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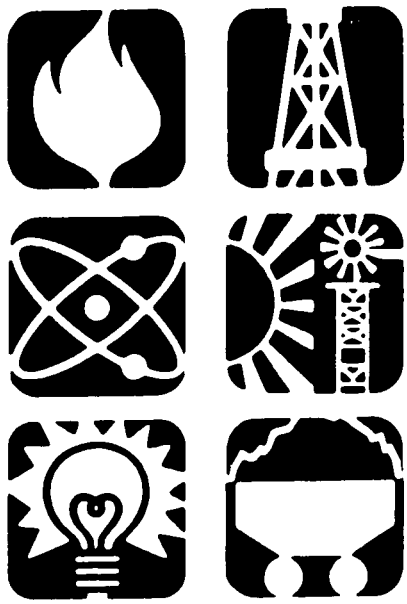
Monthly Energy Review

Energy Information Administration
Washington, DC

June 1986

First Half 1986 Summaries



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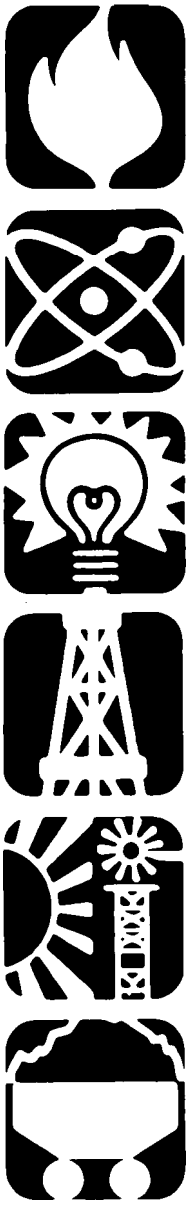

Monthly Energy Review

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.

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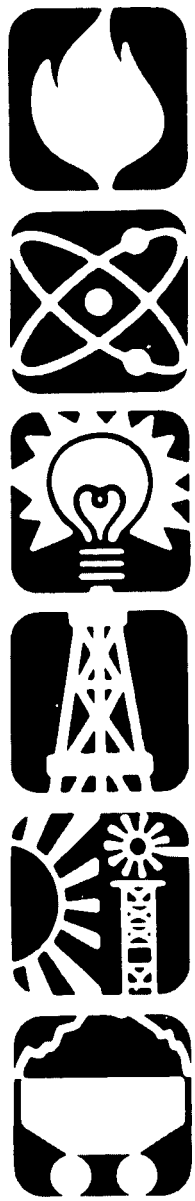

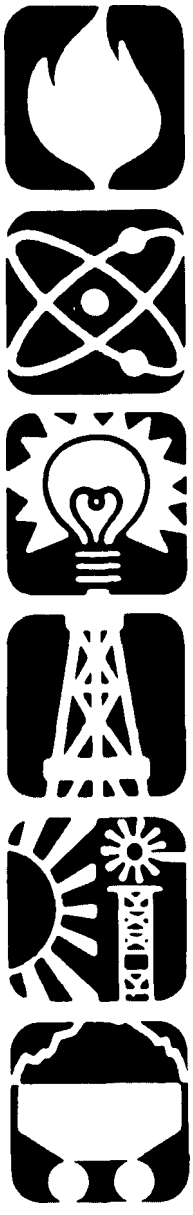

Articles

Feature articles on energy-related subjects are occasionally included in this publication. The following articles have appeared in issues since the beginning of 1981. A list of the articles included 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
Impacts of Financial Constraints on the Electric Utility Industry	October	1982
The Effect of Weather on Energy Use	April	1983
Trends in U.S. Energy Since 1973	May	1983
Data Series on Petroleum Use at Electric Utilities	July	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
Estimating Well Completions	March	1985
State Motor Gasoline Taxes, 1960–1985	March	1986

Highlights

Summaries of Energy Information Administration reports have appeared as "Highlights" in this publication since 1982. The following is a list of all the reports that have been summarized in previous issues.

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	September	1982
Energy Company Development Patterns in the Postembargo Era, Volume One	November	1982
Residential Energy Consumption Survey: Consumption and Expenditures	January	1983
Residential Energy Consumption Survey: Housing Characteristics	February	1983
Energy Price and Expenditure Data Report, 1970–1980	July	1983
Railroad Deregulation: Impact on Coal	August	1983
Port Deepening and User Fees: Impact on U.S. Coal Exports	August	1983
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report	September	1983
Annual Energy Review 1983	February	1984
State Energy Data Report, Consumption Estimates, 1960–1982	March	1984
Annual Energy Outlook 1983	March	1984
State Energy Price and Expenditure Report, 1970–1981	May	1984
Solar Collector Manufacturing Activity 1983	June	1984
Estimates of U.S. Wood Energy Consumption, 1980–1983	September	1984
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Energy Conservation Indicators 1983 Annual Report	November	1984
Annual Energy Outlook 1984	December	1984
Annual Energy Review 1984	January	1985
Performance Profiles of Major Energy Producers 1983	February	1985
State Energy Price and Expenditure Report 1970–1982	March	1985
State Energy Data Report, Consumption Estimates, 1960–1983	April	1985
Annual Outlook for U.S. Electric Power 1985	June	1985
Short-Term Energy Outlook, Volume 1, October 1985	August	1985
Analysis of Growth in Electricity Demand, 1980–1984	August	1985
Profiles of Foreign Direct Investment in U.S. Energy 1984	November	1985
Performance Profiles of Major Energy Producers 1984	December	1985

The Impact of Low Oil Prices on Electric Utility Fuel Choice

Abstract

The precipitous drop in crude oil prices in the beginning of 1986 resulted in a decline in fuel oil prices. Many electric utilities that could burn fuel oil took advantage of the lower prices and increased their oil-fired generation, displacing some gas-fired generation.

This article discusses how lower oil prices affected electric utility oil-fired generation, fuel consumption, and fuel purchase patterns during March through May 1986.

Introduction

During the first 5 months of 1986, crude oil prices plummeted, which led to a corresponding drop in fuel oil prices. The average price of fuel oil delivered to steam electric plants (50-megawatt capacity or larger) fell from $25.15 per barrel in January to $19.25 per barrel in February, and continued to fall in subsequent months, reaching $14.02 per barrel in May (Figure 1).[1]

Although oil prices declined in January and February 1986, electric utilities did not respond to the decline until March 1986, when some utilities with dual-fired oil and natural gas capacity switched from natural gas to oil. From March through May 1986, electric utility oil consumption averaged 547 thousand barrels per day, 44 percent above the level during the same period in 1985. Increased electric utility oil consumption brought about a commensurate increase in oil-fired electricity generation during the period. The share of oil-fired generation rose from 3 percent of total generation in March through May 1985 to 5 percent during the same period in 1986.[2]

[1]Unless otherwise indicated, generation, consumption, and stock data are taken from Energy Information Administration, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Volume and price data for fossil fuel purchases are taken from Energy Information Administration, FERC Form-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and predecessor forms.

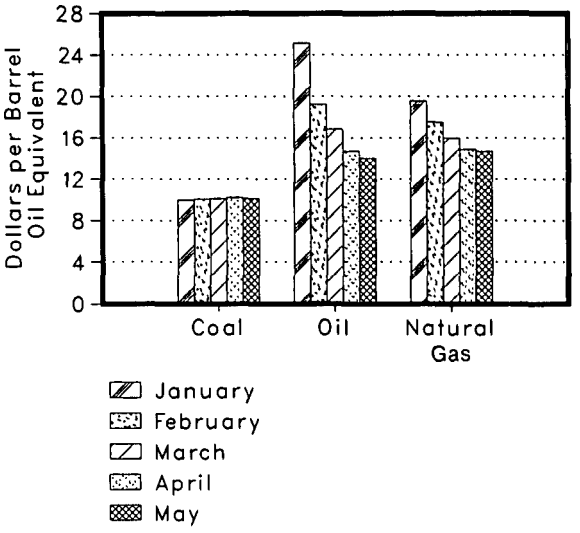
[2]This analysis is based on March through May 1986 data, which were the most current available.

The 1986 increase in oil-fired generation represented a temporary reversal of electric utility fuel consumption trends that had been evident since the late 1970's. Oil-fired generation peaked in 1978, accounting for 17 percent of total electricity generation in the United States. As a result of rapidly increasing oil prices and increases in coal-fired and nuclear-powered capacity, oil-fired generation fell to only 4 percent of the total in 1985.

The increased consumption of fuel oil from March through May 1986 resulted in lower levels of natural gas consumption. Although the price of natural gas also fell during the early months of 1986, it did not decline as rapidly as the price of oil. As a result, natural gas was displaced by oil in some electric utility markets. During March through May 1986, natural gas consumption at electric utilities declined by about 79 billion cubic feet,[3] compared to the level during the same 3-month period in 1985.

[3]Natural gas consumption of 79 billion cubic feet is equivalent to 142 thousand barrels of oil per day.

Figure 1. Prices of Fossil Fuels Delivered to Steam Electric Utility Plants, January-May 1986



Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Short-Term Fuel Choices

Electric utilities can generate electricity from different plant types that depend on a variety of energy sources. For example, plants that produce electricity from hydropower have the lowest costs and are used whenever possible. Coal-fired and nuclear plants are used next; they are more expensive to operate than hydroelectric facilities because they require the purchase of fuels. Finally, when demand for electricity exceeds the level that can be met by hydroelectric, coal-fired, or nuclear plants, oil-fired and gas-fired plants are used.

Most electric utilities have the flexibility to use various fuels and can change their order of dispatch to use one type of plant more extensively than others. In addition, some fossil fuel plants have multifuel boilers capable of using more than one type of fuel. Electric utilities operating multifuel boilers that are capable of burning oil can respond to falling oil prices by switching to that fuel.

At the end of 1985, electric utility generating capacity able to burn oil continuously (for more than 30 days) represented 17 percent of the total generating capacity. About 37 gigawatts could burn only oil; an estimated 64 gigawatts could burn oil or natural gas; and about 11 gigawatts could burn oil or coal. Although switching between coal and oil is possible, switching between oil and natural gas is more likely since the price of coal is still below the price of oil.[4]

Consumption of oil by electric utilities is also influenced by the cost of bulk power purchases and the availability of less expensive sources of power. When the price of oil is low enough to eliminate savings from bulk power purchases fueled by coal, electric utilities can generate power with their own oil-fired plants instead. If less expensive sources of capacity are not available, for example, because of shutdowns or refueling of nuclear-powered plants, electric utilities can use available oil-fired plants to replace those sources.

The increased use of a given fuel by electric utilities results in more spot-market activity. Spot-market transactions are short-term arrangements that allow buyers to adjust their fuel supplies quickly by obtaining additional quantities or, in some instances, to back out of purchases to take advantage of lower prices for alternate fuels. Thus, spot-market transactions provide an indication of the immediate impact of lower fuel prices. From March through May 1986, spot-market sales of fuel oil almost tripled compared to the same period in 1985. During the same period, spot-market purchases of coal increased 15 percent (Table 1).

Interruptible natural gas purchases, which are similar to spot-market transactions in that they are flexible, short-term arrangements, frequently compete with spot purchases of fuel oil for the electric utility market. Interruptible purchases of natural gas in March through May of 1986 declined by about 18 percent compared to purchases during the same period in 1985.

Changes in Fuel Use

The following section summarizes electric utility fuel use for March through May 1986 and compares it to the corresponding period in 1985. Data are aggregated by Census Division (Figure 2). Emphasis is given to divisions where falling oil prices had the largest impact; special attention is given to States that reflect the dominant patterns within their respective divisions.

Falling oil prices resulted in increased oil-fired generation in several areas of the United States during March through May 1986. The largest quantitative increases occurred in the New England, Middle Atlantic, South Atlantic, and Pacific Contiguous Census Divisions. Those four divisions accounted for 91 percent of total U.S. oil-fired generation during the 3-month period.

New England

In 1985, New England was the only division in the contiguous United States where oil-fired plants provided the largest share (36 percent) of total electricity generation. Although electric utilities in the New England States have been replacing their oil-fired capacity with nuclear-powered and coal-fired capacity, those energy sources represented only 33 percent and 20 percent, respectively, of total generation. For the March through May 1986 period, oil-fired generation reached 8,292 gigawatthours or 40 percent of the division's total generation (Table 2).

The increase in oil-fired generation from 1985 resulted primarily from an 8-percent increase in total electricity generation, and, to a lesser extent, from declines in nuclear-powered and gas-fired generation. Nuclear-powered generation declined because three

[4]Energy Information Administration, Electric Power Division, estimates based on Forms EIA-860, "Annual Electric Generator Report"; EIA-767, "Steam Electric Plant Operation and Design Report"; EIA-759, "Monthly Power Plant Report"; and *Fuel Choice in Steam Electric Generation: Historical Overview*, DOE/EIA-0472 (Washington, DC, August 1985), p. 96.

Table 1. Fossil Fuel Purchases at Electric Utilities by Fuel Type and Census Division, March-May 1986 (Thousand Barrels per Day Oil Equivalent[1] and Percent Change[2])

Census Division	Oil[3]				Natural Gas				Coal			
	Spot		Total		Interruptible		Total		Spot		Total	
New England	36	(51)	148	(41)	1	(-91)	1	(-91)	10	(-48)	71	(-11)
Mid. Atlantic	63	(570)	170	(6)	24	(-53)	72	(-25)	134	(15)	569	(*)
E. N. Central	7	(14)	14	(-5)	4	(-1)	7	(-6)	206	(3)	1,530	(2)
W. N. Central	1	(-78)	3	(-20)	5	(-35)	5	(-29)	35	(-39)	590	(-14)
S. Atlantic	44	(477)	144	(123)	20	(-23)	67	(3)	175	(42)	1,278	(-2)
E. S. Central	1	(87)	2	(50)	*	(252)	8	(-67)	233	(73)	837	(17)
W. S. Central	1	(-36)	1	(-59)	137	(53)	678	(*)	8	(-18)	637	(-5)
Mountain	2	(49)	2	(37)	11	(-11)	17	(-24)	9	(-81)	603	(-13)
Pacific Contiguous	18	(168)	18	(39)	152	(-32)	152	(-32)	5	(NM)	34	(22)
Pacific Non-contiguous	3	(NM)	29	(36)	0	(NM)	0	(NM)	0	(NM)	0	(NM)
U.S. Total	**176**	**(189)**	**531**	**(37)**	**354**	**(-18)**	**1,007**	**(-12)**	**815**	**(15)**	**6,149**	**(-2)**

[1]For comparison, quantities of natural gas, petroleum coke, and coal are expressed in barrels per day of oil equivalent. The following heat contents were used to perform the conversions: 6.247 million British thermal units (Btu) per barrel of oil; 1,035 Btu per cubic foot of natural gas; and, for petroleum coke, 28.4014 million Btu per short ton (for 1985 data) and 28.0728 million Btu per short ton (for 1986 data). Coal data in short tons were converted to barrels per day of oil equivalent using weighted average heat contents for coal delivered to electric utilities; the heat contents used varied by Census Division.

[2]Percent change from the level during the same period in 1985 is shown in parentheses.

[3]Includes petroleum coke.

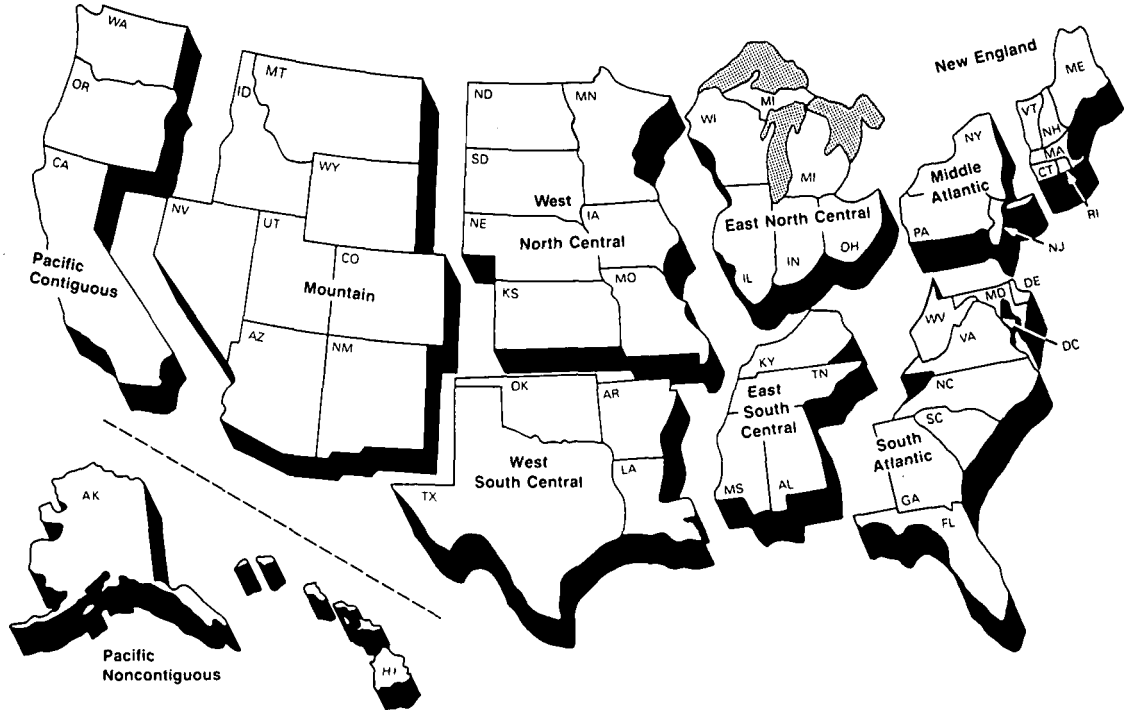
NM=Not meaningful.

*=Number less than 0.5 rounded to zero.

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

Source: Federal Energy Regulatory Commission, FERC Form 423 "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Figure 2. U.S. Census Divisions



Source: U.S. Bureau of the Census

nuclear-powered plants in the division were shut down for refueling and maintenance.[5]

In March through May 1986, electric utility oil consumption averaged 148 thousand barrels per day, an increase of 40 percent from March through May 1985 (Table 3). Electric utilities met most of their higher fuel oil requirements by purchasing more fuel oil on the spot market. By May 1986, the average spot-market price for fuel oil had fallen to $13.60 per barrel. Spot-market purchases of fuel oil were 36 thousand barrels per day in March through May of 1986, a 51-percent increase from the level during the 1985 period (Table 1).

Even though coal prices remained lower than natural gas and oil prices during the 3-month period in 1986, coal purchases declined. At the same time, consumption of coal increased, indicating that some electric utilities reduced coal stockpile levels. In May 1986, New England Power Company began negotiating with its coal suppliers and railroads for contracts that would provide more flexible price adjustments in response to lower oil prices.[6]

Middle Atlantic

Coal-fired and nuclear-powered plants are the primary sources of electricity in the Middle Atlantic Division. In 1985, they accounted for 45 percent and 24 percent, respectively, of total generation. Although the 13-percent share of total generation provided by oil-fired generating capacity is not quite as large as in New England, it is still an important source, particularly in New York.

Oil-fired generation increased from 7,785 gigawatthours in March through May 1985 to 10,100 gigawatthours in the same 3 months of 1986 (Table 2). Some electric utilities with dual-fired oil- and gas-fired plants, particularly in New York, normally burn fuel oil in winter and switch to natural gas in the spring. A considerable decline in gas-fired generation in 1986 indicated that some electric utilities may not have switched back to natural gas in the spring of that year. Through greater utilization of existing oil-fired plants, some utilities also reduced their bulk power purchases of coal-fired generation.

In March through May 1986, electric utility oil consumption totaled 188 thousand barrels per day, an increase of 29 percent compared to consumption during the same months in 1985 (Table 3). By May 1986, the average spot-market price for fuel oil had declined to $13.37 per barrel, and electric utility spot-market purchases of oil increased dramatically. For the 3-month period in 1986, spot purchases represented 37 percent of total fuel oil purchases, compared to 6 percent for the same period in 1985 (Table 1).

South Atlantic

Coal-fired plants are the major source of electricity generation in the South Atlantic Division; they provide about two-thirds of all electricity generation. In 1985,

[5]Connecticut Yankee Atomic Power Company's Haddam Neck Plant, Boston Edison's Pilgrim Plant, and Vermont Yankee Nuclear Power Company's Vermont Yankee Plant.
[6]Pasha Publications, "Coal Outlook" (May 12, 1986), p. 1.

Table 2. Electricity Generation by Fuel Type and Census Division, March–May 1986 (Gigawatthours and Percent Change[1])

Census Division	Oil[2]		Natural Gas		Coal		Nuclear		Hydro-electric		Other[3]		Total	
New England	8,292	(42)	165	(-83)	4,498	(12)	6,483	(-9)	1,510	(8)	17	(-68)	20,966	(8)
Mid. Atlantic	10,100	(30)	3,965	(-24)	28,275	(-13)	17,137	(16)	8,057	(4)	0	(NM)	67,534	(*)
E. N. Central	475	(-7)	266	(-18)	79,648	(*)	16,376	(2)	1,088	(-16)	93	(4)	97,947	(*)
W. N. Central	58	(-16)	219	(-43)	31,353	(-3)	7,743	(27)	2,688	(-26)	17	(29)	42,078	(-1)
S. Atlantic	7,882	(140)	4,250	(6)	69,756	(-2)	26,874	(5)	2,085	(-19)	14	(159)	110,860	(4)
E. S. Central	56	(-13)	447	(-66)	42,080	(7)	3,913	(-41)	2,293	(-28)	0	(NM)	48,788	(-3)
W. S. Central	55	(-74)	37,393	(*)	30,783	(-7)	5,718	(145)	2,193	(-30)	83	(3)	76,224	(*)
Mountain	119	(33)	1,368	(-21)	29,975	(-14)	421	(NM)	13,297	(21)	60	(15)	45,240	(-5)
Pacific Contiguous	922	(111)	8,209	(-35)	-9	(NM)	8,508	(12)	49,737	(20)	2,491	(12)	69,858	(7)
Pacific Non-contiguous	1,777	(3)	693	(7)	62	(-27)	0	(NM)	206	(8)	5	(-63)	2,743	(3)
U.S. Total	**29,736**	**(49)**	**56,976**	**(-12)**	**316,420**	**(-3)**	**93,174**	**(8)**	**83,153**	**(10)**	**2,779**	**(10)**	**582,238**	**(1)**

[1]Percent change from the level during the same period in 1985 is shown in parentheses.
[2]Includes petroleum coke.
[3]Includes geothermal, wood, wind, waste, and solar.
NM=Not meaningful.
*=Number less than 0.5 rounded to zero.
Notes: •Totals may not equal sum of components due to independent rounding. •Negative generation denotes that electric power consumed for plant use exceeds gross generation.
Source: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

only 4 percent of total generation was supplied by oil. Oil-fired generation in March through May 1986 was up 140 percent from the level in March through May 1985 (Table 2).

In 1986, the average spot-market price of fuel oil delivered to generating plants in the division decreased from $28.59 per barrel in January to $13.86 per barrel in May. That decline in oil prices affected natural gas prices. The price of interruptible natural gas delivered to electric utilities fell from $20.08 to $13.64 per barrel of oil equivalent during that period. To be more competitive with other fuel companies, the Florida Gas Transmission Company applied to the Federal Energy Regulatory Commission in March for permission to change its natural gas transmission rates.[7]

Florida is the largest consumer of oil in the division and accounts for about two-thirds of total oil-fired generation. The use of oil by electric utilities more than tripled in Florida, accounting for the entire 140-percent increase in oil-fired generation in the division. It replaced nuclear-powered generation lost through the shutdown of three nuclear-powered plants.[8] Oil-fired generation in Florida also displaced coal-fired bulk power purchases.[9]

Higher generation levels from oil-fired sources were accompanied by increased fuel purchases. Total fuel oil purchases in the March through May 1986 period were up 123 percent from the same 3-month period 1 year earlier (Table 1). Of total fuel oil purchases, spot-market transactions accounted for 31 percent (44 thousand barrels per day).

[7]American Gas Association, "Washington Letter," Vol. XIX, Issue 29 (Arlington, VA, July 18, 1986) p. 8.

Table 3. Fossil Fuel Consumption at Electric Utilities by Fuel Type and Census Division, March–May 1986 (Thousand Barrels per Day Oil Equivalent[1] and Percent Change[2])

Census Division	Oil[3]		Natural Gas		Coal	
New England	148	(40)	4	(-81)	76	(10)
Mid. Atlantic	188	(29)	78	(-24)	510	(-12)
E. N. Central	13	(-13)	8	(-20)	1,466	(2)
W. N. Central	2	(-17)	6	(-37)	607	(-6)
S. Atlantic	137	(117)	80	(2)	1,208	(-2)
E. S. Central	1	(2)	10	(-63)	735	(7)
W. S. Central	2	(-54)	681	(-1)	597	(-6)
Mountain	4	(98)	27	(-19)	560	(-15)
Pacific Contiguous	19	(104)	168	(-31)	*	(*)
Pacific Non-contiguous	33	(4)	17	(17)	2	(-25)
U.S. Total	**547**	**(44)**	**1,079**	**(-11)**	**5,761**	**(-4)**

[1]For comparison, quantities of natural gas, petroleum coke, and coal are expressed in barrels per day of oil equivalent. The following heat contents were used to perform the conversions: 6.247 million British thermal units (Btu) per barrel of oil; 1,035 Btu per cubic foot of natural gas; and, for petroleum coke, 28.4014 million Btu per short ton (for 1985 data) and 28.0728 million Btu per short ton (for 1986 data). Coal data in short tons were converted to barrels per day of oil equivalent using weighted average heat contents for coal delivered to electric utilities; the heat contents used varied by Census Division.

[2]Percent change from the level during the same period in 1985 is shown in parentheses.

[3]Includes petroleum coke.

NM = Not meaningful.

* = Number less than 0.5 rounded to zero.

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

Source: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

Pacific Contiguous

In 1985, the principal source of electricity in the Pacific Contiguous Division was hydroelectric plants, which accounted for 56 percent of total generation. By comparison, natural gas accounted for 24 percent, nuclear for 13 percent, coal for 3 percent, and oil for 1 percent. Virtually all of the division's gas-fired generation occurred in California, where gas-fired plants provided half the State's total generation. Since almost all of California's gas-fired plants can also burn oil continuously, there was considerable potential for fuel switching in that State.

By May 1986, the spot-market price of fuel oil had fallen to $11.42 per barrel, while the oil-equivalent price of interruptible natural gas was $18.17. In March and again in April, the Public Utility Commission of California renewed emergency rate reductions it had approved in February to prevent mass electric utility fuel switching.[10] San Diego Gas and Electric Company, which had switched to fuel oil in February, switched back to natural gas in April only after acquiring lower delivered costs with the approval of the Commission.[11]

Oil-fired generation increased by 111 percent in March through May 1986, compared to the level for March through May 1985 (Table 2). Even though natural gas is the preferred fuel because of stringent air quality standards, gas-fired generation declined by 35 percent during the 3-month period in 1986, as some electric utilities in California switched to oil. Electric utility oil consumption in March through May 1986 averaged 19 thousand barrels per day,

[8]Florida Power and Light Company's St. Lucie and Turkey Point Plants were shut down for refueling and maintenance and Florida Power Corporation's Crystal River Plant was shut down for repairs.

[9]*Wall Street Journal*, "Fuel Oil Use Surges as Firms Abandon Gas," (New York, March 13, 1986).

[10]Federal Energy Regulatory Commission, *Inside FERC*, "Gas Market Report," (Washington, DC: McGraw Hill, April 18, 1986) p. 3.

[11]James T. Chido, "CPUC Decision Lets SDG&E Switch Back to Gas from Resid," *Natural Gas Week* (Washington, DC: The Oil Daily Inc., April 21, 1986) Vol. 2, Number 16, pp. 1, 6.

104 percent more than the level during the same 3-month period in 1985 (Table 3).

Other Divisions

Falling oil prices had very little impact in the East South Central, East North Central, West North Central, and Mountain Divisions, where coal-fired plants provide most of the electricity. During March through May 1986, oil-fired plants accounted for less than 1 percent of total electricity generation in those divisions.

In the West South Central Division, gas-fired plants supplied most of the electricity during March through May 1986 (Table 2). Most of the natural gas consumed by electric utilities is produced within the division, particularly in Texas and Louisiana. Because natural gas suppliers in those two States were able to keep the price of natural gas competitive with the price of oil, oil-fired generation actually decreased, an exception to the overall national pattern of the period.

In the Pacific Noncontiguous States, oil-fired generation increased during March through May 1986 by 3 percent, because total generation increased in Hawaii, where oil-fired generation is predominant (Table 2). The Pacific Noncontiguous Division accounted for only 6 percent of total oil-fired generation in the United States during March through May 1986.

Summary

Lower international and domestic oil prices during March through May 1986 led to a dramatic rise in electric utility oil consumption, particularly in the New England, Middle Atlantic, South Atlantic, and Pacific Contiguous Divisions. Higher electric utility fuel oil demand was met primarily through increased spot-market transactions. The availability of competitively priced fuel oil enabled some electric utilities to negotiate more favorable rates for other fuels, particularly natural gas. During the spring of 1986, natural gas suppliers were exploring ways to reduce delivery costs further to remain competitive with oil. However, if the price of crude oil were to return to pre-1986 levels, the 1978-1985 trend of declining fuel oil consumption might resume.

For Further Information

This article was written by the Operations Analysis Team of the Electric Power Division, Energy Information Administration. Questions pertaining to the article should be directed to Arthur Fuldner, Operations Analysis Team Leader (202) 252-9852. A related article, "Utility Fuel Choice With Lower Oil Prices," was published in the 1986 first quarter issues of the *Electric Power Quarterly* and the *Quarterly Coal Report.*

U.S. Energy Industry Financial Developments, 1986 Second Quarter

Overview

Primary economic indicators[1] increased modestly during the second quarter of 1986 compared with the second quarter of 1985. Real gross national product was up 2.6 percent, the index of manufacturing activity was up 1.5 percent, and real disposable income was up 3.0 percent.

At the same time, energy prices[2] in most sectors declined sharply. The refiners' acquisition cost of crude oil fell to $12.90 per barrel, down 52.1 percent from the price during the second quarter of 1985 (Figure 1). The prices of natural gas and coal delivered to electric utilities were down 31.1 percent and 3.6 percent, respectively. Other energy prices were stable or rose only modestly.

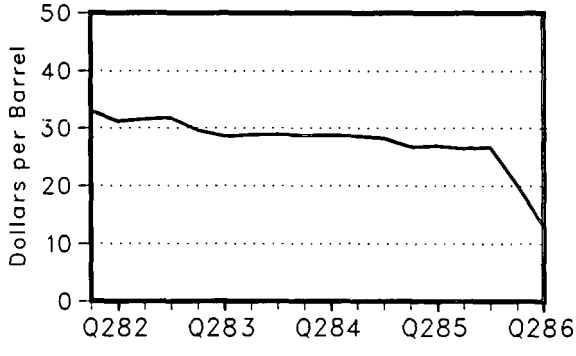
With slow economic growth and falling energy prices, income[3] for the energy companies included in this review was down 26.6 percent (Table 1). Only the seven companies in the coal segment reported substantially improved second-quarter income in 1986 compared with 1985.

[1]Statistics on economic indicators were obtained from Data Resources, Inc., U.S. Central Data Bank, variables GNP82, JQINDM, and YD82, August 1986.

[2]Where data on prices and physical quantities were not yet available for the entire second quarter of 1986, estimates were obtained from Energy Information Administration, *Short-Term Energy Outlook* Quarterly Projections, July 1986, DOE/EIA-0202(86/3Q) (Washington, DC, August 1986), p. 25. Those estimates are not anticipated to be significantly different from final data.

[3]Income is net income from continuing operations, excluding extraordinary gains or losses.

Figure 1. U.S. Refiners' Acquisition Cost of Crude Oil, 1982-1986



Source: Energy Information Administration, *Short-Term Energy Outlook* Quarterly Projections, July 1986, DOE/EIA-0202(86/3Q) (Washington, DC, August 1986), p. 24.

This article traces key financial trends in the U.S. energy industry as a whole and in four major energy sectors—petroleum (including natural gas production), natural gas transmission and distribution, coal, and electric utilities. Financial data from 202 energy companies are included (see box).

Table 1. Income by Segment, 202 Companies, Second Quarters, 1985 and 1986 (Million Dollars)

Segment	Q286	Q285	Percent Change
Petroleum			
Majors	3,617.0	5,573.1	-35.1
Independents	-74.9	379.6	(1)
Subtotal Petroleum	3,542.1	5,952.7	-40.5
Natural Gas Transmission and Distribution	90.1	315.7	-71.5
Coal	42.5	-8.1	(1)
Electric Utilities	3,309.4	3,253.2	1.7
Total	6,984.2	9,513.5	-26.6

[1]Calculation of percent change not meaningful.

Notes: •Totals may not equal sum of components due to independent rounding. •Percentage changes were calculated from unrounded data.

Source: Companies' quarterly reports to stockholders and "Earnings Digest," *Wall Street Journal* (various issues, July and August 1986).

The Companies

This article analyzes public data from 82 electric utilities, 15 natural gas transmission companies, 24 natural gas distribution companies, 16 independent petroleum producers, 9 refiners and marketers, 27 oilfield services companies, 7 coal producers, and 22 major petroleum firms. The petroleum companies considered "major" in this analysis are Amerada Hess, American Petrofina, Amoco, Arco, Chevron, Coastal, Diamond Shamrock, Du-Pont, Exxon, Kerr McGee, Mobil, Murphy, Occidental, Pennzoil, Phillips, Shell, Sohio, Sun, Texaco, U.S. Steel, Union Pacific, and Unocal.

The assignment of companies to particular industry subgroups was based on revenue; many of the companies generate revenue from other industry subgroups as well.

Petroleum

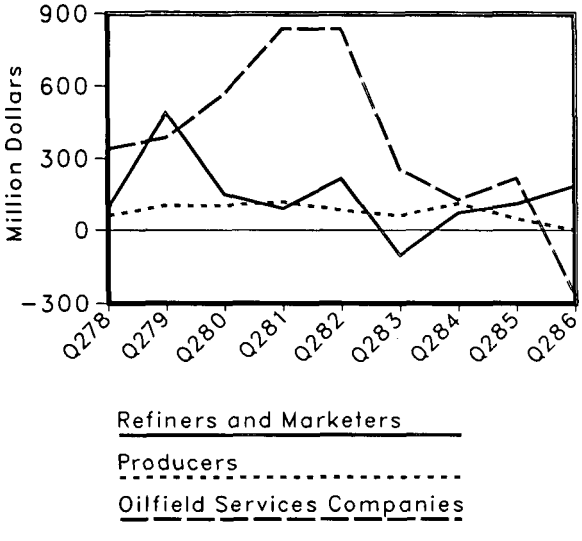
As a whole, the petroleum industry reported a 40.5-percent decline in second-quarter income in 1986 compared with 1985, due to a steep decline in oil and natural gas prices. Because prices were lower, domestic crude oil production fell 3.1 percent and drilling activity was at its lowest level in more than three decades.

Results for the independent petroleum companies varied by segment (Figure 2). Independent producers included in this review reported second-quarter income of $2.2 million in 1986, down 95.4 percent relative to the level during the same quarter of 1985. Oilfield services companies, which reported income of $219.0 million in the second quarter of 1985, experienced losses of $264.8 million in the second quarter of 1986.

In contrast, independent refiners and marketers registered a rise in income. That segment's 67.3-percent increase in income (from $112.2 million in the second quarter of 1985 to $187.7 million in the second quarter of 1986) was due to higher refinery utilization rates and to improved refinery product margins.

Major oil companies' income fell 35.1 percent to $3.6 billion (Table 1). Improved profitability of domestic and foreign refining and marketing operations could not offset the substantial declines in oil and gas production operations. Lower crude oil prices prompted the major companies to reduce their investment outlays, especially for oil and gas exploration. For 13 major petroleum companies reporting worldwide capital and exploratory expenditures, outlays were down 14.5 percent for the second quarter of 1986 compared with the second quarter of 1985.[4]

Figure 2. Independent Petroleum Companies' Income, Second Quarter, 1978-1986



Source: Companies' quarterly reports to stockholders; "Earnings Digest," *Wall Street Journal* (various issues, July and August 1986); and Standard & Poor's Compustat Services, Inc., COMPUSTAT II Quarterly Data Item 25 (Income Before Extraordinary Items), August 1986.

Natural Gas

Natural gas transmission and distribution companies' second-quarter income fell to $90.1 million in 1986, down 71.5 percent from the second quarter of the previous year. That substantial decline occurred primarily as a result of falling crude oil prices, which prompted some transmission companies to trim rates to large customers in order to forestall fuel switching.

Coal

Seven independent coal producers reported second-quarter 1986 income of $42.5 million, up from a loss of $8.1 million in the second quarter of 1985. Similarly, income from coal operations of seven major petroleum companies reporting such data totaled $116.9 million, up 24.9 percent compared with the second quarter of 1985.[5] The increases took place despite declines in the average price of coal[6] and were attributable to improved labor productivity, the closing of unprofitable mines, and other cost reductions.

Electric Utilities

The electric utilities' second-quarter 1986 income totaled $3.3 billion, up 1.7 percent from the second quarter of 1985. The increase was due primarily to the decline in fuel prices paid by electric utilities, a 0.8-percent increase in residential electricity prices, and a 2.5-percent increase in net generation.[7]

[4]Compiled from companies' quarterly reports to stockholders.
[5]Companies' quarterly reports.
[6]Energy Information Administration, *Short-Term Energy Outlook* Quarterly Projections, July 1986, DOE/EIA-0202(86/3Q) (Washington, DC, August 1986), p. 25.
[7]Energy Information Administration, *Short-Term Energy Outlook*, pp. 25 and 35.

For Further Information

This article was prepared by the Economics and Statistics Division, Office of Energy Markets and End Use, Energy Information Administration. Inquiries regarding the article may be addressed to Mr. Crawford Honeycutt on (202) 252-1420.

Part 1 Energy Summary

First Half 1986 Summary

U.S. energy production during the first half of 1986 was 32.4 quadrillion British thermal units (Btu), slightly below[1] the level during the first half of 1985 (see summary table below). Consumption of energy totaled 37.0 quadrillion Btu, down 0.6 percent from consumption during the first half of 1985 and well below the 40.5 quadrillion Btu consumed during 1979, when first-half consumption peaked (Figure 1).

The change in net imports of energy was more dramatic. Net imports totaled 4.4 quadrillion Btu in the first half of 1986, up 14.2 percent from the level during the first half of 1985. However, net imports remained significantly below the all-time high for first-half net imports (9.3 quadrillion Btu) reached in 1977.

[1]All statistics for 1986 are preliminary. Percentage changes are calculated using daily rates prior to rounding.

Production

Most energy prices declined substantially, and production of two of the three major fossil fuels registered decreases in the first half of 1986 compared with the first half of 1985. Natural gas production fell to 8.4 quadrillion Btu, down 2.3 percent. Petroleum production fell to 10.4 quadrillion Btu, down 1.2 percent, due to crude oil production declines in the Lower-48 States; production of natural gas plant liquids and Alaskan crude oil was essentially unchanged. In contrast to natural gas and petroleum, coal production increased 1.0 percent to 9.8 quadrillion Btu.

Nuclear-based electricity generation rose to an all-time high for first-half generation in 1986. Oil-fired electricity generation also increased, reversing a 7-year decline in first-half generation. In contrast, coal-fired generation at electric utilities was down slightly from the record level attained in the first half of 1985.

Energy Summary
(Quadrillion (10^{15}) Btu)

	June			Cumulative January through June				
	1986	1985	Percent Change[1]	1986	1986 Daily Rate	1985	1985 Daily Rate	Percent Change[1]
Total Production	**5.234**	**5.270**	**-0.7**	**32.423**	**0.179**	**32.511**	**0.180**	**-0.3**
Petroleum[2]	1.707	1.752	-2.6	10.433	0.058	10.562	0.058	-1.2
Natural Gas (Dry)	1.318	1.315	0.2	8.403	0.046	8.596	0.047	-2.3
Coal	1.578	1.607	-1.8	9.775	0.054	9.679	0.053	1.0
Other[3]	0.631	0.597	5.7	3.812	0.021	3.673	0.020	3.8
Total Consumption	**5.796**	**5.688**	**1.9**	**36.950**	**0.204**	**37.162**	**0.205**	**-0.6**
Petroleum[4]	2.585	2.502	3.3	15.561	0.086	15.281	0.084	1.8
Natural Gas[5]	1.093	1.123	-2.7	8.947	0.049	9.491	0.052	-5.7
Coal	1.457	1.432	1.8	8.435	0.047	8.530	0.047	-1.1
Other[6]	0.661	0.631	4.7	4.007	0.022	3.860	0.021	3.8
Net Imports	**0.948**	**0.618**	**53.4**	**4.350**	**0.024**	**3.808**	**0.021**	**14.2**
Petroleum[7]	1.065	0.728	46.2	4.883	0.027	4.244	0.023	15.1
Natural Gas	0.041	0.060	-31.7	0.336	0.002	0.481	0.003	-30.3
Coal[8]	(0.188)	(0.205)	(-8.2)	(1.063)	(0.006)	(1.104)	(0.006)	(-3.7)
Other[9]	0.030	0.034	-12.8	0.195	0.001	0.187	0.001	4.3

[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 electric power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
[4]Includes petroleum products.
[5]Includes supplemental gaseous fuels.
[6]Other is hydroelectric and nuclear electric 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, petroleum products, pentanes plus, unfinished oils, gasoline blending components, 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.

Consumption

Despite continued modest growth in the U.S. economy, total energy consumption declined in the first half of 1986, and energy consumption per dollar of gross national product fell to 20.3 thousand Btu per 1982 dollar. By comparison, the 1973 ratio was 27.1 thousand Btu per 1982 dollar.

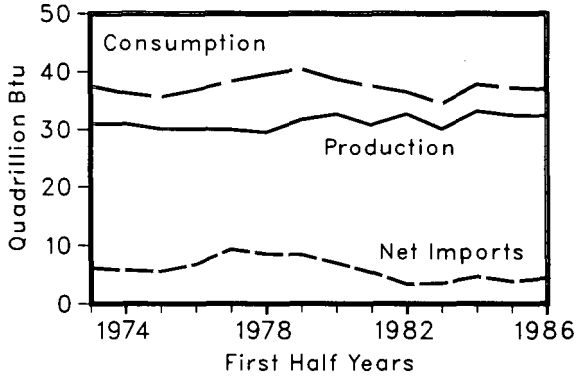
Natural gas consumption fell to 8.9 quadrillion Btu in the first half of 1986, down 5.7 percent from the level in the first half of 1985. Coal consumption fell to 8.4 quadrillion Btu, down 1.1 percent. The declines in consumption of natural gas and coal were partially offset by a 1.8-percent increase in petroleum consumption, which rose to 15.6 quadrillion Btu in the first half of 1986.

Trade

Energy net imports in the first half of 1986 were 14.2 percent higher than in the first half of 1985. The increase was due to a 15.1-percent increase in petroleum net imports and a 3.7-percent decrease in coal net exports, which more than offset a 30.3-percent fall in natural gas net imports.

The composite refiners' acquisition cost of crude oil fell to $12.83 per barrel in June 1986, compared with $26.69 per barrel in June 1985. Despite the decline in oil prices, an energy trade deficit of $16.4 billion was recorded for the first half of 1986.

Figure 1. U.S. Energy Production, Consumption, and Net Imports, First Half Years, 1973-1986



Note: 1986 data are preliminary.
Source: Energy Information Administration calculations based on data reported elsewhere in Part 1 of this publication.

Net imports of petroleum reached 4.7 million barrels per day in the first half of 1986, up from 4.1 million barrels per day in the first half of 1985. Crude oil net imports rose from 2.8 million barrels per day to 3.5 million barrels per day, while petroleum product net imports declined from 1.3 million barrels per day to 1.2 million barrels per day.

Petroleum net imports from all members of the Organization of Petroleum Exporting Countries (OPEC) averaged 2.4 million barrels per day. Petroleum net imports from Arab members alone averaged 1.0 million barrels per day, up from 0.4 million barrels per day during the first half of 1985.

As a percent of U.S. petroleum products supplied, petroleum net imports from all countries rose to 29.5 percent, up from 26.2 percent in the first half of 1985. Net imports from OPEC equaled 14.9 percent of U.S. petroleum products supplied in the first half of 1986, up from 10.3 percent in the first half of 1985, and net imports from Arab members of OPEC rose from 2.8 percent to 6.2 percent. However, U.S. dependence on foreign petroleum supplies remained below levels recorded in the 1970's.

Costs to End Users

As the prices of crude oil and natural gas declined during the first half of 1986, the costs of energy to end users also declined. The price of leaded regular motor gasoline in June 1986 averaged $0.89 per gallon, down from $1.15 per gallon in June 1985. The price of natural gas sold to residential customers also declined, from $6.96 per thousand cubic feet to $6.65 per thousand cubic feet. The price of electricity to end users was essentially unchanged at about 7 cents per kilowatthour. On a dollar-per-Btu basis, electricity remained one of the most expensive sources of energy.

Outlook

According to the Energy Information Administration's July *Short-Term Energy Outlook*, total U.S. energy consumption for 1986 is projected to increase from the 1985 level by 1 percent to 74.9 quadrillion Btu. Demand for petroleum products is projected to increase to 16.2 million barrels per day and domestic petroleum production is projected to decrease to 8.8 million barrels per day from 1985 levels. As a result, petroleum net imports are projected to average nearly 5.1 million barrels per day in 1986, up sharply from the 1985 level of 4.3 million barrels per day.

Energy Summary

Production of Energy by Source—Quarterly Summary

		Coal	Crude Oil[1]	NGPL[2]	Natural Gas (Dry)	Hydro-electric Power[3]	Nuclear Electric Power	Other[4]	Total
					Quadrillion (10^{15}) Btu				
1973	**Total**	**13.993**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**62.060**
1974	**Total**	**14.074**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**60.835**
1975	**Total**	**14.990**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**59.860**
1976	**Total**	**15.654**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**59.891**
1977	**Total**	**15.755**	**17.454**	**2.327**	**19.565**	**2.333**	**2.702**	**0.082**	**60.219**
1978	**Total**	**14.910**	**18.434**	**2.245**	**19.485**	**2.937**	**3.024**	**0.068**	**61.103**
1979	1st Quarter	4.028	4.455	0.550	5.084	0.756	0.849	0.020	15.742
	2nd Quarter	4.583	4.502	0.570	4.953	0.831	0.539	0.021	15.998
	3rd Quarter	4.262	4.524	0.571	4.889	0.660	0.727	0.023	15.654
	4th Quarter	4.667	4.623	0.595	5.151	0.684	0.661	0.025	16.406
	Total	**17.539**	**18.104**	**2.286**	**20.076**	**2.931**	**2.776**	**0.089**	**63.800**
1980	1st Quarter	4.619	4.588	0.578	5.287	0.746	0.644	0.024	16.486
	2nd Quarter	4.753	4.552	0.571	4.885	0.864	0.605	0.028	16.258
	3rd Quarter	4.449	4.549	0.547	4.706	0.666	0.752	0.031	15.701
	4th Quarter	4.776	4.559	0.558	5.029	0.624	0.738	0.032	16.316
	Total	**18.597**	**18.249**	**2.254**	**19.907**	**2.900**	**2.739**	**0.114**	**64.761**
1981	1st Quarter	4.799	4.481	0.581	4.995	0.678	0.743	0.033	16.310
	2nd Quarter	3.032	4.519	0.570	4.942	0.754	0.679	0.031	14.527
	3rd Quarter	5.233	4.569	0.575	4.881	0.683	0.821	0.033	16.795
	4th Quarter	5.313	4.577	0.581	4.880	0.644	0.765	0.030	16.790
	Total	**18.377**	**18.146**	**2.307**	**19.699**	**2.758**	**3.008**	**0.127**	**64.422**
1982	1st Quarter	4.943	4.502	0.547	4.916	0.879	0.760	0.023	16.570
	2nd Quarter	4.813	4.561	0.537	4.572	0.884	0.747	0.025	16.137
	3rd Quarter	4.479	4.623	0.541	4.385	0.749	0.840	0.030	15.647
	4th Quarter	4.405	4.624	0.566	4.382	0.745	0.785	0.030	15.536
	Total	**18.639**	**18.309**	**2.191**	**18.255**	**3.256**	**3.131**	**0.108**	**63.890**
1983	1st Quarter	4.241	4.550	0.541	4.215	0.922	0.776	0.028	15.273
	2nd Quarter	4.121	4.587	0.526	3.851	0.970	0.747	0.026	14.828
	3rd Quarter	4.385	4.642	0.553	4.040	0.798	0.838	0.041	15.297
	4th Quarter	4.503	4.613	0.564	4.424	0.812	0.842	0.039	15.796
	Total	**17.250**	**18.392**	**2.184**	**16.530**	**3.502**	**3.203**	**0.133**	**61.194**
1984	1st Quarter	4.911	4.646	0.555	4.682	0.908	0.923	0.039	16.664
	2nd Quarter	5.068	4.693	0.560	4.393	0.934	0.818	0.041	16.507
	3rd Quarter	5.385	4.746	0.576	4.342	0.758	0.943	0.044	16.793
	4th Quarter	4.359	4.763	0.582	4.515	0.711	0.870	0.050	15.849
	Total	**19.723**	**18.848**	**2.274**	**17.931**	**3.312**	**3.553**	**0.174**	**65.814**
1985	1st Quarter	4.673	4.672	0.554	4.541	0.806	1.063	0.052	16.360
	2nd Quarter	5.006	4.785	0.551	4.056	0.772	0.932	0.048	16.151
	3rd Quarter	4.886	4.750	0.553	4.018	0.621	1.133	0.053	16.013
	4th Quarter	4.823	4.785	0.578	R4.335	0.705	1.032	0.060	R16.318
	Total	**19.388**	**18.992**	**2.235**	**R16.950**	**2.903**	**4.160**	**0.213**	**R64.841**
1986	1st Quarter	R5.017	4.667	0.576	R4.361	0.759	1.081	0.062	R16.523
	2nd Quarter	4.758	4.647	0.544	4.042	0.837	1.016	0.056	15.900

[1]Includes lease condensate.
[2]Natural gas plant liquids.
[3]Includes industrial and utility production of hydroelectric power.
[4]Other is 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	Other[3]	Total
					Quadrillion (10^{15}) Btu			
1973	**Total**	**12.971**	**22.512**	**34.840**	**3.010**	**0.910**	**0.039**	**74.282**
1974	**Total**	**12.663**	**21.732**	**33.455**	**3.309**	**1.272**	**0.112**	**72.543**
1975	**Total**	**12.663**	**19.948**	**32.731**	**3.219**	**1.900**	**0.086**	**70.546**
1976	**Total**	**13.584**	**20.345**	**35.175**	**3.066**	**2.111**	**0.081**	**74.362**
1977	**Total**	**13.922**	**19.931**	**37.122**	**2.515**	**2.702**	**0.097**	**76.289**
1978	**Total**	**13.765**	**20.000**	**37.965**	**3.141**	**3.024**	**0.193**	**78.088**
1979	1st Quarter	3.769	6.648	10.072	0.808	0.849	0.029	22.174
	2nd Quarter	3.572	4.423	8.837	0.883	0.539	0.046	18.300
	3rd Quarter	3.876	4.085	8.879	0.713	0.727	0.047	18.326
	4th Quarter	3.823	5.510	9.337	0.737	0.661	0.030	20.098
	Total	**15.039**	**20.666**	**37.123**	**3.141**	**2.776**	**0.152**	**78.898**
1980	1st Quarter	3.995	6.606	9.143	0.800	0.644	0.023	21.212
	2nd Quarter	3.546	4.255	8.177	0.919	0.605	0.014	17.516
	3rd Quarter	4.020	3.977	8.123	0.721	0.752	0.019	17.612
	4th Quarter	3.861	5.553	8.759	0.678	0.738	0.023	19.612
	Total	**15.423**	**20.391**	**34.202**	**3.118**	**2.739**	**0.079**	**75.952**
1981	1st Quarter	4.069	6.237	8.391	0.763	0.743	0.029	20.232
	2nd Quarter	3.677	4.337	7.732	0.841	0.679	0.025	17.291
	3rd Quarter	4.191	3.997	7.785	0.770	0.821	0.032	17.596
	4th Quarter	3.971	5.355	8.023	0.731	0.765	0.025	18.870
	Total	**15.908**	**19.926**	**31.931**	**3.105**	**3.008**	**0.111**	**73.989**
1982	1st Quarter	4.046	6.396	7.745	0.948	0.760	0.019	19.915
	2nd Quarter	3.556	3.841	7.535	0.937	0.747	0.018	16.634
	3rd Quarter	3.990	3.532	7.419	0.834	0.840	0.023	16.638
	4th Quarter	3.730	4.738	7.532	0.842	0.785	0.027	17.653
	Total	**15.322**	**18.507**	**30.232**	**3.561**	**3.131**	**0.086**	**70.840**
1983	1st Quarter	3.737	5.369	7.311	1.008	0.776	0.025	18.226
	2nd Quarter	3.569	3.572	7.293	1.048	0.747	0.021	16.251
	3rd Quarter	4.440	3.317	7.626	0.901	0.838	0.038	17.160
	4th Quarter	4.152	5.093	7.824	0.914	0.842	0.034	18.859
	Total	**15.898**	**17.352**	**30.054**	**3.871**	**3.203**	**0.118**	**70.495**
1984	1st Quarter	4.314	6.031	7.909	0.996	0.923	0.041	20.214
	2nd Quarter	4.009	3.980	7.675	1.027	0.818	0.038	17.546
	3rd Quarter	4.490	3.579	7.755	0.877	0.943	0.040	17.684
	4th Quarter	4.260	4.918	7.712	0.816	0.870	0.044	18.620
	Total	**17.074**	**18.507**	**31.051**	**3.717**	**3.553**	**0.163**	**74.064**
1985	1st Quarter	4.393	R5.920	7.689	0.896	1.063	0.054	R20.015
	2nd Quarter	R4.137	R3.571	7.592	0.871	0.932	0.043	R17.147
	3rd Quarter	4.573	R3.371	7.700	0.748	1.133	0.048	R17.573
	4th Quarter	R4.385	R5.006	7.942	0.806	1.032	0.055	R19.224
	Total	**R17.488**	**R17.868**	**30.922**	**3.321**	**4.160**	**0.199**	**R73.959**
1986	1st Quarter	R4.404	R5.391	7.784	0.862	1.081	0.061	R19.583
	2nd Quarter	4.032	3.556	7.777	0.933	1.016	0.053	17.367

[1]Includes supplemental gaseous fuels.
[2]Includes industrial and utility production and net imports of electricity.
[3]Other is net imports of coal coke and 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 Imports[1] 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**	**(0.007)**	**12.680**
1974	**Total**	**(1.568)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.056**	**12.190**
1975	**Total**	**(1.738)**	**8.708**	**3.800**	**0.904**	**0.064**	**0.014**	**11.752**
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**	**18.018**
1978	**Total**	**(1.004)**	**13.125**	**3.932**	**0.941**	**0.204**	**0.125**	**17.323**
1979	1st Quarter	(0.277)	3.311	1.051	0.307	0.052	0.009	4.453
	2nd Quarter	(0.452)	3.252	0.787	0.307	0.052	0.025	3.972
	3rd Quarter	(0.455)	3.417	0.826	0.295	0.053	0.024	4.159
	4th Quarter	(0.517)	3.348	0.939	0.333	0.053	0.005	4.160
	Total	**(1.702)**	**13.328**	**3.603**	**1.243**	**0.211**	**0.063**	**16.745**
1980	1st Quarter	(0.363)	3.021	0.902	0.326	0.054	0.000	3.940
	2nd Quarter	(0.652)	2.696	0.625	0.203	0.054	(0.014)	2.913
	3rd Quarter	(0.678)	2.446	0.626	0.174	0.055	(0.011)	2.611
	4th Quarter	(0.698)	2.423	0.760	0.254	0.055	(0.009)	2.783
	Total	**(2.391)**	**10.586**	**2.912**	**0.957**	**0.217**	**(0.035)**	**12.247**
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	(0.005)	2.416
	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**	**(0.016)**	**9.644**
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)	1.549
	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	0.097	(0.004)	2.050
	Total	**(2.768)**	**6.917**	**2.128**	**0.896**	**0.306**	**(0.022)**	**7.457**
1983	1st Quarter	(0.392)	1.224	0.373	0.285	0.086	(0.003)	1.572
	2nd Quarter	(0.525)	1.686	0.539	0.186	0.079	(0.005)	1.959
	3rd Quarter	(0.572)	2.110	0.743	0.170	0.103	(0.003)	2.551
	4th Quarter	(0.524)	1.711	0.696	0.243	0.101	(0.004)	2.223
	Total	**(2.013)**	**6.731**	**2.351**	**0.883**	**0.369**	**(0.016)**	**8.306**
1984	1st Quarter	(0.393)	1.575	0.924	0.220	0.088	0.002	2.417
	2nd Quarter	(0.620)	1.820	0.712	0.184	0.092	(0.003)	2.185
	3rd Quarter	(0.656)	1.747	0.675	0.152	0.119	(0.003)	2.034
	4th Quarter	(0.451)	1.775	0.659	0.231	0.105	(0.007)	2.313
	Total	**(2.119)**	**6.918**	**2.970**	**0.787**	**0.405**	**(0.011)**	**8.949**
1985	1st Quarter	(0.480)	1.243	0.590	R0.278	0.091	0.002	R1.724
	2nd Quarter	(0.624)	1.702	0.709	R0.203	0.099	(0.005)	R2.084
	3rd Quarter	(0.664)	1.590	0.589	R0.168	0.127	(0.006)	R1.804
	4th Quarter	(0.621)	1.846	0.683	R0.245	0.101	(0.005)	R2.249
	Total	**(2.389)**	**6.381**	**2.570**	**R0.894**	**0.418**	**(0.013)**	**R7.861**
1986	1st Quarter	(0.442)	1.542	0.561	0.211	0.103	(0.001)	1.974
	2nd Quarter	(0.621)	2.119	0.661	0.125	0.096	(0.003)	2.376

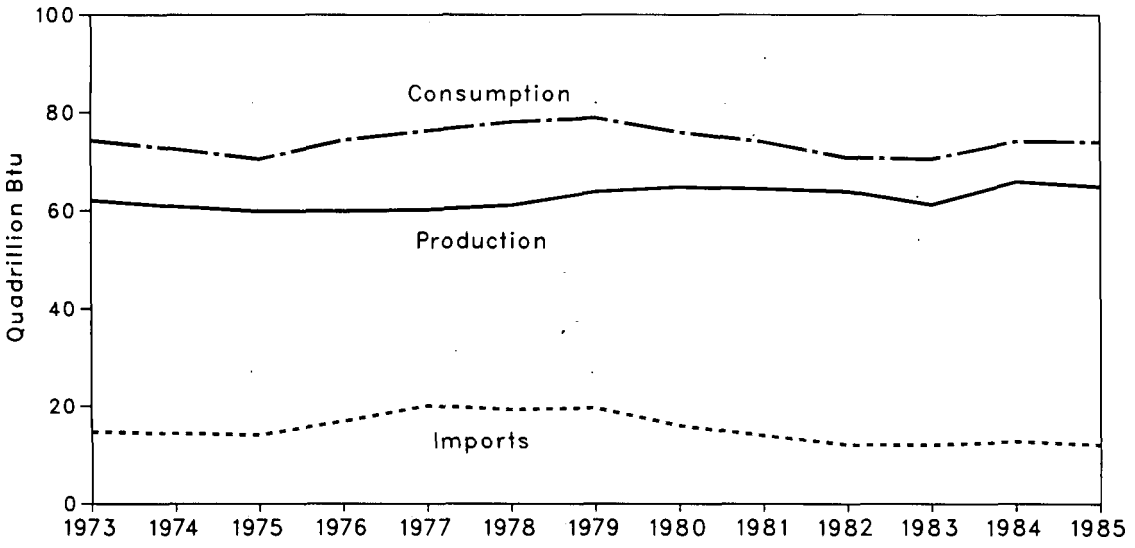
*Assumed to be hydro

[1]Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.
[2]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[3]Includes 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.

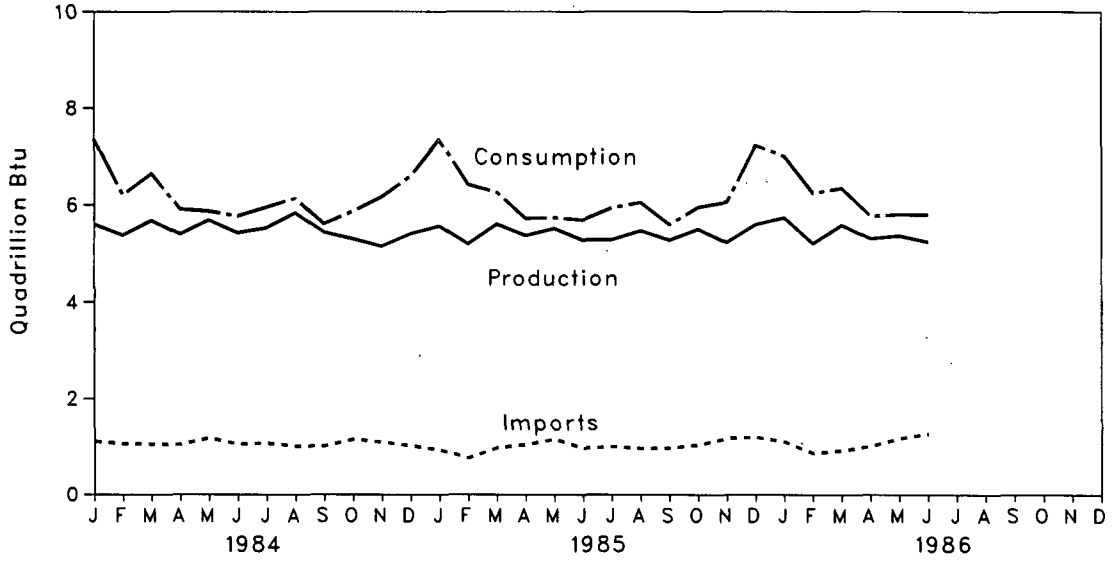
Energy Summary

Overview

Yearly



Monthly



Energy Summary

Overview[1]

		Production[2]	Consumption[2]	Imports[2]	Exports	Net Imports
				Quadrillion (10^{15}) Btu		
1973	**Total**	**62.060**	**74.282**	**14.731**	**2.051**	**12.680**
1974	**Total**	**60.835**	**72.543**	**14.412**	**2.223**	**12.190**
1975	**Total**	**59.860**	**70.546**	**14.111**	**2.359**	**11.752**
1976	**Total**	**59.891**	**74.362**	**16.837**	**2.189**	**14.648**
1977	**Total**	**60.219**	**76.289**	**20.090**	**2.072**	**18.018**
1978	**Total**	**61.103**	**78.088**	**19.254**	**1.931**	**17.323**
1979	**Total**	**63.800**	**78.898**	**19.616**	**2.871**	**16.745**
1980	**Total**	**64.761**	**75.952**	**15.971**	**3.724**	**12.247**
1981	**Total**	**64.422**	**73.989**	**13.974**	**4.329**	**9.644**
1982	**Total**	**63.890**	**70.840**	**12.093**	**4.636**	**7.457**
1983	**Total**	**61.194**	**70.495**	**12.024**	**3.719**	**8.306**
1984	January	5.606	7.360	1.101	0.247	0.854
	February	5.376	6.206	1.052	0.221	0.831
	March	5.682	6.648	1.047	0.315	0.732
	April	5.397	5.908	1.034	0.327	0.708
	May	5.687	5.868	1.169	0.365	0.804
	June	5.423	5.770	1.040	0.367	0.673
	July	5.525	5.948	1.065	0.326	0.739
	August	5.835	6.129	1.004	0.359	0.645
	September	5.434	5.608	1.005	0.355	0.650
	October	5.298	5.866	1.143	0.295	0.848
	November	5.147	6.161	1.084	0.271	0.814
	December	5.405	6.593	1.012	0.360	0.652
	Total	**65.814**	**74.064**	**12.757**	**3.808**	**8.949**
1985	January	5.562	7.340	0.926	0.305	0.621
	February	5.193	6.417	0.756	0.306	0.450
	March	5.605	6.258	0.970	0.317	0.653
	April	5.367	5.721	1.034	0.332	0.702
	May	5.513	5.738	1.145	0.381	0.764
	June	5.270	5.688	0.960	0.342	0.618
	July	5.278	5.936	0.994	0.328	0.666
	August	5.464	6.042	0.958	0.420	0.539
	September	5.271	5.594	0.964	0.364	0.600
	October	5.499	5.947	1.029	0.365	0.664
	November	5.225	6.051	1.170	0.406	0.764
	December	5.593	7.226	1.189	0.368	0.821
	Total	**64.841**	**73.959**	**12.095**	**4.234**	**7.861**
1986	January	5.735	6.998	1.096	0.318	0.778
	February	5.203	6.239	0.858	0.284	0.574
	March	5.584	6.346	0.923	0.301	0.622
	April	5.304	5.769	1.005	0.374	0.631
	May	R5.363	R5.802	1.163	0.367	0.797
	June	5.234	5.796	1.260	0.312	0.948
	Year to Date	**32.423**	**36.950**	**6.306**	**1.956**	**4.350**

Applies to Prod/con. only? 2A

[1]For definitions, see Notes on the last page of this section.
[2]The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation, and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
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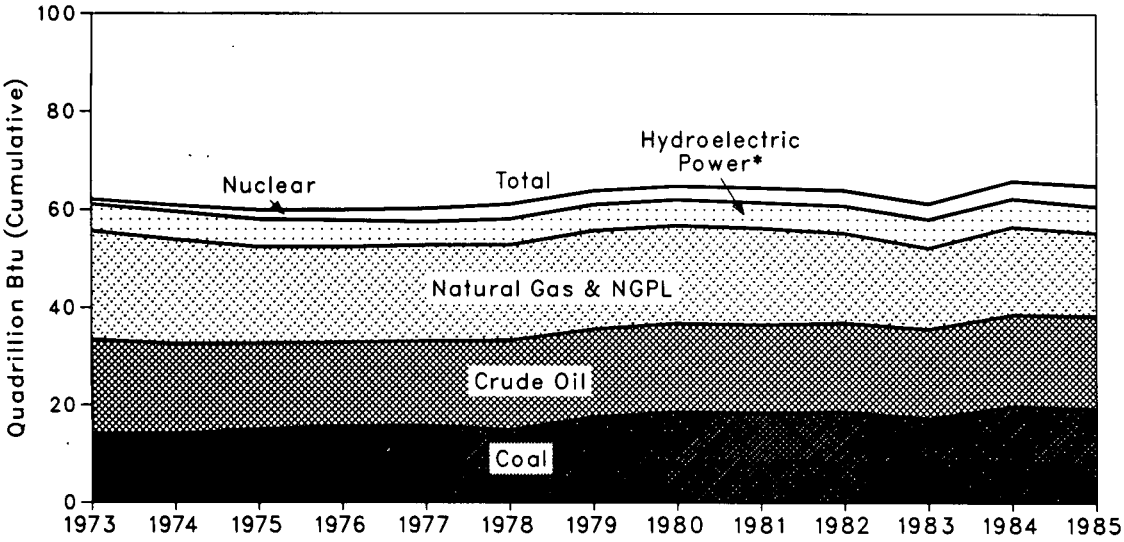
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.
Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

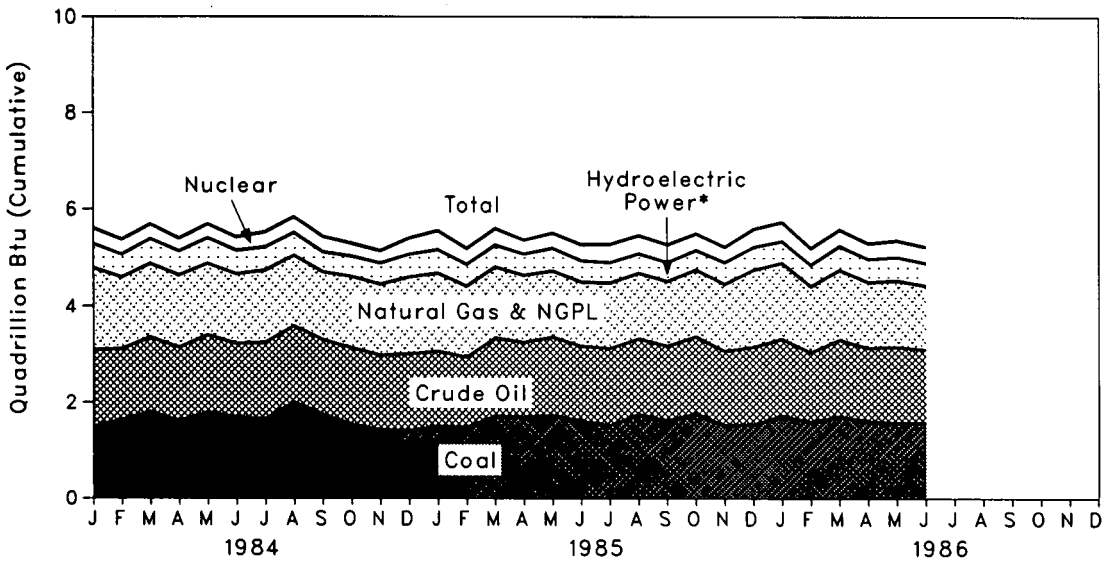
Energy Summary

Production of Energy by Source

Yearly



Monthly



*Includes other.

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**	**13.993**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**62.060**	
1974	**Total**	**14.074**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**60.835**	
1975	**Total**	**14.990**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**59.860**	
1976	**Total**	**15.654**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**59.891**	
1977	**Total**	**15.755**	**17.454**	**2.327**	**19.565**	**2.333**	**2.702**	**0.082**	**60.219**	
1978	**Total**	**14.910**	**18.434**	**2.245**	**19.485**	**2.937**	**3.024**	**0.068**	**61.103**	
1979	**Total**	**17.539**	**18.104**	**2.286**	**20.076**	**2.931**	**2.776**	**0.089**	**63.800**	
1980	**Total**	**18.597**	**18.249**	**2.254**	**19.907**	**2.900**	**2.739**	**0.114**	**64.761**	
1981	**Total**	**18.377**	**18.146**	**2.307**	**19.699**	**2.758**	**3.008**	**0.127**	**64.422**	
1982	**Total**	**18.639**	**18.309**	**2.191**	**18.255**	**3.256**	**3.131**	**0.108**	**63.890**	
1983	**Total**	**17.250**	**18.392**	**2.184**	**16.530**	**3.502**	**3.203**	**0.133**	**61.194**	
1984	January	1.495	1.594	0.186	1.695	0.307	0.318	0.011	5.606	5.606
	February	1.622	1.493	0.181	1.472	0.287	0.308	0.013	5.376	10.982
	March	1.795	1.559	0.189	1.515	0.314	0.296	0.015	5.682	16.664
	April	1.601	1.542	0.185	1.483	0.309	0.263	0.014	5.397	22.061
	May	1.785	1.610	0.191	1.478	0.328	0.280	0.014	5.687	27.748
	June	1.682	1.540	0.184	1.432	0.297	0.274	0.013	5.423	33.172
	July	1.646	1.598	0.193	1.485	0.284	0.307	0.013	5.525	38.696
	August	1.999	1.584	0.193	1.463	0.259	0.320	0.016	5.835	44.531
	September	1.739	1.565	0.190	1.394	0.216	0.316	0.015	5.434	49.965
	October	1.536	1.601	0.195	1.465	0.215	0.269	0.016	5.298	55.263
	November	1.417	1.562	0.192	1.463	0.230	0.266	0.016	5.147	60.409
	December	1.405	1.600	0.195	1.587	0.266	0.335	0.018	5.405	65.814
	Total	**19.723**	**18.848**	**2.274**	**17.931**	**3.312**	**3.553**	**0.174**	**65.814**	
1985	January	1.494	1.571	0.192	1.610	0.284	0.392	0.018	5.562	5.562
	February	1.473	1.466	0.173	1.465	0.267	0.334	0.016	5.193	10.755
	March	1.706	1.635	0.189	1.465	0.254	0.337	0.018	5.605	16.360
	April	1.680	1.574	0.181	1.378	0.252	0.287	0.016	5.367	21.727
	May	1.719	1.642	0.188	1.363	0.273	0.311	0.016	5.513	27.240
	June	1.607	1.570	0.182	1.315	0.247	0.334	0.016	5.270	32.511
	July	1.517	1.609	0.185	1.348	0.220	0.382	0.018	5.278	37.789
	August	1.746	1.583	0.188	1.344	0.206	0.377	0.018	5.464	43.253
	September	1.622	1.558	0.180	1.326	0.194	0.374	0.018	5.271	48.524
	October	1.761	1.613	0.190	1.373	0.207	0.338	0.017	5.499	54.023
	November	1.523	1.549	0.190	1.379	0.237	0.327	0.021	5.225	59.248
	December	1.539	1.624	0.198	1.583	0.261	0.366	0.022	5.593	64.841
	Total	**19.388**	**18.992**	**2.235**	**16.950**	**2.903**	**4.160**	**0.213**	**64.841**	
1986	January	1.718	1.608	0.203	1.565	0.226	0.393	0.023	5.735	5.735
	February	1.596	1.452	0.182	1.359	0.241	0.355	0.019	5.203	10.939
	March	1.703	1.607	0.191	1.437	0.292	0.334	0.020	5.584	16.523
	April	1.606	1.534	0.178	1.353	0.284	0.330	0.018	5.304	21.826
	May	1.574	1.583	0.188	1.371	0.282	R0.346	0.018	R5.363	R27.189
	June	1.578	1.530	0.177	1.318	0.271	0.340	0.020	5.234	32.423
	Year to Date	**9.775**	**9.313**	**1.120**	**8.403**	**1.596**	**2.098**	**0.118**	**32.423**	

[1]Includes lease condensate.
[2]Natural gas plant liquids.
[3]Includes industrial and utility production of hydroelectric power.
[4]Other is 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.

1A

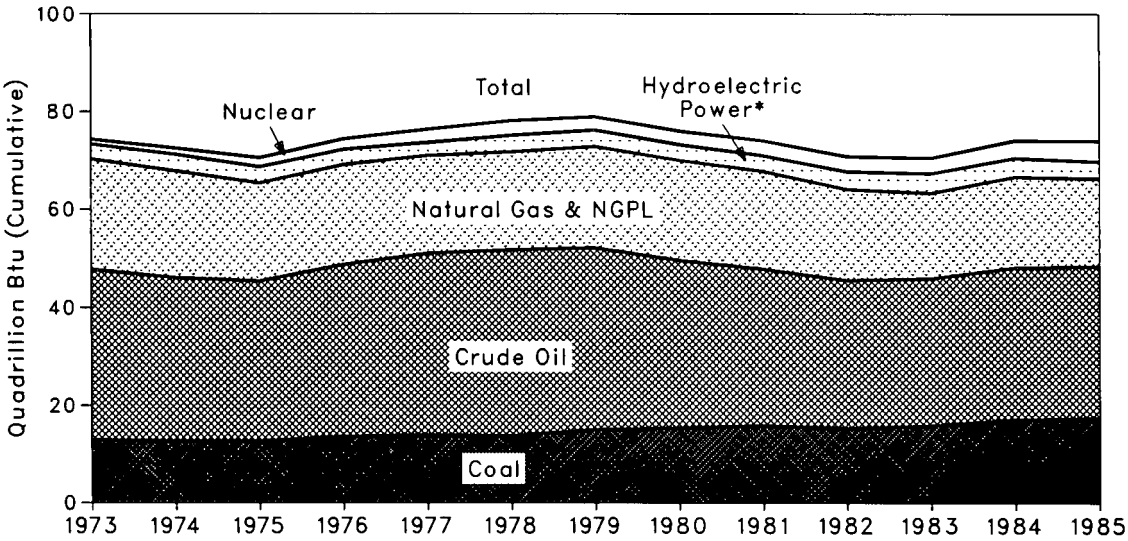
FN "Total" — 2A

or consolidate with "Other"?

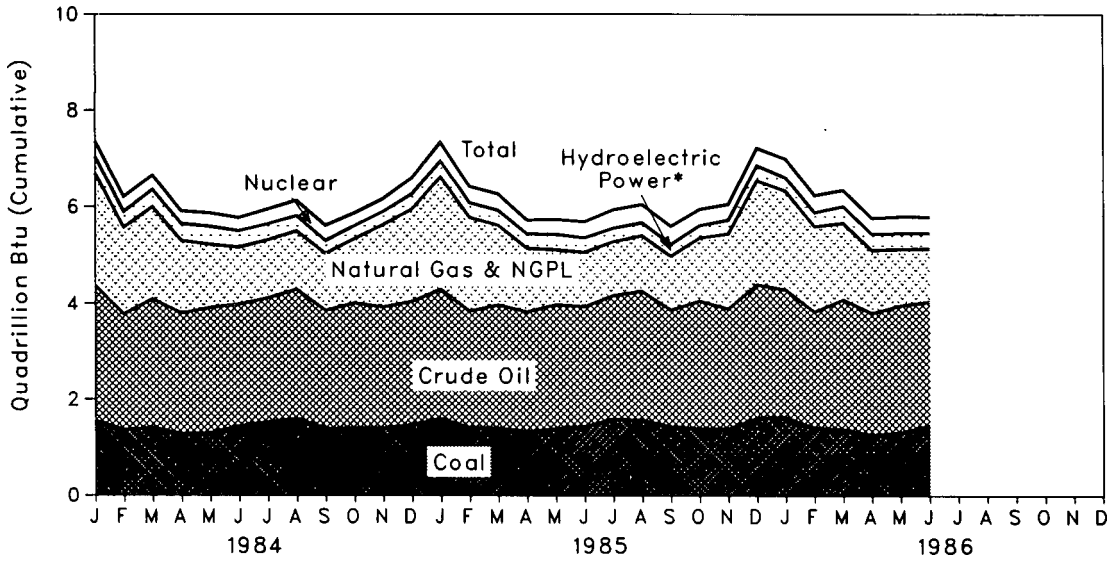
Energy Summary

Consumption of Energy by Source

Yearly



Monthly



*Includes other.

Energy Summary

Consumption of Energy by Source

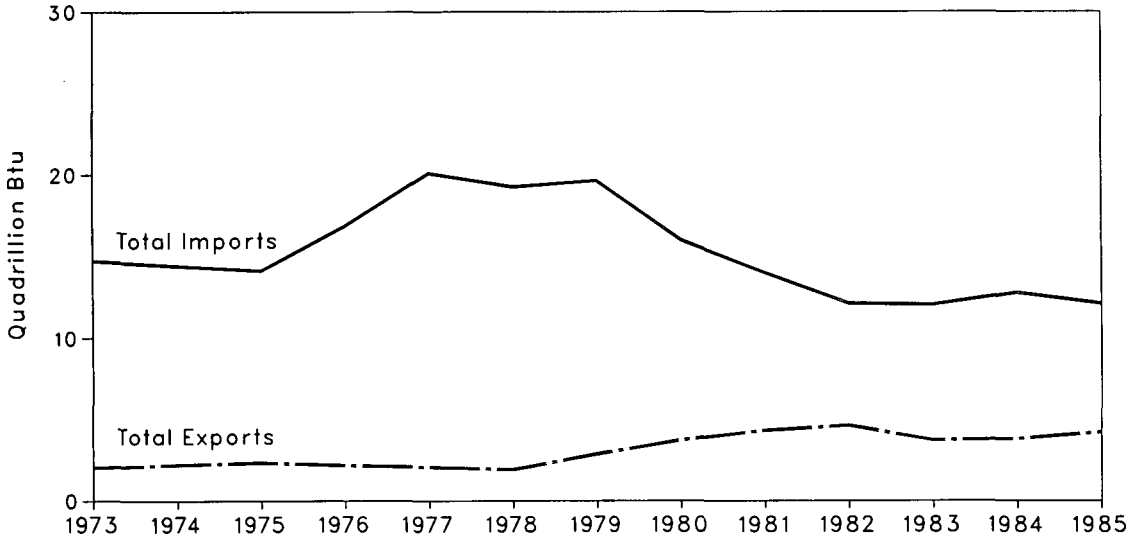
		Coal	Natural Gas[1]	Petro-leum	Hydro-electric Power[2]	Nuclear Electric Power	Other[3]	Total	Year to Date
		Quadrillion (10^{15}) Btu							
1973	**Total**	**12.971**	**22.512**	**34.840**	**3.010**	**0.910**	**0.039**	**74.282**	
1974	**Total**	**12.663**	**21.732**	**33.455**	**3.309**	**1.272**	**0.112**	**72.543**	
1975	**Total**	**12.663**	**19.948**	**32.731**	**3.219**	**1.900**	**0.086**	**70.546**	
1976	**Total**	**13.584**	**20.345**	**35.175**	**3.066**	**2.111**	**0.081**	**74.362**	
1977	**Total**	**13.922**	**19.931**	**37.122**	**2.515**	**2.702**	**0.097**	**76.289**	
1978	**Total**	**13.765**	**20.000**	**37.965**	**3.141**	**3.024**	**0.193**	**78.088**	
1979	**Total**	**15.039**	**20.666**	**37.123**	**3.141**	**2.776**	**0.152**	**78.898**	
1980	**Total**	**15.423**	**20.391**	**34.202**	**3.118**	**2.739**	**0.079**	**75.952**	
1981	**Total**	**15.908**	**19.926**	**31.931**	**3.105**	**3.008**	**0.111**	**73.989**	
1982	**Total**	**15.322**	**18.507**	**30.232**	**3.561**	**3.131**	**0.086**	**70.840**	
1983	**Total**	**15.898**	**17.352**	**30.054**	**3.871**	**3.203**	**0.118**	**70.495**	
1984	January	1.552	2.330	2.810	0.338	0.318	0.012	7.360	7.360
	February	1.359	1.793	2.415	0.315	0.308	0.015	6.206	13.566
	March	1.403	1.908	2.684	0.342	0.296	0.014	6.648	20.214
	April	1.272	1.501	2.520	0.339	0.263	0.014	5.908	26.122
	May	1.298	1.303	2.612	0.360	0.280	0.013	5.868	31.990
	June	1.439	1.175	2.542	0.328	0.274	0.011	5.770	37.760
	July	1.519	1.197	2.592	0.321	0.307	0.012	5.948	43.708
	August	1.587	1.208	2.695	0.304	0.320	0.014	6.129	49.837
	September	1.384	1.173	2.468	0.253	0.316	0.014	5.608	55.444
	October	1.395	1.322	2.612	0.256	0.269	0.013	5.866	61.310
	November	1.394	1.695	2.529	0.262	0.266	0.014	6.161	67.471
	December	1.470	1.901	2.571	0.298	0.335	0.017	6.593	74.064
	Total	**17.074**	**18.507**	**31.051**	**3.717**	**3.553**	**0.163**	**74.064**	
1985	January	1.591	2.334	2.690	0.314	0.392	0.018	7.340	7.340
	February	1.404	1.939	2.432	0.291	0.334	0.017	6.417	13.757
	March	1.398	1.647	2.567	0.292	0.337	0.018	6.258	20.015
	April	1.320	1.316	2.500	0.281	0.287	0.016	5.721	25.736
	May	1.385	1.133	2.589	0.307	0.311	0.013	5.738	31.474
	June	1.432	1.123	2.502	0.283	0.334	0.014	5.688	37.162
	July	1.585	1.112	2.577	0.264	0.382	0.016	5.936	43.098
	August	1.563	1.151	2.682	0.253	0.377	0.017	6.042	49.141
	September	1.425	1.108	2.440	0.231	0.374	0.015	5.594	54.735
	October	1.390	1.299	2.663	0.241	0.338	0.016	5.947	60.682
	November	1.387	1.544	2.505	0.270	0.327	0.018	6.051	66.733
	December	1.608	2.162	2.774	0.295	0.366	0.021	7.226	73.959
	Total	**17.488**	**17.868**	**30.922**	**3.321**	**4.160**	**0.199**	**73.959**	
1986	January	1.620	2.044	2.659	0.260	0.393	0.023	6.998	6.998
	February	1.407	1.762	2.422	0.275	0.355	0.019	6.239	13.237
	March	1.377	1.585	2.703	0.328	0.334	0.019	6.346	19.583
	April	1.258	1.300	2.544	0.318	0.330	0.018	5.769	25.352
	May	1.316	1.163	2.647	0.314	R0.346	0.016	R5.802	R31.154
	June	1.457	1.093	2.585	0.301	0.340	0.020	5.796	36.950
	Year to Date	**8.435**	**8.947**	**15.561**	**1.795**	**2.098**	**0.114**	**36.950**	

[1]Includes supplemental gaseous fuels.
[2]Includes industrial and utility production and net imports of electricity.
[3]Other is net imports of coal coke and 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.

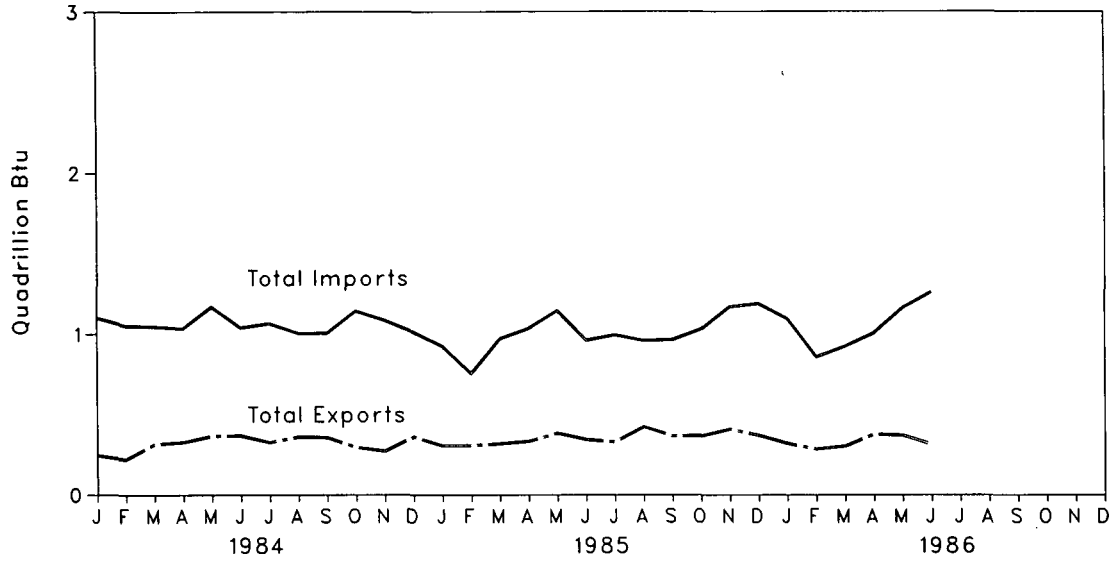
Energy Summary

Energy Imports and Exports

Yearly



Monthly



Energy Summary

Net Imports[1] of Energy by Source

		Coal	Crude Oil[2]	Petroleum Products[3]	Natural Gas	Electricity[4]	Coal Coke	Total	Year to Date
					Quadrillion (10^{15}) Btu				
1973	**Total**	**(1.422)**	**6.883**	**6.097**	**0.981**	**0.148**	**(0.007)**	**12.680**	
1974	**Total**	**(1.568)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.056**	**12.190**	
1975	**Total**	**(1.738)**	**8.708**	**3.800**	**0.904**	**0.064**	**0.014**	**11.752**	
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**	**18.018**	
1978	**Total**	**(1.004)**	**13.125**	**3.932**	**0.941**	**0.204**	**0.125**	**17.323**	
1979	**Total**	**(1.702)**	**13.328**	**3.603**	**1.243**	**0.211**	**0.063**	**16.745**	
1980	**Total**	**(2.391)**	**10.586**	**2.912**	**0.957**	**0.217**	**(0.035)**	**12.247**	
1981	**Total**	**(2.918)**	**8.854**	**2.522**	**0.855**	**0.347**	**(0.016)**	**9.644**	
1982	**Total**	**(2.768)**	**6.917**	**2.128**	**0.896**	**0.306**	**(0.022)**	**7.457**	
1983	**Total**	**(2.013)**	**6.731**	**2.351**	**0.883**	**0.369**	**(0.016)**	**8.306**	
1984	January	(0.132)	0.524	0.336	0.092	0.032	0.001	0.854	0.854
	February	(0.109)	0.467	0.379	0.064	0.028	0.002	0.831	1.685
	March	(0.152)	0.584	0.209	0.063	0.029	(0.001)	0.732	2.417
	April	(0.199)	0.567	0.244	0.066	0.030	0.000	0.708	3.124
	May	(0.215)	0.672	0.255	0.061	0.032	(0.001)	0.804	3.929
	June	(0.205)	0.581	0.213	0.056	0.031	(0.002)	0.673	4.602
	July	(0.215)	0.639	0.228	0.050	0.037	(0.001)	0.739	5.341
	August	(0.214)	0.552	0.214	0.049	0.045	(0.002)	0.645	5.986
	September	(0.228)	0.556	0.233	0.052	0.037	0.000	0.650	6.636
	October	(0.173)	0.652	0.269	0.062	0.040	(0.003)	0.848	7.483
	November	(0.109)	0.591	0.223	0.079	0.033	(0.003)	0.814	8.297
	December	(0.169)	0.533	0.167	0.089	0.032	(0.001)	0.652	8.949
	Total	**(2.119)**	**6.918**	**2.970**	**0.787**	**0.405**	**(0.011)**	**8.949**	
1985	January	(0.150)	0.465	0.177	0.099	0.029	0.000	0.621	0.621
	February	(0.156)	0.308	0.178	0.094	0.024	0.001	0.450	1.071
	March	(0.174)	0.470	0.235	0.084	0.037	0.000	0.653	1.724
	April	(0.181)	0.554	0.228	0.071	0.029	0.001	0.702	2.426
	May	(0.239)	0.629	0.271	0.071	0.033	(0.003)	0.764	3.190
	June	(0.205)	0.519	0.210	0.060	0.036	(0.002)	0.618	3.808
	July	(0.188)	0.551	0.208	0.053	0.043	(0.002)	0.666	4.474
	August	(0.268)	0.520	0.185	0.056	0.046	(0.001)	0.539	5.013
	September	(0.208)	0.519	0.196	0.058	0.038	(0.003)	0.600	5.612
	October	(0.227)	0.563	0.223	0.071	0.035	(0.001)	0.664	6.276
	November	(0.211)	0.650	0.223	0.072	0.033	(0.003)	0.764	7.041
	December	(0.183)	0.633	0.237	0.101	0.033	(0.001)	0.821	7.861
	Total	**(2.389)**	**6.381**	**2.570**	**0.894**	**0.418**	**(0.013)**	**7.861**	
1986	January	(0.152)	0.573	0.230	0.093	E0.034	0.000	0.778	0.778
	February	(0.131)	0.464	0.138	0.068	E0.034	0.000	0.574	1.352
	March	(0.159)	0.504	0.193	0.049	E0.035	(0.001)	0.622	1.974
	April	(0.213)	0.633	0.140	0.039	E0.033	0.000	0.631	2.606
	May	(0.221)	0.711	0.232	0.044	E0.033	(0.003)	0.797	3.402
	June	(0.188)	0.776	0.289	0.041	E0.030	0.000	0.948	4.350
	Year to Date	**(1.063)**	**3.661**	**1.221**	**0.336**	**E0.199**	**(0.004)**	**4.350**	

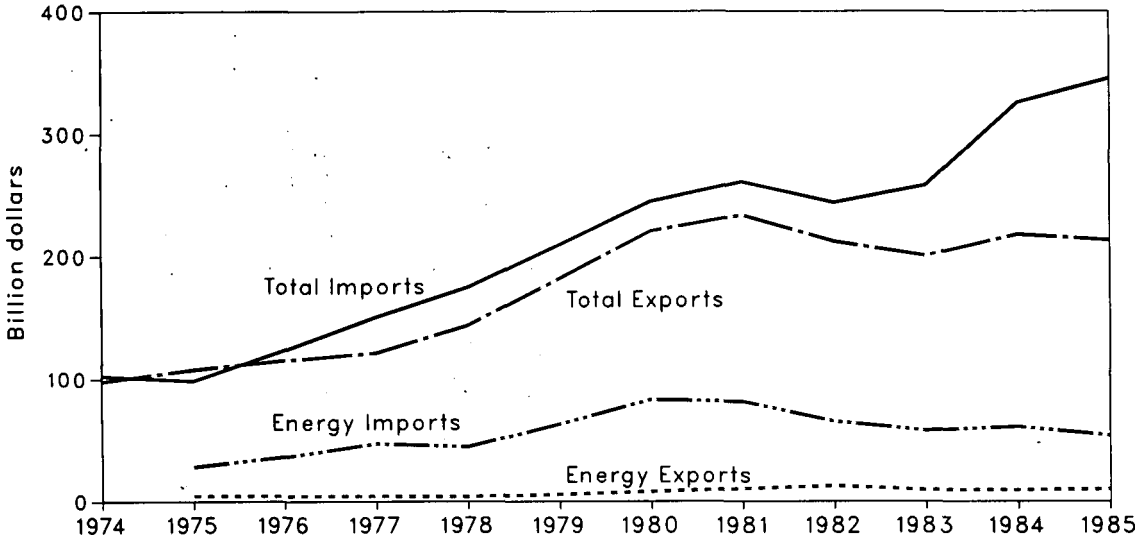
4 Assumed to be hydro.

[1]Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.
[2]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[3]Includes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.
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.

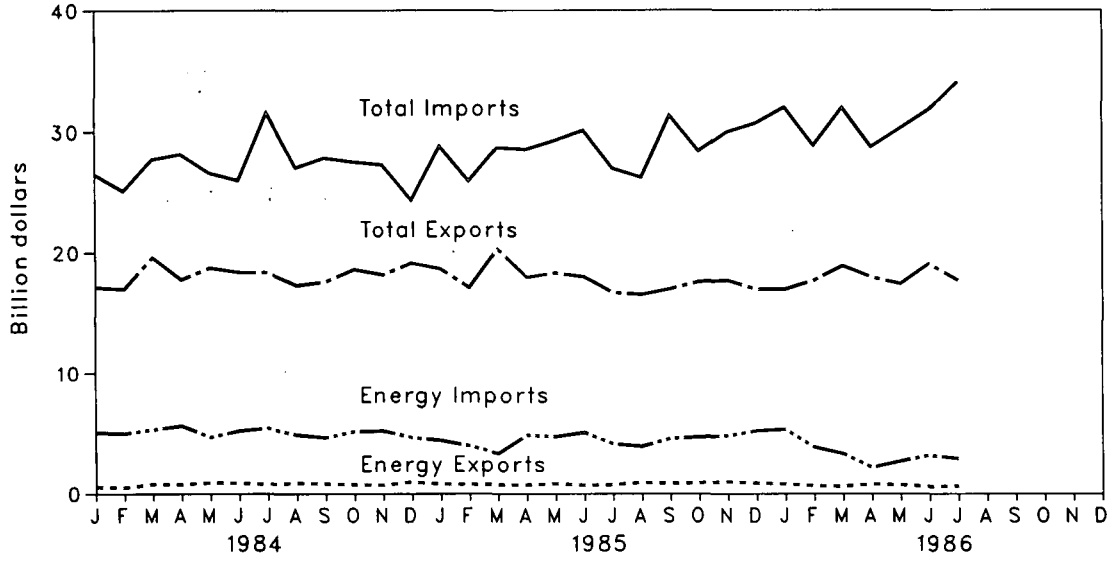
Energy Summary

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	**Total**	**12,729**	**199,464**	**212,193**	**65,409**	**178,543**	**243,952**	**-52,680**	**20,921**	**-31,759**
1983	**Total**	**9,500**	**190,986**	**200,486**	**57,952**	**200,096**	**258,048**	**-48,452**	**-9,110**	**-57,562**
1984	January	582	16,584	17,166	5,089	21,408	26,497	-4,507	-4,824	-9,331
	February	502	16,513	17,015	5,006	20,112	25,118	-4,504	-3,599	-8,103
	March	790	18,818	19,608	5,323	22,408	27,731	-4,533	-3,590	-8,123
	April	759	17,024	17,783	5,629	22,531	28,160	-4,870	-5,507	-10,377
	May	901	17,837	18,738	4,696	21,911	26,607	-3,795	-4,075	-7,870
	June	872	17,509	18,381	5,206	20,758	25,964	-4,334	-3,249	-7,583
	July	765	17,598	18,363	5,434	26,131	31,565	-4,669	-8,533	-13,202
	August	878	16,434	17,312	4,886	22,157	27,043	-4,008	-5,723	-9,731
	September	820	16,781	17,601	4,663	23,190	27,853	-3,843	-6,409	-10,252
	October	757	17,855	18,612	5,168	22,362	27,530	-4,411	-4,508	-8,919
	November	712	17,463	18,175	5,207	22,089	27,296	-4,495	-4,626	-9,121
	December	973	18,163	19,136	4,672	19,691	24,363	-3,699	-1,528	-5,227
	Total	**9,311**	**208,577**	**217,888**	**60,980**	**264,746**	**325,726**	**-51,669**	**-56,169**	**-107,838**
1985	January	804	17,869	18,673	4,434	24,402	28,836	-3,630	-6,533	-10,163
	February	786	16,357	17,143	3,989	21,952	25,941	-3,203	-5,595	-8,798
	March	754	19,576	20,330	3,351	25,374	28,725	-2,597	-5,798	-8,395
	April	738	17,235	17,973	4,876	23,696	28,572	-4,138	-6,461	-10,599
	May	837	17,500	18,337	4,748	24,554	29,302	-3,911	-7,054	-10,965
	June	708	17,304	18,012	5,088	25,048	30,136	-4,380	-7,744	-12,124
	July	760	15,967	16,727	4,146	22,854	27,000	-3,386	-6,888	-10,274
	August	934	15,650	16,584	3,937	22,310	26,247	-3,003	-6,660	-9,663
	September	868	16,166	17,034	4,597	26,752	31,349	-3,729	-10,586	-14,315
	October	903	16,715	17,618	4,699	23,730	28,429	-3,796	-7,015	-10,811
	November	991	16,730	17,721	4,824	25,186	30,010	-3,833	-8,457	-12,290
	December	888	16,106	16,994	5,228	25,500	30,728	-4,340	-9,394	-13,734
	Total	**9,971**	**203,175**	**213,146**	**53,917**	**291,359**	**345,276**	**-43,946**	**-88,183**	**-132,129**
1986	January	812	16,194	17,006	5,344	26,661	32,005	-4,532	-10,467	-14,999
	February	676	17,059	17,735	3,874	25,041	28,895	-3,198	-7,963	-11,161
	March	622	18,291	18,913	3,331	28,641	31,972	-2,709	-10,350	-13,059
	April	791	17,174	17,965	2,176	26,586	28,762	-1,385	-9,412	-10,797
	May	728	16,703	17,431	2,700	27,572	30,272	-1,972	-10,870	-12,842
	June	584	18,486	19,070	3,185	28,579	31,764	-2,601	-10,093	-12,694
	July	653	17,054	17,707	2,933	31,188	34,121	-2,280	-14,134	-16,414
	Year to Date	**4,865**	**120,961**	**125,826**	**23,543**	**194,248**	**217,791**	**-18,678**	**-73,286**	**-91,964**

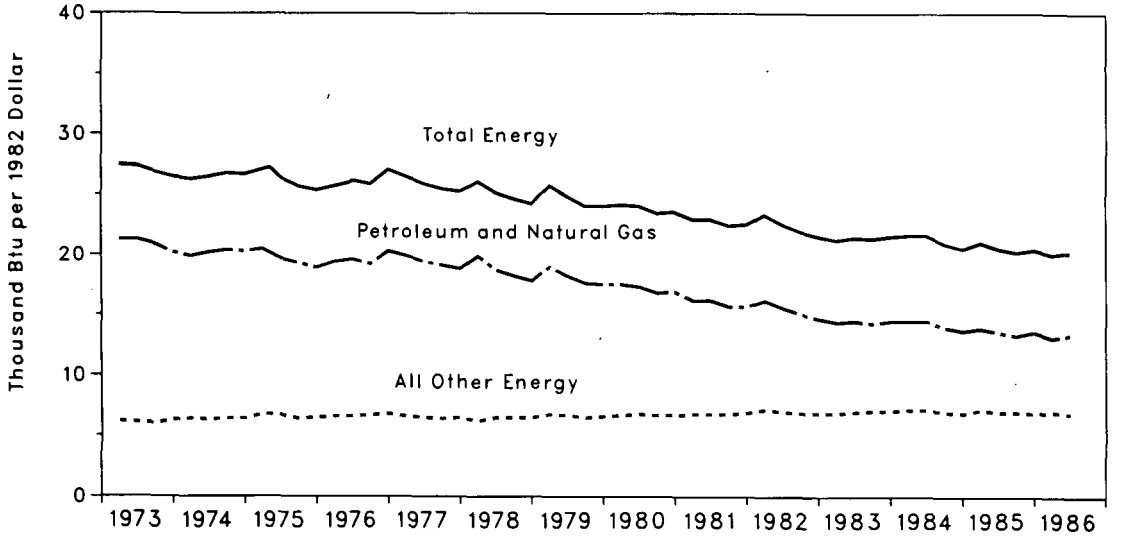
NA=Not available.
Notes: • In accordance with current Bureau of the Census procedures, monthly data are not adjusted for seasonal variations.
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is 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

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	Trillion 1982 dollars	Thousand Btu per 1982 dollar		
1973	**Year**	**74.282**	**2.744**	**27.1**	**20.9**	**6.2**
1974	**Year**	**72.543**	**2.729**	**26.6**	**20.2**	**6.4**
1975	**Year**	**70.546**	**2.695**	**26.2**	**19.6**	**6.6**
1976	**Year**	**74.362**	**2.827**	**26.3**	**19.6**	**6.7**
1977	**Year**	**76.289**	**2.959**	**25.8**	**19.3**	**6.5**
1978	**Year**	**78.088**	**3.115**	**25.1**	**18.6**	**6.5**
1979	**Year**	**78.898**	**3.192**	**24.7**	**18.1**	**6.6**
1980	**Year**	**75.952**	**3.187**	**23.8**	**17.1**	**6.7**
1981	**Year**	**73.989**	**3.249**	**22.8**	**16.0**	**6.8**
1982	**Year**	**70.840**	**3.166**	**22.4**	**15.4**	**7.0**
1983	**Year**	**70.495**	**3.279**	**21.5**	**14.5**	**7.0**
1984	1st Quarter[1]	74.837	3.445	21.7	14.5	7.2
	2nd Quarter[1]	75.513	3.487	21.7	14.5	7.2
	3rd Quarter[1]	73.570	3.507	21.0	14.0	7.0
	4th Quarter[1]	72.361	3.520	20.6	13.7	6.9
	Year	**74.064**	**3.490**	**21.2**	**14.2**	**7.0**
1985	1st Quarter[1]	74.878	3.547	21.1	13.9	7.2
	2nd Quarter[1]	73.638	3.568	20.6	13.6	7.0
	3rd Quarter[1]	73.000	3.604	20.3	13.3	7.0
	4th Quarter[1]	74.333	3.622	20.5	13.6	6.9
	Year	**73.959**	**3.585**	**20.6**	**13.6**	**7.0**
1986	1st Quarter[1]	73.320	3.656	20.1	13.1	7.0
	2nd Quarter[1]	74.412	3.662	20.3	13.4	6.9

Quarterly Energy Consumption per Dollar of Gross National Product[1] (Seasonally Adjusted)



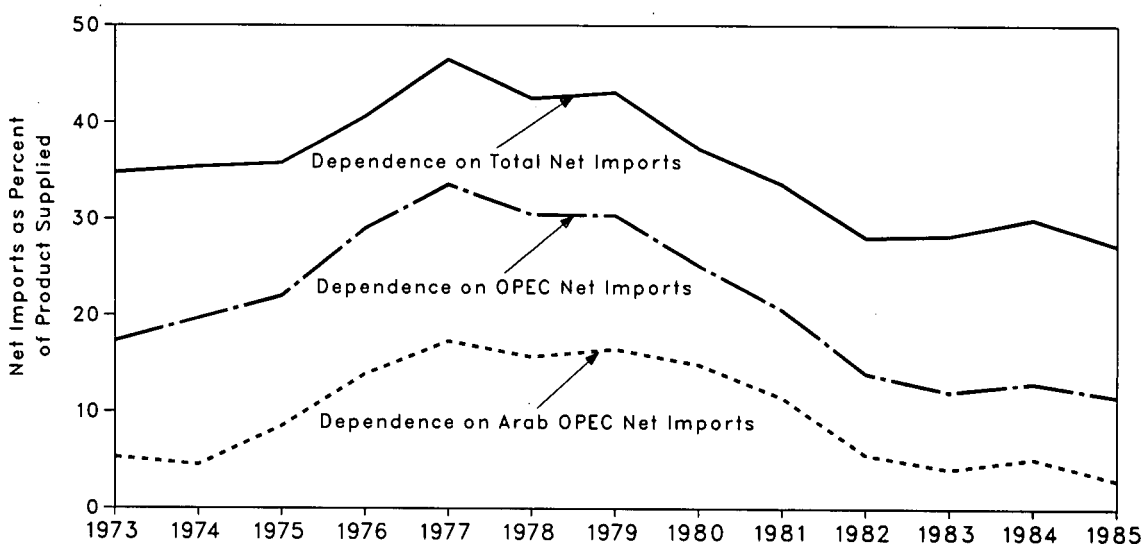
[1]Quarterly data are seasonally adjusted and shown at annual rates.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding.
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—U.S. Dependence on Petroleum Net Imports[1]

		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	**Average**	**852**	**2,136**	**4,298**	**15,296**	**5.6**	**14.0**	**28.1**
1983	**Average**	**630**	**1,843**	**4,312**	**15,231**	**4.1**	**12.1**	**28.3**
1984	1st Quarter	769	1,878	4,802	16,110	4.8	11.7	29.8
	2nd Quarter	907	2,278	4,853	15,632	5.8	14.6	31.0
	3rd Quarter	877	2,080	4,590	15,625	5.6	13.3	29.4
	4th Quarter	715	1,912	4,618	15,538	4.6	12.3	29.7
	Average	**817**	**2,037**	**4,715**	**15,726**	**5.2**	**13.0**	**30.0**
1985	1st Quarter	331	1,371	3,570	15,859	2.1	8.6	22.5
	2nd Quarter	529	1,857	4,625	15,486	3.4	12.0	29.9
	3rd Quarter	288	1,780	4,135	15,536	1.9	11.5	26.6
	4th Quarter	730	2,266	4,803	16,025	4.6	14.1	30.0
	Average	**470**	**1,821**	**4,286**	**15,726**	**3.0**	**11.6**	**27.3**
1986	1st Quarter	843	2,038	4,083	16,055	5.3	12.7	25.4
	2nd Quarter	1,138	2,714	5,321	15,864	7.2	17.1	33.5

U.S. Dependence on Petroleum Net Imports



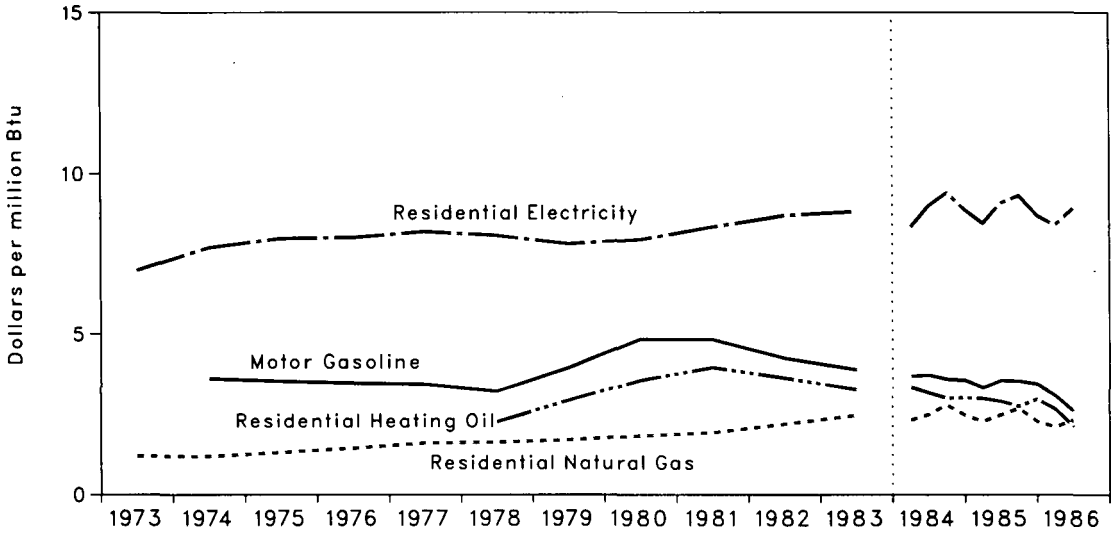
[1]Beginning in October 1977, Strategic Petroleum Reserves are included.
[2]Net imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are petroleum products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.
[3]Includes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[4]Includes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.
Notes: • 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) Dollars[1]

		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	**Average**	**53.0**	**4.24**	**50.3**	**3.63**	**224.1**	**2.19**	**2.97**	**8.70**
1983	**Average**	**48.6**	**3.89**	**45.3**	**3.27**	**254.5**	**2.47**	**3.01**	**8.82**
1984	1st Quarter	46.1	3.69	46.4	3.35	239.2	2.32	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	256.1	2.49	3.07	9.00
	3rd Quarter	44.9	3.59	41.6	3.00	286.9	2.79	3.21	9.41
	4th Quarter	44.5	3.56	41.7	3.01	253.9	2.47	3.03	8.88
	Average	**45.5**	**3.64**	**43.9**	**3.17**	**246.5**	**2.39**	**3.04**	**8.91**
1985	1st Quarter	41.7	3.33	41.5	2.99	234.9	2.28	2.89	8.47
	2nd Quarter	44.4	3.55	40.2	2.90	255.5	2.48	3.10	9.09
	3rd Quarter	44.2	3.53	38.1	2.75	275.7	2.68	3.18	9.32
	4th Quarter	43.0	3.44	41.2	2.97	234.9	2.28	2.97	8.70
	Average	**43.4**	**3.47**	**41.0**	**2.96**	**238.4**	**2.31**	**3.03**	**8.88**
1986	1st Quarter	38.7	3.09	37.1	2.67	217.1	2.11	2.87	8.41
	2nd Quarter	32.7	2.61	29.6	2.13	239.1	2.32	3.04	8.91

Average Cost of Fuels to End Users in Constant (1972) Dollars[1]



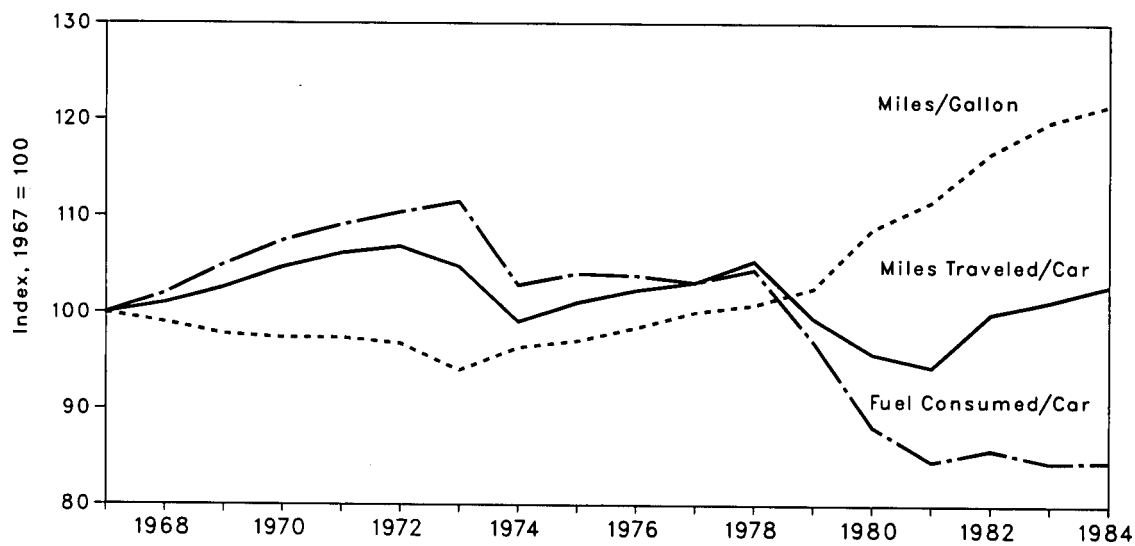
[1]Fuel costs shown on this page are calculated using the Urban Consumer Price Index developed by the Bureau of Labor Statistics. See the Conversion Factors section of this report.
NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Annual averages may not 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	578	84.5	9,654	101.3	16.70	119.9
1984†	579	84.6	9,809	102.9	16.94	121.6

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.

Energy Summary

Population-Weighted Cooling Degree-Days[1]

Census Divisions	August 1 through August 31					Cumulative January 1 through August 31				
				Percent Change					Percent Change	
	Normal[2]	1985	1986	Normal to 1986	1985 to 1986	Normal[2]	1985	1986	Normal to 1986	1985 to 1986
New England CT, ME, MA, NH, RI, VT	143	121	115	-19.6	-5.0	398	342	348	-12.6	1.8
Middle Atlantic NJ, NY, PA	217	200	177	-18.4	-11.5	625	554	617	-1.3	11.4
Eastern North Central IL, IN, MI, OH, WI	210	145	138	-34.3	-4.8	667	542	647	-3.0	19.4
Western North Central IA, KS, MN, MO, NE, ND, SD	262	182	169	-35.5	-7.1	883	705	833	-5.7	18.2
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	391	367	365	-6.6	-0.5	1,431	1,456	1,556	8.7	6.9
Eastern South Central AL, KY, MS, TN	385	355	350	-9.1	-1.4	1,310	1,262	1,400	6.9	10.9
Western South Central AR, LA, OK, TX	537	569	503	-6.3	-11.6	1,943	1,952	1,978	1.8	1.3
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	266	280	294	10.5	5.0	869	988	964	10.9	-2.4
Pacific Coast CA, OR, WA	189	148	195	3.2	31.8	467	526	451	-3.4	-14.3
U.S. Average[4]	**287**	**257**	**250**	**-12.9**	**-2.7**	**947**	**911**	**968**	**2.2**	**6.3**

[1]See Note 6 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]Percent change not meaningful.
[4]Excludes Alaska and Hawaii.
Source: • See Note 6 on 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), 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), 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, 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 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. Statistics include nonmonetary gold and 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 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1981-1984: EIA, *Petroleum Supply* Annual; 1985: EIA, *Petroleum Supply 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 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—EIA, Annual data from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."
• 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: • Indices 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 June 1986 was 5.8 quadrillion Btu, 1.9 percent above the June 1985 level. Petroleum products accounted for 44.6 percent of the energy consumed in June 1986, while natural gas accounted for 18.9 percent and coal accounted for 25.1 percent. The transportation sector used 65.3 percent of the petroleum products consumed in June 1986 and the industrial sector used 24.3 percent. Of natural gas consumed, the industrial sector used 48.4 percent; electric utilities, 24.6 percent; and the residential and commercial sector, 24.1 percent. Most of the coal used (84.8 percent) was consumed by electric utilities. The residential and commercial sector used 65.5 percent of total electricity sales, while the industrial sector used 34.5 percent.

Residential and commercial sector consumption was 1.9 quadrillion Btu in June 1986, up 5.1 percent from the June 1985 level. This sector consumed 33.0 percent of the June 1986 total, up from its 32.0-percent share in June 1985.

Industrial sector consumption was 2.2 quadrillion Btu in June 1986, down 1.8 percent from the June 1985 level. The industrial sector accounted for 37.2 percent of the June 1986 total consumption, down from the industrial sector's 38.6-percent share of June 1985 total consumption.

Transportation sector consumption of energy was 1.7 quadrillion Btu in June 1986, up 3.3 percent from the June 1985 level. This sector consumed 29.7 percent of the June 1986 total, slightly above the sector's 29.3-percent share in June 1985.

The electric utilities consumption of energy was an estimated 2.3 quadrillion Btu in June 1986, 3.2 percent higher than in June 1985. Coal contributed 54.1 percent of the energy consumed by electric utilities in June 1986, while nuclear electric power contributed 14.9 percent; hydroelectric power, 13.0 percent; natural gas, 11.8 percent; petroleum products, 5.4 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.9 percent.

Consumption Summary for June 1986

(Quadrillion (10^{15}) Btu)

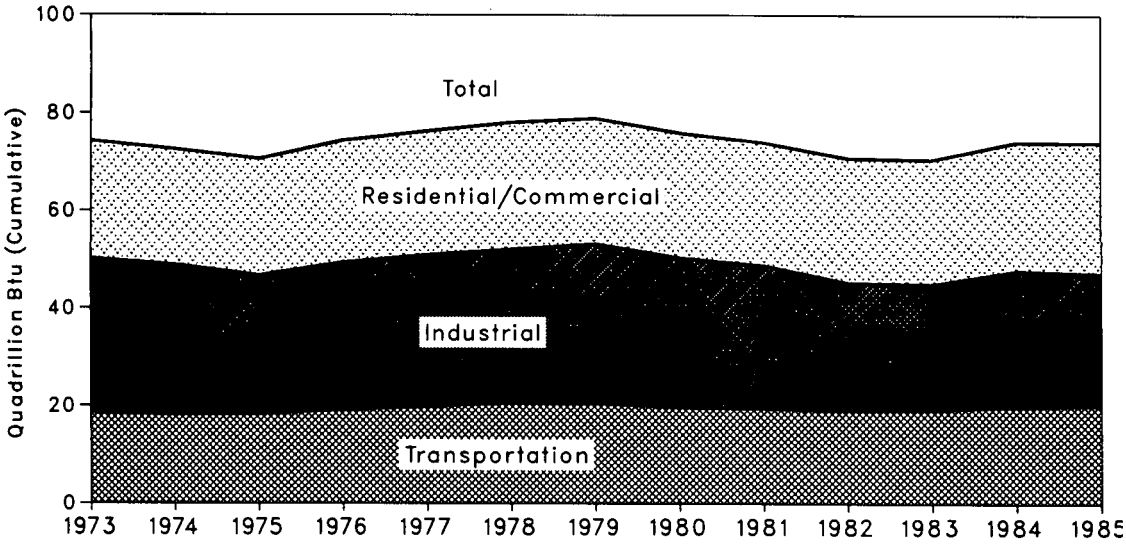
Energy Source	Sector				
	Residential and Commercial	Industrial	Transportation	Electric Utilities	Total
Coal	0.008	0.212	0.000	1.235	1.457
Natural Gas[1]	0.263	0.529	0.032	0.269	1.093
Petroleum Products	0.148	0.628	1.687	0.123	2.585
Hydroelectric Power	0.000	0.003	0.000	0.298	0.301
Nuclear Electric Power	0.000	0.000	0.000	0.340	0.340
Net Imports of Coal Coke	0.000	0.000	0.000	0.000	0.000
Other[2]	0.000	0.000	0.000	0.020	0.020
Primary Consumption	**0.418**	**1.372**	**1.719**	**2.284**	**5.796**
Electricity	0.435	0.229	0.001	(0.664)	
Net Energy Consumption	0.853	1.601	1.720		4.176
Electrical System Energy Losses	1.060	0.558	0.002	(1.620)	1.620
Total Energy Consumption	**1.913**	**2.159**	**1.722**		**5.796**

[1]Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.
[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 sector-specific conversion factors.
• Additional notes and sources are provided on the last four pages of this section.

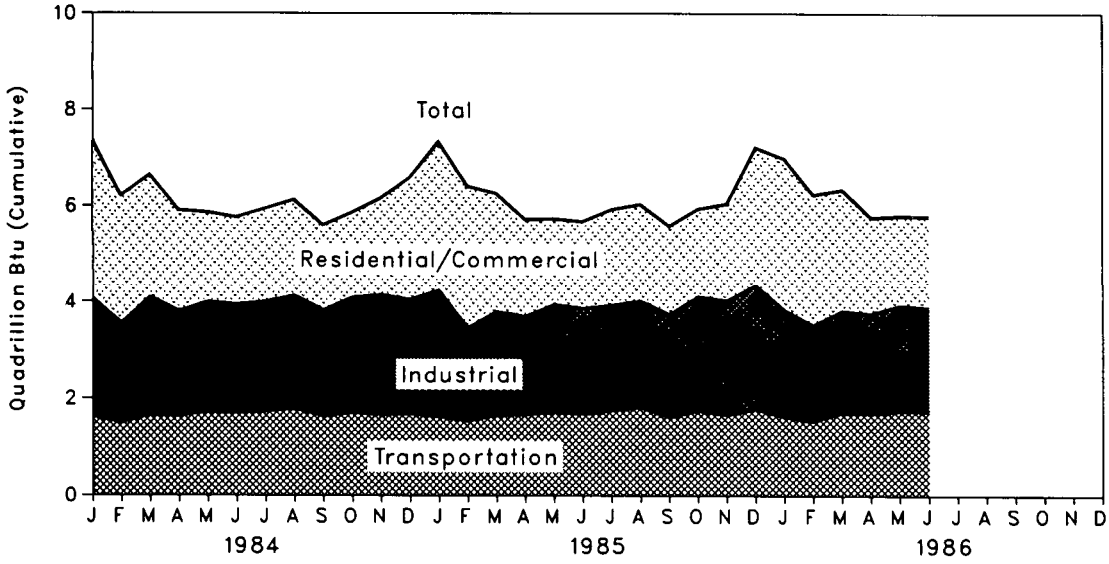
Consumption

Consumption of Energy by End-Use Sector

Yearly



Monthly



Consumption

Consumption of Energy by End-Use Sector

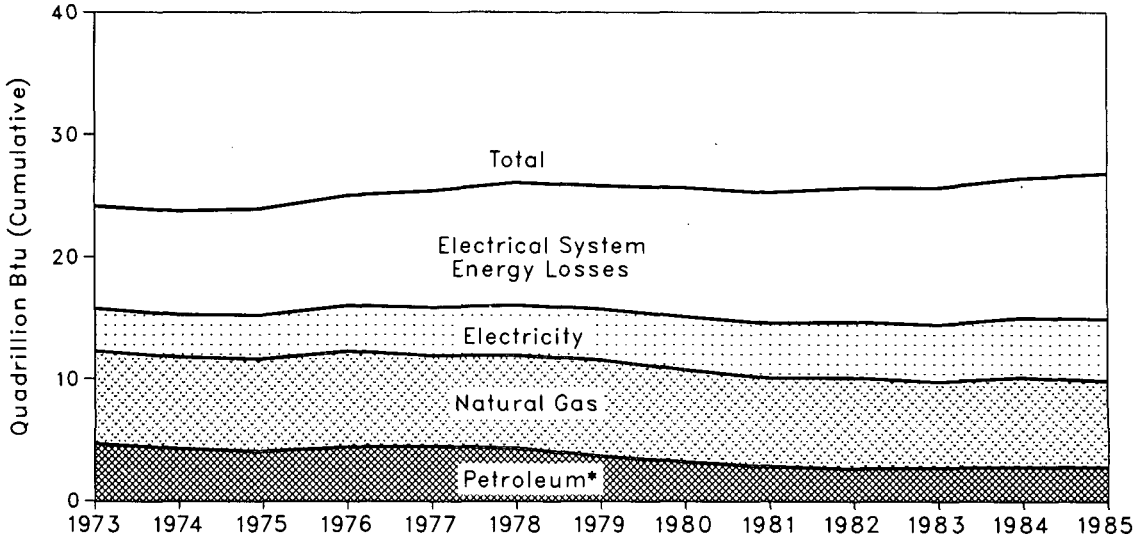
		Residential and Commercial	Industrial	Transportation	Total
			Quadrillion (10^{15}) Btu		
1973	**Total**	**24.142**	**31.537**	**18.596**	**74.282**
1974	**Total**	**23.726**	**30.697**	**18.113**	**72.543**
1975	**Total**	**23.899**	**28.407**	**18.240**	**70.546**
1976	**Total**	**25.018**	**30.243**	**19.093**	**74.362**
1977	**Total**	**25.384**	**31.089**	**19.808**	**76.289**
1978	**Total**	**26.084**	**31.414**	**20.589**	**78.088**
1979	**Total**	**25.808**	**32.624**	**20.464**	**78.898**
1980	**Total**	**25.655**	**30.605**	**19.693**	**75.952**
1981	**Total**	**25.241**	**29.251**	**19.495**	**73.989**
1982	**Total**	**25.630**	**26.140**	**19.066**	**70.840**
1983	**Total**	**25.615**	**25.746**	**19.132**	**70.495**
1984	January	3.298	2.450	1.610	7.360
	February	2.650	2.075	1.482	6.206
	March	2.555	2.450	1.644	6.648
	April	2.112	2.178	1.625	5.908
	May	1.879	2.285	1.708	5.868
	June	1.829	2.251	1.689	5.770
	July	1.948	2.279	1.718	5.948
	August	2.005	2.342	1.778	6.129
	September	1.784	2.210	1.614	5.608
	October	1.778	2.390	1.696	5.866
	November	2.023	2.490	1.646	6.161
	December	2.551	2.372	1.669	6.593
	Total	**26.411**	**27.773**	**19.878**	**74.064**
1985	January	3.106	2.623	1.607	7.340
	February	2.963	1.936	1.518	6.417
	March	2.462	2.158	1.639	6.258
	April	2.025	2.048	1.652	5.721
	May	1.799	2.234	1.708	5.738
	June	1.821	2.198	1.667	5.688
	July	2.004	2.191	1.739	5.936
	August	2.023	2.208	1.810	6.042
	September	1.847	2.149	1.599	5.594
	October	1.839	2.367	1.741	5.947
	November	2.023	2.375	1.653	6.051
	December	2.882	2.561	1.781	7.226
	Total	**26.796**	**27.048**	**20.114**	**73.959**
1986	January	3.155	2.229	1.612	6.998
	February	2.718	2.001	1.520	6.239
	March	2.524	2.122	1.701	6.346
	April	2.010	2.080	1.685	5.769
	May	R1.879	R2.189	1.737	R5.802
	June	1.913	2.159	1.722	5.796
	Year to Date	**14.198**	**12.780**	**9.977**	**36.950**

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.

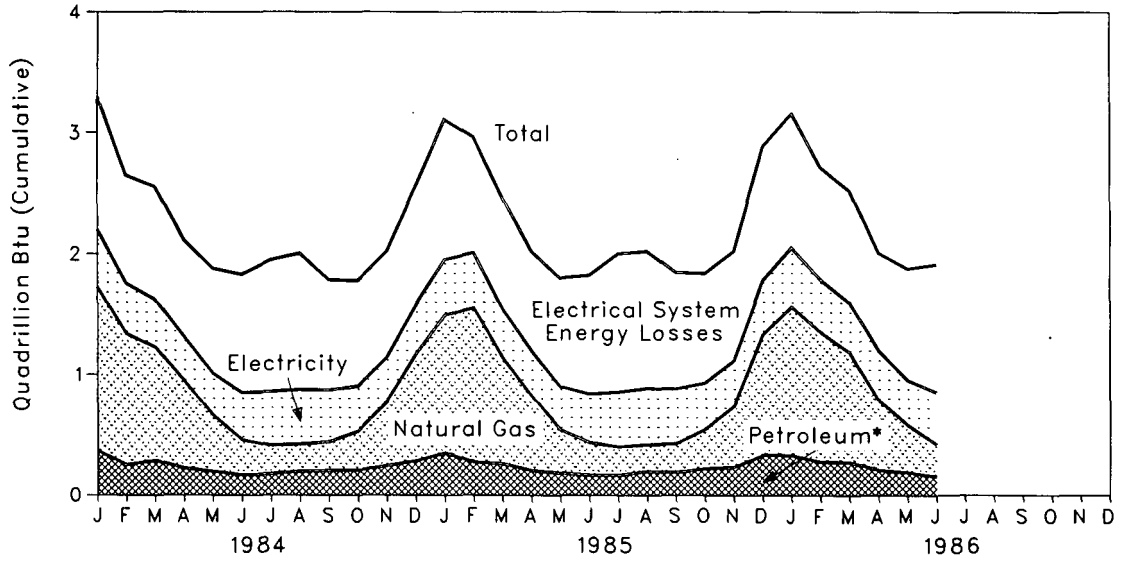
Consumption

Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



*Includes coal.

Consumption

Consumption of Energy by the Residential and Commercial Sector

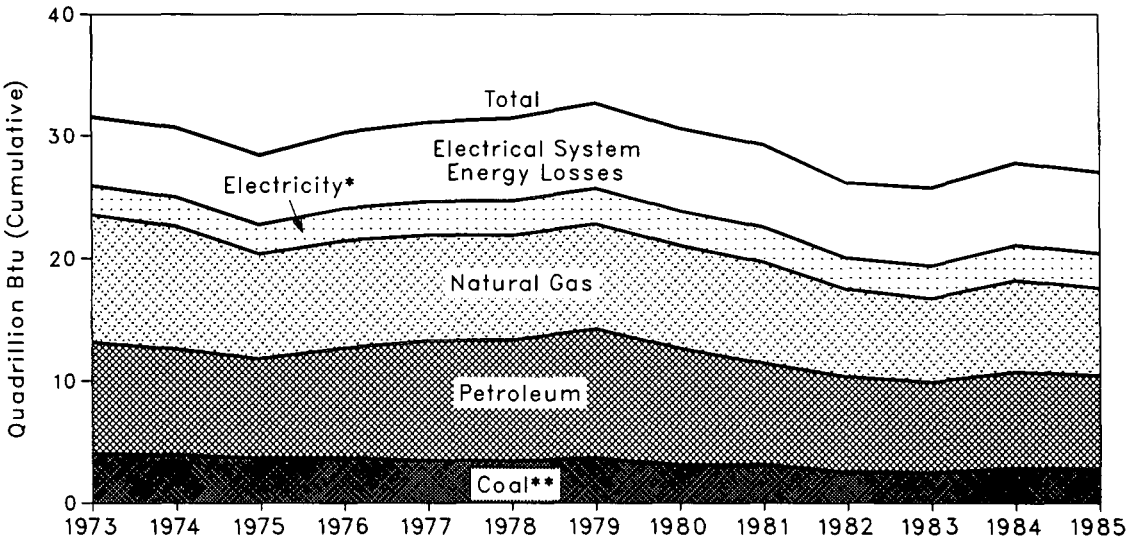
		Coal	Natural Gas[1]	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
					Quadrillion (10^{15}) Btu			
1973	**Total**	**0.254**	**7.626**	**4.391**	**3.495**	**8.377**	**24.142**	
1974	**Total**	**0.257**	**7.518**	**3.996**	**3.475**	**8.480**	**23.726**	
1975	**Total**	**0.209**	**7.581**	**3.805**	**3.604**	**8.700**	**23.899**	
1976	**Total**	**0.203**	**7.866**	**4.181**	**3.747**	**9.021**	**25.018**	
1977	**Total**	**0.205**	**7.461**	**4.206**	**3.955**	**9.556**	**25.384**	
1978	**Total**	**0.214**	**7.624**	**4.070**	**4.116**	**10.061**	**26.084**	
1979	**Total**	**0.187**	**7.891**	**3.448**	**4.184**	**10.100**	**25.808**	
1980	**Total**	**0.145**	**7.539**	**3.035**	**4.355**	**10.580**	**25.655**	
1981	**Total**	**0.168**	**7.242**	**2.634**	**4.497**	**10.700**	**25.241**	
1982	**Total**	**0.188**	**7.433**	**2.449**	**4.566**	**10.993**	**25.630**	
1983	**Total**	**0.196**	**7.025**	**2.499**	**4.680**	**11.214**	**25.615**	
1984	January	0.024	1.363	0.339	0.476	1.096	3.298	3.298
	February	0.021	1.086	0.230	0.418	0.895	2.650	5.947
	March	0.015	0.943	0.270	0.394	0.932	2.555	8.502
	April	0.022	0.727	0.201	0.360	0.802	2.112	10.614
	May	0.013	0.460	0.182	0.355	0.869	1.879	12.493
	June	0.010	0.286	0.158	0.395	0.979	1.829	14.322
	July	0.016	0.232	0.161	0.449	1.091	1.948	16.270
	August	0.015	0.222	0.181	0.456	1.131	2.005	18.275
	September	0.020	0.235	0.183	0.433	0.913	1.784	20.060
	October	0.016	0.320	0.190	0.377	0.874	1.778	21.838
	November	0.017	0.531	0.225	0.372	0.877	2.023	23.860
	December	0.022	0.886	0.261	0.410	0.973	2.551	26.411
	Total	**0.212**	**7.292**	**2.582**	**4.894**	**11.431**	**26.411**	
1985	January	0.019	1.148	0.329	0.457	1.153	3.106	3.106
	February	0.017	1.281	0.254	0.458	0.952	2.963	6.069
	March	0.012	0.882	0.248	0.400	0.921	2.462	8.531
	April	0.018	0.622	0.187	0.371	0.827	2.025	10.557
	May	0.011	0.351	0.173	0.366	0.899	1.799	12.356
	June	0.008	0.266	0.158	0.405	0.984	1.821	14.177
	July	0.012	0.233	0.153	0.457	1.149	2.004	16.181
	August	0.011	0.219	0.186	0.470	1.137	2.023	18.204
	September	0.015	0.235	0.174	0.457	0.966	1.847	20.051
	October	0.017	0.323	0.202	0.389	0.908	1.839	21.890
	November	0.018	0.503	0.215	0.381	0.907	2.023	23.913
	December	0.023	0.999	0.307	0.445	1.109	2.882	26.796
	Total	**0.181**	**7.063**	**2.584**	**5.055**	**11.913**	**26.796**	
1986	January	0.021	1.236	0.306	0.489	1.103	3.155	3.155
	February	0.018	1.077	0.257	0.436	0.930	2.718	5.873
	March	0.013	0.913	0.260	0.411	0.927	2.524	8.397
	April	0.017	0.579	0.191	0.413	0.810	2.010	10.407
	May	0.010	0.387	0.180	0.379	R0.923	R1.879	R12.286
	June	0.008	0.263	0.148	0.435	1.060	1.913	14.198
	Year to Date	**0.087**	**4.455**	**1.342**	**2.563**	**5.752**	**14.198**	

[1]Includes 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.

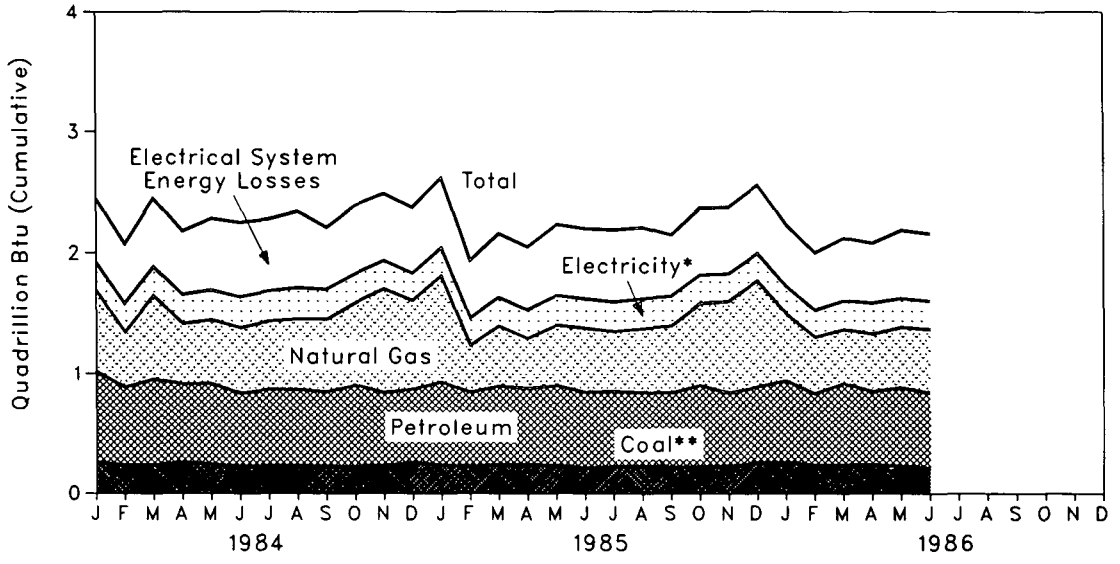
Consumption

Consumption of Energy by the Industrial Sector

Yearly



Monthly



*Includes hydroelectric power.
**Includes net imports of coal coke.

Consumption

Consumption of Energy by the Industrial Sector

		Coal	Natural Gas[1]	Petro-leum	Hydro-electric Power	Net Imports of Coal Coke	Electricity	Electrical System Energy Losses	Total	Year to Date
						Quadrillion (10^{15}) Btu				
1973	**Total**	**4.057**	**10.388**	**9.113**	**0.035**	**(0.007)**	**2.341**	**5.611**	**31.537**	
1974	**Total**	**3.870**	**10.003**	**8.698**	**0.033**	**0.056**	**2.337**	**5.700**	**30.697**	
1975	**Total**	**3.667**	**8.532**	**8.151**	**0.032**	**0.014**	**2.346**	**5.665**	**28.407**	
1976	**Total**	**3.661**	**8.761**	**9.018**	**0.033**	**0.000**	**2.573**	**6.198**	**30.243**	
1977	**Total**	**3.454**	**8.636**	**9.786**	**0.033**	**0.015**	**2.682**	**6.484**	**31.089**	
1978	**Total**	**3.314**	**8.539**	**9.890**	**0.032**	**0.125**	**2.761**	**6.755**	**31.414**	
1979	**Total**	**3.593**	**8.549**	**10.576**	**0.034**	**0.063**	**2.873**	**6.936**	**32.624**	
1980	**Total**	**3.155**	**8.394**	**9.524**	**0.033**	**(0.035)**	**2.781**	**6.752**	**30.605**	
1981	**Total**	**3.157**	**8.257**	**8.295**	**0.033**	**(0.016)**	**2.817**	**6.707**	**29.251**	
1982	**Total**	**2.552**	**7.116**	**7.798**	**0.033**	**(0.022)**	**2.542**	**6.121**	**26.140**	
1983	**Total**	**2.490**	**6.821**	**7.421**	**0.033**	**(0.016)**	**2.648**	**6.349**	**25.746**	
1984	January	0.256	0.675	0.764	0.003	0.001	0.228	0.524	2.450	2.450
	February	0.237	0.460	0.651	0.003	0.002	0.230	0.493	2.075	4.525
	March	0.238	0.694	0.716	0.003	(0.001)	0.238	0.562	2.450	6.975
	April	0.253	0.502	0.660	0.003	0.000	0.236	0.525	2.178	9.153
	May	0.245	0.531	0.673	0.003	(0.001)	0.241	0.592	2.285	11.438
	June	0.225	0.546	0.613	0.003	(0.002)	0.249	0.617	2.251	13.688
	July	0.227	0.570	0.640	0.003	(0.001)	0.245	0.595	2.279	15.968
	August	0.230	0.588	0.638	0.002	(0.002)	0.254	0.631	2.342	18.310
	September	0.223	0.604	0.625	0.002	0.000	0.243	0.513	2.210	20.520
	October	0.222	0.683	0.683	0.002	(0.003)	0.242	0.561	2.390	22.910
	November	0.232	0.860	0.611	0.002	(0.003)	0.234	0.553	2.490	25.400
	December	0.255	0.734	0.615	0.002	(0.001)	0.227	0.540	2.372	27.773
	Total	**2.842**	**7.448**	**7.889**	**0.032**	**(0.011)**	**2.868**	**6.705**	**27.773**	
1985	January	0.236	0.881	0.694	0.003	0.000	0.229	0.579	2.623	2.623
	February	0.223	0.391	0.618	0.003	0.001	0.227	0.473	1.936	4.559
	March	0.239	0.501	0.655	0.003	0.000	0.230	0.530	2.158	6.717
	April	0.240	0.412	0.637	0.003	0.001	0.234	0.521	2.048	8.765
	May	0.232	0.504	0.669	0.003	(0.003)	0.239	0.588	2.234	10.999
	June	0.213	0.533	0.631	0.003	(0.002)	0.239	0.581	2.198	13.198
	July	0.223	0.499	0.631	0.003	(0.002)	0.238	0.598	2.191	15.389
	August	0.226	0.531	0.617	0.002	(0.001)	0.244	0.589	2.208	17.597
	September	0.219	0.556	0.622	0.002	(0.003)	0.241	0.510	2.149	19.745
	October	0.221	0.679	0.680	0.002	(0.001)	0.236	0.551	2.367	22.112
	November	0.231	0.758	0.611	0.002	(0.003)	0.229	0.546	2.375	24.487
	December	0.254	0.880	0.634	0.002	(0.001)	0.226	0.564	2.561	27.048
	Total	**2.758**	**7.126**	**7.700**	**0.032**	**(0.013)**	**2.813**	**6.631**	**27.048**	
1986	January	0.255	0.557	0.686	0.003	0.000	0.224	0.505	2.229	2.229
	February	0.235	0.470	0.598	0.003	0.000	0.222	0.474	2.001	4.231
	March	0.236	0.449	0.684	0.003	(0.001)	0.231	0.520	2.122	6.353
	April	0.239	0.478	0.612	0.003	0.000	0.253	0.495	2.080	8.432
	May	0.230	0.502	0.657	0.003	(0.003)	0.232	R0.566	R2.189	R10.621
	June	0.212	0.529	0.628	0.003	0.000	0.229	0.558	2.159	12.780
	Year to Date	**1.407**	**2.986**	**3.865**	**0.018**	**(0.004)**	**1.390**	**3.118**	**12.780**	

[1]Includes supplemental gaseous fuels.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
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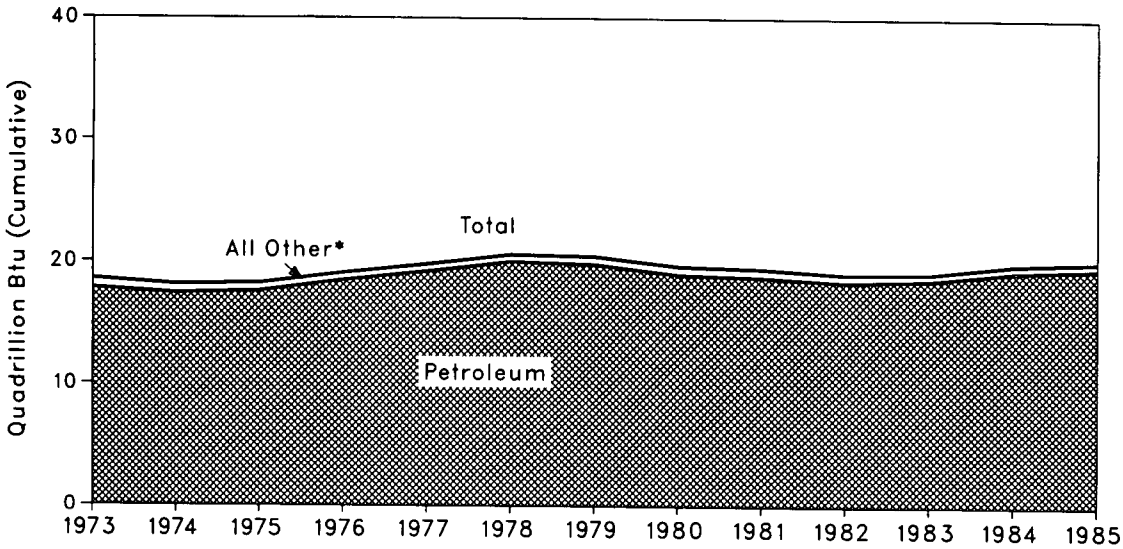
Additional Notes and Sources: • See the last four pages of this section.

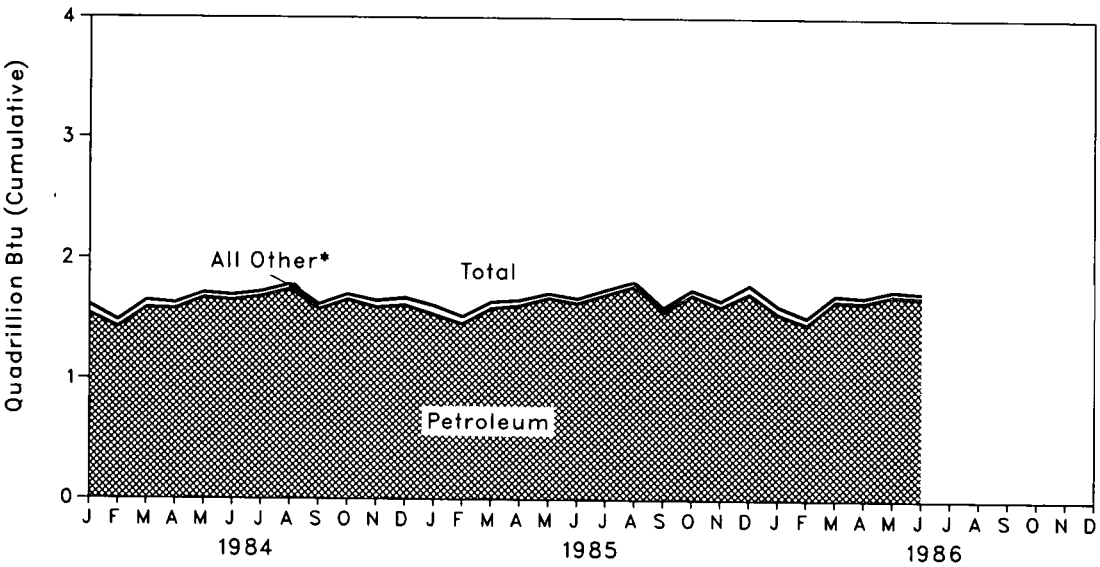
Consumption

Consumption of Energy by the Transportation Sector

Yearly



Monthly



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

Consumption

Consumption of Energy by the Transportation Sector

		Coal	Natural Gas[1]	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
				Quadrillion (10^{15}) 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]**	**0.657**	**18.800**	**0.011**	**0.026**	**19.495**	
1982	**Total**	**[2]**	**0.613**	**18.417**	**0.011**	**0.026**	**19.066**	
1983	**Total**	**[2]**	**0.504**	**18.591**	**0.011**	**0.026**	**19.132**	
1984	January	[2]	0.069	1.538	0.001	0.002	1.610	1.610
	February	[2]	0.053	1.427	0.001	0.002	1.482	3.093
	March	[2]	0.057	1.584	0.001	0.002	1.644	4.737
	April	[2]	0.044	1.578	0.001	0.002	1.625	6.361
	May	[2]	0.038	1.667	0.001	0.002	1.708	8.070
	June	[2]	0.035	1.650	0.001	0.002	1.689	9.758
	July	[2]	0.035	1.679	0.001	0.002	1.718	11.476
	August	[2]	0.036	1.738	0.001	0.002	1.778	13.254
	September	[2]	0.034	1.577	0.001	0.002	1.614	14.867
	October	[2]	0.039	1.654	0.001	0.002	1.696	16.563
	November	[2]	0.049	1.593	0.001	0.002	1.646	18.209
	December	[2]	0.056	1.610	0.001	0.002	1.669	19.878
	Total	**[2]**	**0.545**	**19.295**	**0.011**	**0.027**	**19.878**	
1985	January	[2]	0.069	1.535	0.001	0.003	1.607	1.607
	February	[2]	0.057	1.459	0.001	0.002	1.518	3.126
	March	[2]	0.048	1.587	0.001	0.002	1.639	4.764
	April	[2]	0.039	1.610	0.001	0.002	1.652	6.417
	May	[2]	0.033	1.672	0.001	0.002	1.708	8.125
	June	[2]	0.033	1.631	0.001	0.002	1.667	9.792
	July	[2]	0.033	1.703	0.001	0.003	1.739	11.531
	August	[2]	0.034	1.772	0.001	0.002	1.810	13.341
	September	[2]	0.033	1.562	0.001	0.002	1.599	14.939
	October	[2]	0.038	1.699	0.001	0.002	1.741	16.680
	November	[2]	0.045	1.605	0.001	0.002	1.653	18.333
	December	[2]	0.064	1.713	0.001	0.003	1.781	20.114
	Total	**[2]**	**0.526**	**19.547**	**0.012**	**0.028**	**20.114**	
1986	January	[2]	0.060	1.549	0.001	0.002	1.612	1.612
	February	[2]	0.052	1.465	0.001	0.002	1.520	3.132
	March	[2]	0.046	1.652	0.001	0.002	1.701	4.833
	April	[2]	0.038	1.643	0.001	0.002	1.685	6.518
	May	[2]	0.034	1.700	0.001	0.002	1.737	8.255
	June	[2]	0.032	1.687	0.001	0.002	1.722	9.977
	Year to Date	**[2]**	**0.262**	**9.696**	**0.006**	**0.013**	**9.977**	

[1]Pipeline fuel only, including supplemental gaseous fuels.
[2]Since 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.
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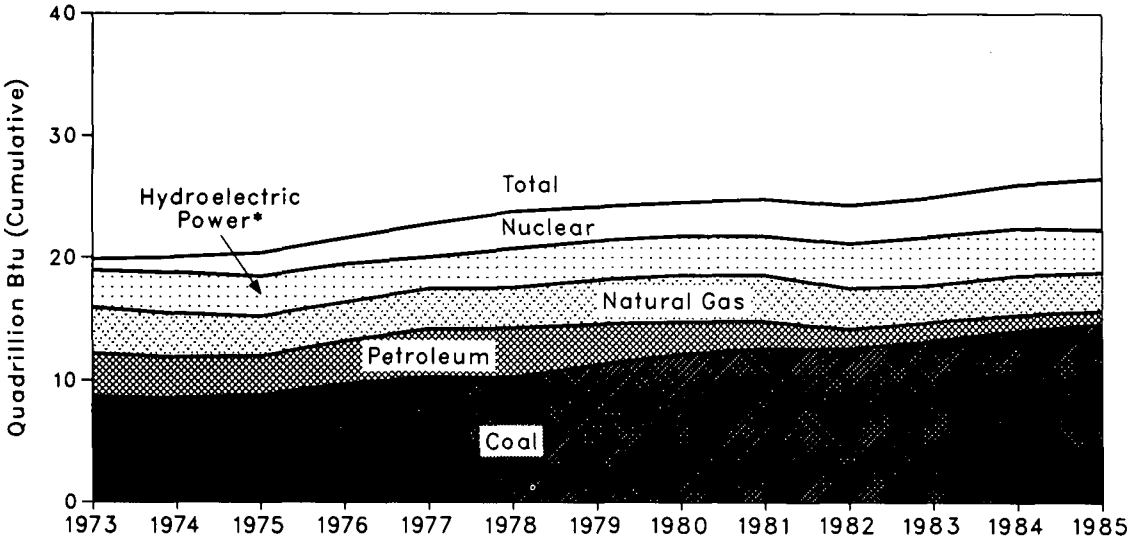
Additional Notes and Sources: • See the last four pages of this section.

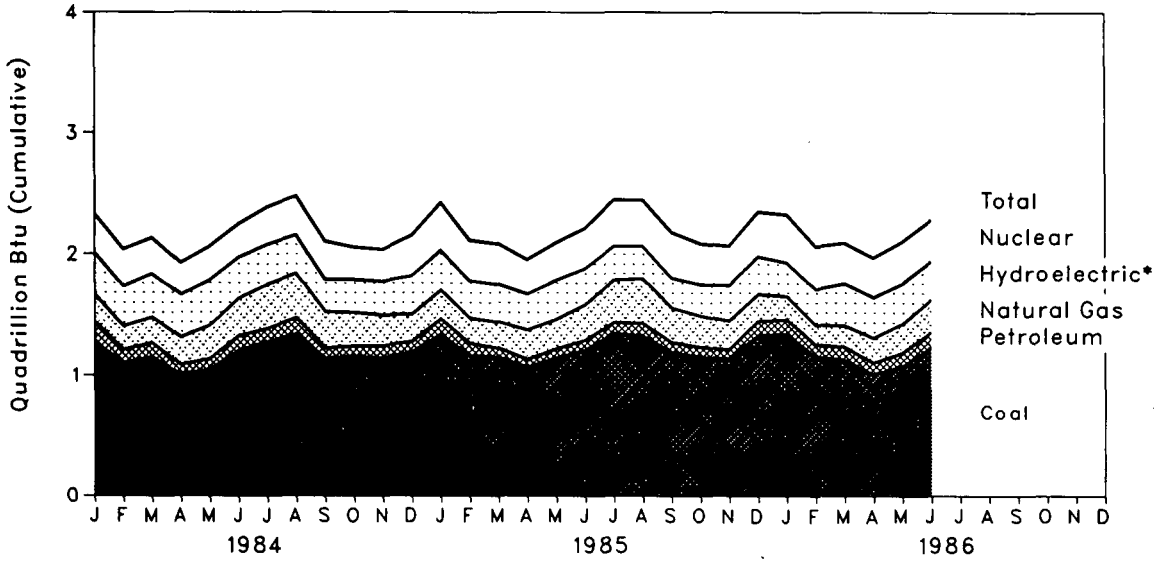
Consumption

Energy Input at Electric Utilities

Yearly



Monthly



*Includes other.

Consumption

Energy Input at Electric Utilities

		Coal	Natural Gas[1]	Petroleum[2]	Hydroelectric 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**	**8.534**	**3.519**	**3.365**	**3.276**	**1.272**	**0.056**	**20.022**	
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**	**21.574**	
1977	**Total**	**10.262**	**3.284**	**3.901**	**2.482**	**2.702**	**0.082**	**22.713**	
1978	**Total**	**10.238**	**3.297**	**3.987**	**3.110**	**3.024**	**0.068**	**23.724**	
1979	**Total**	**11.260**	**3.613**	**3.283**	**3.107**	**2.776**	**0.089**	**24.128**	
1980	**Total**	**12.123**	**3.810**	**2.634**	**3.085**	**2.739**	**0.114**	**24.505**	
1981	**Total**	**12.583**	**3.768**	**2.202**	**3.072**	**3.008**	**0.127**	**24.760**	
1982	**Total**	**12.582**	**3.342**	**1.568**	**3.528**	**3.131**	**0.108**	**24.259**	
1983	**Total**	**13.213**	**2.998**	**1.544**	**3.838**	**3.203**	**0.133**	**24.929**	
1984	January	1.271	0.223	0.169	0.335	0.318	0.011	2.327	2.327
	February	1.103	0.194	0.108	0.313	0.308	0.013	2.039	4.365
	March	1.151	0.213	0.115	0.340	0.296	0.015	2.130	6.495
	April	1.004	0.228	0.081	0.336	0.263	0.014	1.925	8.420
	May	1.045	0.274	0.090	0.357	0.280	0.014	2.060	10.480
	June	1.202	0.308	0.121	0.325	0.274	0.013	2.243	12.723
	July	1.274	0.361	0.111	0.318	0.307	0.013	2.383	15.107
	August	1.338	0.362	0.137	0.302	0.320	0.016	2.475	17.582
	September	1.140	0.301	0.083	0.250	0.316	0.015	2.106	19.687
	October	1.155	0.279	0.084	0.254	0.269	0.016	2.057	21.745
	November	1.144	0.253	0.100	0.260	0.266	0.016	2.040	23.784
	December	1.193	0.225	0.086	0.296	0.335	0.018	2.153	25.937
	Total	**14.020**	**3.220**	**1.286**	**3.684**	**3.553**	**0.174**	**25.937**	
1985	January	1.335	0.234	0.132	0.311	0.392	0.018	2.421	2.421
	February	1.164	0.210	0.101	0.289	0.334	0.016	2.113	4.534
	March	1.149	0.215	0.077	0.289	0.337	0.018	2.084	6.618
	April	1.067	0.242	0.066	0.278	0.287	0.016	1.956	8.574
	May	1.145	0.244	0.075	0.303	0.311	0.016	2.095	10.670
	June	1.208	0.292	0.083	0.280	0.334	0.016	2.213	12.883
	July	1.347	0.348	0.090	0.261	0.382	0.018	2.446	15.328
	August	1.323	0.367	0.107	0.250	0.377	0.018	2.443	17.771
	September	1.191	0.284	0.082	0.229	0.374	0.018	2.178	19.949
	October	1.153	0.258	0.082	0.239	0.338	0.017	2.088	22.037
	November	1.139	0.238	0.075	0.267	0.327	0.021	2.067	24.104
	December	1.329	0.218	0.120	0.292	0.366	0.022	2.348	26.452
	Total	**14.549**	**3.151**	**1.090**	**3.289**	**4.160**	**0.213**	**26.452**	
1986	January	1.343	0.190	0.119	0.257	0.393	0.023	2.324	2.324
	February	1.154	0.163	0.101	0.272	0.355	0.019	2.064	4.388
	March	1.130	0.176	0.107	0.325	0.334	0.020	2.092	6.480
	April	1.009	0.204	0.097	0.315	0.330	0.018	1.974	8.454
	May	1.078	0.239	0.111	0.311	R0.346	0.018	R2.104	R10.558
	June	1.235	0.269	0.123	0.298	0.340	0.020	2.284	12.842
	Year to Date	**6.949**	**1.242**	**0.658**	**1.777**	**2.098**	**0.118**	**12.842**	

[1]Includes supplemental gaseous fuels.
[2]Includes 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.
[3]Includes net imports of electricity.
[4]Other is 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.
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, natural gas (including supplemental gaseous fuels), 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.

Rewrite? Use in Pt. 2 Notes

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

- Residential and Commercial Sector— private household establishments (which consume energy primarily for space heating, water heating, air conditioning, lighting, refrigeration, cooking, and clothes drying); nonmanufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public swimming pools are also included.
- Industrial Sector-manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- Transportation Sector—private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.
- Electric Utility Sector-privately and publicly owned establishments that generate electricity primarily for use by the public.

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

4. Coal: Coal is anthracite, bituminous coal, (including subbituminous 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 through 1984: EIA, *Natural Gas Annual.*
- 1985 forward: EIA, *Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and EIA computations.*
- 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 1984: EIA, *Petroleum Supply Annual.*
- 1985 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 small amounts of kerosene deliveries through 1982) 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."
  - ***Non-Electric Utility Sectors, Annual Estimates Through 1984.***

    The aggregate non-electric utility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility 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" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:
    - Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category 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)**
  - ***Non-Electric Utility Sectors, Annual Estimates Through 1984 (cont'd).***
    - Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1984 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years.
  - ***Non-Electric Utility Sectors, Monthly Estimates Through 1984.***
    - 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, the American Petroleum Institute for 1981 and 1982, and the Form EIA-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report," for 1983 and 1984.
    - 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.
  - ***Non-Electric Utility Sectors, 1985 Forward.*** Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1984.

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

- **Kerosene**—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" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:
  - Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Deliveries for 1984 are used as estimates for succeeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;
  - Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Deliveries for 1984 are used as estimates for succeeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
  - Industrial sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Deliveries for 1984 are used as estimates for succeeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to "all other uses."

- **Liquefied Petroleum Gases (LPG)**—The annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption (i.e., product supplied) 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 be 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 60 percent transportation and 40 percent industrial in 1984.
  - 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 sources of the annual sales data for creating annual end-use shares are:
  - 1973 through 1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
  - 1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption estimates because the collection of data under Form EIA-174 was discontinued after data year 1982.
  - 1984: American Petroleum Institute (API), "1984 Sales of Natural Gas Liquids and Liquefied Refinery Gases" (October 1985) based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.
  - Succeeding periods: The 1984 source is used to estimate succeeding periods.

- **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 petroleum coke 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 power 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."
  - — ***Non-Electric Utility Sectors, Annual Estimates Through 1984.***
    The aggregate non-electric utility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility 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" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:
    - Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1984 are the sum of deliveries for industrial, oil company, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years.
  - — ***Non-Electric Utility Sectors, Monthly Estimates Through 1984.***
    - 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 fuel oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980, the American Petroleum Institute for 1981 and 1982, and the Form EIA-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report," for 1983 and 1984.
    - 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.
  - — ***Non-Electric Utility Sectors, 1985 Forward.***
    Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1984.

- **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 Power: 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 through 1984: DOE, Economic Regulatory Administration, ERA-781, "Annual Report of International Electric Import/Export Data."
- 1985 forward: 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 Electric Power and Geothermal, Wood, Waste, Wind, Photovoltaic, and Solar Thermal Energy Sources Connected to Electric Utility Distribution Systems:

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: EIA, *Energy Data Report,* "Coke Plant Report," quarterly.
- 1982 forward: EIA, *Quarterly Coal Report.*

10. Electricity: Sales of electricity represent consumption. From the sources cited below the following electricity sales categories are available: residential, commercial, 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 kilowatthour.

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."

11. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total energy input at electric utilities and the total energy content of electricity sold to end-use consumers. Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. This loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses are a result of imputing fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring these thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line-losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, approximately 67 percent of total energy input is lost in conversion; of electricity generated, approximately 5 percent is lost in plant use and 9 percent in transmission and distribution. Calculated electrical system energy losses may be less than actual losses, because primary consumption does not include the energy equivalent of utility purchases of electricity from non-electric utilities and from Canada and Mexico, although they are included in electricity sales.

Petroleum*

Domestic crude oil production during August 1986 was estimated to be 8.7 million barrels per day, slightly lower than the July rate, and 1.1 percent lower than the August 1985 rate.

Total petroleum imports averaged 6.6 million barrels per day in August 1986, 2.0 percent less than the July 1986 rate but 40.9 percent more than the August 1985 rate.

In August 1986, 16.3 million barrels per day of petroleum products were supplied for domestic use, 1.5 percent above the level in July 1986 and 1.6 percent above the level of the previous August. Motor gasoline accounted for 45.3 percent of the total; distillate fuel oil, 15.9 percent; and residual fuel oil, 8.2 percent.

Motor gasoline supplied during August 1986 averaged 7.4 million barrels per day, 1.6 percent below the rate in July 1986 but 2.1 percent above the rate of the previous August. Stocks of motor gasoline totaled 221 million barrels at the end of August 1986, 4 million barrels below the level at the end of July 1986 and 1 million barrels below the stocks level 1 year earlier.

In August 1986, 2.6 million barrels of distillate fuel oil were supplied per day, 4.9 percent higher than the July 1986 rate but 1.4 percent lower than the August 1985 rate. Distillate fuel oil ending stocks for August 1986 were 135 million barrels, 12 million barrels higher than the stocks level in the previous month and 21 million barrels higher than the August 1985 ending stocks level.

Residual fuel oil supplied in August 1986 averaged 1.3 million barrels per day, 11.5 percent lower than the July 1986 rate but 14.5 percent higher than the August 1985 rate. Residual fuel oil stocks measured 40 million barrels at the end of August 1986, the same stocks level as the previous month but 3 million barrels higher than the stocks level 1 year earlier.

*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 May 1986. The total import data above include imports into the Strategic Petroleum Reserve.

Petroleum

Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] 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**	**[6]-17**	**[6]-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**	**[6]1,392**
1981	**Average**	**10,230**	**8,572**	**1,609**	**[6]-290**	**[6]130**	**16,058**	**1,484**
1982	**Average**	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	**[6]1,430**
1983	**Average**	**10,299**	**8,688**	**1,559**	**[6]-214**	**[6]234**	**15,231**	**1,454**
1984	January	10,477	8,868	1,572	-328	1,115	16,801	1,429
	February	10,565	8,874	1,635	197	-1,374	15,437	1,463
	March	10,319	8,672	1,599	-25	641	16,050	1,444
	April	10,531	8,862	1,619	-476	-106	15,568	1,462
	May	10,623	8,955	1,614	-677	-434	15,620	1,496
	June	10,507	8,852	1,613	-104	-109	15,709	1,503
	July	10,587	8,885	1,634	-169	-169	15,498	1,513
	August	10,478	8,809	1,637	250	252	16,116	1,498
	September	10,692	8,993	1,660	260	-769	15,247	1,513
	October	10,608	8,906	1,649	-759	-246	15,616	1,544
	November	10,689	8,979	1,678	-236	-177	15,627	1,556
	December	10,578	8,897	1,649	-290	293	15,375	1,556
	Average	**10,554**	**8,879**	**1,630**	**-199**	**-81**	**15,726**	
1985	January	10,412	8,740	1,628	76	1,351	16,109	1,512
	February	10,692	9,025	1,623	425	1,347	16,121	1,462
	March	10,748	9,095	1,600	-309	403	15,373	1,460
	April	10,673	9,043	1,582	-520	56	15,472	1,473
	May	10,770	9,132	1,594	-700	-399	15,504	1,508
	June	10,664	9,022	1,597	264	-382	15,483	1,511
	July	10,550	8,949	1,568	326	-496	15,434	1,516
	August	10,485	8,803	1,594	159	568	16,060	1,494
	September	10,584	8,954	1,575	-34	-255	15,099	1,502
	October	10,637	8,970	1,610	98	124	15,944	1,496
	November	10,640	8,902	1,660	-295	-634	15,503	1,523
	December	10,777	9,030	1,680	-58	207	16,611	1,519
	Average	**10,636**	**8,971**	**1,609**	**-50**	**153**	**15,726**	
1986	January	10,716	8,942	1,721	-461	-228	15,923	1,538
	February	10,686	8,940	1,710	-35	847	16,056	1,515
	March	10,596	8,939	1,617	-338	1,178	16,188	1,489
	April	10,413	8,815	1,561	27	265	15,743	1,480
	May	10,462	8,805	1,594	264	-1,089	15,852	1,506
	June	10,406	8,792	1,555	50	-1,226	15,998	1,541
	July	10,354	8,737	1,558	R-580	R-615	R16,075	R1,578
	August†	NA	8,708	NA	*305*	*-552*	*16,323*	*1,557*
	Average	**NA**	**8,834**	**NA**	**-98**	**-188**	**16,021**	

[1]Includes lease condensate.
[2]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3]Stocks are totals as of end of period.
[4]Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[5]Includes stocks located in the Strategic Petroleum Reserve.
[6]Includes crude oil for storage in the Strategic Petroleum Reserve.
[7]Net imports equals imports minus exports.
[8]In 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 Oil[1] and Petroleum Products Overview (continued)

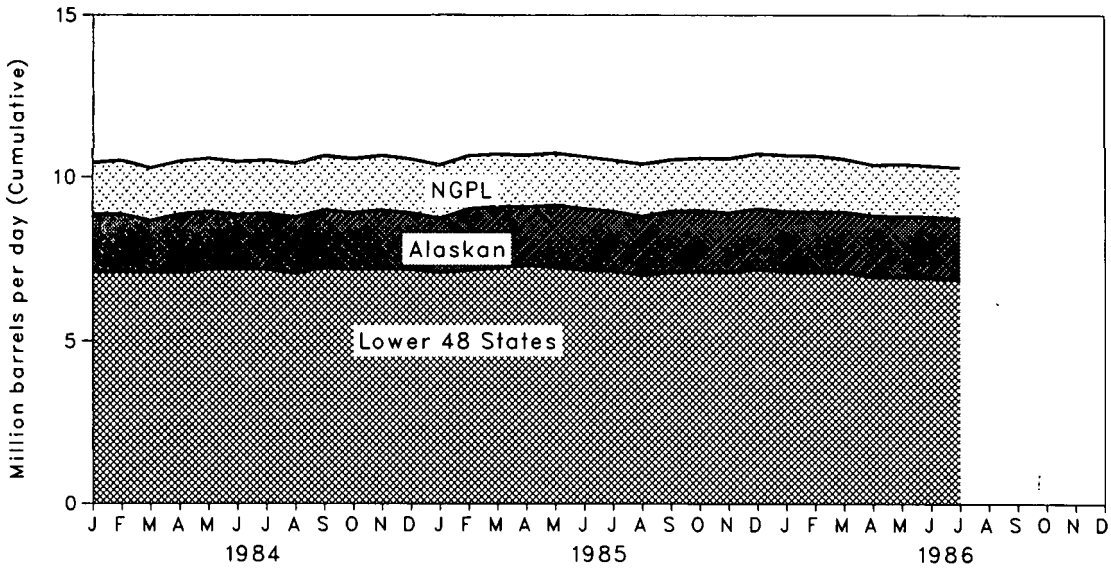
		Imports			Exports			
		Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[7]
		Thousand barrels per day						
1973	**Average**	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974	**Average**	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975	**Average**	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976	**Average**	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977	**Average**	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978	**Average**	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979	**Average**	**8,456**	**6,519**	**1,937**	**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	**Average**	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983	**Average**	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984	January	5,430	3,055	2,375	575	153	422	4,855
	February	5,693	2,950	2,743	582	185	397	5,111
	March	5,301	3,470	1,832	840	236	605	4,461
	April	5,372	3,417	1,955	655	172	483	4,717
	May	5,979	3,942	2,036	766	219	548	5,212
	June	5,482	3,546	1,936	864	222	642	4,618
	July	5,407	3,646	1,761	536	108	429	4,871
	August	5,044	3,248	1,796	732	190	542	4,312
	September	5,252	3,342	1,909	664	162	502	4,588
	October	5,779	3,751	2,028	599	141	458	5,179
	November	5,587	3,583	2,004	854	202	652	4,733
	December	4,933	3,136	1,796	986	185	801	3,947
	Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985	January	4,415	2,717	1,698	792	144	647	3,623
	February	3,913	2,108	1,805	857	221	636	3,056
	March	4,673	2,786	1,887	694	189	505	3,979
	April	5,316	3,401	1,915	764	236	528	4,553
	May	5,776	3,730	2,046	705	250	455	5,071
	June	4,929	3,188	1,741	692	226	467	4,237
	July	4,950	3,203	1,747	675	154	521	4,274
	August	4,718	3,114	1,603	749	241	508	3,969
	September	4,970	3,155	1,816	806	188	618	4,164
	October	5,121	3,238	1,883	690	123	567	4,431
	November	6,116	3,999	2,118	1,036	286	750	5,080
	December	5,831	3,696	2,135	925	197	728	4,905
	Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986	January	5,386	3,329	2,057	853	159	694	4,533
	February	4,622	3,005	1,617	866	162	704	3,756
	March	4,638	3,000	1,637	710	212	498	3,927
	April	5,310	3,709	1,601	827	94	733	4,483
	May	6,016	4,029	1,987	715	98	616	5,301
	June	6,802	4,675	2,128	623	240	383	6,179
	July	R6,784	R4,648	R2,136	638	65	573	6,145
	August†	*6,648*	*4,840*	*1,808*	NA	NA	NA	NA
	Average	**5,788**	**3,913**	**1,875**	**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.

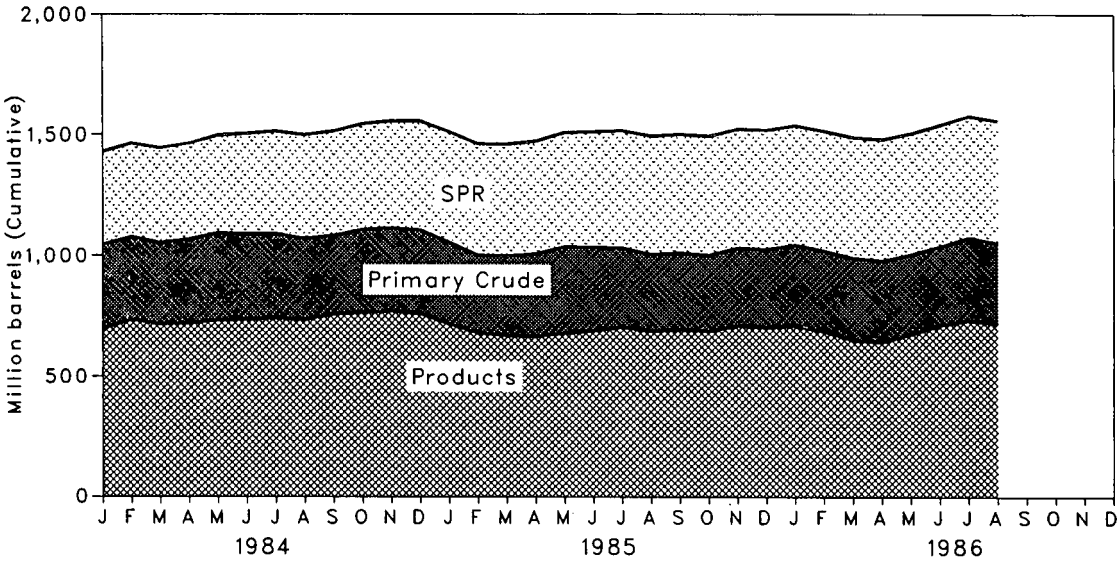
Petroleum

Overview

Production of Crude Oil and Natural Gas Plant Liquids



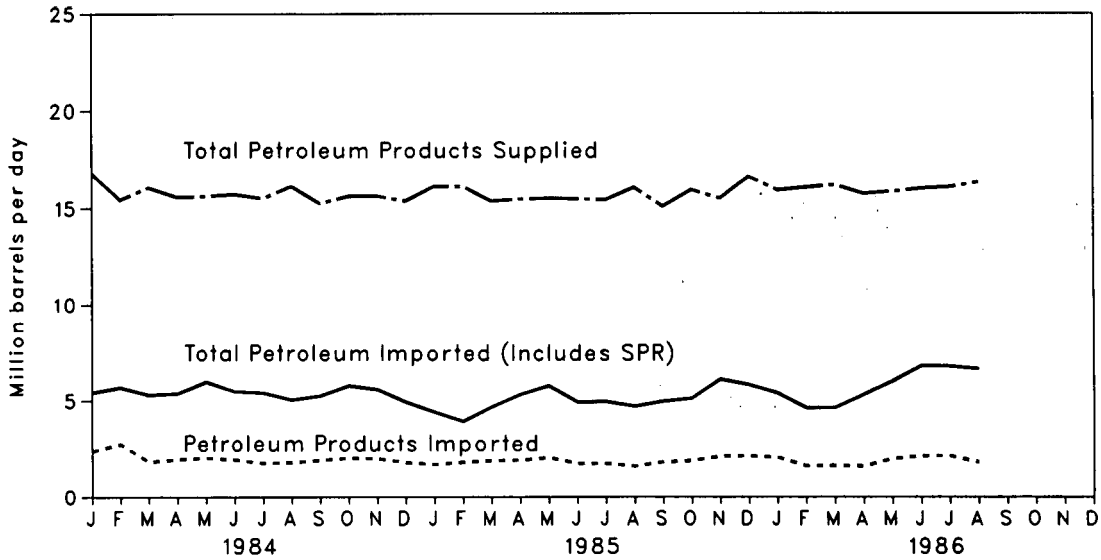
Ending Stocks



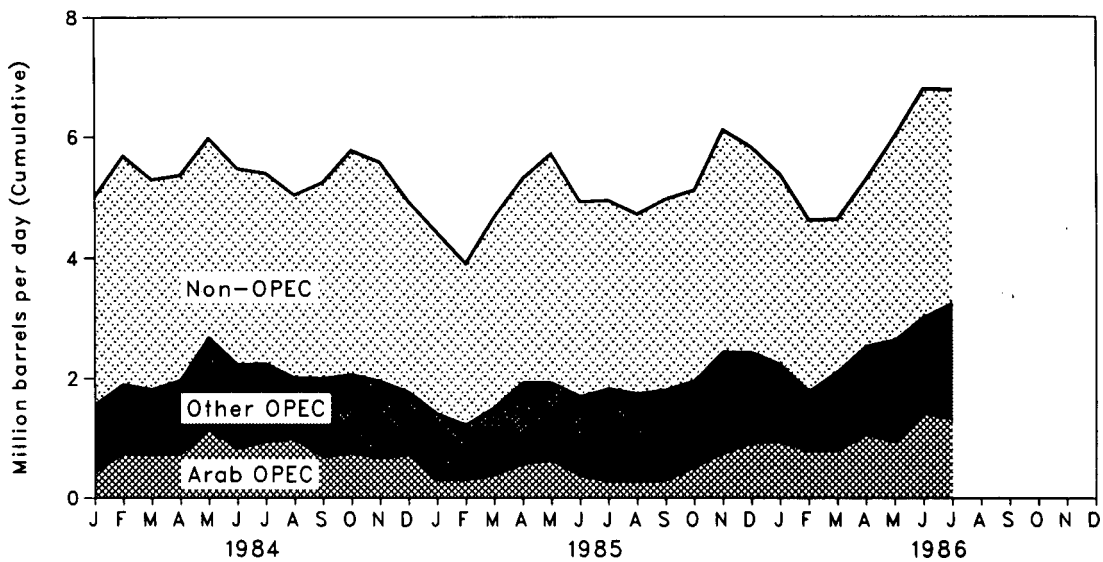
Petroleum

Overview

Products Supplied and Imports



Petroleum Imports by Source



Petroleum

Crude Oil[1] Supply and Disposition

		Supply							
		Field Production		Imports			Stock Withdrawal[3]		Unaccounted for Crude Oil
		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**	**[6]46**	**83**
1982	**Average**	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983	**Average**	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**-234**	**[6]20**	**114**
1984	January	8,868	1,752	3,055	200	2,855	-173	-155	211
	February	8,874	1,749	2,950	85	2,866	-96	293	386
	March	8,672	1,570	3,470	148	3,322	-147	122	110
	April	8,862	1,770	3,417	170	3,248	-170	-307	325
	May	8,955	1,764	3,942	246	3,696	-245	-432	309
	June	8,852	1,659	3,546	309	3,237	-309	205	246
	July	8,885	1,695	3,646	329	3,317	-328	159	-164
	August	8,809	1,722	3,248	180	3,068	-179	429	293
	September	8,993	1,761	3,342	53	3,289	-53	314	-94
	October	8,906	1,732	3,751	187	3,565	-186	-573	291
	November	8,979	1,781	3,583	219	3,364	-207	-29	47
	December	8,897	1,720	3,136	229	2,907	-241	-50	262
	Average	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**-195**	**-4**	**185**
1985	January	8,740	1,647	2,717	223	2,494	-223	298	122
	February	9,025	1,877	2,108	98	2,010	-97	522	94
	March	9,095	1,866	2,786	48	2,738	-48	-262	59
	April	9,043	1,784	3,401	108	3,293	-111	-409	183
	May	9,132	1,888	3,730	222	3,508	-225	-475	247
	June	9,022	1,871	3,188	155	3,034	-155	419	100
	July	8,949	1,809	3,203	226	2,977	-225	551	177
	August	8,803	1,795	3,114	116	2,999	-116	274	267
	September	8,954	1,867	3,155	71	3,084	-71	37	93
	October	8,970	1,850	3,238	20	3,218	-20	119	81
	November	8,902	1,804	3,999	53	3,946	-53	-242	150
	December	9,030	1,852	3,696	74	3,621	-60	2	164
	Average	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**-117**	**67**	**145**
1986	January	8,942	1,822	3,329	51	3,277	-35	-426	788
	February	8,940	1,823	3,005	24	2,981	-35	(s)	241
	March	8,939	1,824	3,000	59	2,941	-49	-289	316
	April	8,815	1,862	3,709	63	3,646	-63	90	79
	May	8,805	1,862	4,029	36	3,993	-35	300	308
	June	8,792	1,863	4,675	64	4,611	-64	114	36
	July	8,737	1,871	R4,648	R52	R4,595	R-52	R-528	214
	August†	8,708	1,871	*4,840*	*51*	*4,789*	*-51*	*356*	*NA*
	Average	**8,834**	**1,850**	**3,913**	**50**	**3,863**	**-48**	**-50**	**NA**

[1]Includes lease condensate.
[2]Stocks are totals as of end of period.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]Strategic Petroleum Reserve.
[5]Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[6]Stocks 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 Oil[1] Supply and Disposition (continued)

		Supply	Disposition				Ending Stocks[2]		
		Crude Used Directly[5]	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**		**242**		**242**
1974	**Average**	**-15**	**13**	**12,133**	**3**		**265**		**265**
1975	**Average**	**-17**	**13**	**12,442**	**6**		**271**		**271**
1976	**Average**	**-18**	**15**	**13,416**	**8**		**285**		**285**
1977	**Average**	**-14**	**16**	**14,602**	**50**		**348**	**7**	**340**
1978	**Average**	**-14**	**16**	**14,739**	**158**		**376**	**67**	**309**
1979	**Average**	**-13**	**16**	**14,648**	**235**		**430**	**91**	**339**
1980	**Average**	**-13**	**15**	**13,481**	**287**		**[6]466**	**108**	**[6]358**
1981	**Average**	**-58**	**5**	**12,470**	**228**		**594**	**230**	**363**
1982	**Average**	**-59**	**3**	**11,774**	**236**		**[6]644**	**294**	**350**
1983	**Average**	**NA**	**2**	**11,685**	**164**	**66**	**723**	**379**	**344**
1984	January	NA	1	11,587	153	64	733	384	349
	February	NA	1	12,157	185	65	727	387	340
	March	NA	2	11,926	236	62	728	392	336
	April	NA	1	11,891	172	64	742	397	346
	May	NA	2	12,247	219	62	763	404	359
	June	NA	2	12,255	222	61	767	414	353
	July	NA	2	12,028	108	60	772	424	348
	August	NA	1	12,346	190	63	764	429	335
	September	NA	3	12,271	162	66	756	431	325
	October	NA	1	11,978	141	69	780	437	343
	November	NA	(s)	12,108	202	62	787	443	344
	December	NA	(s)	11,755	185	64	796	451	345
	Average	**NA**	**2**	**12,044**	**181**	**64**			
1985	January	NA	1	11,445	144	63	794	457	336
	February	NA	1	11,367	221	63	782	460	322
	March	NA	1	11,372	189	69	791	462	330
	April	NA	1	11,805	236	67	807	465	342
	May	NA	1	12,094	250	65	829	472	357
	June	NA	1	12,292	226	56	821	477	344
	July	NA	1	12,445	154	55	811	484	327
	August	NA	(s)	12,045	241	55	806	487	318
	September	NA	(s)	11,925	188	55	807	489	317
	October	NA	(s)	12,209	123	55	804	490	314
	November	NA	(s)	12,410	286	59	812	491	321
	December	NA	1	12,570	197	63	814	493	321
	Average	**NA**	**1**	**12,002**	**204**	**60**			
1986	January	NA	3	12,375	159	62	826	494	332
	February	NA	(s)	11,921	162	68	827	495	332
	March	NA	1	11,648	212	56	838	497	341
	April	NA	1	12,483	94	51	837	499	338
	May	NA	(s)	13,259	98	49	829	500	329
	June	NA	(s)	13,260	240	52	827	502	325
	July	NA	(s)	R12,902	65	51	R845	503	R343
	August†	NA	NA	*13,267*	NA	NA	*836*	*505*	*331*
	Average	**NA**	**NA**	**12,646**	**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 Sources[1]										
		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	**Average**	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983	**Average**	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984	January	242	0	477	114	289	0	243	549	51	1,965	842
	February	369	7	324	33	267	0	244	478	174	1,896	751
	March	285	0	310	112	283	67	269	358	127	1,811	723
	April	280	0	320	95	226	0	288	593	158	1,962	735
	May	471	0	329	240	479	0	289	627	242	2,677	1,146
	June	302	0	411	46	415	0	243	640	171	2,227	838
	July	332	0	429	112	384	0	204	539	242	2,241	946
	August	404	0	438	82	281	0	114	475	216	2,009	993
	September	359	0	159	113	333	17	160	715	147	2,002	688
	October	333	0	287	114	421	0	208	585	115	2,062	754
	November	298	0	183	124	424	24	163	564	173	1,954	668
	December	204	0	224	211	314	12	166	459	174	1,765	723
	Average	**323**	**1**	**325**	**117**	**343**	**10**	**216**	**548**	**166**	**2,049**	**819**
1985	January	112	0	106	60	296	0	262	481	89	1,405	305
	February	174	0	108	0	232	0	119	524	64	1,220	307
	March	247	0	85	52	283	0	164	588	84	1,505	385
	April	286	8	201	70	313	0	280	684	86	1,928	575
	May	255	0	41	128	265	0	381	552	354	1,976	635
	June	178	5	26	81	438	0	357	452	152	1,690	378
	July	125	10	44	13	390	42	381	573	248	1,825	286
	August	135	0	46	17	377	100	207	568	289	1,740	280
	September	147	0	27	57	206	43	285	808	230	1,802	302
	October	177	20	251	17	277	41	305	676	196	1,958	520
	November	164	11	430	34	356	99	325	727	294	2,440	752
	December	244	0	642	15	324	0	432	625	149	2,430	925
	Average	**187**	**4**	**168**	**45**	**314**	**27**	**293**	**605**	**187**	**1,830**	**472**
1986	January	183	0	664	11	285	0	241	629	216	2,229	944
	February	161	0	600	0	277	(s)	199	464	64	1,766	788
	March	260	0	482	0	163	0	328	762	117	2,112	798
	April	275	0	722	0	282	0	311	802	139	2,532	1,061
	May	190	0	564	32	326	0	383	874	266	2,635	944
	June	319	0	704	83	353	0	362	755	439	3,014	1,418
	July	296	0	713	59	519	66	542	720	330	3,244	1,319
	Average	**241**	**0**	**635**	**27**	**316**	**10**	**340**	**718**	**226**	**2,512**	**1,040**

[1]Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced in OPEC countries.
[2]Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.
[3]Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.
Footnotes continued on following page.

Petroleum

Crude Oil and Petroleum Product Imports (continued)

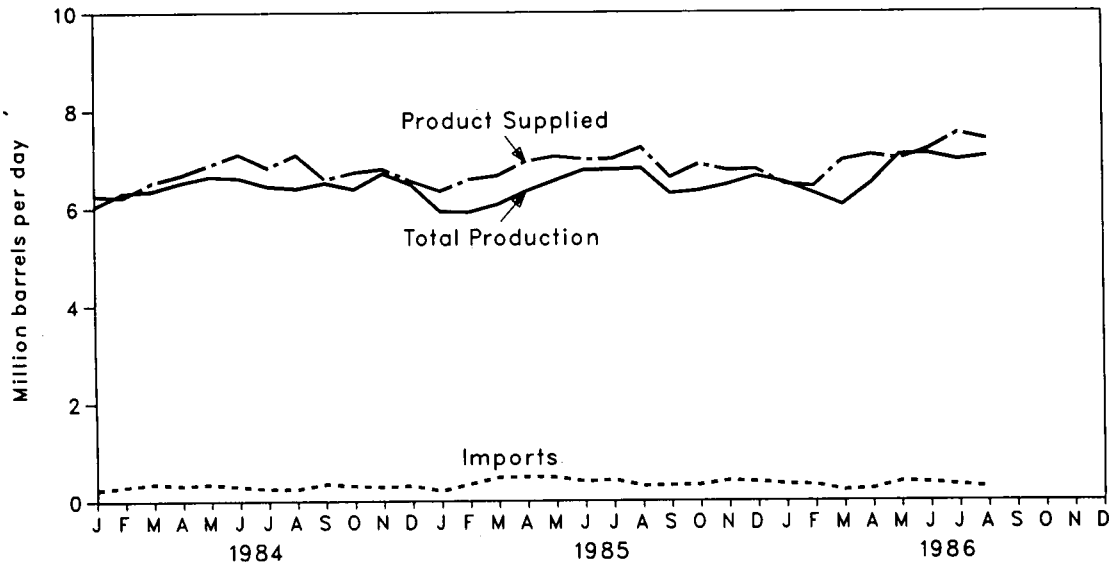
		Imports from Non-OPEC Sources[1]										
		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand barrels per day										
1973	**Average**	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**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	**Average**	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983	**Average**	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984	January	159	635	710	279	54	382	53	390	804	3,465	5,430
	February	156	620	748	289	77	344	58	418	1,087	3,797	5,693
	March	90	694	716	169	93	434	34	248	1,013	3,490	5,301
	April	95	705	869	207	91	282	37	257	869	3,410	5,372
	May	31	722	676	192	57	429	38	336	819	3,302	5,979
	June	52	506	754	234	104	345	53	268	939	3,255	5,482
	July	14	577	740	99	120	362	27	292	934	3,166	5,407
	August	57	547	640	206	98	388	34	236	829	3,035	5,044
	September	98	550	780	133	103	490	38	250	808	3,249	5,252
	October	151	682	827	112	122	486	37	321	979	3,717	5,779
	November	88	640	841	181	115	544	44	283	897	3,633	5,587
	December	75	675	686	161	98	337	46	235	855	3,168	4,933
	Average	**88**	**630**	**748**	**188**	**94**	**402**	**42**	**294**	**902**	**3,388**	**5,437**
1985	January	92	616	767	132	113	345	32	235	678	3,010	4,415
	February	37	730	652	52	119	151	50	213	689	2,693	3,913
	March	36	909	923	49	115	133	29	235	739	3,168	4,673
	April	4	890	950	18	107	213	42	205	959	3,388	5,316
	May	74	823	929	28	126	419	37	252	1,112	3,800	5,776
	June	24	720	726	30	92	481	23	271	872	3,240	4,929
	July	38	610	814	36	133	324	14	236	918	3,124	4,950
	August	11	664	859	18	121	336	28	241	699	2,978	4,718
	September	47	783	852	40	129	303	26	173	815	3,169	4,970
	October	35	825	745	5	99	352	21	260	821	3,163	5,121
	November	22	766	887	30	100	376	26	325	1,143	3,676	6,116
	December	54	902	676	44	96	273	12	314	1,029	3,400	5,831
	Average	**40**	**770**	**816**	**40**	**113**	**310**	**28**	**247**	**873**	**3,237**	**5,067**
1986	January	66	826	680	58	108	348	21	326	724	3,157	5,386
	February	15	688	571	11	85	218	20	309	939	2,855	4,622
	March	13	741	616	27	79	178	25	186	661	2,526	4,638
	April	5	775	693	13	111	188	23	209	762	2,779	5,310
	May	30	775	727	38	130	365	27	237	1,052	3,381	6,016
	June	24	735	879	17	167	568	30	233	1,135	3,788	6,802
	July	36	754	819	25	131	352	29	237	1,156	3,540	6,784
	Average	**27**	**757**	**713**	**27**	**116**	**318**	**25**	**248**	**918**	**3,149**	**5,662**

Footnotes continued.
[1]Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced in OPEC countries.
(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.
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.
Sources: • See the last page of this section.

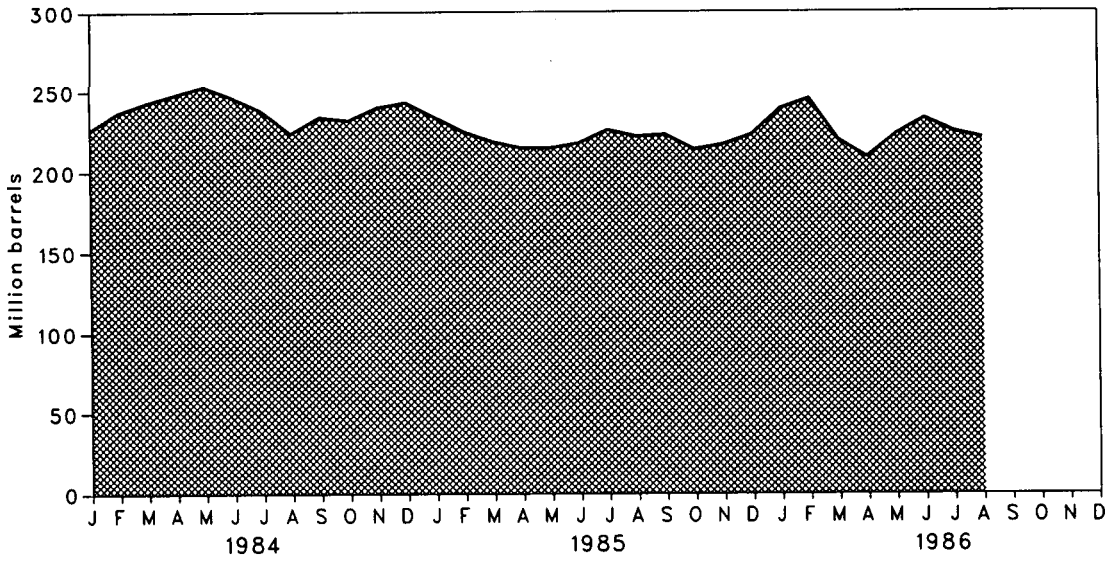
Petroleum

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]	
						Product Supplied				
		Total Production	Imports[2]	Stock Withdrawal[2,3]	Exports	Total	Unleaded[4]	Unleaded Percent of Total	Total Motor Gasoline[5]	Finished Motor Gasoline
		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**			**r218**	
1975	**Average**	**6,520**	**184**	**r-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**	**r261**	
1981	**Average[7]**	**6,405**	**157**	**r28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
1982	**Average**	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**	**r235**	
1983	**Average**	**6,340**	**247**	**r45**	**10**	**6,622**	**3,647**	**55.1**	**222**	**186**
1984	January	6,036	231	-1	1	6,265	3,605	57.5	226	186
	February	6,317	299	-383	2	6,231	3,585	57.5	237	197
	March	6,359	355	-176	9	6,528	3,750	57.4	243	202
	April	6,525	319	-167	(s)	6,676	3,857	57.8	248	207
	May	6,650	346	-105	(s)	6,890	4,004	58.1	253	210
	June	6,619	296	209	17	7,107	4,214	59.3	246	204
	July	6,450	247	142	9	6,830	4,057	59.4	238	200
	August	6,405	242	447	1	7,093	4,283	60.4	224	186
	September	6,516	349	-275	2	6,588	3,973	60.3	234	194
	October	6,388	308	34	1	6,729	4,093	60.8	232	193
	November	6,709	286	-183	11	6,800	4,245	62.4	240	199
	December	6,478	308	-215	16	6,555	4,168	63.6	243	205
	Average	**6,453**	**299**	**-54**	**6**	**6,693**	**3,987**	**59.6**		
1985	January	5,926	204	220	2	6,348	4,016	63.3	234	198
	February	5,914	348	327	2	6,587	4,126	62.6	225	189
	March	6,072	481	115	3	6,664	4,202	63.1	219	186
	April	6,344	494	128	11	6,956	4,396	63.2	215	182
	May	6,564	480	23	8	7,060	4,445	63.0	215	181
	June	6,780	396	-172	7	6,997	4,482	64.1	218	186
	July	6,788	426	-188	18	7,008	4,545	64.8	226	192
	August	6,814	305	127	4	7,242	4,755	65.7	222	188
	September	6,299	314	22	6	6,629	4,357	65.7	223	187
	October	6,356	324	235	19	6,897	4,485	65.0	214	180
	November	6,480	410	-104	17	6,770	4,477	66.1	217	183
	December	6,651	386	-227	18	6,792	4,561	67.1	223	190
	Average	**6,419**	**381**	**41**	**10**	**6,831**	**4,406**	**64.5**		
1986	January	6,522	341	-376	0	6,487	4,404	67.9	239	201
	February	6,297	325	-185	0	6,438	4,341	67.4	245	207
	March	6,060	211	699	0	6,970	4,706	67.5	220	185
	April	6,497	241	346	0	7,083	4,813	67.9	209	175
	May	7,088	388	-481	0	6,995	4,714	67.4	223	190
	June	7,102	368	-269	0	7,200	4,934	68.5	233	198
	July	R6,974	R317	R228	0	R7,519	5,233	69.6	R225	R191
	August†	*7,049*	*272*	*76*	NA	*7,397*	NA	NA	*221*	*186*
	Average	**6,703**	**308**	**7**	**NA**	**7,017**	**NA**	**NA**		

[1]Stocks are totals as of end of period.
[2]Beginning in 1981, excludes blending components.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]Includes gasohol.
[5]Includes motor gasoline blending components.
[6]In 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.
[7]Beginning 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.
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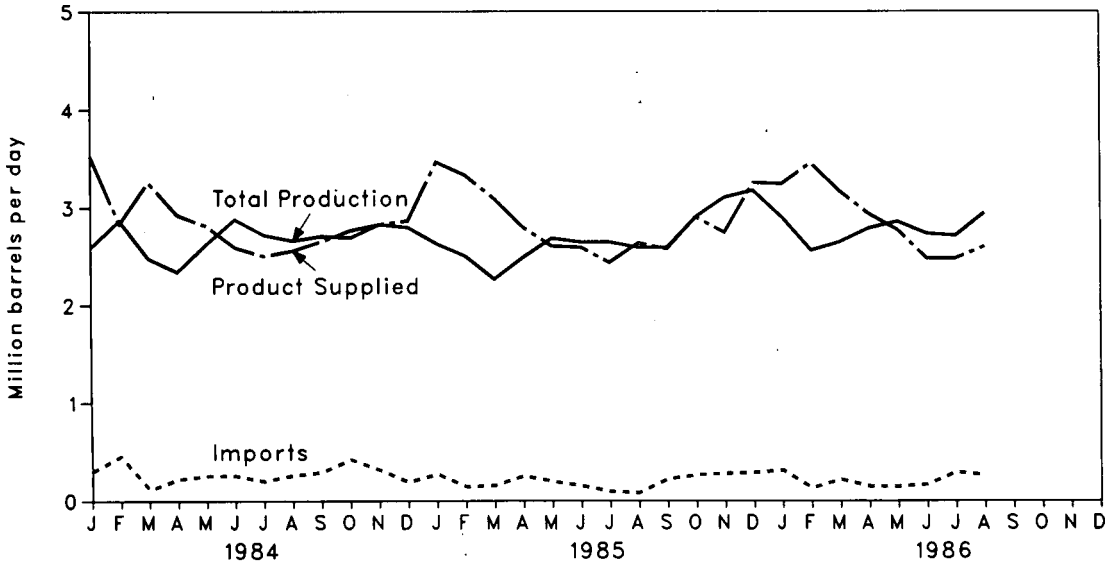
Sources: • See the last page of this section.

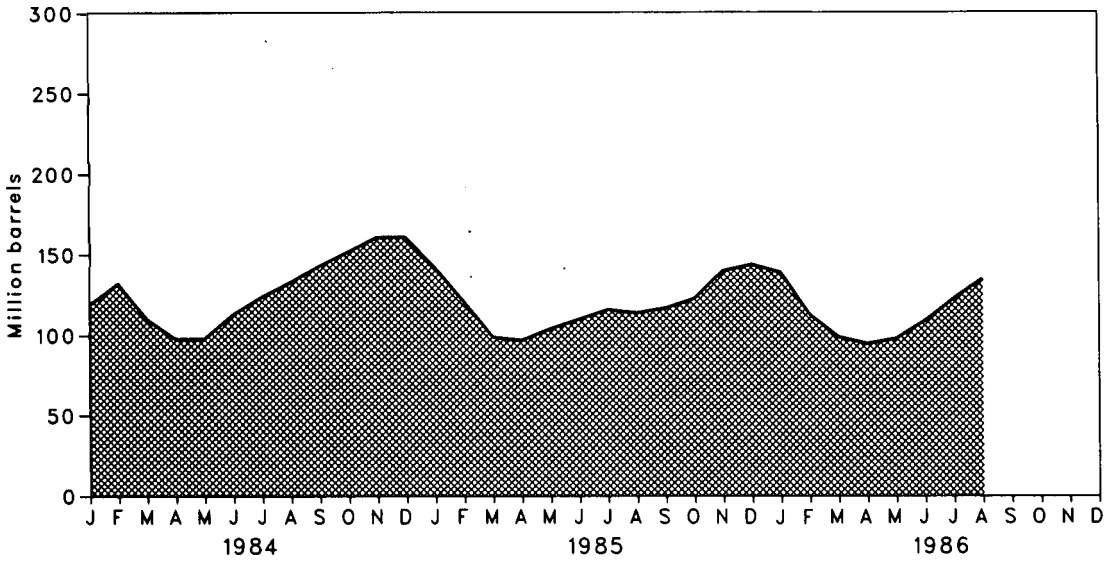
Petroleum

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**	**[4]200**
1975	**Average**	**2,654**	**155**	**[4]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**	**[4]205**
1981	**Average[5]**	**2,613**	**173**	**[4]38**	**10**	**5**	**2,829**	**192**
1982	**Average**	**2,606**	**93**	**35**	**10**	**74**	**2,671**	**[4]179**
1983	**Average**	**2,456**	**174**	**[4]124**	**NA**	**64**	**2,690**	**140**
1984	January	2,591	299	676	NA	40	3,525	119
	February	2,867	454	-446	NA	41	2,834	132
	March	2,479	115	731	NA	66	3,259	110
	April	2,342	220	396	NA	32	2,926	98
	May	2,624	253	-15	NA	48	2,814	98
	June	2,880	256	-490	NA	53	2,593	113
	July	2,719	199	-373	NA	40	2,504	124
	August	2,661	259	-287	NA	74	2,559	133
	September	2,707	291	-321	NA	22	2,654	143
	October	2,691	421	-300	NA	47	2,765	152
	November	2,826	316	-291	NA	24	2,827	161
	December	2,798	190	-3	NA	120	2,865	161
	Average	**2,681**	**272**	**-57**	**NA**	**51**	**2,845**	
1985	January	2,631	272	603	NA	41	3,465	142
	February	2,504	143	748	NA	64	3,330	121
	March	2,267	156	714	NA	44	3,093	99
	April	2,490	253	82	NA	27	2,798	97
	May	2,686	197	-245	NA	31	2,607	104
	June	2,647	152	-175	NA	30	2,594	110
	July	2,646	95	-193	NA	112	2,436	116
	August	2,592	81	62	NA	100	2,636	114
	September	2,594	222	-120	NA	121	2,575	117
	October	2,902	262	-195	NA	67	2,901	123
	November	3,102	280	-543	NA	92	2,747	140
	December	3,176	287	-128	NA	81	3,254	144
	Average	**2,687**	**200**	**48**	**NA**	**67**	**2,868**	
1986	January	2,899	312	157	NA	126	3,243	139
	February	2,563	129	938	NA	176	3,455	113
	March	2,647	217	436	NA	131	3,168	99
	April	2,788	146	132	NA	128	2,939	95
	May	2,857	145	-81	NA	149	2,771	98
	June	2,735	165	-367	NA	53	2,480	109
	July	R2,712	R293	R-452	NA	75	R2,478	R123
	August†	*2,944*	*262*	*-509*	NA	NA	*2,600*	*135*
	Average	**2,771**	**210**	**22**	**NA**	**NA**	**2,886**	

[1]Stocks are totals as of end of period.
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[3]Beginning 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.
[4]In 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.
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Notes: • Geographic coverage is the 50 States and the District of Columbia.
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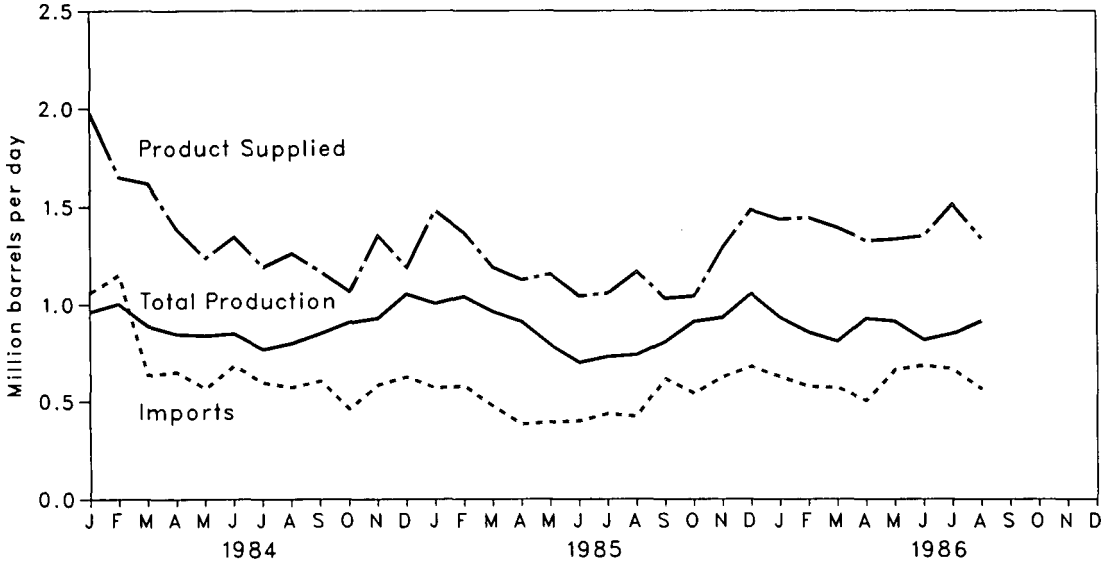
Sources: • See the last page of this section.

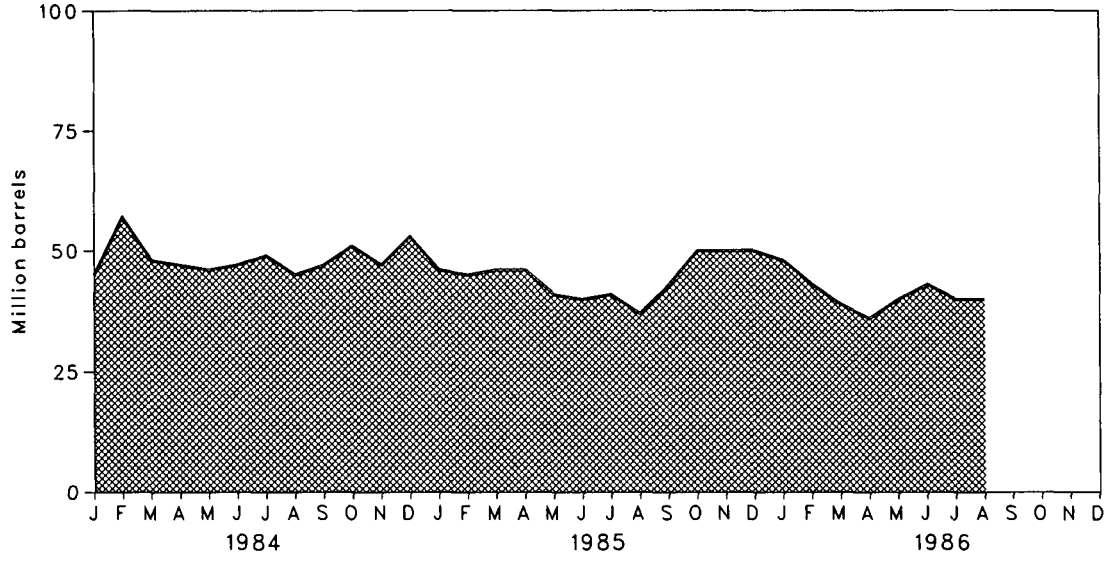
Petroleum

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[3]	
		Thousand barrels per day						Million barrels
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**	**'2**	**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	**Average**	**1,070**	**776**	**32**	**48**	**209**	**1,716**	**'66**
1983	**Average**	**852**	**699**	**'55**	**NA**	**185**	**1,421**	**49**
1984	January	961	1,059	110	NA	151	1,979	45
	February	1,003	1,151	-416	NA	87	1,651	57
	March	889	636	298	NA	204	1,619	48
	April	847	651	15	NA	130	1,384	47
	May	840	565	32	NA	200	1,237	46
	June	849	685	-15	NA	176	1,344	47
	July	770	597	-76	NA	99	1,192	49
	August	800	572	149	NA	260	1,261	45
	September	850	606	-74	NA	214	1,168	47
	October	907	461	-127	NA	174	1,066	51
	November	928	585	125	NA	286	1,352	47
	December	1,053	627	-193	NA	299	1,189	53
	Average	**891**	**681**	**-12**	**NA**	**190**	**1,369**	
1985	January	1,004	568	219	NA	312	1,480	46
	February	1,040	580	41	NA	295	1,366	45
	March	963	477	-35	NA	216	1,190	46
	April	912	383	-2	NA	167	1,126	46
	May	793	394	155	NA	185	1,156	41
	June	702	400	59	NA	118	1,043	40
	July	732	437	-29	NA	83	1,058	41
	August	742	424	108	NA	106	1,168	37
	September	808	617	-207	NA	188	1,031	43
	October	912	541	-228	NA	184	1,042	50
	November	932	627	5	NA	275	1,290	50
	December	1,055	681	-4	NA	250	1,483	50
	Average	**882**	**510**	**7**	**NA**	**197**	**1,202**	
1986	January	933	629	83	NA	211	1,435	48
	February	856	577	193	NA	183	1,443	43
	March	810	571	125	NA	113	1,393	39
	April	927	504	96	NA	202	1,325	36
	May	913	665	-117	NA	129	1,333	40
	June	818	687	-114	NA	43	1,349	43
	July	R850	R668	R82	NA	90	R1,510	R40
	August†	*915*	*564*	*-60*	NA	NA	*1,337*	*40*
	Average	**878**	**609**	**35**	**NA**	**NA**	**1,390**	

[1]Stocks are totals as of end of period.
[2]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3]Beginning 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.
[4]In 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.
[5]Beginning 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.
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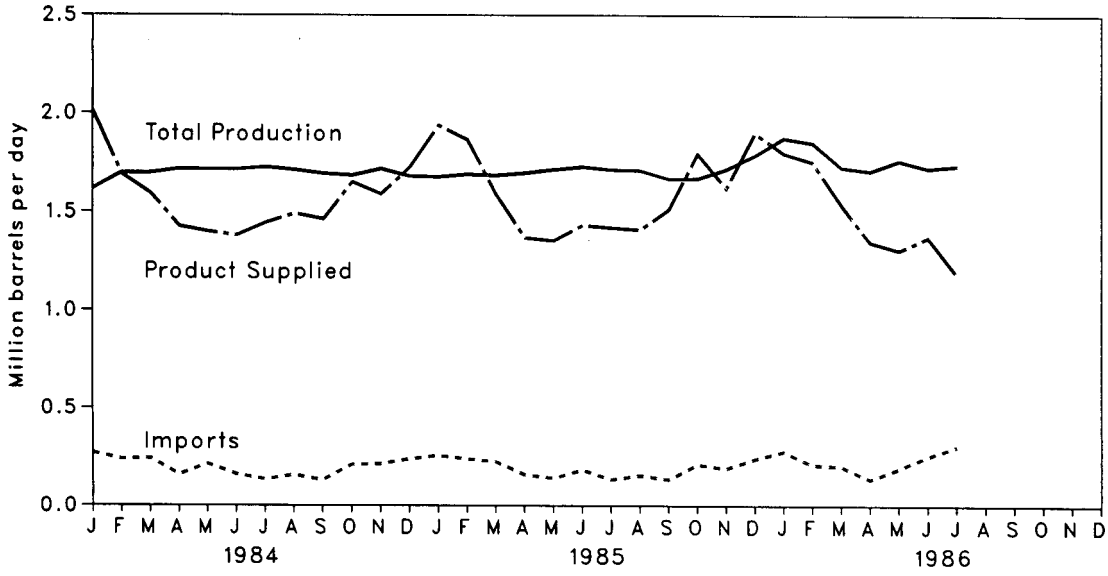
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

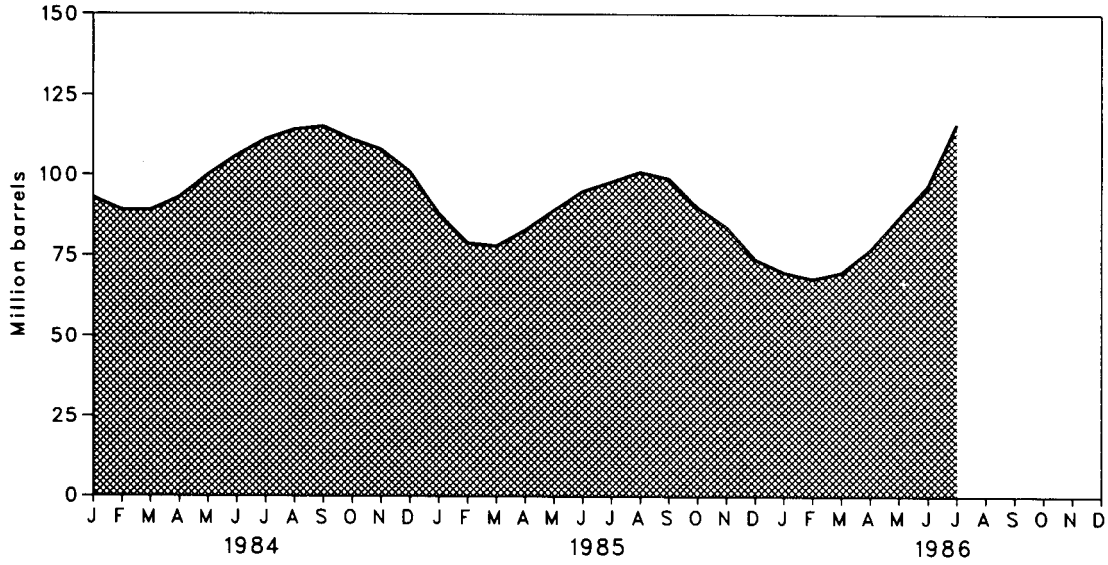
Petroleum

Liquefied Petroleum Gases Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Liquefied Petroleum Gases[1] 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**	**[4]113**
1975	**Average**	**1,527**	**112**	**[4]-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**	**[4]120**
1981	**Average**	**1,571**	**244**	**[4]-18**	**289**	**42**	**1,466**	**135**
1982	**Average**	**1,528**	**226**	**111**	**300**	**65**	**1,499**	**[4]94**
1983	**Average**	**1,642**	**190**	**4**	**253**	**73**	**1,509**	**[4]101**
1984	January	1,615	269	[4]494	340	23	2,015	93
	February	1,696	237	122	324	41	1,690	89
	March	1,696	241	12	288	68	1,593	89
	April	1,716	155	-139	253	54	1,426	93
	May	1,714	211	-240	244	42	1,399	100
	June	1,714	158	-201	237	53	1,380	106
	July	1,725	132	-139	232	43	1,444	111
	August	1,711	154	-100	241	34	1,490	114
	September	1,693	128	-50	283	26	1,462	115
	October	1,684	207	138	322	56	1,650	111
	November	1,716	212	89	376	52	1,588	108
	December	1,679	237	239	349	82	1,724	101
	Average	**1,697**	**195**	**19**	**291**	**48**	**1,572**	
1985	January	1,676	255	399	322	70	1,937	88
	February	1,689	237	330	320	72	1,865	79
	March	*1,684*	*223*	*29*	*297*	*52*	*1,588*	*78*
	April	1,696	156	-143	262	78	1,368	83
	May	1,713	138	-219	239	40	1,353	89
	June	1,728	181	-175	250	51	1,432	95
	July	1,713	131	-107	249	68	1,420	98
	August	1,710	153	-98	277	80	1,409	101
	September	1,667	132	61	321	29	1,510	99
	October	1,669	209	304	340	47	1,794	90
	November	1,716	188	192	387	88	1,620	84
	December	1,786	239	337	386	75	1,901	74
	Average	**1,704**	**187**	**75**	**304**	**62**	**1,599**	
1986	January	1,874	277	75	382	47	1,797	70
	February	1,850	208	98	330	75	1,752	68
	March	1,726	199	-90	252	47	1,536	70
	April	1,708	134	-203	259	33	1,347	77
	May	1,759	189	-339	265	40	1,305	87
	June	1,721	253	-348	230	25	1,371	97
	July	1,734	303	-600	203	50	1,184	116
	Average	**1,767**	**224**	**-205**	**274**	**45**	**1,467**	

[1]Includes ethane, propane, normal butane, and isobutane.
[2]Stocks are totals as of end of period.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]In 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 Products[1] 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**	**[4]218**
1975	**Average**	**3,424**	**277**	**[4]-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**	**[4]247**
1981	**Average**	**3,739**	**226**	**[4]46**	**723**	**199**	**3,088**	**282**
1982	**Average**	**3,453**	**334**	**80**	**787**	**211**	**2,869**	**[4]253**
1983	**Average**	**3,460**	**411**	**[4]6**	**712**	**242**	**2,923**	**[4]256**
1984	January	3,376	517	[4]-163	570	207	2,953	253
	February	3,595	602	-250	754	225	2,966	261
	March	3,512	485	-227	527	258	2,988	268
	April	3,584	610	-211	623	268	3,092	274
	May	3,683	662	-105	764	257	3,218	277
	June	3,869	541	391	1,232	343	3,223	265
	July	3,864	587	277	1,022	238	3,467	257
	August	3,848	569	41	637	172	3,650	256
	September	3,759	536	-50	699	238	3,308	257
	October	3,585	632	10	709	180	3,336	257
	November	3,532	606	81	945	279	2,997	254
	December	3,379	434	464	1,016	284	2,977	240
	Average	**3,632**	**565**	**23**	**791**	**245**	**3,183**	
1985	January	3,258	400	-88	556	223	2,815	243
	February	3,422	498	-101	707	204	2,910	245
	March	3,464	550	-421	633	190	2,769	259
	April	3,618	628	-7	836	245	3,158	259
	May	3,721	837	-113	991	191	3,263	262
	June	3,924	612	80	995	261	3,360	260
	July	3,994	658	19	975	241	3,455	259
	August	4,087	640	372	1,328	218	3,549	248
	September	3,878	529	-10	823	274	3,299	248
	October	3,810	548	9	861	250	3,255	248
	November	3,772	612	-183	906	277	3,016	253
	December	3,658	542	226	1,006	305	3,118	246
	Average	**3,721**	**588**	**-17**	**886**	**240**	**3,166**	
1986	January	3,805	498	-165	925	311	2,899	252
	February	3,759	377	-197	768	270	2,901	258
	March	3,646	440	7	822	208	3,066	257
	April	3,658	576	-108	759	369	2,998	261
	May	3,970	600	-68	803	298	3,400	263
	June	4,138	655	-130	855	263	3,548	267
	July	4,093	555	128	1,084	357	3,334	268
	Average	**3,868**	**530**	**-74**	**861**	**297**	**3,166**	

[1]Includes 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.
[2]Stocks are totals as of end of period.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]In 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.

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

- Liquefied Petroleum Gases: 1983—108.
- Other Petroleum Products: 1983—248.

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 1985: EIA, *Petroleum Supply Annual.*
- January 1986 through July 1986: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- August 1986: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1985 through August 1986: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

Part 4 Natural Gas

Natural Gas

Total dry natural gas production in the United States during July 1986 was an estimated 1.3 trillion cubic feet, 0.8 percent less than in July 1985.

Consumption of natural and supplemental gas in July 1986 was an estimated 1.1 trillion cubic feet. This was 1.8 percent lower than in July 1985.

Deliveries to residential consumers during June 1986 (latest data available) were 157 billion cubic feet, the same as in June 1985. Total deliveries to residential consumers in the first half of 1986 were down 1.7 percent compared with deliveries during the first half of 1985. Total deliveries to industrial consumers during June 1986 were an estimated 432 billion cubic feet, 1.4 percent lower than in June 1985. Deliveries to industrial consumers during the first half of 1986 were 8.5 percent lower than deliveries during the first half of 1985.

Imports of natural gas in July 1986 were an estimated 44 billion cubic feet, 25.4 percent lower than in the previous July.

Stocks of working gas* in underground natural gas storage reservoirs at the end of July 1986 totaled 2,558 billion cubic feet. This was 1.8 percent below stocks available a year earlier. Net injections into storage during July 1986 were 258 billion cubic feet, 2.3 percent less than during the previous July.

*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[3]	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	**Total**	**20,210**	**1,388**	**208**	**93**	**18,520**	**762**	**17,758**
1983	**Total**	**18,597**	**1,458**	**222**	**95**	**16,822**	**790**	**16,033**
1984	January	1,887	135	21	9	1,723	79	1,644
	February	1,650	127	17	8	1,497	69	1,428
	March	1,693	125	19	9	1,540	71	1,469
	April	1,666	132	18	9	1,507	69	1,438
	May	1,668	138	19	9	1,503	69	1,434
	June	1,619	135	18	9	1,456	67	1,389
	July	1,676	137	20	10	1,509	69	1,440
	August	1,653	137	19	9	1,487	68	1,419
	September	1,574	132	16	9	1,417	65	1,352
	October	1,661	143	19	9	1,490	69	1,421
	November	1,656	142	17	10	1,487	68	1,419
	December	1,789	146	21	8	1,613	74	1,539
	Total	**20,192**	**1,630**	**224**	**108**	**18,230**	**838**	**17,392**
1985	January	1,788	124	20	7	1,637	75	1,562
	February	1,635	122	18	6	1,489	68	1,421
	March	1,651	137	19	6	1,490	69	1,421
	April	1,563	137	18	6	1,401	64	1,337
	May	1,545	133	19	7	1,386	64	1,322
	June	1,487	126	17	6	1,336	61	1,275
	July	1,531	133	20	7	1,370	63	1,307
	August	1,520	127	19	7	1,367	63	1,304
	September	1,503	133	17	6	1,348	62	1,286
	October	1,553	132	19	6	1,396	64	1,332
	November	1,565	136	20	7	1,402	64	1,338
	December	1,782	144	23	6	1,609	74	1,535
	Total	**19,123**	**1,584**	**229**	**77**	**17,230**	**791**	**16,440**
1986	January	1,762	144	20	6	1,591	73	1,518
	February	1,540	134	18	6	1,382	64	1,318
	March	1,639	152	20	6	1,461	67	1,394
	April	1,532	133	18	6	1,375	63	1,312
	May	1,556	138	18	6	1,394	64	1,330
	June	*1,498*	*134*	*18*	*6*	*1,340*	*62*	*1,278*
	July	*1,517*	*134*	*18*	*6*	*1,359*	*63*	*1,296*
	Year to Date	**11,044**	**969**	**130**	**42**	**9,902**	**456**	**9,446**

[1]Gas withdrawn from gas and oil wells.
[2]Gas returned to formations for repressuring, pressure maintenance, and cycling.
[3]For definitions and further explanations, see Notes on the last two pages of this section.
[4]Equal 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.
[5]Equal to marketed production (wet) minus extraction loss.
[6]May include unknown quantities of nonhydrocarbon gases.
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 1984 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[5]
		Billion cubic feet								
1973	**Total**	**[4]21,731**	**1,533**	**NA**	**1,033**	**24,297**	**1,974**	**77**	**22,049**	**196**
1974	**Total**	**[4]20,713**	**1,701**	**NA**	**959**	**23,373**	**1,784**	**77**	**21,223**	**289**
1975	**Total**	**[4]19,236**	**1,760**	**NA**	**953**	**21,949**	**2,104**	**73**	**19,538**	**235**
1976	**Total**	**[4]19,098**	**1,921**	**NA**	**964**	**21,983**	**1,756**	**65**	**19,946**	**216**
1977	**Total**	**[4]19,163**	**1,750**	**NA**	**1,011**	**21,924**	**2,307**	**56**	**19,521**	**41**
1978	**Total**	**[4]19,122**	**2,158**	**NA**	**966**	**22,245**	**2,278**	**53**	**19,627**	**287**
1979	**Total**	**[4]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	**Total**	**17,758**	**2,164**	**145**	**933**	**21,000**	**2,472**	**52**	**18,001**	**475**
1983	**Total**	**16,033**	**2,270**	**132**	**920**	**19,354**	**1,822**	**55**	**16,835**	**[5]642**
1984	January	1,644	580	13	97	2,334	55	5	2,260	14
	February	1,428	310	10	69	1,817	61	5	1,739	12
	March	1,469	371	10	69	1,919	49	6	1,851	13
	April	1,438	102	8	71	1,619	147	5	1,456	11
	May	1,434	31	7	66	1,538	259	5	1,264	10
	June	1,389	28	7	59	1,483	329	3	1,140	11
	July	1,440	29	7	55	1,531	353	5	1,161	12
	August	1,419	31	8	54	1,512	324	5	1,172	11
	September	1,352	31	8	57	1,448	295	5	1,138	10
	October	1,421	48	8	67	1,544	247	5	1,282	10
	November	1,419	231	11	84	1,745	85	5	1,644	11
	December	1,539	309	13	94	1,955	94	5	1,844	12
	Total	**17,392**	**2,098**	**110**	**843**	**20,443**	**2,295**	**55**	**17,951**	**[5]143**
1985	January	1,562	659	16	104	2,341	35	5	2,264	37
	February	1,421	437	11	99	1,968	48	5	1,881	34
	March	1,421	213	10	90	1,734	97	6	1,597	34
	April	1,337	94	13	76	1,520	207	5	1,276	32
	May	1,322	25	13	73	1,433	300	2	1,099	32
	June	1,275	33	12	65	1,385	260	5	1,089	31
	July	1,307	45	14	59	1,425	309	6	1,079	31
	August	1,304	50	14	61	1,429	277	5	1,116	31
	September	1,286	20	11	63	1,380	269	5	1,075	31
	October	1,332	74	14	76	1,496	199	5	1,260	32
	November	1,338	207	11	77	1,633	98	5	1,498	32
	December	1,535	532	13	106	2,186	47	5	2,097	37
	Total	**16,440**	**2,390**	**152**	**950**	**19,930**	**2,145**	**55**	**17,331**	**394**
1986	January	1,518	441	16	98	2,073	49	5	1,983	36
	February	1,318	400	14	73	1,805	59	5	1,709	32
	March	1,394	233	15	54	1,696	121	5	1,537	33
	April	1,312	81	12	43	1,448	152	4	1,261	31
	May	1,330	45	14	48	1,437	273	4	1,128	32
	June	*1,278*	29	13	46	R1,366	270	5	R1,060	31
	July	*1,296*	30	13	44	1,383	288	4	1,060	31
	Year to Date	**9,446**	**1,259**	**97**	**406**	**11,208**	**1,212**	**32**	**9,738**	**226**

[1]Monthly and annual data for 1980 through 1984 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.
[2]For definitions and further explanations, see Notes on the last two pages of this section.
[3]Data for 1978 through 1982 do not include intransit receipts and deliveries.
[4]May include unknown quantities of nonhydrocarbon gases.
[5]See Note 7 on the last two pages of this section.
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 1984 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

Natural Gas

Natural Gas[1] Consumption

				Delivered to Consumers					
		Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial[2]	Industrial	Electric Utilities	Total	Total Consumption
				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	**Total**	**1,109**	**596**	**4,633**	**2,606**	**5,831**	**3,226**	**16,295**	**18,001**
1983	**Total**	**978**	**490**	**4,381**	**2,433**	**5,643**	**2,911**	**15,367**	**16,835**
1984	January	102	67	886	437	553	215	2,091	2,260
	February	88	51	700	354	359	187	1,600	1,739
	March	91	55	605	311	583	206	1,705	1,851
	April	89	43	463	243	398	220	1,324	1,456
	May	89	37	287	160	426	265	1,138	1,264
	June	86	34	170	108	444	298	1,020	1,140
	July	89	34	128	97	464	349	1,038	1,161
	August	88	35	118	98	483	350	1,049	1,172
	September	84	33	127	101	502	291	1,021	1,138
	October	88	38	183	128	575	270	1,156	1,282
	November	88	48	323	193	747	245	1,508	1,644
	December	95	54	566	294	618	217	1,695	1,844
	Total	**1,077**	**529**	**4,555**	**2,524**	**6,153**	**3,111**	**16,345**	**17,951**
1985	January	97	67	744	371	759	226	2,100	2,264
	February	88	55	836	408	291	203	1,738	1,881
	March	88	47	567	289	399	207	1,462	1,597
	April	83	38	398	206	317	234	1,155	1,276
	May	82	32	213	128	408	236	985	1,099
	June	79	32	157	101	438	282	978	1,089
	July	81	32	130	96	403	337	966	1,079
	August	81	33	119	94	434	355	1,002	1,116
	September	80	32	129	99	460	275	963	1,075
	October	83	37	189	125	576	250	1,140	1,260
	November	83	44	306	182	653	230	1,371	1,498
	December	94	62	640	330	761	210	1,941	2,097
	Total	**1,019**	**511**	**4,428**	**2,429**	**5,899**	**3,044**	**15,801**	**17,331**
1986	January	94	58	805	395	447	184	1,831	1,983
	February	82	50	698	348	372	157	1,575	1,709
	March	86	45	592	294	350	170	1,406	1,537
	April	81	37	371	191	384	197	1,143	1,261
	May	82	33	242	134	406	231	1,013	1,128
	June	79	31	157	98	435	260	950	1,060
	Year to Date	**504**	**254**	**2,865**	**1,460**	**2,394**	**1,200**	**7,918**	**8,678**

[1]Includes supplemental gaseous fuels.
[2]Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.
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 1984 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

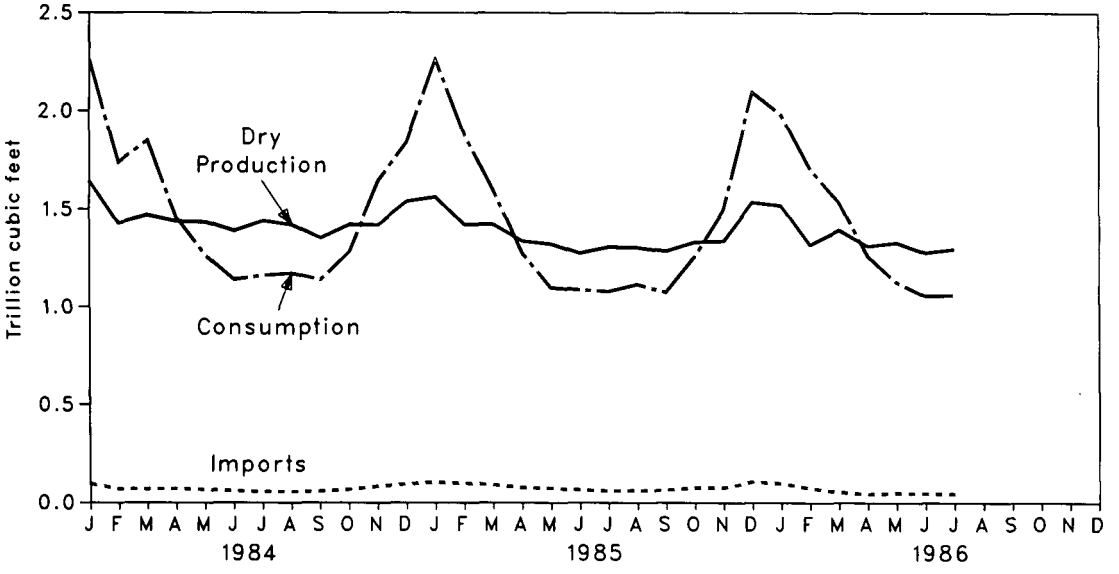
		Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
		Base Gas	Working Gas	Total[1]	Volume	Percent	Injections	Withdrawals	Net[2]
		Volumes in billion cubic feet							
1973	**Total**	**2,864**	**2,034**	**4,898**	**305**	**17.6**	**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	**Total**	**3,808**	**3,071**	**6,879**	**255**	**9.0**	**2,399**	**2,094**	**306**
1983	**Total**	**3,847**	**2,595**	**6,442**	**-476**	**-15.5**	**1,700**	**2,142**	**-442**
1984	January	3,847	2,091	5,937	-553	-20.9	54	571	-517
	February	3,828	1,876	5,704	-480	-20.4	60	305	-244
	March	3,824	1,572	5,396	-575	-26.8	48	365	-317
	April	3,822	1,620	5,442	-454	-21.9	144	100	44
	May	3,827	1,843	5,670	-379	-17.1	254	30	244
	June	3,828	2,141	5,969	-313	-12.7	323	27	296
	July	3,829	2,456	6,285	-239	-8.9	346	28	317
	August	3,829	2,740	6,569	-168	-5.8	318	30	288
	September	3,829	2,996	6,825	-144	-4.6	289	30	259
	October	3,837	3,175	7,011	-95	-2.9	242	47	195
	November	3,900	3,015	6,915	-160	-5.0	83	227	-145
	December	3,830	2,876	6,706	281	10.8	92	304	-213
	Total						**2,252**	**2,064**	**188**
1985	January	3,841	2,242	6,083	151	7.2	35	659	-623
	February	3,841	1,853	5,694	-23	-1.2	48	437	-389
	March	3,835	1,743	5,578	171	10.8	97	213	-116
	April	3,831	1,859	5,691	239	14.8	207	94	113
	May	3,837	2,129	5,965	286	15.5	300	25	275
	June	3,839	2,351	6,191	211	9.8	260	33	227
	July	3,849	2,605	6,454	149	6.1	309	45	264
	August	3,849	2,832	6,681	92	3.4	277	50	227
	September	3,849	3,081	6,930	85	2.8	269	20	249
	October	3,851	3,204	7,055	29	0.9	199	74	125
	November	3,847	3,086	6,933	71	2.4	98	207	-110
	December	3,842	2,606	6,447	-270	-9.4	47	532	-485
	Total						**2,145**	**2,390**	**-244**
1986	January	3,842	2,213	6,055	-29	-1.3	49	441	-392
	February	3,842	1,872	5,714	18	1.0	59	400	-341
	March	3,838	1,764	5,601	21	1.2	121	233	-112
	April	3,834	1,838	5,673	-21	-1.1	152	81	71
	May	3,830	2,070	5,900	-59	-2.8	273	45	227
	June	3,829	2,312	6,141	-39	-1.7	270	29	242
	July	3,841	2,558	6,400	-47	-1.8	288	30	258

[1]Total 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; 1983—7,985; 1984—8,043; and 1985—8,087. Current total capacity is 8,127.
[2]Positive 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 1984 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

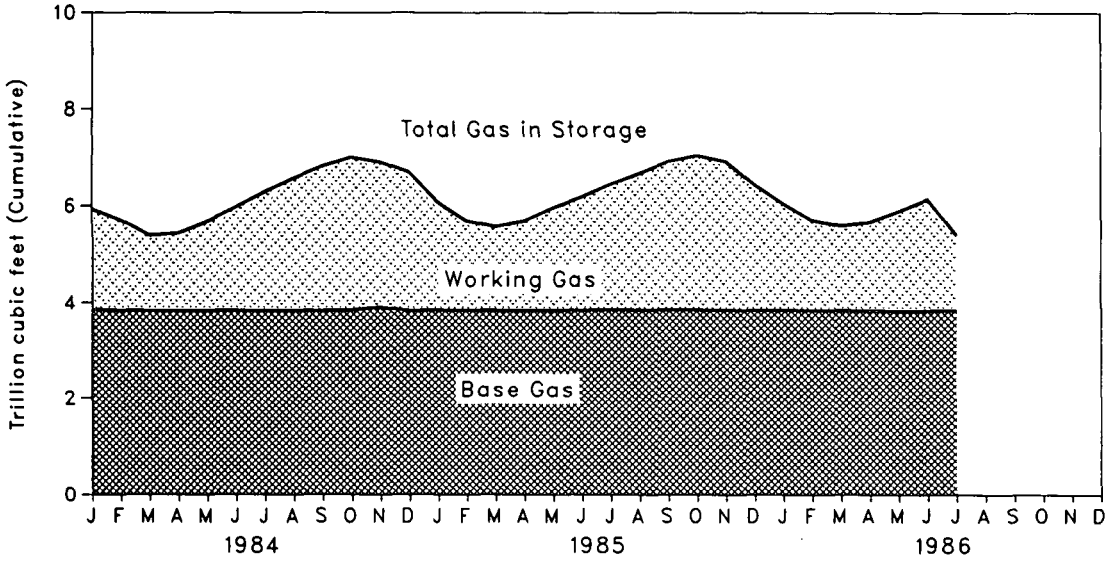
Natural Gas

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 Energy Information Administration (EIA) *Natural Gas Annual 1984.* These data are not available for periods prior to 1980. For 1984, of the 32 producing States, 24 reported data on nonhydrocarbon gases removed. These 24 States accounted for 57 percent of total 1984 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 39 percent of the 1984 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 EIA *Natural Gas Monthly.*

Monthly data are reported by two States and computed for seven States. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for that year. 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 EIA *Natural Gas Annual 1984.*

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 that year. 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 1984* 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 1984.* 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 that year. 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 monthy 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 that year.

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 the following: (1) quantities lost; (2) the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; (3) metering inaccuracies; (4) differences between billing cycle and calendar period time frames; (5) the effect of variations in company accounting and billing practices; and (6) imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of almost 0.2 trillion cubic feet (Tcf) in the "Unaccounted for" category in 1983 followed by a decline of 0.5 trillion cubic feet in 1984 reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15, through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 *Natural Gas Monthly,* which was published in July 1985.

8. Natural Gas Storage: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. 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 that heating year (April through March). 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 1984 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 (continued)

Sources

Production: 1973 through 1984: Energy Information Administration (EIA), *Natural Gas Annual 1984;* January 1985 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 1984: EIA, *Natural Gas Annual 1984;* January 1985 forward: EIA computations.
Withdrawals from and Additions to Storage: 1973 through 1984: EIA, *Natural Gas Annual 1984;* January 1985 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."
Supplemental Gaseous Fuels: 1980 through 1984: EIA, *Natural Gas Annual 1984;* January 1985 forward: EIA computations.
Imports and Exports: 1973 through 1984: Form FPC-14, "Imports and Exports of Natural Gas"; January 1985 forward: EIA computations.
End-Use Consumption: • All data except electric utility—1973 through 1984: EIA, *Natural Gas Annual, 1984;* January 1985 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and 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

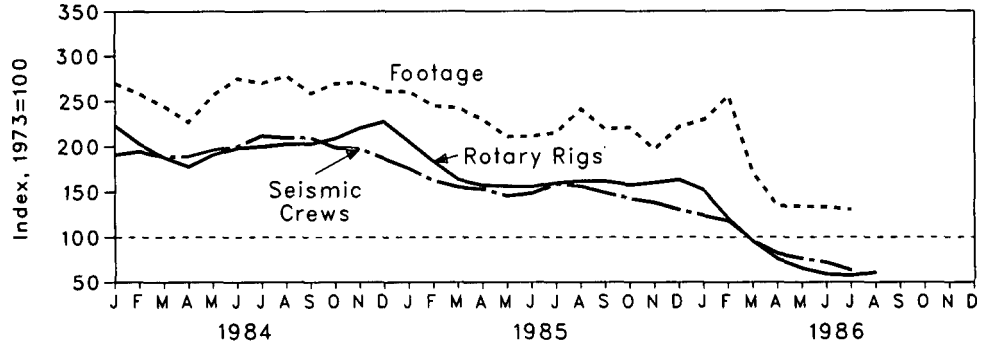
Oil and Gas Resource Development

In July 1986, the 158 crews engaged in seismic exploration were 60.2 percent fewer than the 397 crews in July 1985. July 1986 was the 12th consecutive month that the number of crews declined. The 20 marine vessels in July 1986 were 57.4 percent fewer than the 47 vessels in July 1986, and the 138 land crews were 60.6 percent fewer than the 350 crews working in July 1985.

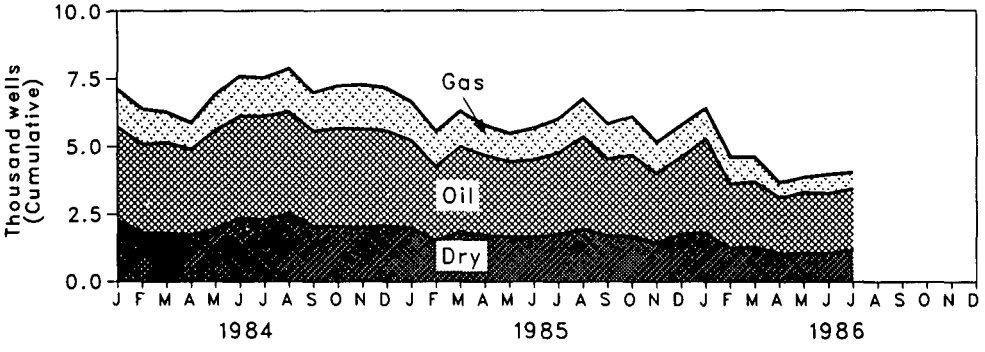
The August 1986 rotary rig count of 730 was 62.2 percent less than the 1,931 rigs active in August 1985. The 65 rigs operating offshore in August 1986 were 67.0 percent fewer than the 197 rigs operating offshore in August 1985. The 665 rigs onshore were 61.6 percent fewer than the 1,734 operating in August 1985.

Exploratory and development well completions during July 1986 were an estimated 4,040, 33.0 percent less than the 6,030 completions estimated in July 1985. Oil well completions were an estimated 2,290, 23.9 percent lower than the 3,010 oil well completions in the previous July. The 600 gas well completions were 52.0 percent lower than the July 1985 number of 1,250. Total footage drilled in July 1986 was 15.4 million feet, a decrease of 39.6 percent compared with the 25.5 million feet drilled in July 1985.

Seismic Crews and Rotary Rigs in Operation, and Footage Drilled



Exploratory and Development Well Completions



Oil and Gas Resource Development

Seismic Crews and Rotary Rigs

		Crews Engaged in Seismic Exploration			Rotary Rigs in Operation[1]		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Weekly average		
1973	**Average**	**23**	**227**	**250**	**84**	**1,110**	**1,194**
1974	**Average**	**31**	**274**	**305**	**94**	**1,378**	**1,472**
1975	**Average**	**30**	**254**	**284**	**106**	**1,554**	**1,660**
1976	**Average**	**25**	**237**	**262**	**129**	**1,529**	**1,658**
1977	**Average**	**27**	**281**	**308**	**167**	**1,834**	**2,001**
1978	**Average**	**25**	**327**	**352**	**185**	**2,074**	**2,259**
1979	**Average**	**30**	**370**	**400**	**207**	**1,970**	**2,177**
1980	**Average**	**37**	**493**	**530**	**231**	**2,678**	**2,909**
1981	**Average**	**44**	**637**	**681**	**256**	**3,714**	**3,970**
1982	**Average**	**57**	**531**	**588**	**243**	**2,862**	**3,105**
1983	**Average**	**47**	**426**	**473**	**199**	**2,033**	**2,232**
1984	January	50	427	477	216	2,450	2,666
	February	53	433	486	202	2,221	2,423
	March	47	424	471	198	2,047	2,245
	April	50	423	473	203	1,917	2,120
	May	46	444	490	202	2,075	2,277
	June	45	455	500	205	2,158	2,363
	July	47	482	529	206	2,180	2,386
	August	53	470	523	216	2,201	2,417
	September	52	472	524	214	2,206	2,420
	October	48	449	497	223	2,269	2,492
	November	49	444	493	232	2,397	2,629
	December	52	414	466	242	2,471	2,713
	Average	**49**	**445**	**494**	**213**	**2,215**	**2,428**
1985	January	46	393	439	242	2,210	2,452
	February	46	360	406	233	1,955	2,188
	March	48	340	388	223	1,732	1,955
	April	47	336	383	210	1,667	1,877
	May	41	323	364	200	1,665	1,865
	June	47	324	371	203	1,653	1,858
	July	47	350	397	194	1,715	1,909
	August	49	341	390	197	1,734	1,931
	September	49	323	372	197	1,733	1,930
	October	45	312	357	195	1,684	1,879
	November	41	305	346	187	1,725	1,912
	December	39	287	326	190	1,760	1,950
	Average	**45**	**333**	**378**	**206**	**1,774**	**1,980**
1986	January	39	271	310	175	1,635	1,810
	February	39	256	295	164	1,280	1,444
	March	28	212	240	132	1,007	1,139
	April	20	185	205	112	794	906
	May	19	172	191	94	687	781
	June	18	162	180	73	632	705
	July	20	138	158	65	621	686
	August	NA	NA	NA	65	665	730
	Average[2]	**26**	**200**	**226**	**112**	**902**	**1,014**

[1]Monthly data are averages of 4- or 5-week reporting periods and are not calendar months.
[2]Average of available data.
NA=Not available.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Oil and Gas Resource Development

Exploratory and Development Wells and Footage Drilled

		Exploratory and Development Well Completions[1]				
		Oil	Gas	Dry	Total	Total Footage[1]
			Thousand wells			Million feet
1973	**Total**	**10.25**	**6.97**	**10.47**	**27.69**	**139.42**
1974	**Total**	**13.66**	**7.17**	**12.20**	**33.03**	**153.79**
1975	**Total**	**16.98**	**8.17**	**13.74**	**38.89**	**181.05**
1976	**Total**	**17.70**	**9.44**	**13.80**	**40.94**	**187.29**
1977	**Total**	**18.70**	**12.12**	**15.04**	**45.86**	**215.70**
1978	**Total**	**19.06**	**14.40**	**16.59**	**50.05**	**238.39**
1979	**Total**	**20.70**	**15.17**	**16.04**	**51.91**	**243.69**
1980	**Total**	**32.24**	**17.19**	**20.30**	**69.73**	**312.03**
1981	**Total**	**42.91**	**19.97**	**27.25**	**90.13**	**409.13**
1982	**Total**	**38.82**	**18.80**	**25.97**	**83.59**	**375.77**
1983	**Total**	**36.70**	**14.34**	**23.30**	**74.35**	**312.90**
1984	January	3.44	1.39	2.29	7.12	31.97
	February	3.28	1.31	1.81	6.40	28.58
	March	3.34	1.14	1.80	6.28	28.91
	April	3.17	0.99	1.72	5.88	25.98
	May	3.62	1.32	1.97	6.92	30.36
	June	3.77	1.46	2.36	7.59	31.67
	July	R3.83	1.41	R2.29	R7.54	R32.00
	August	3.76	1.59	2.52	7.86	32.92
	September	3.52	1.42	2.05	6.99	29.64
	October	3.61	1.57	2.05	7.23	31.93
	November	3.65	1.63	1.99	7.27	31.07
	December	3.51	1.57	2.07	7.15	30.94
	Total	**R42.50**	**R16.81**	**R24.92**	**R84.23**	**R365.98**
1985	January	3.24	1.43	1.98	6.64	30.88
	February	2.73	1.30	1.52	5.56	26.17
	March	3.16	1.30	1.84	6.30	28.70
	April	2.95	1.11	1.72	5.77	26.34
	May	2.79	1.04	1.65	5.48	24.95
	June	2.85	1.18	1.64	5.67	24.18
	July	R3.01	R1.25	R1.77	R6.03	R25.50
	August	3.40	1.39	1.96	6.74	28.54
	September	2.83	1.30	1.70	5.83	25.09
	October	2.98	1.43	1.70	6.10	26.18
	November	2.57	1.15	1.43	5.14	22.51
	December	2.85	1.18	1.75	5.78	26.21
	Total	**R35.36**	**R15.04**	**R20.65**	**R71.06**	**R315.25**
1986	January	R3.45	R1.13	R1.82	R6.40	R27.12
	February	2.41	0.98	R1.21	R4.60	R20.04
	March	2.41	0.91	1.28	4.60	20.18
	April	2.08	R0.56	1.02	R3.66	R15.42
	May	R2.25	R0.56	R1.06	R3.86	R15.87
	June	R2.23	0.70	1.04	R3.98	R15.28
	July	2.29	0.60	1.15	4.04	15.40
	Year to Date	**17.12**	**5.43**	**8.58**	**31.14**	**129.30**

[1]Data exclude service wells and stratigraphic and core tests.
R=Revised data.
Note: • Geographic coverage is the 50 States and the District of Columbia.
• Totals and averages may not equal sum of components due to subsequent revisions and independent rounding.
• Due to the method of estimation, data shown on this page are frequently revised. See the last page of this section for further explanation.
Source: • See the last page of this section.

Notes and Sources for the Oil and Gas Resource Development Section

Notes

Beginning in the March 1985 *Monthly Energy Review* (MER), the Energy Information Administration (EIA) revised the exploratory and development wells drilled data series. In order to present a consistent series, historical as well as current statistics were adjusted.

In previous issues, the MER published statistics based on data on well completions reported to the American Petroleum Institute during a given month, as opposed to data on wells actually completed during the month. Because of the time lag from date of well completion to date of reporting, data on well completions reported are not as accurate an indicator of drilling activity as are data on well completions. For example, during 1982 well completions reported continued to rise even though the number of wells actually completed fell. Starting in the March 1985 issue of the MER, published figures have been EIA estimates of the number of wells actually completed in a given month and are shown in thousands, rounded to two decimal places. The associated footage drilled is shown in millions, also rounded to two decimal places.

The EIA estimates are calculated using an adjustment process that imputes total well counts and footage by type and class based on partial counts of well completions available from the reported data. That is, based on statistical analysis of the incomplete reported data, the process imputes the missing portions to determine values for total well completions and footage. Estimates for a given month are first published in the MER for that month, that is, estimates for June 1984 are first published in the June 1984 MER. Revisions to the estimates are scheduled for the 6th, 12th, and 24th months following initial publication, as newly reported data refine the accuracy of the estimate. Unscheduled revisions to the published data will also be made when the latest estimate differs by more than 15 percent during the first 5 months, more than 10 percent during the next 6 months, more than 5 percent during the following 6 months, or more than 2 percent thereafter through 5 years. After 5 years, the actual reported data will be published.

The three well types considered are oil, gas, and dry. By convention, wells with both oil and gas zones are categorized as oil. Well classes are either development or exploratory; wells in any other class have been deleted. Exploratory well categories considered are new field wildcat, new pool wildcat, deeper pool test, shallower pool test, or extension (American Association of Petroleum Geologists well classification codes 1 through 5).

Additional information may be obtained from "Estimating Well Completions," the feature article published in the March 1985 *Monthly Energy Review*.

Sources

- Crews Engaged: Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletins, *Geophysics* and *Leading Edge*.
- Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—by State."
- Wells and Footage Drilled: EIA computations based on well reports submitted to the American Petroleum Institute by Petroleum Information Corporation.

Part 6 Coal

Coal

Coal production in July 1986 totaled 67.3 million short tons, 2.1 million short tons (3.0 percent) below the 69.3 million short tons produced in July 1985.

Electric utility coal consumption in June 1986 totaled 58.9 million short tons, 2.2 percent more than the 57.6 million short tons in June 1985. During the first 6 months of 1986, coal consumption at electric utilities was 331.4 million short tons, 1.7 percent less than the 337.1 million short tons consumed during the first 6 months of 1985.

Electric utility coal stocks at the end of June 1986 were 162.9 million short tons, 6.7 percent less than the 174.5 million short tons of stocks at the end of June 1985.

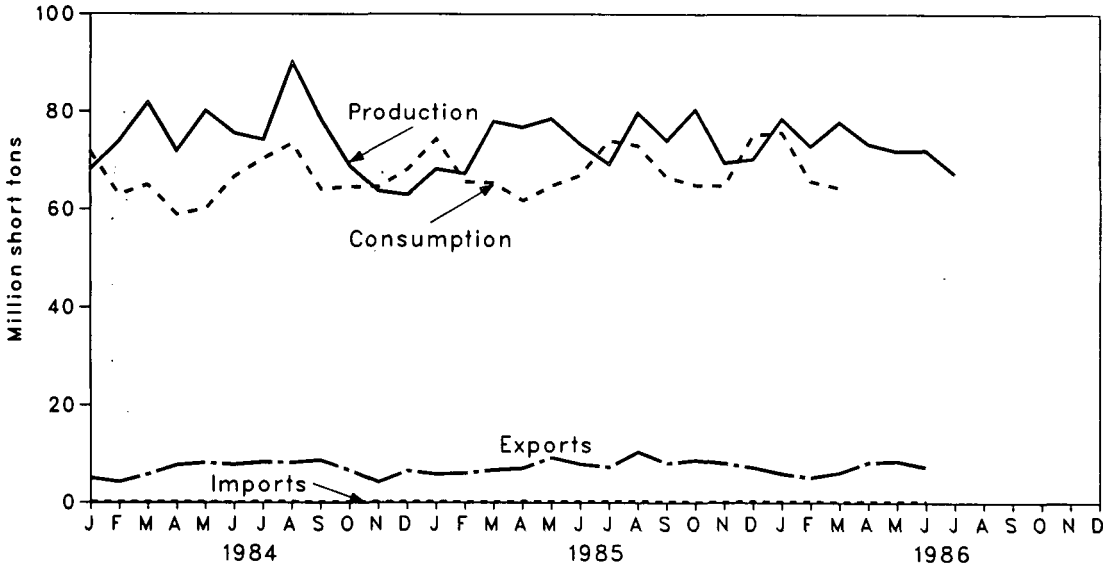
Exports of coal in June 1986 totaled 7.3 million short tons, 7.5 percent less than the 7.9 million short tons exported during June 1985. Coal exports from January through June 1986 totaled 41.4 million short tons, 3.1 percent less than the 42.8 million short tons exported during the comparable period in 1985.

Coal imports of 190,000 short tons in June 1986 were 52,000 short tons more than the amount imported in June 1985. During the first 6 months of 1986, 1,061,000 short tons of coal were imported, 830,000 short tons (27.8 percent) more than the amount imported during January through June 1985.

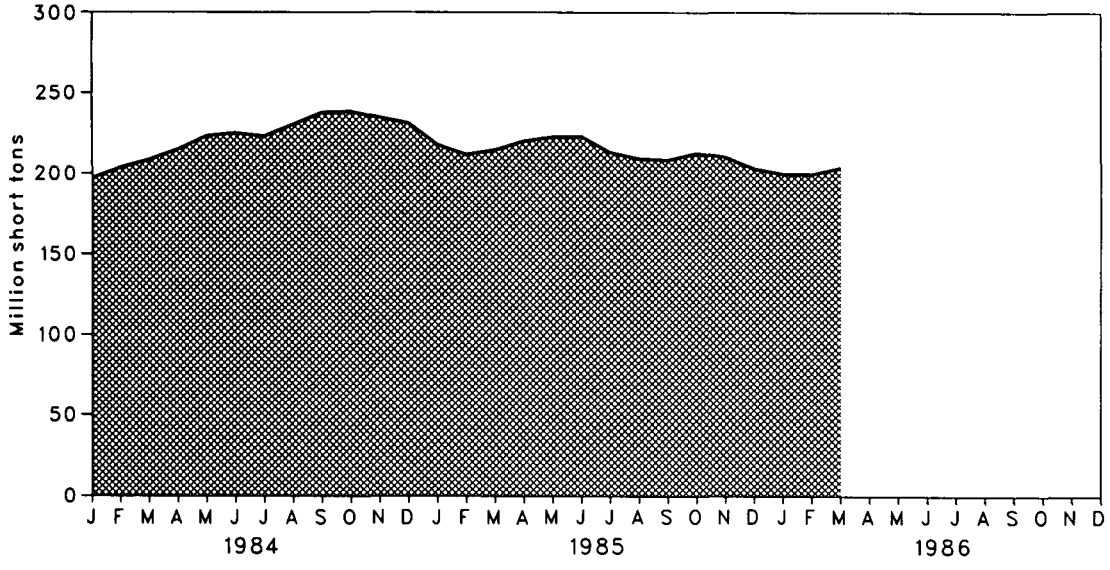
Coal

Overview

Production, Consumption, Imports, and Exports



Stocks at End of Period



Coal

Overview

		Production	Consumption	Imports[1]	Exports[2]	Stocks[3]
				Thousand short tons		
1973	**Total**	**598,568**	**562,584**	**127**	**53,587**	**NA**
1974	**Total**	**610,023**	**558,402**	**2,080**	**60,661**	**NA**
1975	**Total**	**654,641**	**562,641**	**940**	**66,309**	**NA**
1976	**Total**	**684,913**	**603,790**	**1,203**	**60,021**	**NA**
1977	**Total**	**697,205**	**625,291**	**1,647**	**54,312**	**NA**
1978	**Total**	**670,164**	**625,225**	**2,953**	**40,714**	**NA**
1979	**Total**	**781,134**	**680,524**	**2,059**	**66,042**	**202,472**
1980	**Total**	**829,700**	**702,729**	**1,194**	**91,742**	**228,407**
1981	**Total**	**823,775**	**732,627**	**1,043**	**112,541**	**209,423**
1982	**Total**	**838,112**	**706,911**	**742**	**106,277**	**232,038**
1983	**Total**	**782,091**	**736,672**	**1,271**	**77,772**	**202,584**
1984	January	67,921	71,919	81	5,062	196,985
	February	73,670	62,994	140	4,251	203,771
	March	81,524	65,028	55	5,813	208,548
	April	72,751	58,946	148	7,688	215,023
	May	81,073	60,164	72	8,221	223,262
	June	76,402	66,707	49	7,828	224,905
	July	74,785	70,422	193	8,318	223,118
	August	90,823	73,558	147	8,235	230,224
	September	78,984	64,133	95	8,710	237,720
	October	69,785	64,664	104	6,641	238,350
	November	64,388	64,613	68	4,190	234,702
	December	63,815	68,147	134	6,526	231,300
	Total	**895,921**	**791,296**	**1,286**	**81,483**	
1985	January	†68,259	74,434	126	5,817	218,131
	February	†67,319	65,654	101	6,030	212,036
	March	†77,989	65,397	103	6,696	214,825
	April	†76,783	61,754	203	7,065	220,230
	May	†78,574	64,796	159	9,231	222,798
	June	†73,436	66,979	138	7,913	223,210
	July	†69,348	74,162	177	7,314	213,600
	August	†79,818	73,101	264	10,422	209,554
	September	†74,134	66,673	182	8,095	208,827
	October	†80,488	65,033	128	8,744	212,920
	November	†69,608	64,865	111	8,134	210,656
	December	†70,338	75,202	260	7,220	203,367
	Total	**†886,096**	**818,049**	**1,952**	**92,680**	
1986	January†	78,543	75,765	154	5,935	199,950
	February†	72,929	65,814	209	5,158	199,882
	March†	77,829	64,422	122	6,152	203,984
	April†	73,399	NA	214	8,302	NA
	May†	71,949	NA	172	8,545	NA
	June†	72,134	NA	190	7,323	NA
	July†	67,257	NA	NA	NA	NA
	Year to Date[4]	**514,039**	**206,000**	**1,061**	**41,414**	**NA**

[1]Includes Puerto Rico.
[2]Excludes shipments of anthracite to U.S. Armed Forces overseas (218,000 short tons in 1982, 341,000 short tons in 1983, 298,000 short tons in 1984, and 240,000 short tons in 1985).
[3]Stocks held by electric utilities, coke plants, general industry, and coal producers and distributors at the end of period. Excludes stocks held at retail dealers for consumption by the residential and commercial sector.
[4]Total of available data.
†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[1]

			Industrial			
		Electric Utilities	Coke Plants	Other Industrial 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	**Total**	**593,666**	**40,908**	**64,097**	**8,240**	**706,911**
1983	**Total**	**625,211**	**37,033**	**65,980**	**8,448**	**736,672**
1984	January	60,225	3,791	6,858	1,045	71,919
	February	52,257	3,592	6,230	915	62,994
	March	54,534	3,843	5,999	652	65,028
	April	47,565	4,180	6,273	928	58,946
	May	49,507	4,100	5,997	560	60,164
	June	56,971	3,564	5,729	443	66,707
	July	60,359	3,639	5,730	694	70,422
	August	63,396	3,620	5,886	656	73,558
	September	54,045	3,557	5,659	872	64,133
	October	54,753	3,317	5,902	692	64,664
	November	54,229	3,346	6,305	733	64,613
	December	56,560	3,473	7,176	938	68,147
	Total	**664,399**	**44,022**	**73,745**	**9,130**	**791,296**
1985	January	63,645	3,463	6,496	830	74,434
	February	55,491	3,282	6,155	726	65,654
	March	54,784	3,511	6,584	518	65,397
	April	50,903	3,851	6,236	764	61,754
	May	54,595	3,778	5,962	461	64,796
	June	57,634	3,284	5,696	365	66,979
	July	64,252	3,437	5,950	523	74,162
	August	63,076	3,420	6,111	494	73,101
	September	56,780	3,361	5,876	656	66,673
	October	54,969	3,165	6,183	716	65,033
	November	54,311	3,192	6,605	758	64,865
	December	63,402	3,314	7,517	969	75,202
	Total	**693,841**	**41,056**	**75,372**	**7,779**	**818,049**
1986	January†	64,032	3,508	7,323	902	75,765
	February†	55,049	3,324	6,652	789	65,814
	March†	53,898	3,555	6,406	563	64,422
	April†	48,114	NA	NA	NA	NA
	May†	51,420	NA	NA	NA	NA
	June†	58,892	NA	NA	NA	NA
	Year to Date[2]	**331,404**	**10,387**	**20,381**	**2,254**	**206,000**

[1]See Note 2 on the last page of this section.
[2]Total of available data.
†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 at End of Period

		Consumer					
		Electric Utilities	Coke Plants	Other Industrial	Total[1]	Producers and Distributors	Total[1]
		Thousand short tons					
1973	**Year**	**86,967**	**6,998**	**10,370**	**104,335**	**NA**	**NA**
1974	**Year**	**83,509**	**6,209**	**6,605**	**96,323**	**NA**	**NA**
1975	**Year**	**110,724**	**8,797**	**8,529**	**128,050**	**NA**	**NA**
1976	**Year**	**117,436**	**9,902**	**7,100**	**134,438**	**NA**	**NA**
1977	**Year**	**133,219**	**12,816**	**11,063**	**157,098**	**NA**	**NA**
1978	**Year**	**128,225**	**8,278**	**9,048**	**145,551**	**NA**	**NA**
1979	**Year**	**159,714**	**10,155**	**11,777**	**181,646**	**20,826**	**202,472**
1980	**Year**	**183,010**	**9,067**	**11,951**	**204,028**	**24,379**	**228,407**
1981	**Year**	**168,893**	**6,475**	**9,906**	**185,274**	**24,149**	**209,423**
1982	**Year**	**181,132**	**4,642**	**9,479**	**195,254**	**36,784**	**232,038**
1983	**Year**	**155,598**	**4,346**	**8,710**	**168,654**	**33,931**	**202,584**
1984	January	149,403	4,947	8,593	162,943	34,042	196,985
	February	155,593	5,548	8,476	169,617	34,154	203,771
	March	159,775	6,149	8,359	174,283	34,265	208,548
	April	165,592	7,171	9,137	181,900	33,123	215,023
	May	173,171	8,194	9,915	191,280	31,982	223,262
	June	174,155	9,217	10,693	194,065	30,841	224,905
	July	171,095	9,658	11,904	192,657	30,461	223,118
	August	176,928	10,099	13,116	200,143	30,081	230,224
	September	183,151	10,541	14,327	208,019	29,701	237,720
	October	184,779	9,083	13,324	207,186	31,164	238,350
	November	182,130	7,625	12,320	202,075	32,627	234,702
	December	179,727	6,166	11,317	197,211	34,090	231,300
1985	January	167,592	5,583	10,439	183,614	34,517	218,131
	February	162,531	4,999	9,562	177,092	34,944	212,036
	March	166,355	4,415	8,684	179,454	35,371	214,825
	April	171,695	4,472	8,750	184,917	35,313	220,230
	May	174,198	4,530	8,815	187,543	35,255	222,798
	June	174,545	4,587	8,881	188,013	35,197	223,210
	July	165,903	4,171	9,184	179,258	34,342	213,600
	August	162,825	3,754	9,488	176,067	33,487	209,554
	September	163,065	3,338	9,791	176,195	32,632	208,827
	October	166,749	3,365	10,007	180,121	32,799	212,920
	November	164,075	3,393	10,222	177,690	32,966	210,656
	December	156,376	3,420	10,438	170,234	33,133	203,367
1986	January†	152,078	3,302	9,900	165,280	34,670	199,950
	February†	151,157	3,185	9,332	163,674	36,208	199,882
	March†	154,409	3,067	8,763	166,239	37,745	203,984
	April†	161,076	NA	NA	NA	NA	NA
	May†	164,667	NA	NA	NA	NA	NA
	June†	162,899	NA	NA	NA	NA	NA

[1]Excludes stocks held at retail dealers for consumption 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 9 months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the *Monthly Energy Review* in the fall of the following year.

2. Consumption: 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.

Prior to 1980, monthly and quarterly stock data for the residential and commercial sector were taken directly from reported data. Monthly and quarterly stock data are not available for the residential and commercial sector after December 1979.

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

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* (except Residential and Commercial Consumption and Stocks and Producers and Distributors Stocks);

- 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 Consumption and Stocks—1973 through 1976: Bureau of Mines, *Minerals Yearbook;* January 1977 through September 1977: Bureau of Mines, Form 6-1400-M, "Monthly Coal Report, Retail Dealers—Upper Lake Docks"; October 1977 through December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers—Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report," (stock data are not collected).
- Producers and Distributors Stocks—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 June 1986, electric utilities generated 215.0 billion kilowatthours of electricity, 4.7 percent above the June 1985 generation level. Coal-fired generation totaled 120.2 billion kilowatthours, 4.0 percent above the June 1985 level. Nuclear generation totaled 31.3 billion kilowatthours, 1.6 percent above the June 1985 level. Hydroelectric generation was 26.2 billion kilowatthours in June 1986, 10.0 percent above the June 1985 level. Natural gas-fired generation was 24.8 billion kilowatthours, 7.4 percent below the level 1 year earlier. Petroleum-fired generation totaled 11.6 billion kilowatthours, 52.6 percent above the June 1985 level.

During the first half of 1986, electric utilities generated 1,207.4 billion kilowatthours of electricity, slightly less than during the first half of 1985. Comparing generation during the first 6 months of 1986 and 1985, coal-fired generation was down 1.0 percent in 1986, nuclear was up 5.1 percent, hydroelectric was up 1.2 percent, natural gas-fired was down 14.2 percent, and petroleum-fired was up 26.5 percent. Electricity generated from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources during the first half of 1986 was 16.0 percent higher than it was during the first half of 1985.

Sales of electricity to all ultimate consumers in the United States in June 1986 were 194.7 billion kilowatthours, 3.0 percent above June 1985 sales. Sales to residential consumers during June 1986 were 63.8 billion kilowatthours, 5.3 percent above the level of sales during the same month in 1985. Commercial sales were 56.9 billion kilowatthours, 10.5 percent more than the amount sold to commercial consumers in June 1985. Sales to industrial consumers totaled 67.1 billion kilowatthours in June 1986, 4.3 percent less than the 1985 figure. In June 1986, other sales totaled 6.9 billion kilowatthours, 0.4 percent above the June 1985 level.

Electric utility petroleum consumption (excluding petroleum coke) during June 1986 was 19.6 million barrels, 49.2 percent above the June 1985 level. Coal consumption during June 1986 was 58.9 million short tons, 2.2 percent above the June 1985 rate. During June 1986, electric utilities consumed 260.2 billion cubic feet of natural gas, 7.7 percent below the June 1985 consumption level.

Sales of electricity to all ultimate consumers in the United States during the first half of 1986 were 1,160.3 billion kilowatthours, 2.6 percent above first-half 1985 sales. Sales to residential consumers during the first half of 1986 were 400.4 billion kilowatthours, 3.0 percent above the level of sales during the same period in 1985. Commercial sales were 309.5 billion kilowatthours, 6.5 percent more than the amount sold to commercial consumers in the first half of 1985. Sales to industrial consumers totaled 407.8 billion kilowatthours during the first half of 1986, 0.6 percent less than the 1985 figure. During the first half of 1986, other sales totaled 42.9 billion kilowatthours, 2.2 percent above the first-half 1985 level.

Electric utility petroleum consumption (excluding petroleum coke) during the first half of 1986 was up 23.1 percent from petroleum consumption during the first half of 1985. Coal consumption during the first 6 months of 1986 was down 1.7 percent compared with the level during the first half of 1985, while natural gas consumption was down 13.5 percent.

On June 30, 1986, utility stocks of all types of coal totaled 162.9 million short tons. These stockpiles were 6.7 percent below the level of June 30, 1985. Petroleum stocks (excluding petroleum coke) on June 30, 1986, totaled 73.8 million barrels, 4.0 percent below the level on the same date in 1985.

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	**Total**	**1,192,004**	**146,797**	**305,260**	**282,773**	**309,213**	**5,164**	**2,241,211**
1983	**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	29,313	29,737	547	216,632
	February	104,706	10,053	17,827	28,436	27,900	643	189,564
	March	111,158	10,806	19,645	27,345	30,435	719	200,107
	April	97,542	7,450	21,197	24,231	29,970	695	181,084
	May	100,139	8,422	25,304	25,867	31,814	673	192,217
	June	115,426	11,152	28,345	25,299	28,773	654	209,648
	July	121,094	10,397	33,327	28,284	27,495	648	221,245
	August	127,744	12,836	33,292	29,493	25,137	794	229,296
	September	108,862	7,713	27,839	29,146	20,911	728	195,198
	October	110,801	7,874	25,783	24,774	20,887	819	190,936
	November	109,759	9,232	23,728	24,575	22,259	827	190,380
	December	113,601	7,935	20,863	30,872	25,834	892	199,996
	Total	**1,341,681**	**119,808**	**297,394**	**327,634**	**321,150**	**8,638**	**2,416,304**
1985	January	129,092	12,077	22,051	36,186	27,543	906	227,856
	February	112,037	9,270	19,417	30,812	25,902	803	198,242
	March	111,391	7,120	19,848	31,041	24,640	930	194,970
	April	104,790	6,017	22,425	26,458	24,403	783	184,877
	May	111,515	6,859	22,481	28,697	26,421	816	196,790
	June	115,583	7,576	26,740	30,837	23,839	788	205,363
	July	128,880	8,289	32,191	35,184	21,293	885	226,722
	August	126,550	9,858	33,915	34,812	19,981	934	226,050
	September	114,630	7,435	26,273	34,508	18,767	887	202,499
	October	111,053	7,514	24,120	31,205	20,048	849	194,789
	November	108,815	7,008	22,453	30,166	22,954	1,031	192,427
	December	127,792	11,177	20,031	33,782	25,359	1,113	219,255
	Total	**1,402,128**	**100,202**	**291,946**	**383,691**	**281,149**	**10,724**	**2,469,841**
1986	January	130,017	11,088	17,473	36,219	21,815	1,123	217,735
	February	110,999	9,513	14,925	32,721	23,319	956	192,433
	March	110,390	10,070	16,149	30,773	28,346	984	196,711
	April	100,141	9,228	18,880	30,477	27,562	891	187,180
	May	105,889	10,438	21,947	R31,924	27,244	904	R198,346
	June	120,154	11,563	24,766	31,334	26,230	974	215,022
	Year to Date	**677,590**	**61,901**	**114,140**	**193,448**	**154,517**	**5,832**	**1,207,428**

[1]Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.
[2]Includes supplemental gaseous fuels.
[3]Other is 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.
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 Sales[1]

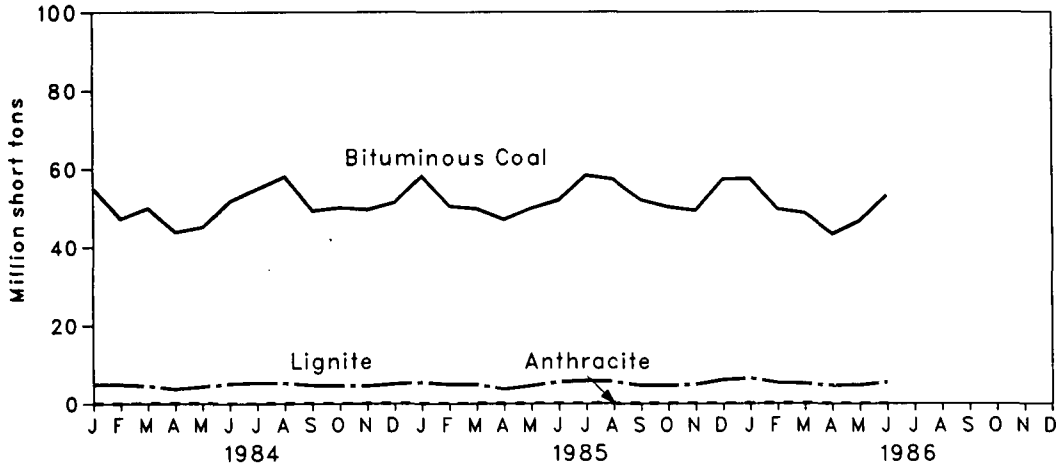
		Residential	Commercial	Industrial	Other[2]	Total
				Million kilowatthours		
1973	**Total**	**579,231**	**388,266**	**686,085**	**59,328**	**1,712,910**
1974	**Total**	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**
1975	**Total**	**588,140**	**403,049**	**687,680**	**68,222**	**1,747,091**
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	**Total**	**729,519**	**526,397**	**744,949**	**85,575**	**2,086,440**
1983	**Total**	**750,948**	**543,788**	**775,999**	**80,219**	**2,150,955**
1984	January	83,295	49,243	66,709	7,289	206,537
	February	69,818	46,293	67,445	6,690	190,246
	March	63,656	45,232	69,684	6,902	185,475
	April	56,373	43,052	69,048	6,339	174,813
	May	53,519	44,150	70,774	6,559	175,003
	June	59,955	49,454	73,037	6,714	189,160
	July	71,020	53,922	71,843	7,006	203,791
	August	73,138	53,603	74,534	7,089	208,364
	September	67,456	52,854	71,275	6,780	198,365
	October	55,965	48,061	70,945	6,732	181,702
	November	56,543	45,937	68,688	6,840	178,008
	December	66,915	46,481	66,606	6,908	186,910
	Total	**777,654**	**578,281**	**840,588**	**81,849**	**2,278,372**
1985	January	77,242	49,634	67,219	7,270	201,364
	February	78,011	49,406	66,582	7,046	201,045
	March	63,981	46,629	67,437	6,875	184,922
	April	56,025	45,826	68,445	7,049	177,345
	May	52,842	47,711	70,140	6,903	177,596
	June	60,652	51,521	70,091	6,848	189,112
	July	70,966	56,128	69,760	7,135	203,989
	August	73,693	57,041	71,402	7,277	209,414
	September	71,064	55,960	70,744	7,263	205,030
	October	57,515	49,978	69,158	6,903	183,554
	November	56,794	47,843	67,164	7,264	179,065
	December	72,192	51,289	66,383	7,243	197,107
	Total	**790,977**	**608,968**	**824,523**	**85,075**	**2,309,543**
1986[3]	January	82,956	53,376	65,548	7,222	209,102
	February	70,820	50,371	65,116	6,856	193,162
	March	65,576	48,452	67,607	6,848	188,483
	April	62,434	51,138	74,040	7,843	195,455
	May	54,808	49,201	68,083	7,261	179,353
	June†	63,843	56,947	67,083	6,874	194,747
	Year to Date	**400,437**	**309,484**	**407,477**	**42,905**	**1,160,303**

[1]Electricity sales to all ultimate consumers.
[2]Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.
[3]Beginning with January 1986, monthly electricity sales estimates are based on a new sample and new expansion factors from data reported on Form EIA 861, "Annual Electric Utility Report."
†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."

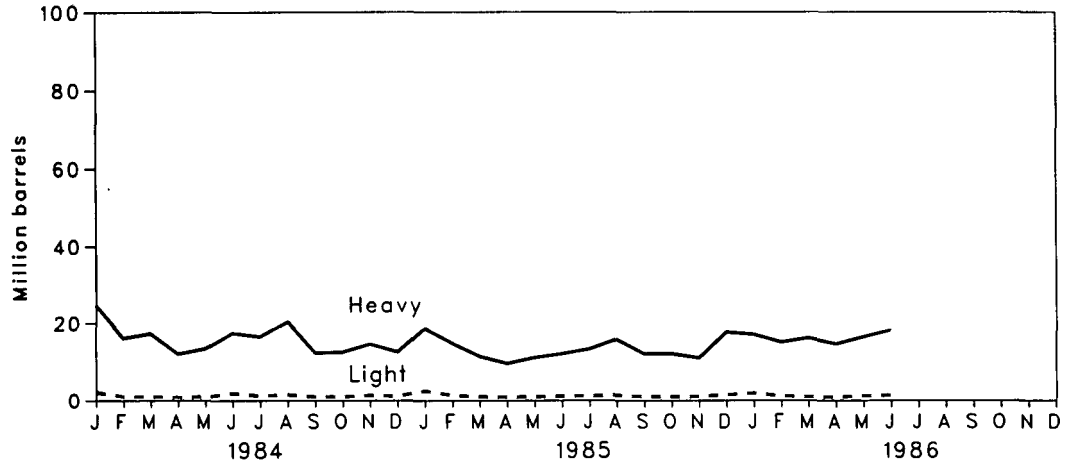
Electric Utilities

Primary Energy Consumed to Produce Electricity

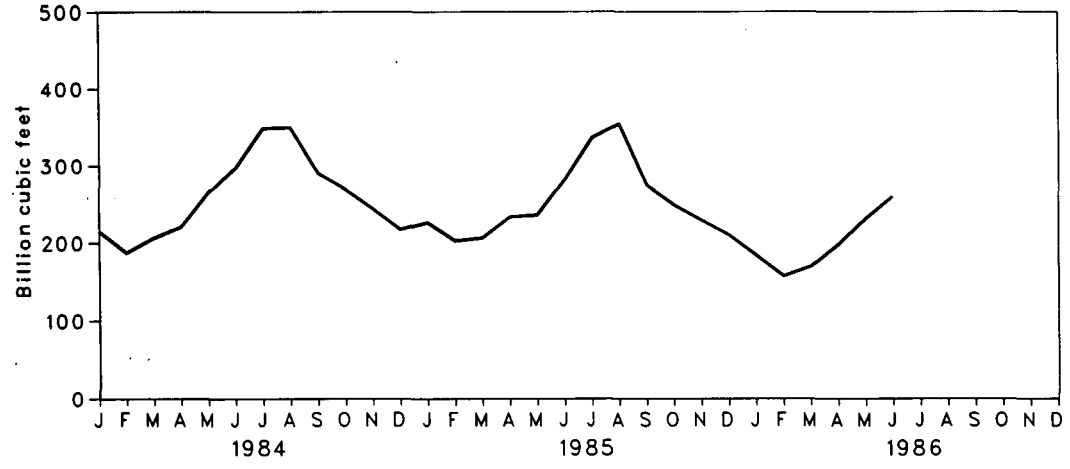
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

Primary Energy Consumed to Produce Electricity

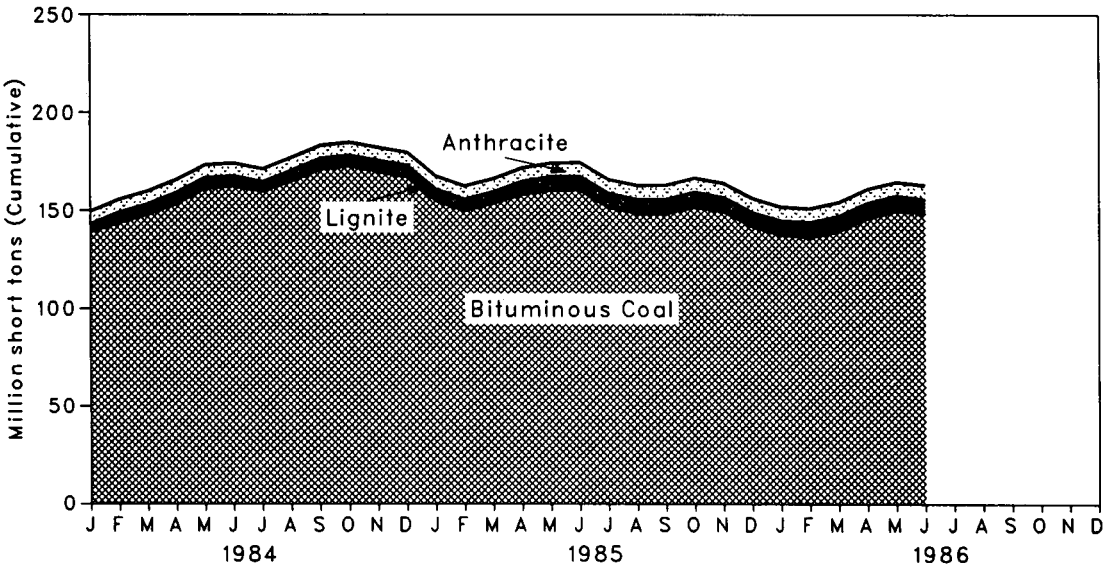
		Coal				Petroleum				Natural Gas[1]
		Anthracite	Bituminous Coal	Lignite	Total	Heavy[2]	Light[3]	Total Liquids	Petroleum Coke	
		Thousand short tons				Thousand barrels			Thousand short tons	Million cubic feet
1973	**Total**	**1,443**	**376,975**	**10,794**	**389,212**	**(4)**	**(4)**	**560,248**	**507**	**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	**Total**	**1,075**	**543,346**	**49,245**	**593,666**	**234,434**	**15,337**	**249,771**	**149**	**3,225,518**
1983	**Total**	**1,036**	**570,108**	**54,067**	**625,211**	**228,984**	**16,512**	**245,497**	**261**	**2,910,767**
1984	January	98	55,142	4,985	60,225	24,745	2,176	26,921	24	215,027
	February	75	47,279	4,904	52,257	16,091	1,018	17,108	21	187,259
	March	69	49,921	4,543	54,534	17,274	1,016	18,290	18	206,171
	April	83	43,779	3,703	47,565	11,971	831	12,802	22	220,005
	May	99	45,115	4,294	49,507	13,327	1,010	14,337	23	264,522
	June	102	51,757	5,112	56,971	17,363	1,927	19,289	23	297,560
	July	100	54,928	5,331	60,359	16,453	1,259	17,712	22	348,848
	August	97	58,026	5,273	63,396	20,337	1,522	21,859	20	349,878
	September	81	49,288	4,675	54,045	12,235	996	13,231	21	290,595
	October	83	50,091	4,578	54,753	12,450	965	13,415	19	269,629
	November	91	49,595	4,543	54,229	14,543	1,326	15,870	17	244,637
	December	93	51,418	5,050	56,560	12,499	1,146	13,645	20	217,210
	Total	**1,070**	**606,339**	**56,990**	**664,399**	**189,289**	**15,190**	**204,479**	**252**	**3,111,342**
1985	January	88	58,155	5,402	63,645	18,574	2,482	21,056	18	226,276
	February	70	50,481	4,940	55,491	14,729	1,333	16,062	17	202,546
	March	78	49,793	4,913	54,784	11,323	980	12,303	16	207,286
	April	92	47,072	3,738	50,903	9,561	911	10,471	16	233,819
	May	98	49,890	4,607	54,595	11,046	962	12,008	13	236,220
	June	90	51,984	5,561	57,634	12,005	1,111	13,116	21	281,939
	July	92	58,327	5,833	64,252	13,238	1,109	14,347	20	336,535
	August	96	57,304	5,676	63,076	15,730	1,338	17,067	19	354,653
	September	74	52,031	4,675	56,780	11,994	979	12,972	24	274,868
	October	85	50,265	4,619	54,969	12,060	969	13,029	23	249,579
	November	83	49,315	4,913	54,311	10,925	1,021	11,946	23	229,943
	December	86	57,270	6,046	63,402	17,595	1,440	19,035	20	210,417
	Total	**1,033**	**631,885**	**60,923**	**693,841**	**158,779**	**14,635**	**173,414**	**231**	**3,044,083**
1986	January	67	57,483	6,482	64,032	17,037	1,905	18,942	15	184,025
	February	50	49,673	5,325	55,049	14,978	1,100	16,077	15	157,070
	March	88	48,691	5,119	53,898	16,090	954	17,044	23	169,698
	April	84	43,345	4,684	48,114	14,538	893	15,431	23	197,459
	May	68	46,629	4,723	51,420	16,386	1,207	17,593	25	231,265
	June	64	53,332	5,496	58,892	18,173	1,390	19,564	24	260,174
	Year to Date	**421**	**299,154**	**31,829**	**331,404**	**97,202**	**7,450**	**104,652**	**126**	**1,199,690**

[1]Includes supplemental gaseous fuels.
[2]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[3]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[4]Prior 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."

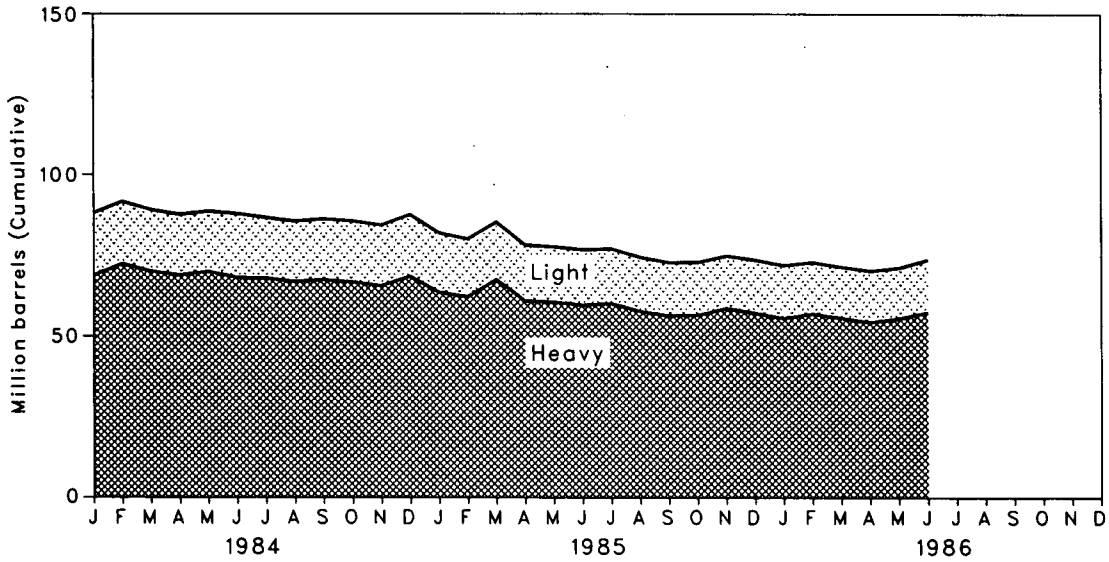
Electric Utilities

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	**Year**	**1,066**	**84,941**	**961**	**86,967**	**([3])**	**([3])**	**89,216**	**312**
1974	**Year**	**930**	**81,712**	**867**	**83,509**	**([3])**	**([3])**	**112,917**	**35**
1975	**Year**	**982**	**107,927**	**1,815**	**110,724**	**([3])**	**([3])**	**125,257**	**31**
1976	**Year**	**1,000**	**114,130**	**2,306**	**117,436**	**([3])**	**([3])**	**121,696**	**32**
1977	**Year**	**2,321**	**128,210**	**2,688**	**133,219**	**([3])**	**([3])**	**144,031**	**44**
1978	**Year**	**2,178**	**123,020**	**3,027**	**128,225**	**([3])**	**([3])**	**118,788**	**198**
1979	**Year**	**3,274**	**152,981**	**3,459**	**159,714**	**([3])**	**([3])**	**131,422**	**183**
1980	**Year**	**4,741**	**174,154**	**4,115**	**183,010**	**105,351**	**30,023**	**135,374**	**52**
1981	**Year**	**5,537**	**158,258**	**5,098**	**168,893**	**102,042**	**26,094**	**128,136**	**42**
1982	**Year**	**6,080**	**170,480**	**4,573**	**181,132**	**95,515**	**23,369**	**118,884**	**41**
1983	**Year**	**6,507**	**145,250**	**3,841**	**155,598**	**70,573**	**18,801**	**89,375**	**55**
1984	January	6,500	139,026	3,877	149,403	68,679	19,369	88,048	43
	February	6,510	143,731	5,352	155,593	72,339	19,227	91,566	41
	March	6,519	147,756	5,500	159,775	69,984	19,058	89,042	45
	April	6,515	153,300	5,777	165,592	68,771	18,849	87,620	47
	May	6,532	161,067	5,573	173,171	69,890	18,695	88,584	51
	June	6,541	162,426	5,188	174,155	68,098	19,807	87,906	51
	July	6,530	159,683	4,883	171,095	67,856	18,840	86,696	50
	August	6,583	164,987	5,358	176,928	66,836	18,795	85,632	47
	September	6,628	170,987	5,536	183,151	67,370	18,921	86,291	49
	October	6,674	172,553	5,552	184,779	66,717	18,965	85,682	49
	November	6,715	169,788	5,627	182,130	65,548	18,875	84,423	43
	December	6,710	167,118	5,899	179,727	68,503	19,116	87,619	50
1985	January	6,719	155,067	5,806	167,592	63,546	18,518	82,064	57
	February	6,736	150,077	5,717	162,531	62,094	18,088	80,182	50
	March	6,782	153,739	5,834	166,355	62,558	17,837	80,395	43
	April	6,836	158,218	6,641	171,695	60,889	17,398	78,286	31
	May	6,905	160,326	6,967	174,198	60,530	17,236	77,765	33
	June	6,991	160,595	6,959	174,545	59,629	17,218	76,846	33
	July	7,045	151,809	7,049	165,903	60,116	17,034	77,151	43
	August	7,109	148,698	7,018	162,825	57,820	16,699	74,519	42
	September	7,185	148,637	7,243	163,065	56,487	16,442	72,930	40
	October	7,258	151,999	7,492	166,749	56,676	16,292	72,968	43
	November	7,223	149,579	7,272	164,075	58,720	16,250	74,970	47
	December	7,189	142,144	7,043	156,376	57,304	16,386	73,689	49
1986	January	7,182	137,699	7,196	152,078	55,757	16,254	72,011	52
	February	7,172	136,487	7,498	151,157	57,143	15,834	72,976	50
	March	7,146	139,529	7,734	154,409	55,811	15,731	71,542	36
	April	7,127	146,152	7,797	161,076	54,556	15,768	70,324	28
	May	7,133	150,164	7,370	164,667	55,658	15,632	71,290	34
	June	7,148	148,675	7,075	162,899	57,542	16,224	73,766	36

[1]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[2]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[3]Prior 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	**Total**	**243,537**	**6,234**	**249,771**	**105,287**	**13,597**	**118,884**
1983	**Total**	**237,845**	**7,652**	**245,497**	**78,285**	**11,090**	**89,375**
1984	January	25,838	1,082	26,921	76,756	11,292	88,048
	February	16,662	447	17,108	80,404	11,163	91,566
	March	17,881	410	18,290	78,014	11,028	89,042
	April	12,495	306	12,802	76,721	10,899	87,620
	May	13,896	441	14,337	77,699	10,886	88,584
	June	17,997	1,293	19,289	76,126	11,780	87,906
	July	17,085	627	17,712	75,788	10,908	86,696
	August	20,957	902	21,859	74,832	10,799	85,632
	September	12,795	436	13,231	75,588	10,703	86,291
	October	13,019	396	13,415	74,906	10,775	85,682
	November	15,177	692	15,870	73,833	10,590	84,423
	December	13,247	398	13,645	76,836	10,784	87,619
	Total	**197,050**	**7,429**	**204,479**			
1985	January	19,846	1,210	21,056	71,528	10,536	82,064
	February	15,595	467	16,062	70,088	10,094	80,182
	March	11,966	337	12,303	70,385	10,010	80,395
	April	10,133	338	10,471	68,651	9,636	78,286
	May	11,604	403	12,008	68,249	9,516	77,765
	June	12,516	601	13,116	67,529	9,317	76,846
	July	13,840	507	14,347	67,816	9,334	77,151
	August	16,272	795	17,067	65,307	9,212	74,519
	September	12,485	488	12,972	63,701	9,229	72,930
	October	*12,646*	*383*	*13,029*	*63,908*	9,059	72,968
	November	11,584	362	11,946	66,103	8,867	74,970
	December	18,355	680	19,035	64,704	8,985	73,689
	Total	**166,842**	**6,572**	**173,414**			
1986	January	17,915	1,027	18,942	63,224	8,787	72,011
	February	R[illegible]5,536	541	16,077	64,313	8,663	72,976
	March	16,611	433	17,044	62,825	8,717	71,542
	April	14,982	449	15,431	61,758	8,566	70,324
	May	16,933	660	17,593	63,135	8,155	71,290
	June	18,796	768	19,564	65,046	8,720	73,766
	Year to Date	**100,774**	**3,878**	**104,652**			

[1]GT/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 June 1986, U.S. nuclear generating units produced a total of 31.3 billion net kilowatthours of electricity while achieving an average capacity factor of 52.4 percent. This generation represents an increase of 1.6 percent compared with June 1985 generation. Nuclear power supplied 14.6 percent of the electricity generated in June 1986 compared with 15.0 percent in June 1985.

Nuclear generation for the first half of 1986 increased 5.1 percent compared with nuclear generation during the same period of 1985. For the first half of 1986, monthly capacity factors averaged 54.7 percent, compared with 58.3 percent for the same period in 1985. The average monthly nuclear share of electricity production for the first half of the year was 16.0 percent in 1986 and 15.2 percent in 1985. From January 1986 through June 1986, 3 nuclear generating units began operation, representing an increase in net summer capability of 3.554 million kilowatts.

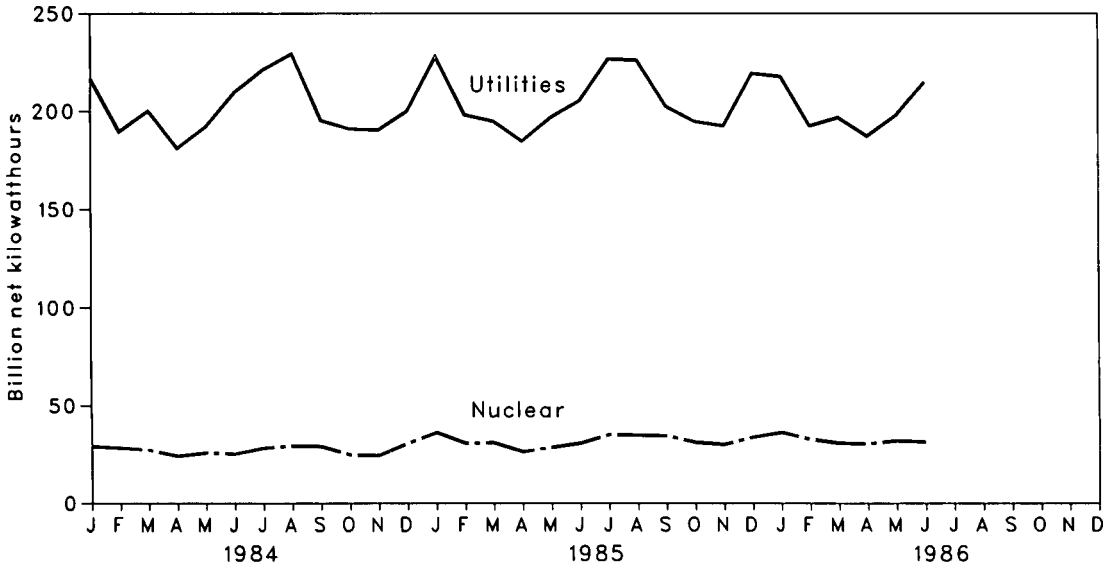
There were 98 operable U.S. nuclear power generating units as of June 30, 1986, with a collective net summer capability of 83.1 million net kilowatts. Three additional units had licenses from the Nuclear Regulatory Commission authorizing fuel-loading and low-power testing (Hope Creek 1, Perry 1, and Shoreham). Of the 98 operable units, 4 were in power ascension (Catawba 2, Fermi 2, Palo Verde 2, and River Bend 1), and 26 units generated no electricity or operated substantially below capability (Browns Ferry 1, Browns Ferry 2, Browns Ferry 3, Beaver Valley 1, Brunswick 2, Catawba 1, Cook 1, Cook 2, Dresden 3, Fort Saint Vrain, LaSalle 1, LaSalle 2, McGuire 1, McGuire 2, Monticello, Nine Mile Point 1, Oyster Creek, Palisades, Pilgrim, Rancho Seco, San Onofre 1, Sequoyah 1, Sequoyah 2, Surry 1, Vermont Yankee, and WNP 2). Nine of these 26 units operating substantially below capability were out of service at least part of June for maintenance and refueling.

As of June 30, 1986, there were 130 domestic nuclear power generating units in all stages of planning, construction, or operation, with an aggregate design capacity of 121 million net kilowatts.

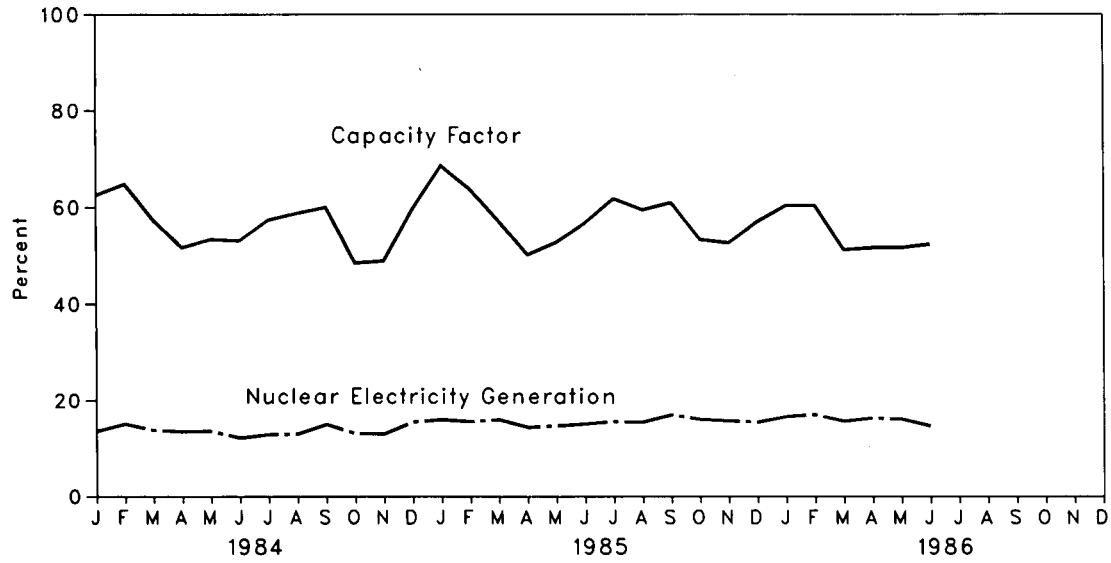
Nuclear

Nuclear Power Plant Operations

Electricity Generated by Utilities and by Nuclear Power Plants



Nuclear Portion of Electricity Generation and Capacity Factor



Nuclear

Nuclear Power Plant Operations

		Operable Reactors[1,2]	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Net Summer Capability of Operable Reactors[1,3]	Capacity Factor[4]
			Million net kilowatthours	Percent	Million net kilowatts	Percent
1973	**Year**	**39**	**83,479**	**4.5**	**22.615**	**53.7**
1974	**Year**	**48**	**113,976**	**6.1**	**31.803**	**47.9**
1975	**Year**	**54**	**172,505**	**9.0**	**37.161**	**56.0**
1976	**Year**	**61**	**191,104**	**9.4**	**43.657**	**54.9**
1977	**Year**	**65**	**250,883**	**11.8**	**46.202**	**63.4**
1978	**Year**	**70**	**276,403**	**12.5**	**50.709**	**64.7**
1979	**Year**	**68**	**255,155**	**11.4**	**49.630**	**58.5**
1980	**Year**	**70**	**251,116**	**11.0**	**51.668**	**56.4**
1981	**Year**	**74**	**272,674**	**11.9**	**55.914**	**58.4**
1982	**Year**	**77**	**282,773**	**12.6**	**59.927**	**56.7**
1983	**Year**	**80**	**293,677**	**12.7**	**63.009**	**54.4**
1984	January	80	29,313	13.5	63.009	62.5
	February	80	28,436	15.0	63.009	64.8
	March	81	27,345	13.7	64.057	57.4
	April	82	24,231	13.4	65.157	51.7
	May	82	25,867	13.5	65.157	53.4
	June	83	25,299	12.1	66.207	53.1
	July	83	28,284	12.8	66.207	57.4
	August	84	29,493	12.9	67.446	58.8
	September	84	29,146	14.9	67.446	60.0
	October	85	24,774	13.0	68.566	48.6
	November	86	24,575	12.9	69.652	49.0
	December	86	30,872	15.4	69.652	59.6
	Year	**86**	**327,634**	**13.6**	**69.652**	**56.3**
1985	January	87	36,186	15.9	70.784	68.7
	February	88	30,812	15.5	71.904	63.8
	March	89	31,041	15.9	72.994	57.2
	April	89	26,458	14.3	72.994	50.3
	May	89	28,697	14.6	72.994	52.8
	June	91	30,837	15.0	75.390	56.8
	July	92	35,184	15.5	76.469	61.8
	August	94	34,812	15.4	78.590	59.5
	September	94	34,508	17.0	78.590	61.0
	October	94	31,205	16.0	78.590	53.4
	November	95	30,166	15.7	79.509	52.7
	December	95	33,782	15.4	79.509	57.1
	Year	**95**	**383,691**	**15.5**	**79.509**	**57.9**
1986	January	96	36,219	16.6	80.652	60.4
	February	96	32,721	17.0	80.652	60.4
	March	96	30,773	15.6	80.652	51.3
	April	97	30,477	16.3	81.911	51.7
	May	98	R31,924	R16.1	83.063	R51.7
	June	98	31,334	14.6	83.063	52.4

[1]Monthly data are the status as of the last day of the month. Yearly data are the status as of December 31 of each year.
[2]See Note 1 on the last page of this section for the definition.
[3]When possible, net summer capability is used. When a reactor has not operated long enough to permit determination of a net summer capability, an estimation is made based on the net design electrical rating. For the definitions of net summer capability and net design electrical rating, see Note 3 on the last page of this section.
[4]For an explanation of the method of calculating the capacity factor, see Note 4 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.

Nuclear

Status of Nuclear Reactor Units[1]

		Licensed for Operation		Construction Permits					Total Design Capacity[4]
		Operable[2]	In Startup[3]	Granted	Pending	On Order	Announced	Total	
									Million net kilowatts
1973	**Year**	**39**	**3**	**51**	**58**	**48**	**20**	**219**	**212**
1974	**Year**	**48**	**5**	**58**	**80**	**28**	**16**	**235**	**234**
1975	**Year**	**54**	**2**	**69**	**73**	**19**	**19**	**236**	**236**
1976	**Year**	**61**	**0**	**72**	**66**	**16**	**19**	**234**	**236**
1977	**Year**	**65**	**1**	**80**	**52**	**13**	**9**	**220**	**220**
1978	**Year**	**70**	**0**	**90**	**32**	**9**	**4**	**205**	**204**
1979	**Year**	**68**	**0**	**91**	**21**	**3**	**0**	**183**	**179**
1980	**Year**	**70**	**2**	**82**	**12**	**3**	**0**	**169**	**163**
1981	**Year**	**74**	**0**	**75**	**11**	**3**	**0**	**163**	**157**
1982	**Year**	**77**	**2**	**60**	**3**	**2**	**0**	**144**	**135**
1983	**Year**	**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
	October	85	3	42	0	2	0	132	123
	November	86	2	42	0	2	0	132	123
	December	86	6	38	0	2	0	132	123
1985	January	87	5	38	0	2	0	132	123
	February	88	4	38	0	2	0	132	123
	March	89	5	36	0	2	0	132	123
	April	89	6	33	0	2	0	130	121
	May	89	6	33	0	2	0	130	121
	June	91	4	33	0	2	0	130	121
	July	92	3	33	0	2	0	130	121
	August	94	2	32	0	2	0	130	121
	September	94	2	32	0	2	0	130	121
	October	94	2	32	0	2	0	130	121
	November	95	2	31	0	2	0	130	121
	December	95	3	30	0	2	0	130	121
1986	January	96	2	30	0	2	0	130	121
	February	96	3	29	0	2	0	130	121
	March	96	4	28	0	2	0	130	121
	April	97	4	27	0	2	0	130	121
	May	98	3	27	0	2	0	130	121
	June	98	3	27	0	2	0	130	121

[1]Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.
[2]See Note 1 on the last page of this section for the definition.
[3]See Note 2 on the last page of this section for the definition.
[4]Net design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability. 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: For 1973 through 1979, units are defined as operable based upon the date they first produced electricity. For 1980 and following, operable units are defined as those units that have received an operating license, completed low-power testing, and received a full power amendment from the Nuclear Regulatory Commission (NRC). This distinction arises because the full power amendment date has no direct analogue for full years prior to 1980. Fermi-2 (net summer capability of 1,079 MWe), is included, although currently the unit is restricted by the NRC from providing electric power to the grid. The Hanford-N reactor, operated by the Department of Energy (DOE), with a net summer capability of 850 megawatts electric (MWe) is included as an operable reactor, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net summer capability of 55 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 are deleted from entries subsequent to their removal from service: Peach Bottom 1 (net summer capability of 36 MWe) and Indian Point 1 (net summer capability of 253 MWe), both out of service since November 1974; Humboldt Bay (net summer capability of 60 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden 1 (net summer capability of 189 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island 2 (net summer capability of 890 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979.

2. In Startup: Units that have received an operating license 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 power plants may have more than one type of net capacity rating including:

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

(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of 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 monthly net summer capability. 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."

Net Summer Capability: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

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 $10.84 per barrel in June 1986, 0.6 percent below the previous month's level and 54.9 percent below the level in June 1985.

During June 1986, the refiner acquisition cost of imported crude oil decreased 90 cents per barrel from the May 1986 level to $12.27 per barrel in June, 55.0 percent below the June 1985 level. The cost of domestic crude oil in June 1986 was $13.12, a decrease of 50.5 percent from the June 1985 average.

Motor Gasoline

The national city average retail price of leaded regular gasoline at all types of stations was 82 cents per gallon in July 1986, 7.1 percent lower than the price in June 1986. The price of unleaded regular gasoline was 89 cents per gallon in July 1986, 6.8 percent lower than the price in the previous month. The price of unleaded premium gasoline averaged $1.05 per gallon in July 1986, 5.0 percent lower than during June 1986.

Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users in June 1986 was 30 cents per gallon, 1.0 percent below the previous month's price and 46.4 percent below the June 1985 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in June 1986 was 26 cents per gallon, 1.1 percent below the May 1986 average and 50.0 percent below the June 1985 average.

Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end users in June 1986 was 97 cents per gallon, 5.1 percent below the price in the previous month and 20.3 percent below the price in June 1985. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in June 1986 was 48 cents per gallon, down 7.1 percent from the previous month's price and down 38.7 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in June 1986 was 73 cents per gallon. This was 5.9 percent below the price in May 1986 and 27.8 percent below the June 1985 price. The average price for resale was 40 cents per gallon in June 1986, 11.7 percent below the price in the previous month and 45.3 percent below the price in June 1985.

Natural Gas

In May 1986 the average wellhead price of marketed natural gas production was $1.92 per thousand cubic feet, 2.5 percent lower than in April 1986 and 25.0 percent below the May 1985 price. The average price of natural gas delivered to electric utility plants was $2.41 per thousand cubic feet in May 1986, 33.2 percent below the May 1985 price. The average price of natural gas used by residential consumers in June 1986 was $6.65 per thousand cubic feet, 4.5 percent less than the June 1985 price. The average price of natural gas used by industrial consumers in June 1986 was $2.96 per thousand cubic feet, 24.3 percent less than the June 1985 price.

Electricity

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

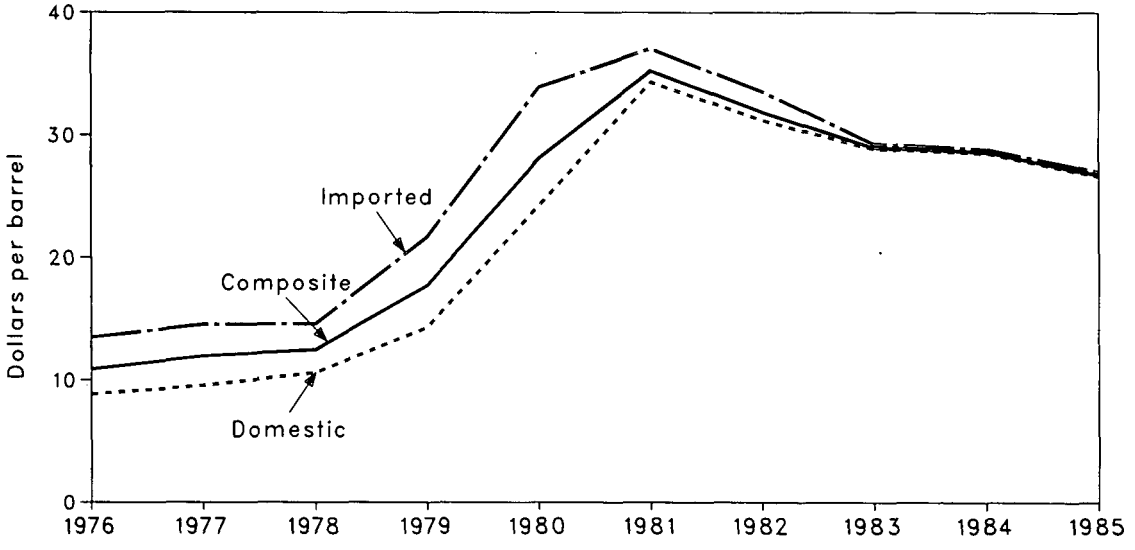
The national retail price of electricity to residential consumers in June 1986 was 7.42 cents per kilowatthour, slightly below the May 1986 price. The price of electricity to commercial consumers averaged 7.26 cents per kilowatthour in June 1986, 2.0 percent* above the May 1986 price. The average electricity price to industrial users during June 1986 was 4.84 cents per kilowatthour, 0.6 percent below the May 1986 price. The June national retail price of electricity to other consumers was 6.71 cents per kilowatthour, 2.1 percent below the May 1986 price.

*Percentages in this paragraph are based on unrounded numbers not shown in following tables.

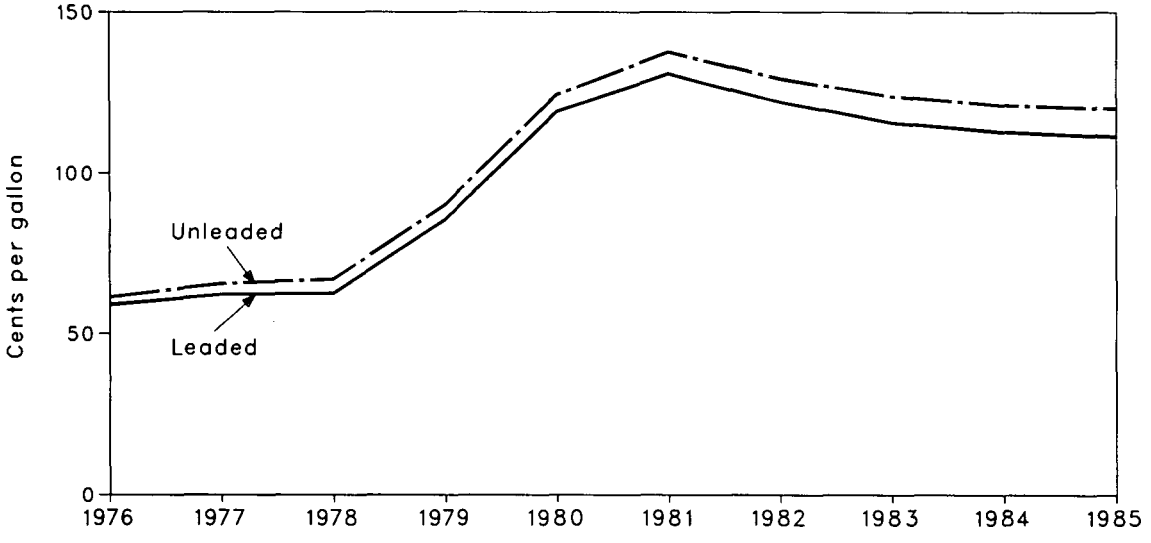
Price

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	**Average**	**28.52**	**32.11**	**33.18**	**31.22**	**33.55**	**31.87**
1983	**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	26.02	27.29	28.20	28.59	28.92	28.69
	September	25.97	27.14	28.14	28.56	28.70	28.60
	October	25.92	27.15	28.18	28.46	28.79	28.56
	November	25.44	26.91	27.88	28.10	28.74	28.30
	December	25.05	26.69	27.69	27.95	28.02	27.97
	Average	**25.88**	**27.44**	**28.46**	**28.53**	**28.88**	**28.63**
1985	January	24.28	26.10	26.95	26.89	27.51	27.02
	February	23.63	25.90	26.82	26.39	27.05	26.53
	March	23.88	26.32	27.14	26.61	27.23	26.77
	April	24.15	26.58	27.47	26.79	27.61	27.04
	May	24.18	26.25	27.13	26.90	27.62	27.11
	June	24.03	25.69	26.47	26.50	27.27	26.69
	July	24.00	25.41	26.20	26.67	26.46	26.61
	August	23.92	25.48	26.22	26.45	26.62	26.50
	September	23.93	25.43	26.46	26.39	26.59	26.44
	October	24.06	25.76	26.73	26.59	26.80	26.65
	November	24.31	25.66	26.63	26.72	27.12	26.85
	December	24.53	24.03	25.11	26.91	26.60	26.82
	Average	**24.08**	**25.77**	**26.60**	**26.65**	**27.03**	**26.76**
1986	January	23.38	21.45	22.76	25.94	24.92	25.64
	February	17.84	15.17	16.28	20.42	18.02	19.81
	March	12.78	12.56	13.52	15.11	14.21	14.87
	April	10.83	R11.58	R12.46	13.06	13.14	13.08
	May	10.90	R†11.28	R†12.39	R12.99	R13.17	R13.05
	June†	10.84	11.16	12.07	13.12	12.27	12.83

[1]See Note 1 in the Notes and Sources for this section.
[2]See Note 2 in the Notes and Sources for this section.
[3]See Note 3 in the Notes and Sources for this section.
[4]See Note 4 in the Notes and Sources for this section.
†Preliminary data. R=Revised data.
Note: • Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions.
Sources: • See the Notes and Sources for this section.

Price

FOB Cost of Crude Oil Imports from Selected Countries[1]

		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	**Average**	**34.23**	**35.27**	**30.93**	**28.07**	**35.13**	**33.50**	**33.46**	**23.77**
1983	**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	26.97	W	W	26.71	29.02	W	28.13	23.91
	September	26.90	28.83	NA	26.34	29.24	27.99	27.99	24.57
	October	27.42	28.93	NA	26.44	28.40	W	28.50	24.43
	November	26.50	28.68	NA	26.53	28.32	NA	27.61	24.24
	December	25.13	28.03	NA	26.43	28.11	NA	27.85	24.32
	Average	**28.04**	**29.10**	**26.93**	**26.37**	**29.39**	**27.60**	**28.90**	**24.16**
1985	January	25.47	27.43	NA	26.10	27.22	W	W	24.02
	February	W	27.62	NA	26.00	27.41	W	W	24.36
	March	26.50	27.01	W	26.31	28.20	NA	W	24.93
	April	27.47	27.50	W	26.33	27.95	NA	28.09	24.49
	May	W	27.44	W	26.24	27.77	NA	27.41	24.52
	June	W	27.06	W	24.75	27.09	NA	26.65	24.32
	July	W	27.44	W	24.25	27.95	NA	26.58	23.13
	August	NA	26.60	W	24.69	27.82	NA	26.98	22.58
	September	W	25.29	W	24.59	27.97	W	27.67	22.49
	October	W	26.95	W	24.78	28.30	W	28.22	22.81
	November	W	27.24	W	24.37	28.67	W	28.65	23.06
	December	W	27.49	W	23.22	29.19	18.48	28.04	22.78
	Average	**26.71**	**27.11**	**W**	**25.17**	**28.03**	**22.04**	**27.66**	**23.61**
1986	January	W	26.68	NA	19.81	26.18	12.60	25.15	21.40
	February	W	W	W	14.24	19.93	W	18.31	12.56
	March	W	13.32	W	11.55	15.77	12.07	W	10.40
	April	W	10.77	W	10.22	R14.61	12.13	11.78	10.48
	May†	R12.17	11.37	W	R10.47	R13.64	W	R13.25	R10.90
	June†	W	11.83	NA	9.80	12.58	NA	12.91	9.69

[1]The Free on Board (FOB) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 in the Notes and Sources for this section.
[2]No 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 Countries[1]

		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	**Average**	**35.28**	**26.92**	**36.75**	**32.40**	**28.64**	**36.17**	**35.00**	**34.28**	**24.82**
1983	**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	28.16	26.95	30.59	W	26.99	29.99	W	28.93	24.95
	September	27.94	27.03	30.05	W	26.66	30.60	29.75	28.81	25.29
	October	28.42	26.82	30.11	W	26.80	29.47	28.57	29.27	25.49
	November	28.12	26.33	30.03	W	26.78	29.45	NA	28.39	25.35
	December	27.07	26.50	30.12	NA	26.86	29.32	NA	28.55	25.24
	Average	**29.08**	**26.59**	**30.64**	**28.67**	**26.87**	**30.50**	**29.50**	**29.60**	**25.15**
1985	January	26.28	24.99	29.26	NA	26.46	28.70	W	W	25.18
	February	26.06	24.00	28.73	NA	26.37	28.55	W	W	25.37
	March	27.09	25.13	28.40	W	26.60	29.42	NA	W	25.69
	April	28.28	26.16	29.02	W	26.60	28.99	W	28.57	25.44
	May	W	26.33	28.98	W	26.56	28.69	NA	27.98	25.26
	June	W	26.34	28.73	24.55	25.16	27.81	NA	27.42	25.13
	July	27.35	25.96	28.95	W	24.54	28.56	W	27.28	23.81
	August	W	26.05	28.01	25.70	24.85	28.54	NA	27.69	23.45
	September	W	25.88	26.79	26.47	24.92	28.75	W	28.22	23.29
	October	W	25.82	28.47	26.59	25.12	29.06	26.69	29.00	23.55
	November	W	25.74	29.00	W	24.70	29.61	24.72	29.39	23.78
	December	W	25.48	28.82	W	23.58	30.38	21.07	28.75	23.53
	Average	**27.35**	**25.68**	**28.65**	**25.73**	**25.50**	**28.95**	**24.63**	**28.34**	**24.42**
1986	January	W	23.92	28.44	NA	20.17	27.83	14.41	25.38	22.21
	February	W	17.31	W	W	14.58	21.43	14.08	18.62	13.27
	March	W	13.02	14.94	W	11.87	16.57	13.66	W	11.01
	April	W	R11.57	12.29	W	10.53	15.21	13.64	12.46	11.19
	May†	R13.05	R12.04	R12.78	W	R10.81	R14.55	R11.61	R14.17	R11.58
	June†	W	12.74	12.95	W	10.14	14.30	10.91	13.65	10.41

[1]See Note 3 in the Notes and Sources for this section.
[2]No 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 Gasoline[1]

		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	**Average[3]**	**131.1**	**137.8**	**147.0**	**135.3**
1982	**Average**	**122.2**	**129.6**	**141.5**	**128.1**
1983	**Average**	**115.7**	**124.1**	**138.3**	**122.5**
1984	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	119.5
	November	112.4	120.7	136.4	119.3
	December	110.9	119.3	135.4	117.9
	Average	**112.9**	**121.2**	**136.6**	**119.8**
1985	January	106.0	114.8	130.4	114.5
	February	104.1	113.1	129.0	112.8
	March	107.1	115.9	131.0	115.5
	April	111.9	120.5	134.0	119.9
	May	114.4	123.1	136.0	122.3
	June	115.3	124.1	137.1	123.3
	July	115.4	124.2	136.7	123.3
	August	114.3	122.9	135.9	122.2
	September	112.9	121.6	134.9	120.9
	October	111.7	120.4	134.2	119.8
	November	112.3	120.7	133.9	120.1
	December	112.3	120.8	134.4	120.3
	Average	**111.5**	**120.2**	**134.0**	**119.6**
1986	January	110.7	119.4	133.6	119.0
	February	103.4	112.0	128.2	111.9
	March	89.4	98.1	116.0	98.3
	April	81.5	88.8	106.1	89.5
	May	85.2	92.3	107.5	92.7
	June	88.5	95.5	110.0	95.8
	July	82.2	89.0	104.5	89.5

[1]See Note 5 in the Notes and Sources for this section.
[2]Also includes types of gasoline not shown separately.
[3]Beginning 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 Oil[1]

		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	**Average**	**69.5**	**74.7**	**57.2**	**61.1**	**61.2**	**67.6**
1983	**Average**	**64.3**	**69.5**	**59.1**	**61.1**	**60.9**	**65.1**
1984	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	65.0	63.6	67.1
	September	65.9	70.0	63.8	64.9	64.5	67.5
	October	66.8	70.8	64.3	65.8	65.1	67.8
	November	66.8	70.4	63.6	65.8	64.6	67.9
	December	67.5	70.5	63.3	65.6	64.6	67.7
	Average	**68.5**	**72.0**	**63.9**	**65.9**	**65.4**	**68.7**
1985	January	67.6	71.1	63.3	66.5	64.7	68.4
	February	67.6	71.2	63.4	66.3	65.0	68.7
	March	66.2	70.1	60.8	65.0	62.4	67.2
	April	63.0	67.5	58.7	61.9	60.2	64.1
	May	58.1	61.2	53.4	58.0	54.9	59.5
	June	54.9	59.9	50.6	52.8	52.4	55.6
	July	56.4	58.9	52.8	54.6	53.9	56.4
	August	55.1	57.7	52.1	53.7	53.2	55.8
	September	60.1	62.8	53.1	54.8	56.1	58.6
	October	60.1	63.6	52.3	53.8	54.9	58.3
	November	57.8	61.7	50.7	52.8	53.6	56.8
	December	60.7	62.6	52.2	54.4	55.0	58.2
	Average	**60.9**	**64.5**	**55.9**	**58.4**	**57.6**	**61.1**
1986	January	57.1	62.0	49.5	52.9	51.7	57.1
	February	43.9	49.0	36.3	42.7	38.7	45.8
	March	37.6	42.7	28.3	35.7	31.6	39.0
	April	31.7	36.8	25.8	30.1	28.0	33.0
	May	30.5	35.0	R23.5	26.8	R26.5	30.1
	June†	30.1	32.3	23.0	26.8	26.2	29.8

[1]Sales 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 estimates. See Note 6 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 Resale[1]

		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	**Average**	**97.3**	**122.8**	**95.3**	**101.8**	**91.4**	**91.4**	**42.7**
1983	**Average**	**88.2**	**117.8**	**85.4**	**89.2**	**81.5**	**80.8**	**48.4**
1984	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	116.7	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
	October	83.6	116.4	82.9	88.9	80.8	80.0	46.1
	November	81.9	114.8	81.4	88.0	79.4	79.0	45.6
	December	78.0	114.0	80.1	86.4	77.1	77.0	43.0
	Average	**83.2**	**116.5**	**83.0**	**91.6**	**82.1**	**80.3**	**45.0**
1985	January	75.2	114.5	79.5	85.8	75.7	74.9	40.0
	February	76.3	114.0	79.3	86.5	75.2	74.1	39.4
	March	81.0	113.6	78.6	85.7	76.4	75.6	38.0
	April	86.0	112.6	79.5	84.7	79.3	79.1	37.9
	May	87.5	113.2	78.1	80.4	76.5	78.9	38.1
	June	87.7	113.7	76.0	75.9	72.9	75.5	37.1
	July	87.3	113.6	75.2	76.9	70.3	72.3	36.3
	August	85.0	113.3	76.8	79.7	72.0	72.5	36.5
	September	83.2	113.0	79.2	85.9	77.0	76.3	37.6
	October	83.1	113.0	81.5	90.1	81.7	80.5	39.7
	November	84.7	112.6	83.6	93.6	84.9	84.3	43.0
	December	83.0	108.1	83.1	92.7	83.2	82.1	46.9
	Average	**83.5**	**112.9**	**79.4**	**87.4**	**77.6**	**77.2**	**39.7**
1986	January	76.7	109.8	77.0	83.8	73.7	73.3	43.9
	February	65.0	108.9	68.0	67.2	56.4	56.0	35.4
	March	52.4	102.2	58.1	60.9	51.9	47.4	29.2
	April	51.8	98.5	49.4	52.6	45.9	46.3	27.3
	May	57.9	R95.6	R46.7	50.4	45.2	44.1	28.5
	June†	54.4	92.1	44.4	50.1	39.9	39.6	28.3

[1]Sales 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.
[2]See 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 estimates. See Note 6 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 Users[1]

		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	**Average**	**106.0**	**131.2**	**96.3**	**108.9**	**90.5**	**94.2**	**59.2**
1983	**Average**	**95.4**	**125.5**	**87.8**	**96.1**	**91.6**	**82.6**	**70.9**
1984	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	89.2	123.2	83.4	92.8	82.8	79.7	71.9
	September	89.7	123.7	83.1	99.2	84.3	80.2	73.4
	October	90.5	123.3	83.2	102.7	87.3	81.6	74.1
	November	89.9	119.3	82.4	106.1	87.7	80.7	73.8
	December	88.0	121.9	82.2	101.4	88.1	79.4	70.0
	Average	**90.7**	**123.4**	**84.2**	**103.6**	**91.6**	**82.3**	**73.7**
1985	January	84.6	121.7	81.4	106.0	87.0	77.6	78.8
	February	83.6	121.1	80.9	103.7	86.1	76.7	76.1
	March	87.1	121.4	80.4	103.1	86.0	77.0	74.6
	April	92.4	121.2	80.1	101.0	85.8	79.9	75.7
	May	94.4	121.9	79.5	94.1	82.2	79.7	70.5
	June	95.2	121.7	78.6	88.2	77.8	77.2	66.8
	July	95.4	120.2	78.2	86.0	72.4	74.5	62.9
	August	94.0	118.9	77.7	89.9	74.4	73.8	62.9
	September	91.9	119.5	78.1	96.0	81.1	78.1	63.8
	October	90.8	118.9	78.8	100.4	85.2	81.6	69.7
	November	91.7	118.3	80.1	106.7	91.3	85.4	72.2
	December	91.9	117.0	80.9	111.5	92.3	85.6	75.2
	Average	**91.2**	**120.1**	**79.5**	**103.0**	**84.8**	**78.9**	**71.6**
1986	January	89.1	116.2	80.5	105.4	87.1	78.1	77.8
	February	80.3	117.2	77.9	93.4	69.9	61.5	71.4
	March	65.2	111.5	69.0	85.0	63.0	51.2	75.1
	April	59.1	102.9	57.3	79.4	55.0	48.5	75.9
	May	63.8	102.2	51.9	R67.2	R50.0	46.4	73.1
	June†	64.7	97.0	48.2	49.3	44.4	41.9	73.1

[1]Sales 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.
[2]See 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 estimates. See Note 6 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 States[1]

		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	**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**	**117.7**
1983	**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**	**108.7**
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	98.0	105.5	98.6	106.0	108.0	103.7	109.8	105.2	103.6	110.2	99.6	105.2
	September	105.4	99.1	106.0	101.0	105.9	106.9	102.1	109.9	106.7	104.3	109.3	100.9	105.9
	October	106.2	101.9	106.9	102.2	107.4	108.0	103.5	111.8	107.5	105.7	111.9	101.5	106.7
	November	107.2	100.6	107.2	102.7	106.5	107.5	103.3	111.9	108.2	105.2	111.7	102.9	107.1
	December	106.4	97.9	107.0	103.1	107.1	106.4	102.8	112.9	107.1	104.9	111.3	103.2	107.7
	Average	**112.1**	**103.9**	**111.6**	**108.4**	**111.4**	**111.9**	**109.6**	**118.7**	**113.5**	**111.0**	**115.5**	**107.9**	**110.5**
1985	January	106.9	97.9	107.2	101.3	108.1	106.9	103.8	112.1	107.5	105.0	111.3	102.9	106.2
	February	107.2	98.5	107.1	102.7	106.9	107.3	104.0	117.1	108.6	105.7	112.0	103.2	106.8
	March	106.8	100.6	107.3	103.3	106.2	107.9	104.6	115.9	108.3	105.1	111.3	102.1	105.8
	April	107.0	101.5	106.6	102.2	106.9	106.4	105.1	113.9	109.7	105.2	110.7	100.9	103.8
	May	106.2	99.4	104.5	99.9	102.1	105.4	100.7	112.4	108.1	103.4	109.7	99.8	103.9
	June	103.5	95.4	101.1	94.4	98.6	103.7	96.4	107.1	104.4	99.6	108.1	95.0	104.4
	July	100.2	91.4	98.3	90.9	97.5	101.6	96.2	107.3	101.2	97.4	105.0	92.1	99.6
	August	99.5	91.0	96.1	91.7	95.9	101.5	97.5	105.5	98.9	97.3	105.0	92.5	99.2
	September	100.5	94.0	100.7	97.5	101.0	104.9	98.8	107.1	103.2	101.4	104.5	96.6	102.2
	October	106.4	99.4	104.7	102.3	104.4	106.9	102.7	109.9	106.3	103.4	107.0	98.6	105.8
	November	111.4	103.7	110.5	107.7	111.6	111.2	107.1	114.5	111.8	109.3	114.3	105.7	107.5
	December	114.3	105.6	110.7	109.1	111.1	113.1	110.7	117.0	112.6	111.9	115.0	108.9	110.1
	Average	**108.0**	**99.7**	**106.9**	**102.5**	**106.7**	**107.8**	**104.7**	**114.2**	**108.7**	**105.9**	**111.2**	**102.2**	**106.1**
1986	January	111.6	101.1	105.9	103.2	101.9	109.0	102.3	116.3	112.2	107.7	111.4	104.7	107.0
	February	99.5	90.9	90.6	88.5	93.5	100.2	93.9	105.4	99.9	98.3	102.6	95.3	98.2
	March	93.4	86.5	85.9	84.2	84.6	95.6	87.1	97.6	93.9	91.7	96.3	86.9	90.9
	April	86.2	77.9	76.7	74.4	72.1	89.0	77.1	93.2	88.6	84.0	87.5	77.9	84.2
	May	80.8	74.5	R74.2	70.6	R76.6	R84.7	74.2	R87.9	R85.0	R80.1	85.1	R72.6	R74.6
	June†	77.7	68.5	68.8	65.0	72.6	78.1	71.8	81.6	80.8	75.6	81.3	66.0	74.4

[1]The 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 States[1] (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	**Average**	**109.3**	**110.9**	**114.3**	**113.9**	**115.1**	**110.2**	**107.8**	**110.4**	**117.4**	**111.6**	**117.6**	**116.0**
1983	**Average**	**101.0**	**100.4**	**100.7**	**106.4**	**103.1**	**101.3**	**101.2**	**101.8**	**108.8**	**103.6**	**109.0**	**107.8**
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	98.9	100.3	101.8	104.5	99.5	100.0	97.4	107.3	94.9	99.7	103.3
	September	96.9	98.6	100.7	103.2	103.5	100.1	98.8	98.4	105.0	95.9	100.4	103.6
	October	98.3	97.1	100.9	103.0	103.0	101.2	100.7	99.4	107.8	96.5	100.9	104.9
	November	99.6	95.8	102.3	103.5	103.1	100.8	101.0	97.9	107.8	97.6	101.3	105.3
	December	99.2	94.4	100.9	103.2	102.8	99.3	99.0	98.8	107.5	97.4	100.5	104.8
	Average	**102.1**	**100.1**	**103.1**	**105.0**	**104.1**	**102.1**	**101.0**	**98.5**	**106.9**	**99.3**	**102.6**	**109.1**
1985	January	98.6	95.2	98.6	102.1	99.5	98.3	97.3	96.8	108.6	96.1	100.6	104.9
	February	98.3	94.4	97.8	101.0	99.8	98.7	96.1	96.9	107.6	96.6	99.8	105.3
	March	98.1	94.5	96.3	101.3	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0
	April	96.4	96.7	98.6	98.2	101.4	99.9	97.6	96.1	NA	96.5	99.2	105.0
	May	93.8	96.4	101.5	96.8	103.8	99.9	99.6	96.8	106.8	96.7	98.1	103.5
	June	90.7	92.1	97.5	98.2	104.3	97.1	94.2	95.9	107.4	95.5	99.1	100.8
	July	90.2	90.0	93.2	99.4	100.5	92.9	93.0	94.9	108.1	95.3	97.5	98.0
	August	88.6	90.8	93.1	96.8	101.0	91.8	93.0	94.5	107.1	93.0	97.1	97.2
	September	96.2	95.6	95.4	99.2	98.6	95.8	94.9	94.3	109.2	93.9	97.6	99.7
	October	98.7	100.1	101.1	101.7	101.1	98.0	99.1	97.2	108.8	94.1	100.0	103.0
	November	*105.0*	*104.0*	*105.2*	*103.5*	*105.6*	*104.4*	*102.0*	*98.0*	*106.2*	*99.1*	*104.4*	*108.6*
	December	104.8	103.4	105.4	107.3	105.2	105.9	103.2	98.8	106.7	102.4	106.1	110.4
	Average	**98.1**	**97.5**	**99.3**	**101.8**	**102.0**	**99.8**	**98.3**	**97.1**	**108.1**	**97.0**	**101.1**	**105.3**
1986	January	100.1	97.6	99.8	102.6	100.5	100.7	96.4	97.1	106.8	100.1	104.5	106.4
	February	87.8	83.1	84.9	91.9	86.3	91.9	83.9	90.9	104.9	83.7	90.4	95.8
	March	79.7	74.7	75.5	80.5	80.1	80.8	76.0	76.5	113.6	66.9	75.3	88.7
	April	70.8	68.6	73.9	74.6	76.3	78.2	74.0	69.8	95.6	62.5	74.9	80.7
	May	67.4	R72.9	67.2	R72.3	R79.4	R75.2	71.8	R74.7	R94.3	R64.1	R71.1	R77.4
	June†	63.4	67.3	66.5	66.0	74.5	69.1	69.1	68.6	89.2	60.0	65.3	72.8

Footnotes continued.
†Preliminary data. R=Revised data. NA=Not available.
Note: • *Prices prior to January 1983 are Energy Information Administration estimates. See Note 6 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—Previous Series

		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[1,2]	Residential Price[1,3]
		Dollars per thousand cubic feet[4]					
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	**Average**	**2.46**	**4.94**	**2.72**	**3.73**	**3.49**	**5.17**
1983	**Average**	**2.59**	**4.51**	**2.93**	**4.26**	**3.58**	**6.06**
1984	January	2.67	4.40	2.80	4.25	3.49	5.98
	February	2.71	4.37	2.82	3.97	3.55	6.01
	March	2.67	4.40	2.80	4.18	3.47	5.98
	April	2.64	4.23	2.95	4.11	3.53	6.00
	May	2.67	4.15	2.86	4.17	3.72	6.19
	June	2.70	4.25	2.89	4.06	3.73	6.13
	July	2.68	4.15	2.95	4.04	3.86	6.17
	August	2.69	4.12	2.95	4.07	3.76	6.20
	September	2.62	4.34	2.84	4.10	3.80	6.26
	October	2.63	4.19	2.96	4.06	3.72	6.25
	November	2.61	3.43	3.13	4.26	3.67	6.12
	December	2.57	3.34	2.95	4.22	3.64	6.09
	Average	**2.66**	**4.08**	**2.91**	**4.13**	**3.68**	**6.06**
1985	January	2.63	3.21	2.89	4.19	3.79	6.19
	February	2.71	3.08	2.87	3.82	3.73	6.12
	March	2.64	3.29	2.90	4.00	3.80	6.16
	April	2.67	3.39	2.86	3.96	3.76	6.14
	May	2.56	3.32	2.89	3.84	3.61	NA
	June	2.60	3.40	3.00	3.86	3.60	NA
	July	2.54	3.41	2.82	3.83	3.60	NA
	August	2.50	3.28	2.69	3.75	3.49	NA
	September	2.45	3.28	2.76	3.80	3.43	NA
	October	2.40	3.16	2.68	3.99	3.41	NA
	November	2.38	2.88	2.62	3.92	3.43	NA
	December	2.31	2.79	2.67	3.91	3.35	NA
	Average	**2.53**	**3.18**	**2.81**	**3.91**	**3.58**	**NA**
1986	January	2.23	2.81	2.64	3.95	3.26	NA
	February	2.11	2.79	2.60	3.77	2.91	NA
	March	R2.02	3.05	2.48	3.67	2.65	NA
	April	R1.97	3.14	2.37	3.37	2.48	NA
	May	1.92	2.75	2.47	3.28	2.41	NA

Current Data Series. The residential and industrial price series shown on this page are replacing the series shown on the preceding page. The city gate commercial and consumer average price series are new. See the last page of this section for a listing of the sources of all data series.

[1]Includes supplemental gaseous fuels.
[2]Data 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.
[3]Monthly residential prices are Energy Information Administration calculations. See Note 7 in the Notes and Sources for this section for estimation procedures.
[4]Prices shown on this page are intended to include all taxes. See Note 8 in the Notes and Sources for this section.
R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Data for 1973 through December 1984 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the Notes and Sources for this section.

Price

National Average Natural Gas Prices—Current Series

			Major Interstate Pipeline Companies			Delivered to Consumers[1]				
		Wellhead	Imports	Purchases from Producers	City Gate	Residential	Commercial	Industrial	Electric Utilities[2]	Average
		Dollars per thousand cubic feet[3]								
1973	**Average**	**0.22**	**NA**	**NA**	**NA**	**1.29**	**0.94**	**0.50**	**0.38**	**0.73**
1974	**Average**	**0.30**	**NA**	**NA**	**NA**	**1.43**	**1.07**	**0.67**	**0.51**	**0.89**
1975	**Average**	**0.45**	**NA**	**NA**	**NA**	**1.71**	**1.35**	**0.96**	**0.77**	**1.19**
1976	**Average**	**0.58**	**NA**	**NA**	**NA**	**1.98**	**1.64**	**1.24**	**1.06**	**1.47**
1977	**Average**	**0.79**	**NA**	**NA**	**NA**	**2.35**	**2.04**	**1.50**	**1.32**	**1.78**
1978	**Average**	**0.91**	**2.21**	**0.83**	**NA**	**2.56**	**2.23**	**1.70**	**1.48**	**1.98**
1979	**Average**	**1.18**	**2.60**	**1.22**	**NA**	**2.98**	**2.73**	**1.99**	**1.81**	**2.34**
1980	**Average**	**1.59**	**4.42**	**1.63**	**NA**	**3.68**	**3.39**	**2.56**	**2.27**	**2.91**
1981	**Average**	**1.98**	**4.84**	**2.15**	**NA**	**4.29**	**4.00**	**3.14**	**2.89**	**3.51**
1982	**Average**	**2.46**	**4.94**	**2.72**	**NA**	**5.17**	**4.82**	**3.87**	**3.48**	**4.32**
1983	**Average**	**2.59**	**4.51**	**2.93**	**NA**	**6.06**	**5.59**	**4.18**	**3.58**	**4.82**
1984	January	2.67	4.40	2.80	3.94	5.78	5.49	4.31	3.49	5.07
	February	2.71	4.37	2.82	4.02	5.84	5.54	4.29	3.55	5.05
	March	2.67	4.40	2.80	3.91	5.92	5.57	4.29	3.47	5.00
	April	2.64	4.23	2.95	3.96	5.96	5.52	4.19	3.53	4.87
	May	2.67	4.15	2.86	3.98	6.27	5.60	4.21	3.72	4.76
	June	2.70	4.25	2.89	4.02	6.76	5.67	4.11	3.73	4.58
	July	2.68	4.15	2.95	4.06	7.11	5.60	4.14	3.86	4.55
	August	2.69	4.12	2.95	[4]3.69	7.23	5.47	4.15	3.76	4.49
	September	2.62	4.34	2.84	4.02	7.17	5.53	4.24	3.80	4.61
	October	2.63	4.19	2.96	3.99	6.80	5.54	4.17	3.72	4.68
	November	2.61	3.43	3.13	3.92	6.31	5.56	4.21	3.67	4.84
	December	2.57	3.34	2.95	3.97	6.05	5.60	4.25	3.64	5.06
	Average	**2.66**	**4.08**	**2.91**	**3.95**	**6.12**	**5.55**	**4.22**	**3.68**	**4.85**
1985	January	2.63	3.21	2.89	3.89	5.98	5.63	4.28	3.79	5.20
	February	2.71	3.08	2.87	3.94	5.87	5.55	4.34	3.73	5.22
	March	2.64	3.29	2.90	3.97	6.00	5.60	4.25	3.80	5.13
	April	2.67	3.39	2.86	3.90	6.11	5.66	4.11	3.76	4.97
	May	2.56	3.32	2.89	3.88	6.59	5.58	3.99	3.61	4.72
	June	2.60	3.40	3.00	3.86	6.96	5.61	3.91	3.60	4.57
	July	2.54	3.41	2.82	3.69	7.08	5.44	3.76	3.60	4.37
	August	2.50	3.28	2.69	3.70	7.21	5.42	3.82	3.49	4.31
	September	2.45	3.28	2.76	3.68	7.07	5.36	3.86	3.43	4.39
	October	2.40	3.16	2.68	3.58	6.52	5.29	3.78	3.41	4.43
	November	2.38	2.88	2.62	3.46	6.13	5.37	3.81	3.43	4.63
	December	2.31	2.79	2.67	3.45	5.71	5.25	3.79	3.35	4.79
	Average	**2.53**	**3.18**	**2.81**	**3.75**	**6.13**	**5.50**	**3.99**	**3.58**	**4.81**
1986	January	2.23	2.81	2.64	3.52	5.63	5.30	3.78	3.26	4.86
	February	2.11	2.79	2.60	3.52	5.67	5.29	3.75	2.91	4.84
	March	R2.02	3.05	2.48	3.50	5.70	5.29	3.50	2.65	4.66
	April	R1.97	3.14	2.37	3.33	5.88	5.26	3.27	2.48	4.35
	May	1.92	2.75	2.47	3.15	6.15	5.20	3.00	2.41	3.98
	June	NA	NA	NA	3.11	6.65	5.14	2.96	NA	NA

Previous Data Series. The residential and industrial price series shown on this page are being replaced by the series shown on the following page.

[1]Includes supplemental gaseous fuels.
[2]Data 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.
[3]Prices shown on this page are intended to include all taxes. See Note 8 in the Notes and Sources for this section.
[4]The decline from the previous month was primarily the result of refunds in the form of reduced charges.
R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Data for 1973 through December 1984 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the Notes and Sources for this section.

Price

Average Retail Electricity Prices[1]

		Residential		Commercial		Industrial		Other		Total[3]	
		Old Series[2]	New Series	Old Series[2]	New Series	Old Series[2]	New Series	Old Series[2]	New Series	Old Series[2]	New Series
		Cents per kilowatthour									
1973	**Average**	**2.54**		**2.41**		**1.25**		**2.10**		**1.96**	
1974	**Average**	**3.10**		**3.04**		**1.69**		**2.75**		**2.49**	
1975	**Average**	**3.51**		**3.45**		**2.07**		**3.08**		**2.92**	
1976	**Average**	**3.73**		**3.69**		**2.21**		**3.27**		**3.09**	
1977	**Average**	**4.05**		**4.09**		**2.50**		**3.51**		**3.42**	
1978	**Average**	**4.31**		**4.36**		**2.79**		**3.62**		**3.69**	
1979	**Average**	**4.64**		**4.68**		**3.05**		**3.96**		**3.99**	
1980	**Average**	**5.36**		**5.48**		**3.69**		**4.76**		**4.73**	
1981	**Average**	**6.20**		**6.29**		**4.29**		**5.28**		**5.46**	
1982	**Average**	**6.86**		**6.86**		**4.95**		**5.92**		**6.13**	
1983	**Average**	**7.18**		**7.02**		**4.96**		**6.38**		**6.30**	
1984	January	6.76		6.79		4.86		6.34		6.13	
	February	6.96		6.99		4.85		6.53		6.19	
	March	7.16		7.12		4.88		6.69		6.26	
	April	7.32		7.23		4.87		6.74		6.30	
	May	7.58		7.28		4.92		6.86		6.39	
	June	7.89		7.48		5.10		6.79		6.66	
	July	7.99		7.51		5.22		6.99		6.83	
	August	8.05		7.51		5.16		6.77		6.83	
	September	8.05		7.64		5.26		7.07		6.89	
	October	7.95		7.63		5.14		6.88		6.71	
	November	7.61		7.42		5.06		7.00		6.53	
	December	7.33		7.28		5.07		6.72		6.47	
	Average	**7.54**		**7.33**		**5.04**		**6.78**		**6.52**	
1985	January	7.28		7.25		5.12		6.80		6.52	
	February	7.19		7.21		5.12		6.77		6.47	
	March	7.48		7.36		5.13		7.01		6.55	
	April	7.73		7.44		5.09		6.95		6.58	
	May	7.98		7.55		5.08		7.09		6.66	
	June	8.15		7.60		5.24		7.07		6.86	
	July	8.24		7.64		5.36		7.13		7.02	
	August	8.18		7.55		5.20		7.01		6.92	
	September	8.18		7.62		5.24		7.08		6.95	
	October	8.05		7.65		5.19		6.98		6.80	
	November	7.73		7.49		5.10		6.91		6.63	
	December	7.44		7.29		5.10		6.73		6.56	
	Average	**7.79**		**7.48**		**5.17**		**6.96**		**6.72**	
1986[4]	January	7.34	7.02	7.29	7.05	5.16	4.97	7.00	6.38	6.60	6.34
	February	7.54	7.12	7.41	7.16	5.12	4.94	7.05	6.72	6.64	6.36
	March	7.59	7.23	7.47	7.22	5.12	4.94	7.29	6.75	6.63	6.37
	April	7.79	7.41	7.45	7.21	5.01	4.83	7.25	7.04	6.60	6.36
	May	7.82	7.43	7.39	7.11	5.05	4.87	7.22	6.85	6.59	6.33
	June†	8.11	[5]7.42	7.56	7.26	5.02	4.84	7.21	6.71	6.81	6.45

[1]Prices are calculated by dividing revenues by sales. Revenues may not correspond to sales for a particular month because of utility billing and accounting procedures. This could result in uncharacteristic increases or decreases in the monthly prices.
[2]Data 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.
[3]Average price for total sales to ultimate consumers.
[4]See Note 9 in the Notes and Sources for this section.
[5]The residential price reflects unbilled sales for 8 utilities. Major unbilled residential sales were reported in the West South Central Census Division.
†Initial estimates.
Note: • Geographic coverage is the 50 States and the the District of Columbia.
Sources: • See the Notes and Sources for this section.

Price

Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants[1]

		Coal	Heavy Oil[2]	Natural Gas	All Fossil Fuels[3]
		Cents per million Btu			
1973	**Average**	**40.5**	**78.5**	**33.8**	**47.6**
1974	**Average**	**70.9**	**189.0**	**48.2**	**91.4**
1975	**Average**	**81.4**	**200.5**	**75.2**	**104.4**
1976	**Average**	**84.8**	**195.2**	**103.4**	**111.9**
1977	**Average**	**94.7**	**219.8**	**129.1**	**129.7**
1978	**Average**	**111.6**	**212.5**	**142.2**	**141.1**
1979	**Average**	**122.4**	**298.8**	**174.9**	**163.9**
1980	**Average**	**135.1**	**426.7**	**219.9**	**192.8**
1981	**Average**	**153.2**	**533.4**	**280.5**	**225.6**
1982	**Average**	**164.7**	**483.2**	**337.6**	**224.9**
1983	**Average**	**165.6**	**457.8**	**347.4**	**220.6**
1984	January	161.6	488.9	343.7	221.0
	February	164.9	496.3	347.5	217.4
	March	163.4	484.0	339.8	208.4
	April	165.7	494.1	344.4	210.6
	May	168.6	486.9	360.4	220.3
	June	169.1	488.3	360.9	223.2
	July	168.2	474.6	373.1	231.3
	August	167.2	459.6	365.6	223.5
	September	167.4	472.5	368.0	217.5
	October	168.7	474.1	361.4	218.8
	November	166.6	470.6	357.2	216.8
	December	165.0	480.4	355.4	218.7
	Average	**166.4**	**481.2**	**358.3**	**219.2**
1985	January	164.1	472.0	364.4	218.7
	February	167.0	482.4	358.1	218.1
	March	167.1	458.8	364.9	209.5
	April	167.6	452.1	361.6	210.6
	May	166.8	403.1	346.1	206.3
	June	165.0	384.9	344.8	208.1
	July	164.2	392.8	344.0	217.4
	August	164.0	380.5	334.8	211.1
	September	163.2	419.0	328.7	204.9
	October	163.5	415.8	330.4	204.3
	November	163.6	397.2	329.3	204.5
	December	161.0	424.3	320.9	202.9
	Average	**164.8**	**424.4**	**343.1**	**209.6**
1986	January	159.5	392.6	313.5	194.7
	February	161.1	302.3	281.0	185.4
	March	161.7	266.5	255.8	179.8
	April	163.6	229.7	237.8	177.7
	May	162.3	218.9	235.1	177.7

[1]Data 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.
[2]See Note 10 in the Notes and Sources for this section.
[3]Includes supplemental gaseous fuels.
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. 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. 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 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.

7. 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.

8. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all U.S., State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on consumers' bills are sometimes excluded by the reporting utilities.

9. Beginning with January 1986, national average price estimates are based on a statistically derived sample of both publicly and privately owned electric utilities. Prior to that time, national average price estimates were based on a sample of only privately owned electric utilities. Respondents to Form EIA-826, "Electric Utility Company Monthly Statement," consist of a sample of 187 electric utilities that were statistically chosen using stratification techniques. The respondents were chosen from more than 3,000 electric utilities reporting on Form EIA-861, "Annual Electric Utility Report." This schema differs from the cut-off sample used prior to January 1986. Data are shown for both the old and new series. Publication of both series will continue until sufficient information exists to estimate historical data based on the new series.

10. 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.

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 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 estimated 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 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 estimated data.

Natural Gas—Previous Series: • Average wellhead price—Annual data through 1982 from EIA, *Natural Gas Annual, 1973* through *1983*. Annual data for 1983 and 1984 from Form EIA-627, "Annual Quantity and Value of Natural Gas Report" and the U.S. Minerals Management Service. Monthly data are estimated primarily on the basis of values reported by State agencies in Mississippi, 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 through 1983 from EIA, *Natural Gas Annual, 1973* through *1983*. Annual data for 1984 from Form EIA-176,"Annual Report of Natural and Supplemental Gas Supply and Disposition." 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.

Natural Gas—Current Series: • Average wellhead—Annual data through 1982 from EIA, *Natural Gas Annual, 1973* through *1983*. Annual data for 1983 and 1984 from Form EIA-627, "Annual Quantity and Value of Natural Gas Report" and the U.S. Minerals Management Service. Monthly data are estimated primarily on the basis of values reported by State agencies in Mississippi, 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 and Purchases from Producers by Major Interstate Pipeline Companies—FERC Form 11, "Interstate Pipeline Company Purchases, and Industrial Sales".

• City Gate—EIA, October 1983 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

• Residential, Commercial, Industrial and Consumer Average—Annual data from EIA, Form EIA-176 "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

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

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 in June 1986 was 56.9 million barrels per day, up 1.1 million from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during June 1986 averaged 19.7 million barrels per day, up 1.4 million from the level during the previous month. Production by the Arab members of OPEC during June 1986 averaged 12.5 million barrels per day, up 1.4 million from the May 1986 level. During June 1986, production increased in Saudia Arabia by 890,000 barrels per day, in Kuwait by 140,000, and in Iraq, Libya, and the United Arab Emirates each by 100,000 barrels per day. Production increased in Qatar by 60,000 barrels per day, while production in Algeria remained the same. Among non-Arab OPEC countries, production increased in Iran and Venezuela by 100,000 and 20,000 barrels per day, respectively. Production in Indonesia and Nigeria decreased by 75,000 and 60,000 barrels per day, respectively.

World crude oil production in the first half of 1986 averaged 55.5 million barrels per day, up 4.8 percent compared with the first-half 1985 level. OPEC output in the first half of 1986 averaged 18.1 million barrels per day, up 15.4 percent compared with the first-half 1985 level. Production by Arab members of OPEC during the first half of 1986 averaged 11.0 million barrels per day, 26.7 percent above the first-half 1985 level.

Of the non-OPEC nations during June 1986, production increased in Mexico by 20,000 barrels per day, but decreased in the United Kingdom, Canada, and the United States by 347,000, 25,000, and 13,000 barrels per day, respectively.

Petroleum Consumption

In May 1986 consumption in all OECD countries was higher by 3.0 percent compared with the level in May 1985. Consumption was higher in the United States by 2.2 percent, unchanged in Japan, but lower in Canada by 2.4 percent compared with levels 1 year earlier. Consumption in all European OECD countries combined in May 1986 was higher by 7.6 percent compared with the level in the previous May. Consumption was higher in West Germany by 18.9 percent, in France by 18.3 percent, and in the United Kingdom by 2.1 percent, but down in Italy by 11.3 percent compared with levels 1 year earlier.

Petroleum Stocks

For all OECD countries, petroleum stocks at the end of May 1986 were 1.4 percent lower than at the end of May 1985. Stocks were lower in the United States by 0.1 percent, in Japan by 0.8 percent, and in Canada by 5.6 percent than the levels 1 year earlier. Ending stock levels in all European OECD countries for May 1986 were 2.5 percent lower than in May 1985. Stocks were down in France by 16.2 percent, in the United Kingdom by 3.2 percent, and in West Germany by 1.7 percent, but up in Italy by 4.9 percent compared with the levels in May 1985.

Nuclear Electricity Production

In June 1986, the 20 non-Communist nations with nuclear power capacity generated 100.6 gross terawatthours (billion kilowatthours) of nuclear-based electricity, an increase of 8.2 percent compared with June 1985 generation. The United States accounted for 30.9 gross terawatthours, 30.7 percent of the total nuclear generation in June 1986.

Nuclear generation for the first half of 1986 increased 10.1 percent compared with nuclear generation during the same period in 1985. In the first half of 1986, eight nuclear generating units began operation, representing an increase in gross capacity of 8.8 gigawatts (million kilowatts). Of the eight units, three were located in the United States, two in Canada, two in France, and one in South Korea.

There were 310 operable nuclear power generating units in non-Communist countries as of June 30, 1986, according to *Nucleonics Week* information, with a collective gross generating capacity of 239.2 gigawatts. In June 1986, the 98 operable U.S. units accounted for 88.5 gross gigawatts 37.0 percent of the total non-Communist nuclear generating capacity.

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]	Indo-nesia	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**	**1,360**
1982	**Average**	**710**	**1,012**	**823**	**1,150**	**330**	**6,483**	**1,250**	**11,758**	**1,339**	**2,214**
1983	**Average**	**660**	**1,005**	**1,064**	**1,105**	**295**	**5,086**	**1,149**	**10,364**	**1,343**	**2,440**
1984	January	650	1,100	1,080	1,100	445	5,130	1,200	10,705	1,470	2,200
	February	600	1,000	1,240	1,100	315	5,040	1,200	10,495	1,575	2,300
	March	600	1,200	1,293	1,100	440	4,843	1,205	10,681	1,560	2,400
	April	600	1,200	1,250	1,200	400	5,150	1,205	11,005	1,570	2,200
	May	650	1,200	1,200	1,200	400	5,000	1,200	10,850	1,470	1,700
	June	700	1,200	1,200	1,250	500	5,450	1,225	11,525	1,520	2,200
	July	650	1,200	1,110	1,100	430	5,010	1,090	10,590	1,390	2,400
	August	650	1,300	1,220	1,000	400	4,520	990	10,080	1,410	1,800
	September	650	1,300	1,183	1,000	480	4,133	1,110	9,856	1,400	1,900
	October	650	1,200	1,129	1,000	380	4,129	1,060	9,548	1,430	2,100
	November	650	1,300	990	1,000	280	3,990	1,060	9,270	1,350	2,400
	December	600	1,300	990	1,000	260	3,590	1,210	8,950	1,450	2,500
	Average	**638**	**1,209**	**1,157**	**1,087**	**394**	**4,663**	**1,146**	**10,294**	**1,466**	**2,175**
1985	January	600	1,250	1,110	1,000	270	3,510	1,100	8,840	1,310	1,900
	February	650	1,250	1,125	1,000	290	4,025	1,160	9,500	1,330	2,100
	March	690	1,200	1,085	1,000	315	3,835	1,215	9,340	1,300	2,200
	April	650	1,370	970	1,000	260	3,470	1,215	8,935	1,300	2,300
	May	650	1,300	940	1,100	290	2,590	1,160	8,030	1,200	2,000
	June	600	1,370	920	980	300	2,420	1,100	7,690	1,050	2,200
	July	600	1,450	940	910	320	2,740	1,155	8,115	1,300	2,200
	August	600	1,400	940	910	320	2,340	1,200	7,710	1,300	2,400
	September	650	1,600	980	1,100	295	2,980	1,285	8,890	1,200	2,200
	October	650	1,650	1,055	1,200	320	3,910	1,255	10,040	1,260	2,300
	November	680	1,700	1,050	1,200	300	4,200	1,250	10,380	1,300	2,200
	December	650	1,650	1,080	1,300	335	4,680	1,225	10,920	1,250	2,400
	Average	**639**	**1,433**	**1,016**	**1,059**	**301**	**3,388**	**1,193**	**9,029**	**1,258**	**2,201**
1986	January	650	1,650	1,115	1,100	360	4,465	1,215	10,555	1,420	2,100
	February	550	1,650	1,315	900	325	4,715	1,415	10,870	1,300	2,000
	March	600	1,650	1,515	900	350	4,115	1,365	10,495	1,300	1,800
	April	600	1,500	1,520	900	200	4,720	1,315	10,755	1,340	2,000
	May	600	1,700	1,510	1,100	360	4,360	1,465	11,095	1,425	2,100
	June	600	1,800	1,650	1,200	420	5,250	1,565	12,485	1,350	2,200
	Average	**601**	**1,659**	**1,438**	**1,018**	**336**	**4,598**	**1,389**	**11,039**	**1,357**	**2,033**

[1]Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In June 1986, total production in this region amounted to approximately 300,000 barrels per day.
[2]Arab members of the Organization of Petroleum Exporting Countries (OPEC) include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[3]OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.
[4]Other is a calculated total derived from the difference between world production and the nations represented above.
R = Revised data.
Footnotes continued on following page.

International

Crude Oil Production for Major Petroleum Producing Countries (continued)

		Nigeria	Venezuela	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**	**11,907**	**5,355**	**55,901**
1982	**Average**	**1,295**	**1,895**	**18,868**	**1,271**	**2,748**	**2,065**	**8,649**	**2,045**	**11,967**	**5,639**	**53,252**
1983	**Average**	**1,241**	**1,801**	**17,583**	**1,356**	**2,689**	**2,291**	**8,688**	**2,120**	**12,027**	**6,239**	**52,993**
1984	January	1,365	1,840	17,980	1,365	2,670	2,525	8,868	2,200	11,950	6,643	54,201
	February	1,565	1,815	18,140	1,445	2,755	2,600	8,874	2,200	11,950	6,629	54,593
	March	1,560	1,815	18,416	1,475	2,710	2,480	8,672	2,200	11,800	6,563	54,316
	April	1,300	1,815	18,300	1,430	2,770	2,475	8,862	2,225	11,800	6,649	54,511
	May	1,300	1,840	17,570	1,415	2,800	2,439	8,955	2,225	11,950	6,724	54,078
	June	1,400	1,805	18,870	1,470	2,820	2,350	8,852	2,225	11,950	6,834	55,371
	July	1,200	1,860	17,860	1,515	2,845	2,470	8,885	2,305	11,920	6,838	54,638
	August	1,150	1,820	16,670	1,435	2,680	2,300	8,809	2,305	11,920	6,846	52,965
	September	1,400	1,850	16,826	1,330	2,705	2,435	8,993	2,335	11,840	6,957	53,421
	October	1,600	1,800	16,893	1,450	2,675	2,615	8,906	2,335	11,840	7,118	53,832
	November	1,600	1,725	16,760	1,460	2,745	2,605	8,979	2,335	11,800	7,170	53,854
	December	1,600	1,770	16,685	1,445	2,830	2,645	8,897	2,335	11,800	7,211	53,848
	Average	**1,419**	**1,813**	**17,576**	**1,436**	**2,750**	**2,495**	**8,879**	**2,269**	**11,878**	**6,847**	**54,130**
1985	January	1,400	1,670	15,530	1,450	2,635	2,780	8,740	2,450	11,700	R7,221	R52,506
	February	1,690	1,670	16,710	1,450	2,685	2,650	9,025	2,450	11,700	R7,261	R53,931
	March	1,700	1,680	16,650	1,500	2,810	2,600	9,095	2,450	11,700	R7,334	R54,139
	April	1,600	1,670	16,235	1,465	2,825	2,635	9,043	2,480	11,700	R7,411	R53,794
	May	1,450	1,675	14,785	1,475	2,790	2,545	9,132	2,480	11,750	R7,375	R52,332
	June	1,100	1,670	14,110	1,450	2,555	2,450	9,022	2,480	11,680	R7,141	R50,888
	July	1,000	1,670	14,715	1,430	2,620	2,385	8,949	2,490	11,820	R7,472	R51,881
	August	1,200	1,670	14,710	1,450	2,795	2,215	8,803	2,490	11,860	R7,463	R51,786
	September	1,450	1,670	15,860	1,450	2,815	2,600	8,954	2,490	11,920	R7,555	R53,644
	October	1,700	1,670	17,420	1,450	2,750	2,670	8,970	2,500	11,960	R7,552	R55,272
	November	1,760	1,670	17,760	1,450	2,795	2,680	8,902	2,500	11,970	R7,614	R55,671
	December	1,620	1,670	18,310	1,553	2,733	2,440	9,030	2,500	11,960	R7,599	R56,125
	Average	**1,471**	**1,671**	**16,062**	**1,465**	**2,734**	**2,553**	**8,971**	**2,480**	**11,811**	**R7,418**	**R53,494**
1986	January	1,200	1,670	17,395	1,540	2,510	2,666	8,942	2,500	11,960	R7,648	R55,161
	February	1,400	1,670	17,690	1,475	2,125	2,725	8,940	2,500	11,960	R7,780	R55,195
	March	1,600	1,670	17,325	1,480	2,220	2,710	8,939	2,500	11,980	R7,687	R54,841
	April	1,700	1,670	17,925	1,475	2,360	2,580	8,815	2,500	11,990	R7,263	R54,908
	May	1,600	1,670	18,350	R1,425	2,525	2,545	8,805	2,500	12,000	R7,633	R55,783
	June	1,540	1,690	19,735	1,400	2,545	2,198	8,792	2,500	12,000	7,745	56,915
	Average	**1,507**	**1,673**	**18,068**	**1,466**	**2,384**	**2,570**	**8,872**	**2,500**	**11,982**	**7,625**	**55,467**

Footnotes continued.

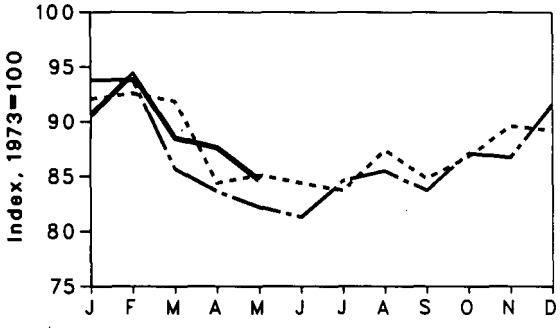
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • 1973–1984 annual data (except the United States): Energy Information Administration (EIA), *International Energy Annual 1984*. • 1973–1985 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly*. • 1983–1985 monthly data (except United States and world): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources. • 1983–1985 monthly data for world: Sum of data for all countries using above sources.

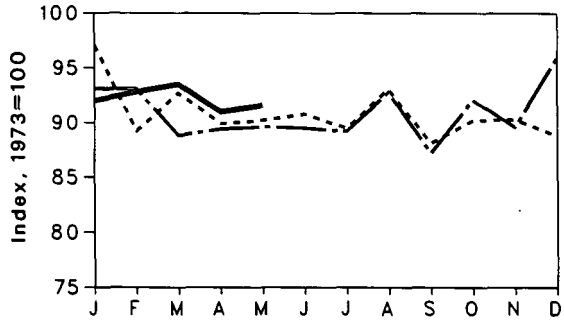
International

Petroleum Consumption for OECD Countries

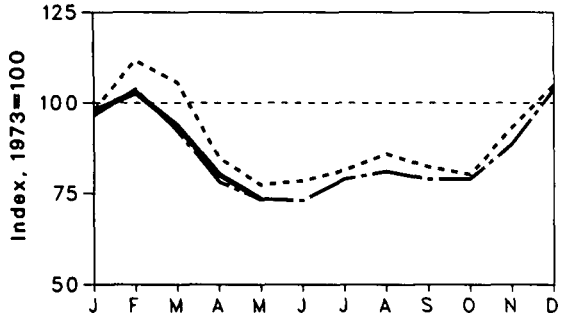
Total OECD



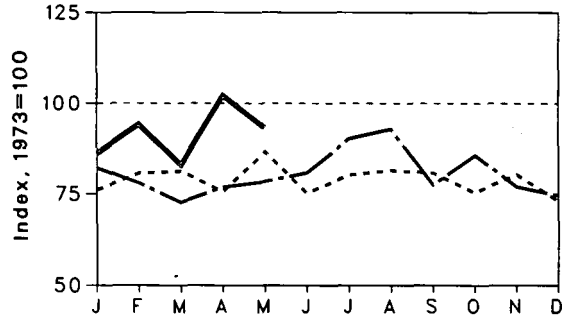
United States



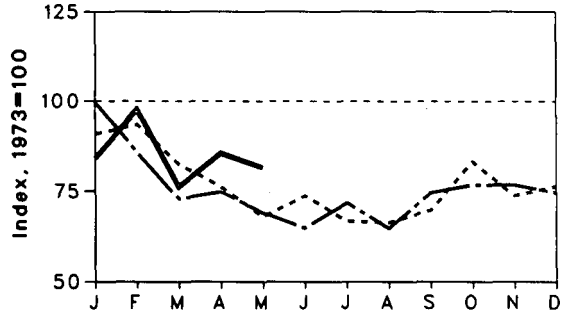
Japan



West Germany



France



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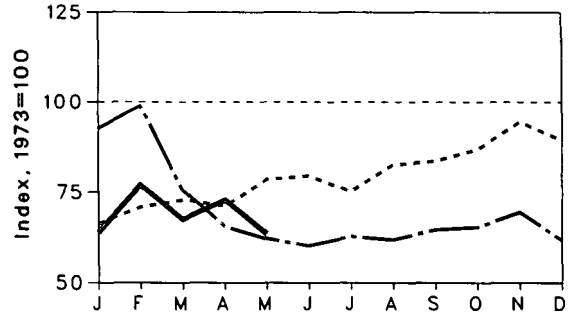
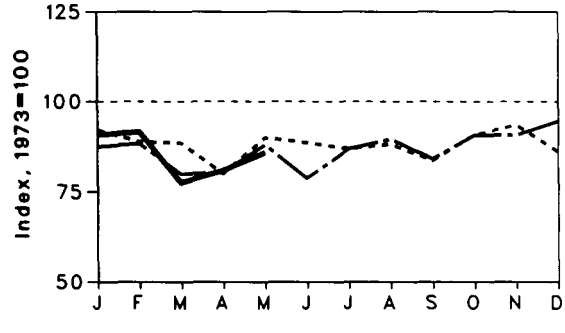
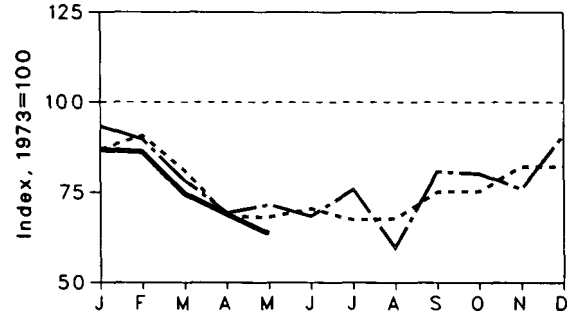


Canada



Italy



1984 1985 1986

International

Petroleum Consumption for OECD Countries[1]

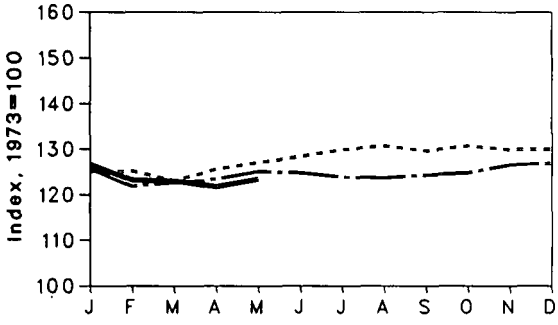
		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe[2]	Other OECD[3]	Total OECD[1]
						Thousand barrels per day					
1973	**Average**	**1,707**	**2,422**	**2,147**	**5,071**	**2,301**	**17,308**	**2,915**	**14,521**	**975**	**39,582**
1974	**Average**	**1,740**	**2,260**	**2,090**	**4,960**	**2,138**	**16,653**	**2,612**	**13,708**	**1,017**	**38,078**
1975	**Average**	**1,694**	**2,136**	**1,583**	**4,502**	**1,872**	**16,322**	**2,515**	**12,656**	**915**	**36,089**
1976	**Average**	**1,743**	**2,280**	**1,801**	**4,771**	**1,856**	**17,461**	**2,708**	**13,509**	**1,024**	**38,508**
1977	**Average**	**1,751**	**2,235**	**1,973**	**5,231**	**1,880**	**18,431**	**2,837**	**13,847**	**1,079**	**40,339**
1978	**Average**	**1,737**	**2,169**	**2,176**	**5,142**	**1,850**	**18,847**	**3,048**	**14,017**	**1,070**	**40,813**
1979	**Average**	**1,857**	**2,385**	**2,003**	**5,480**	**1,930**	**18,513**	**3,073**	**14,723**	**1,045**	**41,618**
1980	**Average**	**1,947**	**2,256**	**1,876**	**4,960**	**1,725**	**17,056**	**2,707**	**13,511**	**1,126**	**38,600**
1981	**Average**	**1,836**	**2,023**	**1,906**	**4,848**	**1,590**	**16,058**	**2,449**	**12,473**	**1,087**	**36,302**
1982	**Average**	**1,616**	**1,940**	**1,782**	**4,554**	**1,587**	**15,296**	**2,324**	**12,092**	**1,132**	**34,690**
1983	**Average**	**1,490**	**1,911**	**1,730**	**4,368**	**1,520**	**15,231**	**2,290**	**11,808**	**1,008**	**33,906**
1984	January	1,571	2,199	1,865	4,976	1,522	16,801	2,215	12,130	972	36,449
	February	1,517	2,262	1,945	5,662	1,630	15,437	2,352	12,935	1,101	36,651
	March	1,510	1,999	1,742	5,356	1,674	16,050	2,367	12,409	1,066	36,390
	April	1,366	1,848	1,468	4,300	1,635	15,568	2,203	11,295	861	33,390
	May	1,535	1,642	1,462	3,918	1,807	15,620	2,525	11,605	1,021	33,699
	June	1,511	1,785	1,514	3,975	1,828	15,709	2,191	11,293	937	33,425
	July	1,483	1,615	1,448	4,130	1,731	15,498	2,337	11,014	1,024	33,150
	August	1,505	1,607	1,454	4,355	1,900	16,116	2,377	11,423	1,200	34,599
	September	1,427	1,688	1,612	4,171	1,924	15,247	2,354	11,660	1,048	33,554
	October	1,549	2,018	1,617	4,069	1,996	15,616	2,198	12,001	1,126	34,362
	November	1,594	1,788	1,763	4,722	2,173	15,627	2,344	12,327	1,179	35,449
	December	1,470	1,851	1,766	5,324	2,057	15,375	2,133	11,960	1,162	35,291
	Average	**1,503**	**1,857**	**1,637**	**4,577**	**1,824**	**15,726**	**2,300**	**11,834**	**1,058**	**34,698**
1985	January	1,491	2,411	2,001	4,887	2,130	16,109	2,393	13,592	1,031	37,111
	February	1,508	2,075	1,923	5,262	2,274	16,121	2,274	13,168	1,078	37,138
	March	1,364	1,763	1,682	4,680	1,738	15,373	2,120	11,434	1,069	33,921
	April	1,372	1,812	1,487	3,962	1,507	15,472	2,238	11,132	1,146	33,084
	May	1,501	1,668	1,537	3,721	1,432	15,504	2,284	10,736	1,094	32,556
	June	1,344	1,569	1,469	3,701	1,385	15,483	2,356	10,611	1,058	32,197
	July	1,483	1,738	1,627	4,003	1,445	15,434	2,630	11,466	1,091	33,477
	August	1,527	1,566	1,281	4,109	1,425	16,060	2,708	11,113	1,015	33,825
	September	1,435	1,807	1,733	4,002	1,487	15,099	2,259	11,500	1,075	33,111
	October	1,546	1,861	1,723	4,008	1,503	15,944	2,499	12,021	970	34,489
	November	1,546	1,860	1,629	4,487	1,596	15,503	2,245	11,687	1,088	34,310
	December	1,614	1,807	1,951	5,259	1,423	16,611	2,176	11,713	1,073	36,270
	Average	**1,478**	**1,827**	**1,669**	**4,336**	**1,608**	**15,726**	**2,350**	**11,674**	**1,065**	**34,279**
1986	January	1,549	2,036	1,861	R4,961	1,468	15,923	2,509	R12,396	1,016	R35,846
	February	1,561	2,365	1,848	5,215	1,772	16,056	2,746	R13,406	R1,079	R37,316
	March	1,322	1,846	1,603	4,747	1,551	16,188	2,419	R11,718	R1,063	R35,038
	April	R1,382	R2,070	1,480	R4,061	R1,676	15,743	2,976	R12,637	R841	R34,663
	May	1,465	1,974	1,364	3,721	1,462	15,852	2,715	11,552	932	33,522
	Average	**1,454**	**2,052**	**1,628**	**4,531**	**1,581**	**15,952**	**2,670**	**12,319**	**985**	**35,241**

[1]Organization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States; as well as "Total OECD Europe" and "Other OECD."
[2]"Total OECD Europe" includes France, Italy, the United Kingdom, and West Germany; as well as Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and Turkey.
[3]"Other OECD" includes Australia, New Zealand, and the U.S. Territories.
R=Revised data.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Data for 1984 through 1986 are preliminary.
Sources: • U.S. data: EIA, *Petroleum Supply Monthly.* • OECD data: OECD, *Quarterly Oil Statistics, Monthly Oil Statistics.*

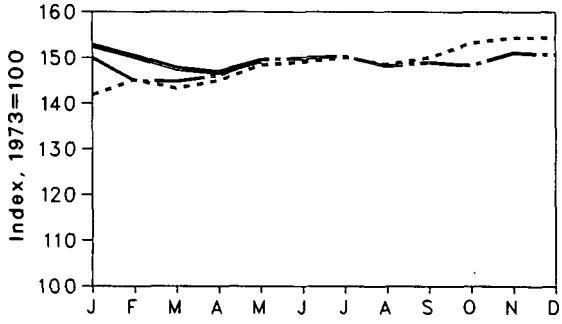
International

Petroleum Stocks for OECD Countries at End of Period

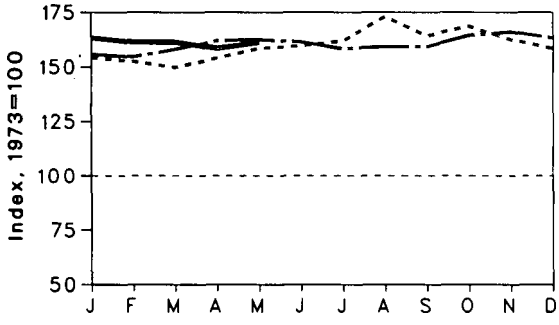
Total OECD



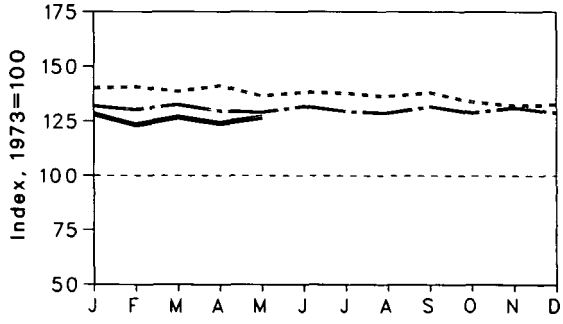
United States



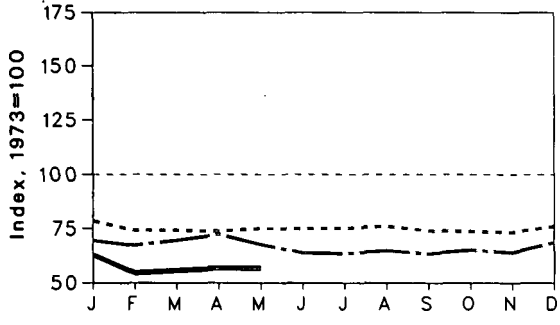
Japan



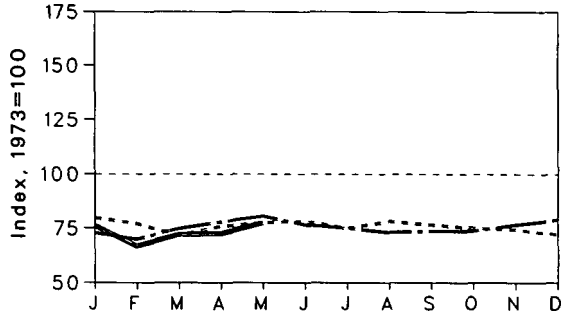
West Germany



France



United Kingdom



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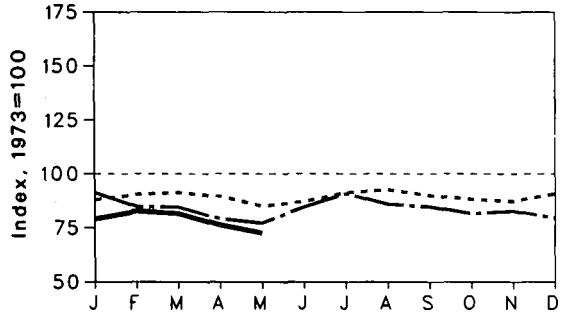

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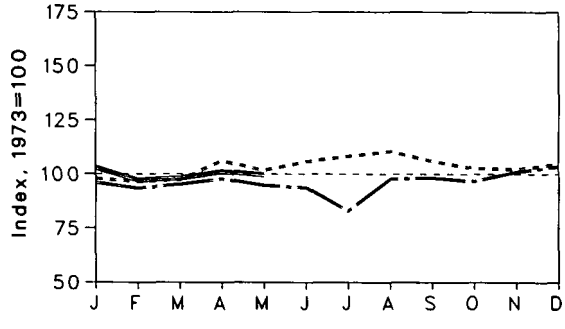

1984 1985 1986

International

Petroleum Stocks[1] for OECD Countries[2] at End of Period

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe[3]	Other OECD[4]	Total OECD[2]
						Million barrels					
1973	**Year**	**140**	**201**	**152**	**303**	**156**	**1,008**	**181**	**1,070**	**67**	**2,588**
1974	**Year**	**145**	**249**	**167**	**370**	**161**	**1,074**	**213**	**1,227**	**64**	**2,880**
1975	**Year**	**174**	**225**	**143**	**375**	**165**	**1,133**	**187**	**1,154**	**67**	**2,903**
1976	**Year**	**153**	**234**	**143**	**380**	**165**	**1,112**	**208**	**1,205**	**68**	**2,918**
1977	**Year**	**167**	**239**	**161**	**409**	**148**	**1,312**	**225**	**1,268**	**68**	**3,224**
1978	**Year**	**144**	**201**	**154**	**413**	**157**	**1,278**	**238**	**1,219**	**68**	**3,122**
1979	**Year**	**150**	**226**	**163**	**460**	**169**	**1,341**	**272**	**1,353**	**75**	**3,379**
1980	**Year**	**164**	**243**	**170**	**495**	**168**	**1,392**	**319**	**1,464**	**72**	**3,587**
1981	**Year**	**161**	**214**	**167**	**482**	**143**	**1,484**	**297**	**1,337**	**67**	**3,531**
1982	**Year**	**136**	**193**	**179**	**484**	**125**	**1,430**	**272**	**1,258**	**68**	**3,376**
1983	**Year**	**120**	**153**	**149**	**471**	**119**	**1,454**	**250**	**1,145**	**68**	**3,258**
1984	January	123	158	149	467	124	1,429	254	1,150	68	3,237
	February	127	149	147	462	120	1,463	255	1,119	69	3,240
	March	128	149	148	454	112	1,444	251	1,092	68	3,185
	April	125	148	161	467	118	1,462	256	1,130	67	3,251
	May	119	151	155	480	121	1,496	247	1,129	65	3,289
	June	122	151	161	484	122	1,503	250	1,149	66	3,324
	July	128	151	164	491	117	1,513	249	1,161	69	3,362
	August	130	153	168	524	122	1,498	247	1,163	68	3,383
	September	126	149	161	498	119	1,513	250	1,150	68	3,355
	October	124	148	156	511	117	1,544	242	1,137	67	3,382
	November	122	147	155	492	116	1,556	239	1,126	65	3,362
	December	127	153	159	480	113	1,556	240	1,132	69	3,364
1985	January	128	140	146	472	114	1,512	239	1,071	70	3,253
	February	119	135	142	468	109	1,462	236	1,032	71	3,153
	March	118	140	145	479	117	1,460	240	1,051	65	3,173
	April	111	146	148	491	121	1,473	235	1,053	67	3,194
	May	108	136	144	492	125	1,508	234	1,063	65	3,237
	June	119	128	142	489	119	1,511	239	1,048	64	3,231
	July	127	128	126	480	117	1,516	234	1,022	62	3,207
	August	120	130	149	482	114	1,494	233	1,042	62	3,200
	September	119	128	149	483	115	1,502	238	1,051	62	3,217
	October	114	131	147	498	115	1,496	233	1,056	65	3,230
	November	116	128	154	503	119	1,523	237	1,071	65	3,278
	December	111	138	157	495	123	1,519	233	1,093	67	3,285
1986	January	111	127	157	495	118	1,538	232	R1,070	66	R3,280
	February	116	110	148	489	104	1,515	223	R1,002	67	R3,189
	March	114	112	149	489	113	1,489	229	R1,023	70	R3,184
	April	R107	R114	154	R480	R113	1,480	224	R1,016	R67	R3,150
	May	102	114	151	488	121	1,506	230	1,036	61	3,193

[1]Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for storage, regardless of ownership, within each country in bulk terminals, refinery tanks, pipeline tankage, intercoastal tankers, tankers in port, and inland ship bunkers. Data exclude oil held in pipelines (except for the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea.
[2]Organization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States; as well as "Total OECD Europe" and "Other OECD."
[3]"Total OECD Europe" includes France, Italy, the United Kingdom, and West Germany; as well as Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and Turkey.
[4]"Other OECD" includes Australia, New Zealand, and the U.S. Territories.
R=Revised data.
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: • U.S. data: EIA, *Petroleum Supply Monthly.* • OECD data: OECD, *Quarterly Oil Statistics, Monthly Oil Statistics.*

International

Nuclear Electricity Generation by Non-Communist Countries[1]

		Argentina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Netherlands	Pakistan
						Billion gross kilowatthours						
1973	**Total**	**0**	**0**	**0**	**15.3**	**0**	**14.7**	**2.5**	**3.1**	**9.4**	**1.1**	**0.5**
1974	**Total**	**1.0**	**0.1**	**0**	**15.4**	**0**	**14.7**	**1.9**	**3.4**	**18.9**	**3.3**	**0.6**
1975	**Total**	**2.5**	**6.8**	**0**	**13.2**	**0**	**18.3**	**2.5**	**3.8**	**21.3**	**3.3**	**0.5**
1976	**Total**	**2.6**	**10.0**	**0**	**18.0**	**0**	**15.8**	**3.2**	**3.8**	**36.6**	**3.9**	**0.5**
1977	**Total**	**1.6**	**11.9**	**0**	**26.6**	**2.7**	**17.9**	**2.8**	**3.4**	**28.2**	**3.7**	**0.3**
1978	**Total**	**2.9**	**12.5**	**0**	**33.0**	**3.3**	**30.6**	**2.3**	**4.5**	**53.1**	**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	**Total**	**1.9**	**15.6**	**0.1**	**42.6**	**16.5**	**108.9**	**2.2**	**6.8**	**104.5**	**3.9**	**0.1**
1983	**Total**	**3.4**	**24.1**	**0.2**	**53.0**	**17.4**	**144.2**	**2.9**	**5.8**	**109.1**	**3.6**	**0.2**
1984	January	0.7	2.7	(s)	5.0	1.7	18.0	0.3	0.4	10.1	0.3	(s)
	February	0.4	2.3	0.2	4.6	1.6	17.1	0.4	0.6	9.2	0.4	0
	March	0.6	1.9	0.1	5.1	1.7	17.8	0.3	0.7	8.8	0.2	0
	April	0.5	2.4	(s)	4.3	1.6	15.4	0.3	0.3	8.9	0.2	(s)
	May	0.5	2.0	0.1	3.6	1.2	14.2	0.5	0.3	10.5	0.4	(s)
	June	0.4	2.6	0	3.7	1.3	13.1	0.4	0.3	9.9	0.4	(s)
	July	0.4	2.4	0	4.4	1.4	13.1	0.5	0.3	10.6	0.2	(s)
	August	0.3	1.9	(s)	4.7	1.4	13.2	0.4	0.8	11.0	0.3	(s)
	September	0.4	1.9	0.3	3.9	1.5	14.7	0.2	0.8	11.4	0.4	(s)
	October	0.1	2.5	0.5	4.5	1.8	16.0	0.4	0.8	11.6	0.4	(s)
	November	(s)	2.6	0.4	4.7	1.7	17.8	0.3	0.8	11.9	0.4	(s)
	December	0.1	2.6	0.4	5.1	1.7	20.9	0.2	0.8	13.2	0.4	(s)
	Total	**4.5**	**27.7**	**2.1**	**53.8**	**18.5**	**191.2**	**4.1**	**6.9**	**127.2**	**3.8**	**0.3**
1985	January	0.2	2.5	0.4	5.7	1.7	21.9	0.2	0.8	12.2	0.4	(s)
	February	0.4	1.7	0.3	5.0	1.6	19.2	0.2	0.7	10.7	0.3	(s)
	March	0.5	2.0	0.3	5.9	1.8	20.6	0.4	0.8	12.0	0.2	0
	April	0.4	2.2	0.1	5.2	1.6	17.7	0.6	0.7	11.8	(s)	0
	May	0.4	2.8	0.2	2.4	1.2	15.9	0.5	0.7	13.1	0.2	0
	June	0.4	2.8	0.4	4.2	1.2	13.6	0.4	0.6	12.6	0.4	(s)
	July	0.5	2.5	0.3	5.7	1.4	16.1	0.4	0.6	12.5	0.4	0.1
	August	0.5	3.2	0.1	6.0	1.5	15.4	0.2	0.5	12.9	0.4	(s)
	September	0.5	3.3	0.3	5.4	1.6	17.2	0.3	0.3	12.8	0.4	0
	October	0.6	3.9	0.4	5.1	1.7	20.0	0.4	0.3	13.9	0.4	(s)
	November	0.7	3.9	0.3	5.8	1.7	22.1	0.4	0.3	13.1	0.4	0.1
	December	0.7	3.9	0.3	6.5	1.7	24.4	0.4	0.6	14.7	0.4	0.1
	Total	**5.8**	**34.5**	**3.4**	**62.9**	**18.8**	**224.0**	**4.5**	**7.0**	**152.0**	**3.9**	**0.3**
1986	January	0.6	3.8	(s)	6.4	1.9	25.6	0.5	0.9	15.0	0.4	(s)
	February	0.6	2.8	0	6.2	1.6	22.8	0.4	0.5	13.5	0.1	(s)
	March	0.5	3.6	0	7.0	1.8	23.6	0.5	0.9	14.5	0.3	(s)
	April	0.5	3.7	0	6.0	1.7	21.0	0.3	0.9	12.4	0.4	(s)
	May	0.7	3.2	0	5.7	1.4	R15.2	0.4	0.7	12.8	0.4	(s)
	June	0	2.9	0	5.4	1.1	16.7	0.1	0.9	15.0	0.4	(s)
	Year to Date	**2.9**	**19.9**	**(s)**	**36.7**	**9.3**	**125.0**	**2.2**	**4.8**	**83.2**	**1.9**	**0.2**

[1]Figures 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.
[2]The 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 Countries[1] (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**	**28.2**	**11.9**	**101.4**	**87.8**	**189.3**
1974	**Total**	**0**	**0**	**7.2**	**2.3**	**7.0**	**0**	**33.8**	**12.0**	**121.7**	**124.3**	**246.0**
1975	**Total**	**0**	**0**	**7.5**	**12.0**	**7.7**	**0**	**30.5**	**21.7**	**151.8**	**182.3**	**334.1**
1976	**Total**	**0**	**0**	**7.6**	**16.0**	**7.9**	**0**	**36.8**	**24.5**	**187.1**	**201.8**	**388.9**
1977	**Total**	**0**	**0.1**	**6.5**	**19.9**	**8.1**	**0.1**	**38.1**	**36.0**	**207.8**	**264.2**	**472.0**
1978	**Total**	**0**	**2.3**	**7.6**	**23.8**	**8.3**	**2.7**	**36.6**	**35.7**	**263.5**	**292.4**	**555.9**
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**	**354.3**	**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	**Total**	**0**	**3.8**	**8.8**	**38.8**	**15.0**	**13.1**	**44.1**	**63.4**	**489.9**	**298.6**	**788.5**
1983	**Total**	**0**	**9.0**	**10.7**	**40.4**	**15.5**	**18.9**	**49.6**	**65.8**	**573.9**	**313.6**	**887.5**
1984	January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	61.8	30.8	92.6
	February	0	1.2	1.5	5.0	1.4	1.8	4.6	6.8	59.1	29.4	88.5
	March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	60.6	28.6	89.2
	April	0.1	0.9	1.3	4.5	1.5	1.8	4.2	7.7	55.8	24.7	80.5
	May	0.1	0.8	1.9	3.3	1.3	1.4	4.3	7.2	53.6	27.3	80.9
	June	0.3	0.7	2.2	2.8	0.6	1.8	4.7	7.1	52.3	26.4	78.8
	July	0.5	0.7	2.5	2.4	1.3	2.7	3.7	6.2	53.2	29.4	82.6
	August	0.7	0.9	2.3	3.5	1.0	2.4	3.6	6.3	54.7	31.8	86.5
	September	0.7	0.9	2.6	4.2	1.4	2.6	4.9	8.1	60.8	30.3	91.1
	October	0.7	1.3	1.8	5.0	1.5	2.0	4.1	8.5	63.5	26.8	90.3
	November	0.5	1.3	1.9	4.5	1.5	1.8	4.4	9.9	66.3	26.2	92.4
	December	0.6	0.9	2.2	5.4	1.9	2.3	6.3	10.8	75.9	32.0	107.9
	Total	**4.2**	**11.8**	**23.1**	**51.3**	**16.3**	**24.3**	**54.1**	**92.6**	**717.7**	**343.8**	**1,061.5**
1985	January	0.3	1.1	2.2	5.4	2.2	2.4	5.7	10.8	76.1	38.0	114.1
	February	0	1.2	1.9	5.0	2.0	2.1	5.6	10.1	68.2	32.4	100.5
	March	0	1.5	2.8	5.6	2.2	2.5	6.6	11.7	77.4	32.5	109.9
	April	0	1.3	2.4	4.5	2.2	2.7	5.1	10.6	69.0	28.3	97.3
	May	0	1.5	2.3	3.9	1.9	2.8	4.7	9.3	63.8	31.8	95.6
	June	0.1	1.2	3.1	2.6	1.2	2.6	5.1	9.6	62.0	31.0	93.0
	July	0.8	1.1	2.2	3.1	1.3	2.2	4.1	8.4	63.7	36.4	100.2
	August	0.8	1.2	2.1	4.3	1.0	2.2	3.8	9.5	65.5	36.8	102.3
	September	1.0	1.3	2.1	4.7	1.7	2.6	4.9	10.3	70.7	35.9	106.6
	October	1.1	1.4	2.1	5.4	2.2	2.6	4.3	11.3	77.2	32.1	109.3
	November	0.8	1.7	2.1	7.0	2.2	1.7	3.7	11.7	79.6	31.7	111.3
	December	0.9	1.9	2.6	6.9	2.2	2.5	6.0	12.3	89.0	35.7	124.6
	Total	**5.7**	**16.5**	**28.0**	**58.6**	**22.4**	**28.7**	**59.6**	**125.7**	**862.2**	**402.6**	**1,264.8**
1986	January	0.9	2.0	3.1	6.8	2.3	2.9	4.6	12.0	89.7	38.0	127.8
	February	0.6	1.7	2.5	6.4	2.1	2.1	5.1	10.4	79.6	R34.1	113.6
	March	0.7	1.5	2.4	7.2	2.3	2.2	6.4	10.7	86.0	31.1	117.2
	April	0.7	1.6	3.0	6.7	2.2	2.0	4.2	9.6	76.8	32.2	109.0
	May	0.7	2.4	3.6	4.8	2.1	2.0	4.4	9.5	69.3	R33.6	R103.7
	June	0.2	2.2	3.9	4.1	1.2	1.6	5.1	9.0	69.3	30.9	100.6
	Year to Date	**3.9**	**11.4**	**18.6**	**36.0**	**12.2**	**12.8**	**29.7**	**61.2**	**472.0**	**200.0**	**672.0**

Footnotes continued.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• The sum of the months may not equal the annual total because the annual total may reflect revisions which are not included in the monthly data. Also, the sum of the months may not equal the annual total due to independent rounding.
Sources: • *Nucleonics Week* (New York: McGraw-Hill Publishing Company).

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_3O_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 Indices

	Gross National Product Implicit Price Deflator (1982=100)	Consumer Price Index, All Urban Consumers, All Items (1972=100)
1972	46.5	100.0
1973	49.5	106.2
1974	54.0	117.9
1975	59.3	128.7
1976	63.1	136.1
1977	67.3	144.9
1978	72.2	155.9
1979	78.6	173.5
1980	85.7	197.0
1981	94.0	217.4
1982	100.0	230.7
1983	103.9	238.1
1984	108.1	248.3
1985‡	111.7	248.3

‡=Preliminary data.
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 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
Pentanes Plus	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 30 percent propane.

Conversion Factors (continued)

Approximate Heat Content of Fuels, 1973-1979

	Units	1973	1974	1975	1976	1977	1978	1979
Coal								
Production	Million Btu/short ton	23.376	23.072	22.897	22.855	22.597	22.248	22.454
Consumption	Million Btu/short ton	23.057	22.677	22.506	22.498	22.265	22.017	22.100
Non-electric utility users	Million Btu/short ton	24.878	24.783	24.745	24.861	24.701	24.496	24.626
Electric utilities	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275	21.364
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.596	26.700	26.562	26.601	26.548	26.478	26.548
Anthracite								
Production	Million Btu/short ton	22.132	21.711	21.582	22.045	22.661	23.079	23.170
Consumption	Million Btu/short ton	21.464	20.919	20.762	21.254	22.066	22.398	22.069
Non-electric utility users	Million Btu/short ton	22.674	22.330	22.272	22.618	24.101	24.388	24.272
Electric utilities	Million Btu/short ton	17.920	17.200	17.064	17.526	17.244	17.104	17.454
Imports and exports	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous coal and lignite								
Production	Million Btu/short ton	23.391	23.087	22.910	22.863	22.597	22.242	22.449
Consumption	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014	22.100
Residential and commercial	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078	21.884
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175	22.436
Electric utilities	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284	21.372
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501	26.570
Coal coke, imports and exports	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800	24.800
Crude oil[1]								
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.817	5.827	5.821	5.808	5.810	5.802	5.810
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products								
Imports	Million Btu/barrel	5.897	5.884	5.858	5.856	5.834	5.839	5.810
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808	5.832
Petroleum products[2]								
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519	5.494
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382	5.471
Industrial	Million Btu/barrel	5.565	5.537	5.527	5.535	5.552	5.546	5.416
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407	5.430
Electric utilities	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251	6.258
Imports	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955	5.811
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814	5.864
LPG consumption	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669	3.680
Natural gas plant liquids								
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925	3.955
Natural gas								
Production, dry	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Production, wet	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092
Consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Non-electric utility users	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018
Electric utilities	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,035
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation[3]	Btu/kilowatthour	10,389	10,442	10,406	10,373	10,435	10,361	10,353
Nuclear power plant generation	Btu/kilowatthour	10,903	11,161	11,013	11,047	10,769	10,941	10,879
Geothermal energy power plant generation	Btu/kilowatthour	21,674	21,674	21,611	21,611	21,611	21,611	21,545
Electricity consumption	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412	3,412

[1] Includes lease condensate.
[2] Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.
[3] This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

Sources: • See "Thermal Conversion Factor Source Documentation" on the following pages.

Conversion Factors (continued)

Approximate Heat Content of Fuels, 1980–1985

	Units	1980	1981	1982	1983	1984	1985–86‡
Coal							
Production	Million Btu/short ton	22.415	22.309	22.240	22.056	22.014	21.880
Consumption	Million Btu/short ton	21.947	21.714	21.675	21.581	21.577	21.378
Non-electric utility users	Million Btu/short ton	24.731	24.477	24.194	24.093	24.069	23.647
Electric utilities	Million Btu/short ton	21.295	21.085	21.194	21.133	21.101	20.968
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.384	26.160	26.223	26.291	26.402	26.307
Anthracite							
Production	Million Btu/short ton	22.869	23.291	23.289	22.734	23.107	22.846
Consumption	Million Btu/short ton	21.405	22.080	22.485	21.583	22.322	21.781
Non-electric utility users	Million Btu/short ton	22.719	23.749	24.530	24.536	25.128	24.421
Electric utilities	Million Btu/short ton	17.652	18.168	18.160	16.516	17.018	17.018
Imports and exports	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous coal and lignite							
Production	Million Btu/short ton	22.411	22.302	22.234	22.053	22.009	21.876
Consumption	Million Btu/short ton	21.950	21.712	21.671	21.581	21.574	21.376
Residential and commercial	Million Btu/short ton	22.488	22.191	22.373	22.934	22.880	23.056
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation	Million Btu/short ton	22.690	22.572	22.694	22.679	22.524	21.978
Electric utilities	Million Btu/short ton	21.301	21.091	21.200	21.141	21.108	20.974
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.404	26.176	26.231	26.300	26.410	26.320
Coal coke, imports and exports	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800
Crude oil[1]							
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.812	5.818	5.826	5.825	5.823	5.832
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products							
Imports	Million Btu/barrel	5.796	5.775	5.775	5.774	5.745	5.736
Exports	Million Btu/barrel	5.820	5.821	5.820	5.800	5.850	5.814
Petroleum products[2]							
Consumption	Million Btu/barrel	5.479	5.448	5.415	5.406	5.395	5.387
Residential and commercial	Million Btu/barrel	5.468	5.409	5.392	5.286	5.261	5.252
Industrial	Million Btu/barrel	5.376	5.310	5.262	5.273	5.256	5.250
Transportation	Million Btu/barrel	5.440	5.434	5.423	5.416	5.423	5.419
Electric utilities	Million Btu/barrel	6.254	6.258	6.258	6.255	6.251	6.247
Imports	Million Btu/barrel	5.748	5.659	5.664	5.677	5.613	5.572
Exports	Million Btu/barrel	5.841	5.837	5.829	5.800	5.867	5.819
LPG consumption	Million Btu/barrel	3.674	3.643	3.615	3.614	3.599	3.603
Natural gas plant liquids							
Production	Million Btu/barrel	3.914	3.930	3.872	3.839	3.812	3.805
Natural gas							
Production, dry	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,031
Production, wet	Btu/cubic foot	1,098	1,103	1,107	1,115	1,109	1,109
Consumption	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,031
Non-electric utility users	Btu/cubic foot	1,024	1,025	1,026	1,031	1,030	1,030
Electric utilites	Btu/cubic foot	1,035	1,035	1,036	1,030	1,035	1,035
Imports	Btu/cubic foot	1,022	1,014	1,018	1,024	1,005	1,005
Exports	Btu/cubic foot	1,013	1,011	1,011	1,010	1,010	1,010

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation[3]	Btu/kilowatthour	10,388	10,453	10,423	10,445	10,211	10,211
Nuclear power plant generation	Btu/kilowatthour	10,908	11,030	11,073	10,905	10,843	10,843
Geothermal energy power plant generation	Btu/kilowatthour	21,639	21,639	21,629	21,290	21,303	21,303
Electricity consumption	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412

[1] Includes lease condensate.
[2] Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.
[3] This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

‡ = Preliminary data.
Sources: • See "Thermal Conversion Factor Source Documentation" on the following pages.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum Products

Asphalt. • 1973 forward: The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Aviation Gasoline. • 1973 forward: EIA adopted the thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication *Competition and Growth in American Energy Markets 1947-1985,* 1968.

Butane. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Butane-Propane Mixture. • 1973 forward: EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See "Butane" and "Propane."

Distillate Fuel Oil. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, *Bureau of Mines Standard Average Heating Value of Various Fuels, adopted January 3, 1950.*

Ethane. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Ethane-Propane Mixture. • 1979 forward: EIA calculated 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See "Ethane" and "Propane."

Isobutane. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Jet Fuel, Kerosene Type. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as published for "Jet Fuel, Commercial" by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947-1985,* 1968.

Jet Fuel, Naphtha Type. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel as published for "Jet Fuel, Military" by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947-1985,* 1968.

Kerosene. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, *Bureau of Mines Standard Average Heating Values of Various Fuels, adopted January 3, 1950.*

Lubricants. • 1973 forward: EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Miscellaneous Products. • 1973 forward: EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Motor Gasoline. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel as published for "Gasoline, Motor Fuel" by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947-1985,* 1968.

Natural Gasoline. • 1973 forward: EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Pentanes Plus. • 1984 forward: EIA assumed the thermal conversion factor to be 4.620 million Btu per barrel or equal to that for natural gasoline. See "Natural Gasoline."

Petrochemical Feedstocks, Naphtha 400 Degrees Fahrenheit or Less. • 1973 forward: Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphtha. See "Special Naphtha."

Petrochemical Feedstock, Oils Over 400 Degrees Fahrenheit. • 1973 forward: Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See "Distillate Fuel Oil."

Thermal Conversion Factor Source Documentation (continued)

Petrochemical Feedstock, Still Gas. • 1973 forward: Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See "Still Gas."

Petroleum Coke. • 1973 forward: EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum *Bureau of Mines Standard Average Heating Value of Various Fuels, adopted January 3, 1950.* The Bureau of Mines calculated this factor by dividing the 30,120,000 Btu per short ton as given in the referenced Bureau of Mines internal memorandum by 5.0 barrels per short ton as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

Plant Condensate. • 1973 forward: Estimated to be 5.418 million Btu per barrel by EIA from data provided by McClanahan Consultants, Inc., Houston, Texas.

Propane. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel as published in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Residual Fuel Oil. • 1973 forward: EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum *Bureau of Mines Standard Average Heating Values of Various Fuels, adopted January 3, 1950.*

Road Oil. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel which was assumed to be equal to that of asphalt (see "Asphalt") and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970.*

Special Naphtha. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel which was assumed to be equal to that of total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement, Annual, 1970.*

Still Gas. • 1973 forward: EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel and first published in the *Petroleum Statement, Annual, 1970.*

Unfinished Oil. • 1973 forward: EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see "Distillate Fuel Oil") and first published in the *Annual Report to Congress, Volume 3, 1977.*

Unfractionated Stream. • 1979 forward: EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see "Plant Condensate") and first published in the *Annual Report to Congress, Volume 2, 1981.*

Wax. • 1973 forward: EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Approximate Heat Content of Fuels

Petroleum

Crude Oil, Exports. • 1973 forward: Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See "Crude Oil and Lease Condensate, Production."

Crude Oil, Imports. • 1973 forward: Calculated annually by EIA by weighting the thermal conversion factor of each type of crude oil imported by the quantity imported. Thermal conversion factors for each type were calculated on a foreign country basis, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977 and converting average API gravity to average Btu content using National Bureau of Standards, Miscellaneous Publication No. 97, *Thermal Properties of Petroleum Products,* 1933.

Crude Oil and Lease Condensate, Production. • 1973 forward: EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum *Bureau of Mines Standard Average Heating Values of Various Fuels adopted January 3, 1950.*

Crude Oil and Petroleum Products, Exports. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported and crude oil exported weighted by the quantity of each petroleum product and crude oil exported. See "Petroleum Products, Exports" and "Crude Oil, Exports."

Crude Oil and Petroleum Products, Imports. • 1973 forward: Calculated annually by EIA as the

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

Natural Gas Plant Liquids, Production. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors of each natural gas plant liquid produced weighted by the quantity of each natural gas plant liquid produced.

Petroleum Products, Consumption. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed, weighted by the quantity of each petroleum product consumed.

Petroleum Products, Consumption by Electric Utilities. • 1973–1984: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.* • 1985 forward: Estimated by EIA.

Petroleum Products, Consumption by Industrial Users. • 1973–1984: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.* • 1985 forward: Estimated by EIA.

Petroleum Products, Consumption by Residential and Commercial Users. • 1973–1984: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.* • 1985 forward: Estimated by EIA.

Petroleum Products, Consumption by Transportation Users. • 1973–1984: Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.* • 1985 forward: Estimated by EIA.

Petroleum Products, Exports. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product weighted by the quantity of each petroleum product exported.

Petroleum Products, Imports. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported weighted by the quantity of each petroleum product imported.

Petroleum Products, Liquefied Petroleum Gases (LPG) Consumption. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors of each liquefied petroleum gas consumed weighted by the quantity of each liquefied petroleum gas consumed.

Natural Gas

Natural Gas, Consumption. • 1973–1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts,* an AGA annual. • 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. Heat content and quantity consumed are from Form EIA-176.

Natural Gas, Consumption by Electric Utilities. • 1973 forward: Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from FERC Form 423 and predecessor forms.

Natural Gas, Consumption by Non-Electric Utility Users. • 1973 forward: Calculated annually by EIA by dividing the heat content of natural gas consumed by non-electric utility consumers by the quantity of non-electric utility natural gas consumed. Data are from Forms EIA-176, FERC Form 423, EIA-759, and predecessor forms.

Natural Gas, Exports. • 1973 forward: Calculated annually by EIA by dividing the heat content of exported natural gas by the quantity of natural gas exported, both reported on Form FPC-14.

Thermal Conversion Factor Source Documentation (continued)

Natural Gas, Imports. • 1973 forward: Calculated annually by EIA by dividing the heat content of imported natural gas by the quantity of natural gas imported, both reported on Form FPC-14.

Natural Gas Production, Dry. • 1973 forward: Assumed by EIA to be equal to the thermal conversion factor for the consumption of dry natural gas. See "Natural Gas, Consumption."

Natural Gas Production, Wet. • 1973 forward: Calculated annually by EIA by adding the heat content of dry natural gas production and the total heat content of natural gas plant liquids production and dividing this sum by the total quantity of marketed (wet) natural gas production.

Coal and Coal Coke

Anthracite, Consumption. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of anthracite consumed by electric utilities and non-electric utilities by the total quantity of anthracite consumed.

Anthracite, Consumption by Electric Utilities. • 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite receipts at electric utilities by the quantity of anthracite received at electric utilities. Heat contents and receipts are from FERC Form 423 and predecessor forms.

Anthracite, Consumption by Non-Electric Utility Users. • 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite production less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of non-electric utility anthracite consumption less the quantity of anthracite stock changes, losses, and unaccounted for.

Anthracite, Imports and Exports. • 1973 forward: EIA assumed the anthracite imports and exports to be freshly mined anthracite having an estimated heat content of 25.400 million Btu per short ton.

Anthracite, Production. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of freshly mined anthracite (estimated to have an average heat content of 25.400 million Btu per short ton) and the heat content of anthracite recovered from culm banks and river dredging (estimated to have an average heat content of 17.500 million Btu per short ton) by the total quantity of anthracite production.

Bituminous Coal and Lignite, Consumption. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumed by electric utilities, coal coke plants, other industrial plants, the residential and commercial sector, and the transportation sector by the sum of their respective tonnages.

Bituminous Coal and Lignite, Consumption by Coke Plants. • 1973 forward: Estimated by EIA to be 26.800 million Btu per short ton based on an input/output analysis of coal carbonization.

Bituminous Coal and Lignite, Consumption by Electric Utilities. • 1973 forward: Calculated annually by EIA by dividing the total heat content of bituminous coal and lignite received at electric utilities by the total quantity received at electric utilities. Heat contents and receipts are from FERC Form 423 and predecessor forms.

Bituminous Coal and Lignite, Consumption by Other Industrial and Transportation Users. • 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by other industrial users and that of coal consumed at electric utilities in the 1974-1982 period. • 1974 forward: Calculated annually by EIA assuming that the bituminous coal and lignite delivered to other industrial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coal-producing district was applied to the volume of deliveries to other industrial users from each coal-producing district, and the sum total of the heat content was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Consumption by Residential and Commercial Users. • 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by residential and commercial users and that of coal consumed by electric utilities in the 1974-1982 period. • 1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to residential and commercial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coal-producing district was applied to the volume of deliveries to residential and commercial users from

Thermal Conversion Factor Source Documentation (continued)

each coal-producing district, and the total of the heat value was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Exports. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of exported metallurgical coal (estimated to average 27.000 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25.000 million Btu per short ton) by the total quantity of bituminous coal and lignite exported.

Bituminous Coal and Lignite, Imports. • 1973 forward: EIA estimated the average thermal conversion factor to be 25.000 million Btu per short ton.

Bituminous Coal and Lignite, Production. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumption, net exports, stock changes, and unaccounted for by the sum of their respective tonnages. Consumers' stock changes by sectors were assumed to have the same conversion factor as the consumption sector. Producers' stock changes and unaccounted for were assumed to have the same conversion factor as consumption by all users.

Coal, Consumption. • 1973 forward: Calculated annualy by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumption by the sum of their respective tonnages.

Coal, Consumption by Electric Utilities. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite received at electric utilities by the sum of their respective tonnages received.

Coal, Consumption by Non-Electric Utility Users. • 1973 forward: Calculated annualy by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumed by non-electric utility users by the sum of their respective tonnages.

Coal, Exports. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite exported by the sum of their respective tonnages.

Coal, Imports. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite imported by the sum of their respective tonnages.

Coal, Production. • 1973 forward: Calculated annually by EIA by dividing the sum of the total heat content of bituminous coal and lignite and anthracite production by the sum of their respective tonnages.

Coal Coke, Imports and Exports. • 1973 forward: EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

Approximate Heat Rates for Electricity

Fossil Fuel Steam-Electric Power Plant Generation. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind photovoltaic, or solar thermal electric energy sources. EIA has selected a rate that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants. By using this factor, it is possible to evaluate fossil fuel requirements for replacing these sources during periods of interruption such as drought. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. • 1973 forward: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States as published by EIA in *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants.*

Geothermal Energy Power Plant Generation. • 1973-1981: Calculated annually by EIA by weighting the average annual heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. • 1982 forward: Estimated annually by EIA based on an informal survey of relevant plants.

Nuclear Power Plant Generation. • 1973 forward: Calculated annually by EIA by dividing the total heat content consumed in reactors at nuclear plants by the total (net) electricity generated by nuclear plants as reported on Form FERC-1, EIA-412 and predecessor forms.

Glossary

Anthracite. A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. It is often referred to as hard coal. It includes metaanthracite and semianthracite and conforms to ASTM Specification D388 for anthracite.

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

Base Gas. The total volume of natural gas in underground storage reservoirs that will maintain the required rate of delivery during an output cycle.

Bituminous Coal. Coal that is high in carbonaceous matter having a volatility greater than anthracite and a calorific value greater than lignite. In the United States, it is often referred to as soft coal. In this report, "bituminous coal" includes subbituminous coal and conforms to ASTM Specification D388 for bituminous coal and subbituminous coal. It is used for electricity generation, coke production, and space heating.

British Thermal Unit (Btu). The amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit (°F) at or near 39.2 °F. One Btu is equivalent to about 252 International Steam Table 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, paraffinic hydrocarbon (C_4H_{10}) extracted from natural gas or refinery gas streams. It includes isobutane (a branch-chain configuration) and normal butane (a straight-chain configuration) and is covered by ASTM Specification 1835 and Natural Gas Processors Specifications for commercial butane. It is used primarily for blending into high-octane gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

Butylene. A normally gaseous, olefinic hydrocarbon (C_4H_8) recovered from refinery processes. Quantities are included with "normal butane" data.

City Gate Price of Natural Gas. Price of natural gas at the point it is transferred from a pipeline to a local distribution company.

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.

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.

Crude Oil Stocks. Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude Oil Wellhead Price. 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.

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

Degree-Days, Heating. The number of degrees per day that the daily average

temperature is below 65 °F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Population-Weighted. Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and 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.

Development Well. A well drilled within a proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

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, conforming to ASTM Specifications D396 and D975, respectively. 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.

Dry Hole. An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Electrical System Energy Losses. The amount of energy lost during generation, transmission, and distribution of electricity, including plant use and unaccounted for electrical energy.

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

Electricity Sales. The gross electricity output measured at the generator terminals, minus power plant use and transmission and distribution losses. Included in each end-use sector are the following: commercial sales of electricity to businesses that generally require less than 1,000 kilowatts of service; industrial sales of electricity to businesses that generally require more than 1,000 kilowatts of service; residential sales of electricity to residences for household purposes; "other" sales of electricity to government, railways, street lighting authorities, and sales not elsewhere included.

Electric Utility. A corporation, person, agency, authority, or other entity that owns or operates facilities for the generation, transmission, distribution, or sale of electricity, primarily for use by the public.

Ethane. A normally gaseous, paraffinic hydrocarbon (C_2H_6) extracted from natural gas or refinery gas streams. It is used primarily as petrochemical feedstock for eventual production of chemicals and plastic materials.

Ethylene. A normally gaseous, olefinic hydrocarbon (C_2H_4) recovered from refinery processes. Quantities are included with "ethane" data.

Exploratory Well. A well drilled to find and produce oil or gas in an unproved area; to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir; or to extend the limit of a known oil or gas reservoir.

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

FOB (Free on Board) Price of Imported Crude Oil. The FOB price is the price actually charged at the producing country's port of loading. The reported price includes deductions for any rebates and discounts and additions of premiums where applicable, and should be the actual price paid with no adjustments for credit terms.

Fossil Fuel Steam-Electric Power Plant. An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Gas Well. A well completed for the production of natural gas from one or more gas zones or reservoirs. Such wells have no completions for the production of crude oil.

Geothermal Energy (As Used at Electric Utilities). Hot water or steam, extracted from geothermal reservoirs in the earth's crust, which is supplied to steam

turbines at electric utilities that drive generators to produce electricity.

Gross National Product (GNP). The total value of goods and services produced by the Nation's economy, before deduction of depreciation charges and other allowances for capital consumption. It includes the total purchases of goods and services by private consumers and government, gross private domestic capital investment, and net foreign trade.

Hydroelectric Power. Electricity generated by an electric power plant whose turbines are driven by falling water.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories (see "Petroleum Imports").

Isobutane. See "Butane."

Landed Cost of Imported Crude Oil. The price of imported crude oil at the port of discharge. It includes the purchase price at the foreign port plus charges for transporting and insuring the crude oil from the purchase point to the port of discharge. It does not include import tariffs or fees, wharfage charges, or demurrage costs.

Lease and Plant Fuel. Natural gas used in lease operations, as gas processing plant fuel, and as net used for gas lift.

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 of low rank with a high inherent moisture and volatile matter. It is also referred to as brown coal. It conforms to ASTM Specification D388 for lignite and is used almost exclusively for electric power generation.

Liquefied Petroleum Gases. Ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

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 that has not been blended into finished motor gasoline and alcohol that has not been blended into gasohol.

Motor Gasoline, Leaded Premium. A gasoline having an antiknock index of 93 with the use of lead additives or which contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. Includes gasohol.

Motor Gasoline, Leaded Regular. A gasoline having an antiknock index of 89 with the use of lead additives or which contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon.

Motor Gasoline, Total. Includes finished leaded motor gasoline (premium and regular), finished unleaded motor gasoline (premium and regular), motor gasoline blending components, and gasohol.

Motor Gasoline, Unleaded Premium. A gasoline having an antiknock index of 90 containing not more than 0.05 grams of lead per gallon and not more than 0.005 grams of phosphorus per gallon. Includes gasohol.

Motor Gasoline, Unleaded Regular. A gasoline having an antiknock index of 87 containing not more than 0.05 grams of lead per gallon and not more than 0.005 grams of phosphorus per gallon.

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 produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Wellhead Price. The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced

as reported by the appropriate agencies of individual producing States and the U.S. Geological Survey. The price includes all costs prior to shipment from the lease including gathering and compression costs in addition to State production, severance, and similar charges.

Net Electricity Generation. Gross generation less electricity consumed at the generating plant for station use. Electricity required for pumping at pumped-storage plants is regarded as plant use and is deducted from gross generation.

Normal Butane. See "Butane."

Nuclear Power. Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

Oil Well. A well completed for the production of crude oil from one or more oil zones or reservoirs.

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, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke. A solid 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 Imports. Imports of petroleum into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, other U.S. territories and possessions, and the U.S. Foreign Trade Zones. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

Petroleum Products. 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 Products Supplied. Total petroleum products supplied is the sum of the product supplied for each petroleum product, crude oil, unfinished oils, and gasoline blending components. For each of these, except crude oil, product supplied is calculated by adding refinery production, natural gas plant liquids production, new supply of other liquids, imports, and stock withdrawals; and subtracting stock additions, refinery inputs, and exports. Crude oil product supplied is the sum of crude oil burned on leases and at pipeline pump stations as reported on Form EIA-813.

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 petrolum 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.

Photovoltaic and Solar Thermal Energy (As Used at Electric Utilities). Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

Propane. A normally gaseous, paraffinic, hydrocarbon (C_3H_8). It is extracted from natural gas or refinery gas streams and includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation. Industrial uses of propane include use as a petrochemical feedstock.

Propylene. A normally gaseous, olefinic hydrocarbon (C_3H_6) recovered from refinery processes. Quantities are included with "propane" data.

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.

Glossary (continued)

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. Included are No. 5 and No. 6 fuel oils that conform to ASTM Specification D396, Navy Special fuel oil, and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and for 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.

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

Subbituminous Coal. A dull, black coal of rank intermediate between lignite and bituminous coal. It conforms to ASTM Specification D388 for subbituminous coal and is used almost exclusively for electric power generation. In this report, quantities are included with "bituminous coal" data.

Supplemental Gaseous Fuels. Consists primarily of synthetic natural gas, propane-air, and refinery (still) 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 input of crude oil, exports of crude oil, crude oil burned as fuel, and crude oil losses.

United States. Unless otherwise noted, "United States" in this publication means the 50 States and the District of Columbia. U.S. exports include shipments to U.S. Territories, and imports include receipts from U.S. Territories.

Wind Energy (As Used at Electric Utilities). The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blade rotating from a hub) that drive generators to produce electricity.

Wood and Waste (As Used at Electric Utilities). Wood energy (see "Wood Energy"), garbage, bagasse, sewerage gas and other industrial, agricultural, and urban refuse used to generate electricity.

Wood Energy. Wood and wood products used as fuel. Included are round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.

Working Gas. The total volume of gas in a storage reservoir that is in excess of the base gas.

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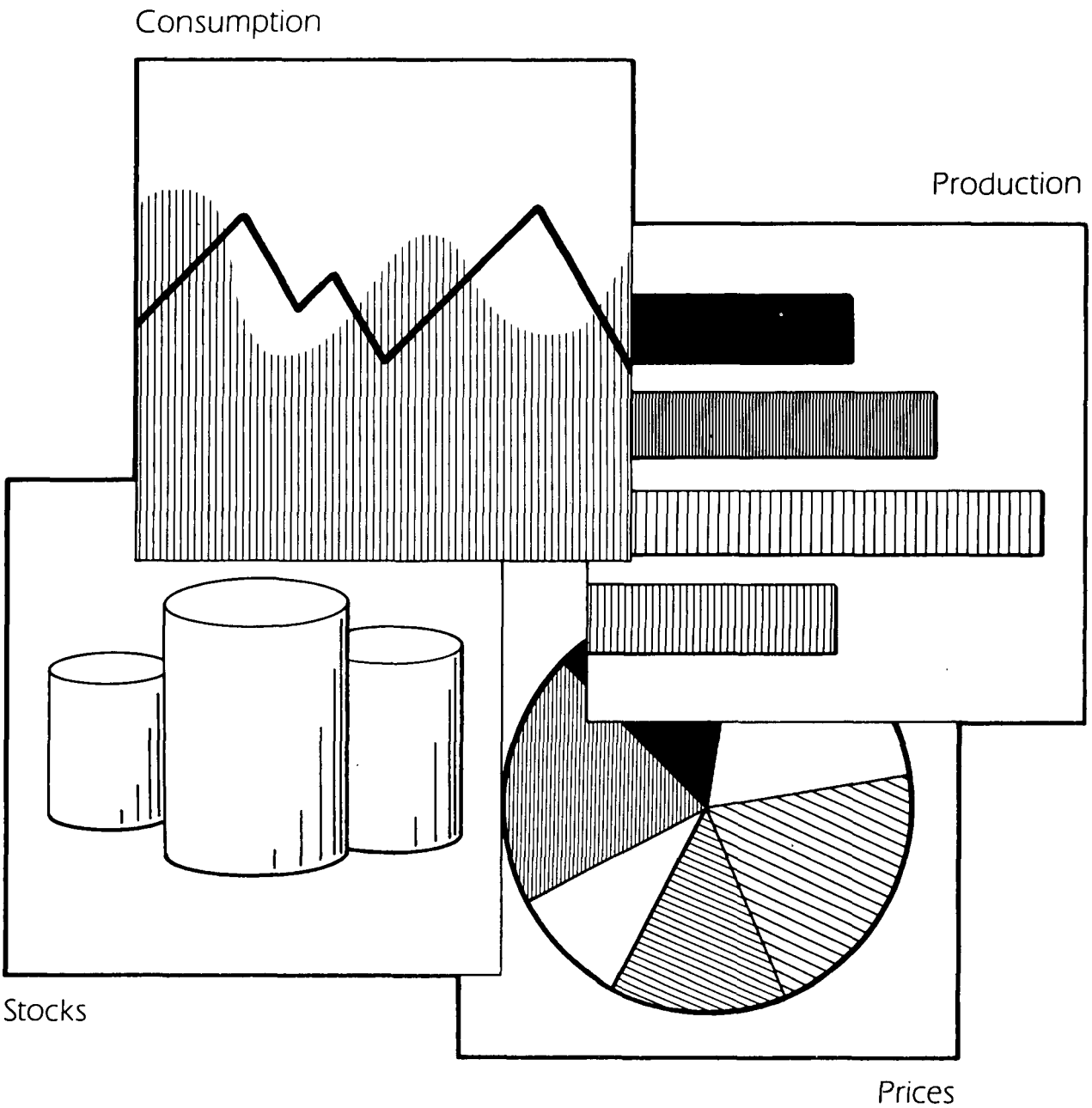

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