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September 1984

First Three Quarters 1984 Summary
See Executive Summary



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Monthly Energy Review

The *Monthly Energy Review* presents current data on production, consumption, stocks, imports, exports, and prices of the principal energy commodities in the United States. Also included are data on international production of crude oil, consumption of petroleum products, petroleum stocks, and production of electricity from nuclear-powered facilities.

Publication of this report is in keeping with responsibilities given the Energy Information Administration in Public Law 95-91 (Section 205(a)(2)) that states:

"The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze and disseminate data and information"

The *Monthly Energy Review* is intended to provide timely energy information to Members of Congress, to Federal and State agencies, and to the general public.

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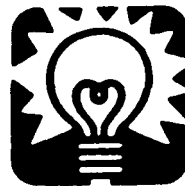
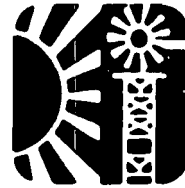
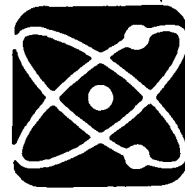
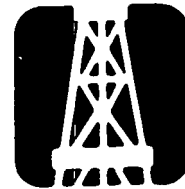
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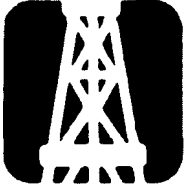
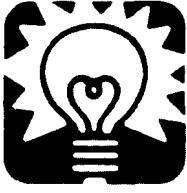
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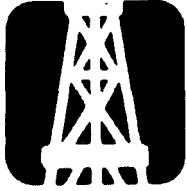
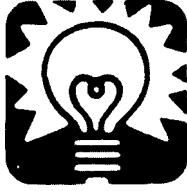
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Articles

Feature articles on energy-related subjects and highlights from recently published Energy Information Administration reports are often included in this publication. The following articles and highlights have appeared in issues since the beginning of 1981. A list of articles included in this report prior to 1981 may be found in any issue published from 1981 through 1983.

Changes in 1981 Petroleum Data Series	May	1981
Information Services of the Energy Information Administration	September	1981
An Overview of Natural Gas Markets	December	1981
The Interstate and Intrastate Natural Gas Markets.....	January	1982
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
Impacts of Financial Constraints on the Electric Utility Industry.....	October	1982
Highlights: <i>Energy Company Development Patterns in the Postembargo Era, Volume One</i>	November	1982
Highlights: <i>Residential Energy Consumption Survey: Consumption and Expenditures</i>	January	1983
Highlights: <i>Residential Energy Consumption Survey: Housing Characteristics</i>	February	1983
The Effect of Weather on Energy Use	April	1983
Trends in U.S. Energy Since 1973.....	May	1983
Highlights: <i>Energy Price and Expenditure Data Report, 1970-1980</i>	July	1983
Data Series on Petroleum Use at Electric Utilities	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
Residential Energy Consumption, 1978 Through 1981	September	1983
Exploring for Oil and Gas.....	November	1983
The Influence of Federal Actions on Petroleum Exploration	December[2]	1983
Aggregate Statistics: Accurate or Misleading?	December[3]	1983
Highlights: <i>Annual Energy Review 1983</i>	February	1984
Highlights: <i>State Energy Data Report, Consumption Estimates, 1960-1982</i>	March	1984
Highlights: <i>Annual Energy Outlook 1983</i>	March	1984
Highlights: <i>State Energy Price and Expenditure Report, 1970-1981</i>	May	1984
Highlights: <i>Solar Collector Manufacturing Activity 1983</i>	June	1984

Highlights:

Estimates of U.S. Wood Energy Consumption, 1980-1983

Introduction. Increases in energy prices during the past decade have contributed to a resurgence in the use of wood as a fuel. Although wood had been a common source of energy in the United States prior to 1900, its use as a fuel subsequently declined as oil, natural gas, coal, and electricity became available at low prices. By 1983, after several years of increases in the use of wood energy,¹ wood accounted for 3.6 percent of the total primary² energy consumed in the United States (Figure 1). This percentage represents a much smaller share of U.S. energy consumption than the shares of oil, natural gas, and coal, but it is comparable to both hydroelectric and nuclear power shares.

Despite wood's growing role in the U.S. energy supply, no single comprehensive national survey to measure wood energy consumption in all sectors has yet been conducted. The Energy Information Admin-

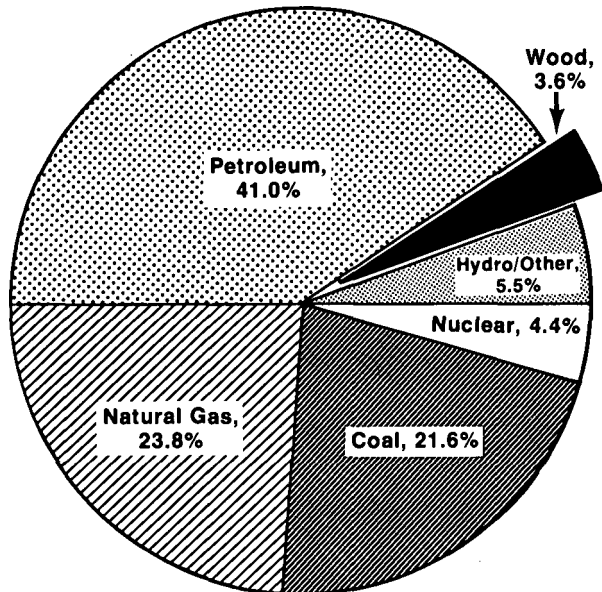
istration (EIA) published the first comprehensive estimates of wood energy consumption in 1982.³ *Estimates of U.S. Wood Energy Consumption, 1980-1983* updates the earlier report and presents wood energy consumption estimates by region and sector.

Regional data. Total wood energy consumption in 1983 was estimated at 2.6 quadrillion Btu. Regional data (Table 1) show that the South consumed 1.5 quadrillion Btu (58 percent of the total), due primarily to the concentration of industrial wood energy consumption in that region. The remainder of wood energy consumption was divided almost evenly among the other three Census regions. Each region's share of U.S. consumption remained relatively stable during the 1980-1983 period covered in the report.

The industrial sector. The industrial sector relied on wood for nearly 8 percent of its total end-use energy⁴ consumption in 1983 (Figure 2). The 1.7 quadrillion Btu consumed in the industrial sector equaled almost two-thirds of total wood energy consumed in the United States in 1983 (Table 2). The industrial sector's share of U.S. wood energy remained relatively stable during 1980-1983. Throughout the 4-year period, the Paper and Allied Products industry⁵ and the Lumber and Wood Products industry⁶ dominated industrial sector wood energy consumption. The remaining industries accounted for only about 3 percent of the wood energy consumed by the industrial sector.

¹Wood energy refers to all uses of wood and wood products as fuel.
²Primary energy includes all sources of energy except electricity; energy consumed at electric utilities to generate electricity is included in primary energy.

Figure 1. U.S. End-Use Energy Consumption by Sector and Source, 1983



Note: In *Estimates of U.S. Wood Energy Consumption, 1980-1983*, wood data was added to the primary energy total given in *Annual Energy Outlook 1983*, DOE/EIA-0383(83) (Washington, D.C., May 1984).

³EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, DOE/EIA-0341 (Washington, D.C., August 1982).
⁴End-use energy includes primary fuels and electricity.
⁵Standard Industrial Classification (SIC) 26, as defined by the U.S. Department of Commerce.
⁶SIC 24.

Table 1. U.S. Wood Energy Consumption by Region, 1980-1983 (Trillion Btu)

Year	Region				Total
	South	West	North-east	North Central	
1980	1,380	388	386	329	2,483
1981	1,349	416	395	335	2,495
1982	1,392	385	358	343	2,478
1983	1,526	411	380	323	2,640

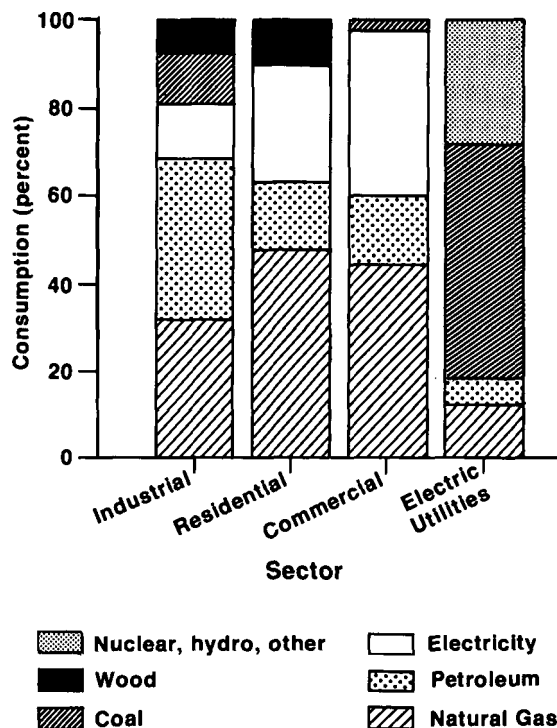
Note: Totals may not equal sum of components due to independent rounding.

The residential sector. The residential sector consumed about one-third of total wood energy used each year in the United States from 1980 to 1983. In 1983, residential consumption of wood energy was 0.9 quadrillion Btu, an amount equal to almost 10 percent of total end-use energy consumption in that sector. Both weather patterns and demographics are correlated with residential use of wood as fuel. The number of heating degree-days⁷ influences the amount of wood burned during a heating season and the type of residential area (urban or rural) affects both the number of households burning wood and the amount of wood consumed by each household.

Other sectors. Commercial sector consumption accounted for 22 trillion Btu, less than 1 percent of total U.S. wood energy consumption in 1983. The commercial sector's share of the total in 1983 was about the same as it had been during the previous 3 years. The electric utilities accounted for an even smaller share—3 trillion Btu, about 0.1 percent of total wood consumption. In 1983, only nine electricity generating plants that burned wood were identified.

⁷Heating degree-days are defined as the number of degrees per day by which the daily average temperature in a given time period is below 65°F.

Figure 2. U.S. Primary Energy Consumption by Source, 1983 (Percent of Total)



Note: In *Estimates of U.S. Wood Energy Consumption, 1980-1983*, wood data was added to the primary energy total given in *Annual Energy Outlook 1983*, DOE/EIA-0383(83) (Washington, D.C., May 1984).

Limitations of the data. Wood energy consumption estimates were obtained from various sources. The most reliable data are the electric utility data from EIA's *Monthly Power Plant Report*. Those data are the only wood energy data routinely included in EIA energy summaries such as those in the *Monthly Energy Review*. EIA's "Residential Energy Consumption Survey" (RECS), which supplies residential sector data, was the second most reliable source; however, because RECS data are reported on a heating-season-to-heating-season basis, it was necessary to convert the data to a calendar-year basis by making adjustments based on the number of degree-days.

The least reliable data are the commercial sector data, taken from EIA's "Nonresidential Building Energy Consumption Survey." Those data are based on consumption figures with little or no statistical analysis; however, since commercial consumption of wood energy is estimated to account for less than 1 percent of U.S. total wood energy consumption, the influence of commercial data is relatively minor. Finally, industrial sector data are based on data collected by industry trade associations, and the statistical quality of those data is unknown. Readers should regard all wood energy consumption data as rough estimates, with a statistical basis insufficient to provide definitive indications of year-to-year consumption trends.

The report. *Estimates of U.S. Wood Energy Consumption, 1980-1983*, DOE/EIA-0341(83), was published by EIA in November 1984. The 61-page report contains an executive summary and chapters on each economic sector that present information on sector characteristics, data and analysis of wood energy consumption, and a description of the methodology used. An appendix summarizes U.S. wood energy consumption estimates from 1949 to 1981. The report is available for \$3.00 from the National Energy Information Center, (202) 252-8800, and from the Superintendent of Documents, Government Printing Office (stock number 061-003-00409-1).

Table 2. U.S. Wood Energy Consumption by Sector, 1980-1983 (Trillion Btu)

Year	Sector				Total
	Industrial	Residential	Commercial	Electric Utilities*	
1980	1,600	859	21	4	2,483
1981	1,602	869	21	3	2,495
1982	1,516	937	22	2	2,478
1983	1,690	925	22	3	2,640

*Estimates of wood consumption at electric utilities may not agree with other EIA sources due to differences in survey methods and processing.
Note: Totals may not equal sum of components due to independent rounding.

Highlights:

International Energy Annual 1983

In 1983, world energy production¹ totaled 280 quadrillion British thermal units (Btu), slightly lower than the 1982 total but up 14 percent² from the 1973 level (Table 1). The five largest producers of energy—in order, the United States, the U.S.S.R., China, Saudi Arabia, and Canada—accounted for 58 percent of the world's production, compared to 57 percent of 1973 world production. Several smaller producers registered significant production increases from 1973 to 1983: Mexico, Norway, the United Kingdom, South Africa, and Australia. Countries reporting sizable decreases in energy production from 1973 to 1983 included Iran, Kuwait, and Venezuela. Of the principal energy sources, petroleum³ accounted for the largest share of world energy in 1983—117 quadrillion Btu (Figure 1). Coal accounted for 79 quadrillion Btu, followed by natural gas, 53 quadrillion Btu; hydroelectric power, 20 quadrillion Btu; and nuclear power, 10 quadrillion Btu.

These and other data are presented in the Energy Information Administration's (EIA) *International Energy Annual 1983*. The report includes annual data by country and by region on energy production and petroleum prices for the 1973–1983 period. Consumption and trade data are presented for 1982. In

the first section of the report, world energy production data are expressed in Btu, which allows for comparisons among energy sources.

Petroleum. Petroleum, the principal component of the world's energy supply, accounted for 117 quadrillion Btu in 1983. This total was well below the peak production level of 137 quadrillion Btu reached in 1979 and 5 quadrillion Btu below the 1973 level. In 1983, petroleum accounted for 42 percent of world energy production, compared to 50 percent in 1973.

By region, petroleum production in Western Europe increased the most from 1973 to 1983, for an average annual growth rate of 22 percent. The regions in which members of the Organization of Petroleum Exporting Countries (OPEC) are found—the Middle East, Africa, and Central and South America—all showed declines in production each year after 1979 and all reported lower production levels in 1983 than in 1973.

Lower production levels were coupled with a weak market for crude oil and, in recent years, falling crude oil prices. The January 1984 official selling prices for most crude oils were significantly lower than prices 1 year earlier. For example, the price of Saudi Arabian light at 34° API gravity was 15 percent below its 1982–1983 high of \$34.00 per barrel. Per gallon premium motor gasoline prices for January 1984 ranged from \$0.23 in Ras Tanura, Saudi Arabia, to

¹World energy production includes only crude oil, lease condensate, natural gas plant liquids, dry natural gas, coal, net hydroelectric power, and net nuclear power.

²Percentage values are calculated using unrounded data.

³Includes crude oil and natural gas plant liquids.

**Table 1. World Energy Production by Region, 1973–1983
(Quadrillion Btu)**

Region	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 ^a
North America	73.3	72.3	71.1	71.3	72.4	74.0	78.2	80.6	81.0	81.6	79.3
Central and South America	12.9	12.1	10.6	10.8	11.0	11.4	12.4	12.1	12.1	11.9	11.9
Western Europe	19.6	20.0	21.4	22.3	23.9	24.8	27.4	28.7	30.0	30.6	32.0
Eastern Europe and U.S.S.R.	51.4	54.2	56.5	59.5	62.2	64.6	66.8	68.7	68.9	71.7	73.1
Middle East	46.6	48.3	43.6	49.2	50.0	47.2	48.4	41.7	36.0	29.1	27.0
Africa	14.8	13.9	13.2	15.4	16.4	16.5	18.1	17.5	14.9	15.1	15.7
Far East and Oceania	26.2	28.0	29.7	31.9	33.3	35.9	37.6	38.3	39.2	40.2	41.2
World Total	244.8	248.8	246.0	260.4	269.1	274.4	288.8	287.6	281.8	280.2	280.1

^aPreliminary.

Notes: • Production includes only crude oil, lease condensate, natural gas plant liquids, dry natural gas, coal, net hydroelectric power, and net nuclear power. • Totals may not equal sum of components due to independent rounding.

\$4.02 in Asuncion, Paraguay. Prices in the United States, Canada (Ottawa), and Mexico (Mexico City) were \$1.37, \$1.44, and \$0.94, respectively.

Natural Gas. Natural gas production⁴ increased from 43 quadrillion Btu in 1973 to 53 quadrillion Btu in 1983, for an average annual growth rate of 2.2 percent. Natural gas accounted for 19 percent of world energy production in 1983, compared to 18 percent in 1973.

Historically, the United States had been the world's leading producer of natural gas. In 1983, however, U.S.S.R. production increased by over 1 quadrillion Btu while U.S. production decreased by nearly 2 quadrillion Btu, making the U.S.S.R. the largest producer with 18 quadrillion Btu, followed by the United States with 16 quadrillion Btu. Combined, the two countries accounted for 64 percent of world natural gas production in 1983, compared to 70 percent in 1973. U.S. natural gas production in 1983 was 6 quadrillion Btu below the level of production in 1973, while production in the U.S.S.R. was 10 quadrillion Btu higher in 1983 than in 1973. Other countries registering sizable increases in natural gas production from 1973 to 1983 included Algeria, Norway, Mexico, and Indonesia.

Coal. World production of coal increased each year from 1973 to 1982, rising at an average annual rate of 2.2 percent. In 1983, however, coal production declined 1.5 percent to 79 quadrillion Btu. Nonetheless, 1983 production was substantially higher than in

1973, when output equaled 64 quadrillion Btu. Coal accounted for 28 percent of world energy production in 1983, compared to 26 percent in 1973.

Coal production in all regions rose during the 1973-1983 period, with the most dramatic increases occurring in countries where coal was used to replace oil. Production in Africa increased by 133 percent, principally as a result of mine development and expansion activities in South Africa. China, Australia, and India accounted for most of the 43-percent increase in the Middle East, Far East, and Oceania region. U.S. coal production in 1983 was 20 percent above production in 1973 despite three instances of year-to-year production declines during the period. Combined, the United States, China, and the U.S.S.R. accounted for 57 percent of world coal production in 1983, and Poland, the world's fourth largest producer, accounted for 7 percent.

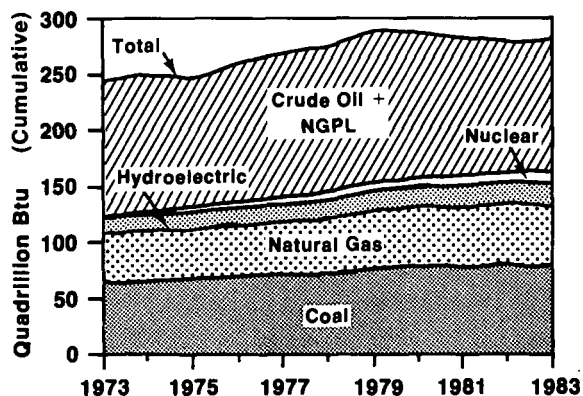
Hydroelectric Power Generation. From 1973 to 1983, world hydroelectric power generation rose from 14 quadrillion Btu, 6 percent of world energy production, to 20 quadrillion Btu, a 7-percent share. The countries generating the most hydroelectric power were, in order, the United States, Canada, the U.S.S.R., Brazil, and Norway. The region of greatest growth was Central and South America, with a 155-percent increase from 1973 to 1983.

Nuclear Power Generation. The generation of electricity from nuclear power rose from 2 quadrillion Btu in 1973 to 10 quadrillion Btu in 1983. Nuclear power generation accounted for 4 percent of world energy production in 1983, compared to less than 1 percent in 1973. Every region reflected substantial average annual growth rates in nuclear power generation over the 1973-1983 period. But in recent years the growth rate was greatest in Western Europe, where nuclear power generation in France rose 243 percent from 1979 to 1983.

In addition to production and price data, the *International Energy Annual 1983*, DOE/EIA-0219(83), published by EIA in November 1984, also presents data on world energy reserves and on energy consumption, imports, and exports for 1982. Reserves, consumption, and trade data are expressed in physical units, such as barrels of oil, cubic feet of natural gas, and short tons of coal. Maps depict the international flow in 1982 of the three major fossil fuels. The report is available from the Superintendent of Documents, Government Printing Office (stock number 061-003-00413-0) for \$4.75 per copy.

⁴Dry natural gas production, which represents the amount of natural gas that can be marketed and consumed as a gas.

Figure 1. World Energy Production by Type, 1973-1983 (Quadrillion Btu)



Note: 1983 data are preliminary.

Energy Summary

Production

Energy production during September 1984 totaled 5.4 quadrillion Btu, a 6.3-percent increase compared to the level of production during September 1983. Coal production increased 12.9 percent, natural gas production was up 6.5 percent, and petroleum production increased 0.2 percent. Production of all other forms of energy combined increased 6.7 percent compared to production 1 year earlier.

Consumption

Energy consumption during September 1984 totaled 5.6 quadrillion Btu, 1.1 percent above the level of consumption during September 1983. Natural gas consumption increased 4.4

percent, coal consumption was up 0.2, while petroleum consumption decreased 1.2 percent. Consumption of all other forms of energy combined increased 6.9 percent compared to consumption during September 1983.

Net Imports

Net imports of energy during September 1984 totaled 0.6 quadrillion Btu, 23.8 percent below the level of net imports during September 1983. Net imports of petroleum decreased 17.3 percent and net imports of natural gas decreased 15.9 percent. Net exports of coal were up 16.0 percent compared to the level in September 1983.

Energy Summary (Quadrillion (10¹⁵) Btu)

	September			Cumulative January Through September				
	1984	1983	Percent Change ¹	1984	1984 Daily Rate	1983	1983 Daily Rate	Percent Change ¹
Total Production	5.443	5.118	+6.3	49.692	0.181	45.384	0.166	+9.1
Petroleum ²	1.717	1.714	+0.2	15.595	0.057	15.408	0.056	+0.8
Natural Gas (Dry)	1.424	1.336	+6.5	13.294	0.049	12.071	0.044	+9.7
Coal	1.748	1.549	+12.9	15.314	0.056	12.728	0.047	+19.9
Other ³	0.554	0.519	+6.7	5.489	0.020	5.177	0.019	+5.6
Total Consumption	5.633	5.573	+1.1	55.160	0.201	51.833	0.190	+6.0
Petroleum ⁴	2.486	2.517	-1.2	23.373	0.085	22.246	0.081	+4.7
Natural Gas ⁵	1.186	1.136	+4.4	13.249	0.048	12.423	0.046	+6.3
Coal	1.368	1.365	+0.2	12.765	0.047	11.730	0.043	+8.4
Other ⁶	0.594	0.556	+6.9	5.772	0.021	5.434	0.020	+5.8
Net Imports	0.646	0.848	-23.8	6.593	0.024	6.070	0.022	+8.2
Petroleum ⁷	0.779	0.942	-17.3	7.389	0.027	6.666	0.024	+10.4
Natural Gas	0.054	0.064	-15.9	0.584	0.002	0.637	0.002	-8.7
Coal ⁸	(0.227)	(0.195)	(+16.0)	(1.663)	(0.006)	(1.489)	(0.005)	(+11.3)
Other ⁹	0.040	0.036	+9.3	0.283	0.001	0.257	0.001	+10.1

¹ Based on daily rates prior to rounding.

² Includes crude oil, lease condensate, and natural gas plant liquids.

³ Other is hydroelectric and nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

⁴ Includes refined petroleum products and natural gas plant liquids.

⁵ Includes supplemental gaseous fuels.

⁶ Other is hydroelectric and nuclear power; electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems; and net imports of electricity and coal coke.

⁷ Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.

⁸ Parentheses indicate exports are greater than imports.

⁹ Other is net imports of electricity and coal coke.

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

First Three Quarters 1984 Summary

Preliminary figures for U.S. energy production, consumption, and net imports during the first three quarters of 1984 all increased compared to their levels in the first three quarters of 1983 (Figures 1 and 2). In the first 9 months of 1984, total energy produced was up 9.1 percent,* total energy consumed was up 6.0 percent, and net imports of energy were up 8.2 percent compared to their levels during the first 9 months of 1983.

U.S. energy production in the first three quarters of 1984 totaled 49.7 quadrillion Btu, compared to 45.4 quadrillion Btu in the first three quarters of 1983. Production of coal increased 19.9 percent to a total of 15.3 quadrillion Btu, a record for coal production in the first three quarters of the year. Production of natural gas was up 9.7 percent and production of petroleum was up 0.8 percent in the first 9 months of 1984 compared to production levels during the same period of 1983. Electricity generated from nuclear power increased 12.7 percent to 2.7 quadrillion Btu, a record for nuclear-based electricity generation in the first three quarters of the year. In contrast, electricity generated from hydroelectric power decreased 1.5 percent in the first 9 months of 1984 compared to the first 9 months of 1983.

U.S. energy consumption in the first three quarters of 1984 totaled 55.2 quadrillion Btu, up 6.0 percent compared to the 51.8 quadrillion Btu consumed in the same period of 1983. Energy consumption during the first 9 months of the year increased for the first time since 1979, when energy consumption peaked at 58.8 quadrillion Btu. In the first three quarters of 1984, coal consumption was up 8.4 percent, natural gas consumption was up 6.3 percent, and petroleum consumption was up 4.7 percent compared to the same period a year earlier.

U.S. net imports of energy totaled 6.6 quadrillion Btu in the first three quarters of 1984, up 8.2 percent from the 6.1 quadrillion total for the first three quarters of 1983. The rate of net imports for the 1984 period was 24 trillion Btu per day, up from 22 trillion Btu per day for the year before, but less than half the peak rate of 50 trillion Btu per day recorded in the first 9 months of 1977 (Figure 3). The level of net imports of petroleum increased 10.4 percent compared to the same period 1 year earlier. In contrast, the level of net imports of natural gas decreased 8.7 percent and the level of net exports of coal increased 11.3 percent in the first three quarters of 1984 compared to the first three quarters of 1983.

*All percentage increases and decreases are calculated using a daily rate prior to rounding.

Figure 1. U.S. Energy Production

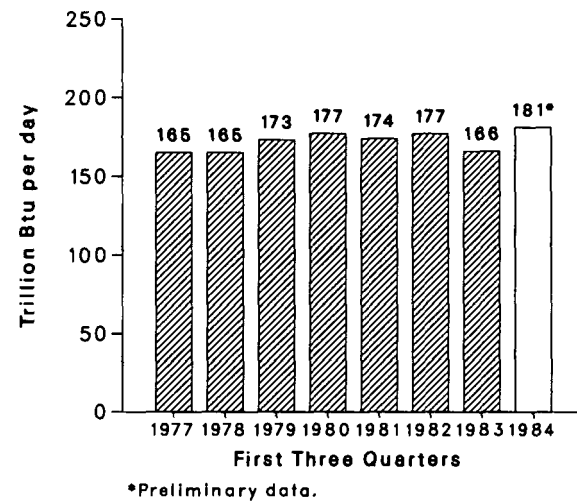


Figure 2. U.S. Energy Consumption

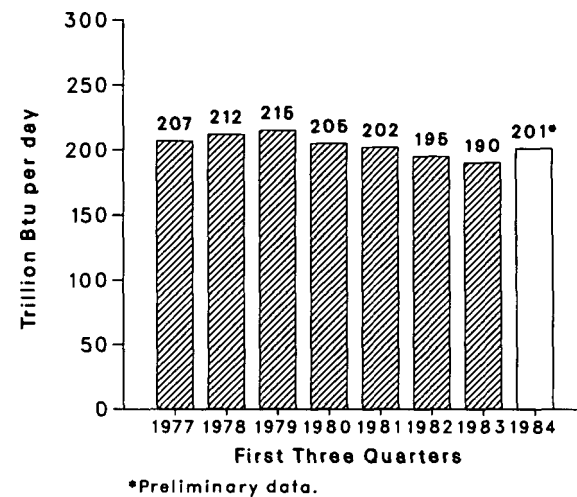
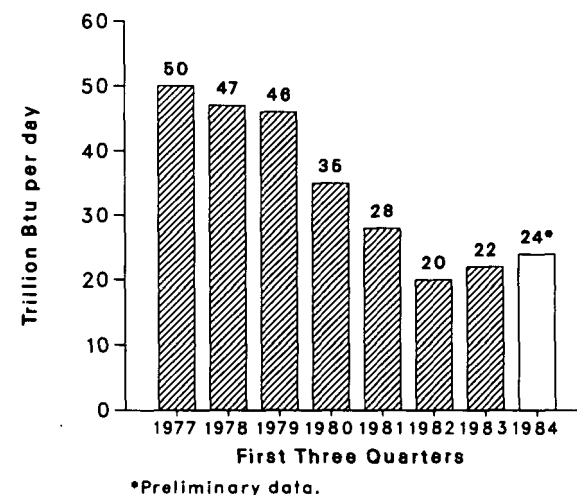


Figure 3. U.S. Energy Net Imports



Energy Summary

Production of Energy by Source—Quarterly Summary

		Coal	Crude Oil ¹	NGPL ²	Natural Gas (Dry)	Hydroelectric Power ³	Nuclear Electric Power	Other ⁴	Total
		Quadrillion (10 ¹⁵) Btu							
1973	Total	13.926	19.493	2.569	22.187	2.861	0.910	0.046	61.993
1974	Total	14.010	18.575	2.471	21.210	3.177	1.272	0.056	60.770
1975	Total	14.931	17.729	2.374	19.640	3.155	1.900	0.072	59.801
1976	Total	15.649	17.262	2.327	19.480	2.976	2.111	0.081	59.886
1977	1st Quarter	3.643	4.188	0.571	5.046	0.589	0.672	0.021	14.730
	2nd Quarter	4.220	4.279	0.586	4.869	0.577	0.667	0.020	15.218
	3rd Quarter	4.009	4.426	0.579	4.804	0.528	0.691	0.020	15.058
	4th Quarter	3.807	4.560	0.592	4.847	0.639	0.671	0.021	15.136
	Total	15.679	17.454	2.327	19.565	2.333	2.702	0.082	60.142
1978	1st Quarter	1.948	4.431	0.555	5.014	0.753	0.767	0.019	13.488
	2nd Quarter	4.401	4.658	0.563	4.834	0.829	0.658	0.013	15.957
	3rd Quarter	3.987	4.680	0.561	4.807	0.710	0.796	0.018	15.560
	4th Quarter	4.520	4.664	0.567	4.830	0.644	0.802	0.018	16.045
	Total	14.856	18.434	2.245	19.485	2.937	3.024	0.068	61.049
1979	1st Quarter	4.015	4.455	0.550	5.084	0.756	0.849	0.020	15.729
	2nd Quarter	4.569	4.502	0.570	4.953	0.831	0.539	0.021	15.984
	3rd Quarter	4.248	4.524	0.571	4.889	0.660	0.727	0.023	15.641
	4th Quarter	4.652	4.623	0.595	5.151	0.684	0.661	0.025	16.391
	Total	17.483	18.104	2.286	20.076	2.931	2.776	0.089	63.744
1980	1st Quarter	4.606	4.588	0.578	5.287	0.746	0.644	0.024	16.473
	2nd Quarter	4.739	4.552	0.571	4.885	0.864	0.605	0.028	16.244
	3rd Quarter	4.437	4.549	0.547	4.706	0.666	0.752	0.031	15.688
	4th Quarter	4.762	4.559	0.558	5.029	0.624	0.738	0.032	16.302
	Total	18.544	18.249	2.254	19.907	2.900	2.739	0.114	64.708
1981	1st Quarter	4.787	4.481	0.581	4.995	0.678	0.743	0.033	16.298
	2nd Quarter	3.025	4.519	0.570	4.942	0.754	0.679	0.031	14.519
	3rd Quarter	5.220	4.569	0.575	4.881	0.683	0.821	0.033	16.782
	4th Quarter	5.300	4.577	0.581	4.880	0.644	0.765	0.030	16.777
	Total	18.331	18.146	2.307	19.699	2.758	3.008	0.127	64.376
1982	1st Quarter	4.933	4.502	0.547	4.916	0.883	0.756	0.023	16.560
	2nd Quarter	4.804	4.561	0.537	4.572	0.888	0.743	0.025	16.128
	3rd Quarter	4.470	4.623	0.541	4.385	0.752	0.835	0.030	15.637
	4th Quarter	4.396	4.624	0.566	4.382	0.748	0.781	0.030	15.527
	Total	18.603	18.309	2.191	18.255	3.271	3.115	0.108	63.851
1983	1st Quarter	R4.235	4.550	0.543	R4.202	0.925	0.784	0.028	R15.268
	2nd Quarter	R4.115	4.587	0.529	R3.840	0.972	0.755	0.026	R14.823
	3rd Quarter	R4.379	4.642	0.556	R4.029	0.800	0.846	0.042	R15.293
	4th Quarter	R4.496	4.613	0.566	R4.411	0.814	0.850	0.039	R15.790
	Total	R17.225	18.392	2.195	R16.482	3.510	3.235	0.135	R61.175
1984	1st Quarter	4.932	4.592	0.562	R4.603	0.931	0.926	0.039	R16.585
	2nd Quarter	R5.015	4.607	0.566	R4.331	0.957	0.825	0.042	R16.343
	3rd Quarter	5.367	4.680	0.589	4.360	0.778	0.947	0.044	16.764

¹Includes lease condensate.

²Natural gas plant liquids.

³Includes industrial and utility production of hydroelectric power.

⁴Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

R=Revised data.

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

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

• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

Energy Summary

Consumption of Energy by Source—Quarterly Summary

		Coal	Natural Gas ¹	Petroleum	Hydro-electric Power ²	Nuclear Electric Power	Net Imports of Coal Coke ³	Other ⁴	Total
Quadrillion (10 ¹⁵) Btu									
1973	Total	12.903	22.512	34.840	3.010	0.910	(0.008)	0.046	74.212
1974	Total	12.596	21.732	33.455	3.309	1.272	0.059	0.056	72.479
1975	Total	12.601	19.948	32.731	3.219	1.900	0.014	0.072	70.485
1976	Total	13.519	20.345	35.175	3.066	2.111	0.000	0.081	74.297
1977	1st Quarter	3.499	6.063	9.772	0.634	0.672	(0.004)	0.021	20.657
	2nd Quarter	3.289	4.238	8.800	0.623	0.667	(0.002)	0.020	17.636
	3rd Quarter	3.604	4.202	9.019	0.574	0.691	0.010	0.020	18.121
	4th Quarter	3.456	5.428	9.531	0.684	0.671	0.011	0.021	19.801
	Total	13.848	19.931	37.122	2.515	2.702	0.015	0.082	76.215
1978	1st Quarter	3.138	6.561	9.971	0.804	0.767	0.008	0.019	21.268
	2nd Quarter	3.256	4.247	9.081	0.880	0.658	0.047	0.013	18.182
	3rd Quarter	3.712	3.926	9.178	0.762	0.796	0.040	0.018	18.433
	4th Quarter	3.604	5.265	9.735	0.696	0.802	0.037	0.018	20.157
	Total	13.710	20.000	37.965	3.141	3.024	0.131	0.068	78.039
1979	1st Quarter	3.755	6.648	10.072	0.808	0.849	0.009	0.020	22.160
	2nd Quarter	3.559	4.423	8.837	0.883	0.539	0.026	0.021	18.288
	3rd Quarter	3.861	4.085	8.879	0.713	0.727	0.025	0.023	18.313
	4th Quarter	3.809	5.510	9.337	0.737	0.661	0.005	0.025	20.084
	Total	14.983	20.666	37.123	3.141	2.776	0.066	0.089	78.845
1980	1st Quarter	3.982	6.606	9.143	0.800	0.644	(0.001)	0.024	21.199
	2nd Quarter	3.534	4.255	8.177	0.919	0.605	(0.015)	0.028	17.504
	3rd Quarter	4.007	3.977	8.123	0.721	0.752	(0.012)	0.031	17.598
	4th Quarter	3.849	5.553	8.759	0.678	0.738	(0.010)	0.032	19.599
	Total	15.373	20.391	34.202	3.118	2.739	(0.037)	0.114	75.900
1981	1st Quarter	4.056	6.237	8.391	0.763	0.743	(0.004)	0.033	20.219
	2nd Quarter	3.666	4.337	7.732	0.841	0.679	(0.006)	0.031	17.280
	3rd Quarter	4.178	3.997	7.785	0.770	0.821	(0.001)	0.033	17.583
	4th Quarter	3.959	5.355	8.023	0.731	0.765	(0.006)	0.030	18.858
	Total	15.860	19.926	31.931	3.105	3.008	(0.017)	0.127	73.940
1982	1st Quarter	4.038	6.396	7.745	0.953	0.756	(0.004)	0.023	19.907
	2nd Quarter	3.549	3.841	7.535	0.941	0.743	(0.007)	0.025	16.626
	3rd Quarter	3.982	3.532	7.419	0.838	0.835	(0.008)	0.030	16.629
	4th Quarter	3.722	4.738	7.532	0.846	0.781	(0.004)	0.030	17.645
	Total	15.291	18.507	30.232	3.577	3.115	(0.023)	0.108	70.807
1983	1st Quarter	3.732	R5.367	7.316	1.010	0.784	(0.003)	0.028	R18.234
	2nd Quarter	3.564	R3.644	7.298	1.051	0.755	(0.005)	0.026	R16.333
	3rd Quarter	4.434	R3.412	7.632	0.903	0.846	(0.003)	0.042	R17.265
	4th Quarter	4.147	R5.111	7.830	0.916	0.850	(0.005)	0.039	R18.888
	Total	15.877	R17.535	30.076	3.880	3.235	(0.016)	0.135	R70.721
1984	1st Quarter	4.316	R5.837	7.906	1.023	0.926	0.002	0.039	R20.049
	2nd Quarter	R4.002	R3.854	7.670	1.042	0.825	(0.004)	0.042	R17.431
	3rd Quarter	4.448	3.558	7.798	0.889	0.947	(0.003)	0.044	17.680

¹Includes supplemental gaseous fuels.

²Includes industrial and utility production and net imports of electricity.

³Parentheses indicate exports are greater than imports.

⁴Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

R=Revised data.

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

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

• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

Energy Summary

Net Imports¹ of Energy by Source—Quarterly Summary

		Coal	Crude Oil ²	Refined Petroleum Products ³	Natural Gas	Electricity	Coal Coke	Total
		Quadrillion (10 ¹⁵) Btu						
1973	Total	(1.422)	6.883	6.097	0.981	0.148	(0.008)	12.679
1974	Total	(1.568)	7.389	5.273	0.907	0.133	0.059	12.192
1975	Total	(1.738)	8.708	3.800	0.904	0.064	0.014	11.753
1976	Total	(1.567)	11.221	3.982	0.922	0.089	0.000	14.648
1977	1st Quarter	(0.227)	3.403	1.432	0.274	0.045	(0.004)	4.924
	2nd Quarter	(0.455)	3.628	0.881	0.241	0.045	(0.002)	4.339
	3rd Quarter	(0.380)	3.513	1.043	0.213	0.046	0.010	4.445
	4th Quarter	(0.339)	3.377	0.965	0.253	0.046	0.011	4.311
	Total	(1.401)	13.921	4.321	0.981	0.182	0.015	18.019
1978	1st Quarter	(0.036)	3.138	1.112	0.241	0.050	0.008	4.512
	2nd Quarter	(0.306)	3.063	0.891	0.214	0.051	0.047	3.961
	3rd Quarter	(0.264)	3.422	0.942	0.209	0.052	0.040	4.401
	4th Quarter	(0.398)	3.502	0.987	0.276	0.052	0.037	4.455
	Total	(1.004)	13.125	3.932	0.941	0.204	0.131	17.329
1979	1st Quarter	(0.277)	3.311	1.051	0.307	0.052	0.009	4.454
	2nd Quarter	(0.452)	3.252	0.787	0.307	0.052	0.026	3.973
	3rd Quarter	(0.455)	3.417	0.826	0.295	0.053	0.025	4.161
	4th Quarter	(0.517)	3.348	0.939	0.333	0.053	0.005	4.161
	Total	(1.702)	13.328	3.603	1.243	0.211	0.066	16.748
1980	1st Quarter	(0.363)	3.021	0.902	0.326	0.054	(0.001)	3.940
	2nd Quarter	(0.652)	2.696	0.625	0.203	0.054	(0.015)	2.912
	3rd Quarter	(0.678)	2.446	0.626	0.174	0.055	(0.012)	2.611
	4th Quarter	(0.698)	2.423	0.760	0.254	0.055	(0.010)	2.783
	Total	(2.391)	10.586	2.912	0.957	0.217	(0.037)	12.246
1981	1st Quarter	(0.578)	2.368	0.729	0.244	0.086	(0.004)	2.846
	2nd Quarter	(0.529)	2.127	0.552	0.185	0.087	(0.006)	2.415
	3rd Quarter	(0.883)	2.239	0.628	0.184	0.088	(0.001)	2.254
	4th Quarter	(0.929)	2.119	0.613	0.242	0.088	(0.006)	2.128
	Total	(2.918)	8.854	2.522	0.855	0.347	(0.017)	9.643
1982	1st Quarter	(0.668)	1.524	0.569	0.257	0.070	(0.004)	1.748
	2nd Quarter	(0.826)	1.672	0.466	0.190	0.053	(0.007)	1.548
	3rd Quarter	(0.655)	1.970	0.536	0.181	0.086	(0.008)	2.111
	4th Quarter	(0.619)	1.751	0.557	0.268	0.098	(0.004)	2.050
	Total	(2.768)	6.917	2.128	0.896	0.307	(0.023)	7.458
1983	1st Quarter	(0.392)	1.224	0.371	0.283	0.086	(0.003)	1.568
	2nd Quarter	(0.525)	1.686	0.536	0.184	0.079	(0.005)	1.954
	3rd Quarter	(0.572)	2.110	0.740	0.169	0.104	(0.003)	2.547
	4th Quarter	(0.524)	1.711	0.693	0.241	0.102	(0.005)	2.218
	Total	(2.013)	6.730	2.340	0.878	0.370	(0.016)	8.288
1984	1st Quarter	(0.391)	1.568	0.912	0.225	0.092	0.002	2.409
	2nd Quarter	(0.617)	1.794	0.699	0.197	0.085	(0.004)	R2.153
	3rd Quarter	(0.654)	1.738	0.677	0.162	0.112	(0.003)	2.031

¹Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.

²Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

³Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.

R = Revised data.

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

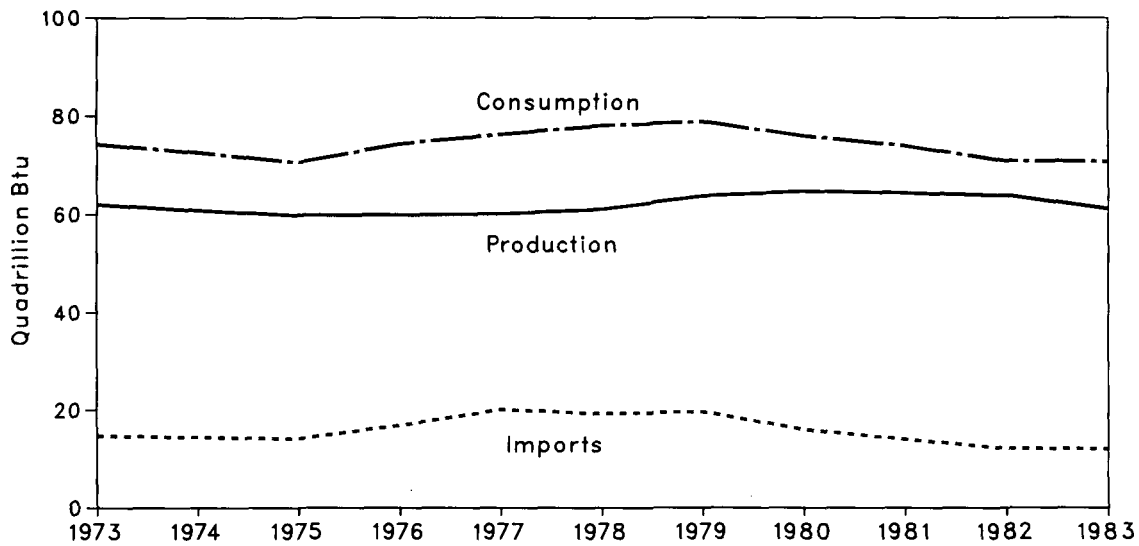
• Totals may not equal sum of components due to independent rounding.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

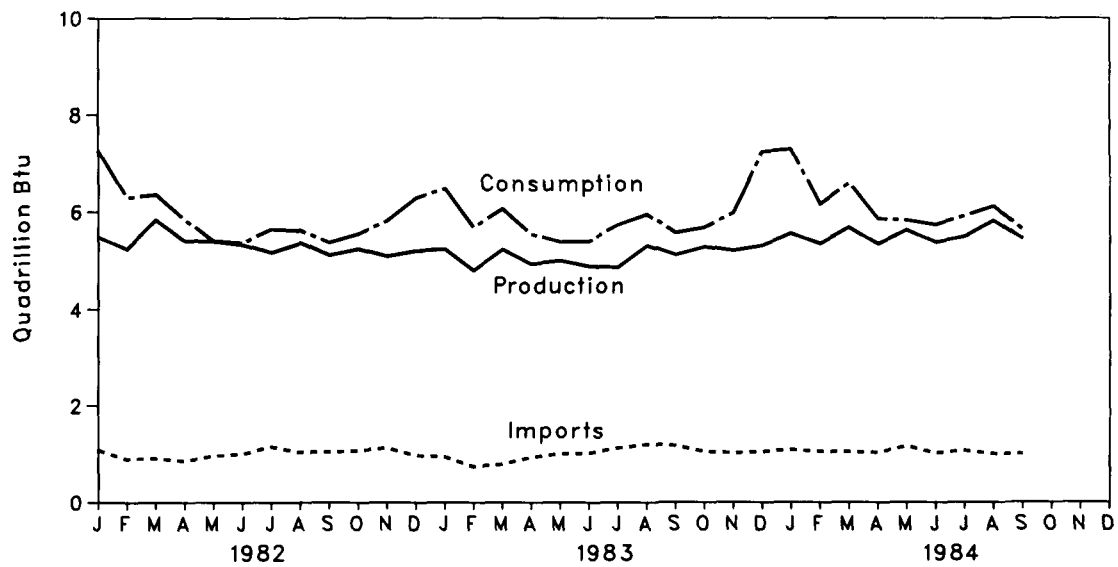
Energy Summary

Overview

Yearly



Monthly



Energy Summary

Overview¹

		Production ²	Consumption ²	Imports ²	Exports	Net Imports
Quadrillion (10 ¹⁵) Btu						
1973	Total	61.993	74.212	14.732	2.053	12.679
1974	Total	60.770	72.479	14.417	2.224	12.192
1975	Total	59.801	70.485	14.113	2.361	11.753
1976	Total	59.886	74.297	16.838	2.190	14.648
1977	Total	60.142	76.215	20.092	2.073	18.019
1978	Total	61.049	78.039	19.261	1.932	17.329
1979	Total	63.744	78.845	19.620	2.872	16.748
1980	Total	64.708	75.900	15.972	3.726	12.246
1981	Total	64.376	73.940	13.974	4.331	9.643
1982	January	5.489	7.262	1.086	0.318	0.768
	February	5.236	6.292	0.890	0.376	0.514
	March	5.835	6.353	0.909	0.442	0.466
	April	5.408	5.847	0.855	0.428	0.427
	May	5.395	5.409	0.958	0.421	0.537
	June	5.325	5.371	1.004	0.419	0.585
	July	5.165	5.641	1.150	0.388	0.762
	August	5.362	5.618	1.041	0.358	0.683
	September	5.109	5.369	1.042	0.376	0.666
	October	5.236	5.542	1.067	0.437	0.629
	November	5.090	5.815	1.125	0.351	0.774
	December	5.202	6.289	0.969	0.322	0.647
	Total	63.851	70.807	12.095	4.637	7.458
1983	January	5.235	6.480	0.940	0.301	0.639
	February	4.801	5.687	0.731	0.264	0.466
	March	5.231	6.067	0.782	0.319	0.463
	April	4.931	5.547	0.930	0.314	0.616
	May	5.004	5.386	1.004	0.348	0.656
	June	4.888	5.400	1.017	0.334	0.683
	July	4.865	5.737	1.123	0.274	0.849
	August	5.310	5.955	1.198	0.348	0.850
	September	5.118	5.573	1.171	0.323	0.848
	October	5.278	5.676	1.049	0.325	0.725
	November	5.206	5.982	1.018	0.280	0.738
	December	5.306	7.231	1.046	0.290	0.756
	Total	61.175	70.721	12.008	3.720	8.288
1984	January	5.559	7.290	1.088	0.245	0.843
	February	5.346	6.162	1.052	0.217	0.834
	March	5.680	6.597	1.045	0.313	0.731
	April	5.340	5.862	1.031	0.326	0.705
	May	5.626	5.830	1.163	0.365	0.798
	June	5.377	5.738	1.016	0.366	0.650
	July	R5.496	R5.926	1.067	0.326	0.742
	August	R5.826	R6.121	1.002	0.359	0.643
	September	5.443	5.633	1.001	0.355	0.646

¹For definitions, see Notes on the last page of this section.

²The 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 data.

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

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

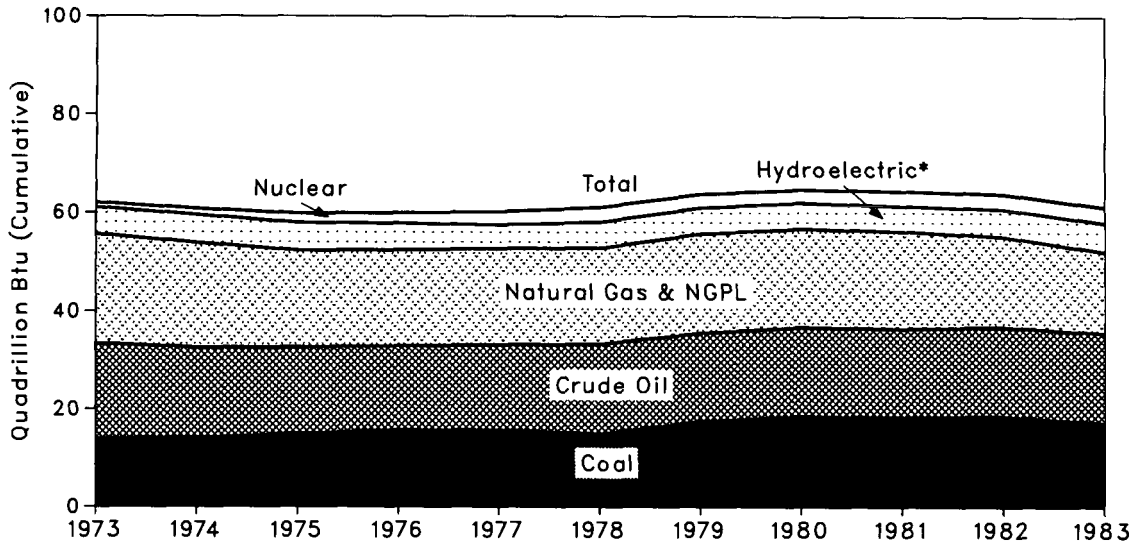
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Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

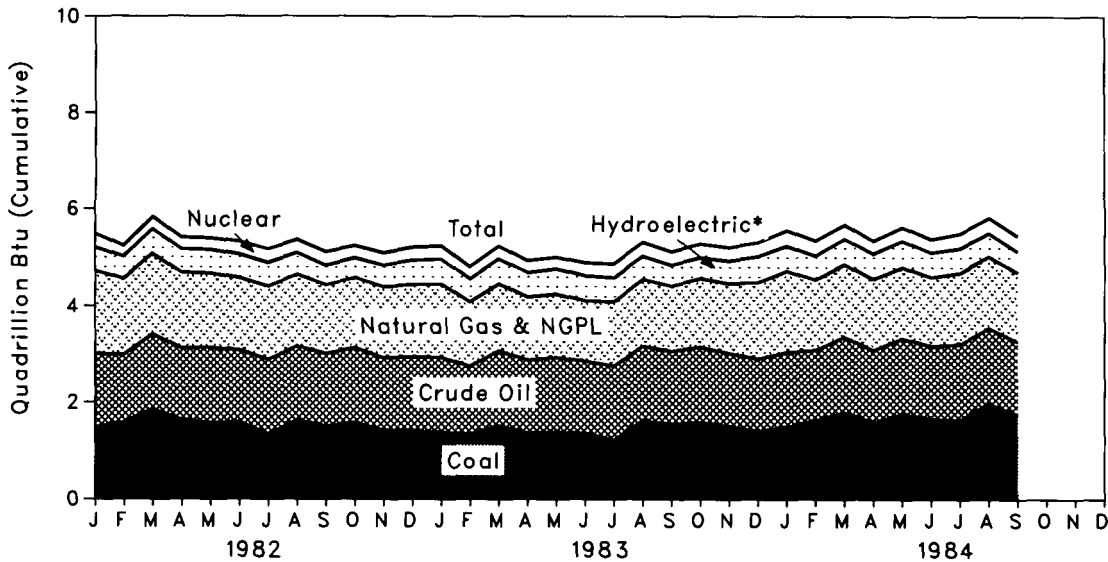
Energy Summary

Production of Energy by Source

Yearly



Monthly



*Includes industrial and utility production of hydroelectric power. Also includes electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

Energy Summary

Production of Energy by Source

		Coal	Crude Oil ¹	NGPL ²	Natural Gas (Dry)	Hydro-electric Power ³	Nuclear Electric Power	Other ⁴	Total	Year to Date
Quadrillion (10 ¹⁵) Btu										
1973	Total	13.926	19.493	2.569	22.187	2.861	0.910	0.046	61.993	
1974	Total	14.010	18.575	2.471	21.210	3.177	1.272	0.056	60.770	
1975	Total	14.931	17.729	2.374	19.640	3.155	1.900	0.072	59.801	
1976	Total	15.649	17.262	2.327	19.480	2.976	2.111	0.081	59.886	
1977	Total	15.679	17.454	2.327	19.565	2.333	2.702	0.082	60.142	
1978	Total	14.856	18.434	2.245	19.485	2.937	3.024	0.068	61.049	
1979	Total	17.483	18.104	2.286	20.076	2.931	2.776	0.089	63.744	
1980	Total	18.544	18.249	2.254	19.907	2.900	2.739	0.114	64.708	
1981	Total	18.331	18.146	2.307	19.699	2.758	3.008	0.127	64.376	
1982	January	1.490	1.530	0.189	1.703	0.285	0.283	0.009	5.489	5.489
	February	1.580	1.413	0.169	1.562	0.282	0.222	0.008	5.236	10.725
	March	1.863	1.558	0.189	1.651	0.316	0.251	0.007	5.835	16.560
	April	1.633	1.495	0.179	1.558	0.296	0.240	0.007	5.408	21.968
	May	1.579	1.561	0.182	1.530	0.296	0.238	0.008	5.395	27.362
	June	1.592	1.504	0.175	1.483	0.296	0.265	0.010	5.325	32.688
	July	1.344	1.557	0.182	1.504	0.289	0.281	0.010	5.165	37.853
	August	1.618	1.552	0.183	1.471	0.253	0.275	0.010	5.362	43.216
	September	1.508	1.514	0.176	1.410	0.211	0.280	0.010	5.109	48.324
	October	1.573	1.565	0.184	1.439	0.209	0.256	0.011	5.236	53.560
	November	1.422	1.513	0.187	1.455	0.246	0.256	0.011	5.090	58.650
	December	1.401	1.546	0.195	1.489	0.293	0.269	0.009	5.202	63.851
	Total	18.603	18.309	2.191	18.255	3.271	3.115	0.108	63.851	
1983	January	1.382	1.564	0.189	1.505	0.309	0.276	0.011	5.235	5.235
	February	1.336	1.422	0.170	1.325	0.295	0.245	0.008	4.801	10.037
	March	1.517	1.564	0.184	1.372	0.320	0.263	0.010	5.231	15.268
	April	1.362	1.527	0.174	1.296	0.317	0.246	0.009	4.931	20.199
	May	1.392	1.552	0.179	1.301	0.330	0.243	0.007	5.004	25.204
	June	1.361	1.508	0.176	1.242	0.325	0.266	0.010	4.888	30.091
	July	1.216	1.553	0.184	1.321	0.297	0.282	0.012	4.865	34.956
	August	1.614	1.561	0.187	1.371	0.273	0.289	0.016	5.310	40.266
	September	1.549	1.528	0.185	1.336	0.230	0.275	0.014	5.118	45.384
	October	1.580	1.577	0.192	1.410	0.219	0.284	0.015	5.278	50.662
	November	1.513	1.526	0.190	1.428	0.261	0.275	0.013	5.206	55.869
	December	1.403	1.510	0.185	1.573	0.334	0.290	0.011	5.306	61.175
	Total	17.225	18.392	2.195	16.482	3.510	3.235	0.135	61.175	
1984	January	1.501	1.557	0.190	1.665	0.314	0.321	0.011	5.559	5.559
	February	1.628	1.468	0.182	1.447	0.295	0.312	0.013	5.346	10.905
	March	1.803	1.567	0.190	1.491	0.321	0.293	0.015	5.680	16.585
	April	1.584	1.512	0.187	1.461	0.317	0.266	0.014	5.340	21.925
	May	1.766	1.574	0.193	1.460	0.337	0.283	0.014	5.626	27.551
	June	1.665	1.521	0.187	1.410	0.304	0.277	0.013	5.377	32.928
	July	1.645	1.577	0.197	R1.467	0.291	0.306	0.013	R5.496	R38.424
	August	1.974	1.579	0.199	R1.469	0.266	0.323	0.016	R5.826	R44.249
	September	1.748	1.524	0.193	1.424	0.221	0.318	0.015	5.443	49.692

¹Includes lease condensate.

²Natural gas plant liquids.

³Includes industrial and utility production of hydroelectric power.

⁴Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

R=Revised data.

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

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

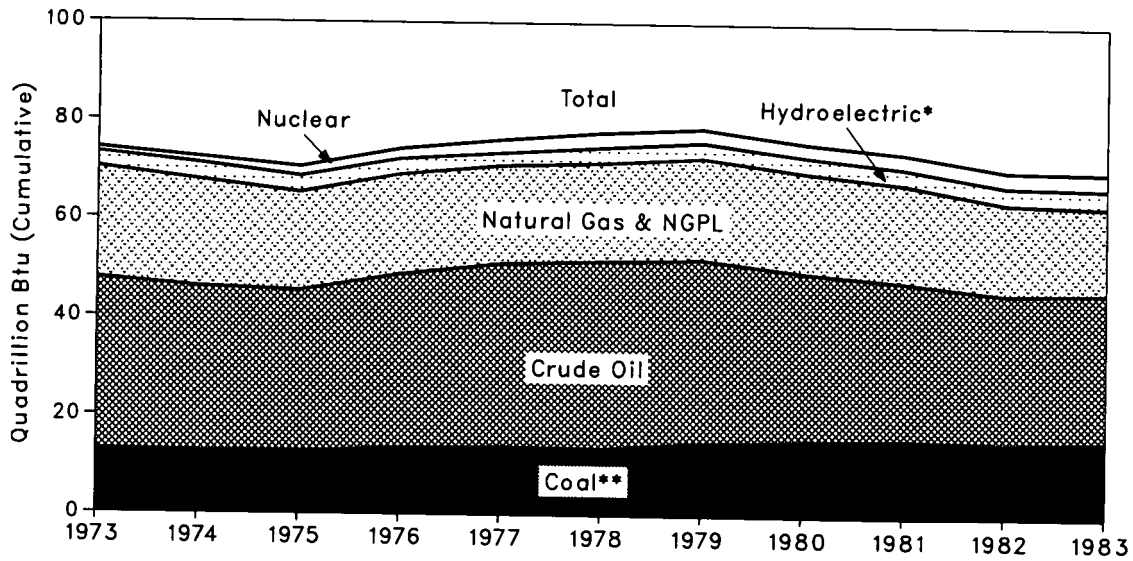
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

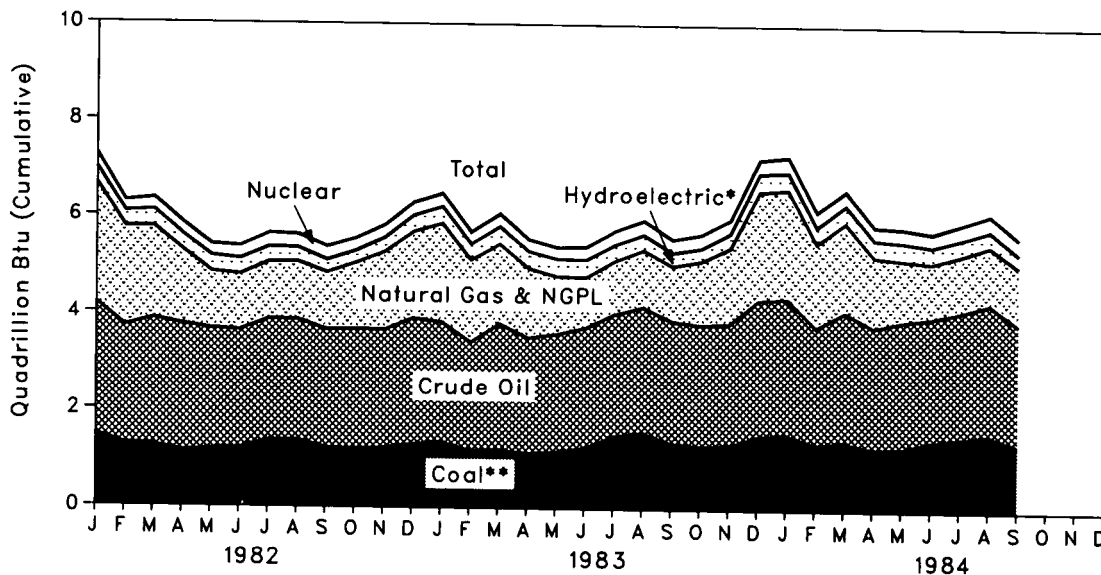
Energy Summary

Consumption of Energy by Source

Yearly



Monthly



*Includes electricity produced from geothermal, wood, waste, photovoltaic and solar thermal energy sources connected to electric utility distribution systems.

**Includes net imports of coal coke.

Energy Summary

Consumption of Energy by Source

		Coal	Natural Gas ¹	Petroleum	Hydro-electric Power ²	Nuclear Electric Power	Net Imports of Coal Coke ³	Other ⁴	Total	Year to Date
Quadrillion (10 ¹⁵) Btu										
1973	Total	12.903	22.512	34.840	3.010	0.910	(0.008)	0.046	74.212	
1974	Total	12.596	21.732	33.455	3.309	1.272	0.059	0.056	72.479	
1975	Total	12.601	19.948	32.731	3.219	1.900	0.014	0.072	70.485	
1976	Total	13.519	20.345	35.175	3.066	2.111	0.000	0.081	74.297	
1977	Total	13.848	19.931	37.122	2.515	2.702	0.015	0.082	76.215	
1978	Total	13.710	20.000	37.965	3.141	3.024	0.131	0.068	78.039	
1979	Total	14.983	20.666	37.123	3.141	2.776	0.066	0.089	78.845	
1980	Total	15.373	20.391	34.202	3.118	2.739	(0.037)	0.114	75.900	
1981	Total	15.860	19.926	31.931	3.105	3.008	(0.017)	0.127	73.940	
1982	January	1.486	2.467	2.707	0.311	0.283	0.000	0.009	7.262	7.262
	February	1.292	2.040	2.426	0.305	0.222	(0.001)	0.008	6.292	13.554
	March	1.260	1.889	2.612	0.336	0.251	(0.002)	0.007	6.353	19.907
	April	1.152	1.527	2.607	0.315	0.240	(0.001)	0.007	5.847	25.753
	May	1.186	1.168	2.492	0.319	0.238	(0.003)	0.008	5.409	31.162
	June	1.210	1.146	2.436	0.308	0.265	(0.004)	0.010	5.371	36.533
	July	1.381	1.177	2.488	0.308	0.281	(0.003)	0.010	5.641	42.174
	August	1.374	1.183	2.491	0.286	0.275	(0.001)	0.010	5.618	47.792
	September	1.227	1.172	2.440	0.244	0.280	(0.003)	0.010	5.369	53.162
	October	1.190	1.348	2.494	0.244	0.256	(0.001)	0.011	5.542	58.703
	November	1.229	1.603	2.438	0.279	0.256	(0.002)	0.011	5.815	64.518
	December	1.303	1.788	2.600	0.323	0.269	(0.001)	0.009	6.289	70.807
	Total	15.291	18.507	30.232	3.577	3.115	(0.023)	0.108	70.807	
1983	January	1.358	2.029	2.469	0.338	0.276	(0.001)	0.011	6.480	6.480
	February	1.179	1.692	2.241	0.324	0.245	(0.001)	0.008	5.687	12.167
	March	1.195	1.646	2.606	0.349	0.263	(0.001)	0.010	6.067	18.234
	April	1.138	1.427	2.385	0.345	0.246	(0.002)	0.009	5.547	23.782
	May	1.171	1.181	2.433	0.353	0.243	(0.002)	0.007	5.386	29.168
	June	1.255	1.036	2.481	0.352	0.266	(0.001)	0.010	5.400	34.568
	July	1.497	1.100	2.519	0.329	0.282	(0.002)	0.012	5.737	40.305
	August	1.572	1.176	2.596	0.307	0.289	(0.001)	0.016	5.955	46.260
	September	1.365	1.136	2.517	0.267	0.275	(0.001)	0.014	5.573	51.833
	October	1.303	1.310	2.509	0.256	0.284	(0.001)	0.015	5.676	57.509
	November	1.324	1.562	2.516	0.293	0.275	(0.001)	0.013	5.982	63.491
	December	1.520	2.240	2.805	0.367	0.290	(0.003)	0.011	7.231	70.721
	Total	15.877	17.535	30.076	3.880	3.235	(0.016)	0.135	70.721	
1984	January	1.553	2.254	2.805	0.345	0.321	0.001	0.011	7.290	7.290
	February	1.360	1.734	2.414	0.326	0.312	0.002	0.013	6.162	13.452
	March	1.403	1.848	2.686	0.352	0.293	(0.001)	0.015	6.597	20.049
	April	1.270	1.454	2.513	0.347	0.266	0.000	0.014	5.862	25.911
	May	1.296	1.265	2.611	0.361	0.283	(0.001)	0.014	5.830	31.741
	June	1.436	1.135	2.546	0.334	0.277	(0.003)	0.013	5.738	37.479
	July	1.506	R1.170	2.607	0.325	0.306	(0.001)	0.013	R5.926	R43.406
	August	1.574	R1.202	2.705	0.303	0.323	(0.002)	0.016	R6.121	R49.526
	September	1.368	1.186	2.486	0.261	0.318	0.000	0.015	5.633	55.160

¹Includes supplemental gaseous fuels.

²Includes industrial and utility production and net imports of electricity.

³Parentheses indicate exports are greater than imports.

⁴Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

R = Revised data.

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

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

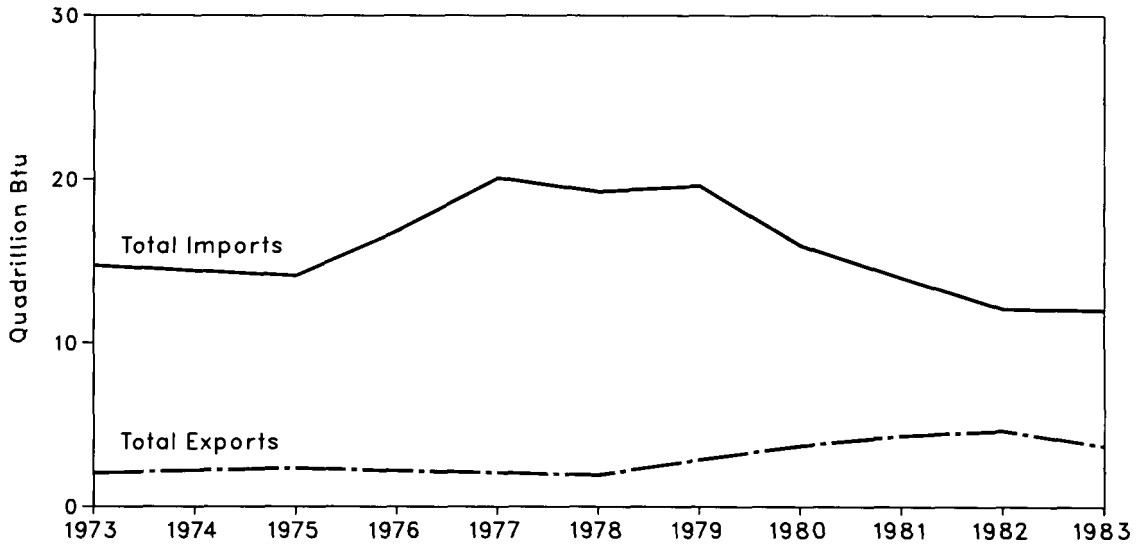
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

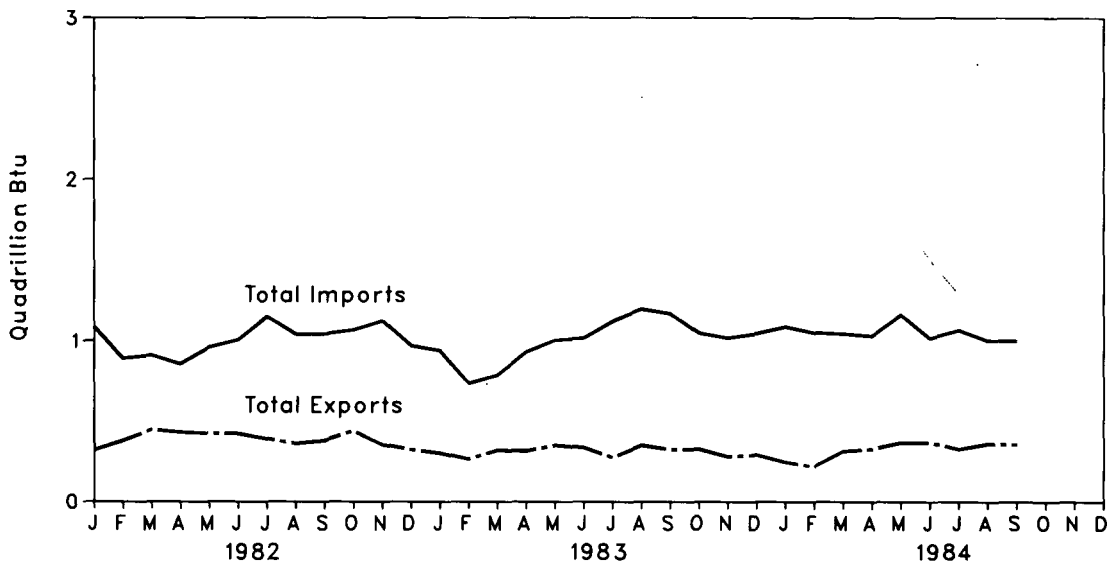
Energy Summary

Energy Imports and Exports

Yearly



Monthly



Energy Summary

Net Imports¹ of Energy by Source

		Coal	Crude Oil ²	Refined Petroleum Products ³	Natural Gas	Electricity	Coal Coke	Total	Year to Date
Quadrillion (10 ¹⁵) Btu									
1973	Total	(1.422)	6.883	6.097	0.981	0.148	(0.008)	12.679	
1974	Total	(1.568)	7.389	5.273	0.907	0.133	0.059	12.192	
1975	Total	(1.738)	8.708	3.800	0.904	0.064	0.014	11.753	
1976	Total	(1.567)	11.221	3.982	0.922	0.089	0.000	14.648	
1977	Total	(1.401)	13.921	4.321	0.981	0.182	0.015	18.019	
1978	Total	(1.004)	13.125	3.932	0.941	0.204	0.131	17.329	
1979	Total	(1.702)	13.328	3.603	1.243	0.211	0.066	16.748	
1980	Total	(2.391)	10.586	2.912	0.957	0.217	(0.037)	12.246	
1981	Total	(2.918)	8.854	2.522	0.855	0.347	(0.017)	9.643	
1982	January	(0.160)	0.624	0.181	0.097	0.027	0.000	0.768	0.768
	February	(0.234)	0.438	0.207	0.081	0.023	(0.001)	0.514	1.282
	March	(0.273)	0.461	0.181	0.078	0.020	(0.002)	0.466	1.748
	April	(0.284)	0.468	0.153	0.071	0.019	(0.001)	0.427	2.175
	May	(0.262)	0.551	0.166	0.063	0.022	(0.003)	0.537	2.712
	June	(0.280)	0.654	0.147	0.056	0.012	(0.004)	0.585	3.297
	July	(0.239)	0.726	0.196	0.063	0.019	(0.003)	0.762	4.058
	August	(0.190)	0.641	0.144	0.056	0.033	(0.001)	0.683	4.742
	September	(0.226)	0.603	0.196	0.062	0.033	(0.003)	0.666	5.407
	October	(0.260)	0.614	0.168	0.073	0.035	(0.001)	0.629	6.036
	November	(0.203)	0.629	0.228	0.088	0.033	(0.002)	0.774	6.810
	December	(0.157)	0.507	0.161	0.107	0.030	(0.001)	0.647	7.458
	Total	(2.768)	6.917	2.128	0.896	0.307	(0.023)	7.458	
1983	January	(0.116)	0.514	0.105	0.109	0.029	(0.001)	0.639	0.639
	February	(0.113)	0.327	0.133	0.092	0.029	(0.001)	0.466	1.105
	March	(0.162)	0.382	0.133	0.082	0.028	(0.001)	0.463	1.568
	April	(0.157)	0.530	0.148	0.070	0.028	(0.002)	0.616	2.184
	May	(0.180)	0.556	0.201	0.057	0.023	(0.002)	0.656	2.840
	June	(0.188)	0.600	0.187	0.057	0.028	(0.001)	0.683	3.523
	July	(0.159)	0.673	0.251	0.054	0.032	(0.002)	0.849	4.372
	August	(0.217)	0.732	0.251	0.051	0.034	(0.001)	0.850	5.222
	September	(0.195)	0.705	0.238	0.064	0.037	(0.001)	0.848	6.070
	October	(0.209)	0.597	0.240	0.061	0.037	(0.001)	0.725	6.794
	November	(0.153)	0.551	0.232	0.076	0.032	(0.001)	0.738	7.532
	December	(0.162)	0.563	0.222	0.104	0.033	(0.003)	0.756	8.288
	Total	(2.013)	6.730	2.340	0.878	0.370	(0.016)	8.288	
1984	January	(0.131)	0.519	0.331	0.093	E0.031	0.001	0.843	0.843
	February	(0.108)	0.468	0.375	0.067	E0.031	0.002	0.834	1.678
	March	(0.151)	0.581	0.207	0.065	E0.031	(0.001)	0.731	2.409
	April	(0.198)	0.567	0.239	0.068	E0.030	0.000	0.705	3.115
	May	(0.214)	0.670	0.251	0.068	E0.025	(0.001)	0.798	3.913
	June	(0.205)	0.557	0.210	0.060	E0.030	(0.003)	0.650	4.563
	July	(0.214)	0.639	0.228	0.055	E0.034	(0.001)	0.742	5.304
	August	(0.214)	0.551	0.217	0.053	E0.037	(0.002)	0.643	5.947
	September	(0.227)	0.547	0.232	0.054	E0.040	0.000	0.646	6.593

¹Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.

²Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

³Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.

E = Estimated value.

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

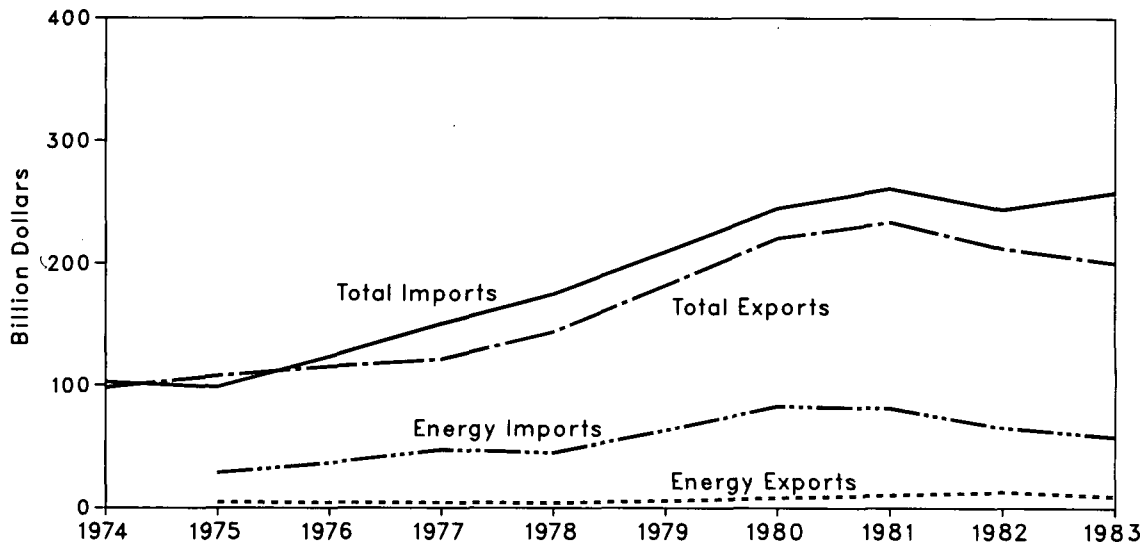
• Totals may not equal sum of components due to independent rounding.

Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

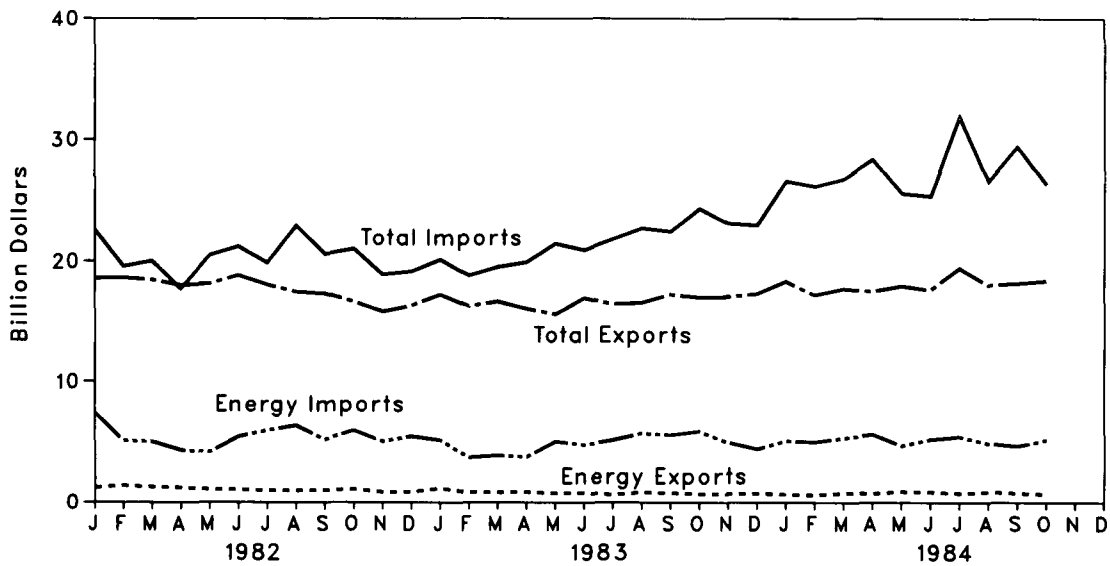
Energy Summary

Merchandise Trade Value

Yearly



Monthly



Energy Summary

Merchandise Trade Value

	Exports			Imports			Trade Balance			
	Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total	
Million dollars										
1974	Total	NA	NA	98,092	NA	NA	102,559	NA	NA	-4,467
1975	Total	4,470	103,182	107,652	28,325	70,178	98,503	-23,855	+33,004	+9,149
1976	Total	4,226	110,997	115,223	36,384	87,093	123,477	-32,158	+23,904	-8,254
1977	Total	4,184	117,048	121,232	47,153	103,237	150,390	-42,969	+13,811	-29,158
1978	Total	3,882	139,799	143,681	44,763	129,994	174,757	-40,881	+9,805	-31,076
1979	Total	5,675	176,185	181,860	63,077	146,381	209,458	-57,402	+29,803	-27,599
1980	Total	7,982	212,644	220,626	82,924	161,947	244,871	-74,942	+50,698	-24,244
1981	Total	10,279	223,398	233,677	81,360	179,622	260,982	-71,081	+43,776	-27,305
1982	January	1,205	17,379	18,584	7,439	15,134	22,573	-6,234	+2,245	-3,989
	February	1,361	17,253	18,614	5,107	14,463	19,570	-3,746	+2,790	-956
	March	1,256	17,206	18,462	5,009	15,010	20,019	-3,753	+2,196	-1,557
	April	1,201	16,804	18,005	4,312	13,402	17,714	-3,111	+3,402	+291
	May	1,065	17,059	18,124	4,167	16,310	20,477	-3,102	+749	-2,353
	June	1,035	17,788	18,823	5,427	15,760	21,187	-4,392	+2,028	-2,364
	July	974	17,086	18,060	5,943	13,906	19,849	-4,969	+3,179	-1,790
	August	961	16,502	17,463	6,353	16,577	22,930	-5,392	-75	-5,467
	September	998	16,322	17,320	5,201	15,380	20,581	-4,203	+942	-3,261
	October	1,072	15,599	16,671	5,947	15,059	21,006	-4,875	+540	-4,335
	November	847	15,005	15,852	5,037	13,855	18,892	-4,190	+1,149	-3,041
	December	855	15,492	16,347	5,468	13,686	19,154	-4,613	+1,805	-2,808
	Total	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	+20,921	-31,759
1983	January	1,142	16,090	17,232	5,142	14,985	20,127	-4,000	+1,105	-2,895
	February	833	15,479	16,312	3,704	15,100	18,804	-2,871	+378	-2,493
	March	822	15,868	16,690	3,865	15,663	19,528	-3,043	+206	-2,837
	April	850	15,245	16,095	3,763	16,151	19,914	-2,913	-906	-3,819
	May	750	14,905	15,655	5,033	16,413	21,446	-4,283	-1,508	-5,791
	June	791	16,168	16,959	4,767	16,149	20,916	-3,976	+19	-3,957
	July	644	15,842	16,486	5,164	16,664	21,828	-4,520	-821	-5,341
	August	824	15,758	16,582	5,703	17,011	22,714	-4,879	-1,253	-6,132
	September	778	16,479	17,257	5,571	16,880	22,451	-4,793	-402	-5,195
	October	699	16,334	17,033	5,872	18,461	24,333	-5,173	-2,127	-7,300
	November	689	16,374	17,063	4,951	18,164	23,115	-4,262	-1,790	-6,052
	December	739	16,559	17,298	4,417	18,559	22,976	-3,678	-2,000	-5,678
	Total	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562
1984	January	660	17,667	18,327	5,089	21,497	26,586	-4,429	-3,831	-8,260
	February	610	16,602	17,212	5,006	21,141	26,147	-4,396	-4,539	-8,935
	March	767	16,960	17,727	5,323	21,448	26,771	-4,556	-4,488	-9,044
	April	739	16,783	17,522	5,629	22,739	28,368	-4,890	-5,957	-10,847
	May	893	17,057	17,950	4,696	20,873	25,569	-3,803	-3,816	-7,619
	June	848	16,785	17,633	5,206	20,150	25,356	-4,358	-3,365	-7,723
	July	758	18,684	19,442	5,434	26,449	31,883	-4,676	-7,764	-12,440
	August	864	17,172	18,036	4,886	21,681	26,567	-4,022	-4,509	-8,531
	September	773	17,404	18,177	4,663	24,767	29,430	-3,890	-7,363	-11,253
	October	681	17,706	18,387	5,168	21,145	26,313	-4,487	-3,440	-7,927

NA=Not available.

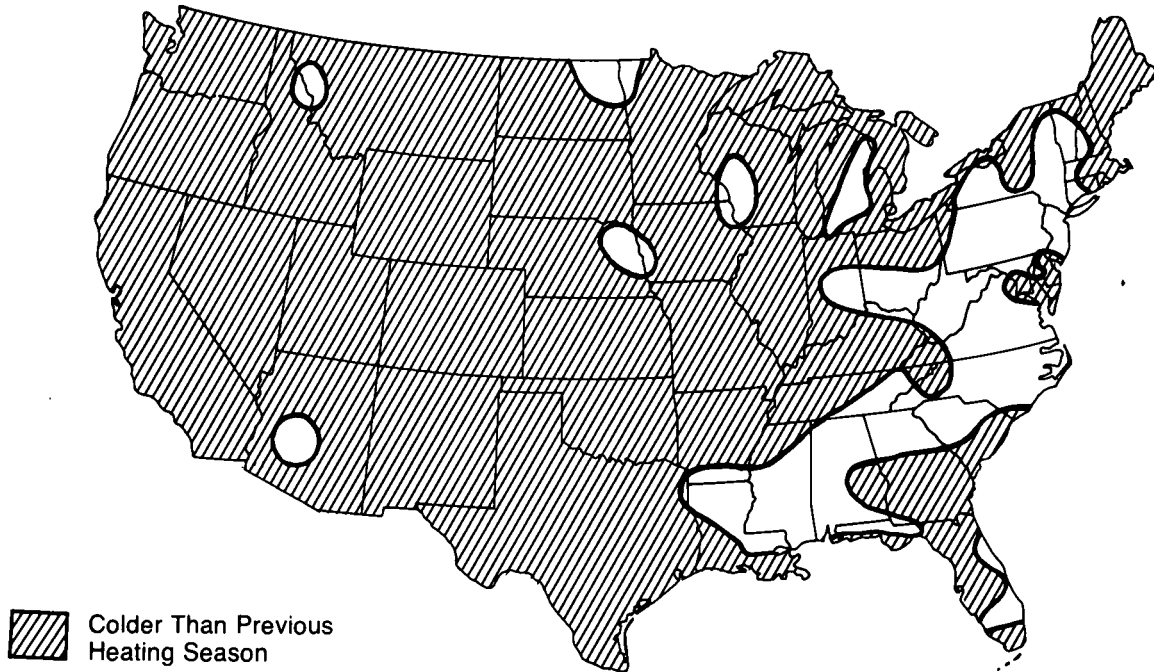
Notes: • Annual totals are unadjusted and may not equal the sum of monthly totals, which are adjusted for seasonal and working-day variation, if present and identifiable.

• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.

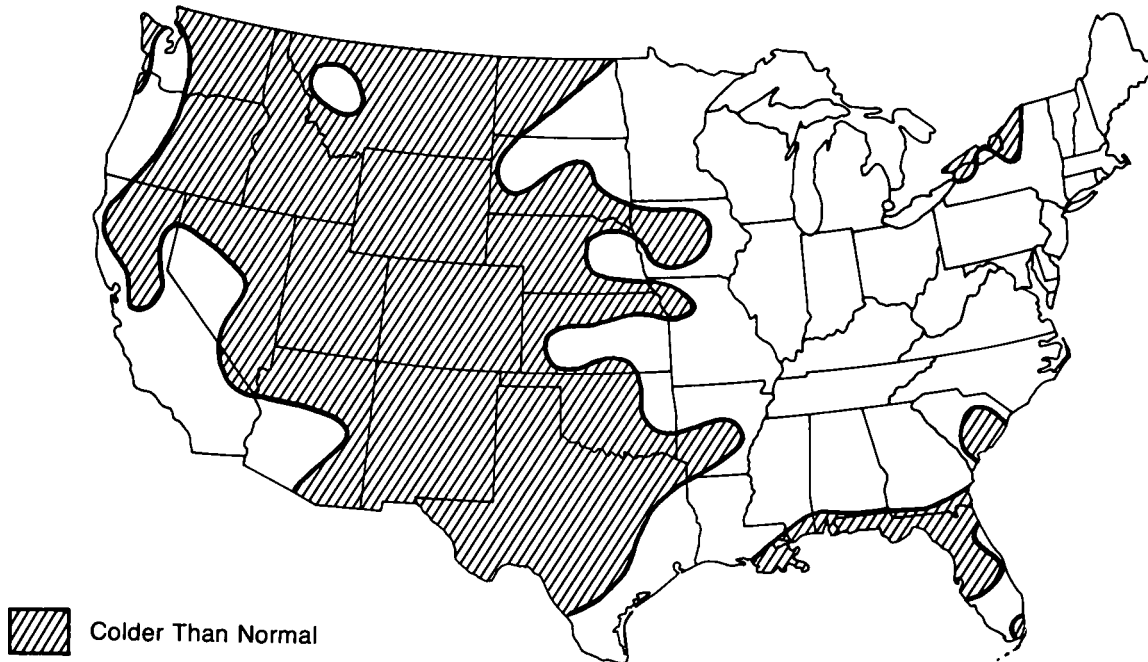
Additional Notes and Sources: • See the last page of this section.

Energy Summary

Heating Degree-Days Accumulated from July 1, 1984, through December 1, 1984
Departure from Previous Heating Season



Departure from Normal



Source: • Department of Commerce—National Oceanic and Atmospheric Administration.

Energy Summary

Population-Weighted Heating Degree-Days¹

Census Divisions	November 1 through November 30					Cumulative July 1 through November 30				
	Normal ²	1983	1984	Percent Change		Normal ²	1983	1984	Percent Change	
				Normal to 1984	1983 to 1984				Normal to 1984	1983 to 1984
New England Conn., Maine, Mass., N.H., R.I., Vt.	718	666	709	-1.3	6.5	1,351	1,226	1,321	-2.2	7.7
Middle Atlantic N.J., N.Y., Pa.	665	636	673	1.2	5.8	1,153	1,115	1,047	-9.2	-6.1
Eastern North Central Ill., Ind., Mich., Ohio, Wisc.	757	680	761	0.5	11.9	1,266	1,184	1,227	-3.1	3.6
Western North Central Iowa, Kans., Minn., Mo., Nebr., N.Dak., S.Dak.	820	748	782	-4.6	4.5	1,368	1,268	1,371	0.2	8.1
South Atlantic Del., Fla., Ga., Md. and D.C., N.C., S.C., Va., W.Va.	373	364	415	11.3	14.0	569	549	522	-8.3	-4.9
Eastern South Central Ala., Ky., Miss., Tenn.	463	444	505	9.1	13.7	704	638	610	-13.4	-4.4
Western South Central Ark., La., Okla., Tex.	304	250	306	0.7	22.4	401	314	396	-1.2	26.1
Mountain Ariz., Colo., Idaho, Mont., Nev., N.Mex., Utah, Wyo.	710	678	676	-4.8	-0.3	1,277	1,156	1,349	5.6	16.7
Pacific Coast Calif., Oreg., Wash.	394	349	414	5.1	18.6	648	544	697	7.6	28.1
U.S. Average³	563	520	573	1.8	10.2	935	862	905	-3.2	5.0

¹ See Note on the last page of this section for explanation of degree-days.

² Normal is based on calculations of data from 1951 through 1980.

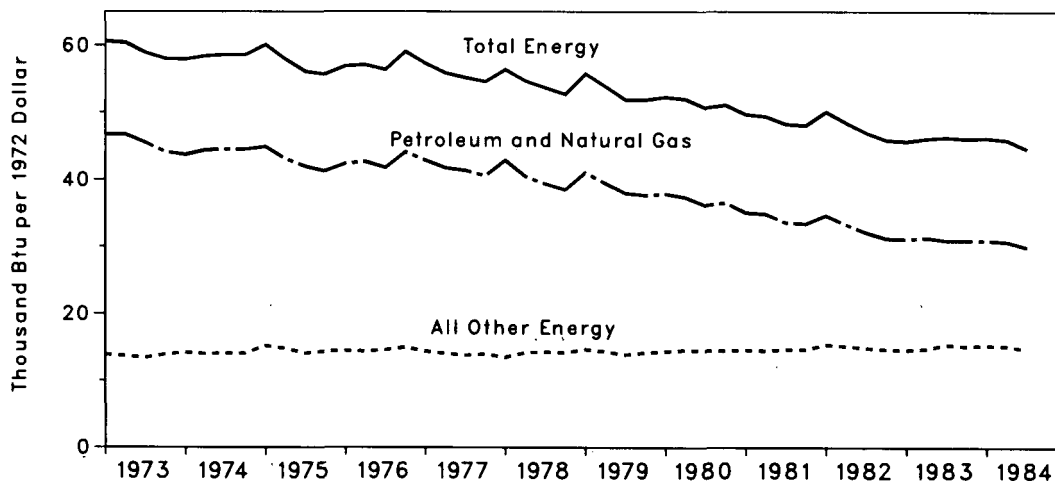
³ Excludes Alaska and Hawaii.

Energy Summary

Energy Indicator—Energy Consumption per Dollar of Gross National Product (Seasonally Adjusted)

	Annual Rate of Energy Consumption	Gross National Product (GNP)	Energy Consumption per Dollar of GNP (Seasonally Adjusted)			
			Total Energy	Petroleum and Natural Gas	All Other Energy	
						Quadrillion Btu
1973	74.212	1.254	59.2	45.7	13.5	
1974	72.479	1.246	58.2	44.3	13.9	
1975	70.485	1.232	57.2	42.8	14.4	
1976	74.297	1.298	57.2	42.8	14.4	
1977	76.215	1.370	55.6	41.6	14.0	
1978	78.039	1.439	54.2	40.3	13.9	
1979	78.845	1.479	53.3	39.1	14.2	
1980	75.900	1.475	51.5	37.0	14.5	
1981	73.940	1.512	48.8	34.3	14.5	
1982	1st Quarter ¹	74.278	1.484	50.1	34.7	15.4
	2nd Quarter ¹	71.757	1.481	48.5	33.3	15.2
	3rd Quarter ¹	69.370	1.477	47.0	32.1	14.9
	4th Quarter ¹	67.910	1.479	45.9	31.2	14.7
	Year	70.807	1.480	47.8	32.8	15.0
1983	1st Quarter ¹	68.206	1.491	45.7	31.1	14.6
	2nd Quarter ¹	70.349	1.525	46.1	31.3	14.8
	3rd Quarter ¹	71.830	1.550	46.3	30.9	15.4
	4th Quarter ¹	72.437	1.573	46.1	30.9	15.2
	Year	70.721	1.535	46.1	31.0	15.1
1984	1st Quarter ¹	74.370	1.611	46.2	30.9	15.3
	2nd Quarter ¹	75.251	R1.639	45.9	30.7	15.2
	3rd Quarter ¹	73.451	1.647	44.6	29.9	14.7

Quarterly Energy Consumption per Dollar of Gross National Product¹
(Seasonally Adjusted)



¹Quarterly data are seasonally adjusted and shown at annual rates.

R=Revised data.

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

• Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding.

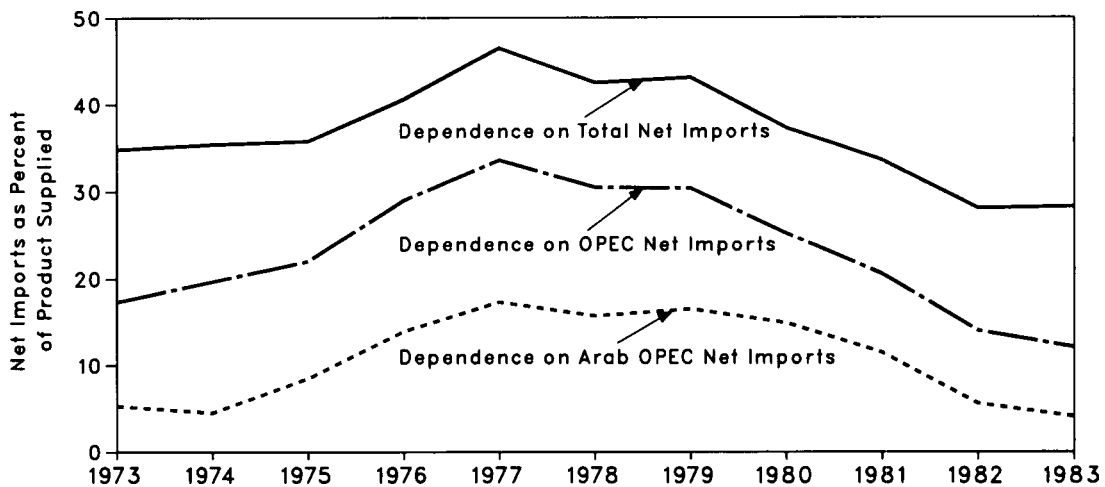
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—U.S. Dependence on Petroleum Net Imports¹

		Net Imports ²			Net Imports as Percent of U.S. Petroleum Products Supplied			
		From Arab OPEC ³ Countries	From All OPEC ⁴ Countries	From All Countries	Petroleum Products Supplied	From Arab OPEC ³ Countries	From All OPEC ⁴ Countries	From All Countries
Annual Rate		Thousand barrels per day				Percent		
1973	Average	914	2,991	6,025	17,308	5.3	17.3	34.8
1974	Average	752	3,277	5,892	16,653	4.5	19.7	35.4
1975	Average	1,382	3,599	5,846	16,322	8.5	22.0	35.8
1976	Average	2,423	5,063	7,090	17,461	13.9	29.0	40.6
1977	Average	3,184	6,190	8,565	18,431	17.3	33.6	46.5
1978	Average	2,962	5,747	8,002	18,847	15.7	30.5	42.5
1979	Average	3,054	5,633	7,985	18,513	16.5	30.4	43.1
1980	Average	2,549	4,293	6,365	17,056	14.9	25.2	37.3
1981	Average	1,844	3,315	5,401	16,058	11.5	20.6	33.6
1982	1st Quarter	1,105	2,391	4,038	15,892	7.0	15.1	25.4
	2nd Quarter	817	1,925	4,075	15,292	5.3	12.6	26.6
	3rd Quarter	819	2,239	4,721	14,893	5.5	15.0	31.7
	4th Quarter	672	1,992	4,353	15,119	4.4	13.2	28.8
	Average	852	2,136	4,298	15,296	5.6	14.0	28.1
1983	1st Quarter	351	1,174	3,079	15,026	2.3	7.8	20.5
	2nd Quarter	444	1,708	4,237	14,825	3.0	11.5	28.6
	3rd Quarter	860	2,501	5,370	15,333	5.6	16.3	35.0
	4th Quarter	857	1,972	4,536	15,732	5.4	12.5	28.8
	Average	630	1,843	4,312	15,231	4.1	12.1	28.3
1984	1st Quarter	754	1,855	4,741	16,058	4.7	11.6	29.5
	2nd Quarter	891	2,227	4,755	15,579	5.7	14.3	30.5
	3rd Quarter	872	2,069	4,555	15,668	5.6	13.2	29.1

U.S. Dependence on Petroleum Net Imports



¹Beginning in October 1977, Strategic Petroleum Reserves are included.

²Net imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are refined products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.

³Includes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

⁴Includes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.

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

• Annual averages may not equal average of quarters due to independent rounding.

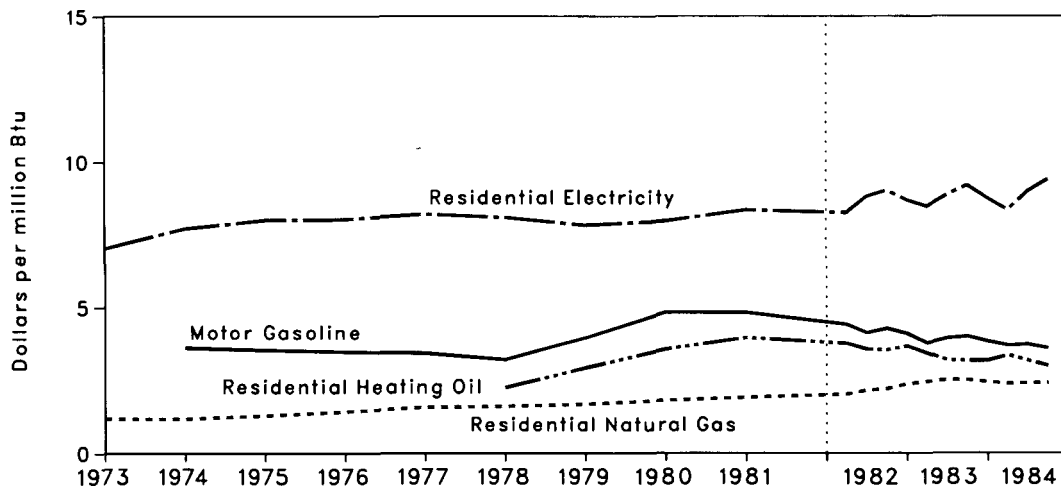
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—Cost of Fuels to End Users in Constant (1972) Dollars¹

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	\$/MMBtu	cent/gal	\$/MMBtu	cent/Mcf	\$/MMBtu	cent/kWh	\$/MMBtu
1973	Average	NA	NA	NA	NA	121.4	1.19	2.39	7.00
1974	Average	45.1	3.61	NA	NA	121.3	1.18	2.63	7.71
1975	Average	44.1	3.53	NA	NA	132.9	1.30	2.73	8.00
1976	Average	43.4	3.47	NA	NA	145.5	1.43	2.74	8.03
1977	Average	42.9	3.43	NA	NA	162.2	1.59	2.80	8.21
1978	Average	40.1	3.21	31.4	2.26	164.2	1.62	2.76	8.09
1979	Average	49.4	3.95	40.6	2.93	171.8	1.69	2.67	7.83
1980	Average	60.5	4.84	49.4	3.56	186.8	1.82	2.72	7.97
1981	Average	60.4	4.83	54.9	3.96	197.3	1.92	2.85	8.35
1982	1st Quarter	55.3	4.42	52.2	3.76	208.5	2.03	2.82	8.26
	2nd Quarter	51.7	4.13	49.4	3.56	221.6	2.16	3.01	8.82
	3rd Quarter	53.5	4.28	48.9	3.53	226.4	2.21	3.08	9.03
	4th Quarter	51.3	4.10	50.7	3.66	243.0	2.37	2.97	8.70
	Average	53.0	4.24	50.3	3.63	224.1	2.19	2.97	8.70
1983	1st Quarter	47.1	3.77	47.3	3.41	R252.6	R2.46	2.89	8.47
	2nd Quarter	49.3	3.94	44.2	3.19	R260.0	2.53	3.03	8.88
	3rd Quarter	50.0	4.00	43.9	3.17	R258.1	R2.52	3.14	9.20
	4th Quarter	47.9	3.83	43.9	3.17	R250.9	R2.45	2.99	8.76
	Average	48.6	3.89	45.3	3.27	R254.5	R2.48	3.01	8.82
1984	1st Quarter	46.1	3.69	46.4	3.35	R245.0	R2.39	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	R247.2	R2.41	3.07	9.00
	3rd Quarter	44.9	3.59	41.6	3.00	248.5	2.42	3.21	9.41

Average Cost of Fuels to End Users in Constant (1972) Dollars¹



¹Fuel costs shown on this page are calculated using the Urban Consumer Price Index developed by the Bureau of Labor Statistics. See the Conversion Factors section of this report.

R=Revised data. NA=Not available.

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

• Annual averages may not equal average of quarters due to independent rounding.

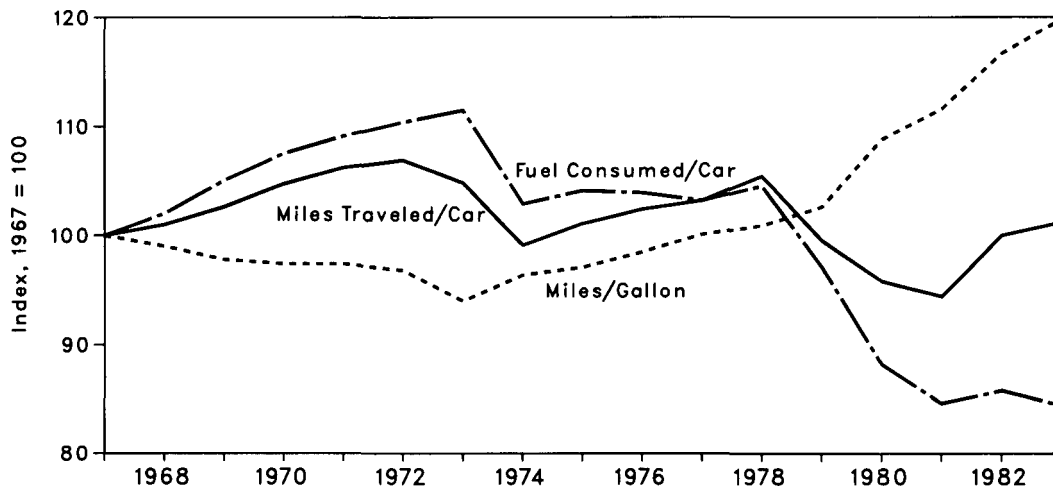
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6
1980	603	88.2	9,135	95.8	15.15	108.8
1981	579	84.6	9,002	94.4	15.54	111.6
1982	587	85.8	9,533	100.0	16.25	116.7
1983†	577	84.4	9,641	101.2	16.70	119.9

U.S. Passenger Car Efficiency Index



†Preliminary data.

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

Sources: • See the last page of this section.

Notes and Sources for the Energy Summary Section

Notes

1. Energy Production: Production of energy includes production of coal, crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. The volumetric data are converted to approximate heat contents (Btu values) of these energy sources using the conversion factors provided in the Conversion Factors section of this publication.

2. Energy Consumption: Consumption of energy includes consumption of coal, natural gas (including supplemental gaseous fuels), refined petroleum products supplied, electric utility and industrial production of hydroelectric power, net imports of electricity produced from hydroelectric power, net imports of coal coke, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.

3. Energy Imports: Energy imports include imports of coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For further information on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.

4. Energy Exports: Energy exports include coal, crude oil, refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For more information on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.

5. Merchandise Trade Value: The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which includes the 50 United States, the District of Columbia, and Puerto Rico) and the Virgin Islands. The statistics exclude imports into Guam, American Samoa, and other U.S. possessions, as well as shipments between the United States and Puerto Rico and the Virgin Islands, between the United States and other U.S. possessions, and between any of these outlying areas. From January 1981 forward, import data presented are on a customs value basis. All other values are on a free alongside ship (f.a.s.) basis. Monthly data are adjusted for seasonal and working-day variation, if present and identifiable; annual data are unadjusted, and annual totals may not equal sum of monthly totals. Statistics include nonmonetary gold. Statistics exclude Department of Defense Military Program Grant-Aid shipments. "All Other" and "Total" columns include foreign exports (i.e., reexports). The "Energy" columns include mineral fuels, lubricants, and related material. "Imports" represent general imports (i.e., entries for immediate consumption, entries into customs bonded warehouses, and entries for the Strategic Petroleum Reserve). "Trade Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. The "All Other" columns are calculated by subtracting "Energy" from "Total."

6. Degree-Days: Degree-days are relative measurements of outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65° F. by convention. Heating degree-days are deviations of the mean

daily temperature below 65° F. For example, if a weather station recorded a mean daily temperature of 78° F., cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40° F. would report 25 heating degree-days (and 0 cooling degree-days).

There are several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the *Monthly Energy Review* (MER) is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland. 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 these 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 1980 by the U.S. Department of Commerce, Bureau of the Census. The data shown in the MER are available sooner than the Historical Climatology Series 5-1 and 5-2 developed by the National Climatic Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Sources

Merchandise Trade Value: • 1974 through 1980: U.S. Department of Commerce, Bureau of the Census, "Highlights of U.S. Export and Import Trade," FT990 (January 1982), Appendix for total imports and exports. Energy imports and exports from U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," December issues, plus Bureau of the Census reports EA691 "Exports from the Virgin Islands to Foreign Countries," and IA245V "U.S. Imports for Consumption and General Imports into the Virgin Islands."

• 1981 forward: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," most recent monthly issue.

Gross National Product: • U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.

U.S. Dependence on Petroleum Net Imports: • Imports and products supplied—Part 3 of this publication.

• Exports—1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*; 1977 through 1982: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1983 forward: EIA, *Petroleum Statement, Monthly*.

Cost of Fuels to End Users in Constant (1972) Dollars:

• Leaded Regular Motor Gasoline—Bureau of Labor Statistics (BLS).

• Residential Heating Oil—EIA, 1983 forward: EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA Form-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to 1983 are EIA backcast estimates using data from FEA Form P112-M1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9-A, "No. 2 Distillate Price Monitoring Report." See Note 8 in the Notes and Sources for the Price Section for additional information.

• Residential Natural Gas—Annual data 1973 through 1982 from EIA, *Natural Gas Annual*, based on Form EIA-176, "Supply and Distribution of Natural Gas," and predecessors. Annual 1983 and quarterly data are EIA estimates based on the BLS Urban Consumer Price Index for natural gas and are adjusted to conform with final reported annual data. See Note 6 in the Notes and Sources for the Price Section for estimation procedures.

• Residential Electricity—Federal Energy Regulatory Commission (FERC), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."

• Deflator (The Urban Consumer Price Index)—BLS.

U.S. Passenger Car Efficiency: • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

Consumption

Total U.S. energy consumption in September 1984 was 5.6 quadrillion Btu, 1.1 percent above the September 1983 level. Petroleum accounted for 44.1 percent of the energy consumed in September 1984, while coal accounted for 24.3 percent and natural gas accounted for 21.1 percent.

The transportation sector used 62.6 percent of petroleum consumed and the industrial sector used 26.0 percent. Of total natural gas consumed, the industrial sector used 52.0 percent, electric utilities used 25.4 percent, and the residential and commercial sector used 19.4 percent. Most of the coal used in September 1984 (83.5 percent) was consumed by electric utilities. The residential and commercial sector used 64.0 percent of total electricity sales, while the industrial sector used 35.9 percent.

Residential and commercial sector consumption was 1.8 quadrillion Btu in September 1984, down 2.2 percent from the September 1983 level. This sector consumed 31.9 percent of the September 1984 total, down from its 33.0-percent share in September 1983.

Industrial sector consumption was 2.2 quadrillion Btu in September 1984, up 5.2 percent from the September 1983 level. The industrial sector accounted for 39.8 percent of the September 1984 total consumption, up from the industrial sector's 38.2-percent share of September 1983 total consumption.

Transportation sector consumption of energy was 1.6 quadrillion Btu in September 1984, down 0.4 percent from the September 1983 level. This sector consumed 28.4 percent of the September 1984 total, down from the sector's 28.8-percent share in September 1983.

The electric utilities consumption of energy was an estimated 2.1 quadrillion Btu in September 1984, 0.7 percent lower than in September 1983. Coal contributed 53.9 percent of the energy consumed by electric utilities in September 1984, while nuclear contributed 15.0 percent; natural gas, 14.2 percent; hydroelectric, 12.2 percent; petroleum, 3.9 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.7 percent.

Consumption Summary for September 1984

(Quadrillion (10¹⁵) Btu)

Energy Source	Sector				Total
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.012	0.214	0.000	1.142	1.368
Natural Gas ¹	0.230	0.617	0.039	0.301	1.186
Petroleum Products	0.200	0.647	1.555	0.083	2.486
Hydroelectric	0.000	0.002	0.000	0.259	0.261
Nuclear	0.000	0.000	0.000	0.318	0.318
Net Imports of Coal Coke	0.000	0.000	0.000	0.000	0.000
Other ²	0.000	0.000	0.000	0.015	0.015
Primary Consumption	0.442	1.479	1.594	2.118	5.633
Electricity Sales	0.433	0.243	0.001	(0.677)	
Net Energy Consumption	0.876	1.723	1.595		4.192
Electrical Energy Losses	0.922	0.517	0.002	(1.441)	1.441
Total Energy Consumption	1.798	2.240	1.597		5.633

¹ Includes supplemental gaseous fuels.

² Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

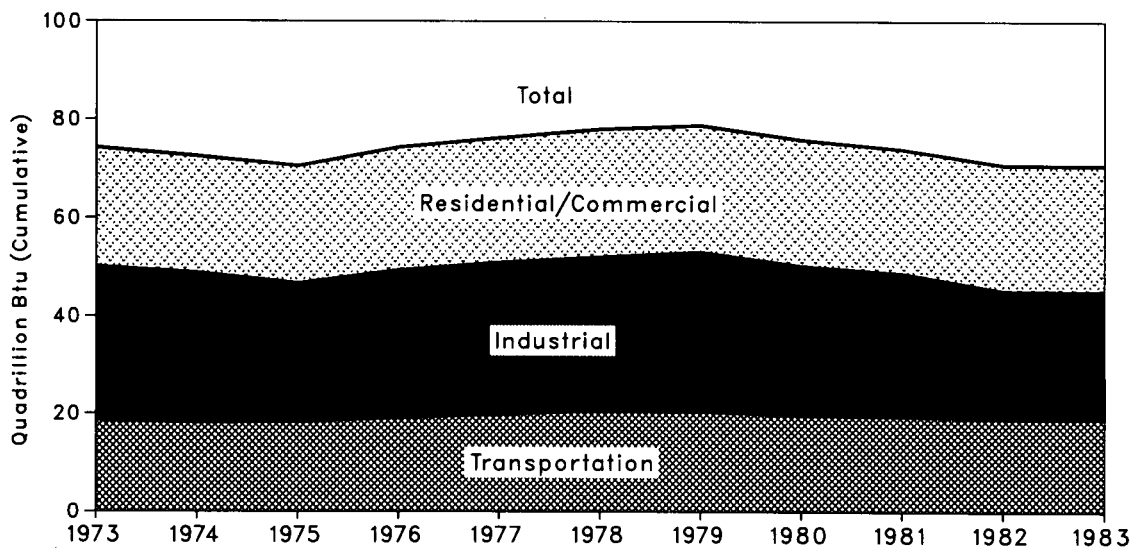
Notes: • Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors.

• Additional notes and sources for this table and all other tables in this section are provided on the last four pages of this section.

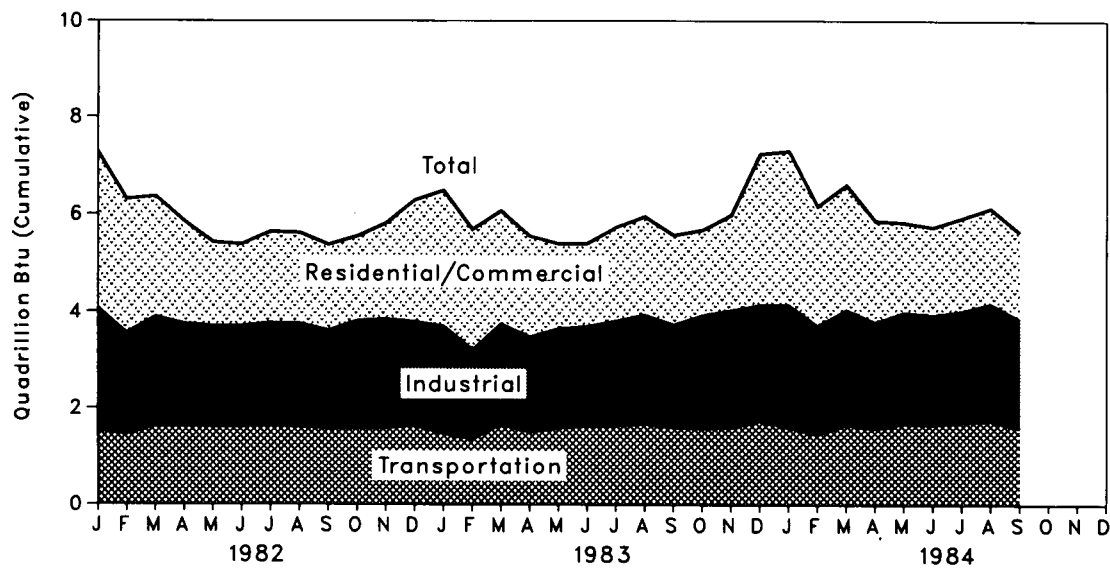
Consumption

Consumption of Energy by End-Use Sector

Yearly



Monthly



Consumption

Consumption of Energy by End-Use Sector

		Residential and Commercial	Industrial	Transportation	Total
Quadrillion (10 ¹⁵) Btu					
1973	Total	24.147	31.463	18.596	74.212
1974	Total	23.729	30.630	18.113	72.479
1975	Total	23.902	28.343	18.240	70.485
1976	Total	25.020	30.177	19.093	74.297
1977	Total	25.375	31.021	19.808	76.215
1978	Total	26.084	31.363	20.589	78.039
1979	Total	25.810	32.567	20.464	78.845
1980	Total	25.654	30.549	19.693	75.900
1981	Total	25.246	29.208	19.495	73.940
1982	January	3.193	2.533	1.536	7.262
	February	2.749	2.097	1.449	6.292
	March	2.471	2.265	1.620	6.353
	April	2.110	2.119	1.621	5.847
	May	1.723	2.075	1.613	5.409
	June	1.673	2.087	1.611	5.371
	July	1.877	2.121	1.640	5.641
	August	1.866	2.142	1.607	5.618
	September	1.763	2.028	1.576	5.369
	October	1.736	2.228	1.577	5.542
	November	1.970	2.260	1.582	5.815
	December	2.498	2.152	1.634	6.289
	Total	25.629	26.105	19.066	70.807
1983	January	2.779	2.232	1.466	6.480
	February	2.488	1.844	1.355	5.687
	March	2.326	2.082	1.657	6.067
	April	2.081	1.969	1.500	5.547
	May	1.747	2.055	1.586	5.386
	June	1.704	2.060	1.634	5.400
	July	1.928	2.168	1.639	5.737
	August	2.022	2.253	1.676	5.955
	September	1.839	2.130	1.603	5.573
	October	1.756	2.334	1.587	5.676
	November	1.958	2.428	1.597	5.982
	December	3.095	2.395	1.739	7.231
	Total	25.725	25.949	19.040	70.721
1984	January	3.155	2.524	1.610	7.290
	February	2.453	2.244	1.466	6.162
	March	2.560	2.373	1.665	6.597
	April	2.088	2.195	1.586	5.862
	May	1.851	2.294	1.690	5.830
	June	1.810	2.266	1.662	5.738
	July	1.915	R2.292	1.718	R5.926
	August	1.961	R2.415	1.743	R6.121
	September	1.798	2.240	1.597	5.633

R=Revised data.

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

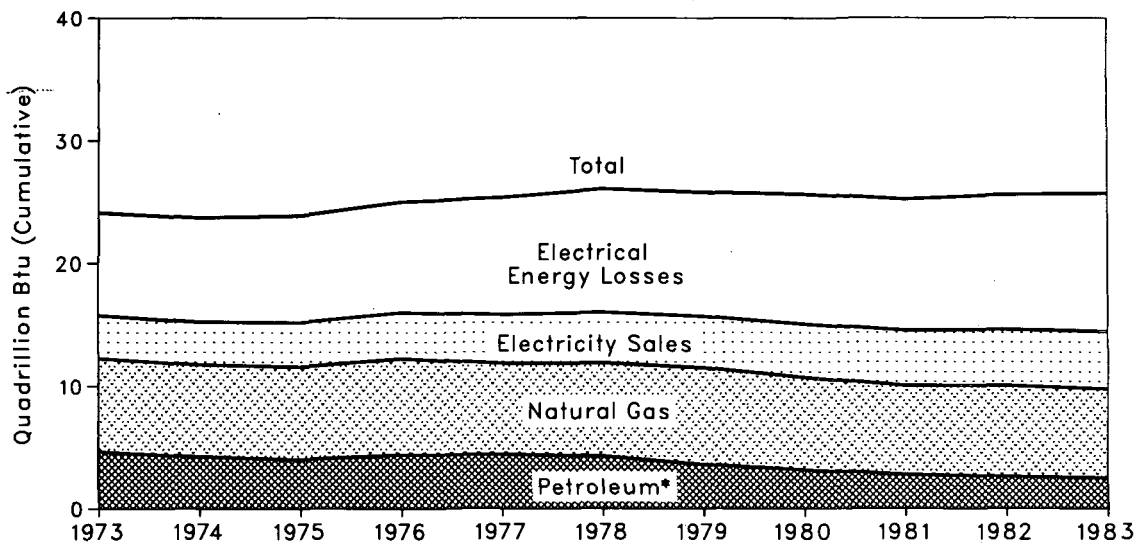
• Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors after 1981.

Additional Notes and Sources: • See the last four pages of this section.

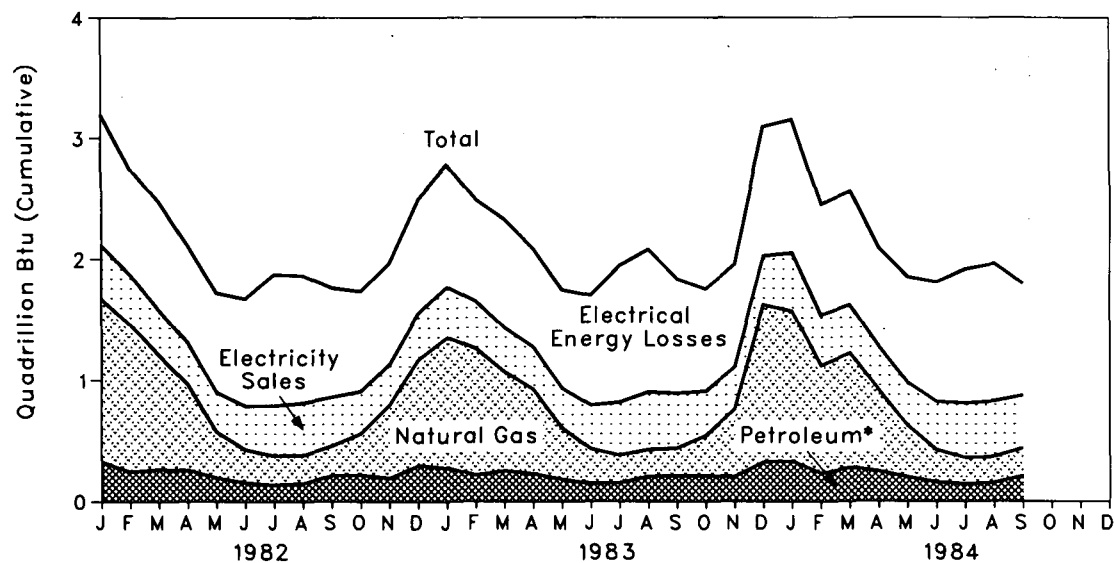
Consumption

Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



*Includes very small quantities of coal.

Consumption

Consumption of Energy by the Residential and Commercial Sector

		Coal	Natural Gas ¹	Petroleum	Electricity Sales	Electrical Energy Losses	Total	Year to Date
		Quadrillion (10 ¹⁵) Btu						
1973	Total	0.259	7.626	4.391	3.495	8.377	24.147	
1974	Total	0.260	7.518	3.996	3.475	8.480	23.729	
1975	Total	0.212	7.581	3.805	3.604	8.700	23.902	
1976	Total	0.206	7.866	4.181	3.747	9.020	25.020	
1977	Total	0.207	7.461	4.206	3.955	9.545	25.375	
1978	Total	0.215	7.624	4.070	4.116	10.060	26.084	
1979	Total	0.188	7.891	3.448	4.184	10.100	25.810	
1980	Total	0.147	7.539	3.035	4.355	10.578	25.654	
1981	Total	0.171	7.249	2.634	4.497	10.696	25.246	
1982	January	0.023	1.344	0.303	0.440	1.084	3.193	3.193
	February	0.016	1.222	0.228	0.409	0.874	2.749	5.942
	March	0.013	0.948	0.252	0.373	0.886	2.471	8.413
	April	0.016	0.706	0.243	0.346	0.798	2.110	10.523
	May	0.011	0.382	0.181	0.327	0.822	1.723	12.245
	June	0.008	0.279	0.144	0.358	0.885	1.673	13.919
	July	0.014	0.245	0.121	0.412	1.084	1.877	15.796
	August	0.015	0.234	0.134	0.431	1.053	1.866	17.662
	September	0.015	0.247	0.197	0.403	0.902	1.763	19.426
	October	0.015	0.343	0.201	0.349	0.827	1.736	21.161
	November	0.019	0.605	0.172	0.340	0.834	1.970	23.131
	December	0.023	0.878	0.274	0.381	0.942	2.498	25.629
	Total	0.189	7.433	2.449	4.566	10.991	25.629	
1983	January	0.020	1.081	0.257	0.413	1.007	2.779	2.779
	February	0.018	1.049	0.198	0.390	0.834	2.488	5.266
	March	0.013	0.821	0.239	0.365	0.889	2.326	7.593
	April	0.017	0.698	0.210	0.352	0.805	2.081	9.674
	May	0.011	0.427	0.169	0.327	0.813	1.747	11.421
	June	0.008	0.290	0.140	0.359	0.907	1.704	13.126
	July	0.014	0.233	0.120	0.435	1.127	1.928	15.054
	August	0.013	0.224	0.138	0.472	1.176	2.022	17.076
	September	0.017	0.233	0.194	0.451	0.944	1.839	18.916
	October	0.018	0.333	0.193	0.367	0.845	1.756	20.672
	November	0.019	0.559	0.185	0.350	0.844	1.958	22.630
	December	0.025	1.296	0.302	0.402	1.069	3.095	25.725
	Total	0.192	7.244	2.345	4.683	11.261	25.725	
1984	January	0.024	1.240	0.309	0.476	1.105	3.155	3.155
	February	0.021	0.894	0.210	0.416	0.912	2.453	5.608
	March	0.015	0.947	0.265	0.395	0.938	2.560	8.168
	April	0.021	0.669	0.228	0.360	0.810	2.088	10.257
	May	0.013	0.424	0.187	0.355	0.873	1.851	12.108
	June	0.010	0.272	0.147	0.395	0.986	1.810	13.918
	July	0.010	0.221	0.133	0.448	1.104	1.915	15.833
	August	0.010	0.218	0.144	0.456	1.134	1.961	17.794
	September	0.012	0.230	0.200	0.433	0.922	1.798	19.592

¹Includes supplemental gaseous fuels.

R=Revised data.

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

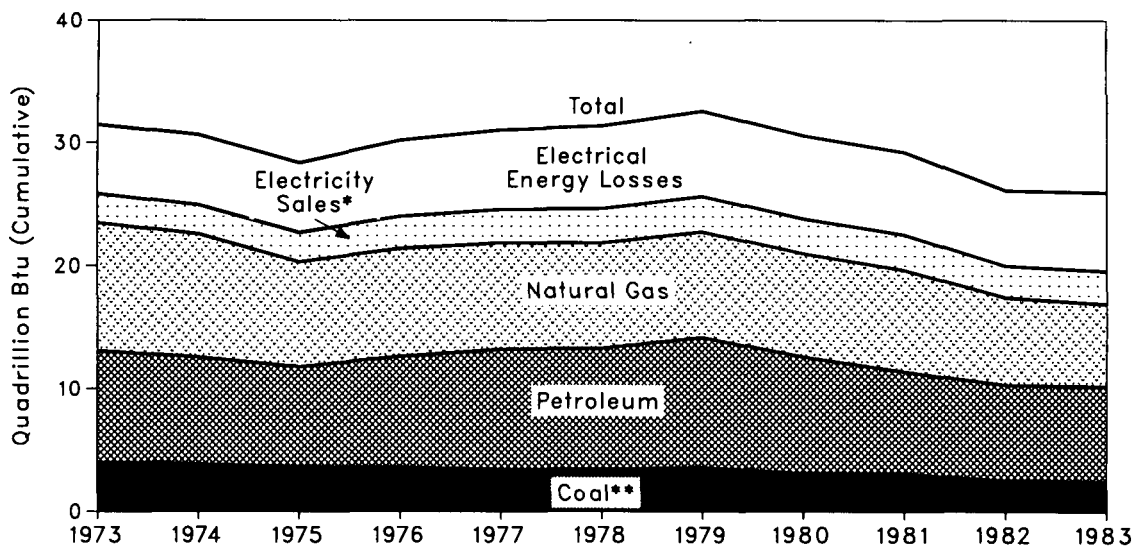
• Totals may not equal sum of components due to independent rounding.

Additional Notes and Sources: • See the last four pages of this section.

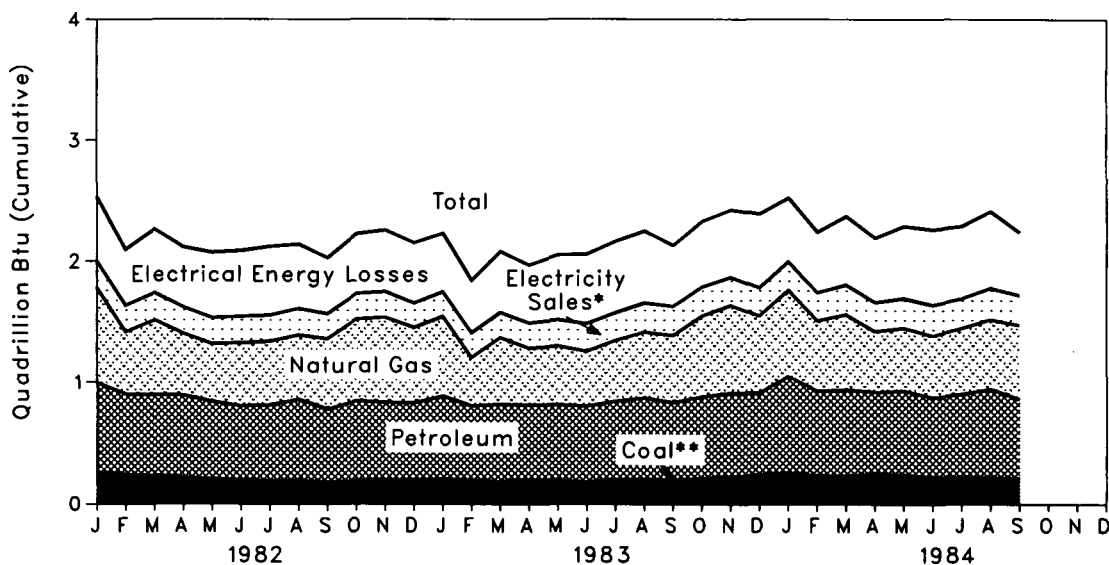
Consumption

Consumption of Energy by the Industrial Sector

Yearly



Monthly



*Includes hydroelectric.

**Includes net imports of coal coke.

Consumption

Consumption of Energy by the Industrial Sector

		Coal	Natural Gas ¹	Petroleum	Hydro-electric	Net Imports of Coal Coke	Electricity Sales	Electrical Energy Losses	Total	Year to Date
		Quadrillion (10 ¹⁵) Btu								
1973	Total	3.984	10.388	9.113	0.035	(0.008)	2.341	5.610	31.463	
1974	Total	3.800	10.003	8.698	0.033	0.059	2.337	5.700	30.630	
1975	Total	3.602	8.532	8.151	0.032	0.014	2.346	5.665	28.343	
1976	Total	3.595	8.761	9.018	0.033	0.000	2.573	6.197	30.177	
1977	Total	3.394	8.636	9.786	0.033	0.015	2.682	6.476	31.021	
1978	Total	3.258	8.539	9.890	0.032	0.131	2.761	6.755	31.363	
1979	Total	3.532	8.549	10.576	0.034	0.066	2.873	6.937	32.567	
1980	Total	3.103	8.394	9.524	0.033	(0.037)	2.781	6.751	30.549	
1981	Total	3.109	8.265	8.295	0.033	(0.017)	2.817	6.704	29.208	
1982	January	0.262	0.793	0.731	0.003	0.000	0.215	0.530	2.533	2.533
	February	0.245	0.520	0.658	0.003	(0.001)	0.214	0.458	2.097	4.630
	March	0.236	0.622	0.663	0.003	(0.002)	0.220	0.523	2.265	6.895
	April	0.218	0.515	0.676	0.003	(0.001)	0.214	0.493	2.119	9.014
	May	0.211	0.480	0.634	0.003	(0.003)	0.213	0.536	2.075	11.089
	June	0.197	0.524	0.612	0.003	(0.004)	0.217	0.538	2.087	13.176
	July	0.191	0.529	0.625	0.003	(0.003)	0.214	0.563	2.121	15.296
	August	0.192	0.537	0.667	0.002	(0.001)	0.216	0.528	2.142	17.438
	September	0.184	0.583	0.600	0.002	(0.003)	0.205	0.458	2.028	19.466
	October	0.192	0.678	0.657	0.002	(0.001)	0.208	0.492	2.228	21.694
	November	0.195	0.708	0.641	0.002	(0.002)	0.207	0.508	2.260	23.953
	December	0.197	0.626	0.635	0.002	(0.001)	0.199	0.494	2.152	26.105
	Total	2.520	7.116	7.798	0.033	(0.023)	2.542	6.120	26.105	
1983	January	0.208	0.664	0.678	0.003	(0.001)	0.198	0.482	2.232	2.232
	February	0.194	0.403	0.613	0.003	(0.001)	0.201	0.431	1.844	4.076
	March	0.185	0.554	0.635	0.003	(0.001)	0.206	0.500	2.082	6.158
	April	0.202	0.471	0.615	0.003	(0.002)	0.207	0.473	1.969	8.127
	May	0.196	0.489	0.622	0.003	(0.002)	0.214	0.532	2.055	10.182
	June	0.180	0.456	0.626	0.003	(0.001)	0.226	0.570	2.060	12.241
	July	0.203	0.507	0.643	0.003	(0.002)	0.227	0.587	2.168	14.409
	August	0.206	0.550	0.666	0.002	(0.001)	0.238	0.592	2.253	16.662
	September	0.200	0.558	0.636	0.002	(0.001)	0.238	0.498	2.130	18.792
	October	0.214	0.673	0.669	0.002	(0.001)	0.235	0.541	2.334	21.127
	November	0.224	0.728	0.689	0.002	(0.001)	0.230	0.555	2.428	23.554
	December	0.246	0.642	0.669	0.002	(0.003)	0.229	0.609	2.395	25.949
	Total	2.458	6.696	7.759	0.033	(0.016)	2.648	6.372	25.949	
1984	January	0.256	0.715	0.794	0.003	0.001	0.228	0.528	2.524	2.524
	February	0.236	0.588	0.690	0.003	0.002	0.227	0.498	2.244	4.768
	March	0.238	0.626	0.704	0.003	(0.001)	0.238	0.566	2.373	7.141
	April	0.250	0.508	0.669	0.003	0.000	0.236	0.529	2.195	9.335
	May	0.242	0.526	0.688	0.003	(0.001)	0.241	0.594	2.294	11.629
	June	0.222	0.517	0.655	0.003	(0.003)	0.249	0.622	2.266	13.896
	July	0.217	R0.550	0.687	0.003	(0.001)	0.241	0.595	R2.292	R16.188
	August	0.220	R0.583	0.724	0.002	(0.002)	0.254	0.633	R2.415	R18.603
	September	0.214	0.617	0.647	0.002	0.000	0.243	0.517	2.240	20.843

¹Includes supplemental gaseous fuels.

R=Revised data.

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

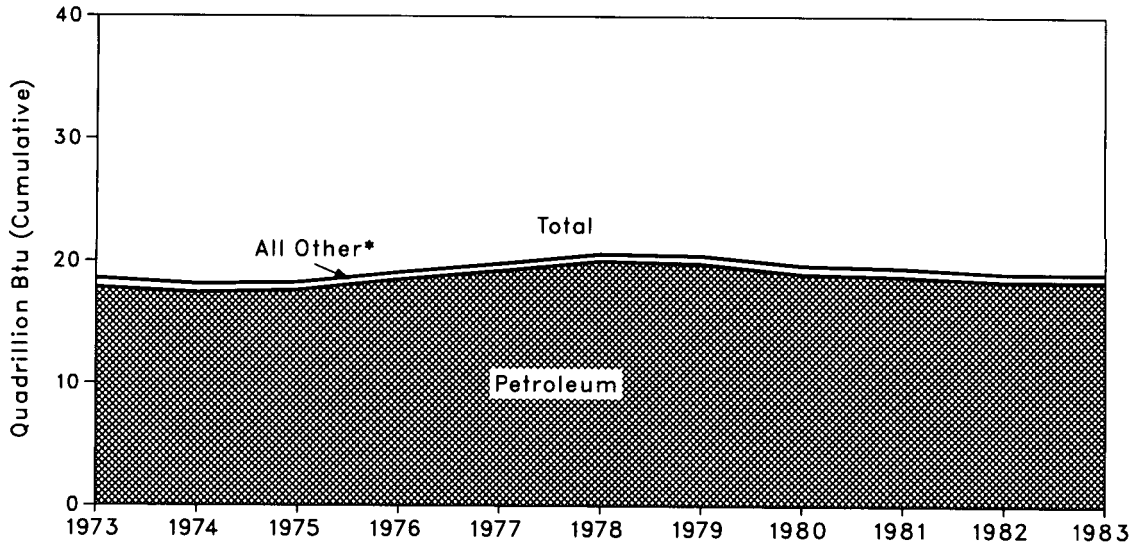
• Totals may not equal sum of components due to independent rounding.

Additional Notes and Sources: • See the last four pages of this section.

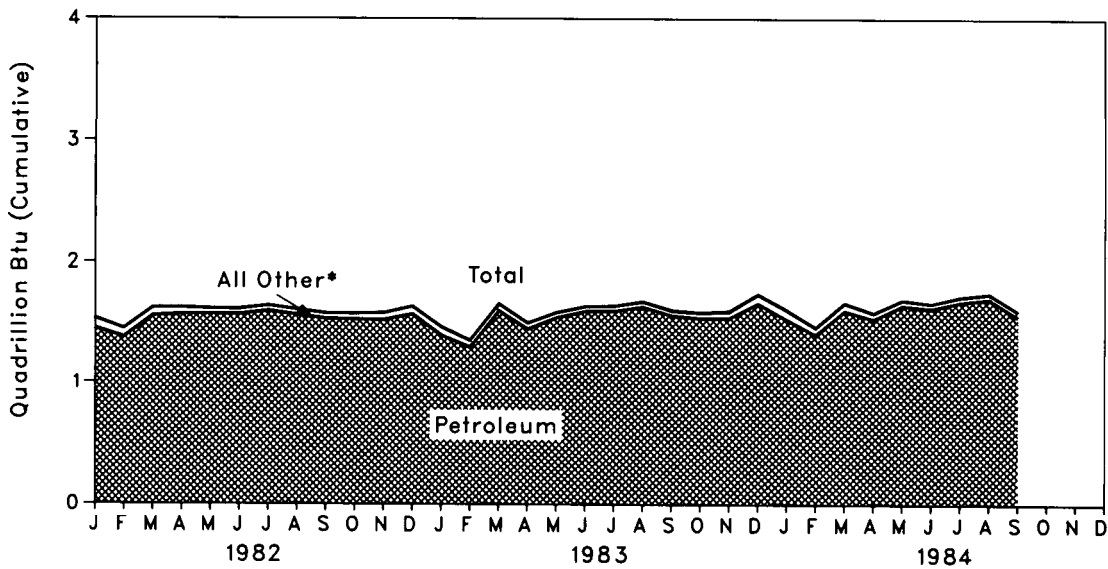
Consumption

Consumption of Energy by the Transportation Sector

Yearly



Monthly



*Includes coal, natural gas, electricity sales, and electrical energy losses.

Consumption

Consumption of Energy by the Transportation Sector

		Coal	Natural Gas ¹	Petroleum	Electricity Sales	Electrical Energy Losses	Total	Year to Date
Quadrillion (10 ¹²) Btu								
1973	Total	0.003	0.743	17.821	0.009	0.020	18.596	
1974	Total	0.002	0.685	17.396	0.009	0.022	18.113	
1975	Total	0.001	0.595	17.610	0.010	0.025	18.240	
1976	Total	(²)	0.559	18.499	0.010	0.025	19.093	
1977	Total	(²)	0.543	19.230	0.010	0.025	19.808	
1978	Total	(²)	0.539	20.019	0.009	0.022	20.589	
1979	Total	(²)	0.612	19.817	0.010	0.025	20.464	
1980	Total	(²)	0.648	19.009	0.011	0.026	19.693	
1981	Total	(²)	0.658	18.800	0.011	0.026	19.495	
1982	January	(²)	0.081	1.452	0.001	0.002	1.536	1.536
	February	(²)	0.068	1.378	0.001	0.002	1.449	2.985
	March	(²)	0.063	1.554	0.001	0.002	1.620	4.605
	April	(²)	0.050	1.568	0.001	0.002	1.621	6.226
	May	(²)	0.039	1.571	0.001	0.002	1.613	7.840
	June	(²)	0.038	1.570	0.001	0.002	1.611	9.451
	July	(²)	0.039	1.597	0.001	0.002	1.640	11.090
	August	(²)	0.039	1.565	0.001	0.002	1.607	12.698
	September	(²)	0.039	1.534	0.001	0.002	1.576	14.274
	October	(²)	0.044	1.529	0.001	0.002	1.577	15.850
	November	(²)	0.053	1.525	0.001	0.002	1.582	17.432
	December	(²)	0.060	1.571	0.001	0.002	1.634	19.066
	Total	(²)	0.613	18.417	0.011	0.026	19.066	
1983	January	(²)	0.067	1.396	0.001	0.002	1.466	1.466
	February	(²)	0.055	1.296	0.001	0.002	1.355	2.820
	March	(²)	0.054	1.600	0.001	0.002	1.657	4.478
	April	(²)	0.047	1.450	0.001	0.002	1.500	5.977
	May	(²)	0.039	1.544	0.001	0.002	1.586	7.563
	June	(²)	0.034	1.597	0.001	0.002	1.634	9.197
	July	(²)	0.036	1.600	0.001	0.002	1.639	10.837
	August	(²)	0.039	1.634	0.001	0.002	1.676	12.513
	September	(²)	0.037	1.564	0.001	0.002	1.603	14.116
	October	(²)	0.043	1.541	0.001	0.002	1.587	15.703
	November	(²)	0.051	1.543	0.001	0.002	1.597	17.300
	December	(²)	0.074	1.662	0.001	0.002	1.739	19.040
	Total	(²)	0.577	18.428	0.010	0.024	19.040	
1984	January	(²)	0.074	1.533	0.001	0.002	1.610	1.610
	February	(²)	0.057	1.406	0.001	0.002	1.466	3.077
	March	(²)	0.061	1.602	0.001	0.002	1.665	4.742
	April	(²)	0.048	1.535	0.001	0.002	1.586	6.329
	May	(²)	0.042	1.646	0.001	0.002	1.690	8.019
	June	(²)	0.037	1.623	0.001	0.002	1.662	9.682
	July	(²)	0.039	1.676	0.001	0.002	1.718	11.400
	August	(²)	0.040	1.700	0.001	0.002	1.743	13.143
	September	(²)	0.039	1.555	0.001	0.002	1.597	14.740

¹Includes supplemental gaseous fuels.

²Since 1976, the amount of coal consumed by the transportation sector has been negligible.

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

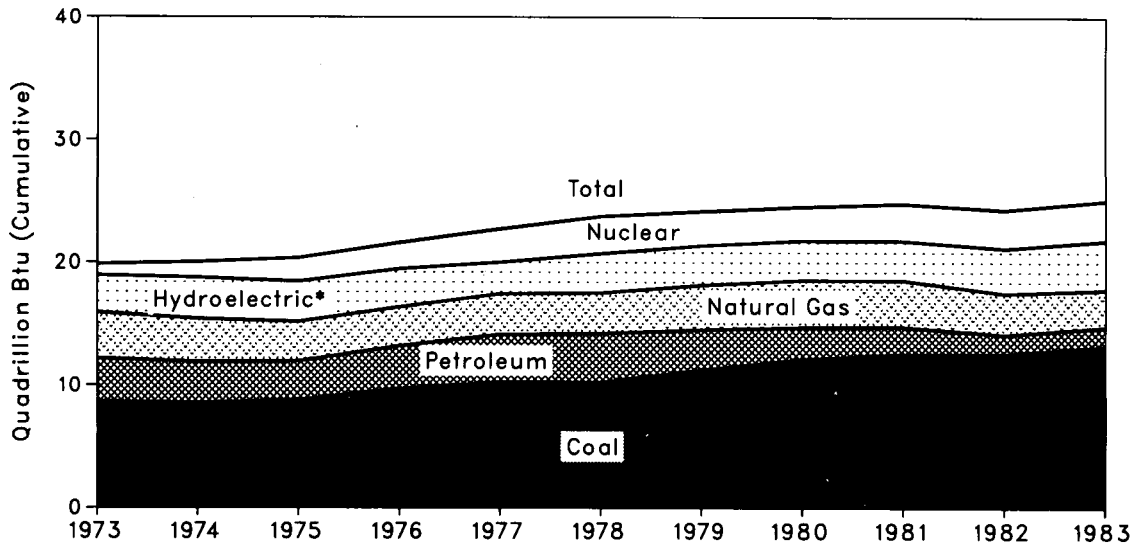
• Totals may not equal sum of components due to independent rounding.

Additional Notes and Sources: • See the last four pages of this section.

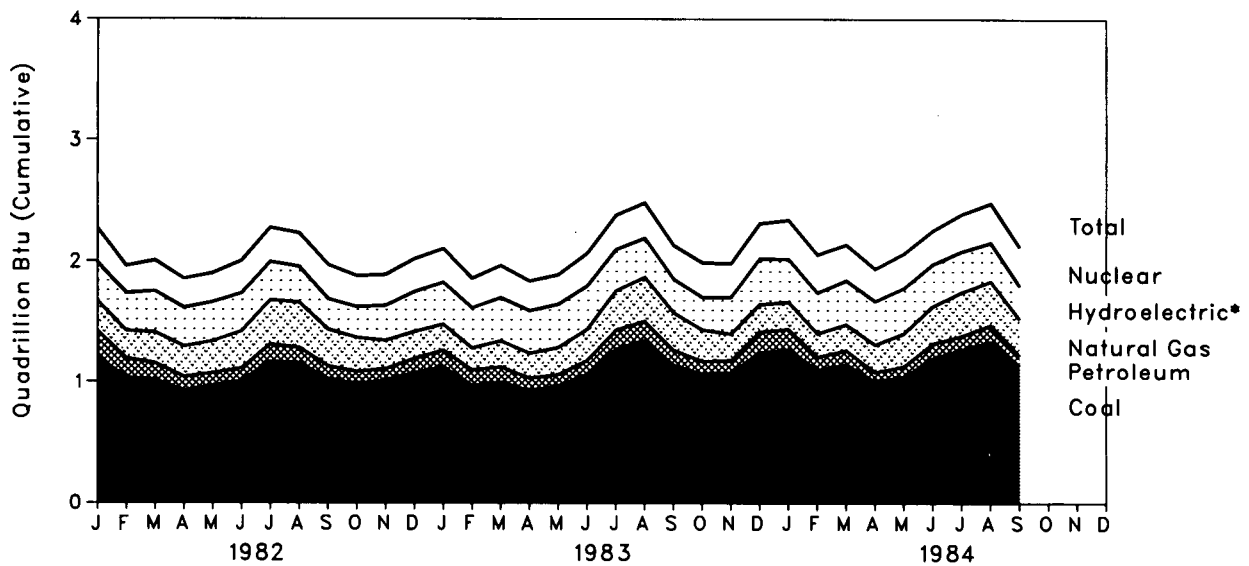
Consumption

Energy Input at Electric Utilities

Yearly



Monthly



*Includes electricity produced from geothermal, wood, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

Consumption

Energy Input at Electric Utilities

		Coal	Natural Gas ¹	Petroleum ²	Hydro-electric Power ³	Nuclear Electric Power	Other ⁴	Total	Year to Date
		Quadrillion (10 ¹⁵) Btu							
1973	Total	8.658	3.748	3.515	2.975	0.910	0.046	19.852	
1974	Total	8.535	3.519	3.365	3.276	1.272	0.056	20.023	
1975	Total	8.786	3.240	3.166	3.187	1.900	0.072	20.350	
1976	Total	9.720	3.152	3.477	3.032	2.111	0.081	21.573	
1977	Total	10.243	3.284	3.901	2.482	2.702	0.082	22.694	
1978	Total	10.236	3.297	3.987	3.110	3.024	0.068	23.722	
1979	Total	11.264	3.609	3.283	3.107	2.776	0.089	24.129	
1980	Total	12.122	3.807	2.634	3.085	2.739	0.114	24.501	
1981	Total	12.583	3.760	2.202	3.072	3.008	0.127	24.752	
1982	January	1.204	0.246	0.221	0.308	0.283	0.009	2.271	2.271
	February	1.036	0.228	0.162	0.303	0.222	0.008	1.958	4.230
	March	1.015	0.255	0.144	0.333	0.251	0.007	2.004	6.234
	April	0.922	0.255	0.120	0.312	0.240	0.007	1.855	8.089
	May	0.967	0.267	0.106	0.315	0.238	0.008	1.902	9.991
	June	1.005	0.306	0.111	0.304	0.265	0.010	2.000	11.991
	July	1.171	0.365	0.144	0.305	0.281	0.010	2.276	14.266
	August	1.162	0.374	0.125	0.284	0.275	0.010	2.230	16.497
	September	1.026	0.303	0.110	0.241	0.280	0.010	1.970	18.467
	October	0.982	0.283	0.106	0.242	0.256	0.011	1.879	20.346
	November	1.013	0.234	0.100	0.277	0.256	0.011	1.891	22.237
	December	1.079	0.222	0.120	0.320	0.269	0.009	2.018	24.256
	Total	12.582	3.338	1.568	3.544	3.115	0.108	24.256	
1983	January	1.129	0.215	0.137	0.335	0.276	0.011	2.103	2.103
	February	0.968	0.183	0.134	0.322	0.245	0.008	1.859	3.962
	March	0.997	0.215	0.133	0.346	0.263	0.010	1.963	5.925
	April	0.922	0.210	0.110	0.342	0.246	0.009	1.838	7.764
	May	0.967	0.226	0.097	0.350	0.243	0.007	1.889	9.653
	June	1.065	0.256	0.119	0.349	0.266	0.010	2.065	11.717
	July	1.278	0.325	0.156	0.326	0.282	0.012	2.379	14.096
	August	1.349	0.364	0.158	0.305	0.289	0.016	2.480	16.577
	September	1.147	0.309	0.123	0.265	0.275	0.014	2.133	18.710
	October	1.072	0.260	0.106	0.254	0.284	0.015	1.992	20.701
	November	1.083	0.222	0.099	0.291	0.275	0.013	1.983	22.685
	December	1.251	0.226	0.171	0.364	0.290	0.011	2.314	24.998
	Total	13.226	3.011	1.544	3.847	3.235	0.135	24.998	
1984	January	1.274	0.223	0.169	0.342	0.321	0.011	2.340	2.340
	February	1.106	0.194	0.108	0.323	0.312	0.013	2.056	4.396
	March	1.154	0.213	0.115	0.349	0.293	0.015	2.139	6.535
	April	1.006	0.228	0.081	0.344	0.266	0.014	1.938	8.473
	May	1.047	0.274	0.090	0.358	0.283	0.014	2.066	10.539
	June	1.204	0.309	0.121	0.331	0.277	0.013	2.255	12.794
	July	1.277	0.361	0.111	0.322	0.306	0.013	2.390	15.185
	August	1.341	0.362	0.137	0.300	0.323	0.016	2.480	17.665
	September	1.142	0.301	0.083	0.259	0.318	0.015	2.118	19.783

¹Includes supplemental gaseous fuels.

²Includes petroleum products reported as "oil consumed in steam plants" through 1979 and "heavy oil" from 1980 forward, which are assumed to be residual fuel oil; petroleum products reported as "oil consumed in gas turbine and internal combustion engine plants" through 1979 and "light oil" from 1980 forward, which are assumed to be distillate fuel oil and kerosene; and petroleum coke.

³Includes net imports of electricity.

⁴Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

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

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

Additional Notes and Sources: • See the last four pages of this section.

Notes and Sources for the Consumption Section

1. Total Energy Consumed: Total energy consumed includes coal (anthracite, bituminous coal, and lignite), natural gas (including supplemental gaseous fuels), refined petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

- Residential and commercial sector—Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, and clothes drying; by non-manufacturing business establishments, including motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; by health, social, and educational institutions; and by Federal, State, and local governments.
- Industrial sector—Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- Transportation sector—Energy consumed to move people and commodities in both the public and private sectors, including military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.
- Electric utility sector—Energy consumed by privately and publicly-owned establishments that generate electricity primarily for resale.

3. Conversion Factors: See the Conversion Factors section of this publication.

4. Coal: Coal is anthracite, bituminous coal, and lignite.

Sources:

- 1973 through September 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
- Electric Utilities—October 1977 forward: Energy Information Administration (EIA), EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
- Other Industrial—October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report - Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly Fuel Consumption Report - Manufacturing Plants" and EIA Form 6, "Coal Distribution Report."
- Coke Plants—October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Quarterly/Annual."
- Residential and Commercial—October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."

5. Natural Gas: Natural gas consumption by end-use sector is based on data presented in the table titled "Natural Gas Consumption" in Part 4. For the Part 2 consumption section, lease and plant fuel consumption are added to the industrial sector deliveries and pipeline fuel represents the transportation sector's use of natural gas. Values in Btu are derived using the conversion factors provided in the Conversion Factors section of this publication.

Sources:

- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.
- 1976 through 1978: EIA, *Energy Data Reports*, "Natural Gas, Annual."
- 1979: EIA, *Natural Gas Production and Consumption 1979*.
- 1980 and 1982: EIA, *Natural Gas Annual*.
- 1983 forward: EIA, *Natural Gas Monthly*.
- Electric utilities consumption—1973 through 1976: FPC Form 4, "Monthly Power Plant Report." 1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report." 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report."

6. Petroleum: Petroleum consumption by end-use is the sum of all individual petroleum products estimated to be consumed in each end-use sector. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review* is the series called "petroleum products supplied" in Part 3.

Sources for petroleum products supplied by individual products are:

- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981 through 1983: EIA, *Petroleum Supply Annual*.
- 1984 forward: EIA, *Petroleum Supply Monthly*.

Specific petroleum products' end-use allocation procedures follow:

- **Aviation Gasoline**—All product supplied is assigned to the transportation sector.
- **Asphalt**—All product supplied is assigned to the industrial sector.
- **Distillate Fuel**
 - **Electric Utility Sector, All Periods.**
Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus kerosene deliveries) consumed at utilities.
Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."
 - **Nonutility Sectors, Annual Estimates.**
The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of distillate fuel delivered to end users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
 - Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;

(Notes and Sources for the Consumption Section are continued on the next page.)

Notes and Sources for the Consumption Section (continued)

6. Petroleum (continued):

• Distillate Fuel (continued)

— Nonutility Sectors, Annual Estimates (cont'd).

- Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries 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; and
- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.

— Nonutility Sectors, Monthly Estimates Through 1982.

- Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980 and the American Petroleum Institute since January 1981.
- The transportation sector 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." 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 sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

— Nonutility Sectors, 1983 Forward.

Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.

- **Jet Fuel**—Small amounts of kerosene-type jet fuel in all periods are consumed by the electric utility sector. Kerosene-type jet fuel deliveries to electric utilities as reported on the FERC-423 (formerly FPC-423) are used as an estimate of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.

- **Kerosene**—Total product supplied monthly is allocated to the major end-use sectors in proportion to annual deliveries grouped into end-use sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:

- Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983

forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;

- Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
- Industrial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's 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)

- 1973 through 1982: the annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:
 - 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 equal the annual consumption of LPG by the sector;
 - The quantity of LPG sold each year that is consumed in internal combustion engines is allocated between the transportation and industrial sectors according to a 5-year moving average of the percentage of carburetors sold to each end-use category. The proportions range from 31 percent transportation and 69 percent industrial in 1973 to 52 percent transportation and 48 percent industrial in 1982.
 - LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and for use 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.

The source of the sales data is EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.

- 1983 forward: The 1982 annual end-use shares are applied for succeeding periods to estimate the amount of the total LPG supplied that is consumed by each major end-use sector.

- **Lubricants**—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those 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.

(Notes and Sources for the Consumption Section are continued on the next page.)

Notes and Sources for the Consumption Section (continued)

6. Petroleum (continued):

- **Motor Gasoline**—Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories formed from 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, miscellaneous use, and unclassified use;
- Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*; and
- 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**—The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining portion is assigned to the industrial sector.

• Residual Fuel

— **Electric Utility Sector, All Periods.**

Monthly and annual consumption 1973 through 1979 is assumed to be the amount of oil reported as consumed in steam electric plants. From January 1980, electric utility consumption of residual fuel is assumed to be the petroleum products reported as "heavy oil" consumed at utilities.

Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."

— **Nonutility Sectors, Annual Estimates.**

The aggregate nonutility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel delivered to end users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:

- Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, oil company, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries 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; and
- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.

— **Nonutility Sectors, Monthly Estimates Through 1982.**

- Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation

for 1973 through 1980 and the American Petroleum Institute since January 1981.

- Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
- Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.

— **Nonutility Sectors, 1983 Forward.**

Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.

- **Road Oil**—All product supplied is assigned to the industrial sector.

- **All Other Petroleum Products**—The product supplied of all remaining petroleum products is assigned to the industrial sector.

7. Hydroelectric: Includes electricity generated by hydroelectric power at electric utilities, small amounts in the industrial sector, and net imports of electricity, which are assumed to be generated by hydroelectric power and are included in the hydroelectricity in the electric utilities sector.

Sources for electric utilities sector:

- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
- 1977 through 1981: FERC, FPC Form 4, "Monthly Power Plant Report."
- 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."

Sources for industrial sector:

- 1973 through 1978: FPC Forms 4 and 12-C.
- 1979: FPC Form 4 and EIA estimates.
- 1980 forward: EIA estimates.

Note: For 1977 forward, monthly data are not available from above sources and were estimated by seasonalizing the annual numbers in proportion to each month's hydroelectricity generation in the electric utility sector.

Note for imports and exports of electricity:

- Monthly electricity imports and exports estimates for 1982 forward were revised in the May 1984 *Monthly Energy Review*. The revisions do not cause discontinuity in the annual data series: the data continue to come from the same source. The monthly data series, however, are discontinuous because monthly data from January 1982 forward are now available from the same source as the annual data. Estimates for monthly values prior to 1982, published in previous issues, were developed by converting the annual value to a daily rate and multiplying by the number of days in the month. Accordingly, month-to-month analyses are not comparable when taken across the transition date of January 1982. Monthly analyses on either side of that date will be comparable. There is no known bias in either the annual data or the monthly data since January 1982.

Sources for imports and exports of electricity:

- 1973 through 1980: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
- 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, Economic Regulatory Administration, EIA-781, "Annual Report of International Electric Import/Export Data."
- 1984: EIA estimates.

(Notes and Sources for the Consumption Section are continued on the next page.)

Notes and Sources for the Consumption Section (continued)

8. Nuclear:

Sources:

- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
- 1977 through 1981: FERC, FPC Form 4, "Monthly Power Plant Report."
- 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."

9. Net Imports of Coal Coke: Net imports means imports minus exports, and the parentheses indicate that exports are greater than imports.

Sources:

- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals," chapter.
- 1976 through 1980: EIA, *Energy Data Report*, "Coke and Coal Chemicals," annual.
- 1981 forward: EIA, *Energy Data Report*, "Coke Plant Report," quarterly/annual.

10. Other Energy: "Other" is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

Sources: same as Note 8 above, for Nuclear.

11. Electricity Sales: From the sources cited below the following sales categories are available: residential, com-

mercial, industrial, and other. For the end-use estimates in this section, the "other" category (which is primarily sales for use in government buildings) is added to the commercial sector except for approximately 4 percent, which represents the transportation sector use of electricity, primarily by railroads and railways. Sales of electricity are converted into Btu at the rate of 3,412 Btu per kilowatt-hour.

Sources of sales data:

- 1973 through 1976: FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- 1977 through February 1980: EIA, FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- March 1980 through December 1982: EIA, FERC Form 5, "Electric Utility Company Monthly Statement."
- January 1983 forward: EIA, EIA Form 826, "Electric Utility Company Monthly Statement."

12. Electrical Energy Losses: Total electrical energy losses (i.e., incurred in the generation and transmission of electricity plus plant use and unaccounted for) are estimated as the difference between total energy input at utilities and electricity sold to the end users. Total losses are disaggregated to the end-use sectors in proportion to each sector's share of total electricity sales. In general, about 65 percent of total energy input at utilities is lost in the form of heat, and an additional 3 percent is lost in the transmission and distribution of the electricity to the end user.

Petroleum*

Domestic crude oil production during November 1984 was estimated to be 8.8 million barrels per day, almost the same rate as in October 1984, but 0.9 percent higher than the rate in November 1983.

Total petroleum imports averaged 5.3 million barrels per day in November 1984, 7.9 percent less than the October 1984 rate but 2.0 percent more than the November 1983 rate.

In November 1984, 15.5 million barrels per day of petroleum products were supplied for domestic use, 1.1 percent below the level in October 1984 and 0.2 percent below the level of the previous November. Motor gasoline accounted for 43.4 percent of the total; distillate fuel oil, 18.8 percent; and residual fuel oil, 7.3 percent.

Motor gasoline supplied during November 1984 averaged 6.7 million barrels per day, 0.3 percent below the rate in October 1984 but 1.6 percent above the rate of the previous November. Stocks of motor gasoline totaled

241 million barrels at the end of November 1984, 8 million barrels above the level at the end of October 1984 and 5 million barrels above the level 1 year earlier.

In November 1984, 2.9 million barrels of distillate fuel oil were supplied per day, 4.7 percent higher than the October 1984 rate and 1.0 percent higher than the November 1983 rate. Distillate fuel oil stocks were 161 million barrels at the end of November 1984, 9 million barrels above the level at the end of the previous month, but the same stocks level as 1 year earlier.

Residual fuel oil supplied in November 1984 averaged 1.1 million barrels per day, 4.7 percent higher than in October 1984 but 17.3 percent lower than the November 1983 rate. Residual fuel oil stocks measured 49 million barrels at the end of November 1984, 2 million barrels less than the stocks level of the previous month and 5 million barrels less than the ending stocks level for November 1983.

*Estimates for the most current month are based on Energy Information Administration (EIA) weekly data (except crude production) 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 August 1984. The total import data above include imports into the Strategic Petroleum Reserve.

Petroleum

Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Ending Stocks ³	
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products	Petroleum Products Supplied	Crude Oil ⁶ 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	⁶ 1,074
1975	Average	10,045	8,375	1,633	⁸ -17	⁸ -145	16,322	1,133
1976	Average	9,774	8,132	1,603	-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	⁸ 1,392
1981	Average	10,230	8,572	1,609	⁸ -290	⁸ 130	16,058	1,484
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	⁸ 1,430
	Average	10,252	8,649	1,550	-136	283	15,296	
1983	January	10,331	8,697	1,580	⁸ -499	⁸ 772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	Average	10,299	8,688	1,559	-214	234	15,231	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April	10,347	8,688	1,616	-565	-128	15,484	1,465
	May	10,415	8,752	1,610	-616	-422	15,566	1,497
	June	10,398	8,743	1,612	-95	-77	15,687	1,502
	July	10,487	8,769	1,649	-184	-184	15,547	1,514
	August	10,476	8,781	1,663	250	185	16,130	1,500
	September	10,464	8,759	1,666	266	-736	15,315	1,514
	October	10,549	8,847	1,648	R-798	R-211	R15,631	R1,545
	November†	NA	8,846	NA	-561	-271	15,463	1,559
	Average	NA	8,753	NA	-226	-124	15,728	

¹Includes lease condensate.

²A negative number indicates an increase in stocks and a positive number indicates a decrease.

³Stocks are totals as of end of period.

⁴Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

⁵Includes stocks located in the Strategic Petroleum Reserve.

⁶Includes crude oil for storage in the Strategic Petroleum Reserve.

⁷Net imports equals imports minus exports.

⁸In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stocks withdrawal calculations. See Note 5 on the last page of this section.

Footnotes continued on following page.

Petroleum

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports			Exports			
		Total	Crude Oil ^a	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports ⁷
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	5,267	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	471	235	236	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	January	5,332	3,693	1,639	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,874	1,610	882	321	561	3,602
	April	4,378	2,849	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	262	542	4,008
	June	5,327	3,836	1,491	703	94	609	4,624
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,636	1,778	791	184	606	4,624
	October	5,306	3,670	1,636	932	270	662	4,374
	November	5,744	3,862	1,882	786	262	524	4,958
	December	4,606	3,000	1,605	860	193	667	3,746
	Average	5,113	3,488	1,625	815	236	579	4,298
1983	January	4,438	2,964	1,474	973	117	856	3,464
	February	3,726	2,267	1,459	865	262	603	2,861
	March	3,690	2,290	1,400	801	174	627	2,889
	April	4,727	3,118	1,609	809	88	721	3,918
	May	5,089	3,360	1,729	848	280	568	4,241
	June	5,326	3,577	1,749	774	144	630	4,552
	July	5,741	3,871	1,870	571	145	426	5,170
	August	6,159	4,227	1,933	663	172	491	5,496
	September	6,129	4,210	1,919	684	177	507	5,445
	October	5,258	3,446	1,812	576	140	436	4,682
	November	5,210	3,337	1,873	679	186	494	4,531
	December	5,033	3,213	1,820	639	95	544	4,394
	Average	5,051	3,329	1,722	739	164	575	4,312
1984	January	5,347	3,029	2,318	575	153	422	4,772
	February	5,643	2,952	2,691	582	185	397	5,061
	March	5,253	3,455	1,798	840	236	605	4,413
	April	5,319	3,417	1,902	655	172	483	4,664
	May	5,916	3,927	1,989	766	219	548	5,150
	June	5,304	3,410	1,893	864	222	642	4,440
	July	5,387	3,646	1,741	536	108	429	4,851
	August	5,036	3,244	1,793	732	190	542	4,305
	September	5,173	3,294	1,880	664	162	502	4,510
	October	R5,767	R3,751	R2,016	599	141	458	5,167
	November†	<i>5,313</i>	<i>3,643</i>	<i>1,669</i>	NA	NA	NA	NA
	Average	5,405	3,436	1,969	NA	NA	NA	NA

Footnotes continued.

†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.

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

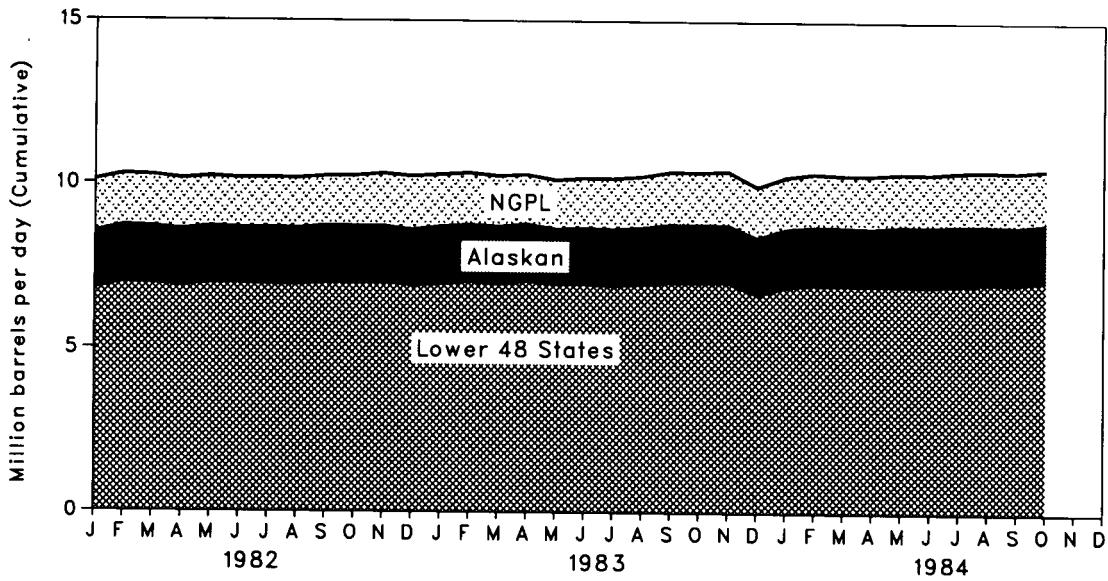
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

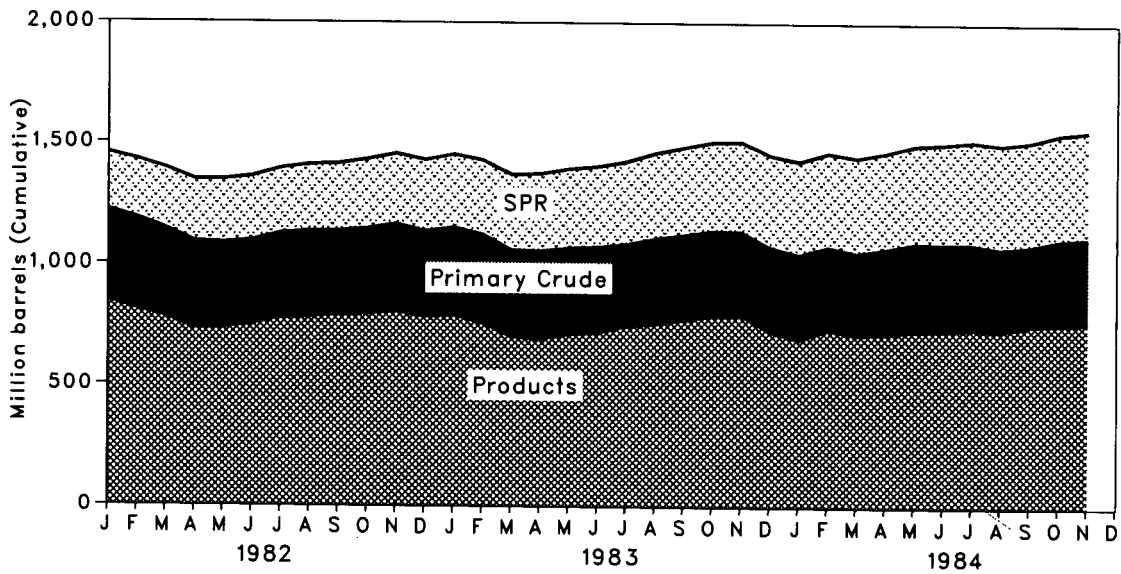
Petroleum

Overview

Production of Crude Oil and Natural Gas Plant Liquids



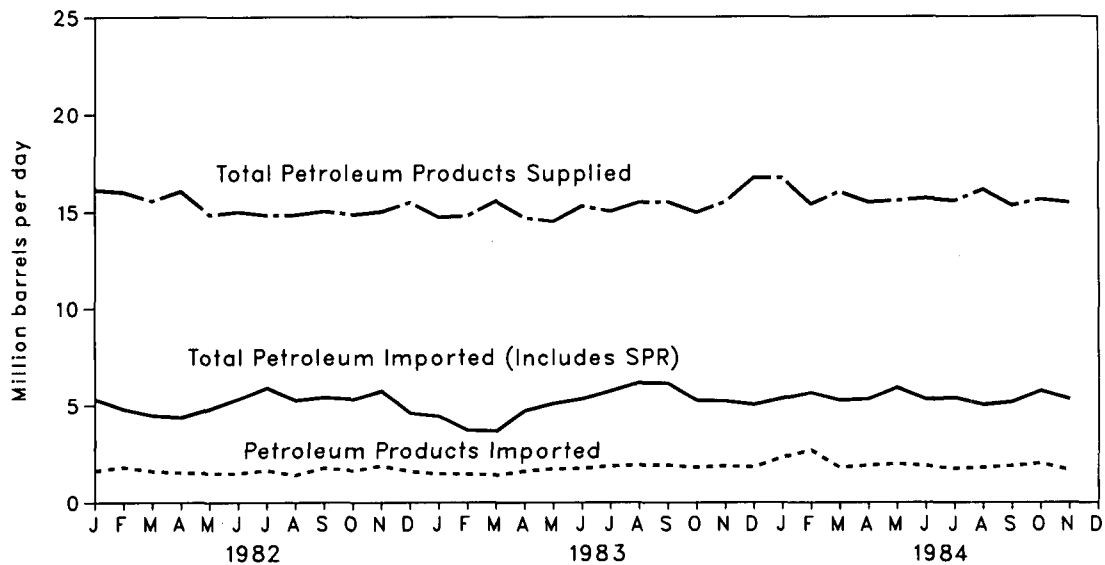
Ending Stocks



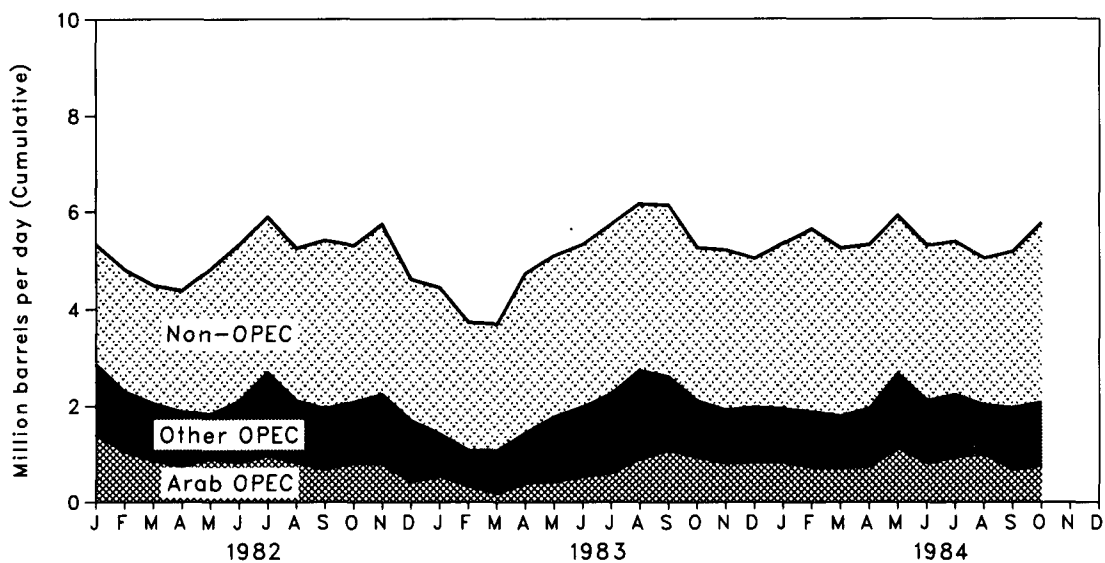
Petroleum

Overview

Products Supplied and Imports



Petroleum Imports by Source



Petroleum

Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil
		Field Production		Imports			Stock Withdrawal ²		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
		Thousand barrels per day							
1973	Average	9,208	198	3,244		3,244		11	3
1974	Average	8,774	193	3,477		3,477		-62	-25
1975	Average	8,375	191	4,105		4,105		-17	17
1976	Average	8,132	173	5,287		5,287		-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	46	83
1982	January	8,509	1,705	3,693	170	3,523	-159	-242	101
	February	8,702	1,707	2,990	159	2,830	-213	-29	156
	March	8,667	1,696	2,874	185	2,689	-235	357	2
	April	8,591	1,691	2,849	190	2,659	-233	196	231
	May	8,683	1,707	3,309	204	3,105	-176	205	111
	June	8,646	1,665	3,836	105	3,732	-105	144	133
	July	8,658	1,710	4,248	97	4,150	-97	-50	-20
	August	8,634	1,697	3,851	208	3,643	-208	-232	189
	September	8,701	1,705	3,636	139	3,497	-143	406	-210
	October	8,701	1,706	3,670	216	3,454	-216	-332	249
	November	8,697	1,676	3,862	180	3,683	-179	-219	-124
	December	8,598	1,682	3,000	124	2,877	-125	252	35
	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	January	8,697	1,732	2,964	219	2,746	-219	-280	170
	February	8,758	1,717	2,267	197	2,070	-197	-123	262
	March	8,700	1,732	2,290	201	2,089	-184	267	31
	April	8,776	1,721	3,118	205	2,913	-197	-205	98
	May	8,631	1,662	3,360	289	3,071	-293	278	169
	June	8,667	1,687	3,577	190	3,387	-188	66	370
	July	8,636	1,715	3,871	274	3,597	-264	497	-167
	August	8,679	1,697	4,227	350	3,876	-358	-438	281
	September	8,784	1,738	4,210	309	3,901	-307	68	-30
	October	8,771	1,733	3,446	202	3,244	-201	-73	44
	November	8,770	1,720	3,337	171	3,166	-135	250	34
	December	8,397	1,711	3,213	193	3,020	-252	-78	117
	Average	8,688	1,714	3,329	234	3,096	-234	20	114
1984	January	8,659	1,741	3,029	200	2,829	-173	-169	451
	February	8,726	1,740	2,952	85	2,868	-96	282	487
	March	8,718	1,740	3,455	148	3,307	-147	145	66
	April	8,688	1,725	3,417	170	3,247	-170	-396	590
	May	8,752	1,793	3,927	246	3,681	-245	-371	463
	June	8,743	1,792	3,410	309	3,101	-309	214	490
	July	8,769	1,769	3,646	329	3,317	-328	144	25
	August	8,781	1,725	3,244	180	3,064	-179	429	383
	September	8,759	1,725	3,294	53	3,240	-53	320	234
	October	8,847	1,708	R3,751	R187	R3,564	R-231	R-567	385
	November†	8,846	1,707	3,643	259	3,384	-247	-313	NA
	Average	8,753	1,742	3,436	197	3,239	-199	-27	NA

¹Includes lease condensate.

²Stocks are totals as of end of period.

³A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴Strategic Petroleum Reserve.

⁵Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

⁶Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Notes 5 and 6 on the last page of this section.

Footnotes continued on following page.

Petroleum

Crude Oil¹ Supply and Disposition (continued)

		Supply	Disposition				Ending Stocks ²			
		Crude Used Directly ³	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁵	Total	SPR ⁴	Other Primary	
		Thousand barrels per day					Million barrels			
1973	Average	-19	13	12,431	2	NA	242		242	
1974	Average	-15	13	12,133	3	NA	265		265	
1975	Average	-17	13	12,442	6	NA	271		271	
1976	Average	-18	15	13,416	8	NA	285		285	
1977	Average	-14	16	14,602	50	NA	348	7	340	
1978	Average	-14	16	14,739	158	NA	376	67	309	
1979	Average	-13	16	14,648	235	NA	430	91	339	
1980	Average	-13	15	13,481	287	NA	⁶ 466	108	⁶ 358	
1981	Average	-58	5	12,470	228	NA	594	230	363	
1982	January	-63	3	11,599	238	NA	606	235	371	
	February	-64	2	11,236	304	NA	613	241	372	
	March	-63	5	11,276	321	NA	609	249	361	
	April	-65	3	11,392	174	NA	610	256	355	
	May	-62	3	11,806	262	NA	609	261	348	
	June	-60	7	12,494	94	NA	608	264	344	
	July	-60	3	12,446	229	NA	613	267	346	
	August	-57	2	11,871	304	NA	626	274	353	
	September	-56	4	12,146	184	NA	619	278	341	
	October	-51	2	11,749	270	NA	636	285	351	
	November	-51	1	11,724	262	NA	648	290	358	
	December	-53	1	11,514	193	NA	⁶ 644	294	⁶ 350	
		Average	-59	3	11,774	236	NA			
1983	January	NA	2	11,143	117	71	660	301	360	
	February	NA	3	10,633	262	71	669	306	363	
	March	NA	2	10,859	174	70	667	312	355	
	April	NA	2	11,433	88	68	679	318	361	
	May	NA	1	11,800	280	63	679	327	353	
	June	NA	(s)	12,284	144	64	683	332	351	
	July	NA	2	12,360	145	65	676	341	335	
	August	NA	1	12,152	172	64	700	352	349	
	September	NA	1	12,482	177	66	708	361	347	
	October	NA	1	11,782	140	63	716	367	349	
	November	NA	2	12,004	186	64	713	371	341	
	December	NA	1	11,234	95	67	723	379	344	
		Average	NA	2	11,685	164	66			
1984	January	NA	1	11,579	153	64	733	384	348	
	February	NA	1	12,100	185	65	727	387	340	
	March	NA	2	11,936	236	62	728	392	336	
	April	NA	(s)	11,893	172	64	744	397	348	
	May	NA	2	12,243	219	62	764	404	359	
	June	NA	2	12,263	222	61	766	414	353	
	July	NA	1	12,087	108	60	772	424	348	
	August	NA	1	12,403	190	63	764	429	335	
	September	NA	-2	12,327	162	66	756	431	325	
	October	NA	-1	R11,976	141	69	R781	R438	R343	
	November†	NA	NA	<i>12,240</i>	NA	NA	790	443	346	
		Average	NA	NA	12,094	NA	NA			

Footnotes continued.

†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available. (s)=Less than 500 barrels per day.

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

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

Sources: • See the last page of this section.

Petroleum

Crude Oil and Petroleum Product Imports

Imports from OPEC Sources¹

		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total OPEC	Total Arab OPEC ³
Thousand barrels per day												
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	January	254	161	877	111	289	0	663	376	128	2,859	1,403
	February	139	92	693	89	244	0	584	355	102	2,297	1,054
	March	91	37	555	155	200	0	522	399	91	2,051	860
	April	85	0	511	122	215	0	427	426	85	1,871	740
	May	179	0	601	116	236	0	222	422	54	1,830	897
	June	115	0	593	94	215	72	537	361	110	2,096	820
	July	159	0	660	108	327	69	910	356	95	2,685	965
	August	181	0	489	133	271	27	574	299	133	2,107	818
	September	179	0	432	57	191	21	477	518	69	1,943	677
	October	249	7	494	61	242	108	313	504	106	2,084	810
	November	247	14	489	47	283	34	479	528	115	2,235	797
	December	155	0	237	12	265	88	462	399	73	1,690	421
		Average	170	26	552	92	248	35	514	412	97	2,146
1983	January	207	0	282	47	255	43	186	337	54	1,412	537
	February	115	0	214	9	217	0	92	393	28	1,068	338
	March	63	0	103	0	138	0	121	440	201	1,066	183
	April	227	0	162	(s)	210	0	186	523	125	1,432	389
	May	286	0	122	12	405	37	385	455	69	1,771	420
	June	300	0	188	40	466	38	467	335	138	1,973	528
	July	283	0	182	64	464	112	525	434	187	2,251	606
	August	378	0	448	52	433	213	464	511	230	2,728	903
	September	423	0	587	21	501	86	324	432	221	2,595	1,084
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	184	0	545	56	302	21	215	452	135	1,910	807
	December	144	0	569	45	294	9	329	415	163	1,969	826
		Average	240	0	337	30	338	48	302	422	144	1,862
1984	January	242	0	463	114	278	0	243	547	51	1,939	828
	February	348	0	324	33	267	0	244	481	174	1,871	723
	March	283	0	307	112	284	67	260	354	127	1,792	717
	April	280	0	320	95	221	0	288	581	158	1,944	734
	May	456	0	329	240	480	0	289	621	242	2,657	1,131
	June	284	0	411	46	415	0	243	574	139	2,112	806
	July	332	0	429	112	384	0	204	535	242	2,237	946
	August	404	0	438	82	281	0	114	487	216	2,021	993
	September	343	0	159	113	333	17	160	689	147	1,961	672
	October	333	0	287	114	436	0	208	578	115	2,070	754
		Average	331	0	347	107	338	8	225	544	161	2,062

¹Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.

²Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Petroleum

Crude Oil and Petroleum Product Imports (continued)

Imports from Non-OPEC Sources¹

		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non- OPEC	Total Non- OPEC	Total Imports
Thousand barrels per day												
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	January	58	513	425	179	106	346	62	334	452	2,474	5,332
	February	67	537	476	221	120	181	38	362	508	2,510	4,807
	March	43	437	503	189	118	294	62	307	480	2,433	4,484
	April	82	360	476	184	166	247	36	266	690	2,507	4,378
	May	77	419	766	152	95	516	47	302	607	2,981	4,811
	June	32	481	797	148	129	557	58	322	708	3,231	5,327
	July	64	536	783	158	118	433	38	376	698	3,204	5,890
	August	80	443	853	145	106	520	24	317	650	3,137	5,244
	September	92	493	897	195	89	631	51	278	746	3,472	5,414
	October	45	459	682	148	109	666	52	262	801	3,222	5,306
	November	51	553	860	212	90	623	81	334	706	3,508	5,744
	December	88	561	689	174	102	438	48	336	480	2,916	4,606
	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	January	68	534	849	228	73	314	40	299	621	3,026	4,438
	February	92	586	722	183	81	193	50	192	558	2,658	3,726
	March	86	488	775	187	78	240	43	162	565	2,624	3,690
	April	174	454	981	216	85	421	20	183	759	3,295	4,727
	May	135	518	944	153	108	484	42	235	699	3,318	5,089
	June	137	586	830	173	120	440	48	262	757	3,353	5,326
	July	69	634	849	198	107	369	37	364	864	3,490	5,741
	August	144	542	906	197	90	461	40	313	738	3,431	6,159
	September	148	533	849	261	82	475	33	307	845	3,534	6,129
	October	171	532	771	172	106	414	48	357	580	3,151	5,258
	November	148	556	726	144	110	334	55	427	801	3,300	5,210
	December	127	604	710	153	113	429	22	278	628	3,063	5,033
	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	January	152	624	705	277	54	382	53	390	772	3,408	5,347
	February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
	March	88	726	707	169	93	400	34	247	996	3,460	5,253
	April	88	691	859	207	91	282	37	257	863	3,375	5,319
	May	31	715	675	192	57	418	38	336	796	3,259	5,916
	June	50	499	732	234	104	318	53	268	934	3,192	5,304
	July	14	574	738	99	120	362	27	292	924	3,150	5,387
	August	57	551	621	205	98	388	34	236	826	3,015	5,036
	September	101	537	762	133	103	490	38	245	803	3,213	5,173
	October	152	685	827	112	122	486	37	321	955	3,697	5,767
	Average	87	623	737	191	92	387	41	301	894	3,352	5,414

Footnotes continued.

¹Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.

(s) = Less than 500 barrels per day.

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

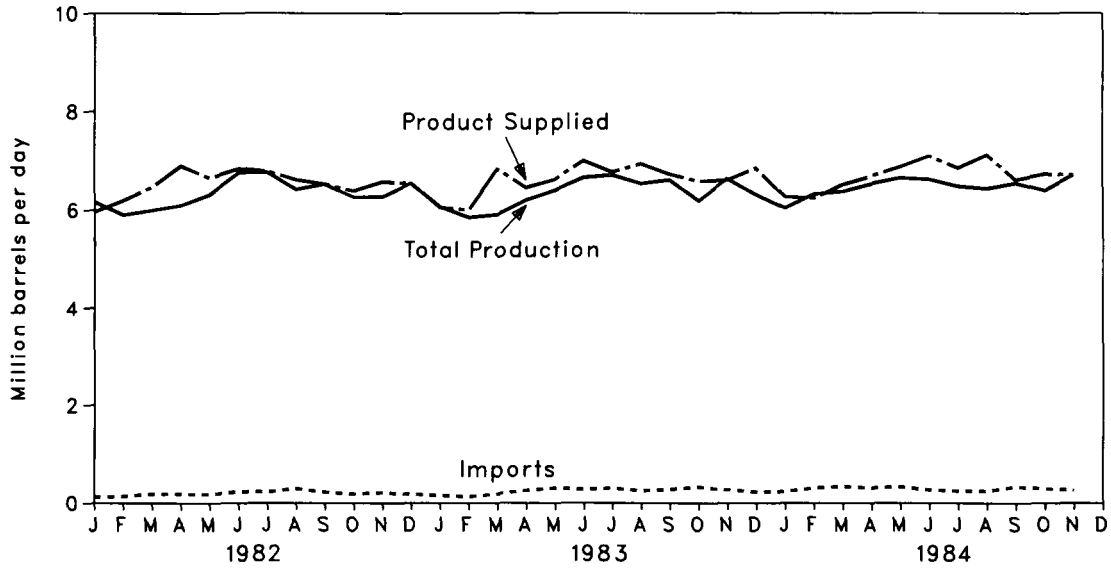
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

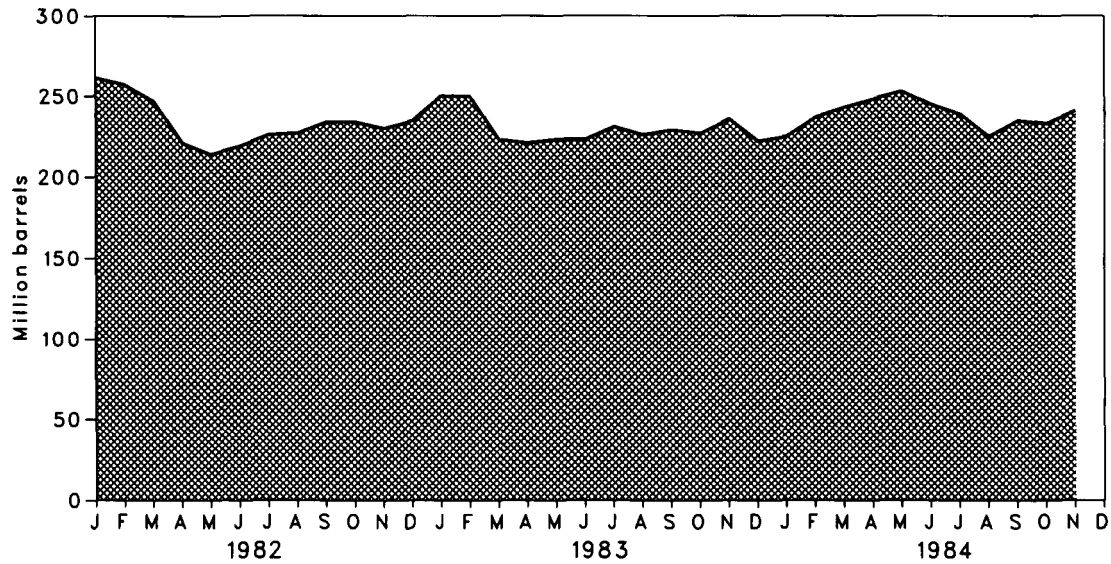
Petroleum

Finished Motor Gasoline Supply and Disposition

Products Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Finished Motor Gasoline Supply and Disposition

	Supply				Disposition			Ending Stocks ¹		
	Total Production	Imports ²	Stock Withdrawal ³	Exports	Product Supplied			Total Motor Gasoline ⁵	Finished Motor Gasoline	
					Total	Unleaded ⁴	Unleaded Percent of Total			
	Thousand barrels per day							Million barrels		
1973 Average	6,535	134	9	4	6,674			209		
1974 Average	6,360	204	-24	2	6,537			*218		
1975 Average	6,520	184	*28	2	6,675			235		
1976 Average	6,841	131	10	3	6,978			231		
1977 Average	7,033	217	-72	2	7,177	1,976	27.5	258		
1978 Average	7,169	190	54	1	7,412	2,521	34.0	238		
1979 Average	6,852	181	2	(s)	7,034	2,798	39.8	237		
1980 Average	6,506	140	-66	1	6,579	3,067	46.6	*261		
1981 Average⁷	6,405	157	*28	2	6,588	3,264	49.5	253		
1982	January	6,167	128	-316	18	5,961	3,067	51.5	261	213
	February	5,899	133	172	8	6,196	3,210	51.8	257	208
	March	5,994	183	334	44	6,466	3,358	51.9	247	198
	April	6,095	185	650	33	6,897	3,495	50.7	221	179
	May	6,319	182	177	23	6,655	3,415	51.3	214	173
	June	6,754	230	-134	14	6,835	3,565	52.2	219	177
	July	6,768	225	-178	24	6,790	3,577	52.7	226	183
	August	6,419	291	-81	16	6,614	3,526	53.3	227	185
	September	6,527	223	-198	22	6,531	3,404	52.1	234	191
	October	6,262	185	-42	15	6,391	3,351	52.4	234	192
	November	6,273	211	101	11	6,574	3,451	52.5	230	189
	December	6,542	178	-165	7	6,549	3,485	53.2	*235	*194
	Average	6,338	197	25	20	6,539	3,409	52.1		
1983	January	6,065	153	*167	(s)	6,051	3,364	55.6	250	207
	February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
	March	5,906	186	768	23	6,836	3,622	53.0	223	183
	April	6,201	255	-3	1	6,452	3,492	54.1	221	183
	May	6,397	305	-83	1	6,617	3,558	53.8	223	185
	June	6,655	277	84	22	6,994	3,792	54.2	223	183
	July	6,707	302	-225	18	6,765	3,746	55.4	231	190
	August	6,537	250	161	13	6,936	3,836	55.3	226	185
	September	6,611	279	-149	14	6,727	3,691	54.9	229	189
	October	6,188	330	72	2	6,588	3,711	56.3	227	187
	November	6,634	269	-298	2	6,603	3,692	55.9	236	196
	December	6,308	224	339	25	6,846	3,966	57.9	222	186
	Average	6,340	247	45	10	6,622	3,647	55.1		
1984	January	6,037	233	-1	1	6,268	3,606	57.5	225	186
	February	6,320	303	-384	2	6,237	3,585	57.5	237	197
	March	6,375	343	-197	9	6,512	3,747	57.5	243	203
	April	6,528	308	-153	(s)	6,682	3,854	57.7	248	207
	May	6,650	329	-106	(s)	6,873	3,990	58.1	253	211
	June	6,620	272	217	17	7,092	4,210	59.4	245	204
	July	6,481	247	130	9	6,849	4,094	59.8	239	200
	August	6,436	243	437	1	7,114	4,263	59.9	225	187
	September	6,545	333	-263	2	6,614	3,982	60.2	235	194
	October	R6,396	R293	R42	1	R6,730	4,074	60.5	R233	R193
	November†	6,710	264	-263	NA	6,709	NA	NA	241	200
	Average	6,463	288	-46	NA	6,700	NA	NA		

¹Stocks are totals as of end of period.

²Beginning in 1981, excludes blending components.

³A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴Includes gasohol.

⁵Includes motor gasoline blending components.

⁶In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

⁷Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.

†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available. (s)=Less than 500 barrels per day.

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

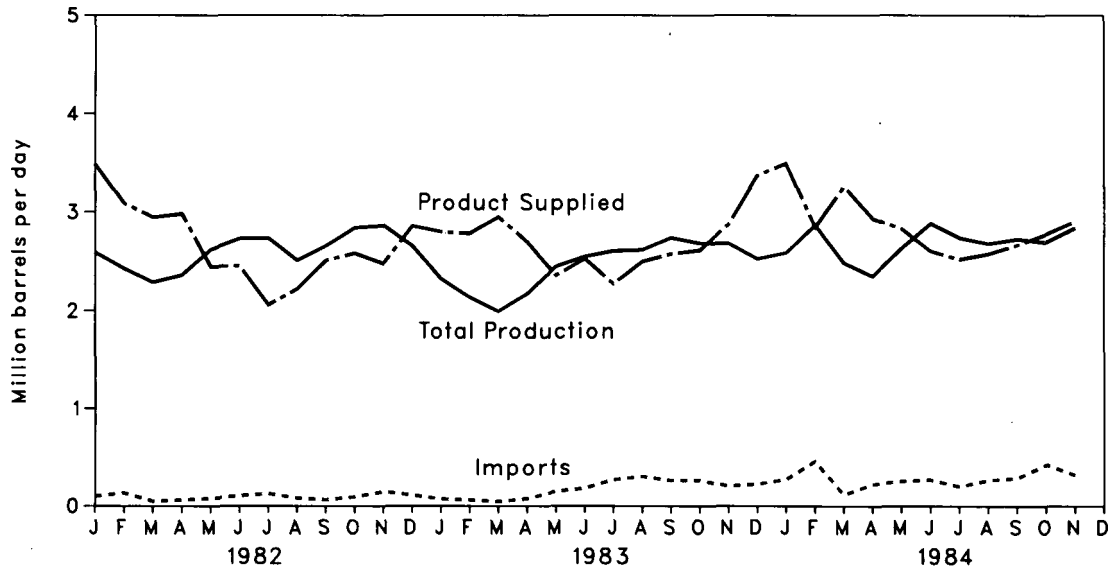
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

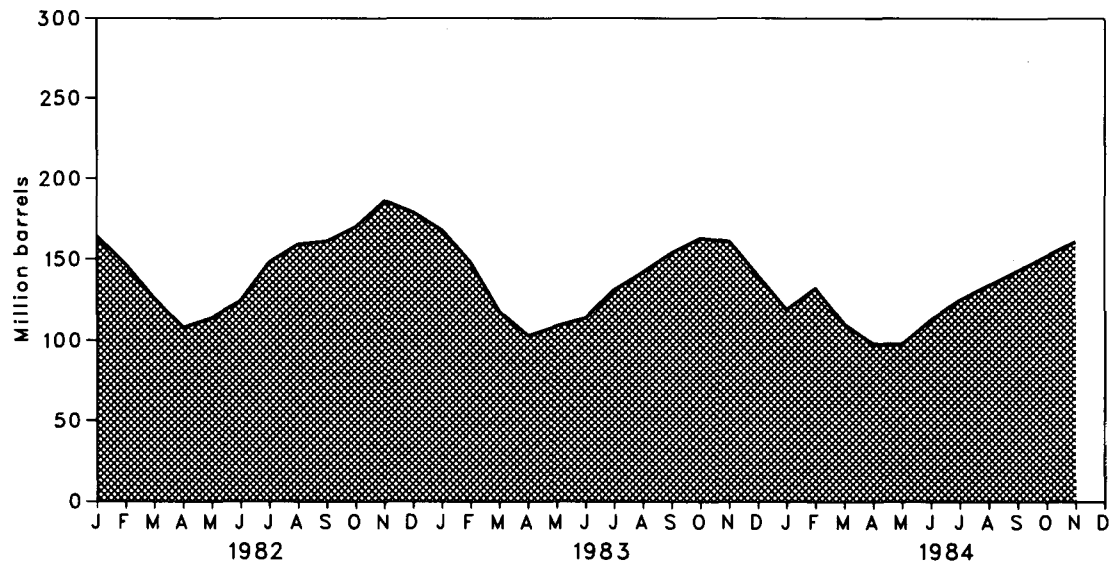
Petroleum

Distillate Fuel Oil Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly ³	Exports	Product Supplied ³	
		Thousand barrels per day						Million barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	200
1975	Average	2,654	155	40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	205
1981	Average ⁴	2,613	173	38	10	5	2,829	192
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-339	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	179
	Average	2,606	93	35	10	74	2,671	
1983	January	2,321	68	580	NA	173	2,797	168
	February	2,135	59	691	NA	105	2,780	148
	March	1,993	42	971	NA	59	2,947	118
	April	2,171	73	500	NA	47	2,697	103
	May	2,444	147	-186	NA	50	2,354	109
	June	2,546	179	-161	NA	40	2,524	114
	July	2,604	267	-546	NA	55	2,270	131
	August	2,615	301	-379	NA	43	2,495	142
	September	2,739	259	-386	NA	37	2,575	154
	October	2,681	260	-276	NA	55	2,611	163
	November	2,680	203	45	NA	54	2,874	161
	December	2,522	221	676	NA	54	3,365	140
	Average	2,456	174	124	NA	64	2,690	
1984	January	2,585	270	676	NA	40	3,490	119
	February	2,864	458	-439	NA	41	2,842	132
	March	2,480	115	727	NA	66	3,256	110
	April	2,347	220	393	NA	32	2,929	98
	May	2,633	252	-10	NA	48	2,827	98
	June	2,879	266	-490	NA	53	2,602	113
	July	2,736	198	-375	NA	40	2,518	125
	August	2,678	263	-291	NA	74	2,575	134
	September	2,724	285	-322	NA	22	2,665	143
	October	R2,692	R424	R-295	NA	47	R2,773	R152
	November†	2,836	318	-204	NA	NA	2,902	161
	Average	2,676	278	-54	NA	NA	2,854	

¹Stocks are totals as of end of period.

²A negative number indicates an increase in stocks and a positive number indicates a decrease.

³Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.

⁴In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

⁵Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.

†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.

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

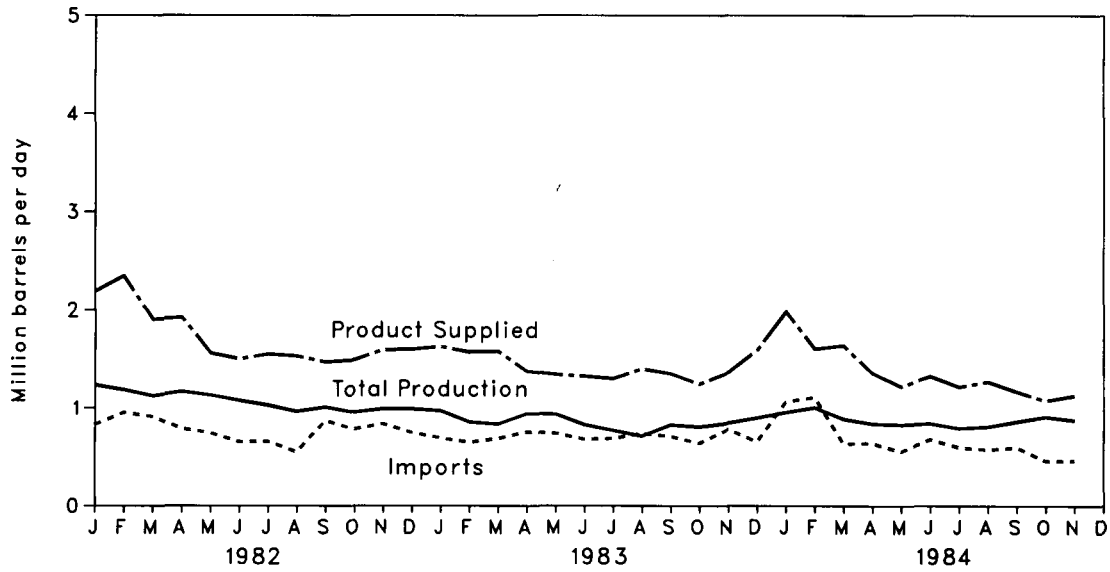
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

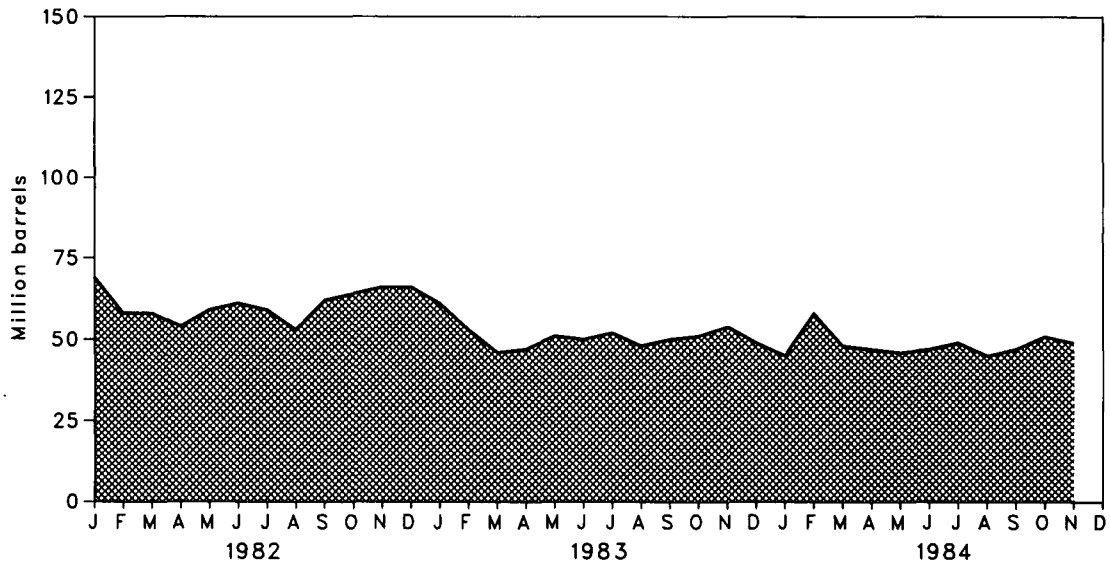
Petroleum

Residual Fuel Oil Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks ¹	
	Total Production	Imports	Stock Withdrawal ²	Crude Used Directly ³	Exports	Product Supplied ⁴		
							Million barrels	
Thousand barrels per day								
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	60
1975	Average	1,235	1,223	12	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	92
1981	Average ⁵	1,321	800	37	48	118	2,088	78
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-306	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	66
		Average	1,070	776	32	48	209	1,716
1983	January	972	691	258	NA	294	1,626	61
	February	857	647	257	NA	191	1,570	53
	March	835	686	227	NA	169	1,579	46
	April	941	753	-10	NA	310	1,374	47
	May	936	738	-141	NA	190	1,342	51
	June	828	677	36	NA	218	1,323	50
	July	769	684	-64	NA	90	1,299	52
	August	710	739	115	NA	165	1,400	48
	September	826	706	-47	NA	134	1,351	50
	October	807	638	-50	NA	153	1,243	51
	November	845	780	-97	NA	167	1,362	54
	December	897	649	182	NA	141	1,587	49
		Average	852	699	55	NA	185	1,421
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March	887	633	321	NA	204	1,637	48
	April	840	637	9	NA	130	1,357	47
	May	829	554	35	NA	200	1,218	46
	June	841	676	-17	NA	176	1,324	47
	July	792	596	-77	NA	99	1,213	49
	August	808	572	146	NA	260	1,266	45
	September	861	596	-77	NA	214	1,165	47
	October	R912	R461	R-123	NA	174	R1,075	R51
	November†	875	462	26	NA	NA	1,126	49
	Average	872	667	-3	NA	NA	1,360	

¹Stocks are totals as of end of period.

²A negative number indicates an increase in stocks and a positive number indicates a decrease.

³Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.

⁴In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

⁵Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.

†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.

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

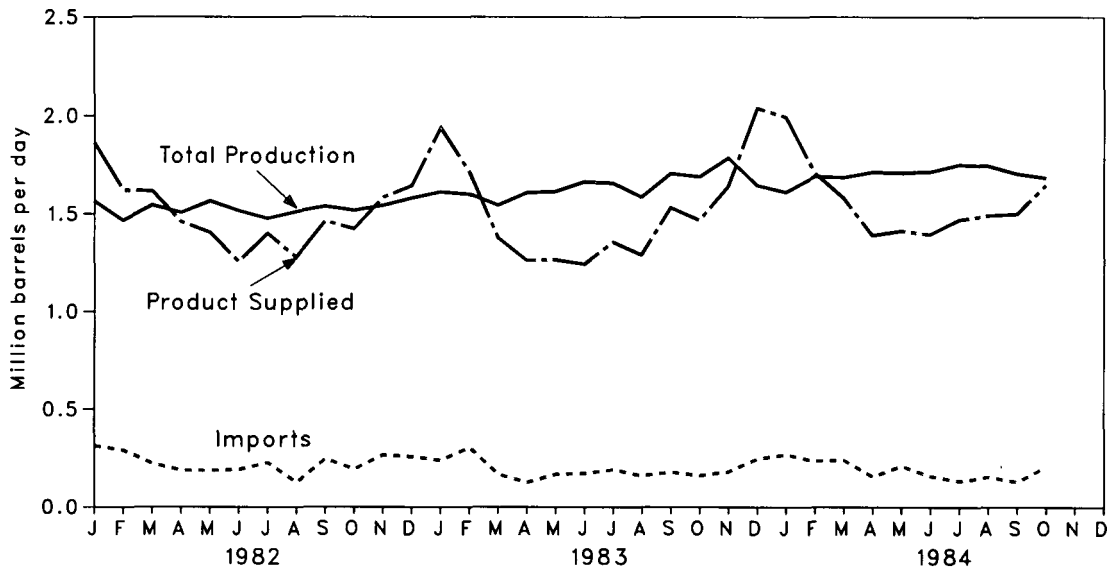
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

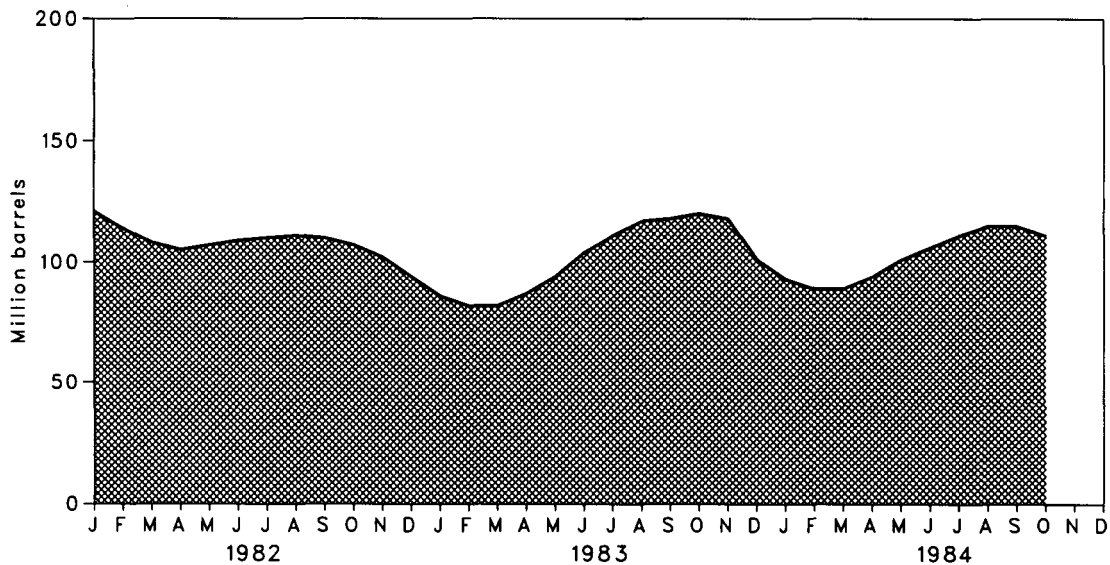
Petroleum

Liquefied Petroleum Gases Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	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	113
1975	Average	1,527	112	-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	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	120
1981	Average	1,571	244	-18	289	42	1,466	135
1982	January	1,565	314	443	391	67	1,863	121
	February	1,466	291	243	327	51	1,621	114
	March	1,544	223	211	289	74	1,615	108
	April	1,506	188	98	257	77	1,458	105
	May	1,565	186	-71	234	43	1,403	107
	June	1,515	192	-86	262	106	1,254	109
	July	1,476	227	-13	253	37	1,399	110
	August	1,511	125	-45	254	61	1,276	111
	September	1,538	247	37	274	85	1,463	110
	October	1,517	194	97	306	81	1,421	107
	November	1,542	267	175	363	37	1,583	102
	December	1,580	258	256	395	56	1,642	94
	Average	1,528	226	111	300	65	1,499	
1983	January	1,611	240	520	313	118	1,939	86
	February	1,600	305	128	244	76	1,713	82
	March	1,543	166	-9	197	127	1,377	82
	April	1,607	124	-156	198	116	1,260	87
	May	1,613	167	-225	207	84	1,263	94
	June	1,664	172	-334	203	59	1,241	104
	July	1,656	191	-221	217	55	1,354	111
	August	1,586	160	-199	229	29	1,289	117
	September	1,705	178	-30	236	86	1,531	118
	October	1,688	160	-81	268	32	1,467	120
	November	1,785	180	70	362	33	1,640	118
	December	1,645	247	575	363	66	2,038	101
	Average	1,642	190	4	253	73	1,509	
1984	January	1,610	269	470	333	23	1,993	93
	February	1,690	237	146	323	41	1,708	89
	March	1,685	241	12	289	68	1,581	89
	April	1,711	155	-170	253	54	1,389	94
	May	1,709	211	-221	244	42	1,412	101
	June	1,714	158	-189	237	53	1,394	106
	July	1,750	132	-138	232	43	1,469	111
	August	1,744	154	-132	241	34	1,491	115
	September	1,704	128	-24	283	26	1,499	115
	October	1,683	207	137	322	56	1,648	111
	Average	1,700	189	-11	276	44	1,559	

¹Includes ethane, propane, normal butane, and isobutane.

²Stocks are totals as of end of period.

³A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Note 5 on the last page of this section.

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

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

Sources: • See the last page of this section.

Petroleum

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels per day						Million barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	218
1975	Average	3,424	277	-2	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	247
1981	Average	3,739	226	46	723	199	3,088	282
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	253
		Average	3,453	334	80	787	211	2,869
1983	January	3,194	322	-419	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479	361	883	257	2,823	256
		Average	3,460	411	6	712	242	2,923
1984	January	3,391	486	-177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April	3,584	582	-207	627	268	3,063	274
	May	3,683	642	-118	775	257	3,175	277
	June	3,863	521	404	1,229	343	3,213	265
	July	3,866	567	278	1,034	238	3,438	257
	August	3,855	561	24	648	172	3,621	256
	September	3,768	539	-51	712	238	3,306	258
	October	3,580	632	30	724	180	3,336	257
		Average	3,668	558	-29	758	238	3,200

¹Includes pentanes plus, other hydrocarbons and alcohol, unfinished oil, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

²Stocks are totals as of end of period.

³A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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

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

Sources: • See the last page of this section.

Notes and Sources for the Petroleum Section

Notes

1. During 1981 the listing (frame) of operators of all facilities required to complete each monthly survey was updated. The refinery frame was found to be complete and accurate, although the frames for bulk terminals, pipelines, and crude oil stocks facilities were found to be outdated. A variety of sources (published directories, listings, and exploratory surveys) were researched for potential new respondents. As a result of this research, a significant number of respondents were added to the frames. The increase in the respondents for the frames affects the stocks of crude oil and petroleum products. For further details, see the Energy Information Administration (EIA), *Petroleum Supply Monthly*.
2. Research conducted by the EIA in the latter half of 1980 indicated changes had taken place in the petroleum industry that were not being adequately reflected in the EIA survey forms. First, the flows of unfinished oils and the redesignation of finished products were not being accurately described on the EIA survey forms. Second, a substantial amount of motor gasoline was being produced at non-refinery "downstream blending stations" but was not being reported. Although empirical information is not available to precisely measure the historical effects, estimates of the magnitude of the differences in the major series affected are shown in the EIA, *Petroleum Supply Monthly*. Beginning in January 1981, the EIA modified its survey forms, changed definitions of gasoline (motor and aviation), and added the non-refinery blenders previously not reported.
3. **Motor Gasoline:** Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately. For further details, see the EIA, *Petroleum Supply Monthly*.
4. **Distillate and Residual Fuel Oils:** The requirement to report crude oil burned on leases and pipelines as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils number typically exceeded the number for available supply of unfinished oils. This was assumed to be due to the redesignation of distillate and residual fuel oils received as such, but used as an unfinished oil input by the receiving refinery. This imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of this 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. For further details, see the EIA, *Petroleum Supply Monthly*.
5. **New Stock Basis:** In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal 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—1,420; and 1982—1,462.
 - Motor Gasoline: 1974—225; 1980—263; 1982—244 (Total) and 203 (Finished).
 - Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.
 - Residual Fuel Oil: 1974—75; 1980—91; and 1982—68.
 - Liquefied Petroleum Gases: 1974—113; 1980—128; and 1982—103.
 - Other Petroleum Products: 1974—220; 1980—249; and 1982—259.Stock withdrawal calculations beginning in 1975, 1981, and 1983, were made using new basis stock levels.
6. 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 withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Sources

- 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
- 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual" and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
- January 1981 through December 1983: EIA, *Petroleum Supply Annual*.
- January 1983 through October 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- November 1984: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1983 through November 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

Natural Gas

Total dry natural gas production in the United States during October 1984 was an estimated 1.4 trillion cubic feet (Tcf). This was 4.7 percent higher than in October 1983. Output during the first 10 months of 1984 totaled 14.4 Tcf, a daily average of 9.2 percent more than during the first 10 months of 1983.

Consumption of natural gas in October 1984 was an estimated 1.3 Tcf, slightly higher than in October 1983. Estimated consumption during the first 10 months of 1984 totaled 14.2 Tcf, a daily average of 5.7 percent higher than during the comparable 1983 period.

Deliveries to industrial consumers, the principal end users of natural gas, during September 1984 (latest data available) were an estimated 514 billion cubic feet (Bcf). This was 44.5 percent of total September 1984 consumption and was 11.5 percent higher than in September 1983. Industrial consumption totaled 4,285 Bcf during the first 9 months of 1984, a daily average of 12.5 percent higher than during the comparable 1983 period.

Imports of natural gas in October 1984 were an estimated 65 Bcf, 1.6 percent higher than in the previous October. During the first 10 months of 1984, imports of natural gas totaled an estimated 681 Bcf, a daily average of 7.3 percent lower than during the comparable 1983 period. Receipts of foreign gas during October 1984 included Algerian liquefied natural gas (LNG) equivalent to approximately 3 Bcf.

Stocks of working gas* in underground natural gas storage reservoirs at the end of October 1984 totaled 3,177 Bcf. This was 2.8 percent below stocks available a year earlier. Net injections into storage during October 1984 were 190 Bcf, 46.2 percent higher than during the previous October.

*Gas available for withdrawal.

Natural Gas

Production Summary

		Gross Wet Gas Withdrawals ¹	Used for Repressuring ²	Nonhydrocarbon Gas Removed ³	Vented and Flared	Marketed Production (Wet) ⁴	Extraction Loss ⁵	Total Dry Gas Production ⁵
Billion cubic feet								
1973	Total	24,067	1,171	NA	248	⁶ 22,648	917	⁶ 21,731
1974	Total	22,850	1,080	NA	169	⁶ 21,601	887	⁶ 20,713
1975	Total	21,104	861	NA	134	⁶ 20,109	872	⁶ 19,236
1976	Total	20,944	859	NA	132	⁶ 19,952	854	⁶ 19,098
1977	Total	21,097	935	NA	137	⁶ 20,025	863	⁶ 19,163
1978	Total	21,309	1,181	NA	153	⁶ 19,974	852	⁶ 19,122
1979	Total	21,883	1,245	NA	167	⁶ 20,471	808	⁶ 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	January	1,865	108	19	9	1,728	71	1,657
	February	1,712	101	18	8	1,584	65	1,519
	March	1,816	115	19	7	1,675	69	1,606
	April	1,714	108	18	7	1,581	65	1,516
	May	1,692	117	17	7	1,552	64	1,488
	June	1,643	114	16	7	1,505	62	1,443
	July	1,667	119	15	7	1,526	63	1,463
	August	1,638	120	18	8	1,492	61	1,431
	September	1,570	116	16	6	1,431	59	1,372
	October	1,610	126	16	8	1,460	60	1,400
	November	1,621	119	18	9	1,476	61	1,415
	December	1,663	125	19	10	1,510	62	1,448
	Total	20,210	1,388	208	93	18,520	762	17,758
1983	January	1,688	125	20	7	1,536	72	1,464
	February	1,488	111	17	7	1,353	64	1,289
	March	1,552	125	18	8	1,401	66	1,335
	April	1,470	123	16	8	1,323	62	1,261
	May	1,467	114	17	9	1,328	62	1,266
	June	1,415	121	19	7	1,268	60	1,208
	July	1,502	128	18	8	1,348	63	1,285
	August	1,555	127	20	8	1,400	66	1,334
	September	1,514	123	19	8	1,364	64	1,300
	October	1,591	125	18	8	1,440	68	1,372
	November	1,602	117	19	9	1,457	68	1,389
	December	1,753	119	21	8	1,605	75	1,530
	Total	18,597	1,458	222	95	16,822	790	16,033
1984	January	1,849	119	22	7	1,700	80	1,620
	February	1,617	115	19	6	1,477	69	1,408
	March	1,662	112	21	7	1,522	72	1,450
	April	1,637	120	19	7	1,491	70	1,421
	May	1,644	127	20	7	1,490	70	1,420
	June	1,588	122	19	R8	1,440	68	1,372
	July	R1,650	126	19	8	R1,497	R70	R1,427
	August	R1,652	R126	R19	R8	R1,499	R70	R1,429
	September	1,603	123	R19	R8	1,453	68	1,385
	October	1,662	127	19	8	1,508	71	1,437

¹Gas withdrawn from gas and oil wells.

²Gas returned to formations for repressuring, pressure maintenance, and cycling.

³For definitions and further explanations, see Notes on the last two pages of this section.

⁴Equal to gross withdrawals minus volumes used for repressuring, volumes of nonhydrocarbon gases removed, and volumes vented and flared. See Note 2 on the last two pages of this section for further explanation.

⁵Equal to marketed production (wet) minus extraction loss.

⁶May include unknown quantities of nonhydrocarbon gases.

R=Revised data. NA=Not available.

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

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

• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

Natural Gas

Supply and Disposition of Natural Gas

		Supply				Disposition				
		Total Dry Gas Production	Withdrawals from Storage ¹	Supplemental Gaseous Fuels ²	Imports ²	Total Supply/Disposition ³	Additions to Storage ¹	Exports ²	Consumption ²	Unaccounted for ²
Billion cubic feet										
1973	Total	*21,731	1,533	NA	1,033	24,297	1,974	77	22,049	196
1974	Total	*20,713	1,701	NA	959	23,373	1,784	77	21,223	289
1975	Total	*19,236	1,760	NA	953	21,949	2,104	73	19,538	235
1976	Total	*19,098	1,921	NA	963	21,983	1,756	65	19,946	216
1977	Total	*19,163	1,750	NA	1,011	21,924	2,307	56	19,521	41
1978	Total	*19,122	2,158	NA	966	22,245	2,278	53	19,627	287
1979	Total	*19,663	2,047	NA	1,253	22,964	2,295	56	20,241	372
1980	Total	19,403	1,972	155	985	22,515	1,949	49	19,877	640
1981	Total	19,181	1,930	176	904	22,191	2,228	59	19,404	501
1982	January	1,657	697	19	98	2,471	24	3	2,400	44
	February	1,519	461	16	85	2,081	51	5	1,984	41
	March	1,606	274	15	82	1,977	91	5	1,838	43
	April	1,516	112	12	72	1,712	185	2	1,485	40
	May	1,488	11	9	65	1,573	394	3	1,136	40
	June	1,443	11	9	61	1,524	364	6	1,115	39
	July	1,463	12	9	67	1,551	362	5	1,145	39
	August	1,431	36	9	61	1,537	342	6	1,151	38
	September	1,372	20	9	66	1,467	285	5	1,140	37
	October	1,400	62	11	77	1,550	197	5	1,311	37
	November	1,415	168	13	91	1,687	85	5	1,559	38
	December	1,448	299	14	110	1,871	88	5	1,739	39
	Total	17,758	2,165	145	933	21,001	2,472	52	18,001	475
1983	January	1,464	450	16	112	2,042	24	5	1,974	39
	February	1,289	324	13	95	1,721	35	5	1,646	35
	March	1,335	266	13	86	1,700	58	5	1,601	36
	April	1,261	162	11	74	1,508	81	5	1,388	34
	May	1,266	41	9	61	1,377	189	5	1,149	34
	June	1,208	22	8	59	1,297	254	3	1,008	32
	July	1,285	25	9	58	1,377	267	5	1,070	35
	August	1,334	35	9	56	1,434	248	6	1,144	36
	September	1,300	27	9	67	1,403	259	4	1,105	35
	October	1,372	40	10	64	1,486	171	4	1,274	37
	November	1,389	160	12	80	1,641	80	5	1,519	37
	December	1,530	602	17	107	2,256	31	5	2,179	41
	Total	16,033	2,153	136	918	19,242	1,697	55	17,057	431
1984	January	1,620	563	17	95	2,295	54	4	2,193	44
	February	1,408	300	13	70	1,791	62	4	1,687	38
	March	1,450	352	14	69	1,885	43	5	1,798	39
	April	1,421	105	11	72	1,609	152	5	1,414	38
	May	1,420	30	10	73	1,533	258	6	1,231	38
	June	1,372	21	9	63	1,465	320	4	1,104	37
	July	R1,427	28	9	59	R1,523	342	5	R1,138	R38
	August	R1,429	30	10	57	R1,526	314	5	R1,169	38
	September	<i>1,385</i>	32	9	R58	R1,484	288	5	R1,154	37
	October	<i>1,437</i>	48	10	65	1,560	238	4	1,279	39

¹Monthly and annual data for 1980 through 1982 include underground storage and liquefied natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 on the last two pages of this section.

²For definitions and further explanations, see Notes on the last two pages of this section.

³Data for 1978 through 1982 do not include intransit receipts and deliveries.

*May include unknown quantities of nonhydrocarbon gases.

R=Revised data. NA=Not available.

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

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

• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

Natural Gas

Natural Gas¹ Consumption

		Delivered to Consumers							Total Consumption
		Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial ²	Industrial	Electric Utilities	Total	
		Billion cubic feet							
1973	Total	1,496	728	4,879	2,597	8,689	3,660	19,825	22,049
1974	Total	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223
1975	Total	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538
1976	Total	1,634	548	5,051	2,668	6,964	3,081	17,764	19,946
1977	Total	1,659	533	4,821	2,501	6,815	3,191	17,329	19,521
1978	Total	1,648	530	4,903	2,601	6,757	3,188	17,449	19,627
1979	Total	1,499	601	4,965	2,786	6,899	3,491	18,141	20,241
1980	Total	1,026	635	4,752	2,611	7,172	3,682	18,216	19,877
1981	Total	928	642	4,546	2,520	7,128	3,640	17,834	19,404
1982	January	104	79	866	444	669	238	2,217	2,400
	February	95	66	786	405	412	220	1,823	1,984
	March	100	61	602	322	506	247	1,677	1,838
	April	95	49	451	237	407	246	1,341	1,485
	May	93	38	233	139	375	258	1,005	1,136
	June	90	37	165	107	420	296	988	1,115
	July	91	38	138	101	424	353	1,016	1,145
	August	89	38	123	105	435	361	1,024	1,151
	September	86	38	136	105	482	293	1,016	1,140
	October	87	43	204	130	573	273	1,181	1,311
	November	88	52	372	218	603	226	1,419	1,559
	December	90	58	557	299	520	215	1,591	1,739
	Total	1,109	596	4,633	2,606	5,831	3,226	16,295	18,001
1983	January	92	65	697	357	555	208	1,817	1,974
	February	81	54	673	349	312	177	1,511	1,646
	March	84	53	525	275	456	208	1,464	1,601
	April	79	46	449	231	380	203	1,263	1,388
	May	80	38	269	147	397	218	1,031	1,149
	June	76	33	176	107	368	248	899	1,008
	July	81	35	130	97	413	314	954	1,070
	August	84	38	119	99	452	352	1,022	1,144
	September	82	36	124	103	461	299	987	1,105
	October	86	42	195	130	570	251	1,146	1,274
	November	87	50	347	198	623	214	1,382	1,519
	December	96	72	³ 825	³ 438	530	219	2,011	2,179
	Total	1,008	563	4,530	2,530	5,516	2,912	15,486	17,057
1984	January	102	72	³ 805	³ 404	595	215	2,019	2,193
	February	88	56	³ 580	³ 291	485	187	1,543	1,687
	March	91	59	611	312	519	206	1,648	1,798
	April	89	47	428	224	406	220	1,278	1,414
	May	89	41	265	148	424	264	1,101	1,231
	June	86	36	161	104	418	299	982	1,104
	July	90	38	124	91	R446	349	R1,010	R1,138
	August	90	39	117	95	R478	350	R1,040	R1,169
	September	87	38	128	96	514	291	1,029	1,154

¹Includes supplemental gaseous fuels.

²Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.

³Estimated on the basis of heating degree-day data obtained from the National Oceanic and Atmospheric Administration.

R = Revised data.

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

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

• Data for 1973 through December 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

Natural Gas

Underground Natural Gas Storage—All Operators

		Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
		Base Gas	Working Gas	Total ¹	Volume	Percent	Injections	Withdrawals	Net ²
Volumes in Billion cubic feet									
1973	Total	2,864	2,034	4,898	305	17.6	1,974	1,533	441
1974	Total	2,912	2,050	4,962	16	0.8	1,784	1,701	83
1975	Total	3,162	2,212	5,374	162	7.9	2,104	1,760	344
1976	Total	3,323	1,926	5,250	-286	-12.9	1,756	1,921	-165
1977	Total	3,391	2,475	5,866	549	28.5	2,307	1,750	557
1978	Total	3,473	2,547	6,020	72	2.9	2,278	2,158	120
1979	Total	3,553	2,753	6,306	207	8.1	2,295	2,047	248
1980	Total	3,642	2,655	6,297	-99	-3.6	1,896	1,910	-14
1981	Total	3,752	2,817	6,569	162	6.1	2,180	1,887	293
1982	January	3,751	2,182	5,932	29	1.4	24	673	-649
	February	3,750	1,787	5,536	-37	-2.0	50	446	-396
	March	3,766	1,604	5,370	-26	-1.6	88	265	-176
	April	3,778	1,676	5,454	-88	-5.0	180	108	73
	May	3,780	2,034	5,814	57	2.9	382	11	371
	June	3,778	2,369	6,147	117	5.2	353	11	342
	July	3,780	2,704	6,484	146	5.7	351	12	339
	August	3,781	2,998	6,778	116	4.0	332	35	298
	September	3,782	3,251	7,033	99	3.1	277	20	257
	October	3,785	3,364	7,149	116	3.6	191	60	131
	November	3,772	3,309	7,081	108	3.4	83	163	-80
	December	3,808	3,071	6,879	255	9.0	86	289	-204
	Total						2,399	2,094	306
1983	January	3,813	2,644	6,457	462	21.2	24	450	-425
	February	3,811	2,356	6,167	569	31.9	35	324	-288
	March	3,812	2,148	5,959	544	33.9	58	266	-208
	April	3,818	2,074	5,893	398	23.8	81	162	-81
	May	3,818	2,222	6,041	188	9.3	189	41	148
	June	3,819	2,454	6,272	85	3.6	254	22	232
	July	3,826	2,696	6,522	-8	-0.3	267	25	242
	August	3,823	2,908	6,731	-89	-3.0	248	35	213
	September	3,823	3,140	6,964	-110	-3.4	259	27	232
	October	3,825	3,269	7,095	-94	-2.8	171	40	130
	November	3,841	3,174	7,015	-135	-4.1	80	160	-80
	December	3,847	2,595	6,442	-476	-15.5	31	602	-571
	Total						1,697	2,153	-456
1984	January	3,847	2,090	5,937	-554	-20.9	54	563	-510
	February	3,828	1,876	5,704	-580	-20.4	62	300	-238
	March	3,824	1,572	5,395	-576	-26.8	43	352	-308
	April	3,822	1,620	5,442	-454	-21.9	152	105	47
	May	3,827	1,843	5,670	-379	-17.1	258	30	227
	June	3,828	2,141	5,969	-313	-12.7	320	21	299
	July	3,829	2,456	6,285	-240	-8.9	342	28	313
	August	3,829	2,740	6,569	-169	-5.8	314	30	284
	September	3,829	2,996	6,825	-145	-4.6	288	32	256
	October	3,837	3,177	7,014	-92	-2.8	238	48	190

¹Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1978—6,890; 1979—6,929; 1980—7,434; 1981—7,805; 1982—7,915; and 1983—7,985. Current total capacity is 8,044.

²Positive numbers indicate injections are greater than withdrawals. Negative numbers indicate withdrawals are greater than injections. Net injections or withdrawals may not equal the difference between applicable ending stocks. See Note 8 on the last two pages of this section.

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

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

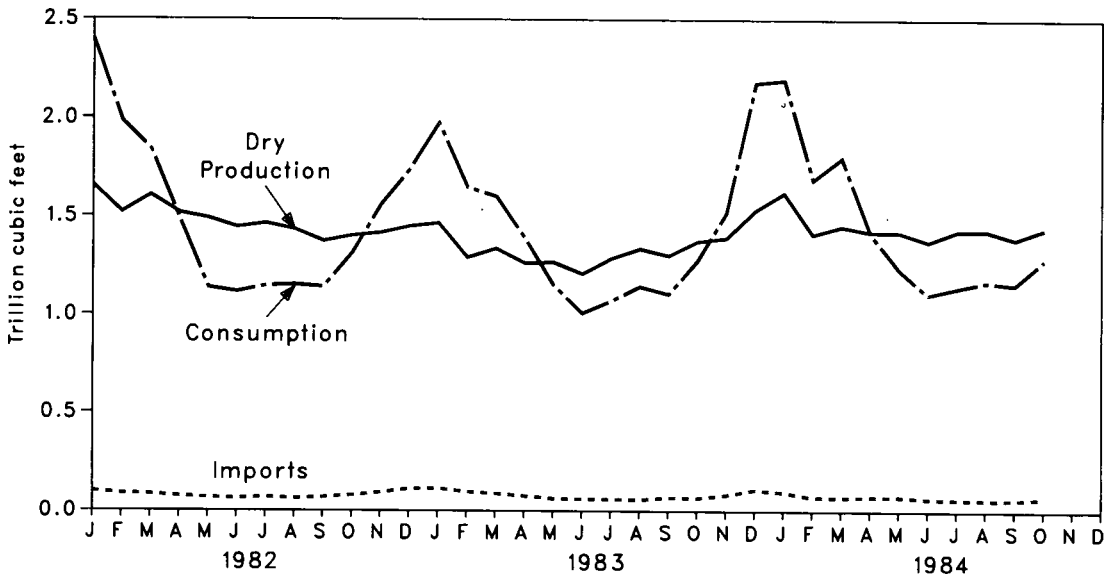
• Data for 1978 through 1982 are final. All other data are preliminary unless otherwise noted.

Sources: • See the last page of this section.

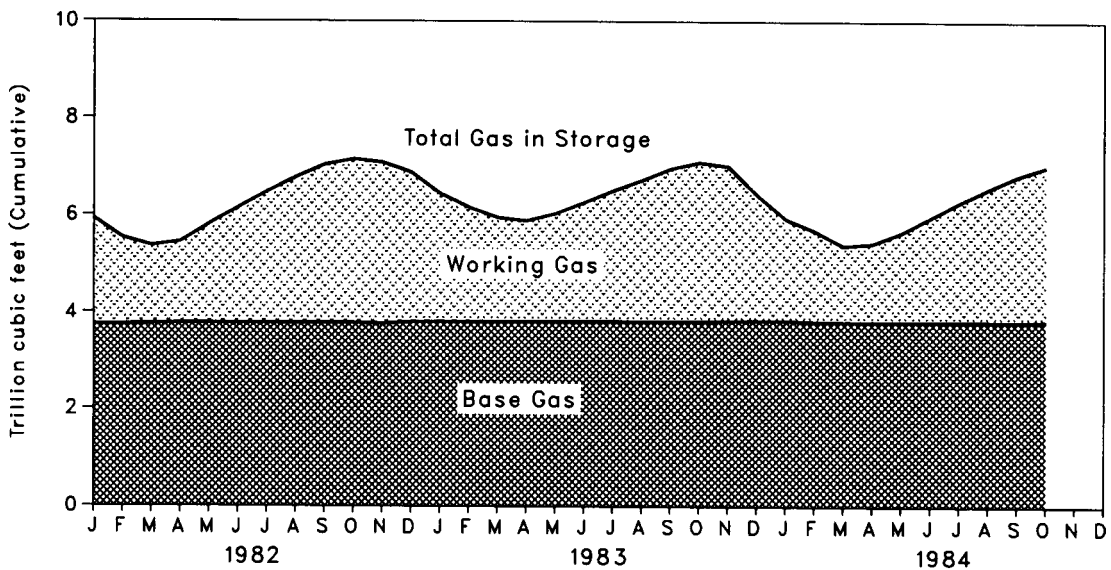
Natural Gas

Overview

Consumption, Dry Production, and Imports



Gas in Storage at End of Period



Notes and Sources for the Natural Gas Section

Notes

1. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the EIA *Natural Gas Annual, 1982*. These data are not available for periods prior to 1980. For 1982, of the 31 producing States, 18 reported data on nonhydrocarbon gases removed. These 18 States accounted for 53 percent of total 1982 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 40 percent of the 1982 total production, did not include all or most of the nonhydrocarbon gases removed on leases. No estimates are made for the two States not reporting nonhydrocarbon gases removed. For further information, see the Energy Information Administration (EIA) *Natural Gas Monthly*.

Monthly data are reported by two States and computed for four States. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for the year in which the report month falls. Three States report monthly data on nonhydrocarbon gases removed; the rest of the data is estimated. For further information on methods of estimating preliminary monthly data, see the EIA *Natural Gas Monthly*.

Monthly data are revised and considered final after publication of the EIA *Natural Gas Annual* by proportionally allocating the differences between annual data published in the EIA *Natural Gas Annual* and the sum of the preliminary monthly data (January-December).

2. Production: Annual data. Final annual data are from the Energy Information Administration (EIA) *Natural Gas Annual, 1982*.

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

Preliminary monthly data. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for the year in which the report month falls. Preliminary monthly data are gathered from reports from the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary to a standard 14.73 psia pressure base. Unless there are major changes, data are not revised until after publication of the EIA *Natural Gas Annual*.

Final monthly data. The difference between annual production data published in the EIA *Natural Gas Annual, 1982* and the sum of preliminary monthly data (January-December) is allocated proportionally to the preliminary 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 for extraction loss are from the EIA *Natural Gas Annual* for which they have been estimated based on 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 *Natural Gas Annual*.

Preliminary monthly data are estimated based on 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 *Natural Gas Annual*. Final monthly data are estimated by allocating annual extraction loss data to each month based on its total natural gas disposition.

4. Supplemental Gaseous Fuels: Supplemental gaseous fuels are mainly synthetic natural gas, propane-air, and refinery gas. Other gases may also be included such as, coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization.

Annual data beginning with 1980 are from the EIA *Natural Gas Annual, 1982*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

All monthly data are considered preliminary until after the publication of the EIA *Natural Gas Annual* for the year in which the report month falls. 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. This ratio is applied to the monthly sum of these three elements to compute a monthly supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Mexico and Canada, and liquefied natural gas via tanker from Algeria. The United States exports natural gas via pipeline to Mexico and Canada and liquefied natural gas via tanker to Japan.

Annual and final monthly data are published from the annual 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 *Natural Gas Monthly*. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas* for the calendar year in which the report month falls.

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

All final data are from the EIA, *Natural Gas Annual*. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *Natural Gas Monthly*.

7. Unaccounted For: The "unaccounted for" category represents quantities lost, the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; and imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. For additional explanatory information, see the EIA *Natural Gas Monthly*.

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. This 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.

All monthly data concerning underground storage are collected from the essentially identical Forms FPC-8 and EIA-191. Monthly data are revised after publication of the EIA *Underground Natural Gas Storage in the United States* for the heating year (April through March) in which the report month falls. In addition, injection and withdrawal data from the FPC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA *Natural Gas Annual*.

The final monthly and annual storage and withdrawal data for 1980 through 1982 include both underground and liquefied natural gas (LNG) storage. Underground storage data are taken from the FPC-8/EIA-191 survey in the following manner. Annual data on LNG additions and withdrawals are taken 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 it to annual LNG data.

(Notes and Sources for the Natural Gas Section are continued on the next page.)

Notes and Sources for the Natural Gas Section (continued)

Sources

Production: 1973 through 1982: Energy Information Administration (EIA), *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: State reports to the Interstate Oil Compact Commission, data from the U.S. Minerals Management Service, and EIA estimates for States that do not report monthly data on a regular or timely basis.

Extraction Loss, Consumption, and Unaccounted For: 1973 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations.

Withdrawals from and Additions to Storage: 1973 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."

Supplemental Gaseous Fuels: 1980 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations.

Imports and Exports: 1973 through 1982: Form FPC-14, "Imports and Exports of Natural Gas"; January 1983 forward: EIA computations.

End-Use Consumption: • All data except electric utility—1973 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations.

• Electric utility data—EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).

Underground Storage: 1973 and 1974: American Gas Association, *Gas Facts*; 1975 through 1979: EIA, Form FPC-8 and Form EIA-191, and the *Natural Gas Annual*; 1980 forward: EIA, Form FPC-8, Form EIA-191, and Form 176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Part 5 Oil and Gas Resource Development

Oil and Gas Resource Development

The November 1984 rotary rig count of 2,629 was 2.2 percent higher than the November 1983 count of 2,572. The 232 rigs operating offshore were 45.9 percent higher than those working in November 1983.

For October 1984, the reported total wells completed were 6,730, an increase of 14.1 percent from the 5,899 reported for October 1983. Oil well completions reported for October 1984 were 3,434, a 15.4-percent increase from the comparable 1983 figure of 2,976. Gas well completions of 1,238 reported for October 1984 were an increase of 1.4 percent from the October 1983 figure of 1,221. Total reported footage drilled for October 1984 was 28.1 million feet, an increase of 12.4 percent from the October 1983 figure of 25.0 million feet.

The 497 crews engaged in seismic exploration in October 1984 were 1 crew less than those in October 1983. The 449 land crews working in October 1984 were 1 crew more, while the 48 marine vessels working were 2 crews less, than those working during October 1983. The decrease in seismic exploration was caused partially by inclement weather. According to the Society of Exploration Geophysicists, a significant number of land crews had contracts but could not work due to abnormally heavy rains in some areas and snow in others.

Oil and Gas Resource Development

		Rotary Rigs in Operation ¹	Exploratory and Development Wells Drilled ²				Total Footage of Wells Drilled ²
		Monthly average	Oil	Gas	Dry	Total	Thousand feet
1973	Average	1,194	Total 9,902	6,385	10,305	26,592	136,391
1974	Average	1,472	Total 12,784	7,240	11,674	31,698	150,551
1975	Average	1,660	Total 16,408	7,580	13,247	37,235	174,434
1976	Average	1,658	Total 17,059	9,085	13,621	39,765	181,780
1977	Average	2,001	Total 18,912	11,378	14,692	44,982	210,848
1978	Average	2,259	Total 17,775	13,064	16,218	47,057	227,110
1979	Average	2,177	Total 19,383	14,681	15,752	49,816	238,659
1980	Average	2,909	Total 27,026	15,730	18,089	60,845	284,461
1981	Average	3,970	Total 37,671	17,894	22,973	78,538	361,407
1982	January	4,436	2,798	954	2,132	5,884	28,167
	February	4,160	3,036	1,430	2,234	6,700	31,985
	March	3,816	3,736	1,480	2,479	7,695	37,896
	April	3,460	3,674	1,530	2,287	7,491	36,439
	May	3,178	3,451	1,940	2,205	7,596	36,987
	June	2,908	3,888	1,891	2,521	8,300	38,962
	July	2,746	3,290	1,703	1,931	6,924	31,111
	August	2,620	2,865	1,588	1,917	6,370	28,836
	September	2,482	3,363	1,599	2,330	7,292	32,611
	October	2,402	2,833	1,210	2,125	6,168	27,274
	November	2,500	3,279	1,658	2,025	6,962	31,130
	December	2,696	4,087	1,970	2,363	8,420	34,648
	Average	3,105	Total 40,301	18,952	26,542	85,795	395,993
1983	January	2,622	2,376	891	1,640	4,907	20,922
	February	2,192	2,885	1,184	2,211	6,280	27,659
	March	2,003	3,433	1,607	2,630	7,670	34,210
	April	1,846	3,031	1,403	1,979	6,413	27,423
	May	1,926	3,187	1,747	1,830	6,764	28,564
	June	1,979	3,523	1,242	2,113	6,878	28,154
	July	2,039	2,689	1,127	1,639	5,455	22,970
	August	2,156	2,641	1,080	1,535	5,256	22,634
	September	2,252	3,736	1,282	2,016	7,034	30,374
	October	2,382	R2,976	R1,221	R1,702	R5,899	R24,965
	November	2,572	3,237	1,140	1,991	6,368	26,811
	December	2,780	3,470	1,699	2,201	7,370	30,942
	Average	2,232	Total 37,207	15,628	23,494	76,329	325,760
1984	January	2,666	*3,253	*1,058	*2,004	*6,315	*27,915
	February	2,423	3,212	1,425	2,123	6,760	27,623
	March	2,245	4,092	1,373	2,941	8,406	34,156
	April	2,120	2,821	1,162	1,690	5,673	26,234
	May	2,277	3,137	1,155	1,637	5,929	26,417
	June	2,363	3,723	1,362	2,298	7,383	32,174
	July	2,386	2,629	1,138	1,831	5,598	25,454
	August	2,417	3,968	1,421	2,121	7,510	31,612
	September	2,420	3,946	1,332	2,900	8,178	32,867
	October	2,492	3,434	1,238	2,058	6,730	28,065
	November	2,629	NA	NA	NA	NA	NA

¹Monthly data are averages of 4- or 5-week reporting periods and are not calendar months.

²Data exclude service wells and stratigraphic and core tests. Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), (4,4,5), and (4,4,5). In 1984, weekly data are aggregated into months differently to more closely represent the actual number of weeks in the calendar months—(5,4,5), (4,4,5), (4,5,4), and (4,5,4).

R=Revised data. NA=Not available.

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

• Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

Sources: • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—By State."

• Wells and Footage Drilled: American Petroleum Institute, "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

Oil and Gas Resource Development

		Crews Engaged in Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore ¹	Onshore ¹	Total ¹
		Monthly average			Annual total		
1973	Average	23	227	250	258,944	127,160	386,104
1974	Average	31	274	305	341,784	158,629	500,413
1975	Average	30	254	284	309,283	150,694	459,977
1976	Average	25	237	262	226,303	142,926	369,229
1977	Average	27	281	308	124,676	120,072	244,748
1978	Average	25	327	352	174,607	135,899	310,506
1979	Average	30	370	400	193,212	163,929	357,141
1980	Average	37	493	530	202,694	184,088	386,782
1981	Average	44	637	681	338,201	256,201	594,402
1982	January	53	642	695			
	February	53	625	678			
	March	52	597	649			
	April	55	571	626			
	May	61	551	612			
	June	69	546	615			
	July	66	527	593			
	August	62	500	562			
	September	59	476	535			
	October	51	465	516			
	November	50	452	502			
	December	49	428	477			
	Average	57	531	588	558,464	248,483	806,947
1983	January	49	407	456			
	February	47	404	451			
	March	45	402	447			
	April	39	410	449			
	May	39	410	449			
	June	43	428	471			
	July	46	437	483			
	August	49	435	484			
	September	57	444	501			
	October	50	448	498			
	November	49	446	495			
	December	48	445	493			
	Average	47	426	473	469,227	188,457	657,684
1984	January	50	427	477			
	February	53	433	486			
	March	47	424	471			
	April	50	423	473			
	May	46	444	490			
	June	45	455	500			
	July	47	482	529			
	August	53	470	523			
	September	52	472	524			
	October	48	449	497			

¹Monthly data not available.

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

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

Sources: • Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletins, *Geophysics* and *Leading Edge*.

Coal

Coal production in October 1984 was 69.0 million short tons, 3.8 percent less than the 71.8 million short tons produced in October 1983. Production of coal for the first three quarters of 1984 totaled 695.4 million short tons, a daily average increase of 19.9 percent from the 577.9 million short tons produced during the first three quarters of 1983.

Electric utility coal consumption in September 1984 totaled 54.0 million short tons, 0.4 percent less than consumption in September 1983. Coal consumption by electric utilities for the first 9 months of 1984 totaled 498.7 million short tons, a daily average of 7.0 percent more than during the same time period for 1983.

Electric utility coal stocks of 181.7 million short tons at the end of September 1984 were 20.3 million short tons (12.6 percent) above the level 1 year earlier.

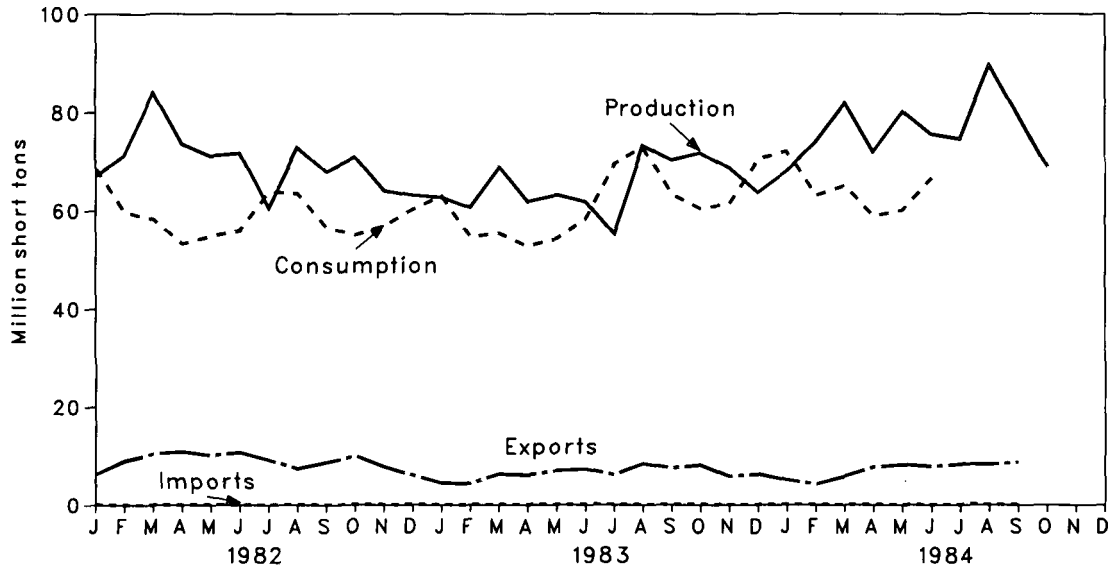
Imports of coal in September 1984 totaled 95 thousand short tons, 2 thousand short tons less than the amount imported in September 1983. Coal imports during the first three quarters of 1984, totaling 928 thousand short tons, were a daily average of 2.4 percent less than during the first three quarters of 1983.

Exports of coal in September 1984 totaled 8.7 million short tons, 15.7 percent more than the amount exported during September 1983. Coal exports in September 1984 were principally to Europe (43.7 percent), Canada (28.1 percent), and Japan (14.3 percent). Coal exports during the first 9 months of 1984 totaled 64.1 million short tons, 11.0 percent more, on a daily-average basis, than during the same period of 1983.

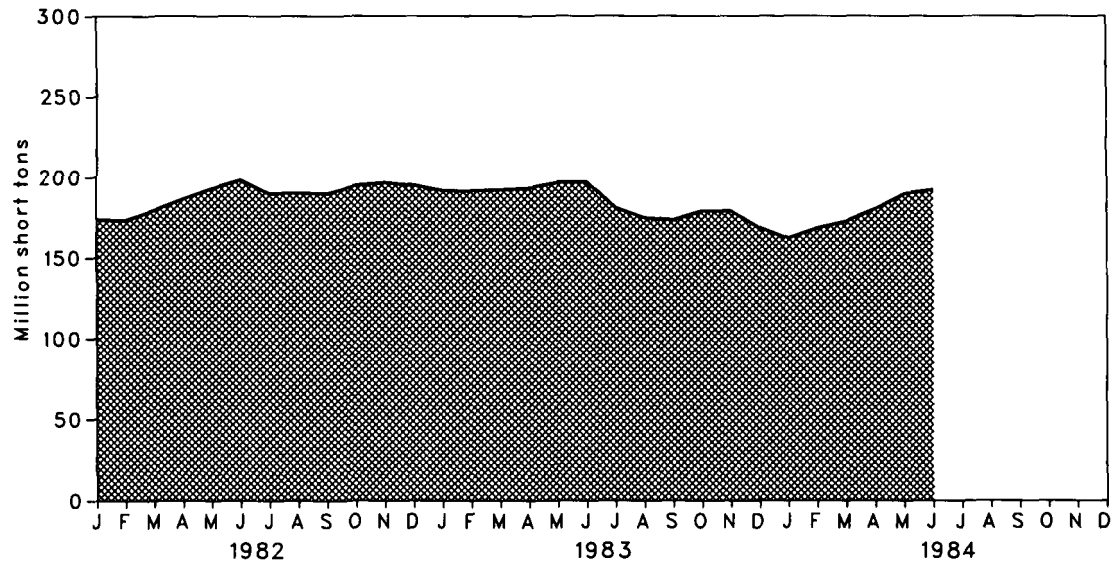
Coal

Overview

Production, Consumption, Imports, and Exports



Stocks at End of Period



Coal

Overview

		Production	Consumption	Imports	Exports ¹	Stocks ²
Thousand short tons						
1973	Total	598,568	562,584	127	53,587	104,335
1974	Total	610,023	558,402	2,080	60,661	96,323
1975	Total	654,641	562,641	940	66,309	128,050
1976	Total	684,913	603,790	1,203	60,021	134,438
1977	Total	697,205	625,291	1,647	54,312	157,098
1978	Total	670,164	625,225	2,953	40,714	145,551
1979	Total	781,134	680,524	2,059	66,042	181,646
1980	Total	829,700	702,729	1,194	91,742	204,028
1981	Total	823,775	732,627	1,043	112,541	185,274
1982	January	67,138	68,692	71	6,177	173,931
	February	71,169	59,746	30	8,964	173,193
	March	83,943	58,236	12	10,423	179,484
	April	73,587	53,274	10	10,831	186,458
	May	71,127	54,844	109	10,110	192,926
	June	71,720	55,950	9	10,680	198,377
	July	60,535	63,828	69	9,182	189,997
	August	72,898	63,528	131	7,385	190,310
	September	67,951	56,734	71	8,683	189,967
	October	70,852	55,034	66	9,972	195,107
	November	64,055	56,831	87	7,807	196,700
	December	63,136	60,214	76	6,064	195,254
	Total	838,112	706,911	742	106,277	
1983	January	62,731	63,019	78	4,471	191,902
	February	60,654	54,692	71	4,382	191,574
	March	68,896	55,434	120	6,291	192,315
	April	61,837	52,816	144	6,115	193,402
	May	63,210	54,327	102	6,952	196,982
	June	61,797	58,237	133	7,279	197,033
	July	55,213	69,478	87	6,140	181,222
	August	73,291	72,947	115	8,380	175,067
	September	70,312	63,317	97	7,525	173,743
	October	71,754	60,454	190	8,131	179,166
	November	68,684	61,411	32	5,838	179,281
	December	63,713	70,541	102	6,269	168,654
	Total	782,091	736,672	1,271	77,772	
1984	January†	68,154	72,033	81	5,062	162,082
	February†	73,934	63,096	140	4,251	168,473
	March†	81,864	65,121	55	5,813	172,862
	April†	71,939	58,906	148	7,688	180,347
	May†	80,204	60,138	72	8,221	189,685
	June†	75,586	66,634	49	7,828	192,271
	July†	74,691	NA	193	8,318	NA
	August†	89,630	NA	95	8,235	NA
	September†	79,373	NA	95	8,710	NA
	October†	69,003	NA	NA	NA	NA

¹Excludes shipments of anthracite to U.S. Armed Forces overseas (335,000 short tons in 1982 and 363,000 short tons in 1983).

²Stocks held by electric utilities, coke plants, and general industry at the end of period. Excludes stocks at retail dealers that are consumed by the residential and commercial sector.

†Preliminary data. NA=Not available.

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

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

• See Note on the last page of this section for methodology used to calculate production, consumption, and stocks.

Sources: • See the last page of this section.

Coal

Consumption by End-Use Sector

		Industrial				
		Electric Utilities	Coke Plants	Other Industrial ¹ Including Transportation	Residential and Commercial	Total
		Thousand short tons				
1973	Total	389,212	94,101	68,154	11,117	562,584
1974	Total	391,811	90,191	64,983	11,417	558,402
1975	Total	405,962	83,598	63,670	9,410	562,641
1976	Total	448,371	84,704	61,799	8,916	603,790
1977	Total	477,126	77,739	61,472	8,954	625,291
1978	Total	481,235	71,394	63,085	9,511	625,225
1979	Total	527,051	77,368	67,717	8,388	680,524
1980	Total	569,274	66,657	60,347	6,451	702,729
1981	Total	596,797	61,014	67,395	7,421	732,627
1982	January	56,825	4,444	6,430	993	68,692
	February	48,878	4,340	5,835	693	59,746
	March	47,884	4,173	5,616	563	58,236
	April	43,490	3,708	5,373	703	53,274
	May	45,622	3,622	5,133	467	54,844
	June	47,424	3,481	4,681	364	55,950
	July	55,248	3,121	4,831	628	63,828
	August	54,838	3,058	4,962	670	63,528
	September	48,414	2,924	4,759	637	56,734
	October	46,330	2,757	5,287	660	55,034
	November	47,799	2,693	5,494	845	56,831
	December	50,914	2,587	5,695	1,018	60,214
	Total	593,666	40,908	64,097	8,240	706,911
1983	January	53,351	2,813	5,970	884	63,019
	February	45,772	2,742	5,405	773	54,692
	March	47,110	2,567	5,206	551	55,434
	April	43,589	3,206	5,254	767	52,816
	May	45,691	3,151	5,023	463	54,327
	June	50,338	2,734	4,798	367	58,237
	July	60,390	3,269	5,220	599	69,478
	August	63,767	3,252	5,362	566	72,947
	September	54,212	3,196	5,156	752	63,317
	October	50,689	3,307	5,659	799	60,454
	November	51,185	3,335	6,046	845	61,411
	December	59,117	3,461	6,880	1,082	70,541
	Total	625,211	37,033	65,980	8,448	736,672
1984	January†	60,224	3,791	6,942	1,076	72,033
	February†	52,257	3,592	6,305	942	63,096
	March†	54,534	3,843	6,072	672	65,121
	April†	47,553	4,180	6,245	928	58,906
	May†	49,507	4,100	5,971	560	60,138
	June†	56,923	3,564	5,704	443	66,634
	July†	60,359	NA	NA	NA	NA
	August†	63,396	NA	NA	NA	NA
	September†	53,991	NA	NA	NA	NA

¹See Note on the last page of this section.

†Preliminary data. NA=Not available.

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

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

Sources: • See the last page of this section.

Coal

Stocks by End-Use Sector at End of Period

		Industrial			Total ¹
		Electric Utilities	Coke Plants	Other Industrial	
Thousand short tons					
1973		86,967	6,998	10,370	104,335
1974		83,509	6,209	6,605	96,323
1975		110,724	8,797	8,529	128,050
1976		117,436	9,902	7,100	134,438
1977		133,219	12,816	11,063	157,098
1978		128,225	8,278	9,048	145,551
1979		159,714	10,155	11,777	181,646
1980		183,010	9,067	11,951	204,028
1981		168,893	6,475	9,906	185,274
1982	January	158,469	6,207	9,255	173,931
	February	158,136	5,909	9,148	173,193
	March	164,518	5,612	9,354	179,484
	April	171,390	5,931	9,137	186,458
	May	177,461	6,231	9,234	192,926
	June	182,513	6,532	9,331	198,377
	July	174,503	6,166	9,328	189,997
	August	175,194	5,800	9,316	190,310
	September	175,225	5,434	9,308	189,967
	October	180,571	5,171	9,365	195,107
	November	182,368	4,908	9,424	196,700
	December	181,132	4,642	9,479	195,254
1983	January	178,604	4,338	8,960	191,902
	February	179,101	4,034	8,439	191,574
	March	180,671	3,728	7,916	192,315
	April	181,371	4,089	7,942	193,402
	May	184,567	4,450	7,965	196,982
	June	184,236	4,812	7,985	197,033
	July	168,566	4,489	8,167	181,222
	August	162,557	4,165	8,345	175,067
	September	161,384	3,842	8,518	173,743
	October	166,574	4,010	8,582	179,166
	November	166,457	4,178	8,645	179,281
	December	155,598	4,346	8,710	168,654
1984	January†	148,723	4,947	8,412	162,082
	February†	154,811	5,548	8,114	168,473
	March†	158,897	6,149	7,816	172,862
	April†	164,597	7,171	8,579	180,347
	May†	172,150	8,193	9,342	189,685
	June†	172,949	9,217	10,105	192,271
	July†	169,737	NA	NA	NA
	August†	174,397	NA	NA	NA
	September†	181,678	NA	NA	NA

¹Total excludes stocks at retail dealers that are consumed by the residential and commercial sector.

†Preliminary data. NA= Not available.

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

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

Sources: • See the last page of this section.

Notes and Sources for the Coal Section

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 (AAR) 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 using the average number of tons of coal per railcar loaded reported in the most recent Quarterly Freight Commodity Statistics from the Interstate Commerce Commission (ICC). 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 factor because data for the current quarter are not yet available. This method also ensures that the seasonal variations in production are preserved.

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

2. Consumption: Both monthly and quarterly consumption for electric utility plants are taken directly from reported data. Prior to 1980, monthly consumption at coke plants was also taken directly from reported data. Since that time, it has been estimated by proportioning reported quarterly data using the ratios of monthly to quarterly consumption in 1979, the last year in which monthly data were reported. Quarterly consumption is taken directly from reported data.

Prior to 1978, monthly consumption for the other industrial sector (i.e., all industrial users minus coke plants) was 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 subsequent years, monthly figures were derived from data reported on Forms EIA-3 and EIA-6. Beginning in 1980, monthly figures have been estimated by proportioning derived quarterly data using the ratios of monthly to quarterly consumption in 1979, the last year in which monthly data were reported on Form EIA-3. Quarterly consumption for the other industrial sector is derived from reported data by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are taken as 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 are included where appropriate.

Prior to 1980, monthly consumption for the residential and commercial sector was derived by using reported data to modify baseline figures developed by the Bureau of Mines. Since that time, it has been estimated by proportioning reported quarterly data using the ratios of monthly to quarterly consumption 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 is taken directly from reported data and is defined as distribution to the residential and commercial sector as reported by coal producers and distributors on Form EIA-6.

3. Stocks: Both monthly and quarterly stocks at electric utility plants are taken directly from reported data. Prior to 1980, monthly stocks at coke plants were also taken directly from reported data. Since that time, they have been 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.

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. During the period 1978 through 1982, they were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. Since that time, they have been 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. Monthly and quarterly stock data are not available for the residential and commercial sector.

4. Imports and Exports: All coal import and export figures are taken directly from data reported monthly by the Bureau of the Census.

Additional information concerning coal production, consumption, and stock data and estimation procedures may be obtained in EIA's *Quarterly Coal Report*, DOE/EIA-0121.

Sources

Production: 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*; October 1977 forward: Energy Information Administration (EIA), *Weekly Coal Production*.

Consumption and Stocks: 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*;

- Electric Utilities—October 1977 forward: EIA, Form EIA-759 (formerly FPC Form 4), "Monthly Power Plant Report."

- Coke Plants—October 1977 through December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals—Monthly/Annual"; January 1981 forward: EIA, Form EIA-5/5A, "Coke Plant Report—Quarterly/Annual Supplement."

- Other Industrial—October 1977 through December 1979: EIA, Form EIA-3, "Monthly Fuel Consumption Report—Manufacturing Plants"; January 1980 forward: EIA, Form EIA-3, "Quarterly Fuel Consumption Report—Manufacturing Plants" and Form EIA-6, "Coal Distribution Report."

- Residential and Commercial—October 1977 through December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report."

Imports and Exports: Bureau of the Census, U.S. Department of Commerce, Monthly Reports IM-145 (Imports) and EM-522 (Exports).

Electric Utilities

During September 1984, electric utilities generated 194.9 billion kilowatthours of electricity, 0.4 percent below the September 1983 generation level. Coal-fired generation totaled 108.8 billion kilowatthours, slightly below the September 1983 level. Nuclear generation totaled 28.9 billion kilowatthours, 15.5 percent above the September 1983 level. Natural gas-fired generation was 27.8 billion kilowatthours in September 1984, 0.7 percent below the September 1983 level. Hydroelectric generation was 20.9 billion kilowatthours, 3.7 percent below the level 1 year earlier. Petroleum-fired generation totaled 7.7 billion kilowatthours, 31.7 percent below the level in September 1983.

During the first three quarters of 1984, electric utilities generated a daily average of 5.4 percent more electricity than during the first three quarters of 1983. Comparing generation during the first 9 months of 1984 and 1983 on a daily average basis, coal-fired generation was up 7.1 percent in 1984, hydroelectric was down 1.5 percent, nuclear was up 12.7 percent, natural gas-fired was up 7.9 percent, and petroleum-fired was down 13.5 percent.

Sales of electricity to all ultimate consumers in the United States in September 1984 were 198.6 billion kilowatthours, 1.7 percent below September 1983 sales. Sales to residential consumers during September 1984 were 67.5 billion kilowatthours, 7.8 percent below the level of sales during the same month in 1983. Commercial sales were 52.9 billion kilowatthours, 1.4 percent more than the amount sold to commercial consumers in September 1983. Sales to industrial consumers totaled 71.3 billion kilowatthours in September 1984, 2.4 percent more than the 1983 figure. In September 1984, other sales totaled 7.0 billion kilowatthours, 0.1 percent above the September 1983 level.

Sales of electricity to all ultimate consumers in the United States during the first three quarters of 1984 were a daily average increase of 6.4 percent from sales during the first three quarters of 1983. Sales to residential consumers during the first 9 months of 1984 were, on a daily average basis, up 3.5 percent from those sales during the first 9 months of 1983, while commercial sales were up 6.1 percent, industrial sales were up 10.1 percent, and other sales were up 1.6 percent.

Electric utility petroleum consumption (excluding petroleum coke) during September 1984 was 13.2 million barrels, 32.2 percent below the September 1983 level. Coal consumption during September 1984 was 54.0 million short tons, 0.4 percent below the September 1983 rate. During September 1984, electric utilities consumed 290.6 billion cubic feet of natural gas, 2.6 percent below the September 1983 consumption level.

Electric utility petroleum consumption (excluding petroleum coke) during the first three quarters of 1984 was down a daily average of 13.1 percent from petroleum consumption during the first three quarters of 1983. Coal consumption during the first 9 months of 1984 was up a daily average of 7.0 percent compared to coal consumption during the same period in 1983, while natural gas consumption was up a daily average of 6.5 percent comparing the same time periods.

On September 30, 1984, utility stocks of anthracite, bituminous coal, and lignite totaled 181.7 million short tons. Stockpiles were 12.6 percent above the level of September 30, 1983. Petroleum stocks (excluding petroleum coke) on September 30, 1984, totaled 86.2 million barrels, 9.6 percent below the level on the same date in 1983.

Electric Utilities

Net Electricity Generation by Primary Energy Source

		Coal	Petroleum ¹	Natural Gas ²	Nuclear Electric Power	Hydro-electric Power	Other ³	Total
Million kilowatthours								
1973	Total	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974	Total	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975	Total	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976	Total	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977	Total	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978	Total	975,742	365,060	305,391	276,403	280,419	3,315	2,206,331
1979	Total	1,075,037	303,525	329,485	255,155	279,783	4,387	2,247,372
1980	Total	1,161,562	245,994	346,240	251,116	276,021	5,506	2,286,439
1981	Total	1,203,203	206,421	345,777	272,674	260,684	6,054	2,294,812
1982	January	113,124	20,674	22,621	25,678	26,896	411	209,403
	February	96,906	15,217	20,920	20,188	26,690	380	180,299
	March	97,625	13,495	23,598	22,755	29,885	330	187,687
	April	88,116	11,192	23,231	21,785	27,928	328	172,580
	May	92,997	9,868	24,291	21,639	27,971	381	177,147
	June	95,314	10,419	27,959	24,026	27,953	458	186,128
	July	110,617	13,380	33,340	25,467	27,294	485	210,584
	August	110,124	11,753	34,418	24,986	23,894	480	205,656
	September	96,896	10,363	27,649	25,391	19,896	468	180,662
	October	93,769	9,885	25,804	23,248	19,750	509	172,966
	November	95,547	9,313	21,466	23,235	23,297	520	173,377
	December	100,970	11,238	19,963	24,376	27,760	415	184,722
	Total	1,192,004	146,797	305,260	282,773	309,213	5,164	2,241,211
1983	January	108,164	12,880	19,721	25,073	29,235	506	195,579
	February	92,692	12,586	16,659	22,198	27,950	395	172,479
	March	95,598	12,556	19,686	23,890	30,302	455	182,488
	April	88,114	10,337	19,174	22,335	29,989	424	170,372
	May	91,296	9,050	20,445	22,051	31,194	356	174,392
	June	101,512	11,139	23,091	24,152	30,692	462	191,048
	July	121,560	14,710	29,615	25,602	28,113	565	220,165
	August	129,313	14,731	33,147	26,201	25,828	738	229,957
	September	108,868	11,299	28,040	25,007	21,712	678	195,604
	October	101,951	9,941	23,783	25,797	20,747	712	182,931
	November	103,225	9,229	20,169	25,010	24,678	637	182,949
	December	117,131	16,041	20,567	26,361	31,691	528	212,319
	Total	1,259,424	144,499	274,098	293,677	332,130	6,456	2,310,285
1984	January	120,850	15,939	20,245	29,135	29,738	541	216,450
	February	104,706	10,079	17,835	28,340	27,901	637	189,498
	March	111,158	10,806	19,645	26,613	30,425	713	199,359
	April	97,538	7,452	21,197	24,109	29,948	688	180,934
	May	100,139	8,421	25,227	25,673	31,814	671	191,945
	June	115,304	11,274	28,344	25,117	28,735	651	209,425
	July	121,094	10,398	33,325	27,764	27,499	644	220,724
	August	127,744	12,837	33,290	29,322	25,137	790	229,119
	September	108,792	7,713	27,839	28,884	20,909	726	194,864

¹Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

²Includes supplemental gaseous fuels.

³Includes only electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

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

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

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Electric Utilities

Electricity Sales¹

	Residential	Commercial	Industrial	Other ²	Total	
Million kilowatthours						
1973	Total	579,231	388,266	686,085	59,328	1,712,910
1974	Total	578,184	384,826	684,875	58,039	1,705,924
1975	Total	588,140	403,049	687,680	68,222	1,747,091
1976	Total	606,452	425,094	754,069	69,631	1,855,246
1977	Total	645,239	446,514	786,037	70,571	1,948,361
1978	Total	674,466	461,163	809,078	73,215	2,017,922
1979	Total	682,819	473,307	841,903	73,070	2,071,099
1980	Total	717,495	488,156	815,067	73,732	2,094,449
1981	Total	722,265	514,338	825,742	84,756	2,147,101
1982	January	76,264	44,947	62,939	7,929	192,079
	February	69,128	43,459	62,778	7,441	182,805
	March	60,498	41,710	64,496	7,255	173,959
	April	54,918	40,036	62,723	6,836	164,512
	May	49,092	40,021	62,480	6,976	158,569
	June	54,083	44,206	63,684	6,766	168,739
	July	65,704	48,211	62,617	7,035	183,567
	August	69,906	49,720	63,306	6,808	189,740
	September	63,053	48,068	59,980	7,194	178,296
	October	52,638	42,864	60,830	7,084	163,416
	November	52,136	40,572	60,651	7,122	160,479
	December	62,102	42,584	58,464	7,128	170,278
	Total	729,519	526,397	744,949	85,575	2,086,440
1983	January	69,967	44,019	57,938	7,252	179,176
	February	65,039	42,475	59,032	6,919	173,465
	March	58,912	41,518	60,261	6,893	167,584
	April	56,284	40,679	60,548	6,296	163,807
	May	49,669	40,305	62,729	6,216	158,919
	June	54,138	45,086	66,152	6,228	171,604
	July	69,965	51,013	66,424	6,752	194,153
	August	78,374	53,245	69,611	6,885	208,115
	September	73,197	52,147	69,618	6,960	201,922
	October	55,374	45,517	68,924	6,942	176,307
	November	53,704	42,666	67,544	6,560	170,474
	December	66,326	45,119	67,217	6,765	185,428
	Total	750,948	543,788	775,999	80,219	2,150,955
1984	January	83,300	49,216	66,743	7,289	206,548
	February	69,776	45,840	66,604	6,638	188,857
	March	63,741	45,251	69,687	6,906	185,563
	April	56,373	43,052	69,049	6,452	174,927
	May	53,519	44,150	70,774	6,559	175,002
	June	59,933	49,410	73,014	6,714	189,071
	July	70,671	53,764	70,658	6,986	202,079
	August†	73,138	53,603	74,534	7,089	208,364
	September†	67,456	52,854	71,275	6,969	198,554

¹Electricity sales to all ultimate consumers.

²Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.

†Initial estimates.

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

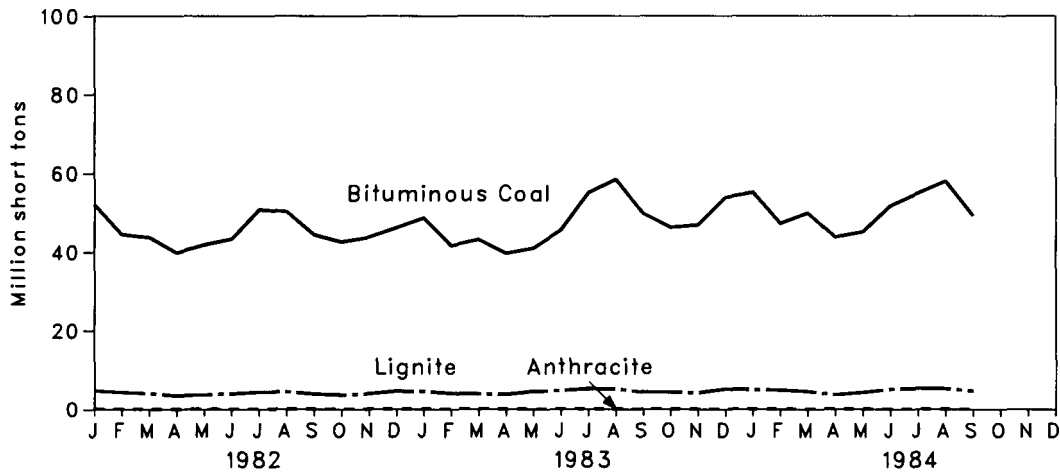
• Totals may not equal sum of components due to independent rounding.

Sources: • Energy Information Administration (EIA), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: Form EIA 826, "Electric Utility Company Monthly Statement."

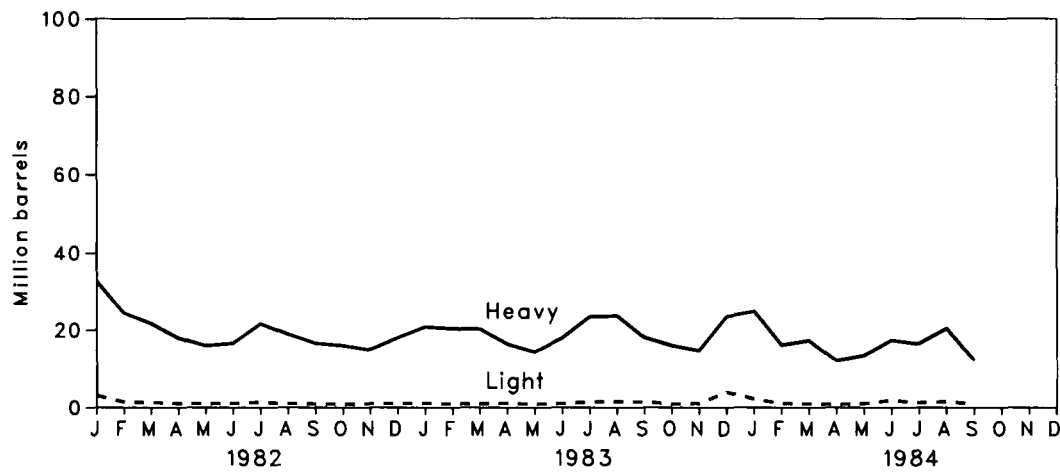
Electric Utilities

Primary Energy Consumed to Produce Electricity

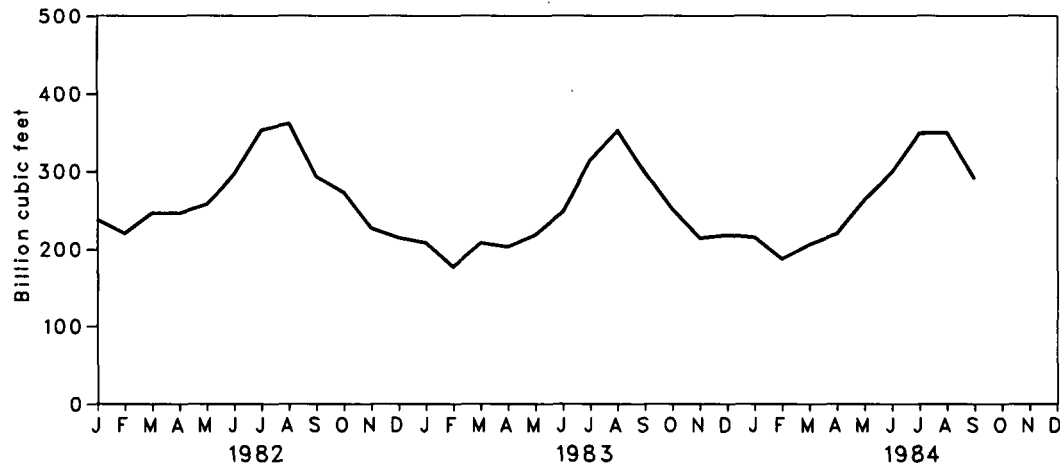
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

Primary Energy Consumed to Produce Electricity

		Coal				Petroleum				Natural Gas ¹	
		Anthracite	Bituminous Coal	Lignite	Total	Heavy ²	Light ³	Total Liquids	Petroleum Coke		
		Thousand short tons				Thousand barrels				Thousand short tons	Million cubic feet
1973	Total	1,443	376,975	10,794	389,212	(⁴)	(⁴)	560,248	507	3,660,172	
1974	Total	1,498	378,643	11,670	391,811	(⁴)	(⁴)	536,274	625	3,443,428	
1975	Total	1,480	388,523	15,960	405,962	(⁴)	(⁴)	506,128	70	3,157,669	
1976	Total	1,350	425,205	21,817	448,371	(⁴)	(⁴)	555,920	68	3,080,868	
1977	Total	1,425	451,051	24,650	477,126	(⁴)	(⁴)	623,705	98	3,191,200	
1978	Total	1,064	448,763	31,407	481,235	(⁴)	(⁴)	635,839	398	3,188,363	
1979	Total	1,046	488,129	37,876	527,051	(⁴)	(⁴)	523,297	268	3,490,523	
1980	Total	951	526,680	41,642	569,274	391,163	29,051	420,214	179	3,681,595	
1981	Total	1,221	550,784	44,792	596,797	329,798	21,313	351,111	139	3,640,154	
1982	January	89	52,014	4,723	56,825	32,269	3,131	35,399	10	237,675	
	February	83	44,478	4,317	48,878	24,351	1,421	25,772	9	220,032	
	March	73	43,751	4,060	47,884	21,617	1,304	22,921	4	246,550	
	April	88	39,888	3,515	43,490	17,913	1,132	19,045	11	246,344	
	May	98	41,845	3,678	45,622	15,939	991	16,930	12	257,848	
	June	94	43,340	3,990	47,424	16,539	1,053	17,592	13	295,557	
	July	108	50,769	4,371	55,248	21,550	1,360	22,910	11	352,818	
	August	95	50,283	4,460	54,838	18,873	1,053	19,926	13	361,351	
	September	67	44,431	3,916	48,414	16,544	921	17,464	9	293,232	
	October	81	42,598	3,650	46,330	15,990	870	16,860	17	273,003	
	November	100	43,756	3,943	47,799	14,908	1,007	15,916	18	226,477	
	December	99	46,192	4,622	50,914	17,940	1,094	19,035	22	214,630	
	Total	1,075	543,346	49,245	593,666	234,434	15,337	249,771	149	3,225,518	
1983	January	73	48,695	4,583	53,351	20,728	1,110	21,838	17	208,341	
	February	73	41,668	4,032	45,772	20,305	984	21,289	19	176,965	
	March	75	43,165	3,870	47,110	20,174	945	21,119	16	208,013	
	April	92	39,716	3,781	43,589	16,374	1,054	17,429	24	202,917	
	May	104	41,002	4,585	45,691	14,360	937	15,297	30	218,184	
	June	88	45,560	4,690	50,338	17,892	1,020	18,912	23	247,825	
	July	89	55,082	5,219	60,390	23,383	1,433	24,815	25	314,357	
	August	92	58,475	5,200	63,767	23,622	1,543	25,165	24	352,031	
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,517	
	October	91	46,263	4,335	50,689	15,993	870	16,863	22	251,151	
	November	86	46,883	4,216	51,185	14,690	1,075	15,766	17	214,275	
	December	88	53,854	5,176	59,117	23,440	4,034	27,474	21	218,191	
	Total	1,036	570,108	54,067	625,211	228,984	16,512	245,497	261	2,910,767	
1984	January	98	55,141	4,985	60,224	24,745	2,176	26,921	24	215,215	
	February	75	47,279	4,904	52,257	16,099	1,065	17,165	21	187,322	
	March	69	49,921	4,543	54,534	17,274	1,016	18,291	18	206,177	
	April	83	43,767	3,703	47,553	11,971	835	12,806	22	220,009	
	May	99	45,115	4,294	49,507	13,327	1,012	14,339	23	264,283	
	June	102	51,709	5,112	56,923	17,363	1,927	19,289	23	298,674	
	July	100	54,928	5,331	60,359	16,453	1,259	17,712	22	348,840	
	August	97	58,026	5,273	63,396	20,337	1,523	21,860	20	349,875	
	September	81	49,235	4,675	53,991	12,235	996	13,231	21	290,608	

¹Includes supplemental gaseous fuels.

²Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

³Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

⁴Prior to 1980, petroleum consumption data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.

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

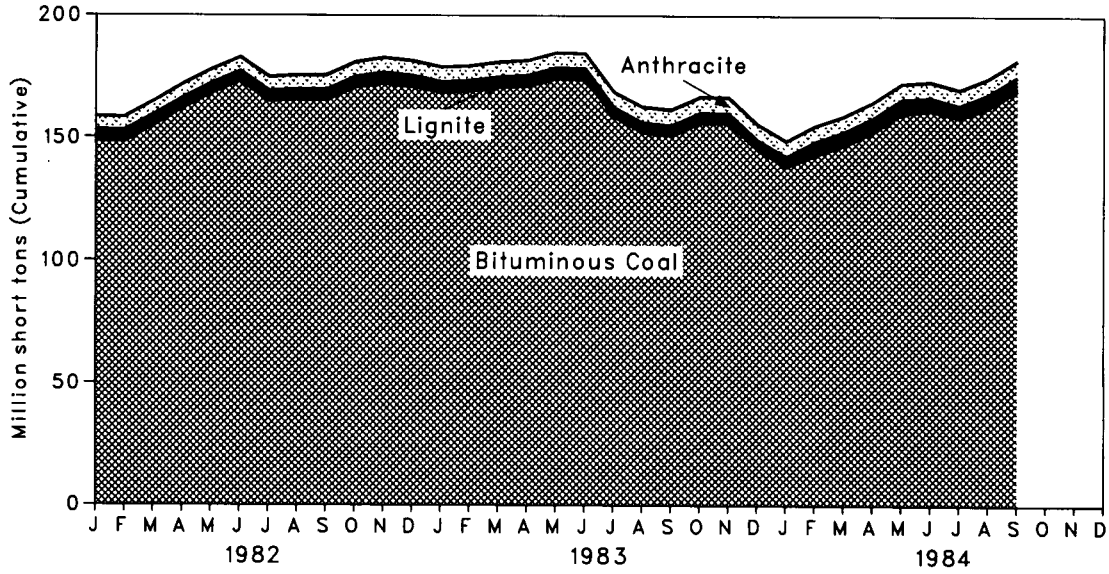
• Totals may not equal sum of components due to independent rounding.

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

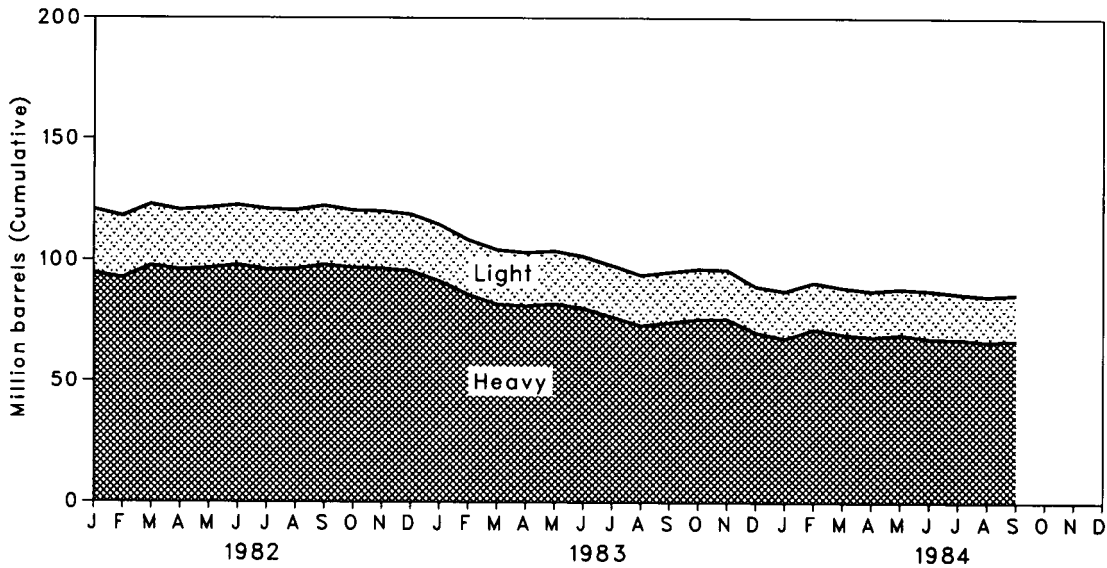
Electric Utilities

Coal and Petroleum Stocks at End of Period

Coal Stocks



Petroleum Stocks



Electric Utilities

Coal and Petroleum Stocks at End of Period

		Coal				Petroleum			
		Anthracite	Bituminous Coal	Lignite	Total	Heavy ¹	Light ²	Total Liquids	Petroleum Coke
		Thousand short tons				Thousand barrels		Thousand short tons	
1973		1,066	84,941	961	86,967	(³)	(³)	89,216	312
1974		930	81,712	867	83,509	(³)	(³)	112,917	35
1975		982	107,927	1,815	110,724	(³)	(³)	125,257	31
1976		1,000	114,130	2,306	117,436	(³)	(³)	121,696	32
1977		2,321	128,210	2,688	133,219	(³)	(³)	144,031	44
1978		2,178	123,020	3,027	128,225	(³)	(³)	118,788	198
1979		3,274	152,981	3,459	159,714	(³)	(³)	131,422	183
1980		4,741	174,154	4,115	183,010	105,351	30,023	135,374	52
1981		5,537	158,258	5,098	168,893	102,042	26,094	128,136	42
1982	January	5,437	148,404	4,628	158,469	94,609	26,162	120,771	39
	February	5,401	148,118	4,617	158,136	92,622	25,418	118,040	40
	March	5,488	154,724	4,305	164,518	97,706	25,136	122,842	43
	April	5,542	161,720	4,128	171,390	95,984	24,636	120,620	42
	May	5,569	167,805	4,088	177,461	96,607	24,796	121,403	41
	June	5,603	172,819	4,092	182,513	97,959	24,647	122,606	43
	July	5,658	164,688	4,157	174,503	96,085	25,008	121,093	43
	August	5,791	165,182	4,221	175,194	96,345	24,193	120,538	42
	September	5,896	165,065	4,264	175,225	98,160	24,225	122,385	47
	October	5,992	170,281	4,298	180,571	96,920	23,595	120,515	36
	November	6,060	171,832	4,476	182,368	96,618	23,553	120,171	42
	December	6,080	170,480	4,573	181,132	95,515	23,369	118,884	41
1983	January	6,107	168,287	4,210	178,604	91,523	23,183	114,706	54
	February	6,104	168,635	4,362	179,101	85,847	22,665	108,512	53
	March	6,143	170,327	4,201	180,671	81,957	22,387	104,344	54
	April	6,120	170,815	4,436	181,371	81,243	21,967	103,211	47
	May	6,145	173,969	4,453	184,567	82,091	21,758	103,849	44
	June	6,230	173,483	4,524	184,236	80,197	21,471	101,667	52
	July	6,299	158,701	3,566	168,566	76,881	21,101	97,982	50
	August	6,380	152,140	4,038	162,557	73,266	20,763	94,029	45
	September	6,435	150,778	4,171	161,384	74,560	20,696	95,256	47
	October	6,506	156,012	4,056	166,574	75,949	20,568	96,517	53
	November	6,531	155,931	3,995	166,457	75,930	20,271	96,201	63
	December	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55
1984	January	6,500	138,346	3,877	148,723	68,049	19,390	87,439	43
	February	6,510	142,949	5,352	154,811	71,827	19,238	91,065	41
	March	6,519	146,879	5,500	158,897	69,882	19,056	88,937	45
	April	6,515	152,306	5,777	164,597	68,669	18,875	87,544	47
	May	6,532	159,963	5,656	172,150	69,787	18,674	88,461	51
	June	6,541	161,229	5,179	172,949	68,098	19,710	87,809	51
	July	6,530	158,324	4,883	169,737	67,754	18,771	86,525	50
	August	6,583	162,457	5,358	174,397	66,725	18,760	85,485	47
	September	6,628	169,514	5,536	181,678	67,247	18,905	86,151	49

¹Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

²Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

³Prior to 1980, petroleum stock data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.

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

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

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Electric Utilities

Petroleum Consumption and Stocks by Prime Mover Type

		Petroleum Consumption			Petroleum Stocks at End of Period		
		Steam Plants	GT/IC ¹	Total Liquids	Steam Plants	GT/IC ¹	Total Liquids
Thousand barrels							
1973	Total	513,190	47,058	560,248	79,121	10,095	89,216
1974	Total	483,146	53,128	536,274	97,718	15,199	112,917
1975	Total	467,221	38,907	506,128	108,825	16,432	125,257
1976	Total	514,077	41,843	555,920	106,993	14,703	121,696
1977	Total	574,869	48,837	623,705	124,750	19,281	144,031
1978	Total	588,319	47,520	635,839	102,402	16,386	118,788
1979	Total	492,606	30,691	523,297	111,121	20,301	131,422
1980	Total	401,863	18,351	420,214	117,227	18,147	135,374
1981	Total	339,680	11,431	351,111	112,380	15,756	128,136
1982	January	33,832	1,567	35,399	105,475	15,296	120,771
	February	25,249	524	25,772	102,883	15,157	118,040
	March	22,371	550	22,921	108,142	14,699	122,842
	April	18,553	492	19,045	106,143	14,477	120,620
	May	16,614	316	16,930	106,701	14,702	121,403
	June	17,241	351	17,592	108,189	14,417	122,606
	July	22,192	718	22,910	106,170	14,923	121,093
	August	19,508	418	19,926	106,438	14,100	120,538
	September	17,146	318	17,464	108,177	14,208	122,385
	October	16,547	313	16,860	106,701	13,813	120,515
	November	15,591	325	15,916	106,361	13,809	120,171
	December	18,694	341	19,035	105,287	13,597	118,884
	Total	243,537	6,234	249,771			
1983	January	21,373	465	21,838	101,394	13,312	114,706
	February	20,885	404	21,289	95,459	13,053	108,512
	March	20,728	392	21,119	91,394	12,750	104,344
	April	16,997	432	17,429	90,667	12,544	103,211
	May	14,968	330	15,297	91,360	12,489	103,849
	June	18,437	475	18,912	89,283	12,384	101,667
	July	23,927	888	24,815	85,891	12,091	97,982
	August	24,166	999	25,165	82,307	11,722	94,029
	September	18,532	996	19,529	83,511	11,745	95,256
	October	16,518	345	16,863	84,873	11,644	96,517
	November	15,336	430	15,766	84,804	11,397	96,201
	December	25,978	1,496	27,474	78,285	11,090	89,375
	Total	237,845	7,652	245,497			
1984	January	25,838	1,082	26,921	76,188	11,251	87,439
	February	16,718	447	17,165	79,885	11,180	91,065
	March	17,881	410	18,291	77,905	11,032	88,937
	April	12,500	306	12,806	76,636	10,908	87,544
	May	13,896	442	14,339	77,548	10,913	88,461
	June	17,997	1,293	19,289	76,124	11,685	87,809
	July	17,085	627	17,712	75,667	10,858	86,525
	August	20,957	903	21,860	74,681	10,804	85,485
	September	12,795	436	13,231	75,457	10,695	86,151

¹GT/IC=Gas turbine and internal combustion plants.

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

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

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Nuclear

In September 1984, U.S. nuclear powerplants generated a total of 28.9 billion net kilowatt-hours of electricity (kWhe), equivalent to an average hourly output of 40.1 million net kWhe. This was 1.8 percent above the average hourly generation for August 1984, and 15.5 percent above the comparable output for September 1983. Hourly generation for the first three quarters of 1984 averaged 37.3 million net kWhe, a 12.7-percent average hourly increase from the figure of 33.0 million net kWhe, for the same period in 1983. Nuclear power supplied 14.8 percent of the electricity distributed in September 1984. During the first three quarters of 1984, nuclear powerplants generated 13.4 percent of the total electricity distributed. This compares to the 12.5 percent generated during the same period of 1983.

There were 84 operable U.S. nuclear power reactors as of September 30, 1984, with a collective net generating capacity of 67.1 thousand megawatts-electric. This represents

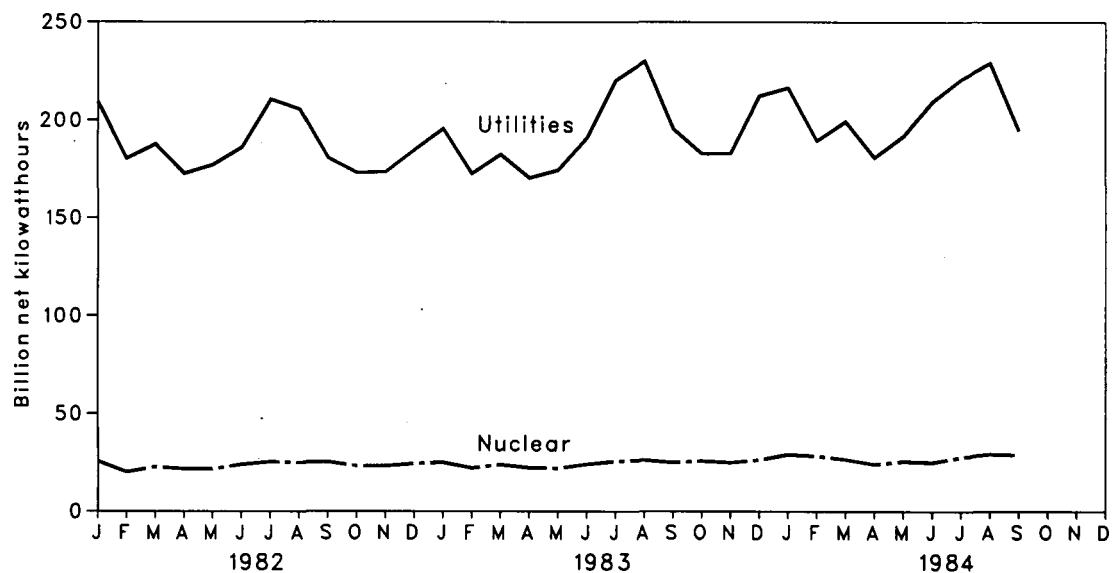
a 7.8-percent increase from the capacity in September 1983, when there were 80 operable reactors. Of the 84 operable reactors in September 1984, 4 units were in power ascension (Grand Gulf-1, LaSalle-2, Susquehanna-2, and WNP-2), and 21 units generated no electricity or operated substantially below capacity in September (Browns Ferry-3, Brunswick-2, Connecticut Yankee, Davis-Besse, Fort St. Vrain, Indian Point-2, Monticello, North Anna-1, North Anna-2, Oyster Creek, Palisades, Peach Bottom-2, Pilgrim, Prairie Island-2, Rancho Seco, Robinson-2, Salem-1, San Onofre-1, Three Mile Island-1, Trojan, and Zion-1). Two units had licenses from the Nuclear Regulatory Commission authorizing fuel-loading and low-power testing (Callaway-1 and Diablo Canyon-1).

As of September 30, 1984, there were 132 domestic nuclear powerplants in all stages of planning, construction, and operation, with an aggregate design capacity of 123 thousand net megawatts-electric.

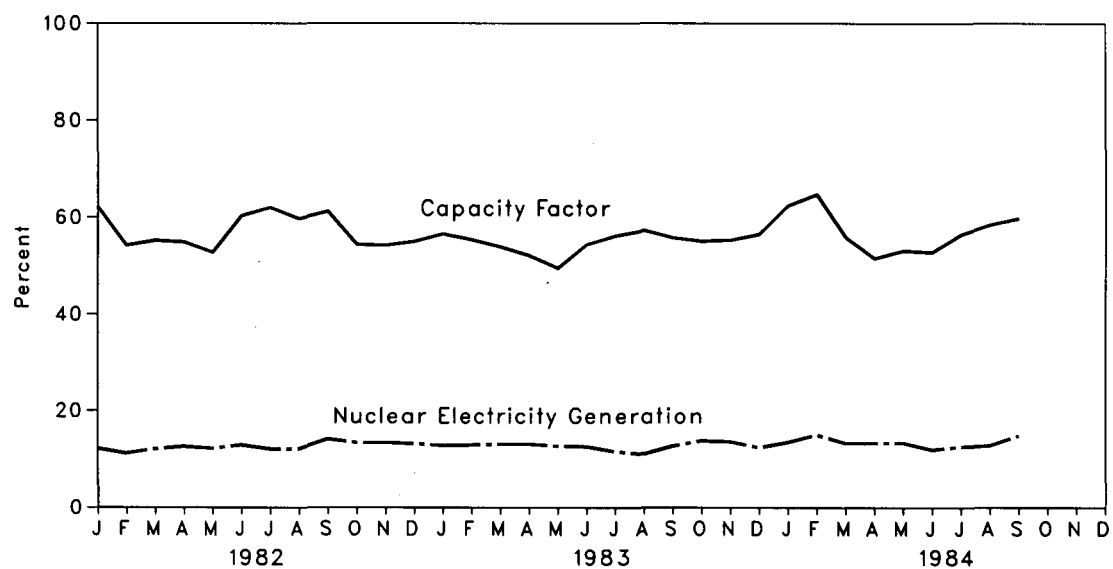
Nuclear

Nuclear Powerplant Operations

Electricity Generated by Utilities and by Nuclear Powerplants



Nuclear Portion of Electricity Generation and Capacity Factor*



*Percentage of Maximum Dependable Capacity utilized.

Nuclear

Nuclear Powerplant Operations

	Operable Reactors ^{1 2}	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity of Operable Reactors ^{1 3}	Capacity Factor ⁴
		Million net kilowatthours	Percent	Million net kilowatts	Percent
1973	39	83,479	4.5	22,900	52.9
1974	48	113,976	6.1	31,710	48.3
1975	54	172,505	9.0	33,312	59.7
1976	60	191,104	9.4	43,277	57.8
1977	65	250,883	11.8	46,046	64.1
1978	70	276,403	12.5	49,629	65.7
1979	68	255,155	11.4	49,326	58.7
1980	70	251,116	11.0	51,059	57.1
1981	74	272,674	11.9	55,534	58.4
1982					
January	74	25,678	12.2	55,481	62.2
February	74	20,188	11.2	55,476	54.2
March	74	22,755	12.1	55,421	55.2
April	74	21,785	12.6	55,230	54.9
May	74	21,639	12.2	55,230	52.7
June	74	24,026	12.9	55,320	60.3
July	74	25,467	12.1	55,195	62.0
August	75	24,986	12.1	56,293	59.7
September	76	25,391	14.1	57,600	61.2
October	75	23,248	13.4	57,345	54.4
November	77	23,235	13.4	59,531	54.2
December	77	24,376	13.2	59,552	55.0
Year	77	282,773	12.6	59,552	57.2
1983					
January	77	25,073	12.8	59,532	56.6
February	77	22,198	12.9	59,632	55.4
March	77	23,890	13.1	59,632	53.9
April	77	22,335	13.1	59,658	52.1
May	78	22,051	12.7	59,883	49.5
June	79	24,152	12.6	61,686	54.4
July	79	25,602	11.6	61,230	56.2
August	79	26,201	11.1	61,440	57.3
September	80	25,007	12.7	62,227	55.8
October	80	25,797	13.8	62,876	55.1
November	80	25,010	13.6	62,809	55.3
December	80	26,361	12.4	62,809	56.5
Year	80	293,677	12.6	62,809	54.8
1984					
January	80	29,135	13.5	62,772	62.4
February	80	28,340	15.0	62,942	64.7
March	81	26,613	13.3	64,036	55.9
April	82	24,109	13.3	65,049	51.5
May	82	25,673	13.4	64,986	53.1
June	83	25,117	12.0	66,091	52.8
July	83	27,764	12.6	66,091	56.5
August	84	29,322	12.8	67,341	58.5
September	84	28,884	14.8	†67,066	†59.8

¹Monthly data are the status as of the last day of the month. Yearly data are the status as of December 31 of each year.

²See Note 1 on the last page of this section for the definition.

³When possible, net maximum dependable capacity (MDC) is used. When a reactor has not operated long enough to permit determination of a net MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced to reflect the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. For the definitions of net MDC and net DER, see Note 3 on the last page of this section.

⁴For an explanation of the method of calculating the capacity factor, see Note 4 on the last page of this section.

†Preliminary data.

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

Sources: • See the last page of this section.

Nuclear

Status of Nuclear Reactor Units¹

	Licensed for Operation		Construction Permits		On Order	Announced	Total	Total Design Capacity ⁴
	Operable ²	In Startup ³	Granted	Pending				
1973	39	3	51	58	48	20	219	212
1974	48	5	58	80	28	16	235	234
1975	54	2	69	73	19	19	236	236
1976	60	1	72	66	16	19	234	236
1977	65	1	80	52	13	9	220	220
1978	70	0	90	32	9	4	205	204
1979	68	0	91	21	3	0	183	179
1980	70	2	82	12	3	0	169	163
1981	74	0	75	11	3	0	163	157
1982								
January	74	0	73	11	3	0	161	154
February	74	1	72	6	2	0	155	147
March	74	1	72	6	2	0	155	147
April	74	2	71	6	2	0	155	147
May	74	2	71	6	2	0	155	147
June	74	2	70	6	2	0	154	147
July	74	4	67	6	2	0	153	145
August	75	4	64	5	2	0	150	141
September	76	3	64	3	2	0	148	138
October	75	3	64	3	2	0	147	138
November	77	2	60	3	2	0	144	135
December	77	2	60	3	2	0	144	135
1983								
January	77	2	60	3	2	0	144	135
February	77	2	60	3	2	0	144	135
March	77	3	59	3	2	0	144	135
April	77	4	57	3	2	0	143	134
May	78	3	57	3	2	0	143	134
June	79	2	57	3	2	0	143	134
July	79	2	57	3	2	0	143	134
August	79	2	57	3	2	0	143	134
September	80	1	57	3	2	0	143	134
October	80	1	56	2	2	0	141	133
November	80	1	56	0	2	0	139	131
December	80	3	53	0	2	0	138	129
1984								
January	80	3	51	0	2	0	136	128
February	80	3	51	0	2	0	136	128
March	81	3	50	0	2	0	136	128
April	82	3	49	0	2	0	136	128
May	82	3	49	0	2	0	136	128
June	83	3	48	0	2	0	136	128
July	83	3	48	0	2	0	136	128
August	84	2	44	0	2	0	132	123
September	84	2	44	0	2	0	132	123

¹Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.

²See Note 1 on the last page of this section for the definition.

³See Note 2 on the last page of this section for the definition.

⁴Net design electrical rating (DER) is used because many of the units have not had the operational experience needed to determine a net maximum dependable capacity (MDC). See Note 3 on the last page of this section.

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

Sources: • See the last page of this section.

Notes and Sources for the Nuclear Section

Notes

1. Operable Reactors: Units that have received Operating Licenses, completed low-power testing, and are authorized to operate at full power (i.e., in receipt of a Full Power Amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N reactor operated by the Department of Energy (DOE). The Hanford-N reactor, with a net capacity of 860 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net capacity of 60 MWe) operated by DOE, was included prior to retirement from service on October 1, 1982, except for the interval from March 1974 through August 1977 when it was excluded because of a major core modification outage. The DOE-operated Experimental Breeder Reactor-2 (EBR-2) is not included because the electricity it generates is not distributed commercially. Five units, each of which has been inoperative for at least 4 years prior to January 1, 1984, are deleted from entries subsequent to their removal from service: Peach Bottom-1 (net capacity of 40 MWe) and Indian Point-1 (net capacity of 265 MWe), both out of service since November 1974; Humboldt Bay (net capacity of 65 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden-1 (net capacity of 200 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island-2 (net capacity of 906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. A sister unit, Three Mile Island-1 (net capacity of 819 MWe), continues to be listed as "Operable" because it could, in theory, return to service once the restraining order imposed by the NRC is lifted.

2. In Startup: Units that have received Operating Licenses authorizing fuel loading and low-power testing but have not received a Full Power Amendment from the NRC. Without the amendment, these units cannot distribute electricity commercially.

3. Capacity: Nuclear powerplants may have more than one type of net capacity rating including:

(a) **Net Maximum Dependable Capacity (MDC)**—The gross electrical output measured at the output terminals of the turbine generator(s) during the most restrictive seasonal conditions (usually summer) less the station service load. The typical station service load for a nuclear plant is about 5

percent of its gross generation.

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

4. Monthly Capacity Factors: 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 monthly maximum dependable capacity. This fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

Sources

Reactors Licensed for Operation: Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors."

Electricity Generation: • 1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report."

• October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report."

• 1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

Maximum Dependable Capacity: Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors."

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

Reactor Construction and Planning Data: • 1973 through June 1982—Compiled from various sources, primarily the Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and from the Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.

• July 1982 forward—Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and various trade journals.

Total Design Capacity: Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors" and Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report."

Price

Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$25.96 per barrel in September 1984. This was 0.2 percent below the previous month's level and 0.5 percent below the level in September 1983.

During September 1984, the composite refiner acquisition cost of crude oil was \$28.60 per barrel, 0.3 percent below the previous month's price of \$28.69. The price of imported crude oil decreased \$0.22 per barrel from the August 1984 price to \$28.70 per barrel in September. This was 2.8 percent below the September 1983 price. The price of domestic crude oil in September 1984 was \$28.56, a decrease of \$0.03 from the August 1984 average.

Motor Gasoline

The national city average retail price of leaded regular gasoline at all types of stations sold for an average of \$1.13 per gallon in October, 0.6 percent higher than the price in September 1984. The price of unleaded regular gasoline at all types of stations was \$1.21 per gallon in October, 0.5 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged \$1.37 per gallon in October, 0.4 percent higher than during September 1984.

Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users (utilities, industry, and other ultimate consumers) in September 1984 was \$0.68 per gallon, 0.6 percent above the previous month's price but 2.2 percent below the September 1983 average. The average price, excluding taxes, of residual fuel oil sold for resale (to other-than-ultimate consumers) in September 1984 was \$0.65 per gallon, 1.7 percent above the August 1984 average and 0.2 percent above the September 1983 average.

Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end users in September 1984 was \$1.24 per gallon, 0.3 percent above

the price in the previous month but 0.5 percent below the price in September 1983. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in September 1984 was \$0.83 per gallon, down 0.4 percent from the previous month's price and down 3.5 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in September 1984 was \$1.04 per gallon. This was 0.3 percent above the price in August 1984 but 2.0 percent below the September 1983 price. The average price for resale was \$0.80 per gallon in September 1984, 6.0 percent below the price in September 1983.

Natural Gas

In August 1984, the average wellhead price of marketed natural gas production was \$2.60 per thousand cubic feet (Mcf), \$0.02 per Mcf above both the July 1984 and the August 1983 prices. The average price of natural gas delivered to electric utility plants was \$3.78 per Mcf in August 1984, \$0.08 per Mcf (2.1 percent) lower than the July 1984 price but \$0.03 per Mcf above the August 1983 price. The average price of natural gas used by residential consumers in October 1984 was \$6.43 per Mcf, \$0.09 per Mcf more than in September 1984 and \$0.31 per Mcf (5.1 percent) more than the October 1983 price.

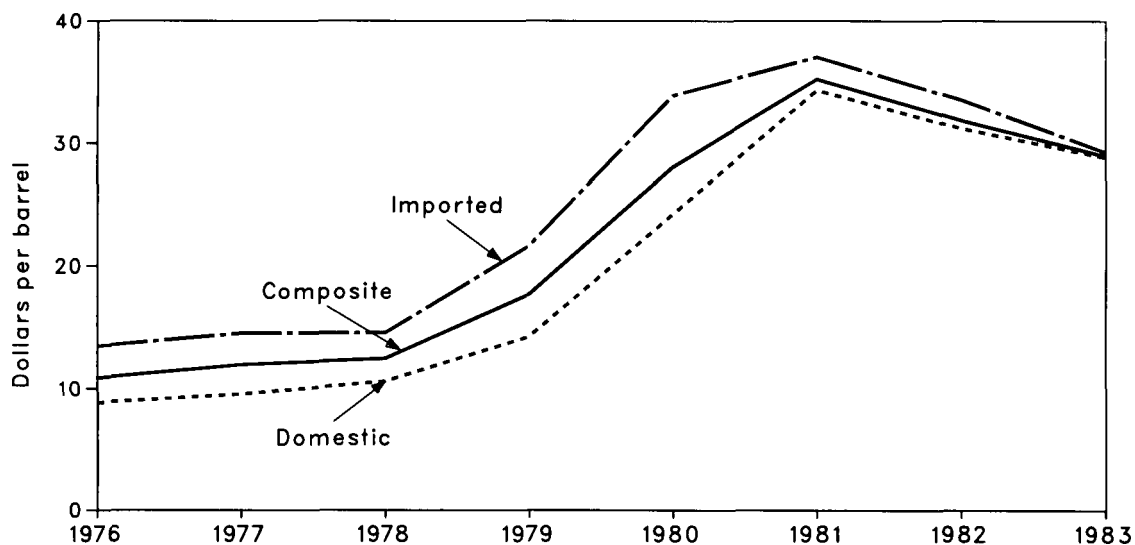
Electricity

The average retail price of electricity sold by selected privately owned utilities to residential consumers in September 1984 was 8.05 cents per kilowatt-hour (kWh), the same price average as in the previous month, but 6.6 percent above the September 1983 price. The average price of electricity sold to commercial consumers was 7.64 cents per kWh in September 1984, a 1.7-percent increase from the previous month and up 6.9 percent from the September 1983 price. The average electricity price to industrial users during September 1984 was 5.26 cents per kWh, an increase of 1.9 percent from the August 1984 price and 5.2 percent more than during September 1983.

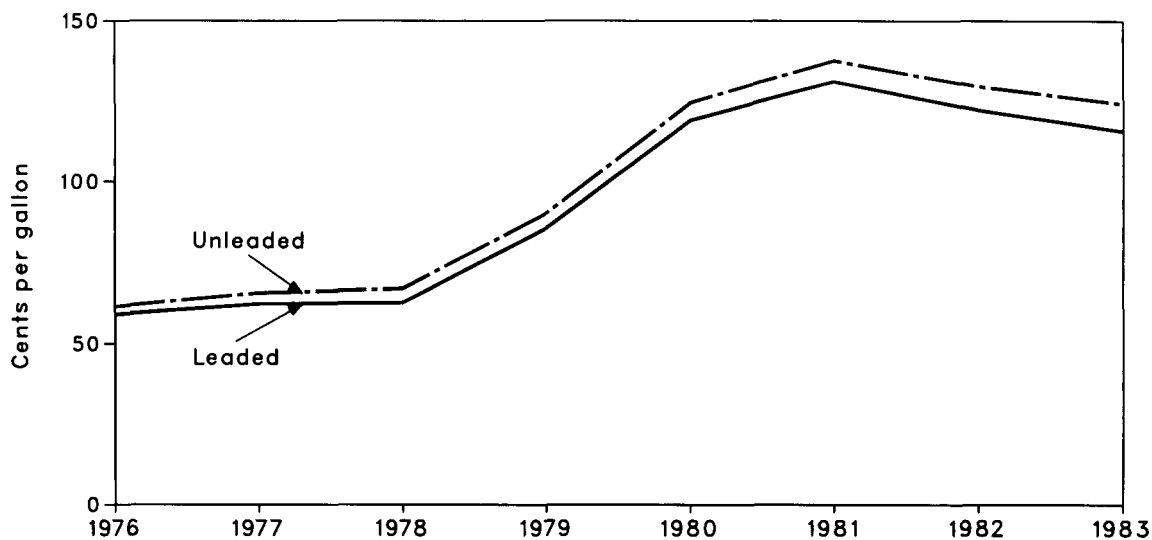
Price

Selected Petroleum Series

Refiner Acquisition Cost of Crude Oil



Regular Motor Gasoline Prices (Including Tax)



Price

Crude Oil Price Summary

		Actual Domestic Average Wellhead Price ¹	Average FOB Cost of Crude Oil Imports ²	Average Landed Cost of Crude Oil Imports ³	Refiner Acquisition Cost of Crude Oil ⁴		
					Domestic	Imported	Composite
Dollars per barrel							
1976	Average	8.19	12.17	13.34	8.84	13.48	10.89
1977	Average	8.57	13.24	14.31	9.55	14.53	11.96
1978	Average	9.00	13.30	14.38	10.61	14.57	12.46
1979	Average	12.64	20.19	21.65	14.27	21.67	17.72
1980	Average	21.59	32.27	33.95	24.23	33.89	28.07
1981	Average	31.77	35.10	36.52	34.33	37.05	35.24
1982	January	30.87	34.12	35.23	33.39	35.54	33.95
	February	29.76	33.60	34.63	32.71	35.48	33.40
	March	28.31	32.15	33.31	31.08	34.07	31.81
	April	27.65	31.65	32.77	30.27	32.82	30.83
	May	27.67	31.65	32.70	30.37	32.78	31.02
	June	28.11	32.31	33.47	30.79	33.79	31.74
	July	28.33	32.22	33.31	30.92	33.44	31.74
	August	28.18	31.33	32.34	30.85	32.95	31.45
	September	27.99	31.57	32.49	30.76	33.03	31.40
	October	28.74	32.02	33.01	31.38	33.28	31.98
	November	28.70	31.76	32.86	31.57	33.09	32.07
	December	28.12	31.19	32.32	30.80	32.85	31.29
	Average	28.52	32.11	33.18	31.22	33.55	31.87
1983	January	27.22	29.47	30.62	30.55	31.40	30.73
	February	26.41	27.79	29.08	29.16	30.76	29.49
	March	26.08	26.88	27.84	28.69	28.43	28.64
	April	25.85	27.18	28.24	28.45	27.95	28.33
	May	26.08	27.36	28.55	28.68	28.53	28.64
	June	25.98	27.71	29.00	28.67	29.23	28.85
	July	25.86	27.84	28.99	28.74	28.76	28.75
	August	26.03	27.89	29.22	28.58	29.50	28.88
	September	26.08	27.88	29.24	28.69	29.54	28.97
	October	26.04	27.84	29.08	28.88	29.67	29.14
	November	26.09	27.75	28.93	28.76	29.09	28.85
	December	25.88	27.50	28.58	28.62	29.30	28.83
	Average	26.19	27.73	28.93	28.87	29.30	28.99
1984	January	25.93	27.56	28.49	28.62	28.80	28.67
	February	26.06	27.78	28.89	28.76	28.91	28.81
	March	26.05	27.70	28.69	28.75	28.95	28.81
	April	25.93	27.84	28.91	28.63	29.11	28.77
	May	26.00	27.87	28.94	28.65	29.26	28.83
	June	26.09	27.78	28.89	28.58	29.19	28.77
	July	26.11	27.19	28.32	28.70	29.00	28.79
	August	R26.02	R27.29	R28.20	28.59	28.92	28.69
	September	†25.96	†27.03	†27.88	28.56	28.70	28.60

¹See Note 1 in the Notes and Sources for this section.

²See Note 2 in the Notes and Sources for this section.

³See Note 3 in the Notes and Sources for this section.

⁴See Note 4 in the Notes and Sources for this section.

†Preliminary data. R=Revised data.

Note: • Geographic coverage is the 50 States and the District of Columbia, except for the refiner acquisition cost of crude oil, which is the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Sources: • See the Notes and Sources for this section.

Price

FOB Cost of Crude Oil Imports from Selected Countries¹

		Algeria	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
		Dollars per barrel							
1976	Average	13.05	12.76	11.61	NA	13.08	11.69	NA	11.32
1977	Average	14.36	13.57	12.67	13.42	14.44	12.37	NA	12.68
1978	Average	14.10	13.64	12.65	13.24	14.04	12.70	13.82	12.45
1979	Average	20.65	19.35	23.71	20.29	21.80	17.63	21.20	17.37
1980	Average	36.57	32.37	(²)	31.11	35.82	28.53	34.58	24.78
1981	Average	39.09	35.93	(²)	33.13	38.53	32.48	36.08	28.86
1982	January	36.96	35.53	(²)	29.67	36.23	33.40	36.20	29.07
	February	35.56	35.59	(²)	30.92	35.92	33.50	34.00	28.94
	March	31.50	35.74	(²)	27.86	34.94	33.77	30.78	22.89
	April	30.54	35.69	(²)	26.96	33.80	33.49	32.49	21.89
	May	33.32	34.82	31.11	28.53	35.22	32.97	32.43	22.31
	June	34.72	35.95	W	28.18	35.18	33.80	33.67	22.25
	July	34.35	35.22	31.44	28.32	35.15	33.26	33.66	23.50
	August	33.03	35.63	31.17	27.67	35.13	32.63	33.17	20.71
	September	34.20	35.24	W	27.95	34.70	32.98	33.30	23.58
	October	34.26	35.25	W	27.82	35.05	33.54	33.93	22.93
	November	34.44	34.99	29.80	27.63	35.02	33.59	34.08	23.74
	December	34.86	34.73	29.09	27.63	33.18	34.04	33.21	26.21
	Average	34.23	35.27	30.93	28.07	35.13	33.50	33.46	23.77
1983	January	W	34.71	W	26.90	W	W	32.77	21.58
	February	W	33.74	W	25.69	W	W	30.95	21.82
	March	31.07	29.69	W	24.53	29.52	30.03	29.16	20.04
	April	29.37	29.57	W	24.18	29.63	W	30.07	20.05
	May	29.54	29.31	W	24.60	29.72	W	29.61	19.88
	June	29.80	29.59	W	24.13	29.57	W	28.92	20.80
	July	30.15	29.73	28.41	24.92	29.81	27.91	30.00	19.89
	August	30.32	29.60	28.19	25.15	29.92	27.83	29.88	21.56
	September	30.33	29.77	28.03	25.10	29.59	27.73	30.33	21.81
	October	29.98	29.81	28.29	25.72	30.23	28.24	29.73	23.58
	November	29.75	30.34	W	25.76	29.99	28.22	29.42	23.17
	December	W	29.77	28.30	26.20	29.60	27.18	29.05	24.17
	Average	30.06	29.93	28.25	25.19	29.78	28.03	29.84	21.48
1984	January	27.60	29.89	W	26.22	29.80	27.76	29.29	24.21
	February	28.56	29.09	W	26.04	29.98	26.72	29.70	23.55
	March	28.69	W	NA	26.30	29.89	28.39	29.95	23.86
	April	28.90	29.50	W	26.07	29.93	28.17	29.85	23.93
	May	28.98	29.44	W	26.36	29.67	27.43	29.93	24.07
	June	28.52	29.35	NA	26.58	29.34	W	29.67	24.23
	July	27.43	29.21	W	26.62	29.22	W	28.91	24.37
	August	R26.97	W	W	R26.71	29.02	W	28.13	R23.91
	September†	26.65	W	NA	26.36	29.24	NA	27.98	24.70

¹The Free on Board (FOB) cost excludes all costs related to insurance and transportation. See Note 2 in the Notes and Sources for this section.

²No crude oil was imported.

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

Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.

Sources: • See the Notes and Sources for this section.

Price

Landed Cost of Crude Oil Imports from Selected Countries¹

		Algeria	Canada	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
		Dollars per barrel								
1975	Average	12.72	12.72	13.79	12.21	NA	12.62	12.30	NA	11.65
1976	Average	13.81	13.57	13.82	12.82	NA	13.80	13.04	NA	11.80
1977	Average	15.20	14.21	14.63	13.80	13.75	15.25	13.61	NA	13.13
1978	Average	14.91	14.50	14.64	13.88	13.54	14.86	13.92	NA	12.83
1979	Average	21.90	20.43	20.69	25.02	20.86	22.96	19.15	22.16	18.18
1980	Average	37.90	30.47	33.92	(²)	31.80	37.05	30.02	35.88	25.86
1981	Average	40.49	32.16	37.57	(²)	33.78	39.70	34.19	37.24	29.87
1982	January	38.19	31.05	36.88	(²)	30.21	37.37	34.44	36.78	29.82
	February	37.09	28.80	36.81	(²)	31.47	37.06	34.51	35.04	30.09
	March	32.25	26.71	37.17	(²)	28.69	35.81	34.92	31.35	23.92
	April	31.66	24.86	36.87	(²)	27.58	34.82	34.80	33.19	23.09
	May	34.24	24.90	36.50	32.01	29.18	36.06	34.28	33.22	23.44
	June	35.41	24.63	37.35	W	28.76	36.15	35.20	34.41	23.43
	July	35.26	26.62	37.04	32.08	28.95	36.19	35.04	34.67	24.61
	August	33.87	26.40	36.81	31.84	28.19	36.16	34.28	33.88	21.90
	September	34.88	26.52	36.65	W	28.50	35.56	34.45	34.01	24.53
	October	35.41	26.91	36.83	33.28	28.22	35.98	35.21	34.56	23.90
	November	35.82	26.78	36.49	32.66	28.17	36.04	35.41	34.74	24.91
	December	35.70	27.35	36.19	32.73	28.19	34.54	36.43	34.05	27.09
	Average	35.28	26.92	36.75	32.40	28.64	36.17	35.00	34.28	24.82
1983	January	33.20	27.62	36.12	W	27.50	W	W	33.48	23.20
	February	32.17	26.19	35.07	W	26.15	32.24	W	33.33	23.36
	March	31.24	24.78	31.17	W	25.06	30.49	31.63	29.92	21.48
	April	30.55	24.35	31.14	W	24.65	30.63	W	30.84	21.45
	May	30.48	24.32	30.82	W	25.17	30.75	W	30.60	21.24
	June	30.88	24.88	31.40	29.10	24.81	30.56	W	30.02	22.07
	July	31.36	25.45	31.46	30.06	25.34	30.91	29.53	30.86	21.30
	August	31.85	25.45	31.65	29.57	25.80	31.21	29.39	30.83	22.82
	September	31.78	25.71	31.27	29.31	25.66	30.70	29.53	31.39	23.12
	October	30.97	26.01	31.14	29.73	26.44	31.16	29.98	30.79	24.75
	November	30.96	25.83	31.30	W	26.29	31.02	29.88	30.33	24.68
	December	30.23	26.69	31.12	28.57	26.88	30.57	28.83	30.00	24.91
	Average	31.26	25.63	31.57	29.81	25.78	30.84	29.76	30.87	22.94
1984	January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
	February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
	March	30.31	26.01	30.81	NA	26.92	30.93	30.20	30.98	24.75
	April	29.81	26.10	31.02	W	26.68	31.08	29.95	30.73	24.86
	May	29.96	27.12	30.80	W	26.92	30.96	28.95	30.75	24.93
	June	29.62	26.00	31.21	NA	27.24	31.05	29.90	30.43	25.29
	July	28.63	27.16	30.26	W	26.98	30.07	W	29.54	25.24
	August	R28.16	26.95	30.59	W	R26.99	R29.99	W	R28.93	R24.95
	September†	27.77	27.03	28.69	W	26.70	30.44	NA	28.81	25.38

¹See Note 3 in the Notes and Sources for this section.

²No crude oil was imported.

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

Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.

Sources: • See the Notes and Sources for this section.

Price

U.S. City Average Retail Prices for Motor Gasoline¹

		Leaded Regular	Unleaded Regular	Unleaded Premium	Average for All Types ²
Cents per gallon, including tax					
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	Average³	131.1	137.8	147.0	135.3
1982	January	128.5	135.8	146.6	134.1
	February	126.0	133.4	144.8	131.8
	March	120.6	128.4	140.8	126.8
	April	114.8	122.5	135.1	121.0
	May	116.6	123.7	135.5	122.4
	June	124.2	130.9	141.8	129.6
	July	126.3	133.1	144.3	131.8
	August	125.4	132.3	143.9	131.0
	September	123.6	130.8	142.9	129.5
	October	121.9	129.5	142.1	128.0
	November	120.7	128.3	141.2	126.8
	December	118.1	126.0	139.4	124.4
	Average	122.2	129.6	141.5	128.1
1983	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October	117.2	125.5	139.5	123.9
	November	115.6	124.1	138.4	122.4
	December	114.6	123.1	137.6	121.5
	Average	115.7	124.1	138.3	122.5
1984	January	113.1	121.6	136.9	120.0
	February	112.5	120.9	136.1	119.3
	March	112.5	121.0	136.2	119.4
	April	114.5	122.7	137.5	121.1
	May	115.4	123.6	138.0	122.1
	June	114.7	122.9	137.7	121.4
	July	112.9	121.2	137.0	119.7
	August	111.6	119.6	135.5	118.4
	September	112.0	120.3	136.0	118.9
	October	112.7	120.9	136.5	119.6

¹See Note 5 in the Notes and Sources for this section.

²Also includes types of gasoline not shown separately.

³Beginning with September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the average for all types category, gasohol is now included and unleaded premium is weighted more heavily.

NA=Not available.

Note: • Geographic coverage for 1974 through 1977 is 56 urban areas. For 1978 forward it is 85 urban areas.

Sources: • See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Residual Fuel Oil¹

		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
Cents per gallon, excluding tax							
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	January	71.8	77.7	57.0	60.7	62.0	68.8
	February	71.5	77.4	54.6	58.4	60.2	69.1
	March	68.4	75.6	54.1	57.1	59.1	67.4
	April	66.8	73.5	54.6	57.8	58.5	65.1
	May	68.4	74.0	58.0	61.5	61.0	66.7
	June	68.1	75.1	58.6	63.2	61.5	68.8
	July	67.9	72.7	56.3	62.9	60.1	68.1
	August	67.1	71.8	58.7	61.5	60.7	66.2
	September	68.1	72.1	58.3	61.6	61.2	66.3
	October	72.6	75.9	59.5	62.9	63.5	68.1
	November	72.6	76.3	60.7	64.1	65.3	70.0
	December	69.2	72.0	58.2	61.9	61.7	66.4
	Average	69.5	74.7	57.2	61.1	61.2	67.6
1983	January	65.0	70.5	57.0	60.1	60.3	64.2
	February	63.0	66.0	55.7	58.5	58.5	62.0
	March	60.0	66.2	55.9	57.0	57.7	60.9
	April	60.1	64.3	56.5	58.7	57.7	61.0
	May	62.6	66.9	57.8	59.7	59.2	63.2
	June	63.2	69.2	58.5	60.1	60.2	64.7
	July	65.2	70.4	60.5	61.4	62.2	65.9
	August	66.7	71.6	62.0	63.2	63.8	67.7
	September	67.0	72.6	63.3	65.3	64.6	69.0
	October	68.8	72.1	62.6	64.9	64.7	68.7
	November	66.5	70.7	62.2	64.4	63.6	67.4
	December	67.3	72.0	60.2	63.1	62.3	67.2
	Average	64.3	69.5	59.1	61.1	60.9	65.1
1984	January	71.0	73.6	62.3	64.6	64.8	69.0
	February	71.4	75.1	65.7	65.8	67.5	70.4
	March	70.5	73.1	61.9	64.7	64.5	68.5
	April	69.2	73.1	64.7	66.5	66.2	69.1
	May	68.3	72.7	65.0	67.4	66.0	69.5
	June	69.8	73.2	66.1	68.9	67.2	71.0
	July	66.8	71.5	64.0	66.7	65.0	69.0
	August	65.6	69.5	62.7	R65.0	63.6	67.1
	September†	66.6	70.0	63.8	64.9	64.7	67.5

¹Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

†Preliminary data. R=Revised data.

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

• Prices prior to January 1983 are Energy Information Administration backcast estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: •See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products for Resale¹

		Finished Motor Gasoline ²	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
Cents per gallon, excluding tax								
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	January	102.3	128.8	100.5	108.5	98.0	96.7	42.4
	February	98.9	128.4	99.2	106.3	93.9	93.5	37.8
	March	92.6	123.1	96.8	99.9	86.6	89.0	35.3
	April	89.6	119.3	92.2	95.1	83.3	85.4	34.4
	May	94.1	115.3	91.0	95.5	86.5	87.9	34.9
	June	100.5	120.7	93.3	97.4	89.8	92.2	36.4
	July	101.7	126.7	93.5	97.0	91.0	92.1	39.2
	August	101.0	123.9	94.2	96.9	90.3	91.0	43.2
	September	99.6	121.8	94.7	100.6	92.0	91.1	48.8
	October	98.4	122.7	97.6	105.7	96.5	94.4	50.4
	November	96.4	124.6	97.3	105.3	97.3	96.1	52.5
	December	92.4	125.9	92.9	98.2	89.5	90.0	48.9
	Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
1983	January	88.5	124.8	91.8	94.2	85.7	85.5	47.0
	February	85.4	123.7	89.9	90.0	80.1	80.7	46.7
	March	82.9	121.2	84.5	83.1	76.0	75.2	47.4
	April	86.5	120.0	82.9	84.2	78.9	76.8	50.0
	May	90.4	120.2	84.3	87.7	80.9	80.2	50.5
	June	91.5	115.0	84.1	84.6	80.9	80.3	50.9
	July	92.3	115.2	84.8	85.2	81.7	80.8	50.7
	August	91.5	114.7	85.4	86.7	83.4	81.7	49.8
	September	90.2	113.7	86.3	91.9	85.1	83.5	50.1
	October	88.1	118.9	86.4	90.8	83.5	83.0	49.9
	November	86.6	118.7	84.4	90.4	82.6	82.0	47.3
	December	83.8	118.8	83.6	88.6	80.7	80.1	45.4
	Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
1984	January	83.2	116.7	86.4	95.9	87.5	82.6	47.7
	February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
	March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
	April	86.9	116.8	84.2	90.7	82.8	80.8	44.6
	May	86.6	117.1	84.3	90.9	83.2	81.9	44.4
	June	84.5	116.8	84.2	88.1	82.4	81.9	44.1
	July	81.7	117.2	82.8	87.6	79.4	79.3	42.3
	August	81.1	R116.7	81.0	86.0	77.8	77.7	43.2
	September†	82.8	116.8	81.7	88.8	80.0	78.4	44.8

¹Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

²See Note 5 in the Notes and Sources for this section.

†Preliminary data. R=Revised data.

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

• Prices prior to January 1983 are Energy Information Administration backcast estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: • See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products to End Users¹

		Finished Motor Gasoline ²	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
Cents per gallon, excluding tax								
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	January	110.8	132.0	101.0	111.2	94.4	98.7	57.8
	February	108.6	132.8	100.4	110.7	95.0	96.7	57.7
	March	102.2	133.6	99.0	112.2	90.6	91.9	57.3
	April	98.3	131.5	96.2	103.1	85.0	90.1	57.3
	May	102.1	131.5	94.9	105.1	84.4	91.5	57.8
	June	109.3	131.3	94.7	109.4	85.1	95.8	57.7
	July	110.4	133.2	94.7	109.0	83.6	94.8	55.1
	August	108.9	131.4	94.8	101.9	86.3	93.1	56.7
	September	107.7	128.8	94.5	102.7	86.2	93.5	59.9
	October	106.4	130.3	95.2	107.7	89.8	95.7	60.7
	November	105.1	129.5	95.8	113.7	94.2	97.7	63.2
	December	102.2	129.1	95.0	108.3	93.9	94.0	64.2
	Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
1983	January	97.1	129.2	94.5	104.5	100.9	89.2	72.7
	February	92.5	127.2	92.6	101.4	97.0	84.0	71.7
	March	89.8	126.6	90.6	97.1	93.0	78.0	68.1
	April	94.7	125.2	88.8	93.4	89.1	78.8	68.6
	May	96.6	125.4	87.8	93.8	89.5	81.8	72.2
	June	97.8	125.6	86.3	90.0	87.3	81.5	67.3
	July	98.8	125.1	85.6	89.0	85.1	82.0	66.4
	August	98.4	125.9	85.5	90.8	86.1	83.0	68.9
	September	96.9	124.2	86.1	92.7	88.0	84.8	74.9
	October	95.4	124.7	86.0	98.9	89.0	84.2	69.6
	November	93.9	124.5	85.8	100.0	90.1	83.5	72.8
	December	92.4	124.4	85.5	96.6	92.1	82.2	76.4
	Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
1984	January	90.6	123.9	85.8	106.8	97.7	84.4	76.8
	February	90.2	123.7	86.5	117.9	104.6	87.4	76.3
	March	90.7	123.8	85.6	111.3	94.7	83.2	76.4
	April	92.9	124.4	85.1	105.8	91.9	82.4	76.5
	May	93.4	123.9	85.2	102.4	90.9	83.2	70.4
	June	92.5	124.6	84.5	94.3	86.9	84.0	70.6
	July	90.4	124.3	84.1	90.6	84.3	81.3	69.6
	August	R89.2	R123.2	R83.4	92.8	82.8	79.7	71.9
	September†	89.8	123.6	83.1	99.2	84.2	80.2	73.4

¹Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

²See Note 5 in the Notes and Sources for this section.

†Preliminary data. R=Revised data.

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

• Prices prior to January 1983 are Energy Information Administration backcast estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: • See the Notes and Sources for this section.

Price

Sales Prices of No. 2 Distillate to Residences for Selected States¹

		CT	ME	MA	NH	RI	VT	DE	DC	MD	NJ	NY	PA	VA
Cents per gallon, excluding tax														
1978	Average	50.1	48.6	48.8	50.3	50.7	50.8	47.8	50.7	49.2	49.6	50.1	48.8	49.1
1979	Average	72.0	68.8	70.9	72.5	72.8	72.5	68.2	74.2	70.1	71.0	71.2	69.8	70.4
1980	Average	98.0	96.3	97.8	100.4	101.1	101.5	95.4	102.6	97.9	97.9	98.2	96.4	98.5
1981	Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4	121.4	121.5	123.2	118.1	120.5
1982	January	122.6	120.0	123.8	123.3	125.8	126.2	114.4	128.5	120.3	122.0	125.4	119.5	121.7
	February	120.3	118.8	121.9	121.2	123.0	125.0	114.3	127.9	120.3	120.0	124.0	118.3	119.5
	March	114.8	111.3	116.7	116.8	116.5	120.5	110.3	125.4	115.5	115.7	119.5	109.5	117.2
	April	110.6	108.6	113.7	112.3	114.7	115.3	108.6	120.5	112.8	113.4	114.4	111.0	114.1
	May	112.4	113.2	115.1	114.3	115.9	116.0	107.4	122.7	114.3	113.8	117.6	110.8	115.7
	June	115.9	114.9	114.7	117.2	117.9	118.5	109.9	120.4	115.8	116.3	118.4	112.8	116.6
	July	116.4	115.8	114.4	116.7	119.2	118.2	108.4	122.5	116.6	116.4	118.2	110.5	116.2
	August	118.3	116.7	115.4	115.4	118.7	113.3	109.3	121.5	115.9	116.6	118.6	111.5	115.8
	September	119.5	116.7	115.4	115.8	120.0	118.8	109.9	122.6	117.9	115.7	119.1	106.4	118.3
	October	122.6	117.6	118.8	116.7	123.9	121.1	114.2	126.2	117.2	120.0	122.4	117.3	119.1
	November	123.6	117.9	121.5	121.2	124.5	124.5	116.1	128.9	119.7	121.3	124.4	119.5	120.2
	December	122.4	114.7	119.5	118.3	121.0	124.1	113.2	126.6	118.1	117.7	123.8	117.1	117.6
		Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5	117.1	117.4	120.5	113.7
1983	January	119.5	109.0	116.3	111.6	116.2	121.5	110.5	122.8	115.4	115.7	120.6	113.7	116.0
	February	115.8	103.7	113.2	105.5	112.2	116.9	108.2	119.7	112.6	110.4	117.6	109.6	112.0
	March	108.3	97.4	105.4	100.8	106.8	109.6	103.9	115.3	108.2	104.6	110.2	104.0	106.9
	April	104.5	99.5	104.4	100.9	108.8	110.6	103.0	113.1	107.9	104.4	106.9	101.8	106.7
	May	105.9	101.6	107.0	102.6	109.6	111.2	104.6	112.9	108.6	105.5	108.2	103.3	107.2
	June	104.3	102.6	105.9	101.2	112.0	112.8	107.3	114.7	108.3	104.6	110.5	102.2	106.8
	July	104.2	102.6	105.3	104.3	109.1	112.3	107.8	112.8	107.2	104.5	109.9	101.3	107.4
	August	103.8	105.6	105.4	103.5	107.9	111.7	102.5	113.3	107.0	105.5	110.0	101.6	107.7
	September	103.8	103.8	106.2	104.0	108.1	111.0	103.5	113.9	108.1	106.1	110.5	102.8	108.1
	October	104.3	102.9	105.6	103.1	108.0	109.4	103.5	113.4	108.7	105.4	110.3	103.3	104.8
	November	104.1	101.8	106.1	101.5	108.7	109.8	103.7	113.5	108.8	104.6	110.2	103.7	104.9
	December	105.6	102.2	108.1	103.7	109.4	110.0	105.5	114.7	109.2	106.7	110.9	104.6	105.2
		Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0	110.3	107.9	112.1	105.8
1984	January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0	115.6	114.1	118.3	112.9	111.4
	February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6	121.9	119.5	124.3	117.4	117.5
	March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6	116.2	113.5	117.0	110.9	112.6
	April	113.4	103.3	112.4	107.7	110.7	113.3	109.9	119.9	115.6	110.6	116.0	107.8	110.8
	May	112.5	102.7	112.5	108.8	111.4	112.2	109.0	119.5	113.0	109.1	114.5	105.8	111.1
	June	110.6	103.7	110.5	104.5	110.8	112.8	107.2	116.3	109.9	107.1	115.0	103.3	108.7
	July	107.4	102.5	107.3	101.9	109.3	108.6	103.7	116.5	109.0	104.9	112.8	99.7	107.2
	August	104.7	R98.0	105.5	98.6	R106.0	108.0	103.7	109.8	105.2	R103.6	110.2	R99.6	R105.2
	September†	105.4	99.0	106.0	101.2	105.9	106.9	102.1	109.8	106.7	104.1	109.3	100.9	106.1

¹The States are listed by geographic region of the country. State names are abbreviated as follows: CT - Connecticut, ME - Maine, MA - Massachusetts, NH - New Hampshire, RI - Rhode Island, VT - Vermont, DE - Delaware, DC - District of Columbia, MD - Maryland, NJ - New Jersey, NY - New York, PA - Pennsylvania, VA - Virginia, WV - West Virginia, IL - Illinois, IN - Indiana, MI - Michigan, MN - Minnesota, OH - Ohio, WI - Wisconsin, ID - Idaho, AK - Alaska, OR - Oregon, WA - Washington.
Footnotes continued on following page.

Price

Sales Prices of No. 2 Distillate to Residences for Selected States¹ (continued)

		WV	IL	IN	MI	MN	OH	WI	ID	AK	OR	WA	U.S. Average
		Cents per gallon, excluding tax											
1978	Average	46.2	46.5	48.5	47.9	47.8	47.4	44.7	43.6	53.2	45.8	48.6	49.0
1979	Average	65.1	68.8	72.7	70.9	72.4	68.6	67.3	62.1	68.2	68.0	69.7	70.4
1980	Average	92.2	95.8	99.6	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	97.4
1981	Average	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4
1982	January	114.3	114.2	119.6	118.3	118.5	113.7	111.0	113.1	121.7	113.5	120.1	120.6
	February	111.1	113.1	118.0	116.8	118.3	110.5	110.2	113.1	121.8	113.5	119.4	119.2
	March	105.1	107.3	112.9	110.9	111.4	105.2	106.9	111.2	119.9	111.3	118.1	113.9
	April	102.1	104.2	108.9	108.4	115.4	105.4	105.8	109.3	117.2	110.3	115.9	111.7
	May	105.8	107.0	114.6	112.8	110.2	108.4	105.4	109.7	118.6	110.9	115.6	113.0
	June	111.6	113.9	117.7	114.6	115.8	112.2	107.4	109.8	116.4	110.4	115.8	114.8
	July	110.3	114.0	115.1	113.1	114.5	112.1	108.1	107.9	115.1	110.4	115.3	114.4
	August	107.6	110.6	110.7	112.6	114.0	110.7	106.2	110.0	116.2	110.5	116.2	114.4
	September	110.0	110.9	110.9	112.8	114.1	110.0	106.9	109.7	115.2	110.3	117.1	113.7
	October	111.7	113.3	114.7	115.5	117.4	111.8	107.2	109.7	115.7	111.5	118.4	118.2
	November	111.6	113.9	116.5	116.0	117.7	112.9	109.7	110.9	116.3	112.8	120.8	120.1
	December	110.7	109.0	112.1	114.2	114.3	110.2	108.6	110.7	115.0	113.6	119.3	118.2
		Average	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6
1983	January	105.6	103.8	105.7	110.6	107.8	107.9	108.5	109.1	114.6	113.6	117.7	115.0
	February	104.7	99.5	102.8	108.5	101.6	104.4	104.5	104.8	NA	107.8	114.3	111.6
	March	99.2	96.6	95.7	103.7	96.5	98.2	96.8	99.6	110.7	101.4	109.0	105.1
	April	97.5	97.7	96.8	102.5	100.5	95.8	97.1	99.0	106.6	99.1	106.0	103.5
	May	96.1	100.3	98.2	102.7	101.9	96.5	98.7	99.2	106.0	99.0	105.5	104.8
	June	97.3	100.2	98.2	110.7	102.4	96.1	98.7	98.7	105.0	99.4	105.4	106.0
	July	94.9	99.6	99.4	105.3	102.6	97.3	99.0	99.3	105.8	97.8	105.2	105.0
	August	96.1	100.7	98.9	102.2	104.4	95.2	99.2	98.1	105.1	98.7	104.0	104.9
	September	100.7	102.5	101.4	103.9	103.7	101.2	100.7	98.9	106.2	100.5	105.6	105.7
	October	100.6	101.0	101.5	105.8	104.8	100.2	101.8	99.5	106.1	101.4	106.3	106.0
	November	100.5	100.8	100.7	105.4	104.4	101.0	100.4	99.5	105.5	102.1	106.4	106.0
	December	101.5	99.6	101.1	106.8	104.2	102.1	100.5	100.3	105.5	101.8	106.1	106.7
		Average	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0
1984	January	108.5	104.7	106.0	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
	February	109.9	105.9	107.3	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
	March	104.9	102.3	100.6	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
	April	101.6	100.3	103.4	104.8	103.9	101.9	101.4	96.2	107.3	100.6	105.0	109.8
	May	98.9	102.3	102.4	105.2	105.3	103.1	101.0	98.1	107.2	99.5	104.2	108.4
	June	99.5	101.6	105.9	103.3	104.2	101.7	100.5	93.8	107.8	98.2	103.3	107.2
	July	96.2	99.4	101.4	102.6	105.1	101.8	100.5	93.1	107.2	97.1	100.4	104.8
	August	96.6	R98.9	100.3	R101.8	104.5	99.5	100.0	R97.4	107.3	94.9	R99.7	103.3
	September†	96.9	98.6	100.6	102.9	103.5	100.1	98.8	98.4	105.0	95.5	97.9	103.6

Footnotes continued.

†Preliminary data. R=Revised data. NA=Not available.

Note: • Prices prior to January 1983 are Energy Information Administration backcast estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: • See the Notes and Sources for this section.

Price

National Average Natural Gas Prices

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies ¹	Purchased by Electric Plants ²	Residential Price ^{1, 3}
Dollars per thousand cubic feet							
1973	Average	0.22	NA	NA	NA	0.35	1.29
1974	Average	0.30	NA	NA	NA	0.49	1.43
1975	Average	0.45	NA	NA	NA	0.77	1.71
1976	Average	0.58	NA	NA	NA	1.06	1.98
1977	Average	0.79	NA	NA	NA	1.33	2.35
1978	Average	0.91	2.21	0.83	1.54	1.48	2.56
1979	Average	1.18	2.60	1.22	2.01	1.80	2.98
1980	Average	1.59	4.42	1.63	2.53	2.28	3.68
1981	Average	1.98	4.84	2.15	3.11	2.91	4.29
1982	January	2.23	4.94	2.47	3.59	3.07	4.65
	February	2.30	4.96	2.50	3.58	3.18	4.69
	March	2.35	4.94	2.52	3.61	3.25	4.78
	April	2.40	4.94	2.54	3.61	3.32	4.86
	May	2.45	4.93	2.68	3.60	3.42	5.17
	June	2.45	4.86	2.83	3.66	3.57	5.20
	July	2.47	5.00	2.79	3.71	3.69	5.23
	August	2.53	5.07	2.86	3.75	3.67	5.23
	September	2.56	5.05	2.78	3.88	3.67	5.41
	October	2.60	5.02	2.93	3.91	3.68	5.66
	November	2.62	5.01	2.89	3.98	3.61	5.68
	December	2.62	4.94	2.96	4.06	3.64	5.74
	Average	2.46	4.94	2.72	3.73	3.49	5.17
1983	January	2.66	5.03	3.06	4.38	3.57	R5.86
	February	2.66	5.09	3.15	4.41	3.41	R5.87
	March	2.58	5.01	3.01	4.24	3.45	R6.00
	April	2.53	4.58	2.90	R4.44	3.35	R6.06
	May	2.53	4.40	2.98	4.24	3.55	R6.22
	June	2.59	4.41	2.95	4.22	3.58	R6.20
	July	2.52	4.31	2.96	4.28	3.72	R6.21
	August	2.58	3.93	2.90	4.23	3.75	R6.18
	September	2.67	4.02	2.87	4.08	3.70	R6.19
	October	2.58	4.03	2.86	4.22	3.60	R6.10
	November	2.60	4.26	2.84	4.26	3.53	R6.04
	December	2.61	4.33	2.73	4.12	3.49	R6.06
	Average	2.59	4.51	2.93	R4.26	3.58	R6.06
1984	January	2.63	4.40	2.80	4.25	3.56	R5.98
	February	2.66	4.37	2.82	3.97	3.59	R6.01
	March	2.57	4.40	2.80	4.18	3.50	R5.98
	April	2.54	4.23	2.95	4.11	3.55	R6.00
	May	2.57	4.15	2.86	4.17	3.74	R6.19
	June	2.59	4.25	2.89	R4.06	3.74	R6.13
	July	2.58	4.15	2.95	4.04	3.86	R6.17
	August	2.60	4.12	2.95	4.07	3.78	R6.20
	September	NA	NA	NA	NA	NA	R6.26
	October	NA	NA	NA	NA	NA	6.25

¹Includes supplemental gaseous fuels.

²Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.

³Monthly residential prices are Energy Information Administration calculations. See Note 6 in the Notes and Sources for this section for estimation procedures.

R=Revised data. NA=Not available.

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

• Data for 1973 through December 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the Notes and Sources for this section.

Price

Electricity

		Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants ¹				Average Retail Electricity Prices for Privately Owned Utilities ²				
		Coal	Heavy Oil ³	Natural Gas ⁴	All Fossil Fuels ³	Residential	Commercial	Industrial	Other	Total ⁵
		Cents per million Btu				Cents per kilowatthour				
1973	Average	40.5	78.5	33.8	47.6	2.54	2.41	1.25	2.10	1.96
1974	Average	70.9	189.0	48.2	91.4	3.10	3.04	1.69	2.75	2.49
1975	Average	81.4	200.5	75.2	104.4	3.51	3.45	2.07	3.08	2.92
1976	Average	84.8	195.2	103.4	111.9	3.73	3.69	2.21	3.27	3.09
1977	Average	94.7	219.8	129.1	129.7	4.05	4.09	2.50	3.51	3.42
1978	Average	111.6	212.5	142.2	141.1	4.31	4.36	2.79	3.62	3.69
1979	Average	122.4	298.8	174.9	163.9	4.64	4.68	3.05	3.96	3.99
1980	Average	135.1	426.7	219.9	192.8	5.36	5.48	3.69	4.76	4.73
1981	Average	153.2	533.4	280.5	225.6	6.20	6.29	4.29	5.28	5.46
1982	January	160.9	489.2	297.4	229.4	6.22	6.49	4.66	5.44	5.74
	February	164.1	493.6	307.8	223.1	6.35	6.68	4.70	5.83	5.84
	March	165.7	477.1	314.2	221.9	6.58	6.79	4.83	6.38	5.97
	April	164.6	487.0	320.7	216.9	6.72	6.81	4.84	5.77	5.99
	May	165.1	494.2	327.6	217.7	6.94	6.86	4.95	5.91	6.09
	June	167.0	488.3	341.8	226.8	7.08	6.94	4.92	6.01	6.18
	July	164.5	477.8	353.3	241.0	7.18	6.98	5.12	6.13	6.38
	August	164.7	467.1	353.4	230.2	7.22	6.91	5.15	6.09	6.40
	September	165.9	475.3	354.7	229.4	7.18	6.97	5.25	6.07	6.41
	October	164.9	490.2	355.9	222.2	7.21	7.09	5.09	5.81	6.33
	November	165.3	501.0	349.8	220.8	6.94	7.04	4.88	5.69	6.14
	December	162.9	461.9	352.5	218.8	6.71	6.78	5.01	5.85	6.11
	Average	164.7	483.2	337.6	224.9	6.86	6.86	4.95	5.92	6.13
1983	January	166.8	448.9	347.1	216.7	6.65	6.78	5.03	5.91	6.13
	February	167.8	441.4	331.9	213.9	6.73	6.86	4.96	5.97	6.12
	March	168.1	426.0	336.1	215.5	6.93	6.93	5.07	6.16	6.23
	April	168.5	431.6	326.1	215.8	6.91	6.86	4.92	6.15	6.12
	May	165.0	446.6	344.3	216.6	7.20	7.04	4.89	6.60	6.21
	June	167.3	453.6	347.2	220.9	7.41	7.13	4.96	6.62	6.35
	July	165.3	467.0	361.1	237.4	7.50	7.13	5.11	6.24	6.53
	August	164.3	470.4	363.2	230.1	7.52	7.06	5.01	6.37	6.51
	September	163.9	482.8	358.1	226.4	7.55	7.15	5.00	6.58	6.52
	October	164.6	479.6	350.1	219.8	7.50	7.19	5.01	6.66	6.41
	November	163.6	472.2	340.5	212.2	7.25	7.13	4.83	6.63	6.23
	December	162.2	468.7	338.7	219.2	6.97	6.91	4.81	6.40	6.14
	Average	165.6	457.8	347.4	220.6	7.18	7.01	4.97	6.36	6.29
1984	January	161.4	488.2	344.0	221.1	6.76	6.79	4.86	6.34	6.13
	February	165.0	495.8	347.5	217.8	6.98	7.00	4.86	6.53	6.20
	March	164.1	484.0	339.8	209.2	7.16	7.12	4.88	6.69	6.26
	April	165.5	493.5	344.4	210.8	7.32	7.23	4.87	6.59	6.29
	May	168.5	486.9	360.4	220.3	7.58	7.28	4.92	6.86	6.39
	June	168.8	487.9	360.9	223.0	7.89	7.48	5.10	6.79	6.66
	July	168.0	474.4	372.5	231.0	7.99	7.51	5.22	6.99	6.83
	August	167.0	460.4	365.0	223.4	8.05	7.51	5.16	6.77	6.83
	September†	NA	NA	NA	NA	8.05	7.64	5.26	7.07	6.89

¹Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.

²Data through 1979 cover privately owned electric utilities in Classes A and B. Data for 1980 forward cover selected privately owned electric utilities in Class A whose electric operating revenues were \$100 million or more during the previous year.

³See Note 7 in the Notes and Sources for this section.

⁴Includes supplemental gaseous fuels.

⁵Average price for total sales to ultimate consumers.

†Initial estimates. NA=Not available.

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

Sources: • See the Notes and Sources for this section.

Notes and Sources for the Price Section

Notes

1. The actual domestic average price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices.

2. FOB 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 March 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 EIA Form 14, the "Refiners' Monthly Cost Report." These prices were previously published from data collected on ERA Form 49, the "Domestic Crude Oil Entitlements Program Refiners Monthly Report." The ERA Form 49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for EIA Form 14 in accordance with conventions used for ERA Form 49. Also, the respondents for the two forms are 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 in 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 ERA Form 51, the "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 ERA Form 49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the FEA Form P110-M-1 included unfinished oils but excluded SPR. Imported averages derived from ERA Form 49 exclude oil purchased for SPR, whereas the composite averages derived from ERA Form 49 include SPR. None of the prices derived from EIA Form 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 for 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. For the period 1974 through 1978, prices were collected in 56 urban areas. For the period 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 and Gas Plant Operator Sales Prices of Finished Motor Gasoline for Resale and to End-Users are determined by the Energy Information Administration 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. Backcast estimates of prices prior to January 1983 are based on FEA Form 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, as well as residential and commercial consumers.

6. The monthly national average price of residential natural gas is based on data from the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) for natural gas (piped) and on data from Form EIA-176. Initial monthly estimates are obtained by multiplying the annual average price of residential natural gas collected on Form EIA-176 by the ratio of monthly values of the natural gas CPI-U for consecutive months. When a subsequent year's annual average price becomes available, the initial monthly estimates are adjusted to this annual average.

7. Heavy fuel oil prices include fuel oils No. 4, No. 5, and No. 6, and topped crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (No. 2 fuel oil, kerosene, and jet fuel) prices.

8. 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 annual data series have been generated for 1978-1980, and monthly series for 1981 and 1982, by estimating the prices that would have been published had the EIA-782 survey and system been in operation at that time. This form of estimation, referred to as backcasting, was performed after detailed adjustment for product and sales type matching, and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale, and between retail and end-user. The resale category continues to include sales among resellers. However, bulk sales to 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 the bulk utility, industrial, and commercial sales. 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 the Energy Information Administration.

(Notes and Sources for the Price Section are continued on the next page.)

Notes and Sources for the Price Section (continued)

Sources

Petroleum and Petroleum Products: • Actual domestic average wellhead prices—Economic Regulatory Administration (ERA), January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report"; February 1976 through September 1979: FEA Form P124, "Domestic Crude Oil Purchaser's (Monthly) Report"; October 1979 through December 1982: ERA Form 182, "Domestic Crude Oil First Purchase Report."; January 1983 forward: EIA Form 182, "Domestic Crude Oil First Purchase Report."

• Crude oil imports costs—Energy Information Administration (EIA), 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 through June 1984: EP Form 51, "Monthly Foreign Crude Oil Transaction Report"; July 1984 forward: Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report."

• Refiner acquisition costs—EIA, January 1976: FEO Form 96, "Monthly Cost Allocation Report"; February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report"; July 1978 through December 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report"; January 1981 forward: EIA Form 14, "Refiners' Monthly Cost Report."

• U.S. City average retail motor gasoline prices—Bureau of Labor Statistics.

• No. 2 Distillate to Residences—January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA backcast estimates using data from FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report." See Note 8 on the

previous page for additional information on the backcast data.

• All other petroleum products—January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA backcast estimates using data from FEA Form 302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices." See Note 8 on the previous page for additional information on the backcast data.

Natural Gas: • Average wellhead price—annual data from EIA, *Natural Gas Annual*, 1973 through 1982. Monthly data are estimated primarily on the basis of values reported by State agencies in New Mexico, Oklahoma, and Texas. These States together account for almost 50 percent of total U.S. marketed production. Monthly data are adjusted to conform with final reported annual data.

• Imports, Purchased from Producers, and Industrial Sales by Major Interstate Pipeline Companies—FERC Form 11, "Interstate Pipeline Company Purchases, and Industrial Sales".

• Electric plant data—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Residential Price—Annual data from EIA, *Natural Gas Annual*, 1973 through 1982. Monthly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index (CPI-U) for natural gas and are adjusted to conform with final reported annual data. See Note 6 on the previous page for estimation procedures.

Electricity: • Cost of fossil fuels—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Retail prices—EIA, January 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement."

International

Crude Oil Production

World crude oil production during September 1984 was 52.8 million barrels per day (MMB/d), up 0.3 MMB/d (0.6 percent) from the August 1984 level. World crude oil production in the first 9 months of 1984 averaged 53.8 MMB/d, compared to 52.4 MMB/d in the first 9 months of 1983.

Organization of Petroleum Exporting Countries (OPEC) output during September 1984 averaged 16.6 MMB/d, up 0.2 MMB/d from the level during the previous month. OPEC production of crude oil during the first 9 months of 1984 averaged 17.7 MMB/d, a 3.6-percent increase from the 17.1-MMB/d average during the same period in 1983. Average production by Arab members of OPEC was 9.9 MMB/d, up 10,000 B/d from the August 1984 level. There were production increases in each Arab OPEC country except Saudi Arabia, which reported a 400,000-B/d decrease, and Algeria, where production was unchanged. Production in both Libya and the United Arab Emirates increased by 120,000 B/d. Kuwait, Iraq, and Qatar reported increases of 100,000 B/d, 50,000 B/d, and 20,000 B/d, respectively, during the month. Among non-Arab OPEC countries, Nigeria reported the only increase in production, which was 200,000 B/d.

Of the non-OPEC nations, the United Kingdom and Mexico reported increases in production of 135,000 B/d and 25,000 B/d, respectively, during September 1984, while the United States had a 22,000-B/d decrease in production.

Petroleum Consumption

Preliminary petroleum consumption data for September 1984 were available for France, Italy, and the United States. Compared to September 1983 levels, consumption in each country decreased: in the United States by 191,000 B/d, in Italy by 65,000 B/d, and in France by 15,000 B/d. Petroleum consumption during the first 9 months of 1984 in France and Italy decreased by 45,000 B/d and 13,000 B/d, respectively, compared to the same period in 1983, while U.S. consumption increased 7,000 B/d (4.7 percent) comparing the same periods.

Petroleum Stocks

Preliminary data for September 1984 indicate petroleum stock levels were down compared to September 1983 levels: in Canada by 4.0 percent, in the United Kingdom by 1.6 percent, and in West Germany by 0.8 percent. In Japan and the United States petroleum stock levels were higher by 6.9 percent and 2.0 percent, respectively, compared to levels 1 year earlier.

Petroleum stocks for all Organization for Economic Cooperation and Development members stood at 3,307 million barrels on June 30, 1984 (latest data available), a decrease of 104 million barrels (3.2 percent) compared to stocks held on June 30, 1983.

Nuclear Electricity Production

In September 1984, the 20 non-Communist nations with significant nuclear power capacity generated 90.3 gross terawatt-hours (billion kilowatt-hours) of nuclear-based electricity. On a per-hour basis, this was up 8.8 percent from the August 1984 generation, and up 18.0 percent compared to the September 1983 output. For the first 9 months of 1984, average hourly generation was up 19.4 percent from the average for the same period in 1983.

In France, Electricite de France's Cruas-2, a 928-gross-megawatt-electric (MWe) pressurized water reactor (PWR), began start-up testing for commercial operation on September 7. Paluel-2, a 1,344-gross-MWe PWR, was connected to France's electrical grid on September 14. In Canada, Ontario Hydro's Bruce-6, an 842-gross-MWe pressurized heavy water reactor, went into commercial operation on September 14. With these 3 additions, there were 264 operable power reactors in the non-Communist countries as of September 30, 1984, with a collective gross generating capacity of 189.3 gigawatts (million kilowatts). This was 10.0 percent more than the capacity on September 30, 1983, when there were 249 operable power reactors. In September 1984, the 84 operable U.S. units accounted for 72.1 gross gigawatts (38.1 percent) of total capacity, compared to the 39.1 percent of total capacity supplied by the 80 U.S. units in September 1983.

International

Crude Oil Production for Major Petroleum Producing Countries

		Algeria	Iraq	Kuwait ¹	Libya	Qatar	Saudi Arabia ¹	United Arab Emirates	Arab Members of OPEC ²	Indonesia	Iran
Thousand barrels per day											
1973	Average	1,097	2,018	3,020	2,175	570	7,596	1,533	18,009	1,339	5,861
1974	Average	1,009	1,971	2,546	1,521	518	8,480	1,679	17,724	1,375	6,022
1975	Average	983	2,262	2,084	1,480	438	7,075	1,664	15,986	1,307	5,350
1976	Average	1,075	2,415	2,145	1,933	497	8,577	1,936	18,578	1,504	5,883
1977	Average	1,152	2,348	1,969	2,063	445	9,245	1,999	19,221	1,686	5,663
1978	Average	1,161	2,563	2,131	1,983	487	8,301	1,831	18,457	1,635	5,242
1979	Average	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168
1980	Average	1,012	2,514	1,656	1,787	472	9,900	1,709	19,050	1,577	1,662
1981	Average	805	1,000	1,125	1,140	405	9,815	1,474	15,764	1,605	1,380
1982	January	800	1,560	800	993	407	8,680	1,483	14,723	1,487	1,100
	February	700	1,560	835	595	377	8,465	1,407	13,939	1,447	1,200
	March	600	1,560	740	595	302	7,166	1,396	12,359	1,397	1,800
	April	600	940	675	695	231	6,650	1,243	11,034	1,242	1,800
	May	620	780	715	795	322	5,888	1,151	10,271	1,237	2,500
	June	650	780	835	993	412	6,690	1,238	11,598	1,302	2,500
	July	650	830	865	1,290	277	6,189	1,187	11,288	1,302	2,500
	August	700	830	915	1,290	342	5,938	1,180	11,195	1,237	2,200
	September	800	830	880	1,390	287	5,702	1,180	11,069	1,297	2,700
	October	800	830	855	1,688	382	5,677	1,180	11,412	1,367	2,700
	November	800	830	910	1,688	312	5,632	1,180	11,352	1,397	2,700
	December	800	830	845	1,737	307	5,266	1,180	10,965	1,357	2,800
		Average	710	1,012	823	1,150	330	6,483	1,250	11,758	1,339
1983	January	700	850	780	1,100	255	4,950	1,060	9,695	1,225	2,700
	February	600	850	895	900	200	3,510	1,060	8,015	1,015	2,400
	March	600	900	965	900	170	3,910	1,035	8,480	1,180	2,200
	April	700	950	880	1,000	260	3,930	1,145	8,865	1,400	2,000
	May	600	1,000	1,030	1,100	275	4,725	1,175	9,905	1,400	2,300
	June	700	1,000	920	1,100	300	4,620	1,180	9,820	1,400	2,500
	July	700	1,050	1,086	1,100	300	5,536	1,175	10,947	1,490	2,800
	August	700	1,100	1,181	1,100	265	5,931	1,185	11,462	1,490	2,500
	September	700	1,050	1,376	1,150	310	6,026	1,185	11,797	1,470	2,700
	October	700	1,100	1,305	1,150	320	6,005	1,165	11,745	1,520	2,400
	November	700	1,150	1,265	1,150	460	5,915	1,195	11,835	1,560	2,300
	December	700	1,050	1,075	1,150	420	5,825	1,195	11,415	1,440	2,300
		Average	675	1,005	1,064	1,076	295	5,086	1,147	10,348	1,385
1984	January	650	1,150	1,080	1,100	440	5,130	1,200	10,750	1,470	2,000
	February	600	1,000	1,235	1,100	340	5,035	1,200	10,510	1,575	2,350
	March	600	1,200	1,290	1,100	380	4,840	1,205	10,615	1,560	2,400
	April	600	1,200	1,115	1,150	325	5,120	1,205	10,715	1,600	2,300
	May	650	1,200	1,100	1,150	350	5,000	1,200	10,650	1,470	2,100
	June	700	1,225	1,135	1,180	450	5,435	1,225	11,350	1,520	2,200
	July	650	R1,200	1,100	1,100	430	5,000	1,090	R10,570	1,390	2,400
	August	650	R1,250	1,090	980	410	4,490	990	R9,860	1,410	1,800
	September	650	1,300	1,190	1,100	430	4,090	1,110	9,870	1,400	1,800

¹Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In September 1984, total production in this region amounted to approximately 380,000 barrels per day.

²Arab members of the Organization of Petroleum Exporting Countries (OPEC) include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

³OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.

Footnotes continued on following page.

International

Crude Oil Production for Major Petroleum Producing Countries (continued)

		Nigeria	Vene- zuela	Total OPEC ³	Canada	Mexico	United Kingdom	United States	China	USSR	Other ⁴	World
Thousand barrels per day												
1973	Average	2,054	3,366	30,989	1,800	465	2	9,208	1,090	8,465	3,655	55,674
1974	Average	2,255	2,976	30,729	1,684	571	2	8,774	1,315	9,000	3,777	55,852
1975	Average	1,783	2,346	27,155	1,439	705	12	8,375	1,490	9,625	4,079	52,880
1976	Average	2,067	2,294	30,738	1,295	831	245	8,132	1,670	10,143	4,258	57,312
1977	Average	2,085	2,238	31,298	1,320	981	768	8,245	1,874	10,682	4,517	59,685
1978	Average	1,897	2,166	29,805	1,313	1,209	1,082	8,707	2,082	11,185	4,674	60,057
1979	Average	2,302	2,356	30,928	1,496	1,461	1,568	8,552	2,122	11,460	4,948	62,535
1980	Average	2,055	2,168	26,891	1,435	1,936	1,622	8,597	2,114	11,773	5,170	59,538
1981	Average	1,433	2,102	22,646	1,285	2,313	1,811	8,572	2,012	11,909	5,352	55,900
1982	January	1,765	1,992	21,391	1,346	2,314	1,864	8,509	2,037	11,926	5,588	54,975
	February	1,395	1,736	20,050	1,408	2,549	1,913	8,702	2,037	11,926	5,655	54,240
	March	945	1,877	18,708	1,306	2,544	1,957	8,667	2,037	11,926	5,445	52,590
	April	890	1,496	16,809	1,025	2,779	2,065	8,591	2,042	11,926	5,613	50,850
	May	1,310	1,485	17,160	1,231	2,714	2,041	8,683	2,042	11,926	5,638	51,435
	June	1,645	1,506	18,939	1,469	2,789	2,094	8,646	2,042	11,926	5,585	53,490
	July	1,280	1,807	18,542	1,364	2,789	2,075	8,658	2,042	12,026	5,609	53,105
	August	1,105	2,007	18,135	1,436	2,794	2,080	8,634	2,042	12,026	5,648	52,795
	September	1,170	1,997	18,608	1,436	2,829	2,129	8,701	2,042	12,026	5,599	53,370
	October	1,480	2,168	19,527	1,447	2,899	2,119	8,701	2,057	12,437	5,588	54,775
	November	1,355	2,309	19,512	1,569	2,939	2,173	8,697	2,057	12,437	5,776	55,160
	December	1,215	2,334	19,080	1,436	3,024	2,266	8,598	2,057	12,437	5,837	54,735
	Average	1,295	1,895	18,868	1,372	2,748	2,065	8,649	2,045	12,080	5,631	53,458
1983	January	880	2,060	16,952	1,288	2,980	2,135	8,697	2,085	12,410	5,913	52,460
	February	675	1,758	14,250	1,425	2,295	2,315	8,758	2,110	12,410	6,014	49,577
	March	905	2,055	15,192	1,461	2,415	2,265	8,700	2,110	12,410	5,949	50,502
	April	1,150	1,694	15,506	1,320	2,670	2,170	8,776	2,120	12,000	6,110	50,672
	May	1,625	1,664	17,266	1,383	2,795	2,235	8,631	2,120	11,900	6,095	52,425
	June	1,535	1,669	17,326	1,577	2,775	2,045	8,667	2,120	11,900	6,195	52,605
	July	1,710	1,674	19,033	1,551	2,685	2,280	8,636	2,120	11,900	6,187	54,392
	August	1,300	1,709	18,878	1,488	2,775	2,290	8,679	2,130	11,900	6,092	54,232
	September	1,220	1,704	19,278	1,504	2,735	2,385	8,784	2,130	11,900	6,157	54,873
	October	1,290	1,718	19,075	1,456	2,660	2,355	8,771	2,130	11,900	6,266	54,613
	November	1,245	1,748	19,075	1,483	2,730	2,490	8,770	2,130	11,900	6,386	54,964
	December	1,310	1,753	18,620	1,467	2,690	2,530	8,397	2,130	11,900	6,421	54,155
	Average	1,241	1,768	17,562	1,450	2,686	2,291	8,688	2,120	12,034	6,150	52,981
1984	January	1,360	1,810	17,780	1,310	2,670	2,515	8,659	2,190	11,900	6,556	53,580
	February	1,565	1,815	18,205	1,440	2,755	2,585	8,726	2,190	11,900	6,629	54,430
	March	1,460	1,815	18,245	1,455	2,710	2,455	8,718	2,190	11,750	6,532	54,055
	April	1,300	1,815	18,135	1,400	2,770	2,470	8,688	2,190	11,750	6,602	54,005
	May	1,200	1,840	17,660	1,400	2,840	2,439	8,752	2,190	11,900	6,654	53,835
	June	1,300	1,805	18,595	1,410	2,875	2,325	8,743	2,190	11,900	6,747	54,785
	July	1,200	1,860	R17,840	1,485	2,845	2,450	8,769	2,220	11,870	6,811	R54,290
	August	1,100	1,820	R16,400	1,395	2,680	2,300	8,781	R2,220	11,870	6,824	R52,470
	September	1,300	1,800	16,590	1,400	2,705	2,435	8,759	2,230	11,790	6,901	52,810

Footnotes continued.

⁴Other is a calculated total derived from the difference between world production and the nations represented above.

R=Revised data.

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

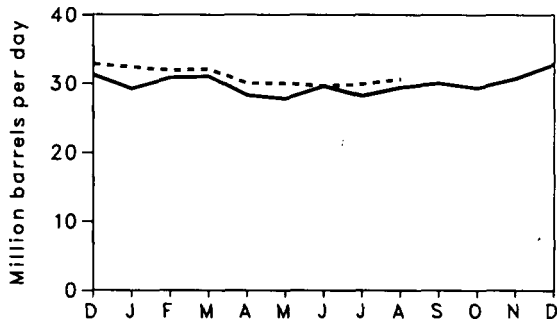
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • See the last page of this section.

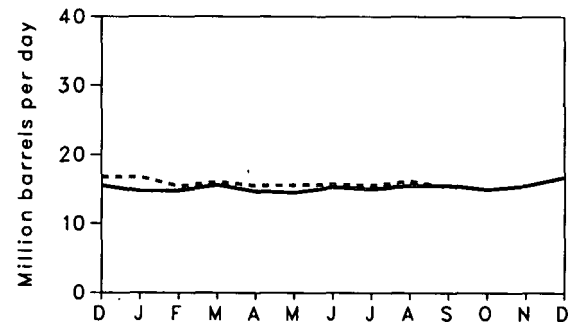
International

Petroleum Consumption for Major Non-Communist Industrialized Countries

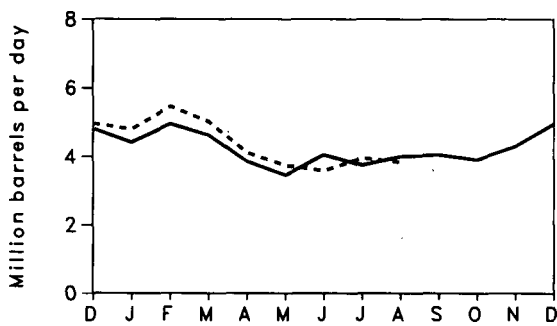
Total IEA



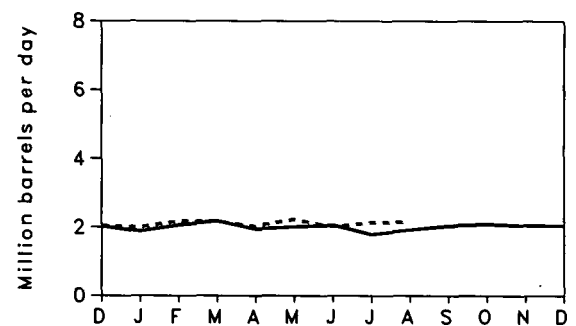
United States



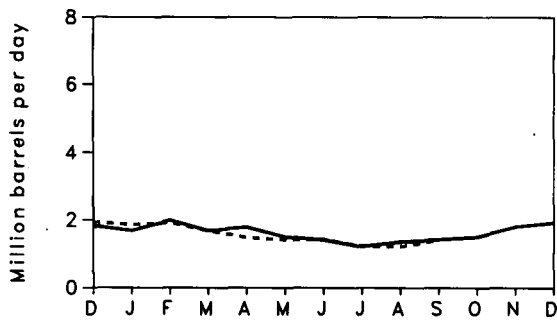
Japan*



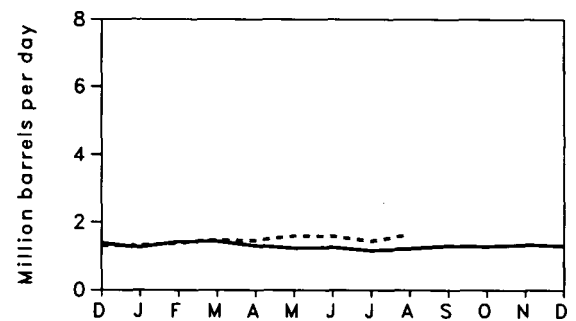
West Germany



France**



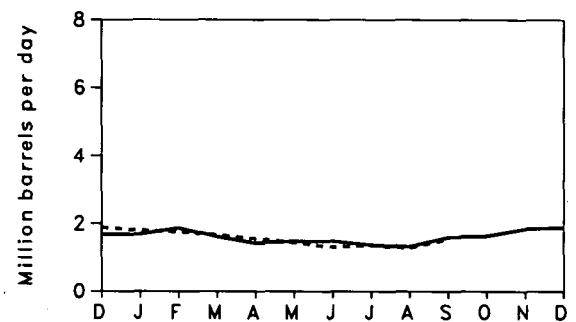
United Kingdom



Canada



Italy***



*Excludes liquefied petroleum gases and condensates.

***Principal products only.

**Not a member of IEA.

— 1983 - - - - 1984

International

Petroleum Consumption for Major Non-Communist Industrialized Countries¹

		Canada	France ²	Italy	Japan	United Kingdom	United States	West Germany	Other IEA ³	Total IEA ⁴
Thousand barrels per day										
1973	Average	1,597	2,219	1,525	5,000	1,958	17,308	2,693	4,069	34,150
1974	Average	1,630	2,094	1,521	4,872	1,829	16,653	2,408	4,047	32,960
1975	Average	1,595	1,925	1,468	4,568	1,633	16,322	2,319	3,905	31,810
1976	Average	1,647	2,075	1,503	4,786	1,601	17,461	2,507	4,265	33,770
1977	Average	1,661	1,973	1,476	5,015	1,655	18,431	2,478	4,214	34,930
1978	Average	1,701	2,077	1,551	5,115	1,683	18,847	2,596	4,387	35,880
1979	Average	1,766	2,107	1,607	5,173	1,690	18,513	2,664	4,487	35,900
1980	Average	1,730	1,965	1,602	4,680	1,420	17,056	2,360	4,152	33,000
1981	Average	1,615	1,745	1,705	4,445	1,325	16,058	2,120	4,032	31,300
1982	January	1,530	1,770	1,800	4,645	1,400	16,124	1,935	3,766	31,200
	February	1,715	1,815	1,795	5,275	1,465	16,001	2,230	4,219	32,700
	March	1,510	1,940	1,805	4,640	1,560	15,560	2,340	4,185	31,600
	April	1,350	1,730	1,560	4,015	1,340	16,046	2,125	3,964	30,400
	May	1,325	1,580	1,510	3,515	1,210	14,847	1,770	3,623	27,800
	June	1,430	1,505	1,520	3,780	1,280	14,998	2,115	3,877	29,000
	July	1,390	1,455	1,475	3,995	1,235	14,821	1,955	3,729	28,600
	August	1,500	1,295	1,410	3,705	1,170	14,839	2,105	3,671	28,400
	September	1,410	1,510	1,630	3,865	1,295	15,022	2,035	4,043	29,300
	October	1,335	1,605	1,555	3,830	1,305	14,859	1,922	3,894	28,700
	November	1,470	1,735	1,650	4,355	1,415	15,009	2,005	4,196	30,100
	December	1,460	1,815	1,670	4,810	1,380	15,487	2,025	4,368	31,200
	Average	1,450	1,645	1,614	4,196	1,337	15,296	2,045	3,962	29,900
1983	January	1,260	1,685	1,675	4,410	1,260	14,722	1,875	3,998	29,200
	February	1,430	1,985	1,865	4,950	1,415	14,792	2,060	4,288	30,800
	March	1,305	1,685	1,605	4,625	1,430	15,541	2,180	4,314	31,000
	April	1,190	1,785	1,415	3,850	1,300	14,692	1,940	3,913	28,300
	May	1,320	1,500	1,470	3,460	1,230	14,505	2,010	3,805	27,800
	June	1,360	1,405	1,475	4,040	1,255	15,289	2,060	4,121	29,600
	July	1,265	1,210	1,365	3,745	1,160	15,019	1,785	3,861	28,200
	August	1,440	1,350	1,315	3,990	1,220	15,480	1,920	4,035	29,400
	September	1,380	1,415	1,590	4,040	1,300	15,506	2,040	4,144	30,000
	October	1,360	1,495	1,625	3,900	1,280	14,962	2,090	4,083	29,300
	November	1,460	1,800	1,840	4,290	1,340	15,500	2,055	4,215	30,700
	December	1,400	1,930	1,880	4,960	1,300	16,726	2,050	4,484	32,800
	Average	1,345	1,600	1,590	4,185	1,290	15,231	2,005	4,054	29,700
1984	January	1,300	1,860	1,800	4,800	1,310	16,726	2,000	4,464	32,400
	February	1,370	1,915	1,750	5,450	1,380	15,389	2,180	4,381	31,900
	March	1,350	1,680	1,660	5,020	1,470	16,017	2,170	4,413	32,100
	April	1,200	1,475	1,550	4,110	1,450	15,484	2,030	4,176	30,000
	May	1,329	1,410	1,435	3,740	1,590	15,566	2,230	4,110	30,000
	June	1,330	1,420	1,295	3,590	1,585	15,687	2,020	4,093	29,600
	July	R1,370	R1,225	1,350	R3,950	1,440	15,547	R2,140	R4,103	R29,900
	August	1,365	R1,210	1,270	3,830	1,630	16,130	2,150	4,225	30,600
	September	NA	1,400	1,525	NA	NA	15,315	NA	NA	NA

¹These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.

²Not a member of the International Energy Agency (IEA).

³Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.

⁴The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.

R=Revised data. NA=Not available.

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

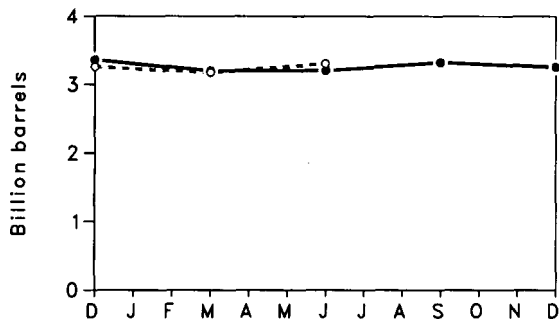
• Data for 1982 through 1984 are preliminary.

Sources: • See the last page of this section.

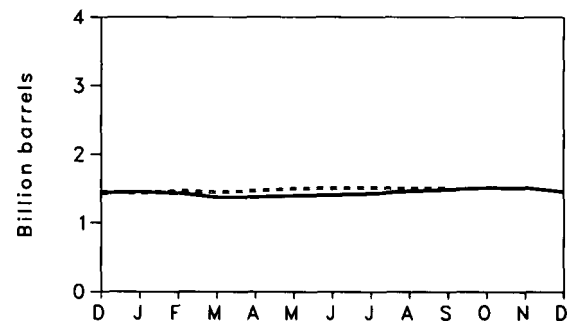
International

Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period

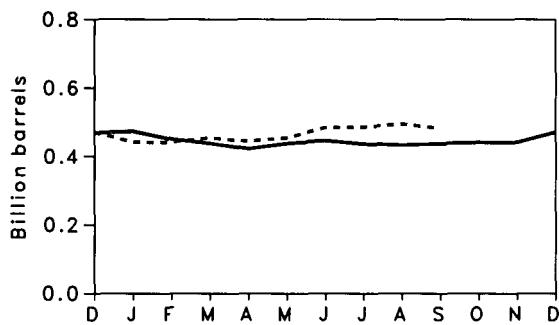
Total OECD



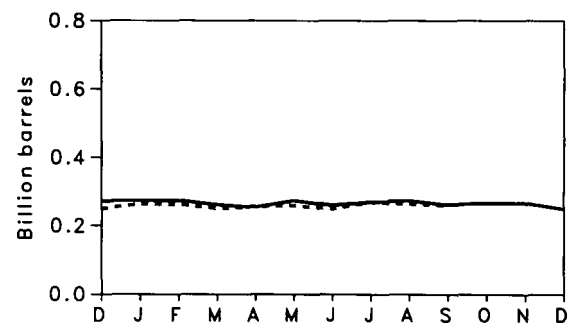
United States



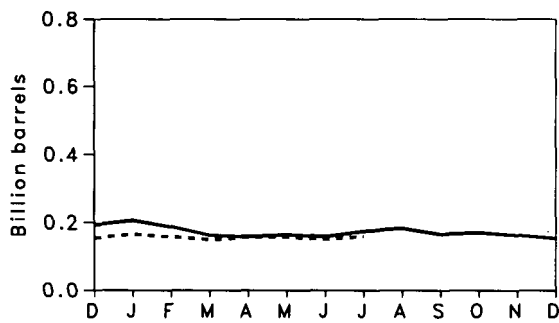
Japan



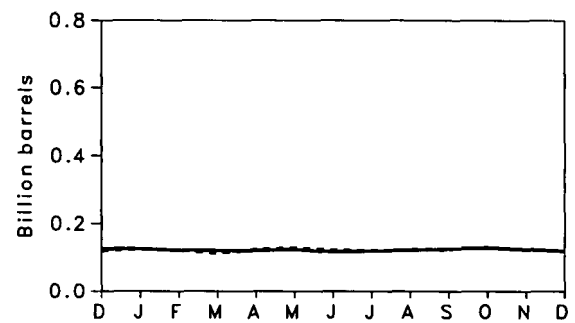
West Germany



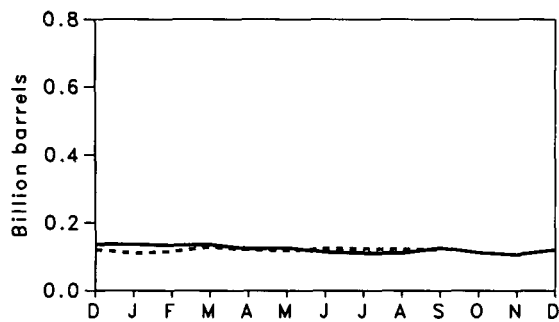
France



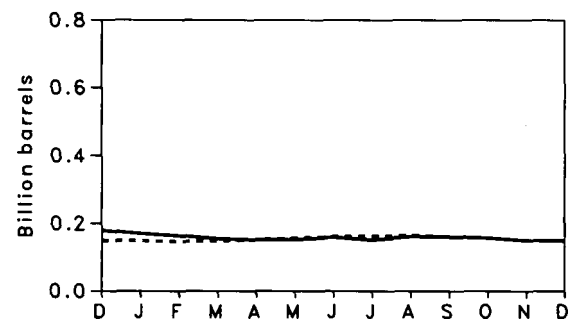
United Kingdom



Canada



Italy



●—● 1983 ○---○ 1984

International

Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period¹

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD ²	Total OECD ³
		Million barrels								
1973		149	203	NA	303	156	1,008	NA	NA	NA
1974		164	240	169	370	161	1,074	215	NA	NA
1975		167	239	143	375	164	1,133	190	NA	NA
1976		156	231	142	394	165	1,112	214	NA	NA
1977		167	239	161	409	148	1,312	225	524	3,185
1978		144	201	154	413	157	1,278	238	512	3,097
1979		150	226	163	460	169	1,341	272	594	3,375
1980		164	243	170	495	168	1,392	319	636	3,587
1981		161	214	167	482	143	1,484	297	583	3,531
1982	January	163	222	165	464	NA	1,456	280	NA	NA
	February	156	215	162	460	NA	1,428	280	NA	NA
	March	148	198	158	479	133	1,392	279	541	3,328
	April	148	201	154	483	NA	1,346	312	NA	NA
	May	147	193	154	484	NA	1,347	310	NA	NA
	June	144	192	156	477	141	1,360	287	564	3,321
	July	130	205	160	460	134	1,393	286	NA	NA
	August	137	207	179	470	139	1,408	311	NA	NA
	September	145	207	179	470	134	1,414	280	570	3,399
	October	135	212	177	471	135	1,432	279	NA	NA
	November	138	213	174	472	130	1,455	280	NA	NA
	December	136	193	179	468	125	1,430	272	557	3,360
1983	January	136	206	170	473	125	1,452	274	NA	NA
	February	133	187	163	450	121	1,430	274	NA	NA
	March	135	162	155	R456	120	1,372	262	539	R3,201
	April	123	158	151	422	120	1,374	255	NA	NA
	May	125	164	152	437	123	1,394	274	NA	NA
	June	113	158	159	R460	116	1,405	261	531	R3,203
	July	110	174	151	436	119	1,426	270	NA	NA
	August	110	183	161	433	121	1,460	274	NA	NA
	September	125	165	160	R452	125	1,485	263	R549	R3,324
	October	111	170	157	441	129	1,508	267	NA	NA
	November	105	162	150	440	124	1,510	267	NA	NA
	December	120	153	149	R471	119	1,454	250	542	R3,258
1984	January	109	165	149	441	125	1,430	264	NA	NA
	February	114	157	146	441	121	1,464	263	NA	NA
	March	R128	R149	148	R454	R112	1,444	251	R489	R3,175
	April	120	156	151	444	123	1,465	256	NA	NA
	May	117	157	157	454	128	1,497	260	NA	NA
	June	R124	R150	161	R484	R122	1,502	R250	514	R3,307
	July	123	159	163	R486	R120	1,514	269	NA	NA
	August	122	NA	165	R495	R123	1,500	R265	NA	NA
	September	120	NA	160	483	123	1,514	261	NA	NA

¹Petroleum 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 the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea.

²"Other OECD" includes Organization for Economic Cooperation and Development (OECD) members not shown.

³The members of OECD are listed in Note 2 on the last page of this section.

R=Revised data. NA=Not available.

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

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

• In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported. Using the new basis, the end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,420 in 1980, and 1,462 in 1982.

Sources: • See the last page of this section.

International

Nuclear Electricity Generation by Non-Communist Countries¹

		Argen- tina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Nether- lands	Paki- stan
Billion gross kilowatthours												
1973	Total	0	0	0	18.3	0	11.6	1.9	3.1	9.4	1.1	0.5
1974	Total	1.0	0.1	0	15.4	0	14.7	2.5	3.4	18.1	3.3	0.6
1975	Total	2.5	6.8	0	13.2	0	18.3	2.5	3.8	22.2	3.3	0.5
1976	Total	2.6	10.0	0	18.0	0	15.8	3.2	3.8	36.7	3.9	0.5
1977	Total	1.6	11.9	0	26.8	2.7	17.9	2.8	3.4	28.1	3.7	0.3
1978	Total	2.9	12.5	0	32.9	3.3	30.5	2.3	4.4	53.2	4.1	0.2
1979	Total	2.7	11.4	0	38.4	6.7	39.9	3.2	2.6	62.0	3.5	(s)
1980	Total	2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2	0.1
1981	Total	2.8	12.8	0	43.3	14.5	105.2	3.1	2.7	86.0	3.7	0.2
1982	January	0.3	1.3	0	4.1	1.5	11.0	0.2	0.6	8.1	0.4	(s)
	February	0.2	0.8	0	3.2	1.5	10.0	0.2	0.7	7.7	0.1	(s)
	March	0.3	0.5	0	3.5	1.7	10.6	0.2	0.7	9.2	(s)	0
	April	0.3	1.0	(s)	3.7	1.6	10.1	0.2	0.5	9.7	0.3	0
	May	0.3	1.3	(s)	3.1	1.3	9.0	0.2	0.7	9.5	0.4	0
	June	0.3	1.2	(s)	3.3	0.9	7.8	0.1	0.6	9.5	0.4	0
	July	0.2	1.3	0	3.6	1.2	8.3	0.1	0.6	9.8	0.4	0
	August	0	1.2	0	3.9	1.5	7.0	0.2	0.4	9.7	0.4	(s)
	September	(s)	0.7	0	3.2	1.5	7.2	0.1	0.6	8.0	0.4	(s)
	October	0	1.7	0	4.0	1.4	6.6	0.2	0.6	7.5	0.4	(s)
	November	(s)	1.8	0	3.3	1.3	8.3	0.3	0.3	7.8	0.4	0
	December	0.2	1.8	0	3.8	1.3	13.0	0.2	0.5	8.1	0.4	(s)
	Total	1.9	15.6	0.1	42.6	16.5	108.9	2.2	6.8	104.5	3.9	0.1
1983	January	0.2	1.9	0	4.3	1.7	13.8	0.2	0.2	8.0	0.4	(s)
	February	0.2	1.4	0	4.5	1.5	10.9	0.1	0.1	6.8	(s)	(s)
	March	0.2	0.7	(s)	4.6	1.6	11.3	0.2	0.1	7.9	(s)	(s)
	April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2	(s)
	May	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3	(s)
	June	0.2	2.5	0	4.4	1.0	9.3	0.3	0.7	9.1	0.4	(s)
	July	0.3	2.5	0	4.8	1.3	11.0	0.2	0.7	9.6	0.4	0
	August	0.1	2.4	0	3.8	1.6	12.1	0.3	0.5	10.5	0.4	(s)
	September	0.2	2.2	0	4.4	1.5	12.4	0.3	0.6	10.1	0.4	(s)
	October	0.2	2.2	0	4.7	1.4	13.0	0.3	0.6	10.2	0.4	(s)
	November	0.2	2.0	(s)	4.2	1.5	13.4	0.2	0.7	9.2	0.4	(s)
	December	0.2	2.1	0.1	5.0	1.7	16.8	0.3	0.7	10.0	0.4	(s)
	Total	2.5	24.1	0.2	53.0	17.4	144.2	2.9	5.8	108.4	3.6	0.2
1984	January	0.2	2.7	(s)	5.0	1.7	18.0	0.3	0.4	10.1	0.3	(s)
	February	0.2	2.3	0.2	4.6	1.6	17.1	0.4	0.6	9.2	0.4	0
	March	0.2	1.9	0.1	5.1	1.7	17.8	0.3	0.7	8.8	0.2	0
	April	0.2	2.4	(s)	4.3	1.6	15.4	0.4	0.3	8.9	0.2	(s)
	May	0.2	2.0	0.1	3.6	1.2	14.2	0.5	0.3	10.4	0.4	(s)
	June	0.2	2.6	0.0	3.7	1.3	13.1	0.4	0.3	9.8	0.4	(s)
	July	0.1	2.4	0.0	4.3	1.4	13.1	0.5	0.3	10.5	0.2	(s)
	August	0.1	1.9	(s)	4.5	1.4	13.2	0.4	0.8	10.9	0.3	(s)
	September	0.1	1.9	0.3	3.6	1.5	14.7	0.6	0.8	11.2	0.4	(s)

¹Figures are for gross electricity generation, as opposed to net electricity generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

²The United Kingdom assesses generation at 4-, 5- or 6-week intervals, rather than by calendar month.

R=Revised data. (s)=Less than 0.05 billion gross kilowatthours.

Footnotes continued on following page.

International

Nuclear Electricity Generation by Non-Communist Countries¹ (continued)

		South Africa	South Korea	Spain	Sweden	Switzer- land	Taiwan	United Kingdom ²	West Germany	Non- Communist World Excluding U.S.	United States	Total Non- Communist World
Billion gross kilowatthours												
1973	Total	0	0	6.5	2.1	6.2	0	28.0	11.9	100.7	88.0	188.7
1974	Total	0	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
1975	Total	0	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.7	334.4
1976	Total	0	0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.8	389.1
1977	Total	0	0.1	6.5	19.9	8.1	0.1	38.1	35.8	207.8	263.3	471.0
1978	Total	0	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
1979	Total	0	3.2	6.7	21.0	11.8	6.3	38.5	42.2	300.1	270.6	570.7
1980	Total	0	3.5	5.2	26.7	14.3	8.2	37.2	43.7	354.4	265.4	619.8
1981	Total	0	2.9	9.4	37.7	15.2	10.7	38.9	53.4	442.4	288.5	730.9
1982	January	0	0.4	1.0	4.0	1.5	0.8	3.4	5.9	44.5	27.1	71.6
	February	0	0.4	0.9	3.3	1.3	1.0	3.5	5.4	40.0	21.3	61.3
	March	0	0.4	0.5	3.8	1.5	1.0	4.1	5.3	43.2	24.0	67.1
	April	0	0.2	0.4	3.8	1.4	0.8	3.3	5.3	42.5	22.8	65.3
	May	0	0	0.5	2.5	1.2	0.8	2.6	5.6	39.0	22.8	61.8
	June	0	(s)	0.7	1.9	0.6	1.0	3.3	4.2	35.6	25.3	60.9
	July	0	0.3	0.6	1.2	0.9	1.2	3.3	4.5	37.6	26.8	64.4
	August	0	0.4	0.7	2.0	1.0	1.2	3.7	4.5	37.7	26.4	64.1
	September	0	0.4	0.7	3.7	1.2	1.3	4.2	5.4	38.6	26.7	65.3
	October	0	0.4	1.0	4.2	1.5	1.4	3.7	5.2	39.8	25.4	65.3
	November	0	0.4	0.9	4.0	1.4	1.1	3.8	5.8	41.0	24.2	65.3
	December	0	0.4	0.9	4.2	1.5	1.4	5.1	6.5	49.2	25.8	75.0
	Total	0	3.8	8.8	38.8	15.0	13.1	44.1	63.4	489.9	298.6	788.5
1983	January	0	0.5	1.0	4.2	1.5	1.5	4.3	6.5	50.0	27.4	77.4
	February	0	0.4	0.9	3.7	1.4	0.8	4.3	5.6	42.7	23.8	66.5
	March	0	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	25.0	71.7
	April	0	0.4	0.8	3.3	1.5	1.7	4.3	4.0	43.1	23.4	66.5
	May	0	0.2	0.4	2.4	1.2	2.0	3.4	2.9	40.6	23.9	64.5
	June	0	0.7	0.6	2.4	0.5	2.0	3.9	4.2	42.4	25.7	68.2
	July	0	0.7	0.6	1.6	1.2	1.6	3.3	5.1	44.9	27.3	72.2
	August	0	1.1	1.0	2.7	1.0	1.4	3.7	4.6	47.3	27.9	75.1
	September	0	1.1	1.0	3.0	1.4	1.2	4.4	6.0	50.2	26.4	76.6
	October	0	0.8	1.1	3.6	1.5	1.6	3.7	7.6	53.0	27.6	80.6
	November	0	1.2	1.1	4.5	1.4	1.6	3.9	7.1	52.8	26.6	79.3
	December	0	1.3	1.4	5.0	1.5	1.7	5.5	6.2	59.8	28.6	88.4
	Total	0	9.0	10.7	40.5	15.5	18.9	50.0	65.8	572.6	313.6	886.3
1984	January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	61.4	30.8	92.2
	February	0	1.2	1.5	5.0	1.4	1.8	4.6	7.4	59.4	29.4	88.8
	March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	60.2	28.6	88.8
	April	0.1	0.9	1.3	4.5	1.5	1.8	4.2	6.4	54.2	24.7	78.9
	May	0.1	0.8	1.9	3.3	1.3	1.4	4.3	7.2	53.2	27.3	80.5
	June	0.3	0.7	2.2	2.8	0.6	1.8	4.7	7.1	51.9	26.4	78.3
	July	0.5	0.7	2.5	2.4	1.3	2.4	3.7	6.1	52.4	29.3	81.7
	August	0.7	0.9	2.3	3.5	1.0	2.4	3.6	6.2	54.1	R31.6	R85.7
	September	0.7	0.9	2.6	4.2	1.4	2.6	4.9	7.9	60.3	30.0	90.3

Footnotes continued.

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

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

Sources: • See the last page of this section.

Notes and Sources for the International Section

Notes

1. The 21 signatory nations of the International Energy Agency (IEA) are Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Australia and Portugal joined the IEA as new members in 1979 and 1980, respectively. In an effort to maintain comparability within this time series, consumption data for these two countries have been incorporated into the IEA total for all years.

2. The members of the Organization for Economic Cooperation and Development (OECD) are Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Total OECD includes the U.S. Territories.

Sources

Crude Oil Production: • 1973-1983 annual data (except the United States): Energy Information Administration (EIA), *1983 International Energy Annual*.

• 1973-1984 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly*.

• 1982-1984 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.

• 1982-1984 monthly data for World: Sum of data for all countries using above sources.

Petroleum Consumption: • Central Intelligence Agency, "International Energy Statistical Review" (except the United States).

• U. S. data: EIA, *Petroleum Supply Monthly*.

• International Energy Agency totals for latest months are EIA estimates.

Petroleum Stocks: • U. S. data: EIA, *Petroleum Supply Monthly*.

• Other OECD data: OECD, *Quarterly Oil Statistics*; Comité Professionnel du Pétrole, *Bulletin Mensuel*.

• Total OECD data: Sum of data for all OECD member countries using above sources.

Nuclear Electricity Generation: • *Nucleonics Week*.

Conversion Factors

Units of Measure

Weight

1 metric ton	contains	1,000 kilograms or 2,204.62 pounds
1 long ton	contains	2,240 pounds
1 short ton	contains	2,000 pounds

Conversion Factors for Crude Oil (Average Gravity)

1 barrel	contains	42 gallons
1 barrel	contains	0.136 metric tons (0.150 short tons)
1 metric ton	contains	7.33 barrels
1 short ton	contains	6.65 barrels

Conversion Factors for Uranium

1 short ton (U ₃ O ₈)	contains	0.769 metric tons of uranium
1 short ton (UF ₆)	contains	0.613 metric tons of uranium
1 metric ton (UF ₆)	contains	0.676 metric tons of uranium

Price Indexes, 1972 = 100.0

	Gross National Product Implicit Price Deflator	Consumer Price Index, All Urban Consumers, All Items
1972	100.00	100.0
1973	105.75	106.2
1974	115.08	117.9
1975	125.79	128.7
1976	132.34	136.1
1977	140.05	144.9
1978	150.42	155.9
1979	163.42	173.5
1980	178.42	197.0
1981	195.14	217.4
1982	206.88	230.7
1983	215.67	238.1

Sources: Gross National Product Implicit Price Deflator—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.
Consumer Price Index, All Urban Consumers, All Items—1967 = 100.0 from U.S. Department of Labor, Bureau of Labor Statistics. Rebased to 1972 = 100.0 by Energy Information Administration.

Approximate Heat Content of Refined Petroleum Products

	Million Btu per Barrel
Asphalt.....	6.636
Aviation gasoline.....	5.048
Butane.....	4.326
Butane-propane mixture ¹	4.130
Distillate fuel oil.....	5.825
Ethane.....	3.082
Ethane-propane mixture ²	3.308
Isobutane.....	3.974
Jet fuel—kerosene type.....	5.670
Jet fuel—naphtha type.....	5.355
Kerosene.....	5.670
Lubricants.....	6.065
Motor gasoline.....	5.253
Natural gasoline.....	4.620
Petrochemical feedstocks	
Naphtha 400° F or less.....	5.248
Other oils over 400° F.....	5.825
Still gas.....	6.000
Petroleum coke.....	6.024
Plant condensate.....	5.418
Propane.....	3.836
Residual fuel oil.....	6.287
Road oil.....	6.636
Special naphtha.....	5.248
Still gas.....	6.000
Unfinished oils.....	5.825
Unfractionated stream.....	5.418
Wax.....	5.537
Miscellaneous.....	5.796

¹ 60 percent butane and 40 percent propane.

² 70 percent ethane and 20 percent propane.

Glossary

Anthracite. A hard, jet black, high-luster coal containing a high percentage of fixed carbon and a low percentage of volatile matter and having an ignition temperature of about 900° F. Domestic anthracite is mined almost exclusively in northeastern Pennsylvania and is often referred to as hard coal. It is used for generating electricity and for space heating. It includes meta-anthracite and semianthracite and conforms to ASTM Specification D388 for anthracite.

ASTM. The acronym for the American Society for Testing and Materials.

Bituminous Coal. A dense, black coal that often has well-defined bands of bright and dull material. It has a volatility greater than anthracite and a calorific value greater than lignite. In the United States, it is often referred to as soft coal and is used for electricity generation, coke production, and space heating. It includes subbituminous coal and conforms to ASTM Specification D388 for bituminous coal and subbituminous coal.

British Thermal Unit (Btu). The amount of energy required to raise the temperature of 1 pound of water 1 ° Fahrenheit (F.) at or near 39.2 ° F. One Btu is equivalent to about 252 calories. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

Butane. A normally gaseous, colorless, paraffinic hydrocarbon (C₄H₁₀) extracted from natural gas and refinery gas streams. Included are isobutane, a branch-chain configuration of (CH₃)₃CH with a boiling point of 10.9° F. and normal butane, a straight-chain configuration of C₄H₁₀ with a boiling point of 31.1° F. Butane is used primarily for blending into motor gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

Coal. Includes all ranks of coal—anthracite, bituminous coal (including subbituminous coal), and lignite—conforming to ASTM Specification D388.

Coal Coke. The strong, porous residue consisting of carbon and mineral ash that is formed when the volatile constituents of bituminous coal are driven off by heat in the absence of or in a limited supply of air. It is used primarily in blast furnaces for smelting ores, especially iron ore.

Cooling Degree-Days. The number of degrees per day that the daily average temperature is above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Crude Oil (including lease condensate). A mixture of hydrocarbons that existed 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. Liquids produced at natural gas processing plants and mixed with crude oil are excluded where identifiable.

Crude Oil Refinery Input. Total crude oil (including lease condensate) input to crude oil distillation units and other processing units.

Degree-Day Normals. Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951–1980). These may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days. See **Cooling Degree-Days, Heating Degree-Days, Population-Weighted Degree-Days,** and **Degree-Day Normals.**

Distillate Fuel Oil. Light fuel oils distilled during the refining process. Included are products known as No. 1, No. 2, and No. 4 fuel oils; and No. 1, No. 2, and No. 4 diesel fuels that conform to either ASTM Specification D396 or D975. These products are 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.

Electricity Generation. Net electricity (gross electricity output measured at the generator terminals, minus powerplant use) generated at electric utilities. Excludes industrial electricity generation. International data are gross electricity output.

Ethane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C₂H₆) with a boiling point of -127.48° F. extracted from natural gas and refinery gas streams. Ethane

is used primarily as petrochemical feedstock for production of chemicals and plastic materials.

Exports. Shipments from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Heating Degree-Days. The number of degrees per day that the daily average temperature is below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Imports. Receipts into the 50 States and the District of Columbia of foreign goods (including goods from U.S. territories and U.S. Foreign Trade Zones) that are classified by customs officials as "imports for consumption" or "withdrawals from bonded warehouses for consumption," including withdrawals from bonded warehouses for military offshore use and for bunkering of vessels or aircraft engaged in international commerce. Included are imports for the Strategic Petroleum Reserve. Excluded are receipts into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

Isobutane. See **Butane**.

Landed Cost of Imported Crude Oil. Includes the purchase price at the foreign port (or U.S. land border), transportation and insurance costs, wharfage and demurrage, brokerage fees, import fees and duties, and license (ticket) fees. Averages are based on major importers, which account for an estimated 90 to 95 percent total crude oil imports. Coverage includes the United States and its territories.

Lease Condensate. A natural gas liquid recovered from gas-well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

Lignite. A brownish-black coal with a high moisture content. It is also referred to as brown coal. Domestic lignite is mined in North Dakota, Montana, and Texas and is used mainly for electric power generation. It conforms to ASTM Specification D388 for lignite.

Line Miles of Seismic Exploration. The distance along the earth's surface that is covered by seismic surveying.

Liquefied Petroleum Gases. Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing

plants, including plants that fractionate raw natural gas plant liquids.

Maximum Dependable Capacity, Net. The dependable main-unit net capacity of nuclear powerplant reactors and generally varies throughout the year because the unit efficiency varies with seasonal cooling water temperature variations. The maximum dependable capacity is the highest net dependable output of the turbine generator during the most restrictive seasonal conditions (usually summer).

Motor Gasoline, Finished. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Excludes blendstock until blending has been completed and excludes alcohol that is to be used in the blending of gasohol.

Motor Gasoline, Premium Grade. Finished motor gasoline that has an antiknock designation of 3 or more for unleaded motor gasoline and 4 or more for leaded motor gasoline.

Motor Gasoline, Regular Grade. Motor gasoline that has an antiknock designation of 2 or less for unleaded motor gasoline and 3 or less for leaded motor gasoline.

Motor Gasoline, Total. This includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural reservoirs.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the ASTM and the Gas Processors Association and are classified 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 such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Normal Butane. See **Butane**.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. This product includes isopentane, natural gasoline, and plant condensate.

Petroleum. A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, refined petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke. A residue that is the final product of the cracking process in petroleum refining. It consists of aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells, and similar products. This product is reported as marketable or catalyst coke.

Petroleum Products. Petroleum products are 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, naphtha less than 400° F. end-point, other oils over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Stocks, Primary. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve, is included. Excluded are stocks of foreign origin that are held in bonded warehouse storage.

Population-Weighted Degree-Days. 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 climatologically 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 these 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 comprised of 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 these products are then summed to arrive at the national population-weighted degree-day figure.

Propane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C₃H₈) with a boiling point of -43.67° F. It is extracted from natural gas and refinery gas streams. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

Refined Petroleum Product Supplied. Total refined petroleum product supplied is the sum of all refined petroleum products supplied. For each product, the amount supplied is calculated by adding production, imports, and crude oil burned directly; and subtracting exports and changes in primary stocks (net withdrawals is a plus quantity and net additions is a minus quantity).

Refiner Acquisition Cost. 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.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. Included are products known as No. 5 and No. 6 fuel oils that conform to ASTM Specification D396 and Navy Special Fuel Oil specifications, as well as Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include imported crude oil burned as fuel.

Rotary Rig. A machine, used for drilling wells, that employs a rotating tube attached to a bit for boring holes through rock.

Startup Test Phase of Nuclear Powerplant. A nuclear powerplant that has been licensed by the Nuclear Regulatory Commission to operate, but that is in the initial testing phase during which 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 powerplant in the rate base calculation.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Supplemental Gaseous Fuels. Mainly synthetic natural gas, propane-air, and refinery gas. May also include coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization.

Synthetic Natural Gas (SNG). A product resulting from the manufacture, conversion, or reforming of hydrocarbons that may be easily substituted for, or interchanged with, pipeline-quality natural gas.

Unaccounted for Crude Oil. Represents the arithmetic difference between the indicated demand for crude oil and the total disposition of crude oil. Indicated demand is the sum of crude oil production and imports less changes in crude oil stocks. Total disposition of crude oil is the sum of refinery crude oil input, exports of crude oil, crude oil burned as fuel, and crude oil losses.

Wells, Exploratory and Development. Holes drilled for the purpose of finding or producing crude oil or natural gas. They include wells classified as oil wells, gas wells, or dry holes.

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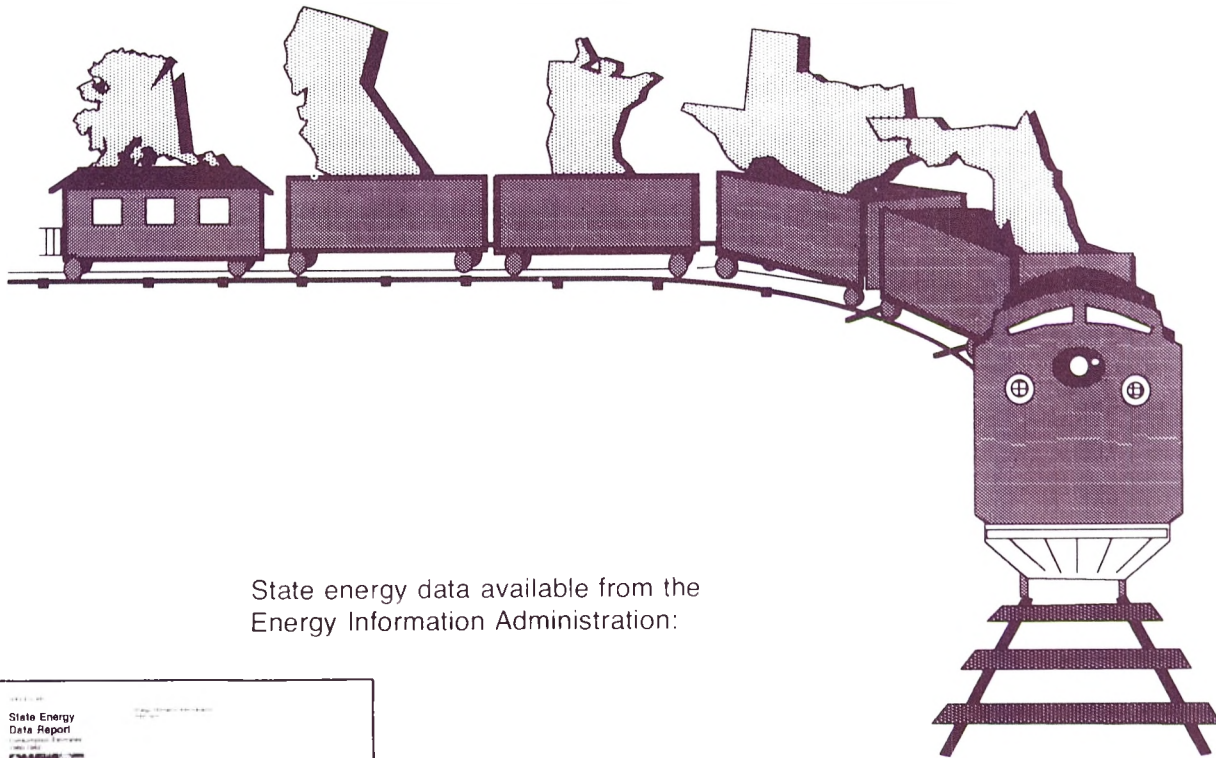
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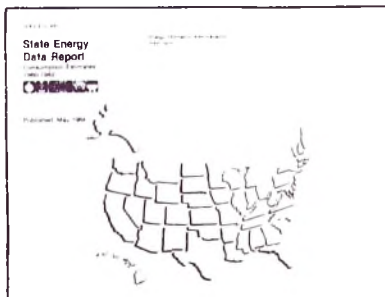
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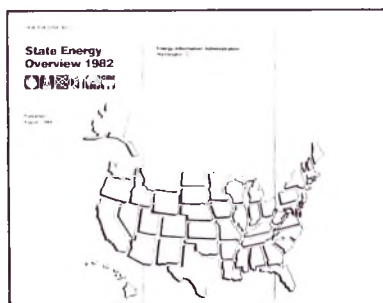
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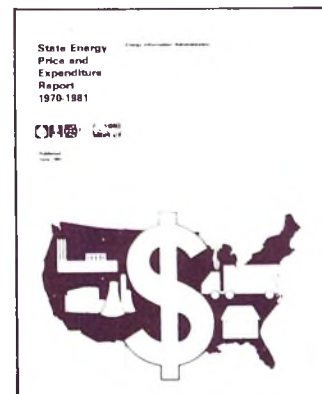
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State Energy Overview 1982. Selected energy-related data for the United States, each State, and the District of Columbia: energy production and consumption; fuel reserves; summary energy expenditures and prices; and energy-related information such as motor vehicle registration. Published: August 1984. 452 pp. \$13.00. GPO Stock No. 061-003-00399-1.



State Energy Price and Expenditure Report 1970-1981. Annual State, District of Columbia, and U.S. totals for energy prices and expenditures. Data are also presented by type of energy source, including petroleum products, and economic sector. Published: June 1984. 241 pp. \$8.00. GPO Stock No. 061-003-00385-1.

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