subject to continuous revision as new data, some of which pertain to earlier months and years, become available. Additional information about the EIA estimation methodology may be found in “Estimating Well Completions,” the feature article published in the March 1985 MER.

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

Section 6. Coal

Coal production in September 2001 totaled 91 million short tons, 2 percent higher than in September 2000.

Coal consumed by the electric power sector in July 2001 was estimated as 91 million short tons, 4 percent higher than the level in July 2000.

Electric power sector coal stocks were estimated as 117

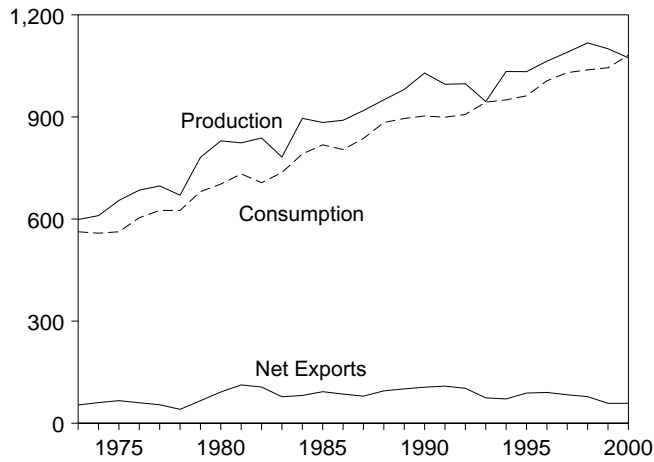
million short tons at the end of July 2001, 4 percent lower than the level a year earlier.

Coal exports in July 2001 totaled 3 million short tons, 36 percent lower than exports in July 2000.

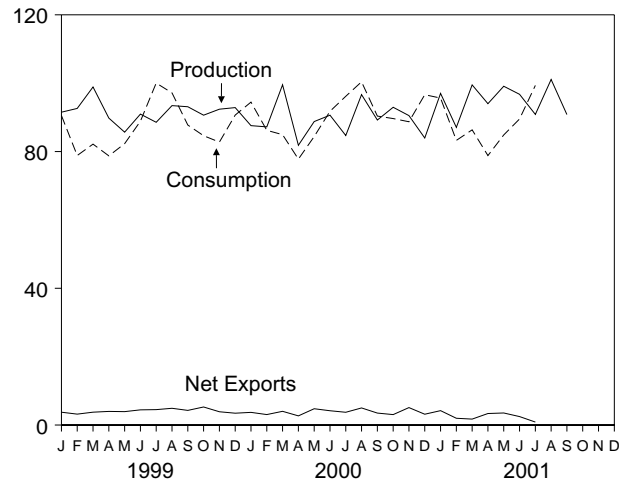
Coal imports in July 2001 totaled 2 million short tons, 89 percent higher than imports in July 2000.

Figure 6.1 Coal
(Million Short Tons)

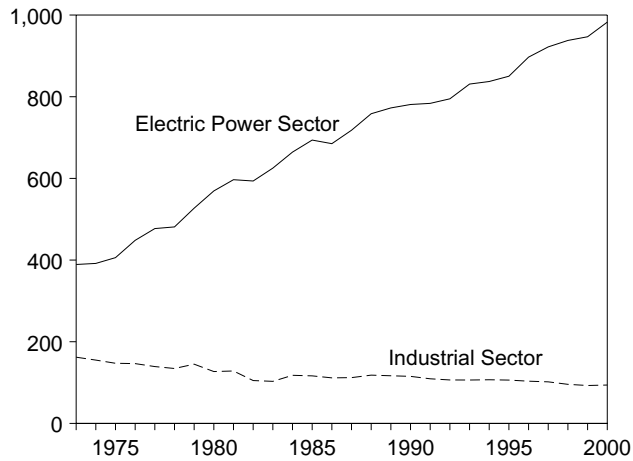
Overview, 1973-2000



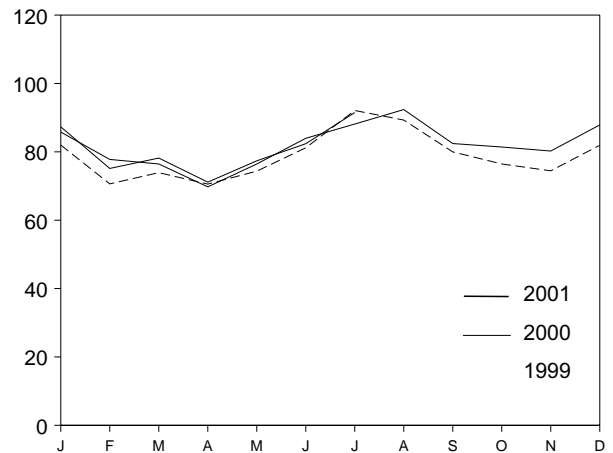
Overview, Monthly



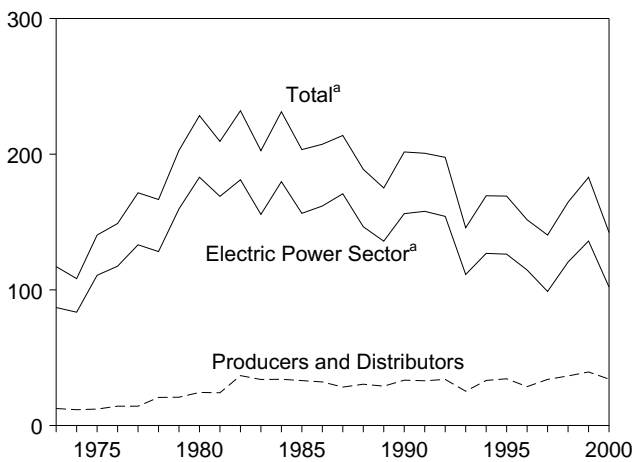
Consumption by Sector, 1973-2000



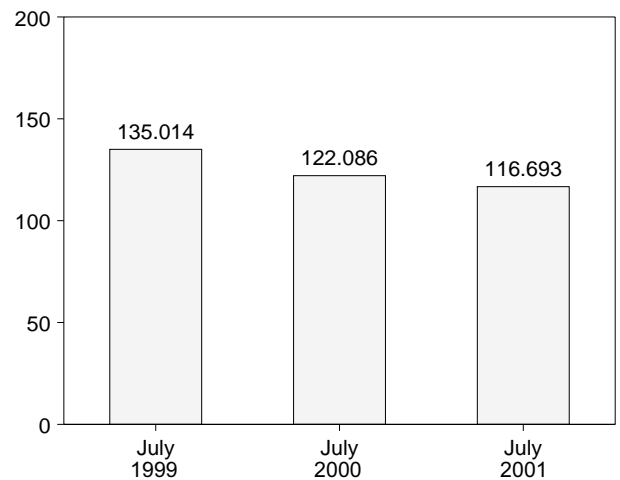
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2000



Electric Power Sector Stocks, End of Month



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

Table 6.1 Coal Overview
(Thousand Short Tons)

	Production	Consumption	Imports ^a	Exports	Stocks ^b
1973 Total	598,568	562,584	127	53,587	117,155
1974 Total	610,023	558,402	2,080	60,661	108,237
1975 Total	654,641	562,640	940	66,309	140,391
1976 Total	684,913	603,790	1,203	60,021	148,899
1977 Total	697,205	625,291	1,647	54,312	171,543
1978 Total	670,164	625,225	2,953	40,714	166,606
1979 Total	781,134	680,524	2,059	66,042	202,812
1980 Total	829,700	702,730	1,194	91,742	228,407
1981 Total	823,775	732,627	1,043	112,541	209,423
1982 Total	838,112	706,911	742	106,277	232,038
1983 Total	782,091	736,672	1,271	77,772	202,584
1984 Total	895,921	791,296	1,286	81,483	231,300
1985 Total	883,638	818,049	1,952	92,680	203,367
1986 Total	890,315	804,231	2,212	85,518	207,319
1987 Total	918,762	836,941	1,747	79,607	213,780
1988 Total	950,265	883,642	2,134	95,023	188,831
1989 Total	980,729	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	164,602 ^d
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	182,976
Total	1,100,431	1,044,536	9,089	58,476	182,976
2000 January	R 87,579	94,464	1,002	4,710	175,019
February	R 87,219	86,208	698	3,765	182,613
March	R 99,540	84,940	1,115	5,123	185,576
April	R 81,839	77,794	823	3,503	185,975
May	R 88,775	84,396	770	5,536	185,666
June	R 90,644	91,777	1,152	5,339	177,686
July	R 84,694	96,168	1,212	4,948	164,164
August	R 96,659	100,405	1,404	6,405	158,845
September	R 89,224	90,379	946	4,447	157,452
October	R 92,959	89,650	1,442	4,492	157,657
November	R 90,519	88,715	854	5,958	155,434
December	R 83,961	96,630	1,095	4,264	142,319
Total	R 1,073,612	1,081,527	12,513	58,489	142,319
2001 January	97,023	R 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	94,006	78,828	1,253	4,623	163,050
May	99,112	84,853	1,435	4,966	171,345
June	96,745	89,534	1,436	3,911	170,442
July	90,863	99,352	2,289	3,166	163,110
August	101,080	NA	NA	NA	NA
September	90,823	NA	NA	NA	NA
9-Month Total	856,228	NA	NA	NA	NA
2000 9-Month Total	806,173	806,532	9,122	43,776	157,452
1999 9-Month Total	824,544	786,449	6,733	43,485	176,075

^a Includes Puerto Rico.

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

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

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

Table 6.3.

R=Revised. NA=Not available.

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

Sources: See end of section for sources.

Table 6.2 Coal Consumption by Sector
(Thousand Short Tons)

	End-Use Sectors ^a					Electric Power Sector			Total
	Residential and Commercial	Industrial			Transportation	Electric Utilities	Other Power Producers ^{a,b}	Total	
		Coke Plants	Other	Total					
1973 Total	11,117	94,101	68,038	162,139	116	389,212	NA	^c 389,212	562,584
1974 Total	11,417	90,191	64,903	155,094	80	391,811	NA	^c 391,811	558,402
1975 Total	9,410	83,598	63,646	147,244	24	405,962	NA	^c 405,962	562,640
1976 Total	8,916	84,704	61,787	146,491	12	448,371	NA	^c 448,371	603,790
1977 Total	8,954	77,739	61,463	139,202	9	477,126	NA	^c 477,126	625,291
1978 Total	9,511	71,394	63,085	134,479	(^d)	481,235	NA	^c 481,235	625,225
1979 Total	8,388	77,368	67,717	145,085	(^d)	527,051	NA	^c 527,051	680,524
1980 Total	6,452	66,657	60,347	127,004	(^d)	569,274	NA	^c 569,274	702,730
1981 Total	7,421	61,014	67,395	128,409	(^d)	596,797	NA	^c 596,797	732,627
1982 Total	8,240	40,908	64,097	105,005	(^d)	593,666	NA	^c 593,666	706,911
1983 Total	8,448	37,033	65,980	103,013	(^d)	625,211	NA	^c 625,211	736,672
1984 Total	9,130	44,022	73,745	117,767	(^d)	664,399	NA	^c 664,399	791,296
1985 Total	7,779	41,056	75,372	116,429	(^d)	693,841	NA	^c 693,841	818,049
1986 Total	7,667	35,924	75,583	111,508	(^d)	685,056	NA	^c 685,056	804,231
1987 Total	6,914	36,957	75,175	112,132	(^d)	717,894	NA	^c 717,894	836,941
1988 Total	7,130	41,888	76,252	118,140	(^d)	758,372	NA	^c 758,372	883,642
1989 Total	6,167	40,508	76,134	116,643	(^d)	766,888	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	^{RE} 12,917	^{RE} 87,296	^R 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	4,812	7,266	(^d)	59,839	^E 11,305	^E 71,144	78,828
May	263	2,407	4,811	7,218	(^d)	66,185	^E 11,187	^E 77,372	84,853
June	295	2,092	4,770	6,862	(^d)	70,125	^E 12,252	^E 82,377	89,534
July	^F 299	^F 2,231	^F 5,336	^F 7,567	(^d)	77,613	^E 13,873	^E 91,486	99,352
7-Month Total	^E 2,738	^E 15,995	^E 36,096	^E 52,091	(^d)	477,711	^E 85,286	^E 562,997	617,826
2000 7-Month Total	2,779	17,214	37,448	54,662	(^d)	494,061	^E 64,245	^E 558,306	615,748
1999 7-Month Total	2,846	16,230	37,747	53,978	(^d)	517,961	^E 26,750	^E 544,711	601,535

^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	Residential and Commercial	Consumers							Total
			Industrial			Electric Power Sector				
			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	128,493	^E 7,496	^E 135,989	143,501	182,976
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

^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.
^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 July 2001, total net generation of electricity was 361 billion kilowatthours, 2 percent higher than in July 2000. At utilities, net generation was 257 billion kilowatthours, down 8 percent, while at nonutility power plants, net generation was 105 billion kilowatthours, up 42 percent, compared to 1 year earlier.

At utilities in July 2001, fossil fuels (primarily coal) accounted for 75 percent of net generation, nuclear 19 percent, and renewable resources 6 percent. At nonutility power plants, fossil fuels were estimated to account for 72 percent of net generation, nuclear accounted for 20 percent, and renewable resources were estimated to be 9 percent of the total.

Electric Utility Retail Sales. July 2001 total utility sales of electricity to end-users were 316 billion kilowatthours, less than 1 percent lower than in July 2000. July 2001 electricity sales to residential consum-

ers were at 120 billion kilowatthours (38 percent of the month's total), commercial users 103 billion kilowatthours (33 percent), industrial consumers 82 billion kilowatthours of electricity (26 percent), and other users 11 billion kilowatthours (3 percent).

Consumption of Fossil Fuels. In July 2001, 95 million short tons of coal were consumed to generate electricity, 5 percent more than in July 2000. Of the total, 78 million short tons (1 percent more than a year earlier) were consumed at electric utilities and 17 million short tons (31 percent more than a year earlier) were consumed by nonutility power producers.

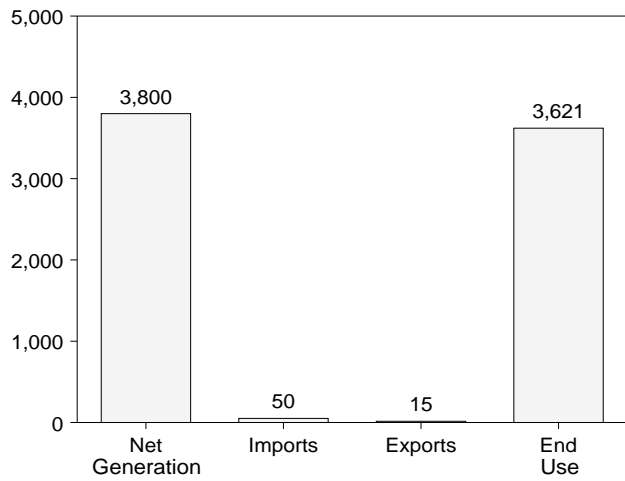
In July 2001, 746 billion cubic feet of natural gas were estimated as consumed to generate electricity, 9 percent more than in July 2000. Of the total, 355 billion cubic feet (5 percent less than a year earlier) were consumed by electric utilities and 391 billion cubic feet (26 percent more than a year earlier) were estimated as consumed by nonutility power plants.

Stocks of Coal and Petroleum. At the end of July 2001, 130 million short tons of coal were held in storage for electricity generation, 2 percent more than in July 2000. Of the total, 104 million short tons (7 percent less than a year earlier) were held at electric utilities and 26 million short tons (62 percent more than a year earlier) were held by nonutility power plants.

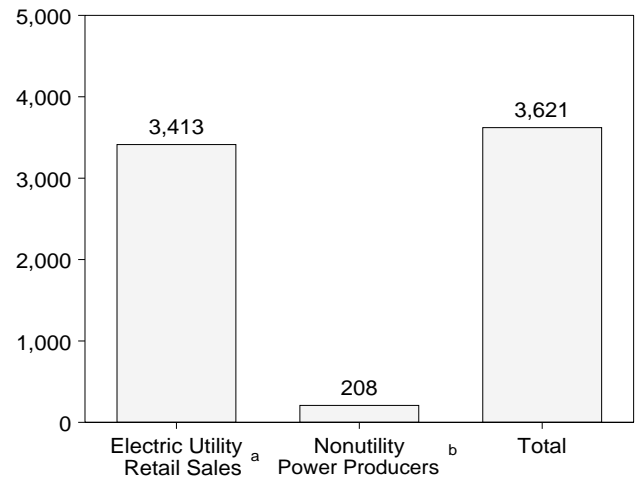
At the end of July 2001, 37 million barrels of petroleum liquids (i.e., heavy and light oil) were held in storage for electric utilities, 5 percent more than in July 2000.

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

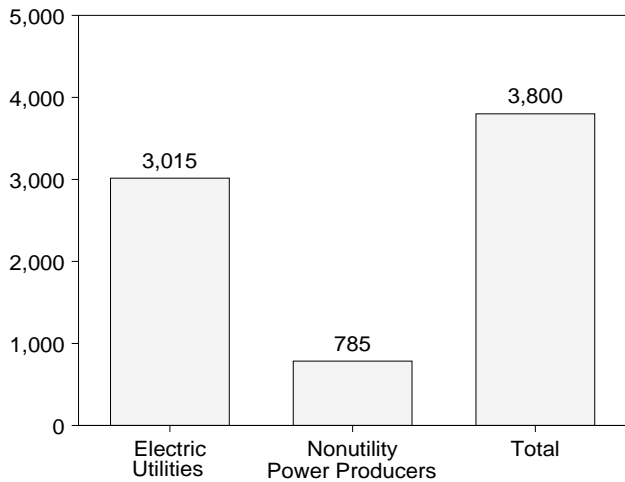
Overview, 2000



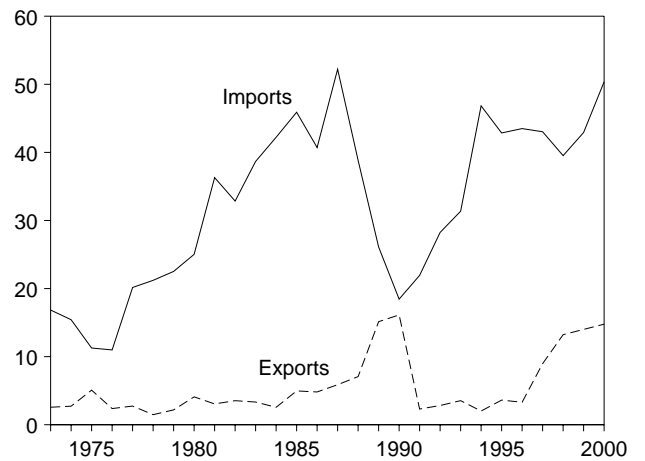
End Use, 2000



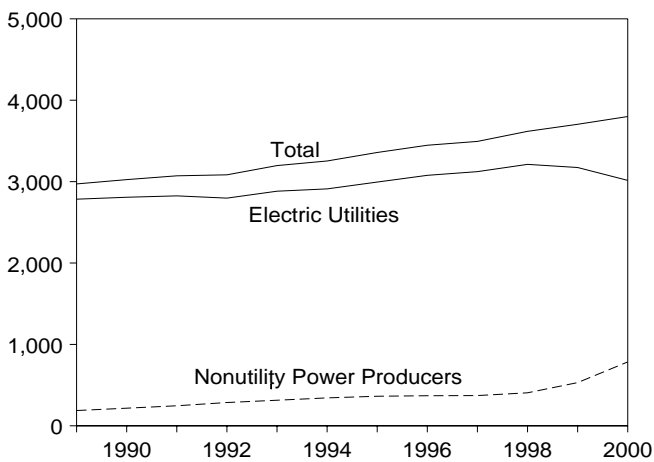
Net Generation, 2000



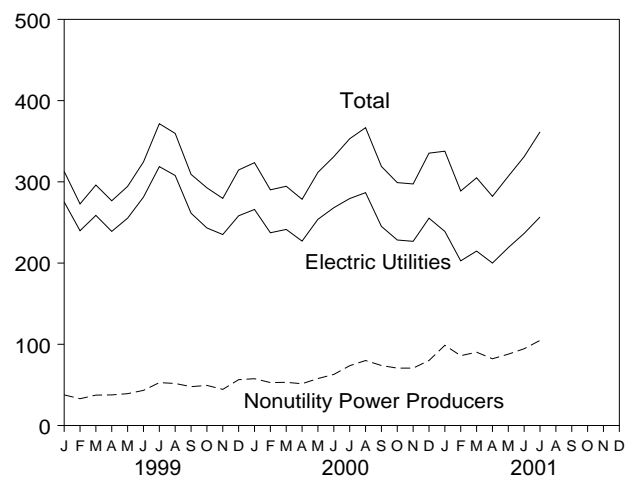
Trade, 1973-2000



Net Generation, 1989-2000



Net Generation, Monthly



^aIncludes nonutility sales of electricity to utilities for distribution to end users, and sales to ultimate consumers by power marketers.
^bNonutility 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)

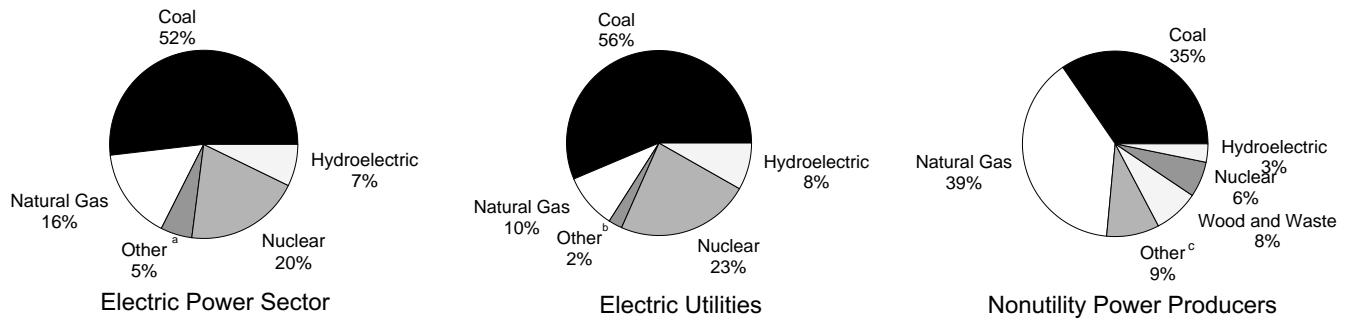
	Net Generation			Imports ^a	Exports ^a	Losses and Unaccounted for ^b	End Use		
	Electric Utilities	Nonutility Power Producers	Total				Electric Utility Retail Sales ^c	Nonutility Power Producers ^d	Total ^c
1973 Total	1,861	NA	1,861	17	3	NA	1,713	NA	NA
1974 Total	1,867	NA	1,867	15	3	NA	1,706	NA	NA
1975 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	^R 2	NA	262	NA	NA
June	236	95	331	^R 4	^R 1	NA	289	NA	NA
July	257	105	361	4	1	NA	316	NA	NA
7-Month Total	1,569	644	2,213	27	13	NA	1,972	NA	NA
2000 7-Month Total	1,773	409	2,183	30	8	NA	1,947	NA	NA
1999 7-Month Total	1,868	281	2,149	21	9	NA	1,906	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

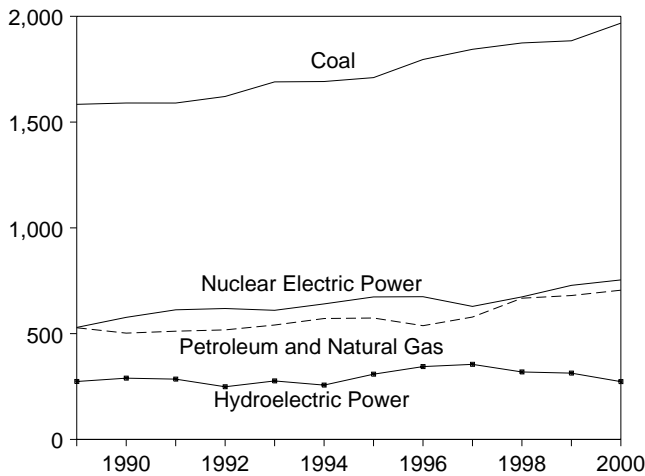
with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.
^R=Revised. ^{NA}=Not available. ^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: **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)

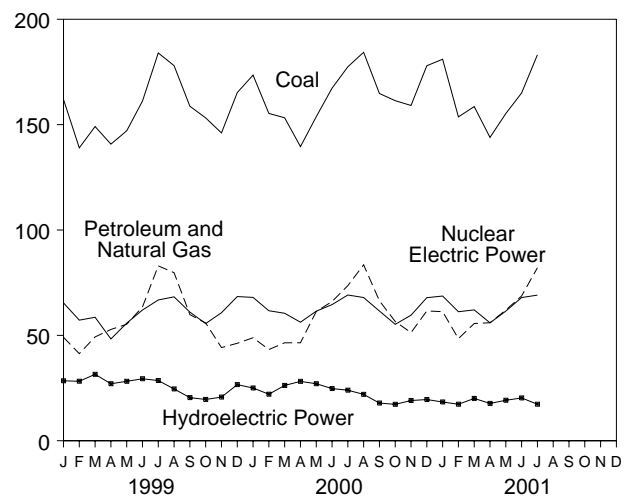
By Selected Source, 2000



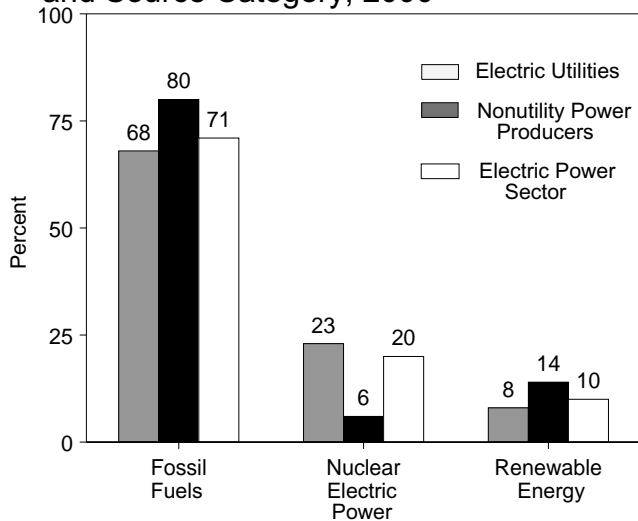
By Major Source, 1989-2000



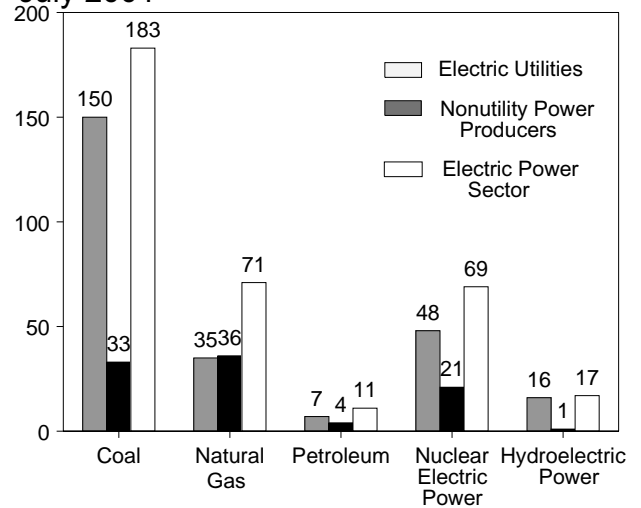
By Major Source, Monthly



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



By Producer Type and Selected Source, July 2001



^aPetroleum, other gases, geothermal, wood, waste, wind, solar, batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.
^bPetroleum, geothermal, wood, waste, wind, and solar.
^cPetroleum, 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				Nuclear Electric Power	Hydro- electric Pumped Storage ^e	Renewable Energy						Total ^h
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Other Gases ^d			Conven- tional Hydro- electric Power	Geo- thermal	Wood ^f	Waste ^{g,h}	Wind	Solar ⁱ	
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
7-Month Total	1,140,663	86,328	^E 347,799	^E 10,154	446,499	-3,334	133,656	8,169	22,938	^E 15,234	4,321	^E 455	2,212,881
2000 7-Month Total	1,120,190	51,387	^E 334,742	^E 8,494	441,690	-3,208	180,519	7,941	23,014	^E 14,353	2,963	494	2,182,580
1999 7-Month Total	1,083,055	82,580	^E 311,723	^E 7,077	414,168	-3,608	205,007	8,053	21,500	^E 16,067	2,855	469	2,148,945

^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 acetone/trile

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	Hydro-electric Pumped Storage ^c	Renewable Energy						Total
	Coal	Petroleum ^a	Natural Gas ^b			Conventional Hydro-electric Power	Geo-thermal	Wood ^d	Waste ^e	Wind	Solar ^f	
1973 Total	847,651	314,343	340,858	83,479	(9)	272,083	1,966	130	198	0	0	1,860,710
1974 Total	828,433	300,931	320,065	113,976	(9)	301,032	2,453	69	182	0	0	1,867,140
1975 Total	852,786	289,095	299,778	172,505	(9)	300,047	3,246	18	174	0	0	1,917,649
1976 Total	944,391	319,988	294,624	191,104	(9)	283,707	3,616	84	182	0	0	2,037,696
1977 Total	985,219	358,179	305,505	250,883	(9)	220,475	3,582	308	173	0	0	2,124,323
1978 Total	975,742	365,060	305,391	276,403	(9)	280,419	2,978	197	140	0	0	2,206,331
1979 Total	1,075,037	303,525	329,485	255,155	(9)	279,783	3,889	300	198	0	0	2,247,372
1980 Total	1,161,562	245,994	346,240	251,116	(9)	276,021	5,073	275	158	0	0	2,286,439
1981 Total	1,203,203	206,421	345,777	272,674	(9)	260,684	5,686	245	123	0	0	2,294,812
1982 Total	1,192,004	146,797	305,260	282,773	(9)	309,213	4,843	196	125	0	0	2,241,211
1983 Total	1,259,424	144,499	274,098	293,677	(9)	332,130	6,075	216	163	3	0	2,310,285
1984 Total	1,341,681	119,808	297,394	327,634	(9)	321,150	7,741	461	425	6	5	2,416,304
1985 Total	1,402,128	100,202	291,946	383,691	(9)	281,149	9,325	743	640	6	11	2,469,841
1986 Total	1,385,831	136,585	248,508	414,038	(9)	290,844	10,308	492	685	4	14	2,487,310
1987 Total	1,463,781	118,493	272,621	455,270	(9)	249,695	10,775	783	694	4	10	2,572,127
1988 Total	1,540,653	148,900	252,801	526,973	(9)	222,940	10,300	936	738	1	9	2,704,250
1989 Total	1,553,661	158,318	266,598	529,355	(9)	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
7-Month Total	932,993	53,291	149,549	314,225	-2,973	120,152	83	397	894	29	2	1,568,642
2000 7-Month Total	979,698	34,181	168,890	426,859	-2,930	165,132	91	385	858	17	1	1,773,182
1999 7-Month Total	1,027,309	59,773	173,539	413,881	-3,568	194,177	1,632	408	781	(s)	2	1,867,946

^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)

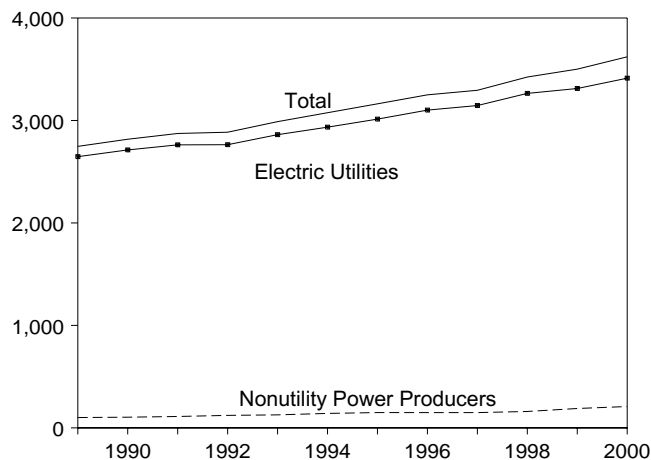
	Fossil Fuels				Nuclear Power	Hydro-electric Pumped Storage ^e	Renewable Energy						Total ^h
	Coal ^a	Petroleum ^b	Natural Gas ^c	Other Gases ^d			Conventional Hydro-electric Power	Geothermal	Wood ^f	Waste ^{g,h}	Wind	Solar ⁱ	
1989 Total^j	30,163	5,543	97,343	(^k)	47	0	8,602	5,537	26,756	8,965	2,279	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 ^j	45,189	10,508	154,429	(^k)	65	0	9,352	8,318	34,764	16,500	2,887	724	286,148
1993 Total ^j	50,859	12,814	169,502	(^k)	76	0	11,396	9,454	35,898	17,420	3,022	870	314,399
1994 Total ^j	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 ^j	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 ^j	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 ^j	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 ^j	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 2,199	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
7-Month Total	207,670	33,037	^E 198,250	^E 10,154	132,274	-360	13,504	8,086	22,541	^E 14,340	4,292	^E 453	644,239
2000 7-Month Total	140,493	17,207	^E 165,852	^E 8,494	14,831	-278	15,387	7,851	22,629	^E 13,495	2,946	493	409,398
1999 7-Month Total	55,746	22,806	^E 138,184	^E 7,077	287	-40	10,830	6,421	21,092	^E 15,286	2,842	467	281,000

^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."

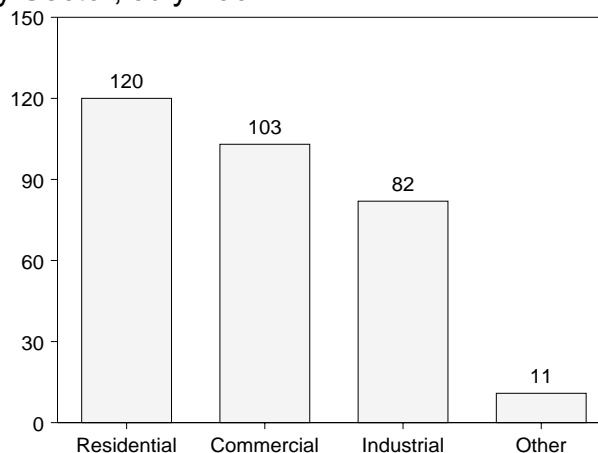
ⁱ Solar thermal and photovoltaic energy.
^j Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical 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)

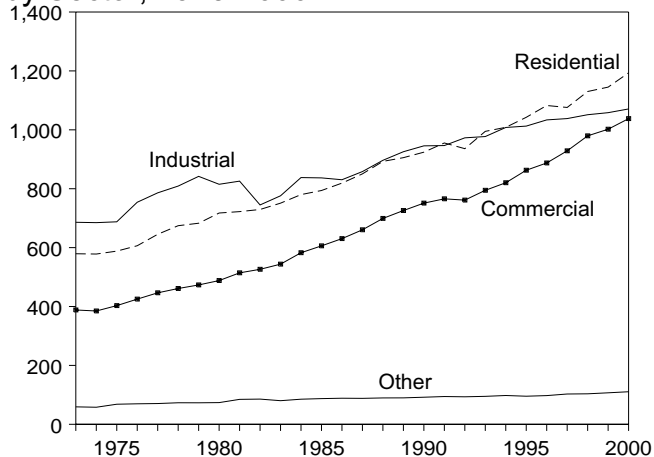
Electricity End Use Overview, 1989-2000



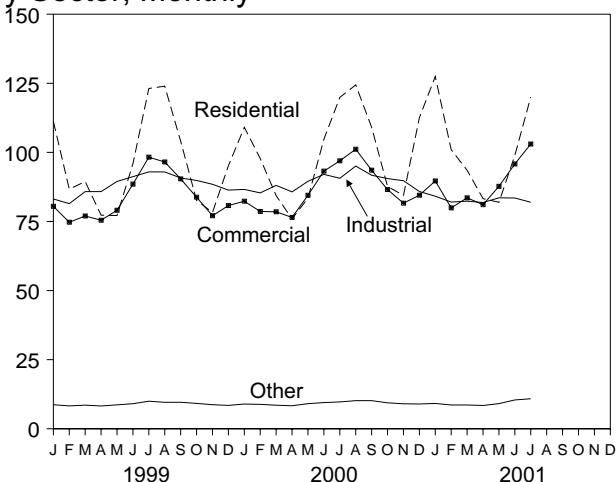
Electric Utility Retail Sales by Sector, July 2001



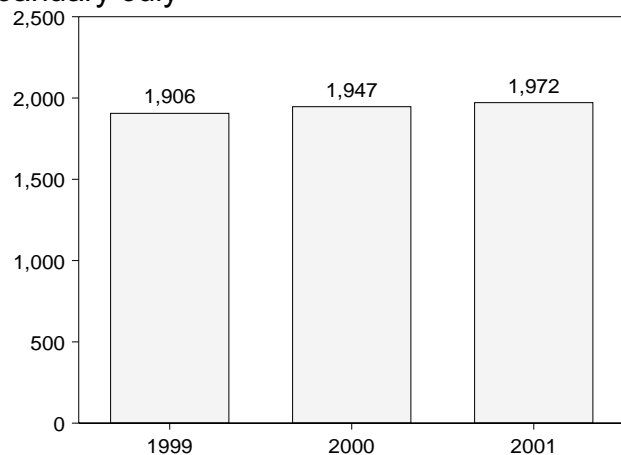
Electric Utility Retail Sales by Sector, 1973-2000



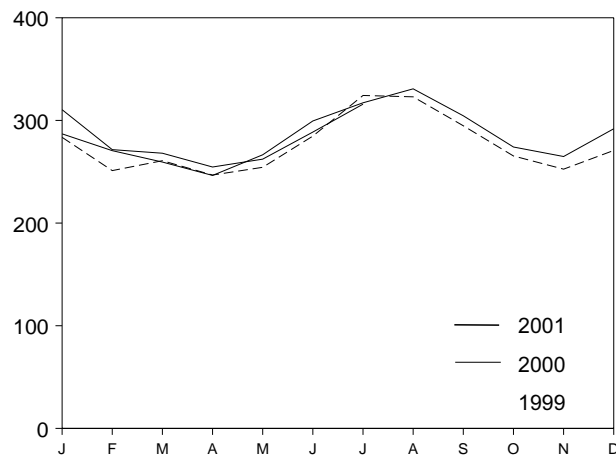
Electric Utility Retail Sales by Sector, Monthly



Electric Utility Retail Sales Total, January-July



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			Total ^a
	Residential	Commercial	Industrial	Other ^b	Total	Direct Use ^c	Sales to End Users	Total	
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
7-Month Total	706,138	620,752	579,425	65,205	1,971,519	NA	NA	NA	NA
2000 7-Month Total	675,214	590,565	617,919	62,901	1,946,598	NA	NA	NA	NA
1999 7-Month Total	660,852	573,457	609,888	61,452	1,905,649	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.

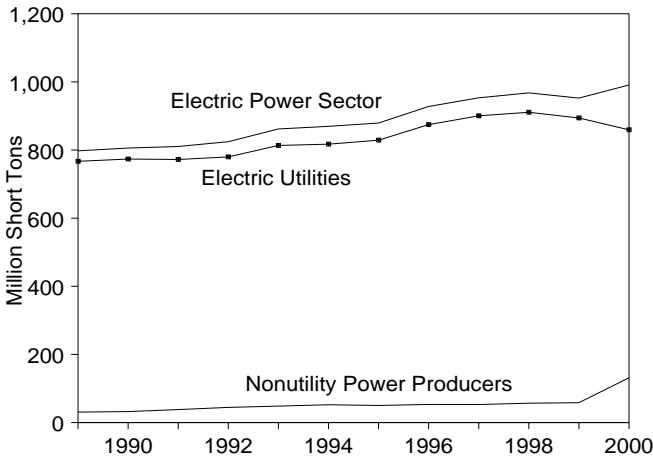
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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).

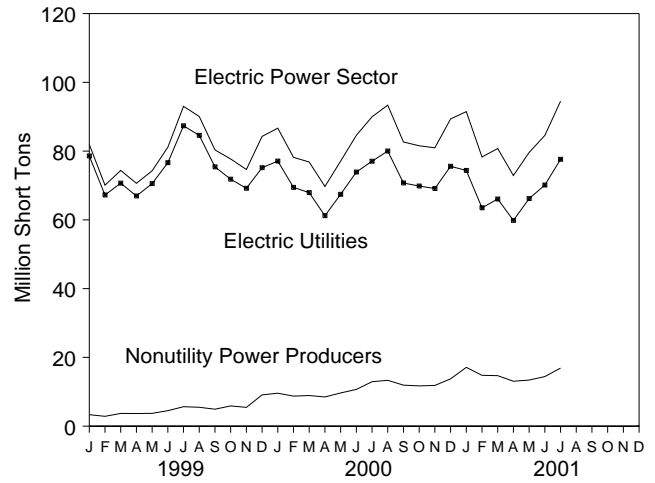
Beginning in 1996, data include sales to ultimate consumers by power marketers in several State "retail wheeling" pilot programs. In million kilowatthours, these were 3,317 in 1996; 5,849 in 1997; and 24,412 in 1998. In 1999 these sales totaled 76,188 million kilowatthours, of which 4,162 were to the 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

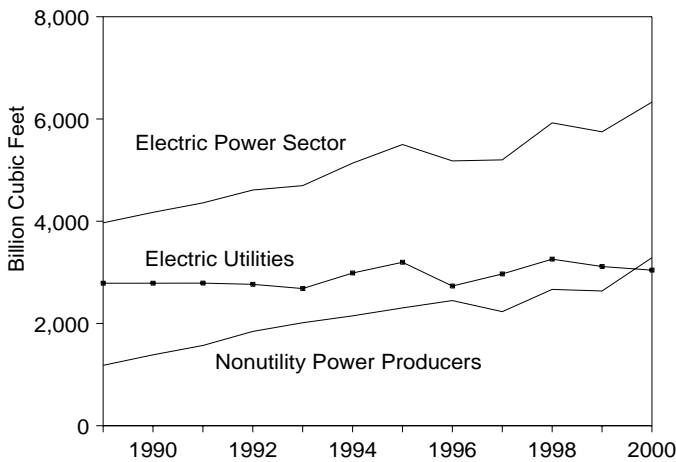
Coal Consumption, 1989-2000



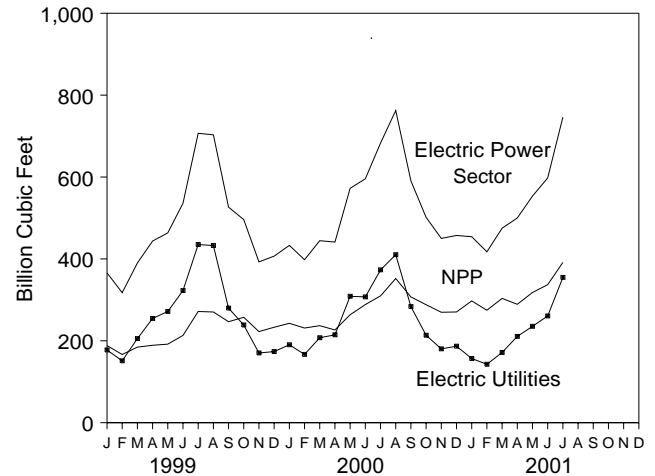
Coal Consumption, Monthly



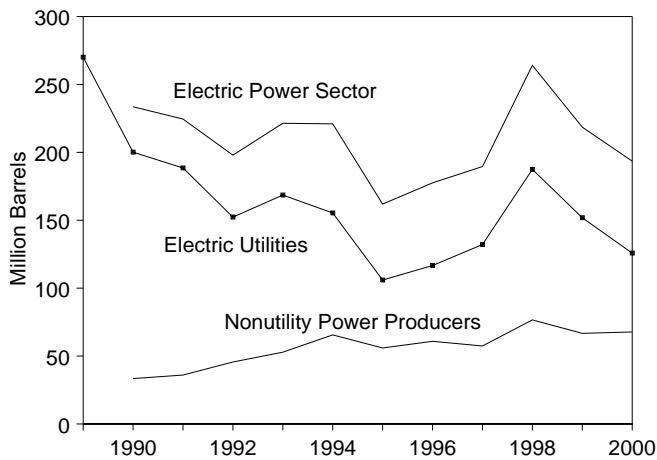
Natural Gas Consumption, 1989-2000



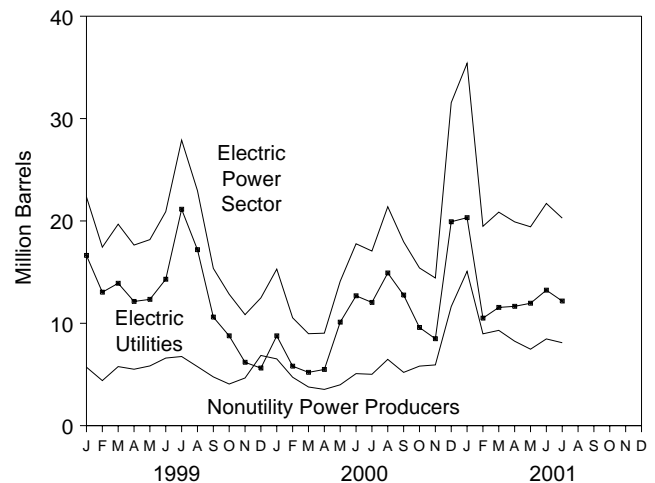
Natural Gas Consumption, Monthly



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

	Petroleum				Natural Gas ^d
	Coal ^a	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
7-Month Total ...	582,121	141,447	3,123	157,063	^E 3,743,856
2000 7-Month Total ...	563,079	80,294	2,497	92,786	^E 3,567,985
1999 7-Month Total ...	545,453	131,259	2,565	144,087	^E 3,223,631

^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					Natural Gas ^f
	Anthra-cite ^a	Bituminous Coal ^b	Lignite	Total	Heavy Oil ^c	Light Oil ^d	Total Liquids	Petroleum Coke ^e	Total ^e	
	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	2,787,323
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
7-Month Total ...	NA	436,489	41,221	477,711	71,775	16,283	88,058	669	91,406	1,532,403
2000 7-Month Total ...	NA	451,100	42,960	494,061	46,464	10,112	56,576	709	60,120	1,768,563
1999 7-Month Total ...	505	474,026	43,430	517,961	84,670	14,099	98,769	944	103,491	1,818,352

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*, October 2001, Table 14.

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

	Petroleum				Natural Gas ^d
	Coal ^a	Liquids ^b	Petroleum Coke	Total ^c	
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	
1989 Total^e	30,762	28,377	NA	NA	1,181,015
1990 Total^e	32,311	27,878	1,108	33,418	1,386,741
1991 Total^e	38,119	27,882	1,629	36,027	1,569,850
1992 Total	44,607	31,876	2,750	45,626	1,844,857
1993 Total	48,343	36,960	3,182	52,870	2,013,788
1994 Total	52,261	41,889	4,740	65,589	2,149,246
1995 Total	50,329	35,031	4,188	55,971	2,303,944
1996 Total	53,199	38,444	4,484	60,864	2,447,720
1997 Total	52,913	35,594	4,364	57,414	2,231,363
1998 Total	56,849	54,275	4,470	76,625	2,666,430
1999 January	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
7-Month Total ...	104,409	53,389	2,454	65,659	^E 2,211,452
2000 7-Month Total ...	69,019	23,720	1,789	32,665	^E 1,799,422
1999 7-Month Total ...	27,494	32,491	1,621	40,596	^E 1,405,279

^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.

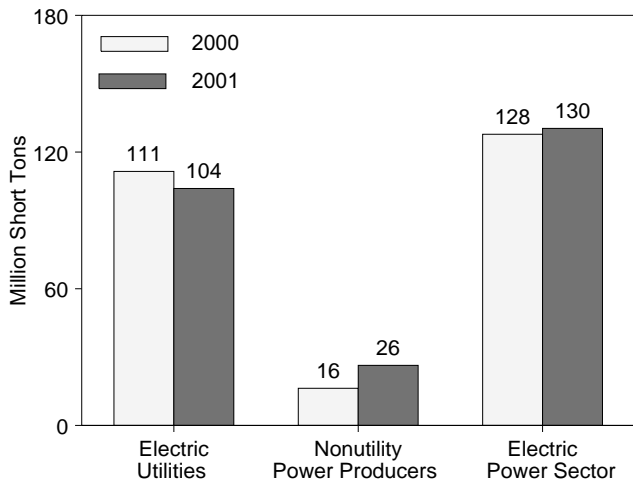
Notes: Data prior to 1999 are for fuels consumed to produce both electricity

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.

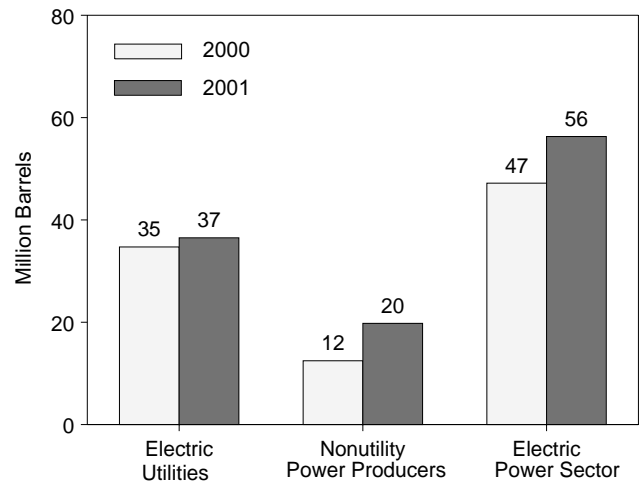
Sources: **1989-1998:** EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form. **1999 and 2000:** EIA, Form EIA-900, "Monthly Nonutility Power Report." **2001:** EIA, Form EIA-906, "Power Plant Report."

Figure 7.5 Electric Power Sector Stocks of Coal and Petroleum

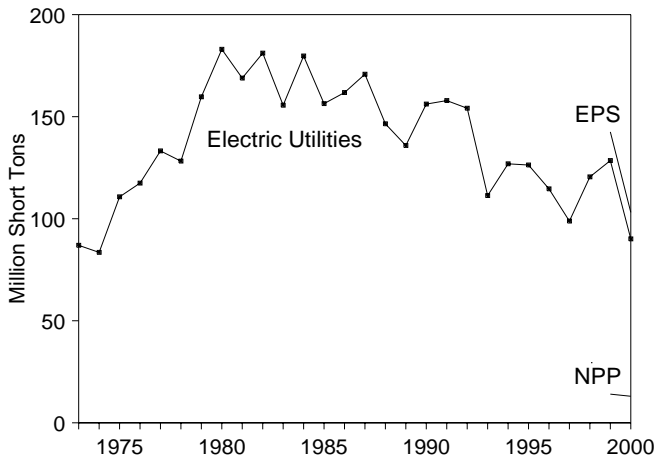
Coal Stocks, July



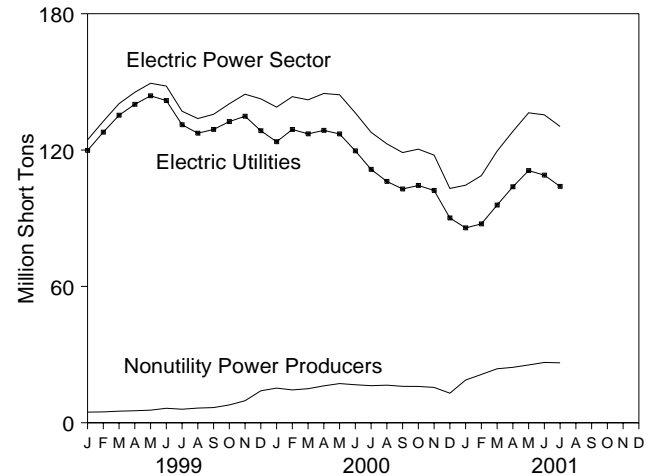
Petroleum Liquids Stocks, July



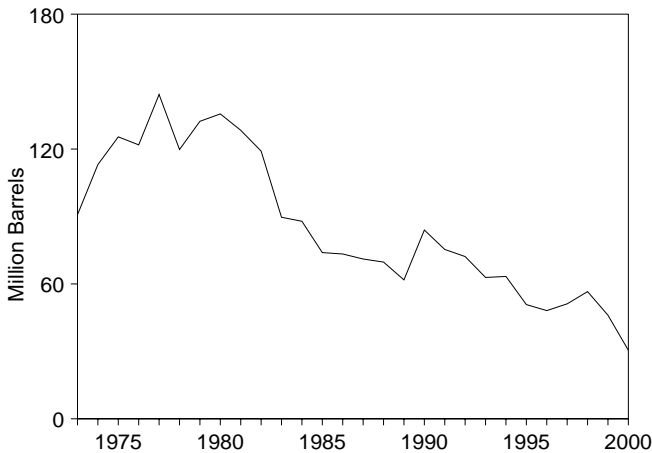
Coal Stocks, 1973-2000



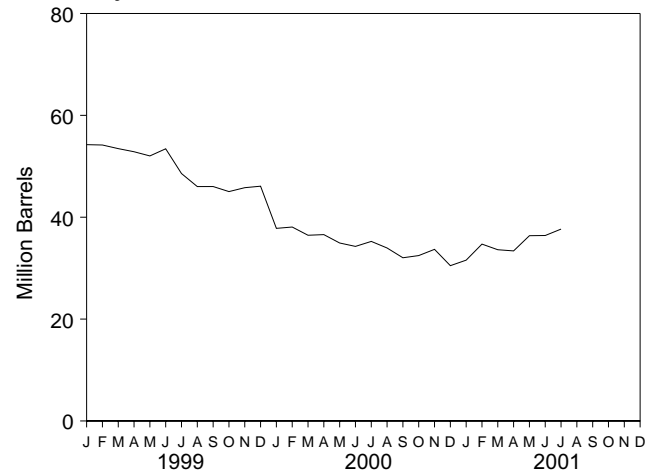
Coal Stocks, Monthly



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 output 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: Tables 7.9.

Table 7.9 Electric Power Sector Stocks of Coal and Petroleum

	Coal			Petroleum							
	Electric Utilities	Nonutility Power Producers	Total Electric Power Sector	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	
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	128,493	14,050	142,543	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

^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. 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*, October 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*, October 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*, October 2001, Table 21.

Nonutility Power Producers

1999 forward—EIA, *Electric Power Monthly*, October 2001, Table 72.

Section 8. Nuclear Energy

U.S. nuclear electricity net generation during July 2001 was 69 net terawatt-hours (billion kilowatt-hours) of electricity, less than 1 percent lower than in July 2000. Nuclear units generated at an average capacity factor of 95.4 percent, the same as the capacity factor in July 2000.

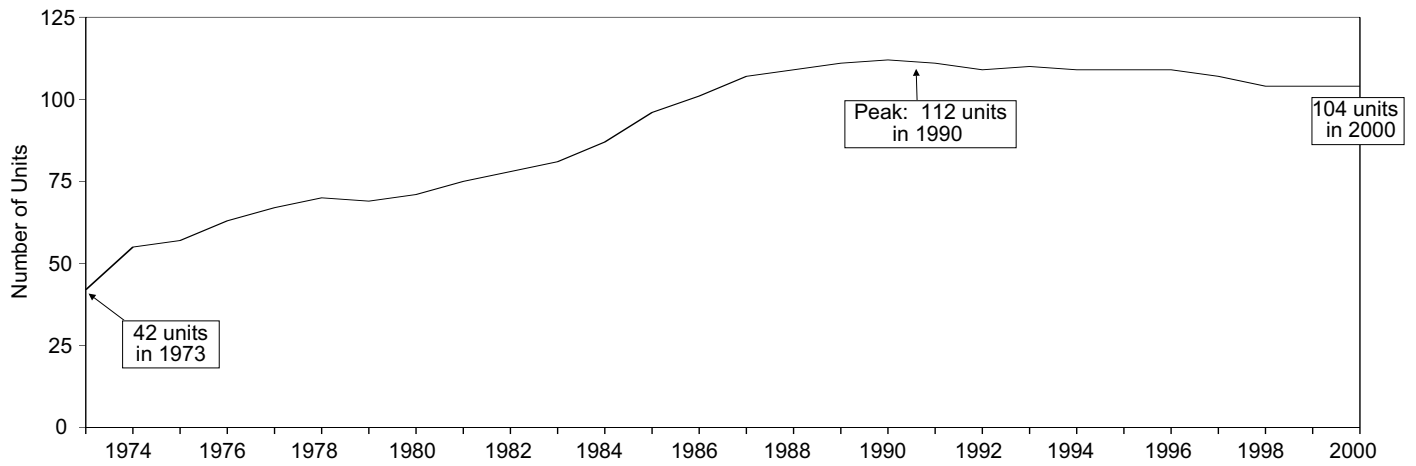
On July 31, 2001, there were 104 operable nuclear generating units in the United States, with a collective net summer capability of 97.4 million kilowatts of electricity. Of the 104 operable units, 3 units generated no

electricity during the month because of maintenance, refueling, or repair outage, and 83 units reported operating at 90 percent of capacity or more. Of these 83 units, 21 operated at 100 percent or greater (based on net summer capability).

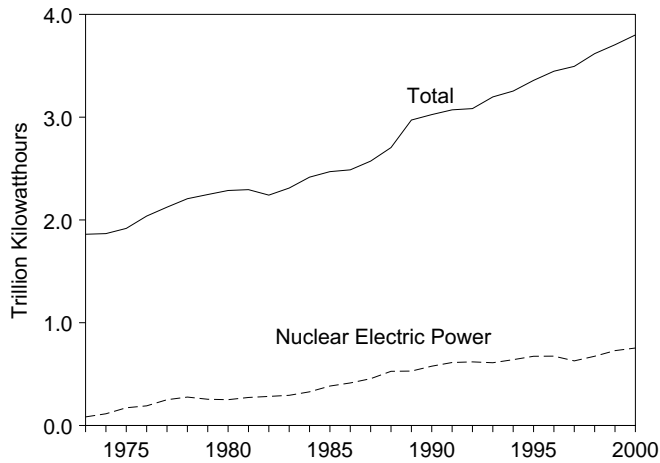
In addition, there were three other units with construction permits, but construction for all three units has been halted. Their combined design capacity is 3.6 million kilowatts.

Figure 8.1 Nuclear Power Plant Operations

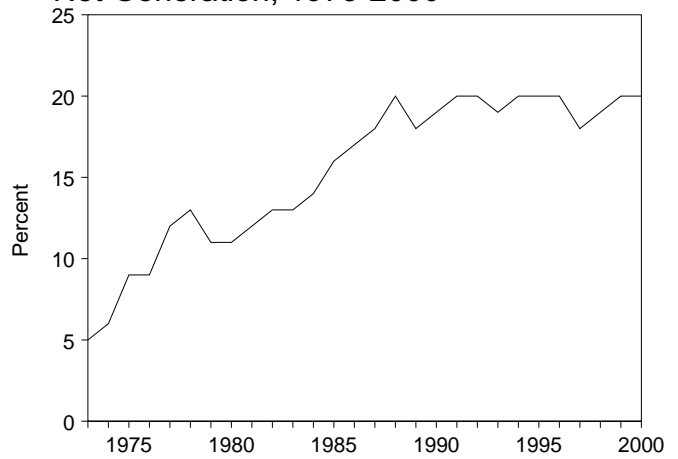
Operable Units, End of Year, 1973-2000



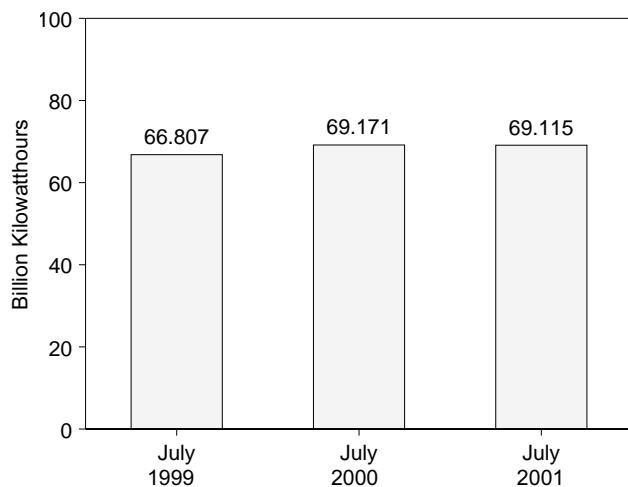
Electricity Net Generation, 1973-2000



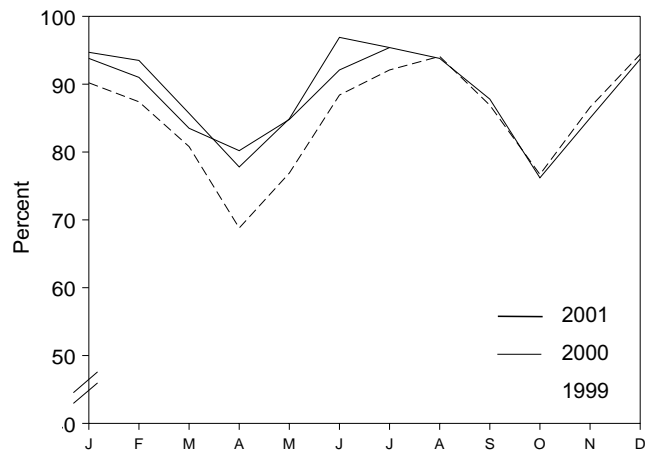
Nuclear Share of Electricity Net Generation, 1973-2000



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	^c 98.179	^c 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
7-Month Total	446,499	20.2	97.411	90.1
2000 7-Month Total	441,690	20.2	97.411	88.7
1999 7-Month Total	414,168	19.3	97.502	83.5

^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

^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 operate, at the end of the year or month shown. The definition is liberal in that it does not exclude units retaining full-power licenses during long, non-routine shutdowns that for a time rendered them unable to generate electricity. Examples are:

- (a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3 and Sequoyah 1 and 2) were shut down under a regulatory forced outage. Browns Ferry 1 remains shut down and has been defueled, while the other units were idle for several years, restarting in 1991, 1995, 1988, and 1988, respectively. All five units are counted as operable during the shutdowns. Browns Ferry 1 is the only one of the five TVA plants that has not returned to service. Because it is still fully licensed to operate, it continues to meet the definition of operable.
- (b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.
- (c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

Exceptions to the definition are Shoreham and Three Mile Island 2. Shoreham was granted a full-power license in April 1989, but was shut down two months later and never restarted. In 1991, the license was changed to Possession Only. Although not operable at the end of the year, Shoreham is 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 \$22.86 per barrel in July 2001, 15 percent below the level of July 2000. The refiner acquisition cost of imported crude oil in July 2001 was \$22.83 per barrel, 18 percent below the July 2000 level. The average cost of domestic crude oil in July 2001 was \$25.27, 16 percent less than the July 2000 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was \$1.43 per gallon in August 2001, 5 percent lower than the price in August 2000. The price of unleaded premium gasoline averaged \$1.64 in August 2001, 3 percent lower than the price in August 2000.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in July 2001 was 52 cents per gallon, 2 percent lower than the previous month's price and 14 percent lower than the July 2000 average. The average resale price, excluding taxes, of residual fuel oil in July 2001 was 47 cents, 3 percent lower than the June 2001 price and 21 percent lower than the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in July 2001 was \$1.35 per gallon, 7 percent lower than the previous month's average price and 6 percent lower than the July 2000 average. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in July 2001 was 77 cents per gallon, 8 percent lower than both the previous month's average price and the July 2000 average price.

No. 2 Distillate Fuel Oil. The July 2001 national average price, excluding taxes, of heating oil sold to residential customers was \$1.14 per gallon, 5 percent lower than the June 2001 price and 1 percent lower than the July 2000 price. The average price of No. 2 fuel oil sold to all end users was 78 cents per gallon in

July 2001, 8 percent lower than both the June 2001 price and the price 1 year earlier.

Electricity. The average price of electricity sold by electric utilities to all ultimate consumers in the United States in July 2001 was 7.66 cents per kilowatthour, 7 percent higher than the July 2000 mean price. The price of electricity sold to residential consumers in July 2001 averaged 8.93 cents per kilowatthour, 3 percent higher than the July 2000 price. The price of electricity sold to commercial consumers averaged 8.20 cents per kilowatthour in July 2001, 8 percent higher than the July 2000 price. The price of electricity sold to other consumers was 5.87 cents per kilowatthour, 10 percent lower than the July 2000 price. The price of electricity sold to industrial users in July 2001 averaged 5.35 cents per kilowatthour, 12 percent higher than the price 1 year earlier.

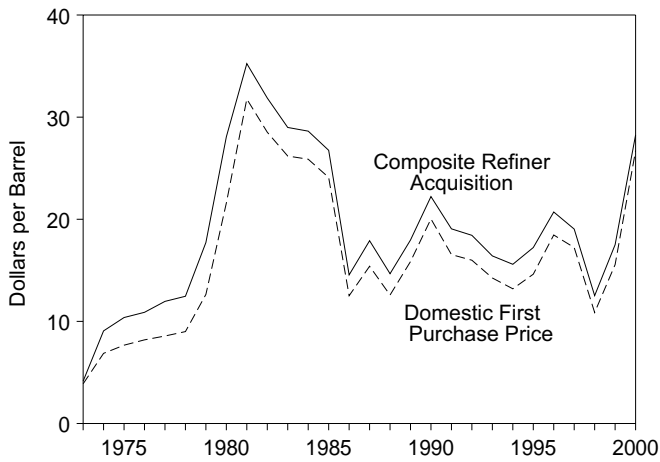
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The average wellhead price of natural gas for August 2001 was estimated as \$3.23 per thousand cubic feet, 12 percent lower than the August 2000 price.

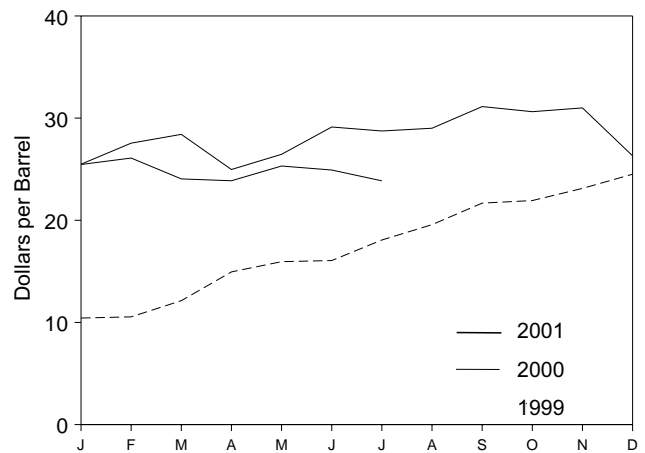
The average price of natural gas delivered to electric utility plants was \$5.14 per thousand cubic feet in May 2001 (latest date for which data are available), 42 percent higher than the May 2000 price. The average price of natural gas used by residential consumers in June 2001 was \$11.53 per thousand cubic feet, 24 percent higher than the June 2000 price. The average price of natural gas used by commercial consumers in June 2001 was \$6.82 per thousand cubic feet, 17 percent higher than the June 2000 price. The average price of natural gas used by industrial consumers in June 2001 was \$4.93 per thousand cubic feet, 16 percent above the June 2000 price.

Figure 9.1 Petroleum Prices

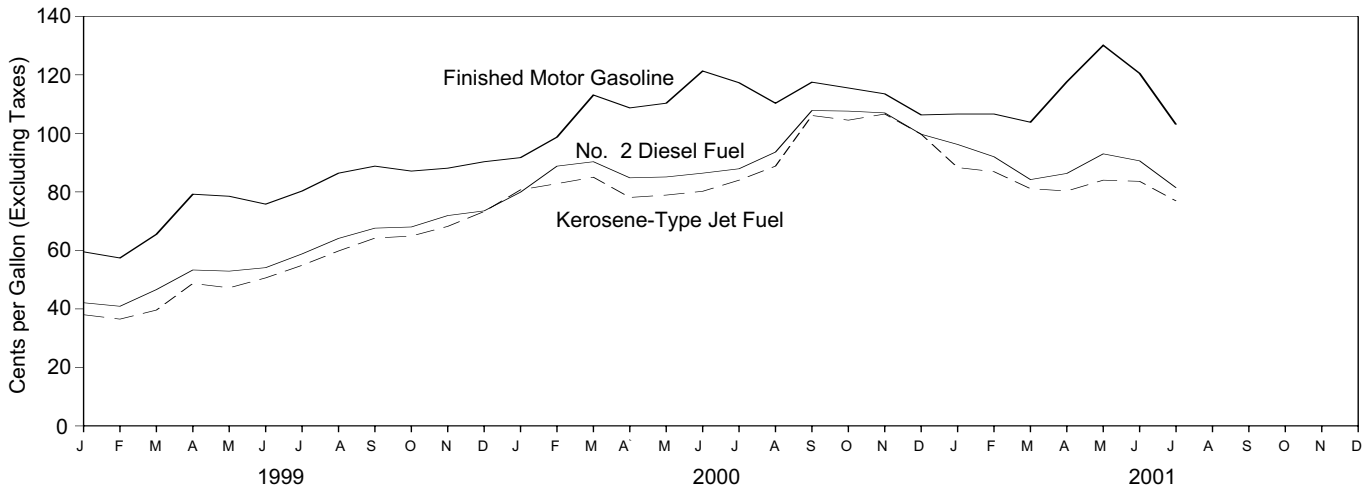
Crude Oil Prices, 1973-2000



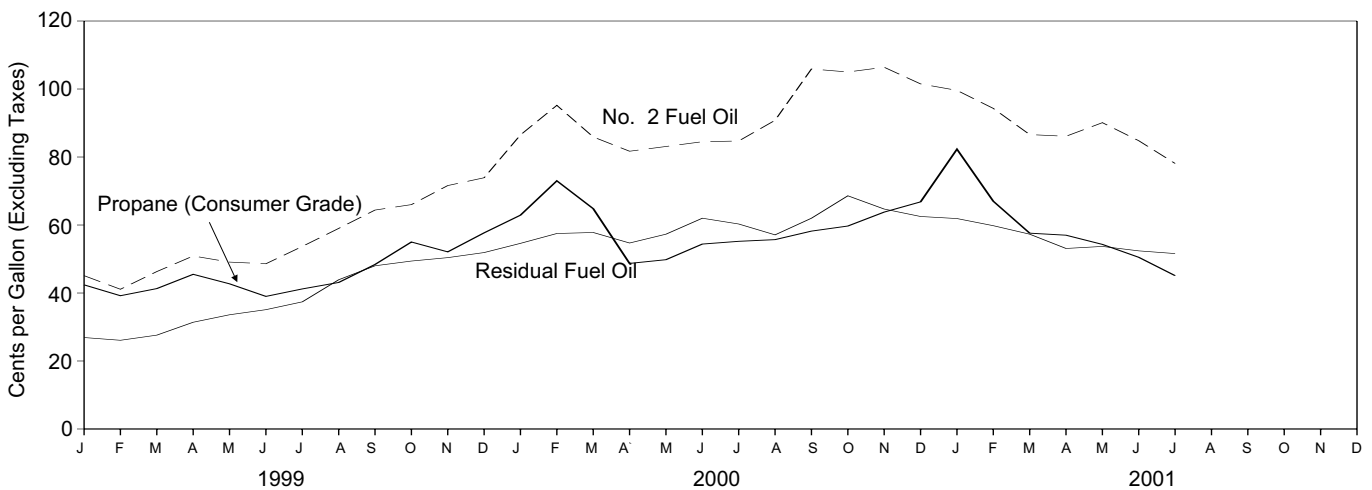
Composite Refiner Acquisition Cost, Monthly



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	€ 5.21	€ 6.41	€ 4.17	€ 4.08	€ 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	R 25.61	25.79	25.29	25.49
February	25.48	R 26.51	R 27.01	27.80	27.39	27.55
March	26.19	R 25.71	R 26.94	R 29.53	27.70	R 28.41
April	R 23.20	R 23.39	R 24.72	R 26.05	24.29	24.97
May	R 25.58	25.95	R 26.71	26.62	26.35	26.46
June	R 27.62	R 27.73	R 28.56	29.46	28.91	29.13
July	R 26.81	26.53	28.29	R 29.94	R 28.00	R 28.74
August	R 27.91	R 27.94	R 29.03	29.36	28.80	29.01
September	R 29.72	R 28.84	R 30.51	R 32.01	R 30.56	R 31.13
October	R 29.65	R 27.74	R 29.54	R 32.09	R 29.71	R 30.63
November	R 30.36	R 27.40	R 28.74	32.43	30.00	31.00
December	R 24.46	R 22.79	R 24.77	27.90	25.19	26.31
Average	R 26.72	R 26.27	27.53	R 29.11	R 27.70	R 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	R 24.19	26.37	24.63	25.31
June	R 23.43	R 22.73	R 23.83	R 26.30	23.95	R 24.92
July	22.86	21.11	22.71	25.27	22.83	23.86

^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	R 25.57	24.47	23.36	R 25.37	R 24.45	24.64
February	27.71	29.56	26.25	29.07	R 23.73	26.22	R 24.93	R 24.46	R 25.89	26.98
March	R 27.89	29.43	R 25.37	R 26.09	R 23.64	27.76	R 23.92	R 23.17	24.30	R 26.70
April	22.72	25.40	R 21.91	24.34	R 27.64	23.62	R 22.73	R 25.39	R 23.92	R 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	R 26.90	30.04	24.82	29.09	26.26	24.54	26.84	R 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	R 28.09
September	30.16	32.66	28.00	30.54	27.81	R 30.24	26.04	26.87	27.80	R 29.65
October	29.13	32.36	27.29	30.71	23.61	29.05	26.63	24.27	26.71	R 28.54
November	30.27	32.24	27.07	31.92	R 22.10	30.91	24.08	R 22.74	R 25.43	28.80
December	R 24.96	25.66	R 21.46	25.45	R 21.65	24.80	20.98	R 21.63	R 22.07	R 23.34
Average	R 27.90	29.04	25.39	28.70	R 24.62	R 27.21	24.45	R 24.72	R 25.56	R 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	R 21.41	28.19	R 20.10	R 20.94	R 22.03	23.67
June	R 26.82	R 26.81	R 21.39	R 27.63	R 20.66	W	R 17.92	R 20.60	R 21.40	R 23.70
July	24.45	25.86	19.07	26.03	21.00	W	18.74	20.96	20.12	21.98

^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	R 24.66	27.39	23.77	26.99	R 26.79	25.86	24.31	R 26.47	R 25.86	R 25.37
February	28.77	26.14	29.74	26.52	29.05	R 25.42	27.48	R 25.90	R 25.94	R 26.61	27.45
March	R 29.14	R 27.27	R 29.67	R 26.29	R 29.04	R 24.95	28.99	R 25.55	R 25.37	R 26.23	R 27.76
April	24.50	R 24.86	26.34	R 22.53	25.78	R 25.77	25.60	R 23.72	R 25.20	R 24.97	R 24.46
May	R 29.49	R 25.25	27.40	25.66	27.93	R 26.66	26.79	26.19	R 26.64	R 26.84	26.60
June	30.79	R 28.01	30.60	R 27.61	31.06	R 26.71	30.61	R 27.80	R 26.90	R 28.06	R 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	R 28.37	29.27	28.16	R 28.17	R 29.00	29.06
September	32.46	29.94	33.84	28.94	32.63	30.03	R 31.95	28.33	29.77	30.13	R 30.90
October	31.87	28.32	33.68	28.10	33.10	27.47	R 31.06	28.54	27.97	29.06	R 30.08
November	32.80	26.91	33.36	27.76	34.02	R 25.69	32.93	26.34	R 26.61	R 27.86	29.74
December	R 27.05	23.47	28.12	R 21.91	27.77	R 24.52	28.86	23.13	R 24.64	R 24.82	R 24.72
Average	R 29.57	R 26.69	29.68	R 26.03	30.04	26.58	R 29.26	26.05	R 26.77	R 27.29	R 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	R 22.86	28.27	R 21.91	R 22.65	R 23.77	R 24.73
June	R 28.55	R 22.52	R 28.86	R 21.34	R 29.31	R 22.49	W	R 20.35	R 22.08	R 23.21	R 24.40
July	26.62	22.53	27.45	19.57	27.32	22.16	25.92	20.01	21.99	22.15	23.33

^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*, October 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

^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	R 55.3	R 66.3	R 44.6	R 50.0	R 49.0	R 54.6
February	R 59.2	R 68.8	48.6	R 54.0	R 53.9	57.5
March	53.2	66.5	R 50.7	55.9	R 51.9	57.8
April	52.3	65.1	R 44.5	52.5	R 48.2	54.7
May	58.9	63.2	R 51.7	R 54.9	R 54.9	R 57.3
June	65.8	70.2	R 54.7	R 59.0	R 60.0	R 62.0
July	65.1	69.7	50.8	R 57.3	R 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	R 50.6	57.0	R 57.9	62.5
Average	R 62.7	R 70.8	R 51.2	R 56.6	R 56.6	R 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	R 53.0	R 64.1	42.4	49.0	47.9	R 52.4
July	50.0	63.2	42.8	47.3	46.6	51.6

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*, October 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	R 111.5	R 80.4	R 97.9	R 84.1	R 77.7	R 49.4
February	R 88.4	R 119.8	R 83.6	R 101.2	R 92.4	R 85.2	R 60.2
March	R 98.9	R 130.3	R 83.4	R 84.4	R 79.6	R 85.1	R 52.9
April	R 88.5	R 125.5	R 77.4	R 76.7	R 76.4	R 79.9	R 48.8
May	R 97.9	R 130.8	R 77.9	R 77.6	R 78.4	R 81.4	R 49.3
June	R 109.3	R 141.9	R 79.9	R 80.0	R 80.3	R 82.4	R 53.9
July	R 99.3	R 138.8	R 83.6	R 83.1	R 81.0	R 83.6	R 54.8
August	R 96.9	R 133.8	R 87.9	R 89.8	R 88.3	R 92.1	R 60.3
September	R 104.8	R 142.5	R 105.1	R 107.7	R 100.9	R 105.0	R 65.9
October	R 102.2	R 138.1	R 104.4	R 108.1	R 98.8	R 104.0	R 64.3
November	R 100.2	R 137.6	R 105.1	R 112.8	R 100.4	R 103.2	R 63.3
December	R 87.9	R 128.3	R 99.0	R 105.8	R 94.1	R 93.8	R 76.7
Average	R 96.3	R 133.0	R 88.0	R 96.9	R 88.6	R 89.8	R 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	R 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	43.5

^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*, October 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	R 118.7	R 80.7	R 111.1	86.5	R 79.9	R 62.9
February	98.7	R 119.5	R 82.8	R 130.1	R 95.2	88.8	R 73.0
March	113.1	R 129.1	85.0	R 107.7	R 85.9	R 90.3	64.8
April	108.7	R 124.3	R 78.1	99.6	81.7	R 84.8	48.7
May	110.3	R 126.8	R 78.9	86.8	83.1	R 85.1	49.8
June	121.3	R 139.8	80.2	88.4	84.5	86.4	54.4
July	R 117.3	R 142.6	R 84.0	90.1	84.7	R 87.9	55.2
August	R 110.3	NA	88.8	96.5	90.8	93.6	55.7
September	R 117.5	138.2	106.1	116.2	105.9	107.8	58.2
October	R 115.5	134.9	104.5	116.0	105.0	107.6	59.7
November	R 113.5	134.9	106.6	122.9	106.4	107.0	63.8
December	R 106.3	126.1	R 99.7	122.7	101.5	99.7	66.8
Average	R 110.6	R 130.6	R 89.9	R 112.3	92.7	93.5	R 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	R 50.5
July	103.0	134.5	76.9	83.4	78.1	81.4	45.1

^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*, October 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	R 126.4	120.9	R 117.2	123.7	R 118.8	R 124.5	R 141.6	R 134.7	R 117.3
February	140.5	140.3	R 133.2	139.6	132.8	141.5	R 162.9	R 154.7	R 133.1
March	120.8	123.0	R 118.5	R 116.8	114.8	R 120.7	135.8	R 131.6	R 114.3
April	113.5	116.4	R 114.0	R 111.7	112.2	114.0	127.4	R 124.8	R 108.2
May	115.1	R 117.9	R 112.3	R 114.3	114.2	114.4	R 127.5	R 125.2	R 106.5
June	R 117.1	117.0	R 117.3	112.9	R 114.2	R 113.7	R 128.1	R 125.0	R 106.2
July	118.9	R 117.9	R 119.5	R 111.6	R 112.6	R 114.1	R 127.7	R 124.8	R 104.0
August	R 124.8	R 121.4	R 122.2	117.4	115.1	115.8	129.0	R 128.0	R 109.7
September	R 136.2	132.3	R 133.8	128.7	R 132.6	129.4	R 140.5	R 139.8	R 123.2
October	R 138.9	131.5	R 130.9	R 132.1	R 134.0	134.5	147.2	R 144.2	R 127.2
November	141.1	R 135.8	133.4	135.1	R 138.3	R 137.2	R 150.3	R 149.9	R 131.3
December	R 137.3	136.4	132.7	137.0	R 136.9	139.2	152.2	R 147.2	R 135.1
Average	129.7	R 128.1	R 125.5	127.3	R 125.9	R 129.1	144.2	R 140.4	R 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	R 121.6	125.5	R 124.7	R 119.8	121.6	119.1	133.2	R 128.8	106.3
July	117.4	121.5	122.2	113.7	117.2	113.6	126.9	123.3	101.9

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*, October 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	R 120.9	116.1	110.5	NA	R 109.6	R 100.6	R 105.7	101.9
February	137.3	W	141.5	131.9	130.6	R 120.1	NA	116.1	R 109.3	R 110.2	R 109.8
March	120.6	W	126.3	R 122.4	119.7	R 116.7	NA	R 117.6	R 108.3	R 111.8	R 109.5
April	115.2	W	119.9	114.5	110.3	111.2	NA	R 112.4	R 104.6	R 110.2	107.5
May	109.6	W	119.6	R 111.9	110.0	R 111.9	NA	R 108.6	R 98.6	R 109.8	R 110.2
June	103.7	W	115.1	R 109.2	109.7	R 112.5	NA	115.1	R 96.0	R 109.9	R 112.8
July	R 103.7	W	115.6	R 108.2	R 110.2	110.4	NA	R 112.3	NA	R 105.3	R 111.4
August	R 112.8	W	120.4	R 117.7	R 117.1	111.8	NA	R 118.8	R 106.8	R 114.6	R 110.6
September	R 124.9	W	133.3	130.2	130.3	129.5	NA	R 134.0	R 124.4	R 127.8	R 122.4
October	129.7	W	141.5	R 133.0	132.7	133.7	NA	R 135.0	R 123.1	R 131.8	R 128.4
November	R 139.7	W	147.4	135.8	136.6	134.0	NA	R 131.5	R 124.2	R 130.1	R 128.5
December	R 140.0	W	150.1	R 137.0	137.4	R 132.4	NA	127.0	R 123.2	130.2	125.7
Average	R 127.0	W	135.1	R 126.9	R 125.1	R 122.0	NA	R 120.7	R 109.5	R 117.1	R 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	R 110.8	W	R 123.2	R 112.7	R 112.5	R 113.0	NA	R 109.8	103.9	R 117.1	R 114.0
July	102.0	W	116.8	106.6	104.5	104.8	NA	102.9	100.3	110.6	106.2

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*, October 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	^R 93.5	^R 127.5	115.6	^R 122.0	125.8
February	97.7	^R 134.0	124.9	^R 126.3	^R 142.5
March	109.2	145.4	136.1	131.3	^R 123.9
April	105.9	^R 133.8	127.7	130.3	^R 117.7
May	^R 96.6	132.0	121.2	124.7	^R 117.2
June	NA	128.1	122.8	^R 120.4	116.3
July	^R 109.6	NA	126.4	121.8	^R 115.0
August	^R 114.1	^R 133.3	131.3	130.8	119.0
September	^R 133.3	156.6	154.4	140.8	^R 132.0
October	^R 140.8	162.8	^R 156.0	NA	136.6
November	140.5	160.5	150.6	154.1	^R 139.7
December	^R 128.4	162.5	155.8	152.9	^R 141.1
Average	^R 117.0	^R 144.5	^R 136.8	^R 133.7	^R 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	^R 111.9	^R 141.3	129.9	140.6	^R 120.2
July	103.6	123.4	115.7	134.1	113.7

R=Revised. NA=Not available.

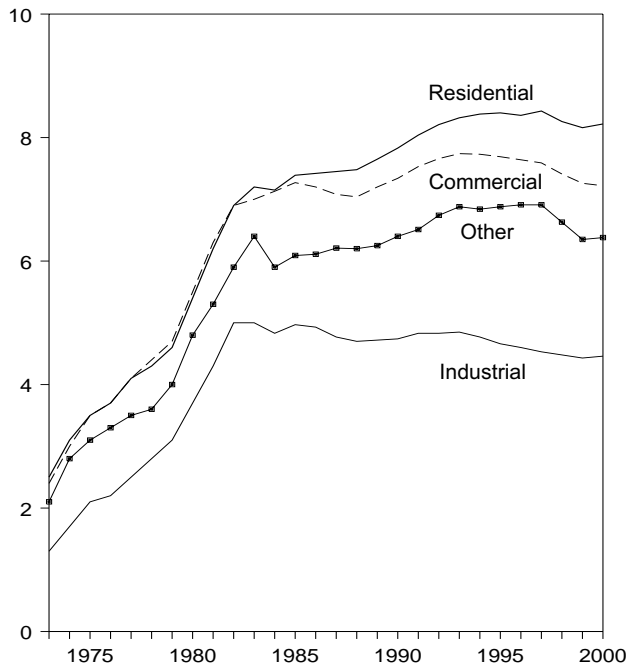
Notes: States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. Values for the current month are preliminary.

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

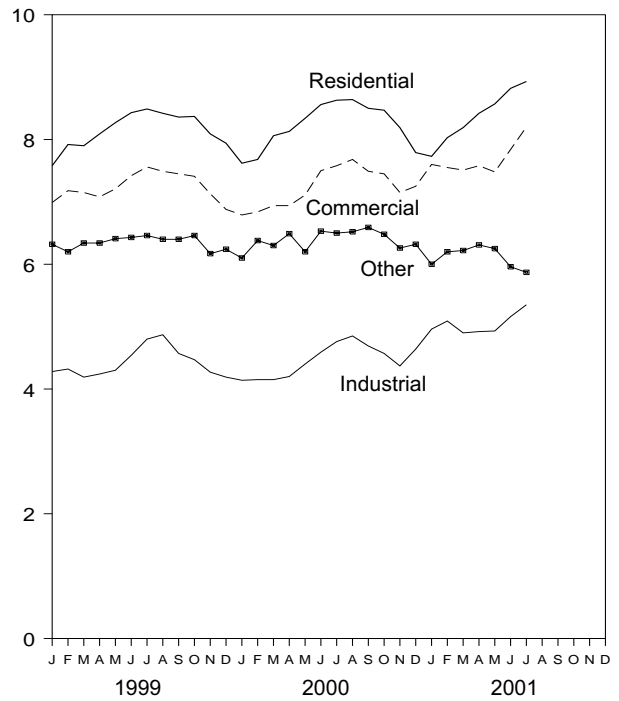
Source: EIA, *Petroleum Marketing Monthly*, October 2001, Table 18.

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

By Sector, 1973-2000



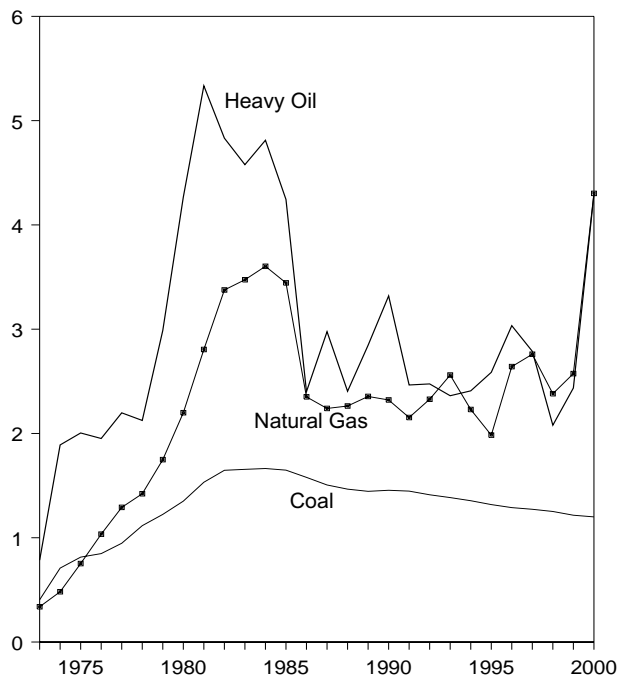
By Sector, Monthly



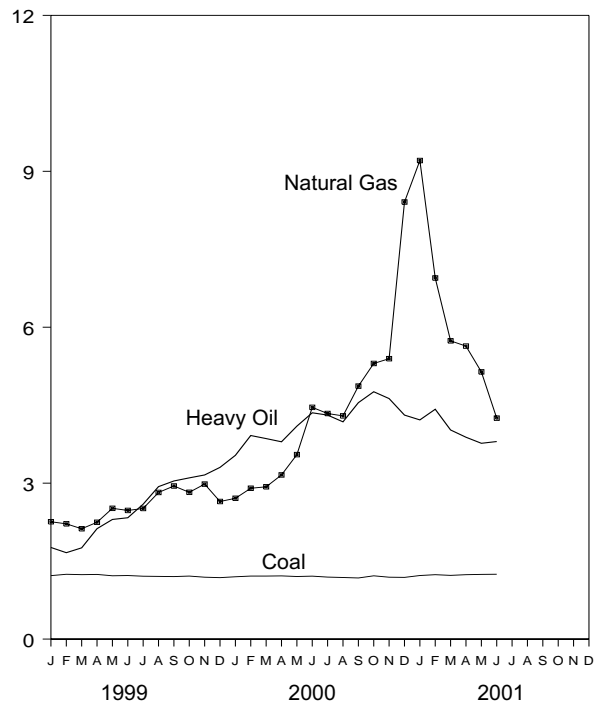
Source: Table 9.9.

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

Costs, 1973-2000



Costs, Monthly



Note: Because 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
7-Month Average	8.37	7.70	5.04	6.10	7.10
2000 7-Month Average	8.15	7.12	4.35	6.36	6.57
1999 7-Month Average	8.10	7.24	4.39	6.36	6.60

^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
	Quantity (thousand short tons)	Cost (cents per million Btu)	Heavy Oil ^b		Total ^{b,c}		Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
			Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)			
1973 Year	374,842	40.5	512,650	78.5	535,859	80.0	3,382,677	33.8	47.6
1974 Year	384,868	70.9	479,166	189.0	515,217	191.0	3,225,203	48.2	91.4
1975 Year	431,527	81.4	457,582	200.5	510,352	202.3	3,034,808	75.2	104.4
1976 Year	454,858	84.8	495,363	195.2	549,973	199.0	2,962,811	103.4	111.9
1977 Year	490,415	94.7	563,685	219.8	635,556	224.9	3,106,403	129.1	129.7
1978 Year	476,169	111.6	546,197	212.5	616,040	219.1	3,140,654	142.2	141.1
1979 Year	556,558	122.4	479,705	298.8	515,695	307.2	3,368,976	174.9	163.9
1980 Year	593,995	135.1	394,159	426.7	419,140	435.1	3,588,814	219.9	192.8
1981 Year	579,374	153.2	327,477	533.4	345,544	542.5	3,573,558	280.5	225.6
1982 Year	601,427	164.7	228,200	483.2	239,111	492.2	3,161,348	337.6	224.9
1983 Year	592,728	165.6	211,705	457.8	219,652	462.8	2,732,248	347.4	220.6
1984 Year	684,111	166.4	193,832	481.2	202,372	486.3	2,878,808	360.3	219.1
1985 Year	666,743	164.8	156,410	424.4	164,947	431.7	2,808,921	344.4	209.4
1986 Year	686,964	157.9	220,585	240.1	228,522	243.7	2,387,622	235.1	175.0
1987 Year	721,298	150.6	187,300	297.6	194,578	301.1	2,605,191	224.0	170.6
1988 Year	727,775	146.6	230,234	240.5	236,924	243.9	2,362,721	226.3	164.3
1989 Year	753,217	144.5	237,668	284.6	246,422	289.3	2,472,506	235.5	167.5
1990 Year	786,627	145.5	202,281	331.9	209,350	338.4	2,490,979	232.1	168.9
1991 Year	769,923	144.7	163,106	246.5	169,625	254.8	2,630,818	215.3	160.3
1992 Year	775,963	141.2	138,537	247.5	144,390	255.1	2,637,673	232.8	159.0
1993 Year	769,152	138.5	141,719	236.2	147,902	243.3	2,574,528	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
6 Months	381,538	123.7	63,934	401.5	70,977	425.0	984,722	589.1	190.1
2000 6 Months	403,656	120.9	32,982	403.6	35,611	417.9	1,251,216	339.6	156.4
1999 6 Months	447,890	123.2	66,754	198.7	70,263	204.4	1,250,228	233.2	139.5

^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 re refined motor oil,

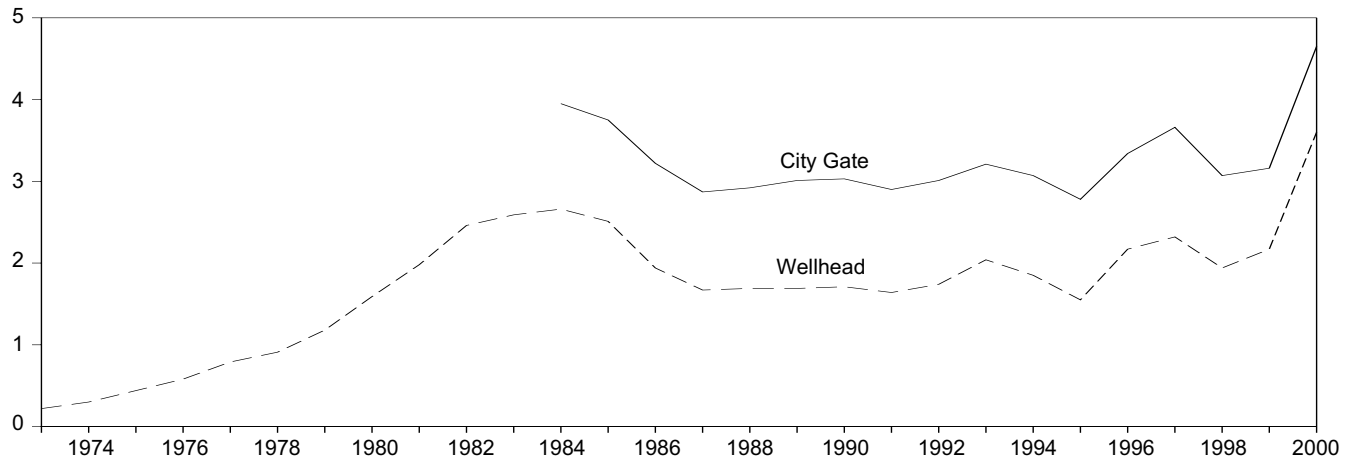
bunker oil, and liquefied petroleum gas.

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.

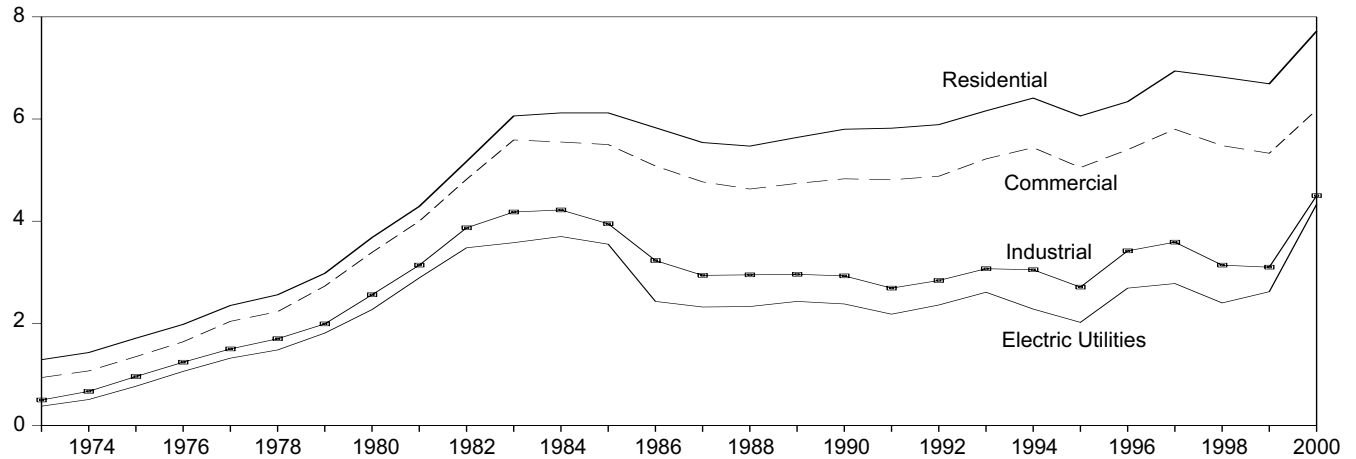
Sources: See end of section.

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

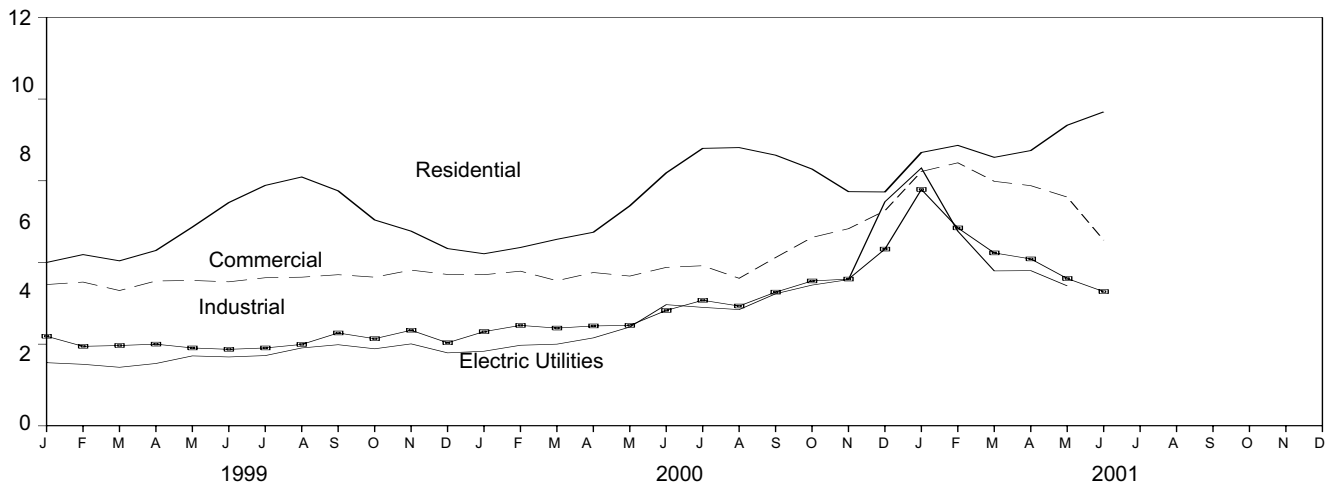
Selected Prices, 1973-2000



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	R 16.0	R 2.74
February	E 2.30	3.50	6.55	5.68	68.4	R 3.69	R 16.6	R 2.96
March	E 2.36	3.54	6.85	5.33	65.7	R 3.59	R 16.2	R 3.00
April	E 2.55	3.70	7.11	R 5.63	63.3	3.67	R 15.7	R 3.23
May	E 2.90	R 4.15	R 8.08	5.50	64.0	R 3.69	R 14.3	R 3.63
June	E 3.73	5.17	R 9.29	5.82	61.3	4.24	15.2	R 4.45
July	E 3.70	R 5.15	R 10.19	5.88	60.8	R 4.61	R 14.8	R 4.35
August	E 3.67	4.59	10.22	R 5.42	62.3	R 4.40	14.2	R 4.27
September	E 4.26	5.17	9.94	6.18	60.9	4.91	R 14.2	R 4.85
October	E 4.61	5.64	R 9.43	6.92	62.4	R 5.32	14.0	R 5.17
November	E 4.62	5.20	8.60	7.24	64.9	R 5.39	17.9	R 5.37
December	E 6.35	6.81	R 8.59	7.90	68.4	R 6.49	18.4	R 8.23
Average	E 3.60	4.65	7.72	6.18	65.3	4.50	R 15.6	R 4.33
2001 January	E 8.06	R 8.90	R 10.04	R 9.34	68.9	R 8.68	15.8	9.47
February	E 5.84	R 7.21	R 10.30	R 9.66	67.0	R 7.27	R 15.6	7.15
March	E 5.15	R 6.19	R 9.86	R 8.98	66.0	R 6.35	R 14.4	5.69
April	E 5.21	R 6.43	R 10.11	R 8.82	R 63.3	R 6.13	R 13.8	5.70
May	E 4.56	R 5.89	R 11.04	R 8.40	R 55.8	R 5.41	12.0	5.14
June	E 3.88	5.36	11.53	6.82	61.2	4.93	13.5	NA
July	E 3.39	NA	NA	NA	NA	NA	NA	NA
August	E 3.23	NA	NA	NA	NA	NA	NA	NA
Year-to-Date Avg.^d	E 4.92	7.10	10.21	8.99	65.2	6.62	14.2	6.34
2000 Year-to-Date Avg.^d	E 2.92	3.70	6.87	5.56	65.7	3.72	15.7	3.17
1999 Year-to-Date Avg.^d	2.01	2.94	6.35	5.20	68.4	2.98	16.6	2.33

^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*, October 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*, October 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*, October 2001, Table 1.

Sources for Table 9.2

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

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

1978 forward—EIA, *Petroleum Marketing Monthly*, October 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*, October 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*, October 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*, September 2001, Table 4.

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

Prices, 1994 forward

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

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

Section 10. International Energy

Crude Oil Production. World crude oil production during July 2001 was 69 million barrels per day, up by 2.4 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during July 2001 averaged 28 million barrels per day, up by 1.2 million barrels per day from the level during the previous month. During July 2001, production increased in Iraq by 1.0 million barrels per day; Saudi Arabia by 200 thousand barrels per day; Iran by 90 thousand barrels per day; and both Libya and Algeria by 10 thousand barrels per day. Production decreased in Nigeria by 65 thousand barrels per day; the United Arab Emirates by 20 thousand barrels per day; Indonesia by 12 thousand barrels per day; and both Venezuela and Kuwait by 10 thousand barrels per day. Production remained unchanged in Qatar.

Among the non-OPEC nations, production during July 2001 increased in Mexico by 509 thousand barrels per day; the United Kingdom by 242 thousand barrels per day; Russia by 168 thousand barrels per day; Norway by 133 thousand barrels per day; the United States by 7 thousand barrels per day; and Egypt by 3 thousand barrels per day. Production decreased in China by 34 thousand barrels per day and Canada by 6 thousand barrels per day.

Petroleum Consumption. In May 2001, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 41.6 million barrels per day, less than 1 percent¹ lower than the May 2000 rate. Comparing May rates in 2001 and 2000, consumption was higher in 2001 in the United Kingdom (+3 percent); France (+2 percent); Germany (+1 percent); and Japan (less than +1 percent). The May 2001 consumption rate was lower in Canada (-5 percent) and Italy and the United States (both -1 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of May 2001 totaled 3.6 billion barrels, 2 percent higher than the ending stock level in May 2000. Stock levels were higher in May 2001 in Canada and Italy (each +7 percent); the United Kingdom (+4 percent); and the United States and Japan (each +2 percent). Stock levels were lower in Germany (-4 percent) and France (-1 percent), compared with levels 1 year earlier.

Nuclear Electricity Generation. Based on *Nucleonics Week*² information for July 2001, all reporting countries with nuclear capacity generated 212.6 gross terawatt-hours (one terawatt-hour equals 1 billion kilowatt-hours) of nuclear-generated electricity.

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

¹ Percentage changes are based on unrounded data.

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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	^R 1,352	3,785	2,930	2,010	1,380	2,210	715	7,950	2,330	2,920	^R 28,817
May	1,250	^R 1,362	3,685	2,905	1,993	1,360	2,140	725	8,000	2,277	2,890	^R 28,587
June	1,270	^R 1,382	3,785	1,105	2,030	1,370	2,205	735	8,050	2,260	2,900	^R 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
7-Mo. Avg. ..	1,259	1,390	3,813	2,271	2,069	1,390	2,217	737	8,225	2,335	2,961	28,666
2000 7-Mo. Avg. ..	1,220	1,465	3,649	2,545	2,077	1,392	2,103	721	8,077	2,308	2,892	28,449
1999 7-Mo. Avg. ..	1,211	1,489	3,602	2,588	1,896	1,325	2,127	670	7,855	2,192	2,867	27,824

^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 July 2001, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 640 thousand barrels per day.

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

1992 and 1994, respectively, are excluded from all OPEC totals.

R=Revised.

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

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	R 39,519	R 68,336
May	19,620	2,027	3,310	596	3,031	3,011	-	E 6,917	R 2,262	E 5,859	R 39,091	R 67,678
June	18,000	R 1,971	R 3,312	627	3,140	R 3,013	-	E 6,956	R 2,128	E 5,799	R 39,043	R 66,135
July	19,300	1,965	3,278	630	3,649	3,146	-	E 7,124	2,370	E 5,806	40,198	68,523
7-Mo. Avg.	19,484	2,023	3,304	641	3,173	3,163	-	E 6,928	2,289	E 5,839	39,570	68,236
2000 7-Mo. Avg.	19,414	1,964	3,276	727	2,992	3,202	-	E 6,341	2,555	5,831	38,883	67,332
1999 7-Mo. Avg.	18,841	1,888	3,205	859	2,966	2,958	-	E 6,018	2,657	5,875	38,114	65,938

^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."

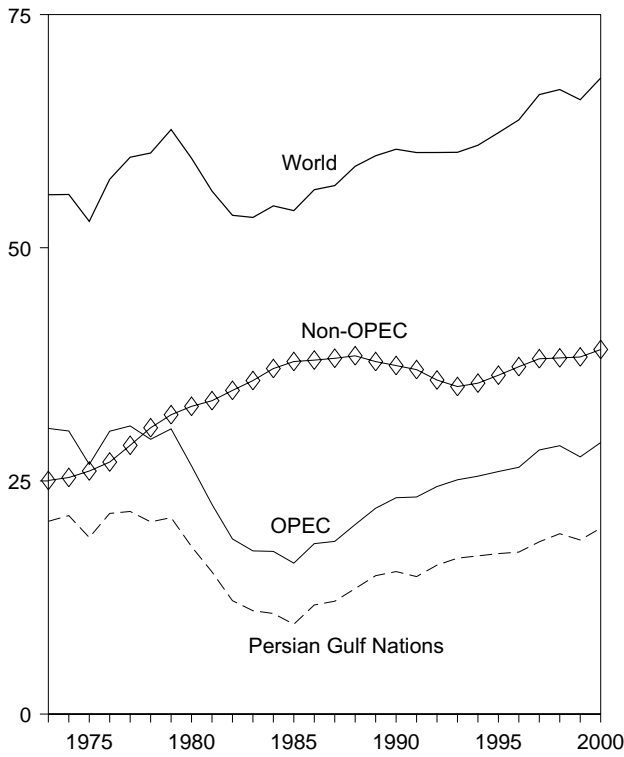
R=Revised. NA=Not available. - =Not applicable. E=Estimate.
Notes: Crude oil includes lease condensate but excludes natural gas plant liquids. Monthly data are often preliminary figures and may not

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.

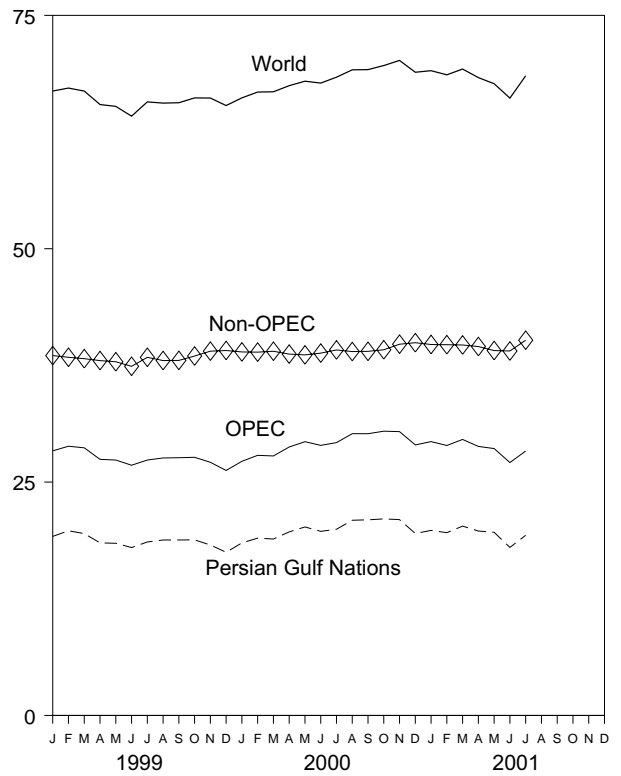
Sources: See end of section.

Figure 10.1 Crude Oil Production
(Million Barrels per Day)

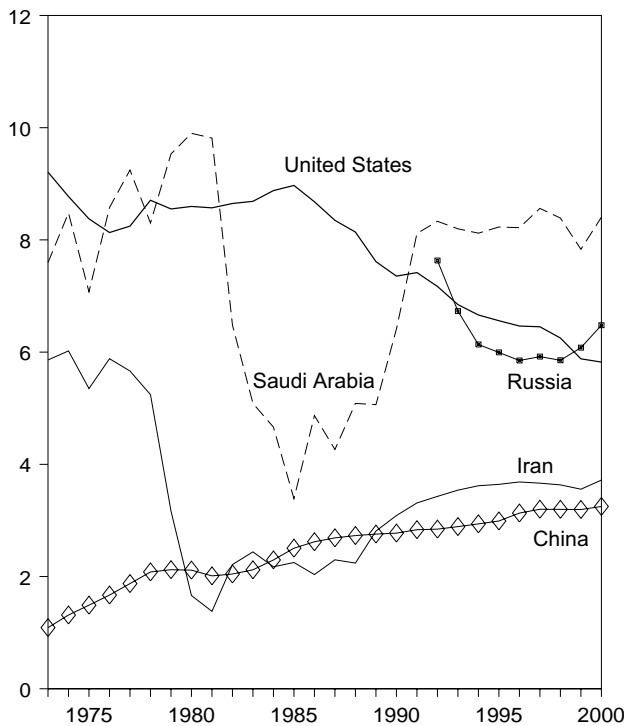
World Production, 1973-2000



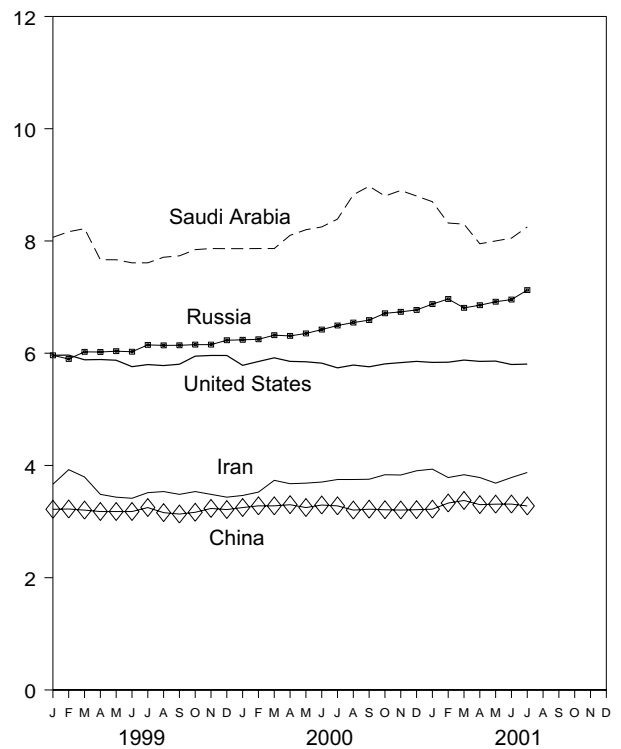
World Production, Monthly



Selected Producers, 1973-2000

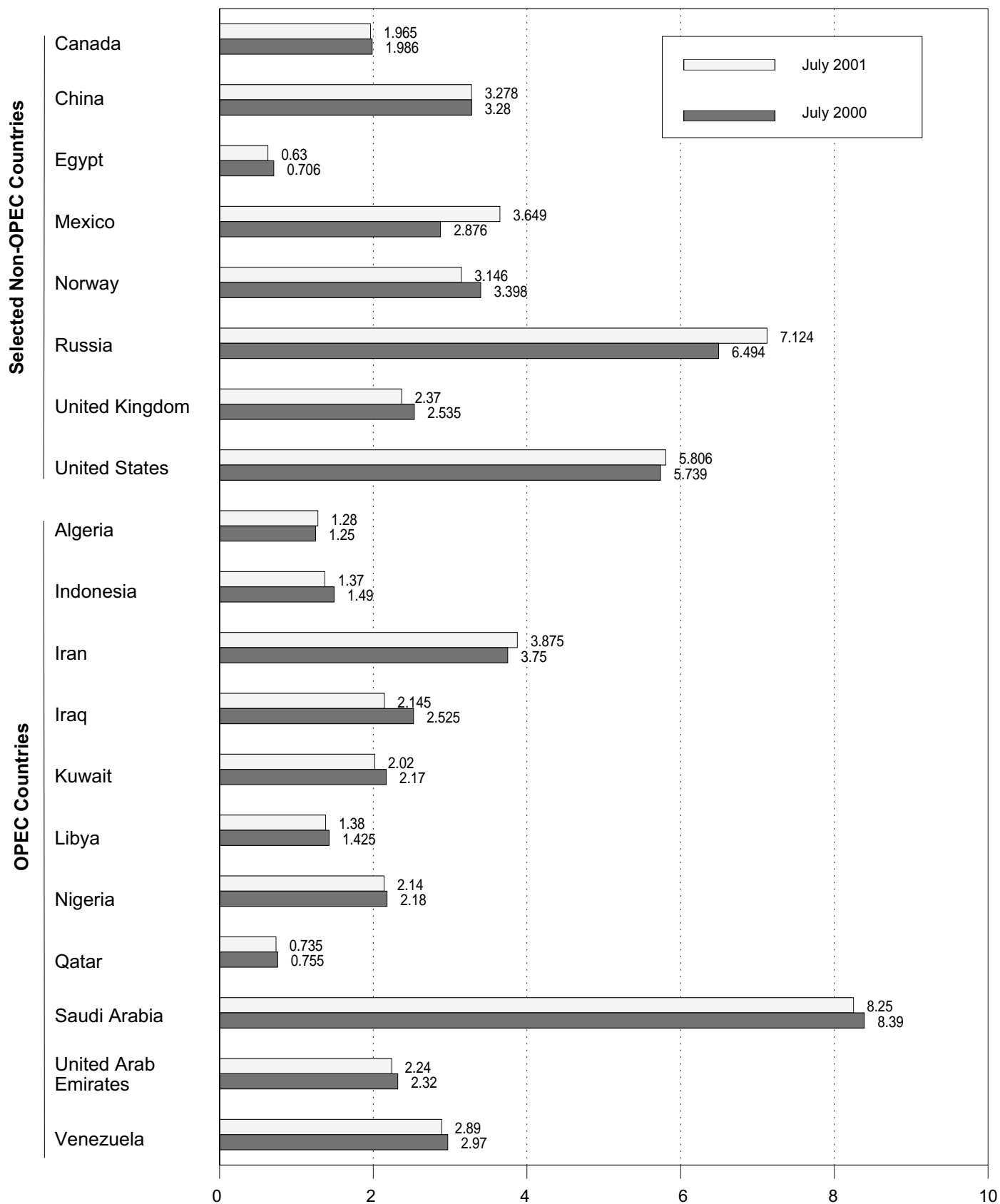


Selected Producers, Monthly



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

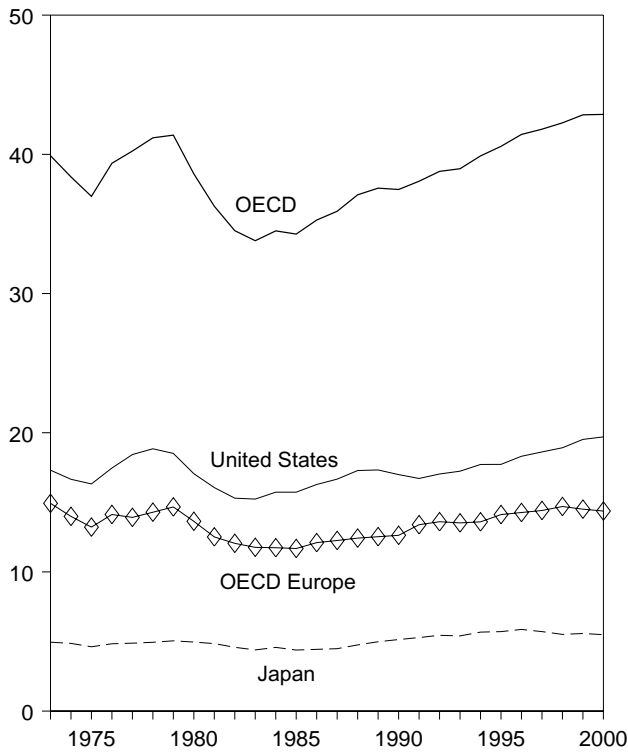
Figure 10.2 Crude Oil Production by Selected Country
(Million Barrels per Day)



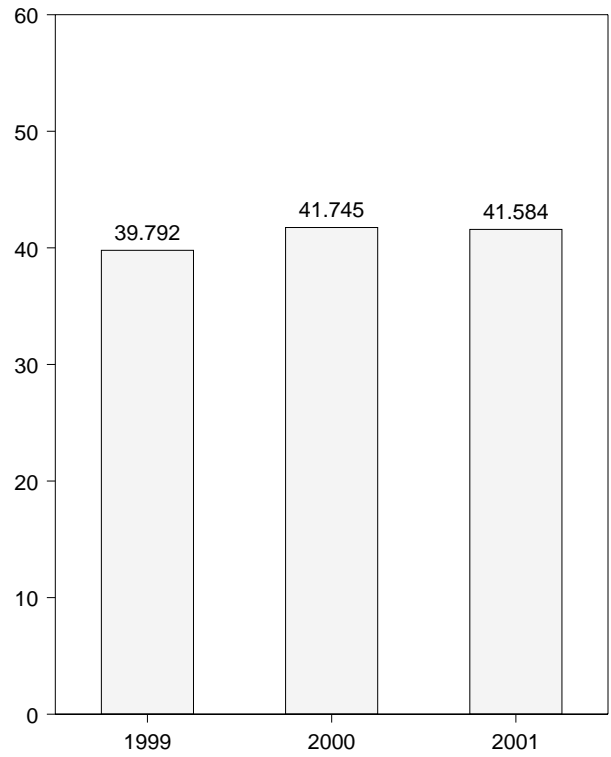
Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

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

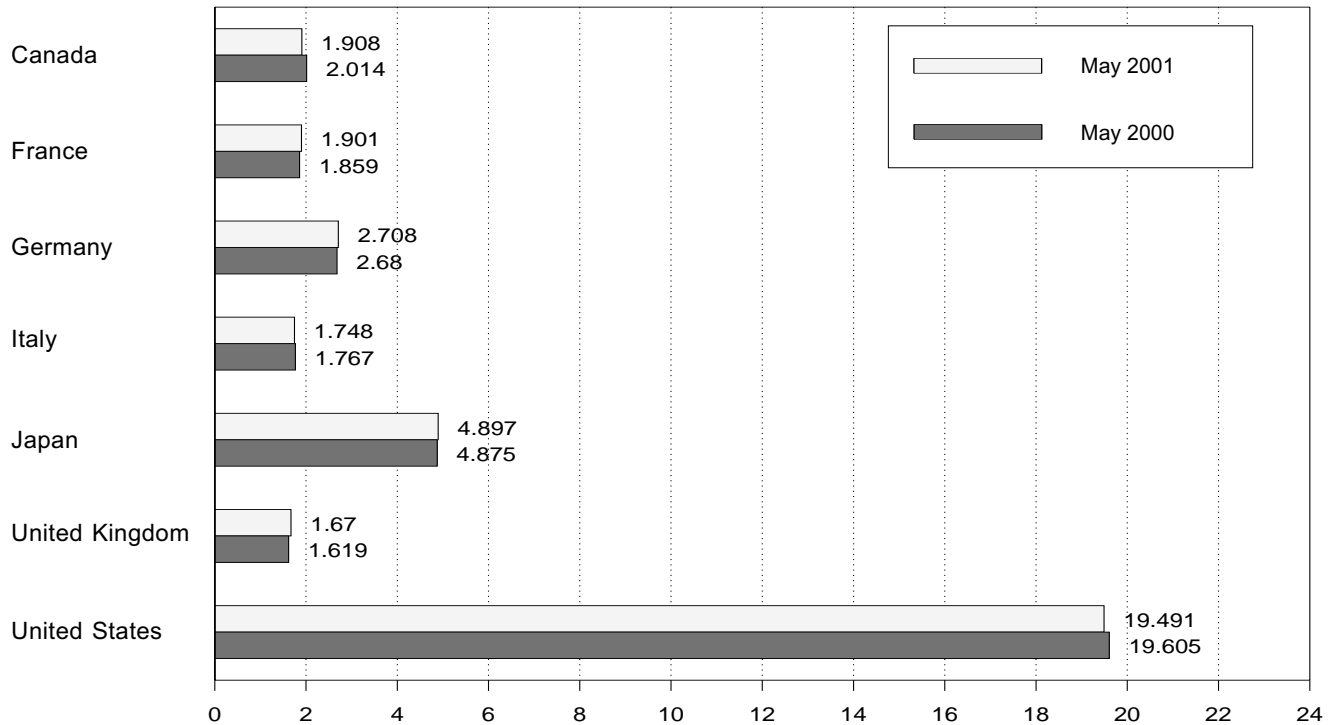
Overview, 1973-2000



OECD Total, May



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	1,750	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	38,776
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	2,167	2,395	1,841	5,410	1,664	19,026	13,994	1,388	41,647
February	2,058	2,143	2,709	2,003	6,351	1,753	19,635	14,924	1,315	44,283
March	1,884	2,124	2,738	1,913	6,217	1,848	19,218	14,714	1,407	43,441
April	1,793	1,949	2,645	1,791	5,202	1,606	18,816	13,694	1,255	40,761
May	2,014	1,859	2,680	1,767	4,875	1,619	19,605	13,940	1,311	41,745
June	1,984	1,969	2,703	1,926	4,886	1,654	20,054	14,189	1,297	42,410
July	1,926	1,970	2,742	1,829	5,237	1,598	19,696	13,858	1,280	41,997
August	2,005	1,980	3,060	1,831	5,487	1,721	20,496	14,733	1,397	44,118
September	2,049	1,808	2,982	1,945	5,435	1,754	19,899	14,613	1,209	43,205
October	2,028	2,256	2,754	1,875	5,012	1,751	19,798	14,724	1,361	42,923
November	2,111	2,039	2,843	1,902	5,584	1,790	19,328	14,714	1,376	43,113
December	2,026	1,974	2,828	1,993	6,212	1,603	20,814	14,412	1,361	44,825
Average	1,975	2,020	2,756	1,884	5,490	1,696	19,701	14,373	1,330	42,870
2001 January	^R 1,987	2,172	2,662	1,821	6,037	1,680	19,900	^R 14,355	1,349	^R 43,629
February	^R 1,986	2,106	2,608	1,912	6,373	1,665	19,597	^R 14,341	1,396	^R 43,693
March	^R 1,868	2,014	2,760	1,800	5,853	1,766	19,892	^R 14,357	1,432	^R 43,402
April	^R 1,783	2,017	2,693	1,773	5,103	1,689	19,591	^R 13,958	1,354	^R 41,789
May	1,908	1,901	2,708	1,748	4,897	1,670	19,491	13,824	1,464	41,584
5-Mo. Avg.	1,906	2,041	2,688	1,809	5,642	1,695	19,697	14,165	1,400	42,809
2000 5-Mo. Avg.	1,915	2,048	2,632	1,862	5,604	1,698	19,258	14,248	1,336	42,361
1999 5-Mo. Avg.	1,881	2,015	2,833	1,959	5,720	1,733	19,097	14,527	1,271	42,497

^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.

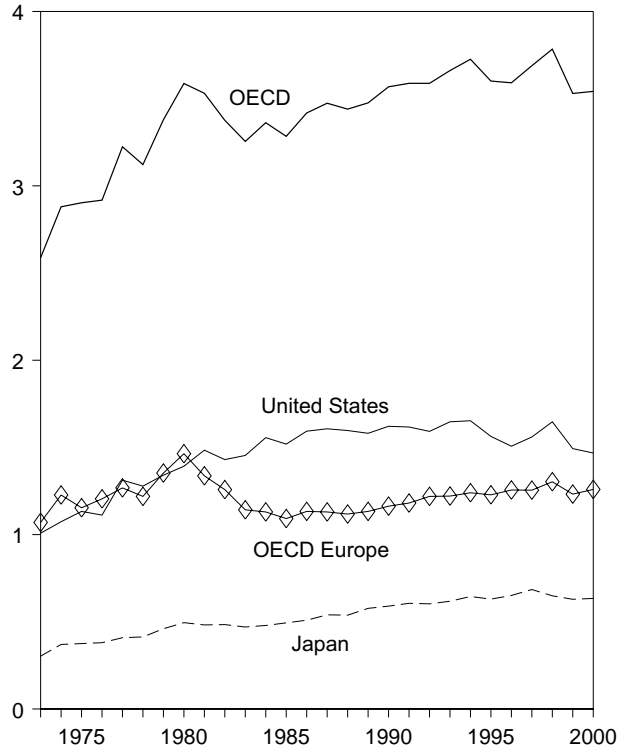
U.S. geographic coverage is the 50 States and the District of Columbia.

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*.

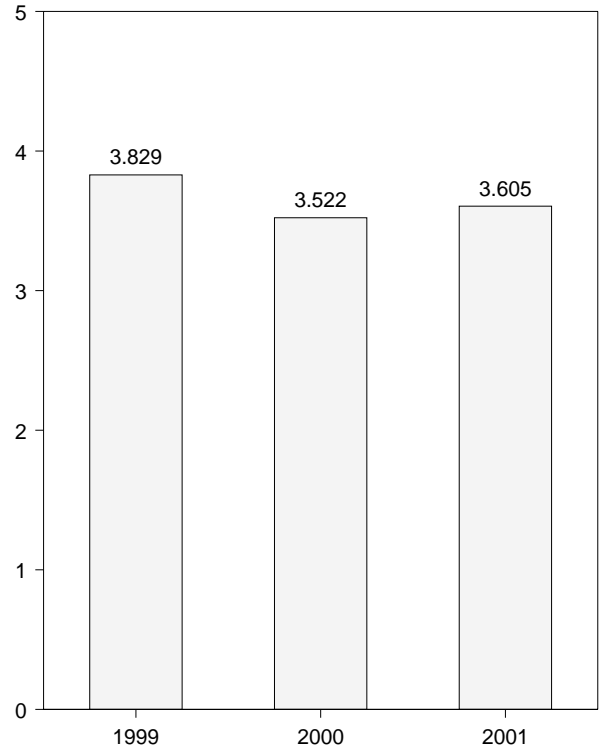
Figure 10.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

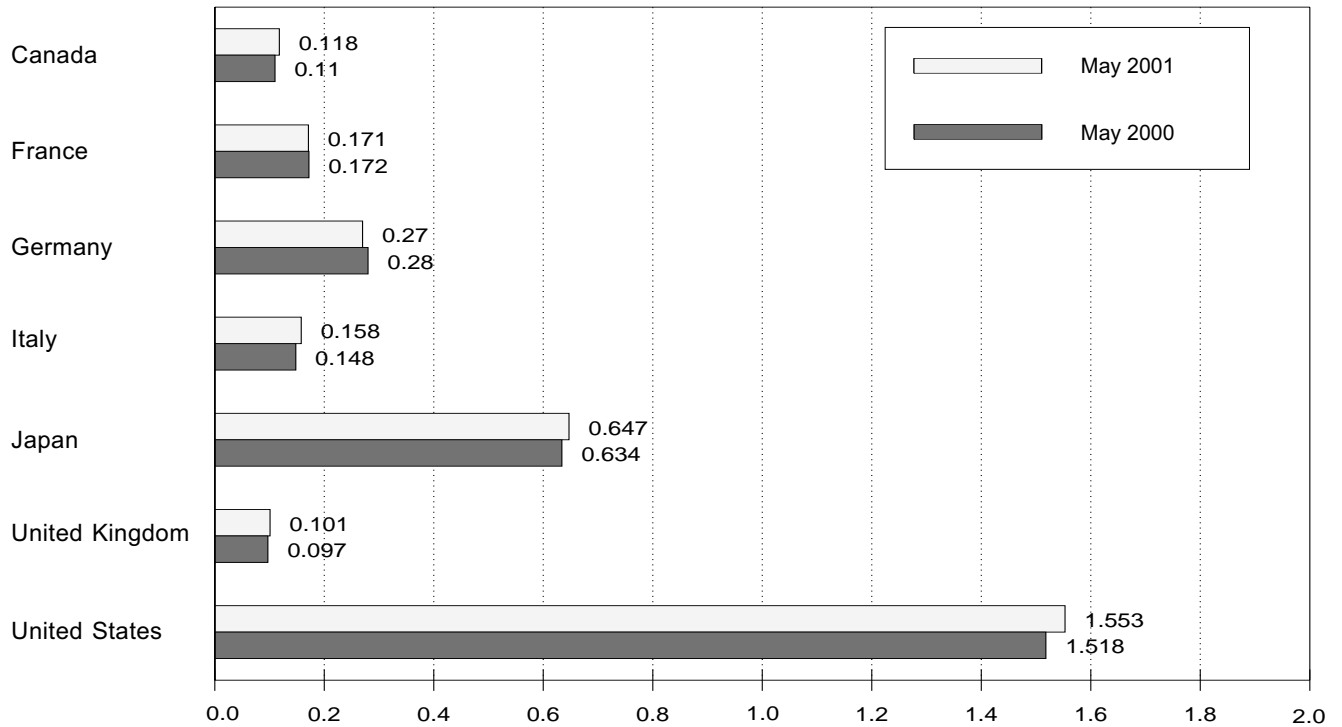
Overview, End of Year, 1973-2000



OECD Stocks, End of Month, May



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	1,243	66	3,501
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	1,224	71	3,563
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	1,245	76	3,591
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	1,259	70	3,542
2001 January	113	168	273	163	628	99	1,477	1,227	71	3,516
February	^R 111	172	275	159	620	101	1,471	^R 1,229	71	3,502
March	113	171	270	163	636	103	1,477	1,255	70	3,551
April	^R 116	171	270	158	646	100	1,517	^R 1,218	69	^R 3,566
May	118	171	270	158	647	101	1,553	1,220	68	3,605

^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."

^RRevised.

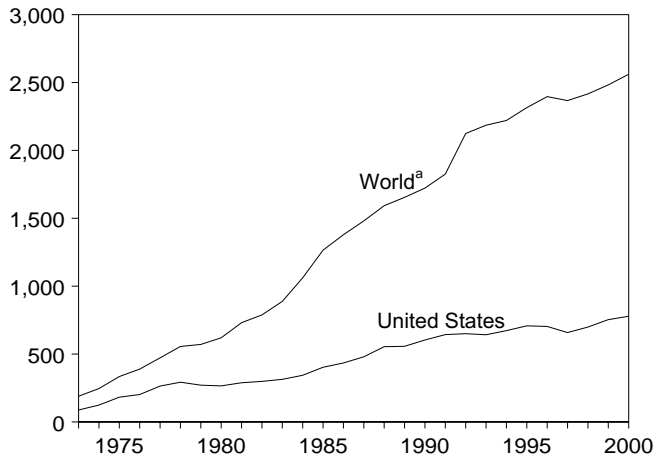
Notes: Stocks are at end of period. Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for

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*.

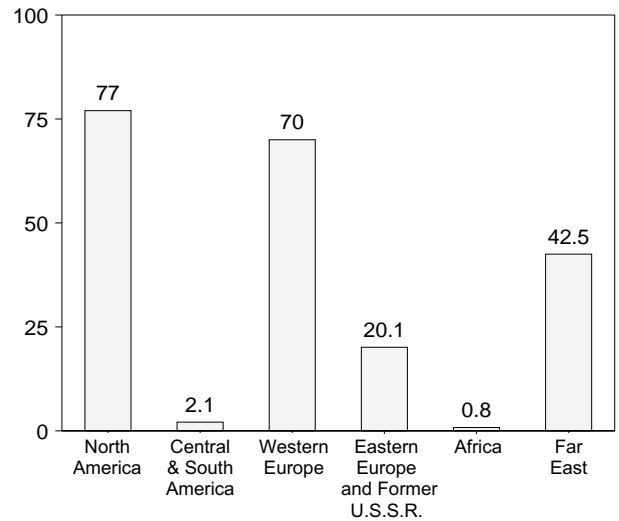
Figure 10.5 Nuclear Electricity Gross Generation
(Billion Kilowatthours)

U.S. and World, 1973-2000

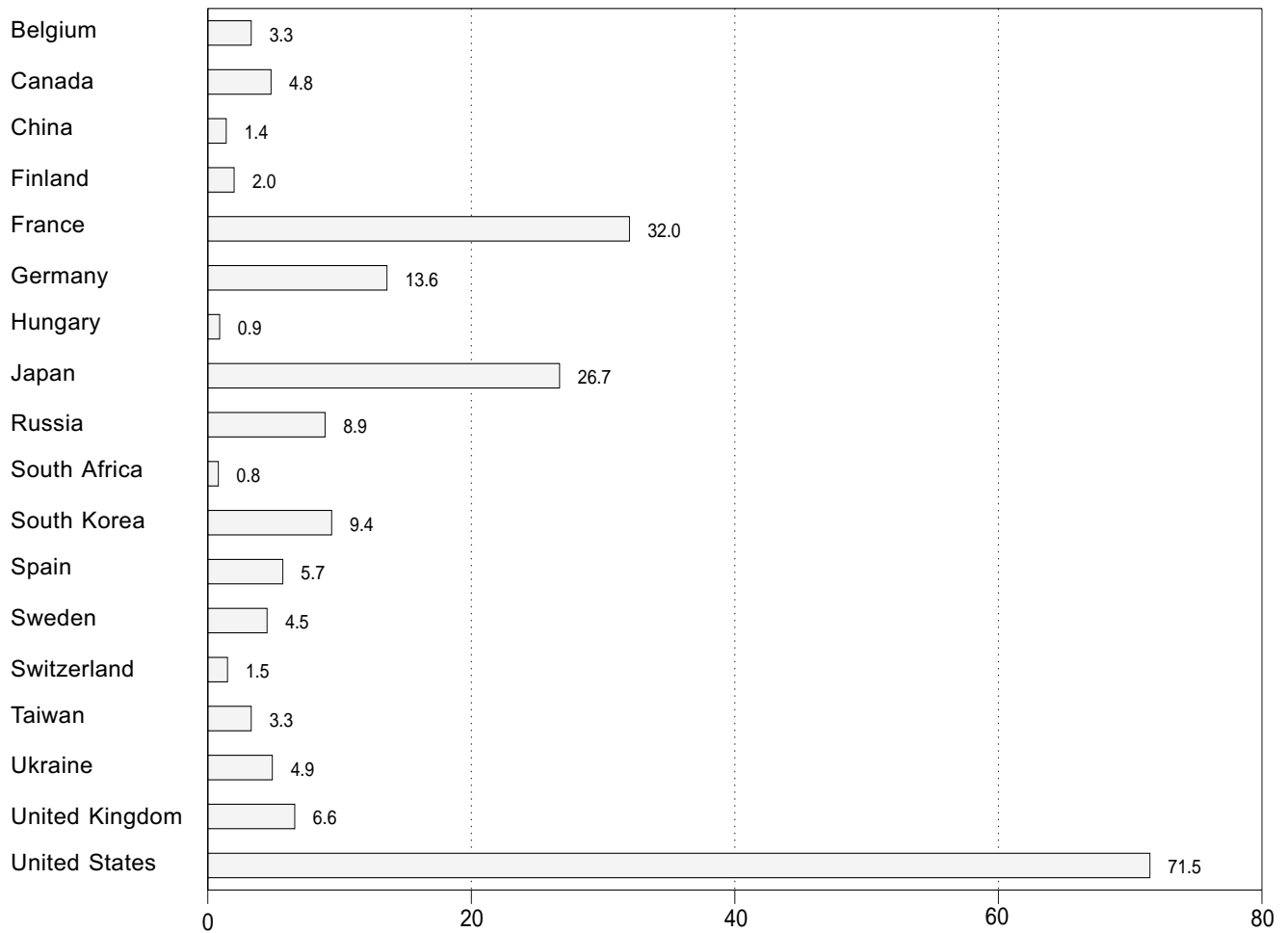


^aEastern Europe and the Former U.S.S.R. are included beginning in 1992.

By Region, July 2001



By Selected Country, July 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 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	^E 40.6	^E 218.0
April	^E 59.9	1.1	^E 71.8	^E 22.6	1.4	^E 39.2	^E 195.9
May	^E 63.2	.8	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	^E 20.1	.8	^E 42.5	^E 212.6
7-Month Total	^E 512.4	^E 10.9	^E 514.8	^E 164.4	7.0	^E 288.5	^E 1,498.0
2000 7-Month Total	^E 504.2	5.9	^E 516.5	^E 165.1	7.7	^E 289.0	^E 1,488.3
1999 7-Month Total	^E 475.7	6.6	^E 510.4	^E 159.8	8.2	^E 271.4	^E 1,432.2

^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.

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
7-Month Total	E 41.0	5.2	E 466.3	E 512.4	3.6	E 7.3	E 10.9
2000 7-Month Total	44.0	4.3	E 455.9	E 504.2	4.3	1.6	5.9
1999 7-Month Total	41.6	6.3	E 427.8	E 475.7	4.3	2.3	6.6

— =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.
Notes: Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in

some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

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

Table 10.4c Nuclear Electricity Gross Generation: Western Europe
(Billion Kilowatthours)

	Western Europe											Total ^d
	Belgium	Finland	France	Germany ^a	Italy ^b	Nether-lands	Slovenia	Spain	Sweden	Switzer-land	United Kingdom ^c	
1973 Total	0.0	—	14.7	11.9	3.1	1.1	—	6.5	2.1	6.2	28.2	73.9
1974 Total	.1	—	14.7	12.0	3.4	3.3	—	7.2	2.3	7.0	33.8	83.9
1975 Total	6.8	—	18.3	21.7	3.8	3.3	—	7.5	12.0	7.7	30.5	111.7
1976 Total	10.0	—	15.8	24.5	3.8	3.9	—	7.6	16.0	7.9	36.8	126.2
1977 Total	11.9	2.7	17.9	36.0	3.4	3.7	—	6.5	19.9	8.1	38.1	148.1
1978 Total	12.5	3.3	30.6	35.7	4.5	4.1	—	7.6	23.8	8.3	36.6	166.9
1979 Total	11.4	6.7	39.9	42.2	2.6	3.5	—	6.7	21.0	11.8	38.5	184.3
1980 Total	12.5	7.0	61.2	43.7	2.2	4.2	—	5.2	26.7	14.3	37.2	214.2
1981 Total	12.8	14.5	105.2	53.4	2.7	3.7	—	9.4	37.7	15.2	38.9	293.4
1982 Total	15.6	16.5	108.9	63.4	6.8	3.9	—	8.8	38.8	15.0	44.1	321.8
1983 Total	24.1	17.4	144.2	65.8	5.8	3.6	NA	10.7	40.4	15.5	49.6	377.2
1984 Total	27.7	18.5	191.2	92.6	6.9	3.8	NA	23.1	51.3	16.3	54.1	485.4
1985 Total	34.5	18.8	224.0	125.8	7.0	3.9	NA	28.0	58.6	22.4	59.7	582.8
1986 Total	38.6	18.8	254.3	118.9	8.7	4.2	NA	37.5	69.9	22.5	58.2	631.5
1987 Total	41.9	19.4	265.5	130.2	.2	3.6	NA	41.2	67.2	23.0	56.2	648.3
1988 Total	43.1	19.3	274.9	145.2	.0	3.7	NA	50.4	69.4	22.7	59.4	688.1
1989 Total	41.2	18.8	302.5	149.6	.0	4.0	NA	56.1	65.6	22.8	71.6	732.2
1990 Total	42.7	18.9	314.1	147.2	.0	3.4	NA	54.3	68.2	23.6	66.1	738.6
1991 Total	42.9	19.2	331.4	147.3	.0	3.3	NA	55.6	76.8	22.9	70.4	769.7
1992 Total	43.5	19.0	337.6	158.8	.0	3.8	4.0	55.8	63.5	23.4	78.5	787.8
1993 Total	41.9	19.6	366.7	153.5	.0	3.9	4.0	56.1	61.4	23.3	90.4	820.9
1994 Total	40.6	19.1	359.1	151.1	.0	4.0	4.6	55.1	72.8	24.2	89.5	820.2
1995 Total	41.4	18.9	377.6	154.3	.0	4.0	4.8	54.5	69.9	24.8	E 85.5	E 835.7
1996 Total	43.3	19.5	397.0	161.7	.0	4.2	4.6	59.1	76.2	25.0	E 88.8	E 879.5
1997 Total	47.4	20.9	389.3	170.4	.0	3.1	5.4	55.4	E 70.6	25.3	E 98.8	E 886.5
1998 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	6.6	E 70.0
7-Month Total	E 25.8	13.4	E 227.2	98.9	.0	2.4	2.8	37.1	E 41.8	15.9	E 49.6	E 514.8
2000 7-Month Total	26.4	13.1	E 239.6	96.1	.0	2.4	2.6	36.9	E 34.2	15.7	E 49.6	E 516.5
1999 7-Month Total	28.7	13.5	E 220.5	96.0	.0	2.4	2.3	32.1	E 43.5	14.6	E 56.9	E 510.4

^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.										Total ^c
	Armenia ^a	Bulgaria	Czech Republic ^b	Hungary	Kazakhstan ^b	Lithuania ^b	Romania	Russia	Slovakia ^b	Ukraine	
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	E 20.1
7-Month Total	E 1.6	E 10.9	E 7.9	8.1	NA	4.9	E 3.5	74.9	9.4	43.2	E 164.4
2000 7-Month Total	1.6	E 12.2	7.7	7.8	.0	4.7	3.5	75.4	8.4	43.7	E 165.1
1999 7-Month Total	1.8	E 13.5	7.8	7.9	NA	5.4	3.6	69.4	5.9	44.7	E 159.8

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

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

^c Sum of available data only.

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

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

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

Table 10.4e Nuclear Electricity Gross Generation: Africa and Far East
(Billion Kilowatthours)

	Africa	Far East						Total ^c
	South Africa ^a	China ^b	India	Japan	Pakistan	South Korea	Taiwan	
1973 Total	—	—	2.5	9.4	0.5	—	—	12.3
1974 Total	—	—	1.9	18.9	.6	—	—	21.4
1975 Total	—	—	2.5	21.3	.5	—	—	24.4
1976 Total	—	—	3.2	36.6	.5	—	—	40.3
1977 Total	—	—	2.8	28.2	.3	0.1	0.1	31.5
1978 Total	—	—	2.3	53.1	.2	2.3	2.7	60.6
1979 Total	—	—	3.2	62.0	(s)	3.2	6.3	74.7
1980 Total	—	—	2.9	82.8	.1	3.5	8.2	97.4
1981 Total	—	—	3.1	86.0	.2	2.9	10.7	102.9
1982 Total	—	—	2.2	104.5	.1	3.8	13.1	123.6
1983 Total	—	—	2.9	109.1	.2	9.0	18.9	140.1
1984 Total	4.2	—	4.1	127.2	.3	11.8	24.3	167.7
1985 Total	5.9	—	4.5	152.0	.3	16.5	28.7	202.0
1986 Total	9.3	—	5.1	164.8	.5	26.1	26.9	223.6
1987 Total	6.6	—	5.5	182.8	.3	37.8	33.1	259.5
1988 Total	11.1	—	6.1	173.6	.2	38.7	29.9	248.5
1989 Total	11.7	—	4.0	183.7	.1	47.2	28.3	263.4
1990 Total	8.9	—	6.3	191.9	.4	52.8	32.9	284.3
1991 Total	9.7	—	5.4	205.8	.4	56.3	35.3	303.3
1992 Total	9.9	—	6.3	218.0	.6	56.4	33.8	315.2
1993 Total	7.7	E 2.6	6.2	243.5	.4	58.1	34.3	E 345.2
1994 Total	10.3	E 14.2	5.0	253.8	.6	58.3	34.8	E 366.7
1995 Total	11.9	E 13.0	8.0	286.1	.5	64.0	35.3	E 407.0
1996 Total	12.5	E 14.3	8.3	293.2	.4	72.5	37.8	E 426.4
1997 Total	13.3	E 11.4	E 11.0	318.0	.4	78.9	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
7-Month Total	7.0	E 7.3	E 11.2	184.2	1.2	64.6	20.0	E 288.5
2000 7-Month Total	7.7	E 8.6	8.2	187.2	.4	61.8	22.8	E 289.0
1999 7-Month Total	8.2	E 8.5	7.9	180.3	.0	52.7	22.0	E 271.4

^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	Naphtha Less Than 401° F	5.248
Distillate Fuel Oil	5.825	Other Oils Equal to or Greater Than 401° F	5.825
Ethane	3.082	Still Gas	6.000
Ethane-Propane Mixture ^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			Imports	Exports
	Dry	Marketed	Sectors Other Than Electric Utilities	Electric Utilities	Total		
1973	1,021	1,093	1,020	1,024	1,021	1,026	1,023
1974	1,024	1,097	1,024	1,022	1,024	1,027	1,016
1975	1,021	1,095	1,020	1,026	1,021	1,026	1,014
1976	1,020	1,093	1,019	1,023	1,020	1,025	1,013
1977	1,021	1,093	1,019	1,029	1,021	1,026	1,013
1978	1,019	1,088	1,016	1,034	1,019	1,030	1,013
1979	1,021	1,092	1,018	1,035	1,021	1,037	1,013
1980	1,026	1,098	1,024	1,035	1,026	1,022	1,013
1981	1,027	1,103	1,025	1,035	1,027	1,014	1,011
1982	1,028	1,107	1,026	1,036	1,028	1,018	1,011
1983	1,031	1,115	1,031	1,030	1,031	1,024	1,010
1984	1,031	1,109	1,030	1,035	1,031	1,005	1,010
1985	1,032	1,112	1,031	1,038	1,032	1,002	1,011
1986	1,030	1,110	1,029	1,034	1,030	997	1,008
1987	1,031	1,112	1,031	1,032	1,031	999	1,011
1988	1,029	1,109	1,029	1,028	1,029	1,002	1,018
1989	1,031	1,107	1,031	1,030	1,031	1,004	1,019
1990	1,031	1,105	1,030	1,034	1,031	1,012	1,018
1991	1,030	1,108	1,031	1,024	1,030	1,014	1,022
1992	1,030	1,110	1,031	1,022	1,030	1,011	1,018
1993	1,027	1,106	1,028	1,022	1,027	1,020	1,016
1994	1,028	1,105	1,029	1,022	1,028	1,022	1,011
1995	1,027	1,106	1,027	1,025	1,027	1,021	1,011
1996	1,027	1,109	1,027	1,024	1,027	1,022	1,011
1997	1,026	1,107	1,027	1,019	1,026	1,023	1,011
1998	1,031	1,110	1,033	1,022	1,031	1,023	1,011
1999	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
	Production	Consumption						Imports	Exports	Imports and Exports
		End-Use Sectors			Electric Power Sector					
		Residential and Commercial	Industrial		Electric Utilities	Other Power Producers ^b	Total			
Coke Plants	Other ^a									
1973	23.376	22.831	26.780	22.586	22.246	NA	23.057	25.000	26.596	24.800
1974	23.072	22.479	26.778	22.419	21.781	NA	22.677	25.000	26.700	24.800
1975	22.897	22.261	26.782	22.436	21.642	NA	22.506	25.000	26.562	24.800
1976	22.855	22.774	26.781	22.530	21.679	NA	22.498	25.000	26.601	24.800
1977	22.597	22.919	26.787	22.322	21.508	NA	22.265	25.000	26.548	24.800
1978	22.248	22.466	26.789	22.207	21.275	NA	22.017	25.000	26.478	24.800
1979	22.454	22.242	26.788	22.452	21.364	NA	22.100	25.000	26.548	24.800
1980	22.415	22.543	26.790	22.690	21.295	NA	21.947	25.000	26.384	24.800
1981	22.308	22.474	26.794	22.585	21.085	NA	21.713	25.000	26.160	24.800
1982	22.239	22.695	26.797	22.712	21.194	NA	21.674	25.000	26.223	24.800
1983	22.052	22.775	26.798	22.691	21.133	NA	21.576	25.000	26.291	24.800
1984	22.010	22.844	26.799	22.543	21.101	NA	21.573	25.000	26.402	24.800
1985	21.870	22.646	26.798	22.020	20.959	NA	21.366	25.000	26.307	24.800
1986	21.913	22.947	26.798	22.198	21.084	NA	21.462	25.000	26.292	24.800
1987	21.922	23.404	26.799	22.381	21.136	NA	21.517	25.000	26.291	24.800
1988	21.823	23.571	26.799	22.360	20.900	NA	21.328	25.000	26.299	24.800
1989	21.765	23.650	26.800	22.347	20.848	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			Electricity Consumption
	Fossil-Fueled Steam-Electric Plants ^a	Nuclear Steam-Electric Plants	Geothermal Energy Plants ^b	
1973	10,389	10,903	21,674	3,412
1974	10,442	11,161	21,674	3,412
1975	10,406	11,013	21,611	3,412
1976	10,373	11,047	21,611	3,412
1977	10,435	10,769	21,611	3,412
1978	10,361	10,941	21,611	3,412
1979	10,353	10,879	21,545	3,412
1980	10,388	10,908	21,639	3,412
1981	10,453	11,030	21,639	3,412
1982	10,454	11,073	21,629	3,412
1983	10,520	10,905	21,290	3,412
1984	10,440	10,843	21,303	3,412
1985	10,447	10,813	21,263	3,412
1986	10,446	10,799	21,263	3,412
1987	10,419	10,776	21,263	3,412
1988	10,324	10,743	21,096	3,412
1989	10,432	10,724	21,096	3,412
1990	10,402	10,680	21,096	3,412
1991	10,436	10,740	20,997	3,412
1992	10,342	10,678	20,914	3,412
1993	10,309	10,682	20,914	3,412
1994	10,316	10,676	20,914	3,412
1995	10,312	10,658	20,914	3,412
1996	10,340	10,623	20,960	3,412
1997	10,357	10,623	20,960	3,412
1998	10,346	10,623	21,017	3,412
1999	10,346	10,623	21,017	3,412
2000 ^c	10,346	10,623	21,017	3,412
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 ₃ O ₈)	x	0.384 647 ^b	=	kilograms uranium (kgU)
	ounces, avoirdupois (avdp oz)	x	28.349 52	=	grams (g)
Volume	barrels of oil (bbl)	x	0.158 987 3	=	cubic meters (m ³)
	cubic yards (yd ³)	x	0.764 555	=	cubic meters (m ³)
	cubic feet (ft ³)	x	0.028 316 85	=	cubic meters (m ³)
	U.S. gallons (gal)	x	3.785 412	=	liters (L)
	ounces, fluid (fl oz)	x	29.573 53	=	milliliters (mL)
	cubic inches (in ³)	x	16.387 06	=	milliliters (mL)
Length	miles (mi)	x	1.609 344 ^a	=	kilometers (km)
	yards (yd)	x	0.914 4 ^a	=	meters (m)
	feet (ft)	x	0.304 8 ^a	=	meters (m)
	inches (in)	x	2.54 ^b	=	centimeters (cm)
Area	acres	x	0.404 69	=	hectares (ha)
	square miles (mi ²)	x	2.589 988	=	square kilometers (km ²)
	square yards (yd ²)	x	0.836 127 4	=	square meters (m ²)
	square feet (ft ²)	x	0.092 903 04 ^a	=	square meters (m ²)
	square inches (in ²)	x	6.451 6 ^b	=	square centimeters (cm ²)
Temperature	degrees Fahrenheit (°F)	x	5/9 (after subtracting 32) ^{a,c}	=	degrees Celsius (°C)
Energy	British thermal units (Btu)	x	1,055.055 852 62 ^{a,d}	=	joules (J)
	calories (cal)	x	4.186 8 ^a	=	joules (J)
	Kilowatthours (kWh)	x	3.6 ^a	=	megajoules (MJ)

^aExact conversion.

^bCalculated by the Energy Information Administration.

^cTo convert degrees Celsius (°C) to degrees Fahrenheit (°F) exactly, multiply by 9/5, then add 32.

^dThe Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956. Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, contact Dr. Barry Taylor at Building 221, Room B610, National Institute of Standards and Technology, Gaithersburg, MD 20899, or on telephone number 301-975-4220.

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9-11, 13, and 16. • National Institute of Standards and Technology, Special Publications 330, 811, and 814. • American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268-1992, pp. 28 and 29.

Table B2. Metric Prefixes

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
10 ¹	deka	da	10 ⁻¹	deci	d
10 ²	hecto	h	10 ⁻²	centi	c
10 ³	kilo	k	10 ⁻³	milli	m
10 ⁶	mega	M	10 ⁻⁶	micro	
10 ⁹	giga	G	10 ⁻⁹	nano	n
10 ¹²	tera	T	10 ⁻¹²	pico	p
10 ¹⁵	peta	P	10 ⁻¹⁵	femto	f
10 ¹⁸	exa	E	10 ⁻¹⁸	atto	a
10 ²¹	zetta	Z	10 ⁻²¹	zepto	z
10 ²⁴	yotta	Y	10 ⁻²⁴	yocto	y

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

Table B3. Other Physical Conversion Factors

Energy Source	Original Unit	<i>multiplied by</i>	Conversion Factor	<i>equals</i>	Final Unit
Petroleum	barrels (bbl)	x	42 ^a	=	U.S. gallons (gal)
Coal	short tons	x	2,000 ^a	=	pounds (lb)
	long tons	x	2,240 ^a	=	pounds (lb)
	metric tons (t)	x	1,000 ^a	=	kilograms (kg)
Wood	ords (cd)	x	1.25 ^b	=	shorts tons
	ords (cd)	x	128 ^a	=	cubic feet (ft ³)

^aExact conversion.

^bCalculated by the Energy Information Administration.

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

Appendix C. Carbon Dioxide Emission Factors for Coal

Table C1 presents U.S. average carbon dioxide emission factors for coal by sector. The factors measure the emissions produced during the combustion of coal and were derived by the Energy Information Administration (EIA) from 5,426 sample analyses in EIA's Coal Analysis File. The factors are ratios of the carbon

dioxide emitted to the heat content of the coal burned, assuming complete combustion. Factors vary according to the rank and geographic origin of the coal. Sectoral factors reflect the rank and origin of the coal consumed in the sector.

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

^aNo allowances have been made for carbon retained in non-energy coal chemical byproducts from the carbonization process.

^bWeighted average. The weights used are consumption values by sector.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Appendix D. List of Features

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are several categories of features on the list: “Energy Plugs” are 1-page descriptions of recently released EIA products. “Articles” cover a wide range of energy-related subjects in depth; “Highlights” summarize the most important information presented in the subject Energy

Information Administration (EIA) report; “Energy Previews” provide brief overviews of EIA preliminary energy data on a given topic; “EIA Data News” items present information on recent changes in the scope, design, methodology, and findings of EIA’s energy surveys and databases; and “Energy Snapshots” use graphics to set off key data from EIA survey reports.

Feature	Cover Date
2001	
Energy Plug: Energy Education Resources	January 2001
Energy Plug: <i>Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand</i>	February 2001
Energy Plug: <i>Performance Profiles of Major Energy Producers 1999</i>	February 2001
Energy Plug: <i>Renewable Energy 2000: Issues and Trends</i>	March 2001
Energy Plug: <i>Summer 2001 Motor Gasoline Outlook</i>	April 2001
Energy Plug: <i>International Energy Outlook 2001</i>	April 2001
Energy Plug: <i>State Energy Data Report 1999: Consumption Estimates</i>	May 2001
Energy Plug: <i>The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply</i>	May 2001
Energy Plug: Energy Market Maps	June 2001
Energy Plug: <i>Coal Industry Annual 1999</i>	July 2001
Energy Plug: <i>Annual Energy Review 2000</i>	August 2001
Energy Plug: <i>World Energy “Areas To Watch”</i>	August 2001
Energy Plug: <i>Electric Power Annual 2000, Volume I</i>	September 2001
2000	
Energy Plug: <i>Inventory of Nonutility Electric Power Plants in the United States 1998</i>	January 2000
Energy Plug: <i>The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations</i>	January 2000
Energy Plug: <i>International Energy Annual 1998</i>	February 2000
Energy Plug: <i>Performance Profiles of Major Energy Producers 1998</i>	February 2000
Energy Plug: OPEC Revenues Fact Sheet	March 2000
Energy Plug: <i>Country Analysis Brief: Iran</i>	March 2000
Energy Plug: <i>International Energy Outlook 2000</i>	April 2000
Energy Plug: <i>Outlook for Biomass Ethanol Production and Demand</i>	April 2000
Energy Plug: <i>Summer 2000 Motor Gasoline Outlook</i>	May 2000
Energy Plug: <i>State Energy Price and Expenditure Report 1997</i>	June 2000
Energy Plug: <i>Energy Consumption and Renewable Energy Development Potential on Indian Lands</i>	June 2000
Energy Plug: <i>Annual Energy Review 1999</i>	July 2000
Energy Plug: <i>A Primer on Gasoline Prices</i>	August 2000
Energy Plug: <i>Long-Term World Oil Supply: A Resource Base/Production Path Analysis</i>	August 2000
Energy Plug: <i>Propane Prices: What Consumers Should Know</i>	October 2000
Energy Plug: <i>Winter Fuels Outlook: 2000-2001</i>	October 2000
Energy Plug: <i>Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report</i>	October 2000
Energy Plug: <i>Residential Natural Gas Prices: What Consumers Should Know</i>	November 2000
Energy Plug: <i>The Changing Structure of the Electric Power Industry 2000: An Update</i>	November 2000
Energy Plug: <i>Annual Energy Outlook 2001 Early Release</i>	December 2000
Energy Plug: <i>Residential Heating Oil Prices: What Consumers Should Know</i>	December 2000
1999	
Energy Plug: <i>Performance Profiles of Major Energy Producers 1997</i>	January 1999
Energy Plug: <i>State Energy Data Report 1996</i>	February 1999
Energy Plug: <i>State Electricity Profiles</i>	March 1999

1999 (Continued)

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

1998

Energy Plug: <i>Performance Profiles of Major Energy Producers 1996</i>	January 1998
Energy Plug: <i>International Energy Annual 1996</i>	February 1998
Energy Plug: <i>Assessment of Summer 1997 Motor Gasoline Price Increase</i>	April 1998
Energy Plug: <i>Deliverability on the Interstate Natural Gas Pipeline System</i>	May 1998
Energy Plug: <i>The Changing Structure of the Electric Power Industry: Selected Issues, 1998</i>	June 1998
Energy Plug: <i>Annual Energy Review 1997</i>	July 1998
Energy Plug: <i>State Energy Price and Expenditure Report 1995</i>	August 1998
Energy Plug: <i>A View of the Forest Products Industry From a Wood Energy Perspective</i>	August 1998
Energy Plug: <i>25th Anniversary of the 1973 Oil Embargo: Energy Trends Since the First Major U.S. Energy Crisis</i>	September 1998
Energy Plug: <i>Energy Education Resources: Kindergarten Through 12th Grade</i>	September 1998
Energy Plug: <i>Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity</i>	October 1998
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1997</i>	October 1998
Energy Plug: <i>Wind Energy Developments: Incentives in Selected Countries</i>	November 1998
Energy Plug: <i>Annual Energy Outlook 1999</i>	November 1998

1997

Energy Plug: <i>Annual Energy Outlook 1997</i>	January 1997
Energy Plug: <i>The Changing Structure of the Electric Power Industry: An Update</i>	January 1997
Energy Plug: <i>Performance Profiles of Major Energy Producers 1995</i>	January 1997
Energy Plug: <i>The Effects of Title IV of the Clean Air Act Amendments of 1990 on Electric Utilities: An Update</i>	March 1997
Energy Plug: <i>International Energy Outlook 1997</i>	April 1997
Energy Plug: <i>Restructuring Energy Industries: Lessons From Natural Gas</i>	May 1997
Energy Plug: <i>An Analysis of U.S. Propane Markets: Winter 1996-97</i>	June 1997
Energy Plug: <i>State Energy Price and Expenditure Report 1994</i>	June 1997
Energy Plug: <i>Annual Energy Review 1996</i>	July 1997
Energy Plug: <i>Motor Gasoline Assessment 1997</i>	July 1997
Energy Plug: <i>Commercial Buildings Characteristics 1995</i>	July 1997
Energy Plug: <i>Household Vehicles Energy Consumption 1994</i>	August 1997
Energy Plug: <i>Electricity Prices in a Competitive Environment</i>	August 1997
Energy Plug: <i>Petroleum 1996: Issues and Trends</i>	September 1997
Energy Plug: <i>The Intricate Puzzle of Oil and Gas "Reserves Growth"</i>	September 1997
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1996</i>	October 1997
Energy Plug: <i>Electricity Reform Abroad and U.S. Investment</i>	October 1997
Energy Plug: <i>Annual Energy Outlook 1998</i>	November 1997
Energy Plug: <i>Winter Heating Fuels Assessments</i>	December 1997
Energy Plug: <i>Oil and Gas Resources of the West Siberian Basin, Russia</i>	December 1997

1996

Energy Plug: <i>Renewable Energy Annual 1995</i>	January 1996
Energy Plug: <i>State Energy Price and Expenditure Report 1993</i>	January 1996
Energy Plug: <i>Annual Energy Outlook 1996</i>	February 1996
Energy Plug: <i>Alternatives to Traditional Transportation Fuels 1994, Volume 1</i>	February 1996
Energy Snapshot: <i>Describing Current and Potential Markets for Alternative-Fuel Vehicles</i>	March 1996
Article: <i>Energy Equipment Choices: Fuel Costs and Other Determinants</i>	April 1996
Energy Plug: <i>International Energy Outlook 1996</i>	May 1996
Energy Plug: <i>U.S. Electric Utility Demand-Side Management: Trends and Analysis</i>	May 1996
Energy Plug: <i>Country Analysis Brief: Iraq</i>	June 1996
Energy Plug: <i>Annual Energy Review 1995</i>	July 1996
Energy Plug: <i>Voluntary Reporting of Greenhouse Gases 1995</i>	July 1996
Energy Plug: <i>Residential Lighting: Use and Potential Savings</i>	August 1996
Energy Plug: <i>EIA Electronic Media Meet Customer Needs</i>	August 1996
Energy Plug: <i>Alternatives to Traditional Transportation Fuels, Volume 2: Greenhouse Gas Emissions</i>	September 1996

1996 (Continued)

Energy Plug: <i>State Energy Data Report 1994</i>	October 1996
Energy Plug: <i>Privatization and the Globalization of Energy Markets</i>	October 1996
Energy Plug: <i>Emissions of Greenhouse Gases in the United States 1995</i>	October 1996
Energy Plug: <i>Nuclear Power Generation and Fuel Cycle Report 1996</i>	November 1996
Energy Plug: Country Analysis Brief: Algeria	November 1996
Energy Plug: <i>Denver Clean-City Fleets Survey</i>	November 1996
Energy Plug: <i>Natural Gas 1996: Issues and Trends</i>	December 1996

1995

Highlights: <i>Manufacturing Consumption of Energy 1991</i>	January 1995
Article: U.S. Wind Energy Potential: The Effect of the Proximity of Wind Resources to Transmission Lines	February 1995
EIA Data News: The Response Analysis Survey: Evaluating Manufacturing Energy Consumption Survey Methodology	March 1995
Energy Preview: Electric Utility Fleet Survey 1993, Preliminary Estimates: Assessing the Market for Alternative-Fuel Vehicles	April 1995
Highlights: <i>Commercial Buildings Energy Consumption and Expenditures 1992</i>	April 1995
Article: Measuring Dependence on Imported Oil	August 1995
Energy Preview: Household Energy Consumption and Expenditures 1993, Preliminary Estimates	August 1995
Energy Snapshot: Housing Characteristics 1993	September 1995
Highlights: <i>State Energy Data Report 1993, Consumption Estimates</i>	October 1995
Special Communication: Results of the <i>Monthly Energy Review</i> Features Readership Survey	November 1995
Highlights: <i>Annual Energy Review 1994</i>	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	November 1995
Article: Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	December 1995

1994

Energy Preview: Commercial Buildings Energy Consumption Survey, Preliminary Estimates, 1992	January 1994
Highlights: <i>Household Vehicles Energy Consumption 1991</i>	February 1994
Highlights: <i>Energy Use and Carbon Emissions: Some International Comparisons</i>	April 1994
Highlights: <i>Commercial Buildings Characteristics 1992</i>	June 1994
Article: Demand, Supply, and Price Outlook for Reformulated Motor Gasoline 1995	July 1994
Article: Commercial Nuclear Electric Power in the United States: Problems and Prospects	August 1994
Article: The Impact of Flow Control and Tax Reform on Ownership and Growth in the U.S.	August 1994
Highlights: <i>Reducing Home Heating and Cooling Costs</i>	September 1994
Energy Preview: Commercial Buildings Energy Consumption and Expenditures 1992, Preliminary Estimates	September 1994
Article: Carbon Dioxide Emission Factors for Coal: A Summary Waste-to-Energy Industry	September 1994
EIA Data News: Data Collection on Alternative-Fuel Vehicles	October 1994
Highlights: <i>Energy End-Use Intensities in Commercial Buildings</i>	October 1994
Article: Change in Method for Estimating Fuel Economy for the Residential Transportation Energy Consumption Survey	October 1994
Article: Comparability of Supply- and Consumption-Derived Estimates of Manufacturing Energy Consumption	October 1994
Energy Preview: Housing Characteristics 1993, Selected Preliminary Estimates	November 1994
Energy Preview: Propane-Provider Fleet Survey 1993, Preliminary Estimates	November 1994
Energy Preview: Atlanta Private Fleet Survey 1994, Preliminary Estimates	December 1994

1993

Energy Preview: Residential Transportation Energy Consumption Survey, Preliminary Estimates, 1991	January 1993
EIA Data News: Natural Gas Transported for the Account of Others	February 1993
Highlights: <i>Federal Energy Subsidies: Direct and Indirect Interventions in Energy Markets</i>	July 1993
Highlights: <i>Household Energy Consumption and Expenditures 1990</i>	August 1993
Article: Demand, Supply, and Price Outlook for Low-Sulfur Diesel Fuel	August 1993
Energy Preview: Manufacturing Energy Consumption Survey, Preliminary Estimates, 1991	September 1993
Highlights: <i>Natural Gas 1992: Issues and Trends</i>	September 1993
Highlights: <i>International Energy Outlook 1993</i>	October 1993
Highlights: <i>The Changing Structure of the U.S. Coal Industry: An Update</i>	November 1993
Highlights: <i>Emissions of Greenhouse Gases in the United States 1985-1990</i>	December 1993
Highlights: <i>Assessment of Energy Use in Multibuilding Facilities</i>	December 1993

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Energy Preview: Residential Energy Consumption and Expenditures Preliminary Estimates, 1990	April 1992
EIA Data News: Oxygenate Data Collection Begins	May 1992
Highlights: <i>Lighting in Commercial Buildings</i>	June 1992
Article: Demand, Supply, and Price Outlook for Oxygenated Gasoline, Winter 1992-1993	August 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management	September 1992
EIA Data News: EIA Statistics on Nonutility Power Producers	October 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management	November 1992
Article: Energy Efficiency in the Manufacturing Sector	December 1992

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Highlights: *U.S. Energy Industry Financial Developments, 1990 Fourth Quarter* March 1991
Article: U.S. Wholesale Electricity Transactions April 1991

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Article: Refining Results Highlight Energy Companies' First-Half Profit Performance June 1990
Highlights: *U.S. Oil and Gas Reserves by Year of Field Discovery* August 1990

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Article: A Review of Valdez Oil Spill Market Impacts March 1989
Article: Monthly U.S. Crude Oil Production Estimates March 1989
Article: Superconductivity and Energy Production and Consumption May 1989
Highlights: *Commercial Buildings Consumption and Expenditures 1986* May 1989
Article: Higher Prices Yield Improved Energy Industry Financial Results
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Article: The Future Structure of the U.S. Commercial Nuclear Power Equipment
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Highlights: *Potential Costs of Restricting Chlorofluorocarbon Use* September 1989
Highlights: *Manufacturing Energy Consumption Survey: Changes in Energy Efficiency, 1980-1985* October 1989
Highlights: *Household Energy Consumption and Expenditures 1987, Part 1: National Data* November 1989
Article: Improved Energy Profits Offset by Refining Results in 1989 December 1989

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Article: Measures of Energy Consumption, Expenditures, and Prices May 1988
Article: The U.S. Energy Industry's Financial Recovery Continued in the First Half of 1988 June 1988
Article: A U.S. Perspective on Condensate June 1988
Highlights: *Characteristics of Commercial Buildings 1986* June 1988
Article: State Energy Severance Taxes, 1972-1987 July 1988
Highlights: *Manufacturing Energy Consumption Survey: Consumption of Energy, 1985* September 1988
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1987* October 1988
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

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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
Highlights: *Uranium Industry Annual 1986* September 1987
Highlights: *Potential Oil Production from ANWR* October 1987
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1986* November 1987
Article: The U.S. Energy Industry in 1987: A Slow Recovery December 1987

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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

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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
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1984* November 1985
Highlights: *Performance Profiles of Major Energy Producers 1984* December 1985

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Highlights: *Annual Energy Review 1983* February 1984
Highlights: *Annual Energy Outlook 1983* March 1984
Highlights: *State Energy Data Report, Consumption Estimates, 1960-1982* March 1984
Highlights: *State Energy Price and Expenditure Report, 1970-1981* May 1984
Highlights: *Solar Collector Manufacturing Activity 1983* June 1984

1984 (Continued)

Highlights: <i>International Energy Annual 1983</i>	September 1984
Highlights: <i>Estimates of U.S. Wood Energy Consumption, 1980-1983</i>	September 1984
Highlights: <i>Energy Conservation Indicators 1983 Annual Report</i>	November 1984
Highlights: <i>Annual Energy Outlook 1984</i>	December 1984

1983

Highlights: <i>Residential Energy Consumption Survey: Consumption and Expenditures</i>	January 1983
Highlights: <i>Residential Energy Consumption Survey: Housing Characteristics</i>	February 1983
Article: The Effect of Weather on Energy Use	April 1983
Article: Trends in U.S. Energy Since 1973	May 1983
Article: Data Series on Petroleum Use at Electric Utilities	July 1983
Highlights: <i>Energy Price and Expenditure Data Report, 1970-1980</i>	July 1983
Highlights: <i>Railroad Deregulation: Impact on Coal</i>	August 1983
Highlights: <i>Port Deepening and User Fees: Impact on U.S. Coal Exports</i>	August 1983
Highlights: <i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report</i>	September 1983
Article: Residential Energy Consumption, 1978 Through 1981	September 1983
Article: Exploring for Oil and Gas	November 1983
Article: The Influence of Federal Actions on Petroleum Exploration	December 1983[2]
Article: Aggregate Statistics: Accurate or Misleading?	December 1983[3]

1982

Article: The Interstate and Intrastate Natural Gas Markets	January 1982
Article: Natural Gas Drilling and Production Under the Natural Gas Policy Act	February 1982
Highlights: <i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report</i>	September 1982
Article: Impacts of Financial Constraints on the Electric Utility Industry	October 1982
Highlights: <i>Energy Company Development Patterns in the Postembargo Era</i>	November 1982

1981

Article: Changes in 1981 Petroleum Data Series	May 1981
Article: Information Services of the Energy Information Administration	September 1981
Article: An Overview of Natural Gas Markets	December 1981

1980

Article: The Solar Collector Industry and Solar Energy	February 1980
Article: Trends in the Installation of Energy Using Equipment in New Residential Buildings	March 1980
Article: The Energy Information Administration's Oil and Gas Reserves Program—The First Year's Report	June 1980
Article: Energy From Urban Waste	August 1980
Article: Natural Gas Liquids: Revisions to 1979 Data	October 1980
Article: EIA Weekly Petroleum Data: Data Collection and Methods of Estimation	November 1980
Article: The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration	December 1980

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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
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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.

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	^{RE} 225	^E 219	^E 48	11	^E 25	^E 6	^E 8	541
June	^{RE} 233	^E 214	^E 47	12	^E 25	^E 6	7	^R 544
July	^E 204	^E 224	^E 48	11	^E 27	^E 6	7	528
7-Month Total	^E 1,503	^E 1,508	^E 324	84	^E 184	^E 40	45	3,688
2000 7-Month Total	^E 2,033	^E 1,511	^E 315	75	^E 179	^E 41	31	4,185
1999 7-Month Total	^E 2,213	^E 1,487	^E 336	65	^E 181	^E 42	30	4,352

^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.

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. Sources: Tables E2, E3a, and E3b.

Table E2. Renewable Energy Consumption by End-Use Sector
(Trillion Btu)

	Residential				Commercial			Industrial ^a				Trans- portation	End-Use Total
	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	
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	899	NA	NA	899	24	NA	24	1,645	230	NA	1,875	52	2,850
1986 Total	876	NA	NA	876	27	NA	27	1,610	256	NA	1,866	60	2,829
1987 Total	852	NA	NA	852	29	NA	29	1,576	282	NA	1,858	69	2,808
1988 Total	885	NA	NA	885	32	NA	32	1,625	308	NA	1,933	70	2,920
1989 Total	918	5	53	976	34	3	E 37	1,394	250	2	1,646	71	2,729
1990 Total	581	6	56	642	37	3	E 40	1,254	271	2	1,527	63	2,272
1991 Total	613	6	58	677	39	3	E 42	1,190	275	2	1,467	73	2,259
1992 Total	645	6	60	711	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	A 414	8	64	A 486	51	7	58	1,711	291	4	1,907	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
7-Month Total	A 252	A 5	A 36	A 292	A 30	A 4	A 35	A 988	A 166	A 3	A 1,157	84	1,568
2000 7-Month Total	A 252	A 5	A 36	A 293	A 30	A 4	A 35	A 990	A 167	A 3	A 1,160	75	1,562
1999 7-Month Total	A 240	A 5	A 37	A 282	A 30	A 4	A 34	A 994	A 169	A 2	A 1,166	65	1,546

^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
7-Month Total	1,243	4	9	2	(s)	(s)	1,259
2000 7-Month Total	1,708	4	9	2	(s)	(s)	1,723
1999 7-Month Total	2,009	4	8	34	(s)	(s)	2,056

^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											Electric Power Sector Total
	Nonutility Power Producers ^a						Electricity Trade ^b				Total Net Imports	
	Hydro-power ^c	Wood ^d	Waste ^e	Geo-thermal ^f	Solar ^g	Wind ^h	Total	Hydropower ^c		Geo-thermal Imports		
							Imports	Exports				
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	23	(i)	64	3,291
1976 Total	33	NA	NA	NA	NA	NA	33	114	55	(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	i14	i8	i(s)	E 6	392
February	17	28	E 21	13	(s)	2	E 83	i13	i7	i(s)	E 6	377
March	18	31	E 22	15	(s)	3	E 89	i16	i10	i(s)	E 7	417
April	19	30	E 23	13	(s)	4	E 90	i25	i7	i(s)	E 18	384
May	17	30	E 23	23	1	6	E 101	i25	i6	i(s)	E 18	403
June	13	30	E 23	27	1	6	E 100	i23	i5	i(s)	E 18	417
July	13	34	E 23	29	1	6	E 107	i23	i5	i(s)	E 19	416
August	12	33	E 23	30	1	5	E 105	i23	i3	i(s)	E 20	377
September	13	39	E 22	29	1	4	E 107	i30	i3	i(s)	E 27	339
October	14	32	E 20	30	1	3	E 100	i30	i7	i(s)	E 23	319
November	13	30	E 22	28	(s)	2	E 95	i30	i5	i(s)	E 25	327
December	37	30	E 23	28	(s)	3	E 121	i27	i7	i(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	i25	i3	0	E 22	371
February	19	33	E 19	22	(s)	4	E 98	i27	i3	0	E 24	338
March	23	34	E 20	22	1	4	E 105	i25	i4	0	E 20	381
April	25	33	E 20	23	1	5	E 106	i25	i5	0	E 20	399
May	24	31	E 20	24	1	5	E 105	i29	i6	0	E 24	391
June	23	33	E 20	24	1	4	E 104	i31	i6	0	E 25	370
July	22	36	E 21	25	1	4	E 109	i35	i3	0	E 32	372
August	23	34	E 21	26	1	4	E 108	i37	i4	0	E 33	353
September	22	33	E 20	25	1	4	E 105	i29	i4	0	E 25	301
October	20	34	E 20	26	1	5	E 105	i17	i4	0	E 13	284
November	19	33	E 20	26	1	4	E 103	i23	i4	0	E 19	306
December	21	33	E 20	27	(s)	4	E 105	i22	i12	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	i22	i7	0	E 15	297
February	18	30	E 21	24	E (s)	5	E 99	i21	i11	0	E 9	276
March	21	34	E 20	25	E (s)	6	E 106	i24	i8	0	E 16	317
April	25	31	E 23	23	E 1	7	E 109	i25	i7	0	E 19	295
May	23	32	E 22	23	E 1	8	E 109	i29	i7	0	E 23	313
June	21	33	E 22	23	E 1	7	E 107	i25	i6	0	E 19	322
July	15	38	E 22	25	E 1	7	E 108	i25	i6	0	E 19	299
7-Month Total	140	233	E 148	170	E 5	44	E 740	E 171	E 51	0	E 121	2,119
2000 7-Month Total	159	234	E 140	165	5	30	E 734	E 196	E 31	0	E 166	2,623
1999 7-Month Total	112	218	E 158	135	5	29	E 658	E 140	E 48	E (s)	E 92	2,806

^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 1.

1985 and 1986—Values interpolated.

1987—EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.

1988—Value interpolated.

1989—EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1990-1993—EIA, *Renewable Energy Annual 1995*, Table 6.

1994-1997—EIA, *Renewable Energy Annual 1999*, Table 6.

1998 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. Bitumi-

nous coal is the most abundant coal in active U.S. mining regions. It is used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1° F at or near 39.2° F. See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Bunker Oil: Fuels supplied to ships and aircraft in international transportation, irrespective of the flag of the carrier, consisting primarily of residual, distillate, and jet fuel oils.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C₄H₈) recovered from refinery processes.

Capacity Factor: The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

Chained Dollars: A measure used to express real prices. Real prices are those that have been adjusted to remove the effect of changes in the purchasing power of the dollar; they usually reflect buying power relative to a reference year. Prior to 1996, real prices were expressed in constant dollars, a measure based on the weights of goods and services in a single year, usually a recent year. In 1996, the U.S. Department of Commerce introduced the chained-dollar measure. The new measure is based on the average weights of goods and services in successive pairs of years. It is "chained" because the second year in each pair, with its weights,

becomes the first year of the next pair. The advantage of using the chained-dollar measure is that it is more closely related to any given period and is therefore subject to less distortion over time.

CIF: See **Cost, Insurance, Freight**.

City Gate: A point or measuring station at which a distribution gas utility receives gas from a natural gas pipeline company or transmission system.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Coal Coke: See **Coke, Coal**.

Coal Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the U.S. classification, the ranks include lignite, subbituminous coal, bituminous coal, and anthracite, and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of the period.

Cogenerator: A generating facility that produces electricity and another form of useful energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes. See **Nonutility Power Producers**.

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

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

Completion: The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

Constant Dollars: See **Chained Dollars**.

Conventional Gasoline: Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. Note: This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

Conventional Hydroelectric Power: Hydroelectric power that is not generated by **pumped storage**.

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors can be used to translate physical units of measure for various fuels into Btu equivalents. See **British Thermal Unit**.

Cost, Insurance, Freight (CIF): A 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 kilowatt-hours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy-Use Sectors: A group of major energy-consuming components of U.S. society developed to measure and analyze energy use. The sectors most commonly referred to in EIA are: **residential, commercial, industrial, transportation, and electric power**.

Ethane: A normally gaseous straight-chain hydrocarbon (C₂H₆). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol: See **Fuel Ethanol**.

Ethylene: An olefinic hydrocarbon (C₂H₄) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an 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 (C₂H₅OH) intended for motor gasoline blending. See **Oxygenates**.

Full-Power Operation: Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

Gasohol: A blend of finished motor gasoline containing 10 percent or less alcohol (generally ethanol but sometimes methanol). See **Motor Gasoline, Oxygenated**.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the earth's crust 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 (CH₄) that is the principal constituent of natural gas. It is also an important source of hydrogen in various industrial processes.

Methyl Tertiary Butyl Ether (MTBE): An ether, (CH₃)₃COCH₃, intended for motor gasoline blending. See **Oxygenates**.

Methanol: A light, volatile alcohol (CH₃OH) eligible for motor gasoline blending. See **Oxygenates**.

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline Blending: Mechanical mixing of motor gasoline blending components and oxygenates as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

Motor Gasoline Blending Components: Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. Note: oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. "Motor gasoline" includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: 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 (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C₃H₆) recovered from refinery or petrochemical processes.

Pumped Storage: See **Hydroelectric Pumped Storage.**

Refiner Acquisition Cost of Crude Oil: The cost of crude oil to the refiner, including transportation and fees. The composite cost is the weighted average of domestic and imported crude oil costs.

Refinery (Petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Renewable Energy: Energy obtained from sources that are essentially inexhaustible (unlike, for example, the fossil fuels, of which there is a finite supply). 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 acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

Watt (W): The unit of electrical power equal to 1 ampere under a pressure of 1 volt. A watt is equal to 1/746 horsepower.

Watt-hour (Wh): The electrical energy unit of measure equal to 1 watt of power supplied to, or taken from, an electric circuit steadily for 1 hour.

Waxes: Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.


Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (e.g., blades rotating from a hub) that drive generators to produce electricity.

Withdrawals (Natural Gas): Total volume of gas withdrawn during the applicable reporting period.

Wood Energy: Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, black liquor, red liquor, spent sulfite liquor, 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.

Petroleum



Publications

...from the Energy Information Administration
(www.eia.doe.gov/bookshelf.html; click on Petroleum)

Analysis

Oil Market Basics

A comprehensive and interactive online resource that explains the fundamentals of petroleum supply, demand, trade, refining, stocks, and prices. Includes more than 400 links to EIA data and other information available via the Internet.

A Primer on Gasoline Prices

A readable brochure that explains the components of gasoline prices and why prices vary from region to region and over time.

Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand

Assesses the relationship between interruptible gas service contracts and heating oil demand in the Northeast during the winter of 1999-2000.

Residential Heating Oil Prices: What Consumers Should Know

A brochure explaining what consumers pay for in a gallon of heating oil and the factors that cause heating oil prices to fluctuate.

Weekly

Crude Oil-, Distillate-, Motor Gasoline-, and Propane Watches

Crude oil stocks and prices. Distillate and motor gasoline production, stocks, and price updates. Propane stocks and price updates (weekly October-March; monthly April-September).

Weekly Petroleum Status Report

Current supply situation versus background of historical trends, prices, and forecasts.

Monthly

Petroleum Marketing Monthly

Crude oil and product price and volume statistics at national, regional, and State levels.

Petroleum Supply Monthly

Crude oil and product supply and disposition statistics at national and regional levels.

Prime Supplier Report

Primary product deliveries into States for consumption.

Annual

Petroleum Marketing Annual

Annual and monthly crude oil and product price and volume statistics at national, regional, and State levels.

Petroleum Supply Annual

Final petroleum supply statistics for the last complete calendar year, including respondent-level refinery capacity data.

Fuel Oil and Kerosene Sales

Distillate fuel, kerosene, and residual fuel sales volumes at State and regional levels.

These reports and many other energy-related resources are all available on the EIA website at www.eia.doe.gov. Many are available in hard copy as well. For more information, contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov.

Energy Forecast Resources



...from the Energy Information Administration

The items below are available on EIA's website at www.eia.doe.gov; click on Forecasts and then Publications. For more information on these and other EIA products, contact the National Energy Information Center (NEIC) at infoctr@eia.doe.gov or 202-586-8800.

Annual Energy Outlook

Midterm forecasts of energy supply, demand, and prices through 2020, based on EIA's National Energy Modeling System (NEMS).

National Energy Modeling System: An Overview

Description of the modeling system used to generate the *Annual Energy Outlook* forecasts.

Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity

Analysis of the impacts of the Kyoto Protocol proposals to reduce greenhouse gas emissions; focuses on the period from 2008 through 2012 but includes some projections through 2020.

Inventory of Electric Utility Power Plants in the United States 1999

Inventory of Nonutility Electric Power Plants in the United States 1999

Annual statistics on electric utility and nonutility generating units in the 50 States and the District of Columbia; each includes a 5-year outlook for generating unit additions and changes.

Analysis of Strategies for Reducing Multiple Emissions From Electric Power Plants With Advanced Technology Scenarios

Describes the impacts of technology improvements and other market-based opportunities on the costs of emissions reductions from electricity generators.

Modeling and Analysis Papers

A series of papers covering topics in analysis and modeling that underlie the *Annual Energy Outlook* as well as other significant issues in midterm energy markets.

Short-Term Energy Outlook

U.S. energy and international oil forecasts for the coming 12 to 24 months. Updated monthly. The model is available to external users with PCs running Windows interfaces.

International Energy Outlook 2001

Projections of international energy supply, demand, and prices through 2020.

Power Plant Emissions Reductions Using a Generation Performance Standard

Comparison of two cap-and-trade emissions allowance schemes as applied to the electric power sector; projects impacts on electricity production by fuel type; total electricity sales; prices of carbon dioxide allowances, electricity, and natural gas through 2020.