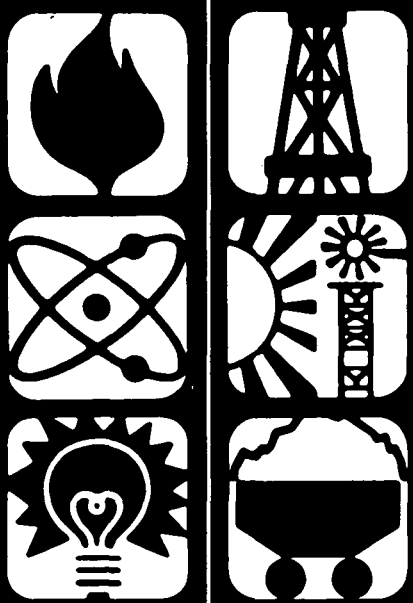
DOE/EIA–0035(85/03)

Monthly Energy Review

Energy Information Administration
Washington, D.C.

March 1985

New Drilling Statistics
See Feature Article and Part 5



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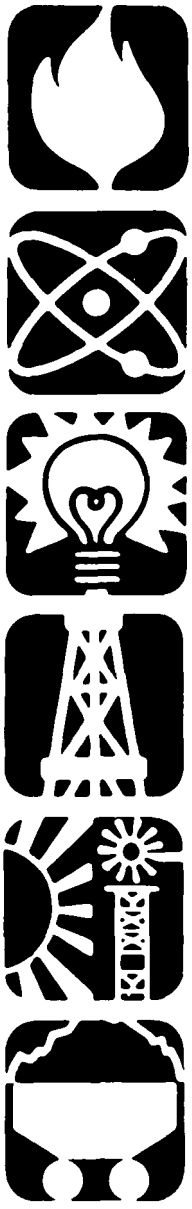

Monthly Energy Review

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

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

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

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

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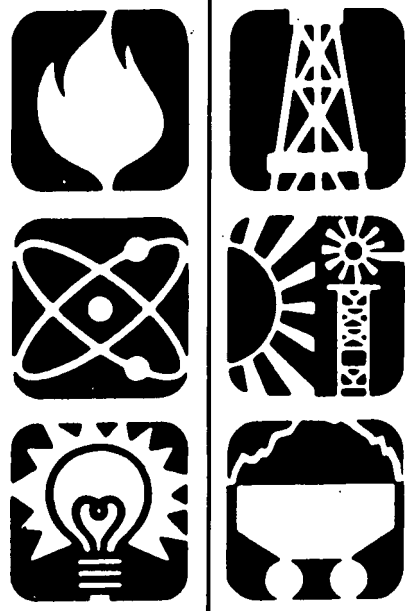

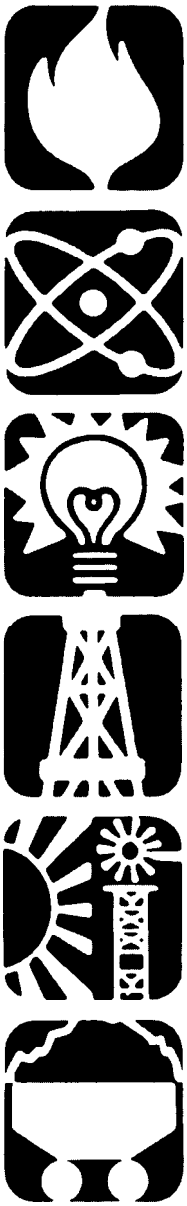

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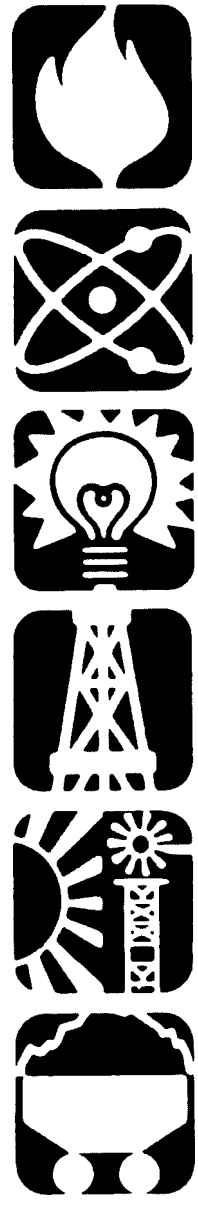
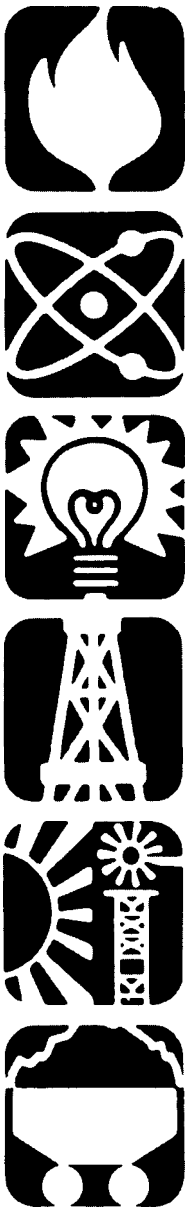




Articles

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.

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.

Highlights of

State Energy Price and Expenditure Report 1970-1982

U.S. Overview

Total U.S. energy expenditures (see box) rose every year from 1970 through 1981 and then declined slightly in 1982 to $420 billion.[1] The drop in U.S. energy expenditures was due to a decline of $21 billion in petroleum expenditures that more than offset increases in expenditures for other sources of energy. Because petroleum accounts for a greater share of U.S. energy expenditures than any other fuel, the decrease in expenditures for petroleum significantly affected U.S. energy expenditures as a whole.

As was the case for total energy expenditures, petroleum expenditures rose every year after 1970 until declining in 1982, when both factors of petroleum expenditures—consumption and price—declined (Figure 1). Total petroleum consumption fell 5.3 percent and a decline in the composite refiner acquisition cost of crude oil from $35.24 per barrel in 1981 to $31.87 per barrel in 1982 was reflected in lower petroleum product prices to end-use consumers.

Expenditures for other sources of energy—electricity, natural gas, and coal—continued to climb in 1982 as their prices continued to rise. In 1982, compared with 1981, the price of electricity per million British thermal units (Btu) was up 12 percent to $18.10; natural gas was up 23 percent to $4.17 per million Btu; and coal was up 6 percent to $1.72 per million Btu.

The 1982 decline in total U.S. energy expenditures also marked the first time in over a decade that per capita expenditures fell. From the 1981 peak of $1,831 per person, expenditures fell to $1,811 per person in 1982. The 1982 figure was, however, over four times as high as per capita expenditures of $403 in 1970.

[1]Unless otherwise noted, all expenditures and prices are expressed in current dollars.

> Expenditures are the amount of energy consumed times the price per unit paid by the consumer. Total energy expenditures are the sum of expenditures by the residential, commercial, industrial, and transportation sectors for fuels and electricity. Electric utility expenditures for fuels are excluded because they are included in the cost of the electricity purchased by end users.

State Prices

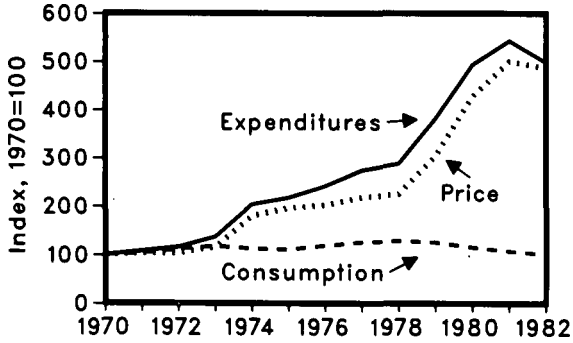
Energy prices varied substantially among States.[2] For example, States such as Wyoming and West Virginia that relied more on coal, a relatively inexpensive source of energy, had lower overall average energy prices than States in New England, which depended heavily on petroleum, a more costly energy source.

The average State energy price per million Btu in 1982 ranged from a low of $4.31 in Alaska to a high of $12.03 in Hawaii (Figure 2). Of the four major energy sources, electricity showed the greatest range in price per million Btu in 1982, from a low of $7.27 in Washington to a high of $35.38 in Hawaii. The low price of electricity in Washington and other Western States such as Montana and Idaho was attributable to those States' reliance on less expensive hydroelectricity. In Hawaii, electric utilities depended almost exclusively on petroleum, a relatively expensive energy source which drives up the price of generating electricity.

Natural gas prices per million Btu also exhibited a wide range, from $0.74 in Alaska to $15.02 in Hawaii. In Hawaii, the very small amount of gas consumed

[2]"States" includes the District of Columbia.

Figure 1. U.S. Petroleum Consumption, Price, and Expenditures, 1970-1982



Sources: Price and expenditure data--Energy Information Administration (EIA), *State Energy Price and Expenditure Report 1970-1982* (April 1985). Consumption data--EIA, *State Energy Data Report, Consumption Estimates, 1960-1982* (May 1984).

was synthetic natural gas manufactured from relatively expensive liquefied petroleum gases. The price of natural gas in Maine, which was the second highest, was $7.22 per million Btu.

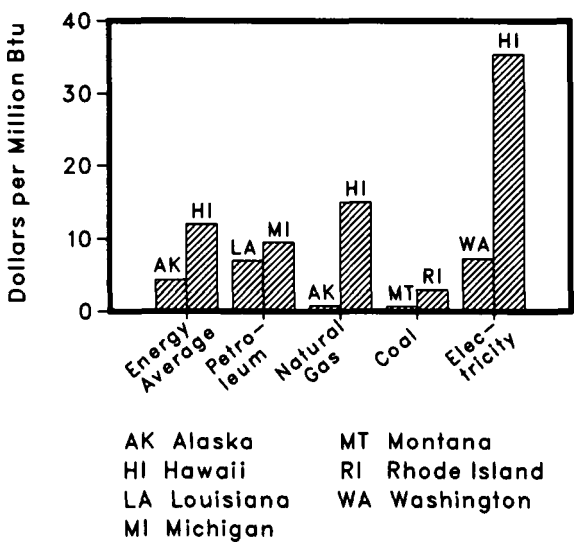
State Expenditures

State energy expenditures varied widely due to differences not only in energy prices but also in such factors as population, climate, and amount and type of industry. Of course, States that consumed the most energy tended to have the greatest energy expenditures. In 1982, energy expenditures were highest in Texas, followed by California, New York, Ohio, and Illinois (Table 1). In terms of energy consumption, Texas again ranked first, followed by the same four States (ranked somewhat differently): California, Ohio, New York, and Illinois. Vermont's energy expenditures of $0.8 billion were the lowest of any State, and Vermont also consumed the least amount of energy.

The Report

The *State Energy Price and Expenditure Report 1970-1982* was published in April 1985 by the Energy Information Administration. Estimates of U.S. and State prices and expenditures for energy are disaggregated by energy source and by economic sector, and annual statistics for 1970 through 1982 are presented. The 567-page report, which includes a section on documentation, may be obtained by using the order form in the back of this publication.

Figure 2. State Energy Price Ranges, 1982



Source: EIA, *State Energy Price and Expenditure Report 1970–1982* (April 1985).

Table 1. State Total Energy Expenditures, 1982
(Billions of Current Dollars)

Rank	State	Expenditures
1	Texas	40.1
2	California	38.9
3	New York	26.2
4	Ohio	20.3
5	Illinois	19.8
6	Pennsylvania	19.6
7	Florida	17.0
8	New Jersey	15.2
9	Michigan	14.8
10	Louisiana	13.0
11	Indiana	10.9
12	Georgia	10.1
13	North Carolina	9.8
14	Massachusetts	9.5
15	Virginia	9.4
16	Tennessee	8.7
17	Missouri	8.6
18	Wisconsin	8.0
19	Alabama	7.6
20	Maryland	7.2
21	Minnesota	7.2
22	Washington	6.8
23	Kentucky	6.5
24	Oklahoma	6.4
25	Iowa	5.8
26	Connecticut	5.6
27	South Carolina	5.5
28	Colorado	5.2
29	Arizona	5.0
30	Kansas	4.7
31	Oregon	4.5
32	Mississippi	4.5
33	Arkansas	4.3
34	West Virginia	3.5
35	Nebraska	3.0
36	New Mexico	2.5
37	Utah	2.5
38	Maine	2.4
39	Hawaii	2.0
40	Nevada	1.9
41	Wyoming	1.7
42	Idaho	1.6
43	Alaska	1.5
44	Montana	1.5
45	New Hampshire	1.5
46	North Dakota	1.5
47	Rhode Island	1.4
48	South Dakota	1.3
49	Delaware	1.1
50	District of Columbia	1.0
51	Vermont	0.8

Source: EIA, *State Energy Price and Expenditure Report 1970-1982* (April 1985).

Estimating Well Completions

by
William Trapmann* and Richard P. O'Neill*

Abstract

This article reviews the adjustments to drilling statistics that appear for the first time in Part 5, "Oil and Gas Resource Development," of this issue of the *Monthly Energy Review.* The adjustments are needed because of a growing lag between the date wells are completed and the date those completions are reported. Relying on the report date, as has been done until this issue, can result in inaccurate conclusions about the occurrence of drilling activities. This article provides an overview of the new EIA model that will be used to adjust drilling data from this month on.

Introduction

The American Petroleum Institute (API) publishes the most widely cited indicator of drilling activity. In order to provide the most current statistics possible, API bases its figures on the earliest available data—the number of wells reported during a given month. Due to the volatility of drilling and the considerable time lags between the dates wells are completed and the dates well completions are reported, the number of wells reported in a given month is not an accurate indicator of drilling activity in the field for that month, and, in fact, accurate data on actual completions may not be available for 3 years or more after the early reports are received. Over the years, the reporting process has slowed so that recent data are affected to a greater extent than were earlier data.

In recent months, the reporting lag has resulted in anomalous patterns in the published drilling statistics. For example, rigs in use as reported by the Hughes Tool Company fell about 22 percent from 1981 to 1982. During the same period, reported well completions rose over 9 percent (Table 1). Due to the lag in reporting, wells completed during 1981 and earlier years were being reported through 1982, causing the reported figures to continue rising while actual completions fell. The published figures measured reporting activity instead of reflecting well completions in the field, and, as such, are not appropriate for analysis. Due to these problems, a new series on well counts and footage drilled will replace the earlier system of reporting drilling data.

This paper reviews the Energy Information Administration's (EIA) new methodology for estimating monthly well completions based on reported completions, a more reliable indicator of the occurrence of the drilling event than drilling measured by reporting date. The new data procedure is based on analysis of API's automated drilling data files, which contain the year and month of both completion and reporting for wells since January 1970. These historical data were used to develop a method of adjusting more recent (and as yet incomplete) data.

There are marked differences in well counts by completion date versus report date (Figure 1). The basic pattern in the report date series is not consistent with that of the other, and the turns in the completion date series are not reflected in the report date series.

Another anomaly is the tendency of well completions summarized by report month to exhibit quarterly trends. For example, reported information peaks at the end of each quarter. By API's convention, quarters of the year in the historical period consisted of 2 months that are 4 weeks long each and a final month that is 5 weeks long. Clearly, the final reporting month, being 1 week longer, should show a surge of 25 percent in reported well completions. However, the surge in the final month generally exceeds 25 percent. In addition, there is a consistent increase between the first and second month of each quarter in the report date series.

There has been some effort to study this problem previously. The API staff, concerned with the reporting lag and its impact on the data, is conducting an investigation into the problem. However, because the API system is planned to fulfill a quarterly reporting scheme, it would not be able to provide EIA with monthly data.

*Mr. Trapmann is an energy analyst at the Energy Information Administration (EIA). Mr. O'Neill is the chief of the Analysis and Forecasting Branch at EIA.

Be sure to include whole list of branch, div., ofc. etc. per Carol Bingham 7/10/85

Table 1. Rotary Rigs in Operation and Well Completions Reported, 1973–1984

		Rotary Rigs in Operation (monthly average)		Exploratory and Development Well Completions Reported				Total Footage of Well Completions Reported (thousand feet)
				Oil	Gas	Dry	Total	
1973	**Average**	**1,194**	**Total**	**9,902**	**6,385**	**10,305**	**26,592**	**136,391**
1973	**Average**	**1,194**	**Total**	**9,902**	**6,385**	**10,305**	**26,592**	**136,391**
1974	**Average**	**1,472**	**Total**	**12,784**	**7,240**	**11,674**	**31,698**	**150,551**
1975	**Average**	**1,660**	**Total**	**16,408**	**7,580**	**13,247**	**37,235**	**174,434**
1976	**Average**	**1,658**	**Total**	**17,059**	**9,085**	**13,621**	**39,765**	**181,780**
1977	**Average**	**2,001**	**Total**	**18,912**	**11,378**	**14,692**	**44,982**	**210,848**
1978	**Average**	**2,259**	**Total**	**17,775**	**13,064**	**16,218**	**47,057**	**227,110**
1979	**Average**	**2,177**	**Total**	**19,383**	**14,681**	**15,752**	**49,816**	**238,659**
1980	**Average**	**2,909**	**Total**	**27,026**	**15,730**	**18,089**	**60,845**	**284,461**
1981	**Average**	**3,970**	**Total**	**37,671**	**17,894**	**22,973**	**78,538**	**361,407**
1982	January	4,436		2,798	954	2,132	5,884	28,167
	February	4,160		3,036	1,430	2,234	6,700	31,985
	March	3,816		3,736	1,480	2,479	7,695	37,896
	April	3,460		3,674	1,530	2,287	7,491	36,439
	May	3,178		3,451	1,940	2,205	7,596	36,987
	June	2,908		3,888	1,891	2,521	8,300	38,962
	July	2,746		3,290	1,703	1,931	6,924	31,111
	August	2,620		2,865	1,588	1,917	6,370	28,836
	September	2,482		3,363	1,599	2,330	7,292	32,611
	October	2,402		2,833	1,210	2,125	6,168	27,274
	November	2,500		3,279	1,658	2,025	6,962	31,130
	December	2,696		4,087	1,970	2,363	8,420	34,648
	Average	**3,105**	**Total**	**40,301**	**18,952**	**26,542**	**85,795**	**395,993**
1983	January	2,622		2,376	891	1,640	4,907	20,922
	February	2,192		2,885	1,184	2,211	6,280	27,659
	March	2,003		3,433	1,607	2,630	7,670	34,210
	April	1,846		3,031	1,403	1,979	6,413	27,423
	May	1,926		3,187	1,747	1,830	6,764	28,564
	June	1,979		3,523	1,242	2,113	6,878	28,154
	July	2,039		2,689	1,127	1,639	5,455	22,970
	August	2,156		2,641	1,080	1,535	5,256	22,634
	September	2,252		3,736	1,282	2,016	7,034	30,374
	October	2,382		2,976	1,221	1,702	5,899	24,965
	November	2,572		3,240	1,145	1,990	6,375	26,833
	December	2,780		3,470	1,699	2,201	7,370	30,942
	Average	**2,232**	**Total**	**37,207**	**15,628**	**23,494**	**76,329**	**325,760**
1984	January	2,666		3,253	1,058	2,004	6,315	27,915
	February	2,423		3,212	1,425	2,123	6,760	27,623
	March	2,245		4,092	1,373	2,941	8,406	34,156
	April	2,120		2,821	1,162	1,690	5,673	26,234
	May	2,277		3,137	1,155	1,637	5,929	26,417
	June	2,363		3,723	1,362	2,298	7,383	32,174
	July	2,386		2,629	1,138	1,831	5,598	25,454
	August	2,417		3,968	1,421	2,121	7,510	31,612
	September	2,420		3,946	1,332	2,900	8,178	32,867
	October	2,492		3,434	1,238	2,058	6,730	28,065
	November	2,629		3,131	1,071	1,695	5,897	24,287
	December	2,713		NA	NA	NA	NA	NA
	Average	**2,428**	**Total**	**NA**	**NA**	**NA**	**NA**	**NA**

NA=Not available.
Note: Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.
Source: Reprinted from Energy Information Administration, Monthly Energy Review, DOE/EIA-0035(84/10) (published January 1985, Washington, D.C.).

This article presents an overview of EIA's well estimation effort. The data are described, the reporting lag problem is examined in detail, and the well estimation model (WELCOM) and statistics indicating its quality of performance are presented. A complete description of all aspects of the model and data can be found in the EIA report "Methodology Description for the Well Completion Estimation Model."

The new data series on well counts and footage drilled generated by the well estimation model will replace the previous series. These data will be published in the *Annual Energy Review* as well as the *Monthly Energy Review.* The publication of these series in the *Monthly Energy Review* begins with this issue.

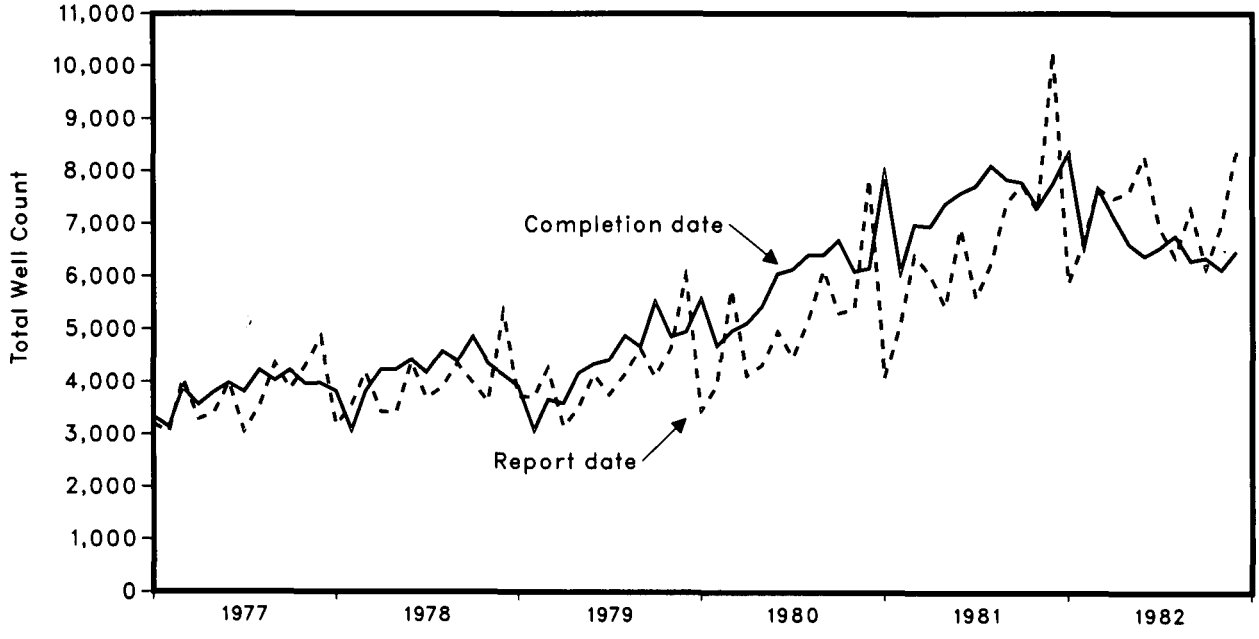
The Data

Data are obtained via a reporting process that consists of two stages, both of which may contribute to delays in reporting. First, the operator in the field submits a State well completion form to a State agency. Most States do not require immediate filing of the well form upon completion of a well, allowing as much as a 6-month delay. In addition, a late filing does not incur a penalty, so delays at this stage may be lengthy. Secondly, the State well completion forms serve as the source of the well ticket. The well tickets are prepared by the API respondent, either an appointed individual or a State agency, usually the State geologic survey. Delays may occur at this reporting stage as well.

Each well ticket describes a single well and contains diverse information pertinent to that well. The information includes the API well number, completion date and report month, well class and well type, location data, and various measures of footage drilled. Obviously, both completion and reporting dates are required in order to measure the reporting lag. The report year, which is not included on the well ticket, has been added to the well ticket record.

The only other data items needed are well type and well class. The three well types are oil, gas, or dry; by convention, wells with both oil and gas zones are categorized as oil. Well classes have been designated as either exploratory or developmental. Wells in any other well class have been deleted from this analysis. Exploratory well categories are new field wildcat, new pool wildcat, deeper pool test, shallower pool test, or extension (American Association of Petroleum Geologists well classification codes 1 to 5.)

Figure 1. Monthly Well Counts, 1977-1982



Source: Well reports submitted to the American Petroleum Institute.

Analysis of the Reporting Patterns

The reports cycle pattern was analyzed by calculating absolute and cumulative percentages for well counts over the report cycle (Table 2). All derived figures in this article were based on drilling data reported to the API from January 1970 through November 1984.

The completion period for the data in Table 2 was 1970 through 1982 inclusive. The report months data measure the number of months in the report cycle beginning with the completion month. For example, for report months equal to 1, the associated percentages indicate the share of wells reported in the same month as they were completed.

Table 2. Percentage Reporting Factors by Relative Reporting Month

Report Months	Number of Wells[1]	Percent	Cumulative Number of Wells	Cumulative Percent
1	90,810	14.9	90,810	14.9
2	204,470	33.4	295,280	48.3
3	105,982	17.3	401,262	65.6
4	52,743	8.6	454,005	74.3
5	32,153	5.3	486,158	79.5
6	22,091	3.6	508,249	83.1
7	16,353	2.7	524,602	85.8
8	12,744	2.1	537,346	87.9
9	9,996	1.6	547,342	89.5
10	8,061	1.3	555,403	90.9
11	6,604	1.1	562,007	91.9
12	5,726	0.9	567,733	92.9
13	5,010	0.8	572,743	93.7
14	4,324	0.7	577,067	94.4
15	3,486	0.6	580,553	95.0
16	2,890	0.5	583,443	95.4
17	2,455	0.4	585,898	95.8
18	2,176	0.4	588,074	96.2
19	1,968	0.3	590,042	96.5
20	1,758	0.3	591,800	96.8
21	1,759	0.3	593,559	97.1
22	1,534	0.3	595,093	97.3
23	1,421	0.2	596,514	97.6
24	1,237	0.2	597,751	97.8
25	1,199	0.2	598,950	98.0
26	1,112	0.2	600,062	98.2
27	1,012	0.2	601,074	98.3
28	918	0.2	601,992	98.5
29	778	0.1	602,770	98.6
30	714	0.1	603,484	98.7
31	685	0.1	604,169	98.8
32	582	0.1	604,751	98.9
33	546	0.1	605,297	99.0
34	480	0.1	605,777	99.1
35	446	0.1	606,223	99.2
36	445	0.1	606,668	99.2

[1]The total number of wells was 611,320.

Note: Factors are based on averages for the completion year period of 1970 through 1982. All fuels and all well classes are included.

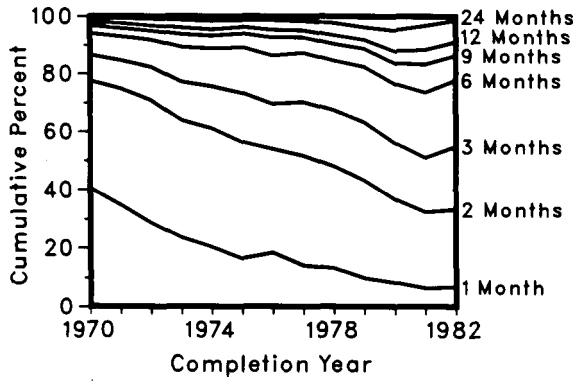
Source: Data derived from well reports submitted to the American Petroleum Institute.

The first characteristic looked for was a trend over time. The truncation problem would have been an easy issue to remedy if the relative reporting pattern were invariant with respect to time; in such a case, the factors from the earliest years' data could have been employed to adjust the total well counts with a reasonable degree of reliability. However, as shown in the plot of the cumulative percentages over time for selected values of report months in each completion year (Figure 2), marked downward trends were exhibited in the data for low values of report months.

For higher values of report months, the trend, while still declining, was somewhat more erratic. The overall downward trend in the cumulative percentages indicated a general slowing in the reporting process, measured from completion date to recording by the API. In 1971, for instance, 75 percent of completions were reported by the end of the month following completion; by 1981, that had fallen to 33 percent. The final point or two on each curve probably should lie somewhat lower than the points as shown due to the incomplete count of the actual number of wells completed in a given time period.

Additional variation appeared in the statistics when they were grouped in the 6-way combination by well type (oil, gas, dry) and well class (exploratory, developmental). Inspection of the statistics revealed that well tickets for dry holes were received with the shortest delay, while gas well tickets exhibited the longest lag.

Figure 2. Cumulative Proportion of Wells Reported for Selected Lag Periods, 1970-1982



Source: Well reports submitted to the American Petroleum Institute.

The Model

The current model was influenced by EIA's requirements for both monthly and annual publications. The need to provide monthly data calls for the use of an automated process that makes minimal demands on available resources and that allows for more rapid turnaround and the prevention of untimely delays.

The complete description of the actual model methodology is too elaborate to provide in this article. A complete writeup of the model and results may be found in the report "Methodology Description for the Well Completion Estimation Model," planned for publication at a later date. The following discussion provides significant test results compiled from performance tests of the model.

The testing of the model was based on a historical period in which the receipt of data was simulated to disclose information incrementally. The initial data base created contained only those data that would have been known as of a selected date. A sequence of 12 months of data reporting was executed. The test was designed so that at no point in the exercise would any information be disclosed prematurely. This elaborate testing procedure was conducted as the only valid method to determine the quality of model performance under actual operating conditions.

The simulated execution of the model for each of 2 years (1980 and 1981) occurred as follows. Given the complete data set reported in the prior year, the basic model coefficients were estimated. This model then would remain in place for a "year" without reestimation of any coefficients. The test procedure simulated the sequential receipt of 12 months' worth of drilling and rigs data. As each segment of additional data was received, revised estimates for wells drilled were generated. The compiled results for the entire year were compared to observed data to evaluate the ability of the model to provide reliable well estimates with only limited months of reported data. The results were summed across well class to provide the monthly estimates for each well type.

The model generally provides reliable estimates of well completions (Table 3). The differences were calculated as absolute values and expressed as percentages; the estimates do converge dramatically on the actuals with additional reported data. The mean absolute error was computed from the results over each of the 12 months in the test year. The well counts in each month are differentiated by well type. Each mean absolute percent error represents the average percentage error in absolute value over 36 data values. Thus, Table 3 shows that the WELCOM model, given 1 month of reported data, produced results for 1980 that would have had an average percentage error of 9.1 percent. The percentage errors ranged from 0.6 to 25.3 percent with a standard deviation of 5.92 percent.

Table 3. Absolute Percent Errors for Operational Test of Well Estimation Model, 1980 and 1981

Report Months	Absolute Percent Error			Standard Deviation
	Mean	Minimum	Maximum	
Test Year for Estimation: 1980				
1	9.1	0.6	25.3	5.92
2	9.0	0.0	28.9	6.18
3	7.5	0.3	23.8	5.53
4	7.8	0.2	17.8	4.51
5	6.4	0.9	13.2	3.71
6	5.6	0.0	12.6	3.55
7	4.8	0.2	11.6	3.29
8	4.1	0.3	9.3	2.69
9	3.6	0.3	9.5	2.44
10	3.2	0.2	8.7	2.38
11	3.0	0.3	7.2	2.08
12	2.6	0.3	6.2	1.76
13	2.3	0.0	5.6	1.56
14	2.2	0.5	4.1	1.23
15	2.1	0.1	4.1	1.17
16	1.9	0.0	3.9	1.13
17	1.8	0.1	3.9	1.01
18	1.5	0.1	3.6	0.97
19	1.2	0.2	3.6	0.86
20	1.1	0.1	3.6	0.81
21	1.0	0.0	2.9	0.64
22	0.9	0.0	2.1	0.53
23	0.9	0.0	1.9	0.56
24	0.9	0.1	1.9	0.51
Test Year for Estimation: 1981				
1	9.2	0.2	27.2	6.44
2	9.4	0.4	25.4	6.36
3	8.7	0.2	28.0	6.87
4	9.2	0.2	24.4	5.23
5	8.4	0.7	18.6	3.91
6	7.5	0.3	15.8	3.29
7	6.9	0.1	12.0	2.53
8	6.1	1.0	10.3	2.26
9	5.9	1.7	10.5	2.18
10	5.4	0.8	9.9	2.18
11	4.9	1.4	8.1	1.93
12	4.9	0.1	9.4	2.13
13	5.1	2.2	9.1	1.77
14	4.6	1.5	8.5	1.61
15	4.4	1.8	8.4	1.53
16	4.2	1.7	8.4	1.54
17	3.9	0.9	8.2	1.48
18	3.6	1.1	8.0	1.40
19	3.3	1.0	8.0	1.34
20	3.1	1.0	6.7	1.20
21	2.8	0.2	6.5	1.25
22	2.6	0.0	5.9	1.20
23	2.3	0.1	5.5	1.15
24	2.2	0.2	4.5	1.00

Source: Data derived from well reports submitted to the American Petroleum Institute.

The above results can be evaluated more properly with reference to the previous data series. The data by report month in comparison with observed data by completion month performed poorly in 1980. The mean absolute percentage error was 20.5 percent with a standard deviation of 11.1 percent. The errors ranged from a low of 0.5 percent to a maximum of 49.5 percent. Further, the previous series does not change with the receipt of additional data, outside of minor corrections.

The WELCOM model results show continuous improvement with additional data. Given 6 months of reported data, the mean absolute percent error for the 1980 test fell almost 40 percent from the error given only 1 month of data, to 5.6. Also, the maximum difference dropped to 12.6 percent, roughly half the value for only 1 report month.

The WELCOM model performed somewhat better in the 1980 test than in the 1981 test. The 1981 results show that, when the report cycle was extended, the mean deviation did not decline as quickly as in 1980. This outcome may be due to the unprecedented drilling levels of 1980. Matching estimated well counts with the actuals for 1980 was difficult due to changes in the drilling trends. The estimates in the 1981 simulation with report month values of 13 and above were associated entirely with completions that occurred prior to 1981 itself. Even with the data reported as late as December 1981, if report months equaled 13, the well estimates correspond to December 1980.

The years 1980 and 1981 were chosen for testing because the most dramatic changes in drilling trends occurred during that period. Drilling grew in 1980 at unprecedented rates. In 1981, drilling peaked and then turned downward by the close of the calendar year. Given the massive swings in drilling activity, the model was severely tested in trying to match the data for those years. In computing the absolute percent errors between the estimates and actuals, the reader should be aware that the actuals are unadjusted data as reported through November 1984. Even December 1981 has 36 months of reported data so the well counts remain unadjusted to avoid bias in the computation of comparison statistics.

Given the degree of variability in the series of actual well counts, the deviations in Table 3 are reasonable. Further, the new series demonstrates a much greater degree of accuracy compared to the well counts summarized by report month. A comparison between wells summarized by 1980 report months and 1980 completion months reveals an average absolute deviation of 20 percent for each month. The range of the deviations is from -49 percent to +44 percent.

On the basis of this additional information, the results in Table 3 show that the new series represents a decided improvement over the predecessor series. In fact, over the entire period 1970 through 1982, a comparable calculation shows a mean absolute deviation of 13.6 percent between the monthly total well counts of the report date and completion date series. In any given month, the actual deviations range from -52 percent to +63 percent.

Estimation of Footage Drilled

In addition to estimating well counts, it was also necessary to estimate footage drilled. However, there is no strict correspondence between well counts and footage since the average well depth varies. The footage estimation model employs both the estimated well counts and the available data on wells and footage drilled to generate an associated figure for the estimated footage.

One consistent pattern appears in the data: over the cycle of relative reporting months, the deeper wells are reported earlier. The estimated average drilling per well for a given completion month equals the cumulative average footage per well divided by the relative average associated with a given number of months in the reporting cycle. For example, suppose the ratio of footage to wells is 4,990 feet, given 3 months of reported data. Suppose further that the average depth given 3 months of reported data for a completion month is normally 6.7 percent higher than the average after all the reports are received. The average footage per well then would be estimated as 4,676.7 feet (4,990/1.067).

This technique for estimating footage has certain advantages. It conforms to the established categories of well type and well class, it uses all of the known data to date on actual footage drilled, and it employs the prior estimate for well counts. Use of the previously estimated well count establishes a correspondence between the two estimated figures, avoiding potential problems that might arise if independent estimates diverged for a given completion month. Given the sometimes erratic quality in the actual data, there would be no a priori assurance that independent estimates of wells and footage would conform to similar patterns.

Publication of Drilling Estimates and Revisions

Both historical and current adjusted statistics appear in this issue of the *Monthly Energy Review* (MER). Through 1984, all drilling data published by EIA were distorted due to the effects of a lag in reporting, a distortion that grew more severe as drilling levels increased. There are both short- and long-term differences in the two series. The new EIA model will continue to be used to adjust the drilling data published by EIA and after 3 months, report date statistics will be discontinued and only completion data estimates will be published in the MER.

The conversion to the new series that presents drilling data estimates by completion date necessitated additional changes in the procedure for publishing drilling statistics. The first modification was to change the units from single wells and thousands of feet to thousands of wells and millions of feet. Because the statistics on drilling completions are estimates instead of actual record counts, the larger units are more indicative of the degree of accuracy represented.

The second modification involved the establishment of a schedule both for initial publication of the estimates for any completion month and for regular revisions. The revisions to the data will be required since the receipt of additional records regarding drilling in a given month is expected to result in varying estimates over time. The more recent estimates should be more accurate as shown in the results listed in Table 3.

The established schedule calls for publication of the drilling estimates for any completion month in the MER for that month. For example, the June 1985 drilling data will appear for the first time in the June 1985 issue of the MER (to be published in September 1985). The scheduled revisions occur in the 6th, 12th, and 24th months. Thus, the initial estimate will be retained for 5 months, the second for 6 months, the third for 12 months, and the fourth indefinitely, except in the case of an unscheduled revision.

Due to the uncertainty inherent in estimated data, unscheduled revisions may sometimes be necessary. Updated estimates will be allowed to vary within certain bounds of the published figures, but unscheduled revisions to the published data will be made when the latest estimate differs by more than the stated amount. The tolerance values will decrease as the vintage of the completion month increases: estimates in the first 5 months will have a tolerance of 15 percent; the next 6 months, 10 percent; the next 6 months, 5 percent; and 2 percent thereafter through a complete 5-year cycle. Beyond 5 years of reported data, the actual recorded information will be displayed.

Summary

The new series of drilling statistics published in this issue of the MER conforms to the notion of measures of actual drilling that is expected by the analytic community. The WELCOM model results in reliable measures of drilling activity that can be generated in a timely fashion. This data processing model will serve as a significant tool to support EIA's goal to provide reliable energy data on a timely basis to the energy analysis community.

Part 1 Energy Summary

Energy Summary

Production

Energy production during March 1985 totaled 5.7 quadrillion Btu, a 0.3-percent decrease compared with the level of production during March 1984. Coal production was down 3.1 percent. Petroleum production increased 2.3 percent and natural gas production was up 1.2 percent compared with production in the previous March. Production of all other forms of energy combined decreased 2.7 percent compared with production 1 year earlier.

Consumption

Energy consumption during March 1985 totaled 6.3 quadrillion Btu, 4.1 percent below the level of consumption during March 1984. Natural gas consumption decreased 8.5 percent and petroleum consumption was down 4.3 percent. Coal consumption increased 1.2 percent. Consumption of all other forms of energy combined decreased 2.1 percent compared with consumption during March 1984.

Net Imports

Net imports of energy during March 1985 totaled 0.7 quadrillion Btu, 9.9 percent below the level of net imports during March 1984. Net imports of petroleum decreased 9.6 percent, while net imports of natural gas increased 32.8 percent. Net exports of coal were up 14.5 percent compared with the level in March 1984.

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

	March			Cumulative January through March				
	1985	1984	Percent Change[1]	1985	1985 Daily Rate	1984	1984 Daily Rate	Percent Change[1]
Total Production	**5.692**	**5.706**	**-0.3**	**16.517**	**0.184**	**16.652**	**0.183**	**+0.3**
Petroleum[2]	1.803	1.762	+2.3	5.241	0.058	5.169	0.057	+2.5
Natural Gas (Dry)	1.518	1.499	+1.2	4.579	0.051	4.633	0.051	-0.1
Coal	1.755	1.811	-3.1	4.753	0.053	4.955	0.054	-3.0
Other[3]	0.616	0.634	-2.7	1.944	0.022	1.895	0.021	+3.7
Total Consumption	**6.339**	**6.610**	**-4.1**	**20.197**	**0.224**	**20.080**	**0.221**	**+1.7**
Petroleum[4]	2.561	2.678	-4.3	7.672	0.085	7.881	0.087	-1.6
Natural Gas[5]	1.700	1.858	-8.5	5.950	0.066	5.871	0.065	+2.5
Coal	1.428	1.411	+1.2	4.529	0.050	4.339	0.048	+5.5
Other[6]	0.650	0.663	-2.1	2.045	0.023	1.989	0.022	+4.0
Net Imports	**0.657**	**0.730**	**-9.9**	**1.745**	**0.019**	**2.404**	**0.026**	**-26.6**
Petroleum[7]	0.711	0.787	-9.6	1.839	0.020	2.477	0.027	-24.9
Natural Gas	0.087	0.066	+32.8	0.286	0.003	0.226	0.002	+27.6
Coal[8]	(0.174)	(0.152)	(+14.5)	(0.482)	(0.005)	(0.393)	(0.004)	(+24.0)
Other[9]	0.033	0.030	+12.2	0.101	0.001	0.094	0.001	+9.2

[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 refined petroleum products and natural gas plant liquids.
[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, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[8] Parentheses indicate exports are greater than imports.
[9] Other is net imports of electricity and coal coke.
Note: • Totals may not equal sum of components due to independent rounding.

First Quarter 1985 Summary

U.S. energy production during the first quarter of 1985 was 16.5 quadrillion British thermal units (Btu), 0.3 percent[1] above the record level attained during first quarter of 1984 (Figure 1). In 1985, U.S. consumption of energy during the first quarter rose 1.7 percent from the level during the first quarter of the previous year to 20.2 quadrillion Btu.

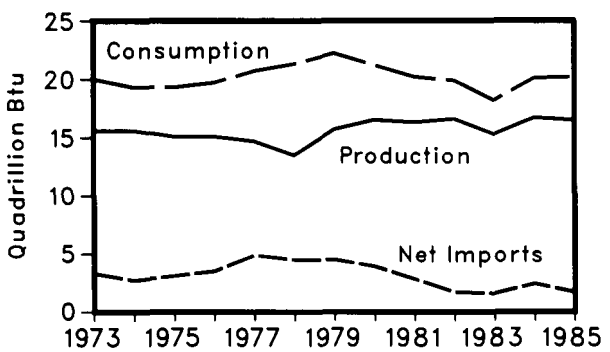
The change in net imports of energy was more dramatic. First-quarter 1985 net imports were down 26.6 percent compared with the first quarter of 1984. The 1.7-quadrillion-Btu level of energy net imports in the first quarter of 1985 was about the same as during the first quarters of 1982 and 1983 but significantly below the all-time high of 4.9 quadrillion Btu reached in the first quarter of 1977.

Production

As the pace of economic recovery slowed in early 1985, two of the three major fossil fuels registered production declines compared with their production levels in the first quarter of 1984. Coal production fell to 4.8 quadrillion Btu during the first quarter of 1985, down 3.0 percent from the record level attained in the first quarter of 1984. Natural gas production was down 0.1 percent to 4.6 quadrillion Btu, well below the 5.7-quadrillion-Btu peak level of the first quarter of 1973. In contrast, production of crude oil (including natural gas plant liquids) rose 2.5 percent to 5.2 quadrillion Btu; however, production of crude oil during the first quarter of 1985 remained below the record level of 5.5 quadrillion Btu produced during the first quarter of 1973.

[1]All statistics for 1985 are preliminary. Percentage changes are calculated using daily rates prior to rounding.

Figure 1. U.S. Energy Production, Consumption, and Net Imports, First Quarters, 1973-1985



Note: 1985 data are preliminary.
Source: Energy Information Administration calculations based on data reported elsewhere in this publication.

Coal- and nuclear-based generation of electricity reached first-quarter record levels in 1985 and natural gas-fired generation also increased. In contrast, first-quarter generation of electricity from petroleum, the electric utilities' most expensive fuel, fell for the seventh year in a row.

Consumption

Natural gas prices to consumers were higher in the first quarter of 1985 than in the first quarter of 1984. However, consumption of natural gas in the first quarter of 1985 rose 2.5 percent compared with first-quarter 1984 use. Similarly, although the price of coal to consumers was higher during the first 3 months of 1985 than in the same period in 1984, consumption of coal also rose in early 1985, reaching a record for coal consumption in the first quarter of the year of 4.5 quadrillion Btu.

In contrast, the composite refiner acquisition cost of crude oil was down in the first quarter of 1985 compared to the first quarter of 1984, and prices of many petroleum products also were lower. Nevertheless, petroleum consumption in the first quarter of 1985 fell to 7.7 quadrillion Btu, well below petroleum consumption during the first quarter of 1979, when first-quarter consumption peaked at 10.1 quadrillion Btu.

Imports

Petroleum net imports declined dramatically in the first quarter of 1985 compared with the first quarter of 1984. Despite a decrease in the price of foreign crude oil, net imports of crude oil were 2.4 million barrels per day in the first quarter of 1985 compared with 3.0 million barrels per day in the first quarter of 1984. Net imports of refined petroleum products also were down in the first 3 months of 1985. Members of the Organization of Petroleum Exporting Countries (OPEC) supplied an average of 1.4 million barrels per day of petroleum to the United States in the first quarter of 1985, significantly below the level of U.S. total imports from OPEC during the first quarter of the previous year.

In the first quarter of 1985, net imports of natural gas returned to first-quarter 1983 levels after having declined markedly in the first quarter of 1984. Natural gas net imports totaled 279 billion cubic feet during the first 3 months of 1985. In contrast to the other fossil fuels, coal registered net exports. In the first 3 months of 1985, net exports of coal totaled 18 million short tons. The increase in coal net exports contributed to the large overall decline in U.S. net imports of energy.

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**	**14.000**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**62.067**
1974	**Total**	**14.080**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**60.841**
1975	**Total**	**14.995**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**59.865**
1976	**Total**	**15.659**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**59.896**
1977	**Total**	**15.758**	**17.454**	**2.327**	**19.565**	**2.333**	**2.702**	**0.082**	**60.222**
1978	1st Quarter	1.956	4.431	0.555	5.014	0.753	0.767	0.019	13.495
	2nd Quarter	4.418	4.658	0.563	4.834	0.829	0.658	0.013	15.973
	3rd Quarter	4.002	4.680	0.561	4.807	0.710	0.796	0.018	15.575
	4th Quarter	4.537	4.664	0.567	4.830	0.644	0.802	0.018	16.062
	Total	**14.912**	**18.434**	**2.245**	**19.485**	**2.937**	**3.024**	**0.068**	**61.106**
1979	1st Quarter	4.030	4.455	0.550	5.084	0.756	0.849	0.020	15.744
	2nd Quarter	4.586	4.502	0.570	4.953	0.831	0.539	0.021	16.001
	3rd Quarter	4.264	4.524	0.571	4.889	0.660	0.727	0.023	15.657
	4th Quarter	4.669	4.623	0.595	5.151	0.684	0.661	0.025	16.409
	Total	**17.549**	**18.104**	**2.286**	**20.076**	**2.931**	**2.776**	**0.089**	**63.810**
1980	1st Quarter	4.620	4.588	0.578	5.287	0.746	0.644	0.024	16.487
	2nd Quarter	4.753	4.552	0.571	4.885	0.864	0.605	0.028	16.259
	3rd Quarter	4.450	4.549	0.547	4.706	0.666	0.752	0.031	15.702
	4th Quarter	4.776	4.559	0.558	5.029	0.624	0.738	0.032	16.317
	Total	**18.600**	**18.249**	**2.254**	**19.907**	**2.900**	**2.739**	**0.114**	**64.764**
1981	1st Quarter	4.799	4.481	0.581	4.995	0.678	0.743	0.033	16.310
	2nd Quarter	3.033	4.519	0.570	4.942	0.754	0.679	0.031	14.527
	3rd Quarter	5.234	4.569	0.575	4.881	0.683	0.821	0.033	16.796
	4th Quarter	5.314	4.577	0.581	4.880	0.644	0.765	0.030	16.791
	Total	**18.379**	**18.146**	**2.307**	**19.699**	**2.758**	**3.008**	**0.127**	**64.424**
1982	1st Quarter	4.943	4.502	0.547	4.916	0.879	0.760	0.023	16.570
	2nd Quarter	4.814	4.561	0.537	4.572	0.884	0.747	0.025	16.138
	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	15.537
	Total	**18.641**	**18.309**	**2.191**	**18.255**	**3.256**	**3.131**	**0.108**	**63.892**
1983	1st Quarter	4.241	4.550	0.541	4.215	0.922	0.776	0.028	15.274
	2nd Quarter	4.122	4.587	0.526	3.851	0.970	0.747	0.026	14.828
	3rd Quarter	4.386	4.642	0.553	4.040	0.798	0.838	0.041	15.298
	4th Quarter	4.504	4.613	0.564	4.424	0.812	0.842	0.039	15.796
	Total	**17.252**	**18.392**	**2.184**	**16.530**	**3.502**	**3.203**	**0.133**	**61.196**
1984	1st Quarter	4.955	4.592	0.577	4.633	0.928	R0.928	0.039	R16.652
	2nd Quarter	5.039	4.607	0.581	4.350	R0.956	R0.822	0.041	R16.396
	3rd Quarter	5.374	4.680	0.604	R4.298	0.776	R0.948	0.044	R16.724
	4th Quarter	4.328	4.712	0.604	R4.466	0.727	0.875	0.050	R15.763
	Total	**19.696**	**18.590**	**2.367**	**R17.748**	**R3.387**	**R3.573**	**0.174**	**R65.535**
1985	1st Quarter	4.753	4.660	0.580	4.579	0.823	1.069	0.052	16.517

[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	Net Imports of Coal Coke[3]	Other[4]	Total
					Quadrillion (10^{15}) Btu				
1973	**Total**	**12.978**	**22.512**	**34.840**	**3.010**	**0.910**	**(0.008)**	**0.046**	**74.288**
1974	**Total**	**12.668**	**21.732**	**33.455**	**3.309**	**1.272**	**0.056**	**0.056**	**72.548**
1975	**Total**	**12.668**	**19.948**	**32.731**	**3.219**	**1.900**	**0.014**	**0.072**	**70.551**
1976	**Total**	**13.589**	**20.345**	**35.175**	**3.066**	**2.111**	**0.000**	**0.081**	**74.366**
1977	**Total**	**13.925**	**19.931**	**37.122**	**2.515**	**2.702**	**0.015**	**0.082**	**76.292**
1978	1st Quarter	3.151	6.561	9.971	0.804	0.767	0.007	0.019	21.280
	2nd Quarter	3.270	4.247	9.081	0.880	0.658	0.044	0.013	18.194
	3rd Quarter	3.727	3.926	9.178	0.762	0.796	0.038	0.018	18.447
	4th Quarter	3.619	5.265	9.735	0.696	0.802	0.035	0.018	20.170
	Total	**13.767**	**20.000**	**37.965**	**3.141**	**3.024**	**0.125**	**0.068**	**78.091**
1979	1st Quarter	3.769	6.648	10.072	0.808	0.849	0.009	0.020	22.175
	2nd Quarter	3.573	4.423	8.837	0.883	0.539	0.025	0.021	18.301
	3rd Quarter	3.876	4.085	8.879	0.713	0.727	0.024	0.023	18.327
	4th Quarter	3.823	5.510	9.337	0.737	0.661	0.005	0.025	20.098
	Total	**15.042**	**20.666**	**37.123**	**3.141**	**2.776**	**0.063**	**0.089**	**78.900**
1980	1st Quarter	3.996	6.606	9.143	0.800	0.644	0.000	0.024	21.213
	2nd Quarter	3.547	4.255	8.177	0.919	0.605	(0.014)	0.028	17.517
	3rd Quarter	4.021	3.977	8.123	0.721	0.752	(0.011)	0.031	17.612
	4th Quarter	3.862	5.553	8.759	0.678	0.738	(0.009)	0.032	19.613
	Total	**15.426**	**20.391**	**34.202**	**3.118**	**2.739**	**(0.035)**	**0.114**	**75.955**
1981	1st Quarter	4.069	6.237	8.391	0.763	0.743	(0.004)	0.033	20.232
	2nd Quarter	3.677	4.337	7.732	0.841	0.679	(0.005)	0.031	17.291
	3rd Quarter	4.191	3.997	7.785	0.770	0.821	(0.001)	0.033	17.596
	4th Quarter	3.971	5.355	8.023	0.731	0.765	(0.006)	0.030	18.870
	Total	**15.908**	**19.926**	**31.931**	**3.105**	**3.008**	**(0.016)**	**0.127**	**73.989**
1982	1st Quarter	4.047	6.396	7.745	0.948	0.760	(0.004)	0.023	19.915
	2nd Quarter	3.556	3.841	7.535	0.937	0.747	(0.007)	0.025	16.634
	3rd Quarter	3.991	3.532	7.419	0.834	0.840	(0.008)	0.030	16.638
	4th Quarter	3.730	4.738	7.532	0.842	0.785	(0.004)	0.030	17.654
	Total	**15.324**	**18.507**	**30.232**	**3.561**	**3.131**	**(0.022)**	**0.108**	**70.842**
1983	1st Quarter	3.737	5.369	7.311	1.008	0.776	(0.003)	0.028	18.226
	2nd Quarter	3.570	3.572	7.293	1.048	0.747	(0.005)	0.026	16.251
	3rd Quarter	4.441	3.317	7.626	0.901	0.838	(0.003)	0.041	17.160
	4th Quarter	4.153	5.093	7.824	0.914	0.842	(0.004)	0.039	18.860
	Total	**15.900**	**17.352**	**30.054**	**3.871**	**3.203**	**(0.016)**	**0.133**	**70.497**
1984	1st Quarter	R4.339	5.871	7.881	1.021	R0.928	0.002	0.039	R20.080
	2nd Quarter	R4.032	3.872	7.646	1.040	R0.822	(0.003)	0.041	R17.451
	3rd Quarter	R4.516	R3.495	7.774	0.887	R0.948	(0.003)	0.044	R17.660
	4th Quarter	R4.284	R4.789	7.704	0.836	0.875	(0.007)	0.050	R18.533
	Total	**R17.172**	**R18.027**	**31.004**	**R3.784**	**R3.573**	**(0.011)**	**0.174**	**R73.723**
1985	1st Quarter	4.529	5.950	7.672	0.922	1.069	0.002	0.052	20.197

[1]Includes supplemental gaseous fuels.
[2]Includes industrial and utility production and net imports of electricity.
[3]Parentheses indicate exports are greater than imports.
[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

Net Imports[1] of Energy by Source—Quarterly Summary

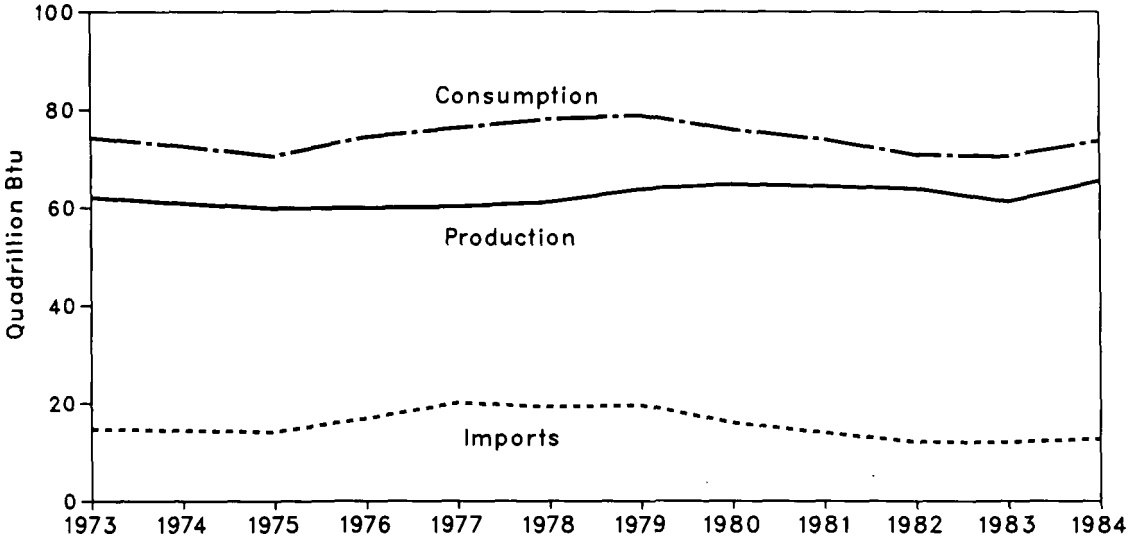
		Coal	Crude Oil[2]	Refined Petroleum Products[3]	Natural Gas	Electricity	Coal Coke	Total
				Quadrillion (10^{15}) Btu				
1973	**Total**	**(1.422)**	**6.883**	**6.097**	**0.981**	**0.148**	**(0.008)**	**12.680**
1974	**Total**	**(1.568)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.056**	**12.190**
1975	**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	1st Quarter	(0.036)	3.138	1.112	0.241	0.050	0.007	4.512
	2nd Quarter	(0.306)	3.063	0.891	0.214	0.051	0.044	3.959
	3rd Quarter	(0.264)	3.422	0.942	0.209	0.052	0.038	4.399
	4th Quarter	(0.398)	3.502	0.987	0.276	0.052	0.035	4.453
	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)	1.568	0.909	0.226	0.092	0.002	2.404
	2nd Quarter	(0.621)	1.794	0.695	0.198	0.084	(0.003)	2.147
	3rd Quarter	R(0.657)	1.737	0.674	0.163	0.111	(0.003)	R2.026
	4th Quarter	(0.451)	1.768	0.659	0.239	0.109	(0.007)	2.317
	Total	**R(2.122)**	**6.867**	**2.937**	**0.826**	**0.397**	**(0.011)**	**R8.894**
1985	1st Quarter	(0.482)	1.245	0.594	0.286	0.099	0.002	1.745

[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.

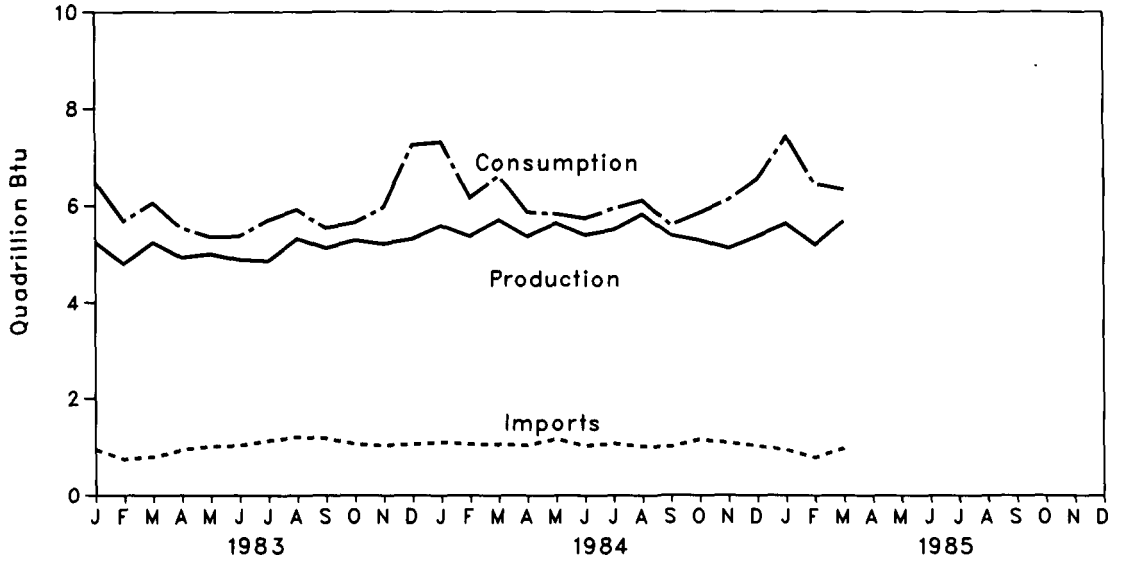
Energy Summary

Overview

Yearly



Monthly



Energy Summary

Overview[1]

		Production[2]	Consumption[2]	Imports[2]	Exports	Net Imports
			Quadrillion (10^{15}) Btu			
1973	**Total**	**62.067**	**74.288**	**14.730**	**2.051**	**12.680**
1974	**Total**	**60.841**	**72.548**	**14.412**	**2.223**	**12.190**
1975	**Total**	**59.865**	**70.551**	**14.111**	**2.359**	**11.752**
1976	**Total**	**59.896**	**74.366**	**16.837**	**2.189**	**14.648**
1977	**Total**	**60.222**	**76.292**	**20.090**	**2.072**	**18.018**
1978	**Total**	**61.106**	**78.091**	**19.254**	**1.931**	**17.323**
1979	**Total**	**63.810**	**78.900**	**19.616**	**2.871**	**16.745**
1980	**Total**	**64.764**	**75.955**	**15.971**	**3.724**	**12.247**
1981	**Total**	**64.424**	**73.989**	**13.974**	**4.329**	**9.644**
1982	**Total**	**63.892**	**70.842**	**12.093**	**4.636**	**7.457**
1983	January	5.237	6.483	0.942	0.301	0.641
	February	4.803	5.685	0.732	0.264	0.468
	March	5.233	6.058	0.783	0.319	0.464
	April	4.933	5.533	0.931	0.314	0.617
	May	5.006	5.355	1.005	0.348	0.657
	June	4.889	5.364	1.018	0.334	0.684
	July	4.866	5.700	1.124	0.273	0.851
	August	5.312	5.922	1.199	0.348	0.852
	September	5.120	5.538	1.172	0.323	0.849
	October	5.280	5.648	1.051	0.325	0.726
	November	5.208	5.966	1.019	0.280	0.739
	December	5.308	7.246	1.047	0.290	0.758
	Total	**61.196**	**70.497**	**12.024**	**3.719**	**8.306**
1984	January	5.583	7.303	1.088	0.246	0.842
	February	5.363	6.166	1.052	0.219	0.833
	March	5.706	6.610	1.045	0.315	0.730
	April	5.359	5.872	1.031	0.328	0.704
	May	5.642	5.833	1.163	0.367	0.796
	June	5.395	5.746	1.016	0.368	0.647
	July	5.505	5.946	1.068	0.328	0.740
	August	5.830	6.112	1.003	0.361	0.642
	September	5.388	5.603	1.001	0.357	0.644
	October	R5.280	5.856	1.147	0.296	0.851
	November	R5.121	6.128	1.082	0.271	0.811
	December	R5.363	6.548	1.017	0.362	0.656
	Total	**65.535**	**73.723**	**12.712**	**3.818**	**8.894**
1985	January	5.632	7.415	0.929	0.307	0.622
	February	5.193	6.442	0.773	0.307	0.466
	March	5.692	6.339	0.968	0.311	0.657
	Year to Date	**16.517**	**20.197**	**2.670**	**0.925**	**1.745**

[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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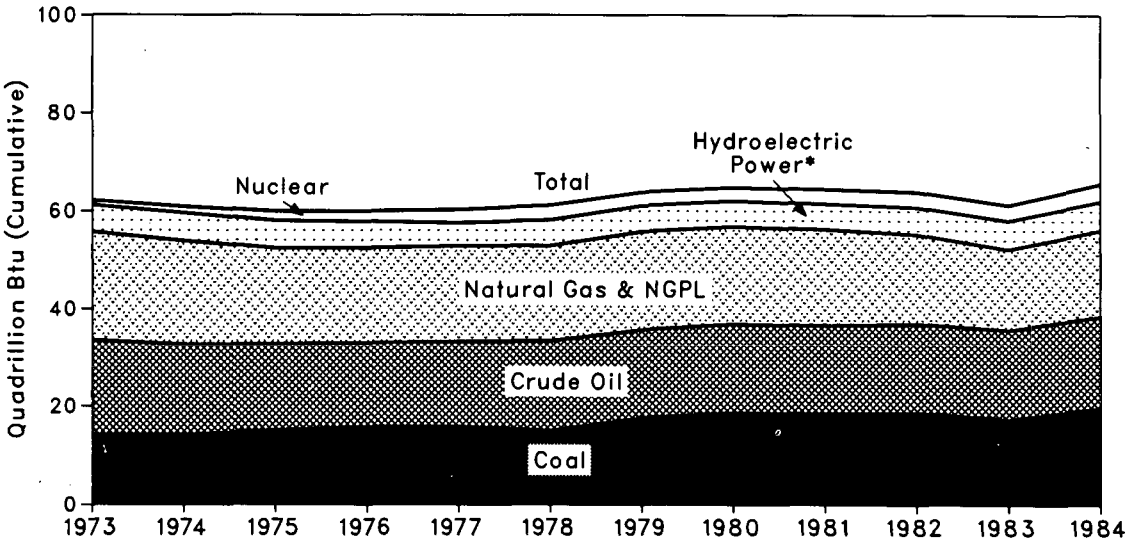
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.
Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

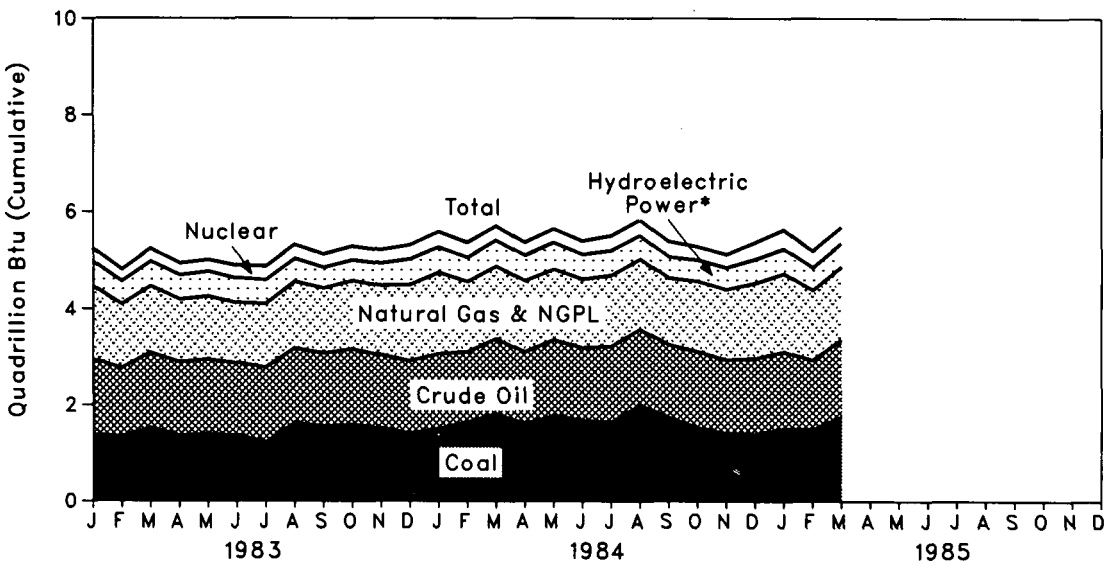
Energy Summary

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**	**14.000**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**62.067**	
1974	**Total**	**14.080**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**60.841**	
1975	**Total**	**14.995**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**59.865**	
1976	**Total**	**15.659**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**59.896**	
1977	**Total**	**15.758**	**17.454**	**2.327**	**19.565**	**2.333**	**2.702**	**0.082**	**60.222**	
1978	**Total**	**14.912**	**18.434**	**2.245**	**19.485**	**2.937**	**3.024**	**0.068**	**61.106**	
1979	**Total**	**17.549**	**18.104**	**2.286**	**20.076**	**2.931**	**2.776**	**0.089**	**63.810**	
1980	**Total**	**18.600**	**18.249**	**2.254**	**19.907**	**2.900**	**2.739**	**0.114**	**64.764**	
1981	**Total**	**18.379**	**18.146**	**2.307**	**19.699**	**2.758**	**3.008**	**0.127**	**64.424**	
1982	**Total**	**18.641**	**18.309**	**2.191**	**18.255**	**3.256**	**3.131**	**0.108**	**63.892**	
1983	January	1.384	1.564	0.188	1.509	0.308	0.273	0.011	5.237	5.237
	February	1.338	1.422	0.169	1.329	0.295	0.242	0.008	4.803	10.040
	March	1.520	1.564	0.183	1.376	0.319	0.261	0.009	5.233	15.274
	April	1.364	1.527	0.173	1.300	0.316	0.244	0.009	4.933	20.207
	May	1.394	1.552	0.178	1.305	0.329	0.240	0.007	5.006	25.213
	June	1.363	1.508	0.175	1.245	0.324	0.263	0.009	4.889	30.102
	July	1.218	1.553	0.183	1.325	0.297	0.279	0.012	4.866	34.968
	August	1.617	1.561	0.186	1.375	0.272	0.286	0.015	5.312	40.280
	September	1.551	1.528	0.184	1.340	0.229	0.273	0.014	5.120	45.400
	October	1.583	1.577	0.191	1.415	0.219	0.281	0.015	5.280	50.680
	November	1.515	1.526	0.189	1.432	0.260	0.273	0.013	5.208	55.888
	December	1.405	1.510	0.184	1.577	0.333	0.287	0.011	5.308	61.196
	Total	**17.252**	**18.392**	**2.184**	**16.530**	**3.502**	**3.203**	**0.133**	**61.196**	
1984	January	1.508	1.557	0.195	1.679	0.314	0.320	0.011	5.583	5.583
	February	1.636	1.468	0.187	1.455	0.294	0.310	0.013	5.363	10.946
	March	1.811	1.567	0.195	1.499	0.321	0.298	0.015	5.706	16.652
	April	1.592	1.512	0.192	1.469	0.316	0.264	0.014	5.359	22.011
	May	1.775	1.574	0.198	1.464	0.336	0.282	0.014	5.642	27.653
	June	1.672	1.521	0.192	1.417	0.304	0.276	0.013	5.395	33.048
	July	1.644	1.577	0.202	1.470	0.290	0.308	0.013	5.505	38.553
	August	1.995	1.579	0.204	1.450	0.265	0.322	0.016	5.830	44.383
	September	1.735	1.524	0.198	1.378	0.221	0.318	0.015	5.388	49.772
	October	R1.525	1.591	0.202	1.455	0.220	0.270	0.016	R5.280	R55.051
	November	R1.410	1.539	0.200	1.453	0.235	0.268	0.016	R5.121	R60.172
	December	R1.393	1.582	0.202	1.559	0.272	0.337	0.018	R5.363	65.535
	Total	**19.696**	**18.590**	**2.367**	**17.748**	**3.387**	**3.573**	**0.174**	**65.535**	
1985	January	1.507	1.605	0.202	1.616	0.290	0.395	0.018	5.632	5.632
	February	1.492	1.450	0.181	1.445	0.273	0.336	0.016	5.193	10.825
	March	1.755	1.605	0.198	1.518	0.260	0.339	0.018	5.692	16.517
	Year to Date	**4.753**	**4.660**	**0.580**	**4.579**	**0.823**	**1.069**	**0.052**	**16.517**	

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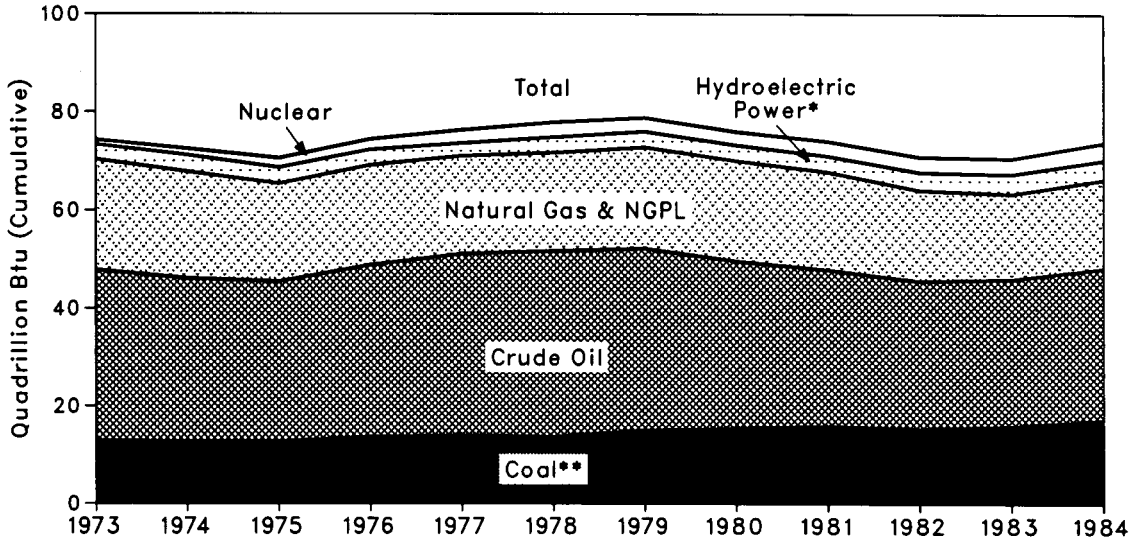
Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

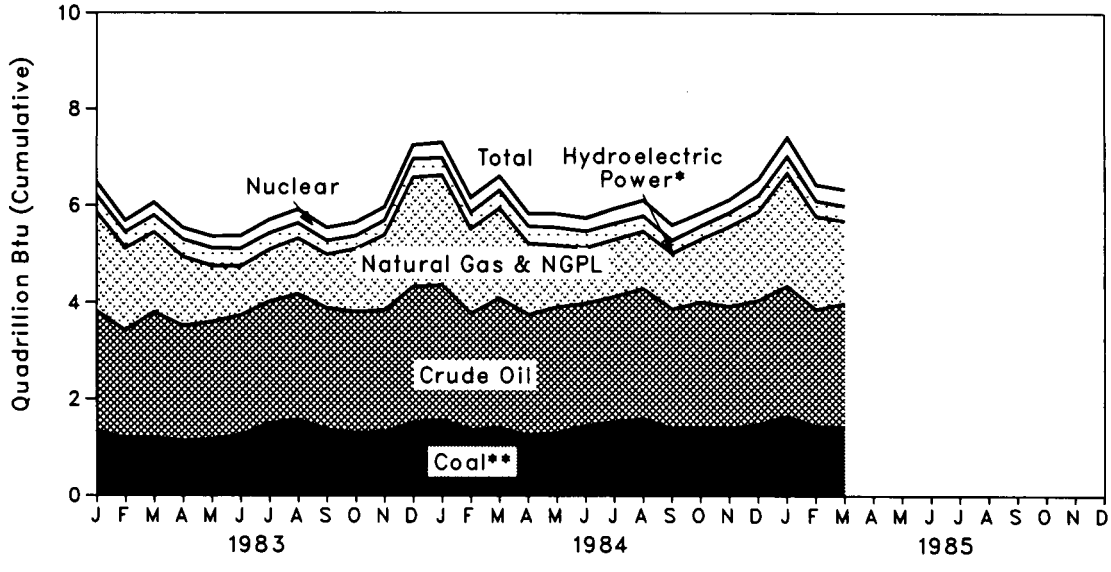
Energy Summary

Consumption of Energy by Source

Yearly



Monthly



*Includes other.
**Includes net imports of coal coke.

Energy Summary

Consumption of Energy by Source

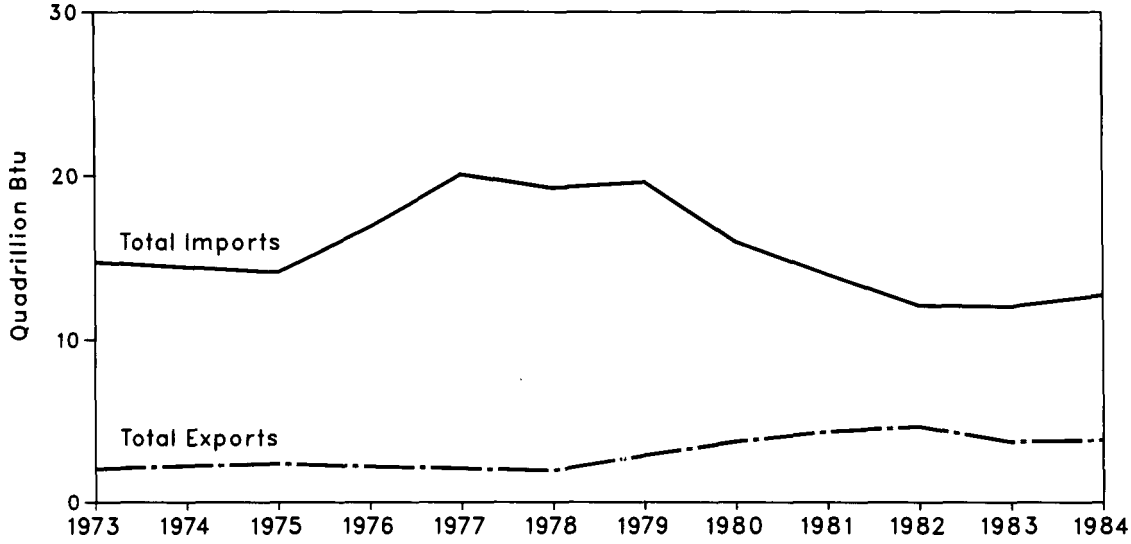
		Coal	Natural Gas[1]	Petro-leum	Hydro-electric Power[2]	Nuclear Electric Power	Net Imports of Coal Coke[3]	Other[4]	Total	Year to Date
					Quadrillion (10^{15}) Btu					
1973	**Total**	**12.978**	**22.512**	**34.840**	**3.010**	**0.910**	**(0.008)**	**0.046**	**74.288**	
1974	**Total**	**12.668**	**21.732**	**33.455**	**3.309**	**1.272**	**0.056**	**0.056**	**72.548**	
1975	**Total**	**12.668**	**19.948**	**32.731**	**3.219**	**1.900**	**0.014**	**0.072**	**70.551**	
1976	**Total**	**13.589**	**20.345**	**35.175**	**3.066**	**2.111**	**0.000**	**0.081**	**74.366**	
1977	**Total**	**13.925**	**19.931**	**37.122**	**2.515**	**2.702**	**0.015**	**0.082**	**76.292**	
1978	**Total**	**13.767**	**20.000**	**37.965**	**3.141**	**3.024**	**0.125**	**0.068**	**78.091**	
1979	**Total**	**15.042**	**20.666**	**37.123**	**3.141**	**2.776**	**0.063**	**0.089**	**78.900**	
1980	**Total**	**15.426**	**20.391**	**34.202**	**3.118**	**2.739**	**(0.035)**	**0.114**	**75.955**	
1981	**Total**	**15.908**	**19.926**	**31.931**	**3.105**	**3.008**	**(0.016)**	**0.127**	**73.989**	
1982	**Total**	**15.324**	**18.507**	**30.232**	**3.561**	**3.131**	**(0.022)**	**0.108**	**70.842**	
1983	January	1.360	2.036	2.467	0.337	0.273	(0.001)	0.011	6.483	6.483
	February	1.180	1.693	2.239	0.323	0.242	(0.001)	0.008	5.685	12.168
	March	1.196	1.640	2.604	0.348	0.261	(0.001)	0.009	6.058	18.226
	April	1.140	1.416	2.383	0.344	0.244	(0.002)	0.009	5.533	23.759
	May	1.173	1.153	2.431	0.352	0.240	(0.002)	0.007	5.355	29.113
	June	1.257	1.004	2.480	0.351	0.263	(0.001)	0.009	5.364	34.478
	July	1.500	1.066	2.517	0.328	0.279	(0.002)	0.012	5.700	40.178
	August	1.574	1.146	2.594	0.307	0.286	(0.001)	0.015	5.922	46.100
	September	1.367	1.104	2.515	0.266	0.273	(0.001)	0.014	5.538	51.638
	October	1.305	1.285	2.507	0.256	0.281	(0.001)	0.015	5.648	57.285
	November	1.326	1.550	2.514	0.292	0.273	(0.001)	0.013	5.966	63.252
	December	1.523	2.259	2.803	0.366	0.287	(0.003)	0.011	7.246	70.497
	Total	**15.900**	**17.352**	**30.054**	**3.871**	**3.203**	**(0.016)**	**0.133**	**70.497**	
1984	January	1.561	2.270	2.796	0.344	0.320	0.001	0.011	7.303	7.303
	February	1.367	1.742	2.407	0.325	0.310	0.002	0.013	6.166	13.470
	March	1.411	1.858	2.678	0.351	0.298	(0.001)	0.015	6.610	20.080
	April	1.279	1.463	2.505	0.346	0.264	0.000	0.014	5.872	25.951
	May	1.306	1.269	2.602	0.361	0.282	(0.001)	0.014	5.833	31.784
	June	1.448	1.140	2.538	0.334	0.276	(0.002)	0.013	5.746	37.530
	July	1.528	1.173	2.599	0.324	0.308	(0.001)	0.013	5.946	43.476
	August	1.596	1.182	2.697	0.302	0.322	(0.002)	0.016	6.112	49.588
	September	1.392	1.140	2.478	0.261	0.318	0.000	0.015	5.603	55.191
	October	1.403	1.297	2.613	0.260	0.270	(0.003)	0.016	5.856	61.047
	November	1.402	1.651	2.524	0.269	0.268	(0.003)	0.016	6.128	67.175
	December	1.479	1.841	2.567	0.307	0.337	(0.001)	0.018	6.548	73.723
	Total	**17.172**	**18.027**	**31.004**	**3.784**	**3.573**	**(0.011)**	**0.174**	**73.723**	
1985	January	1.650	2.330	2.699	0.323	0.395	0.000	0.018	7.415	7.415
	February	1.451	1.920	2.412	0.306	0.336	0.001	0.016	6.442	13.857
	March	1.428	1.700	2.561	0.293	0.339	0.000	0.018	6.339	20.197
	Year to Date	**4.529**	**5.950**	**7.672**	**0.922**	**1.069**	**0.002**	**0.052**	**20.197**	

[1]Includes supplemental gaseous fuels.
[2]Includes industrial and utility production and net imports of electricity.
[3]Parentheses indicate exports are greater than imports.
[4]Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• 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.

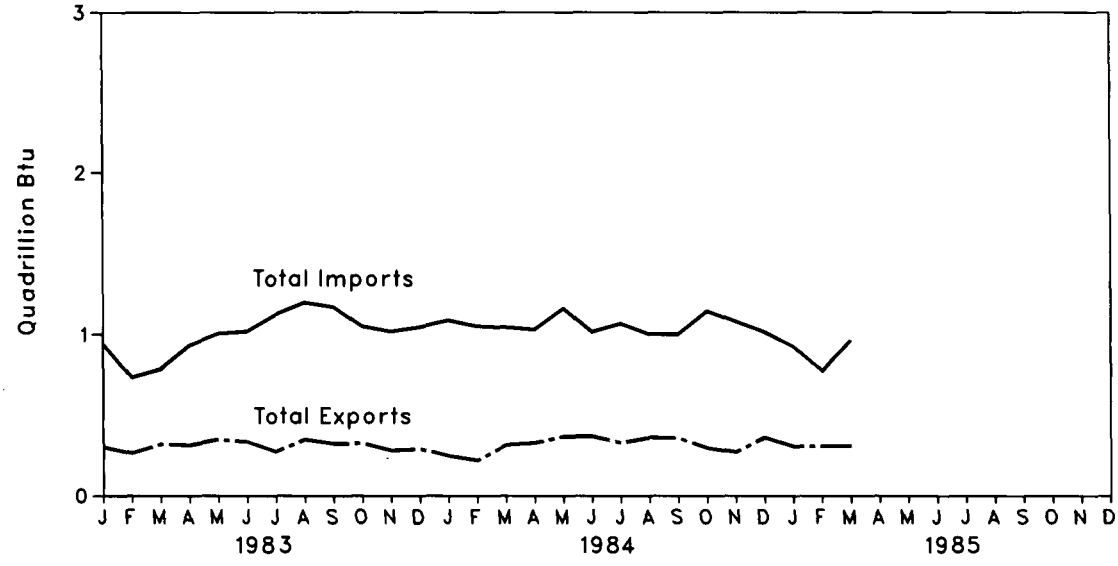
Energy Summary

Energy Imports and Exports

Yearly



Monthly



Energy Summary

Net Imports[1] of Energy by Source

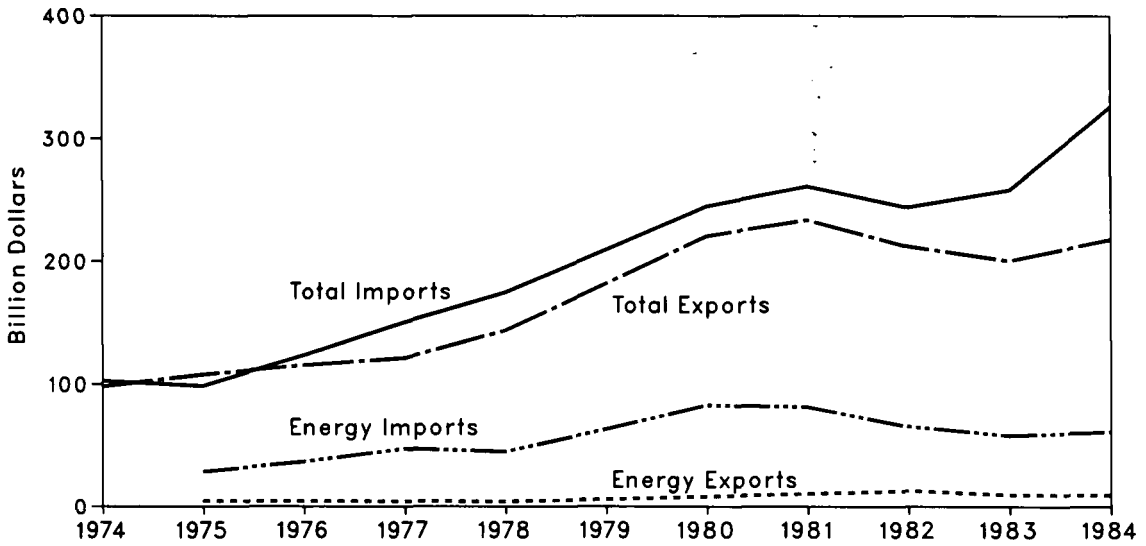
		Coal	Crude Oil[2]	Refined Petroleum Products[3]	Natural Gas	Electricity	Coal Coke	Total	Year to Date
					Quadrillion (10^{15}) Btu				
1973	**Total**	**(1.422)**	**6.883**	**6.097**	**0.981**	**0.148**	**(0.008)**	**12.680**	
1974	**Total**	**(1.568)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.056**	**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	January	(0.116)	0.514	0.105	0.110	0.028	(0.001)	0.641	0.641
	February	(0.113)	0.327	0.134	0.092	0.029	(0.001)	0.468	1.108
	March	(0.162)	0.382	0.134	0.083	0.028	(0.001)	0.464	1.572
	April	(0.157)	0.530	0.148	0.071	0.028	(0.002)	0.617	2.190
	May	(0.180)	0.556	0.202	0.057	0.023	(0.002)	0.657	2.847
	June	(0.188)	0.600	0.188	0.057	0.028	(0.001)	0.684	3.531
	July	(0.159)	0.673	0.252	0.054	0.032	(0.002)	0.851	4.382
	August	(0.217)	0.732	0.252	0.051	0.034	(0.001)	0.852	5.233
	September	(0.195)	0.705	0.239	0.065	0.037	(0.001)	0.849	6.082
	October	(0.209)	0.597	0.241	0.061	0.037	(0.001)	0.726	6.809
	November	(0.153)	0.551	0.233	0.077	0.032	(0.001)	0.739	7.548
	December	(0.162)	0.563	0.222	0.105	0.032	(0.003)	0.758	8.306
	Total	**(2.013)**	**6.731**	**2.351**	**0.883**	**0.369**	**(0.016)**	**8.306**	
1984	January	(0.132)	0.519	0.330	0.093	E0.031	0.001	0.842	0.842
	February	(0.109)	0.467	0.374	0.068	E0.031	0.002	0.833	1.675
	March	(0.152)	0.581	0.205	0.066	E0.031	(0.001)	0.730	2.404
	April	(0.200)	0.567	0.238	0.069	E0.030	0.000	0.704	3.108
	May	(0.216)	0.670	0.249	0.069	E0.025	(0.001)	0.796	3.904
	June	(0.206)	0.557	0.208	0.060	E0.030	(0.002)	0.647	4.552
	July	(0.215)	0.639	0.227	0.055	E0.034	(0.001)	0.740	5.292
	August	(0.214)	0.551	0.216	0.053	E0.037	(0.002)	0.642	5.933
	September	(0.228)	0.547	0.231	0.054	E0.040	0.000	0.644	6.577
	October	(0.173)	0.652	0.270	0.066	E0.039	(0.003)	0.851	7.428
	November	(0.109)	0.585	0.222	0.081	E0.035	(0.003)	0.811	8.239
	December	(0.169)	0.531	0.167	0.092	E0.035	(0.001)	0.656	8.894
	Total	**(2.122)**	**6.867**	**2.937**	**0.826**	**E0.397**	**(0.011)**	**8.894**	
1985	January	(0.151)	0.462	0.176	0.101	E0.033	0.000	0.622	0.622
	February	(0.157)	0.311	0.180	0.097	E0.033	0.001	0.466	1.088
	March	(0.174)	0.473	0.238	0.087	E0.033	0.000	0.657	1.745
	Year to Date	**(0.482)**	**1.245**	**0.594**	**0.286**	**E0.099**	**0.002**	**1.745**	

[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.
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.

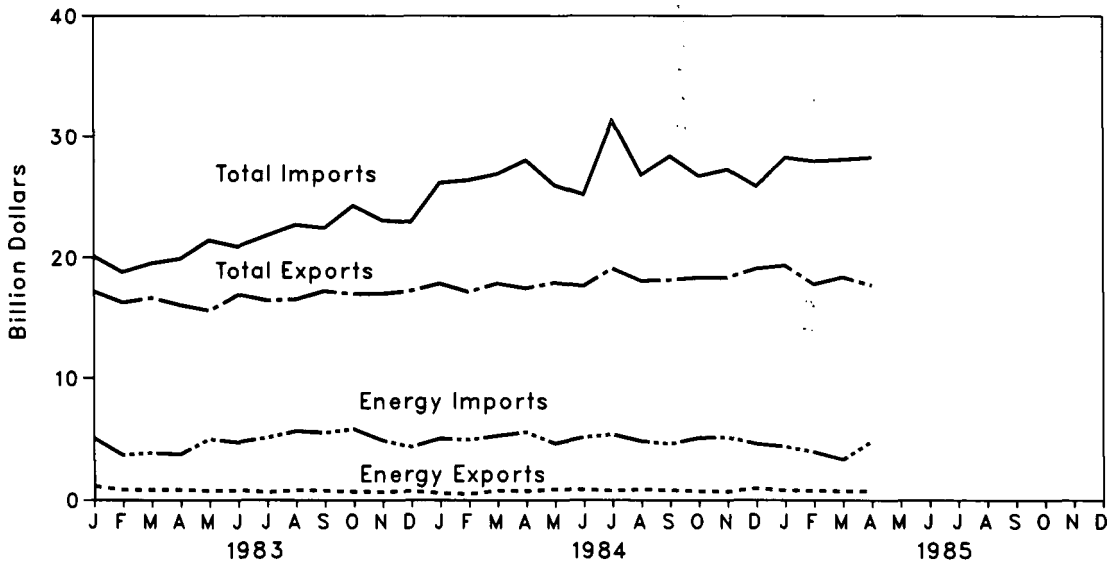
Energy Summary

Merchandise Trade Value

Yearly



Monthly



Energy Summary

Merchandise Trade Value

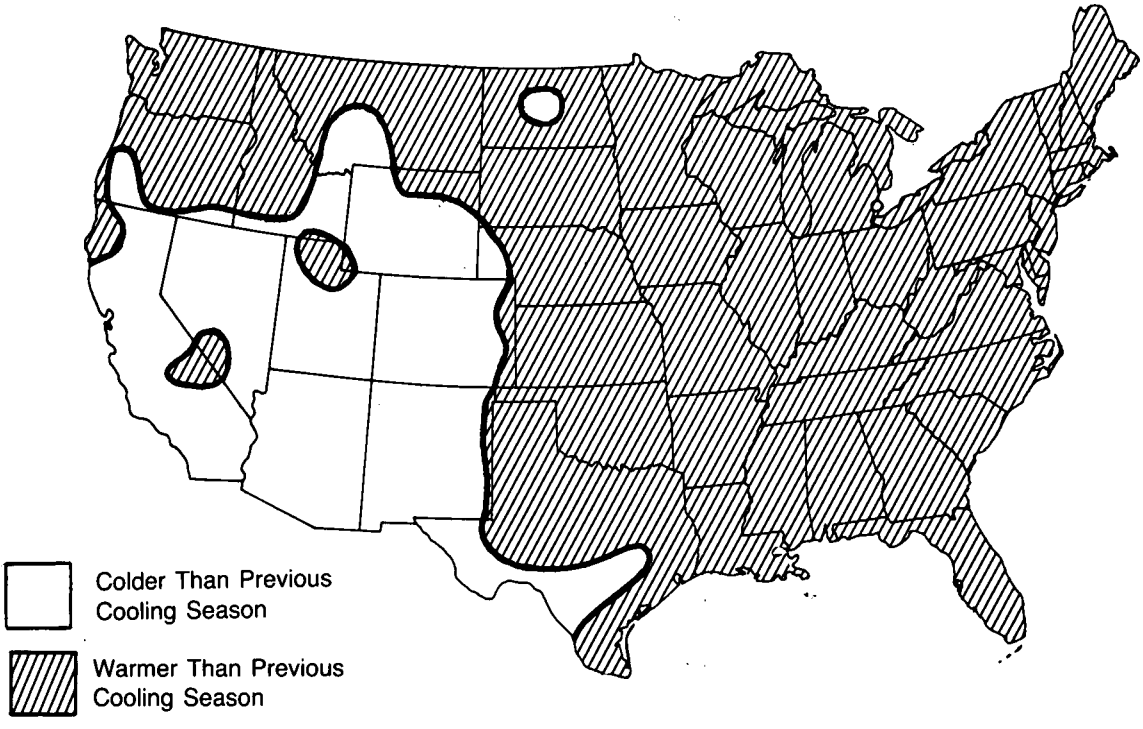
		Exports			Imports			Trade Balance		
		Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total
					Million dollars					
1974	**Total**	**NA**	**NA**	**98,092**	**NA**	**NA**	**102,559**	**NA**	**NA**	**-4,467**
1975	**Total**	**4,470**	**103,182**	**107,652**	**28,325**	**70,178**	**98,503**	**-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	January	1,142	16,090	17,232	5,142	14,985	20,127	-4,000	+1,105	-2,895
	February	833	15,479	16,312	3,704	15,100	18,804	-2,871	+378	-2,493
	March	822	15,868	16,690	3,865	15,663	19,528	-3,043	+206	-2,837
	April	850	15,245	16,095	3,763	16,151	19,914	-2,913	-906	-3,819
	May	750	14,905	15,655	5,033	16,413	21,446	-4,283	-1,508	-5,791
	June	791	16,168	16,959	4,767	16,149	20,916	-3,976	+19	-3,957
	July	644	15,842	16,486	5,164	16,664	21,828	-4,520	-821	-5,341
	August	824	15,758	16,582	5,703	17,011	22,714	-4,879	-1,253	-6,132
	September	778	16,479	17,257	5,571	16,880	22,451	-4,793	-402	-5,195
	October	699	16,334	17,033	5,872	18,461	24,333	-5,173	-2,127	-7,300
	November	689	16,374	17,063	4,951	18,164	23,115	-4,262	-1,790	-6,052
	December	739	16,559	17,298	4,417	18,559	22,976	-3,678	-2,000	-5,678
	Total	**9,500**	**190,986**	**200,486**	**57,952**	**200,096**	**258,048**	**-48,452**	**-9,110**	**-57,562**
1984	January	582	17,307	17,889	5,089	21,116	26,205	-4,507	-3,809	-8,316
	February	502	16,706	17,208	5,006	21,414	26,420	-4,504	-4,708	-9,212
	March	790	17,116	17,906	5,323	21,625	26,948	-4,533	-4,510	-9,043
	April	759	16,761	17,520	5,629	22,445	28,074	-4,870	-5,683	-10,553
	May	901	17,077	17,978	4,696	21,316	26,012	-3,795	-4,239	-8,034
	June	872	16,833	17,705	5,206	20,070	25,276	-4,334	-3,237	-7,571
	July	765	18,389	19,154	5,434	25,900	31,334	-4,669	-7,511	-12,180
	August	878	17,245	18,123	4,886	21,980	26,866	-4,008	-4,735	-8,743
	September	820	17,390	18,210	4,663	23,746	28,409	-3,843	-6,357	-10,200
	October	757	17,654	18,411	5,168	21,615	26,783	-4,411	-3,961	-8,372
	November	712	17,683	18,395	5,207	22,124	27,331	-4,495	-4,442	-8,937
	December	973	18,169	19,142	4,672	21,261	25,933	-3,699	-3,092	-6,791
	Total	**9,311**	**208,554**	**217,865**	**60,980**	**264,746**	**325,726**	**-51,669**	**-56,192**	**-107,861**
1985	January	804	18,597	19,401	4,434	23,863	28,297	-3,630	-5,266	-8,896
	February	786	17,067	17,853	3,989	23,996	27,985	-3,203	-6,928	-10,131
	March	754	17,692	18,446	3,351	24,778	28,129	-2,597	-7,086	-9,683
	April	738	17,041	17,779	4,876	23,419	28,295	-4,138	-6,378	-10,516
	Year to Date	**3,082**	**70,398**	**73,480**	**16,650**	**96,056**	**112,706**	**-13,568**	**-25,658**	**-39,226**

NA=Not available.
Notes: • Annual totals are unadjusted and may not equal the sum of monthly totals, which are adjusted for seasonal and working-day variation, if present and identifiable.
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.
Additional Notes and Sources: • See the last page of this section.

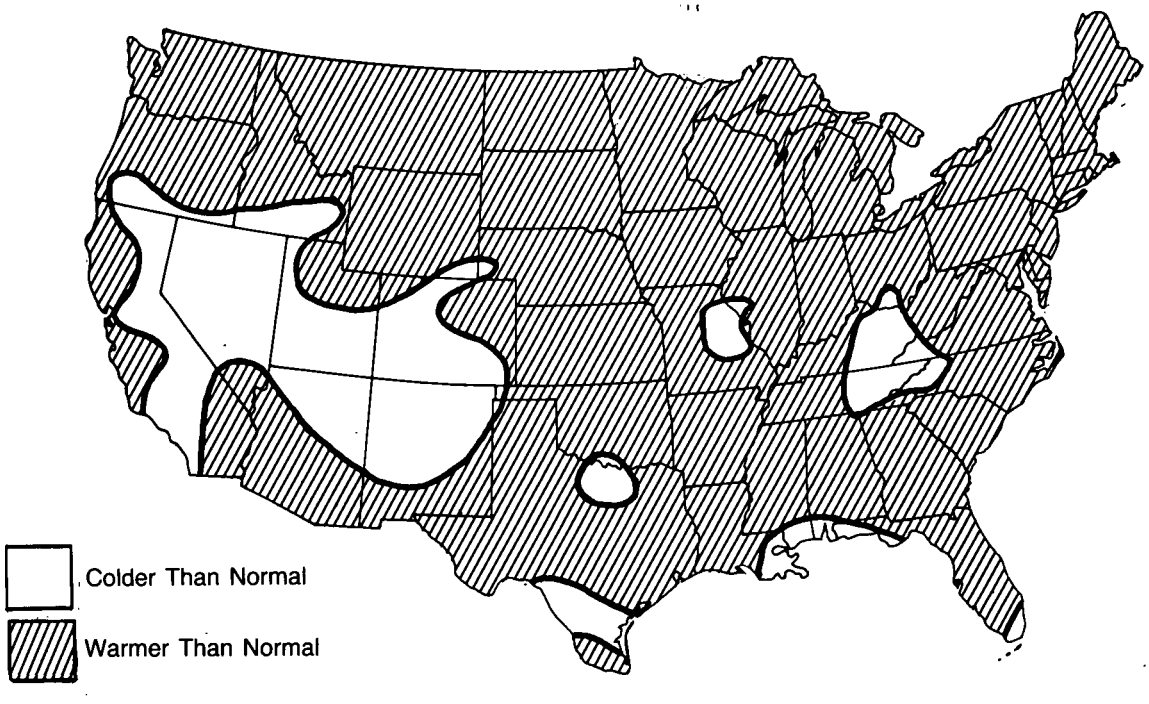
Energy Summary

Cooling Degree-Days Accumulated from January 1, 1985 through June 1, 1985

Departure from Previous Cooling Season



Departure from Normal



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

Energy Summary

Population-Weighted Cooling Degree-Days[1]

Census Divisions	May 1 through May 31					Cumulative January 1 through May 31				
				Percent Change					Percent Change	
	Normal[2]	1984	1985	Normal to 1985	1984 to 1985	Normal[2]	1984	1985	Normal to 1985	1984 to 1985
New England CT, ME, MA, NH, RI, VT	0	6	10	0.0	66.7	0	6	12	([3])	([3])
Middle Atlantic NJ, NY, PA	19	14	35	84.2	150.0	19	14	49	([3])	([3])
Eastern North Central IL, IN, MI, OH, WI	43	15	47	9.3	213.3	43	19	82	([3])	([3])
Western North Central IA, KS, MN, MO, NE, ND, SD	90	29	61	-32.2	110.3	103	32	91	-11.7	184.4
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	181	156	183	1.1	17.3	329	292	375	14.0	28.4
Eastern South Central AL, KY, MS, TN	154	99	135	-12.3	36.4	202	131	211	4.5	61.1
Western South Central AR, LA, OK, TX	261	259	274	5.0	5.8	400	385	445	11.3	15.6
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	67	130	103	53.7	-20.8	88	152	144	([3])	([3])
Pacific Coast CA, OR, WA	2	46	13	550.0	-71.7	2	45	19	([3])	([3])
U.S. Average[4]	**89**	**80**	**94**	**5.6**	**17.5**	**133**	**119**	**163**	**22.6**	**37.0**

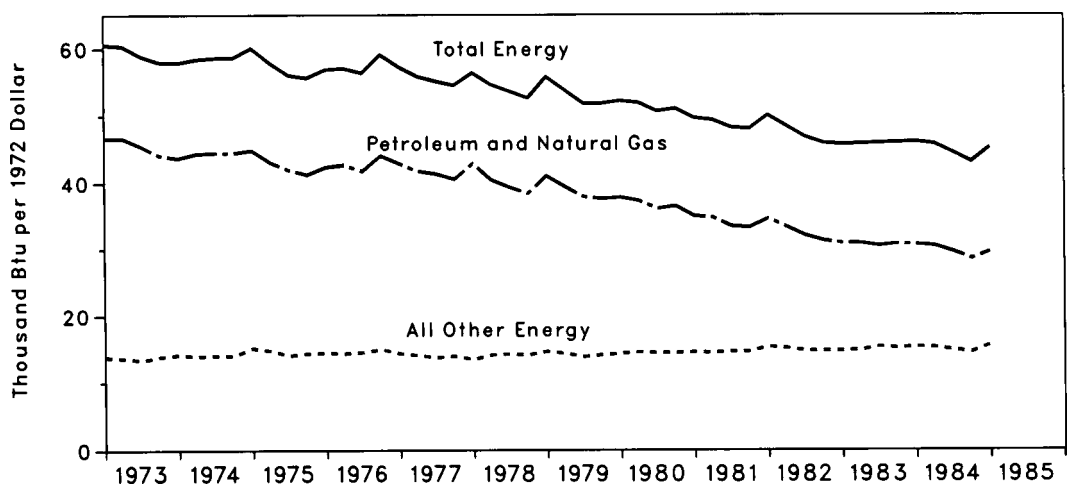
[1] See Note 6 on the last page of this section for explanation of degree-days.
[2] Normal is based on calculations of data from 1951 through 1980.
[3] Percent change not meaningful.
[4] Excludes Alaska and Hawaii.
Source: • See Note 6 on the last page of this section.

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 1972 dollars	Thousand Btu per 1972 dollar		
1973		**74.288**	**1.254**	**59.2**	**45.7**	**13.5**
1974		**72.548**	**1.246**	**58.2**	**44.3**	**13.9**
1975		**70.551**	**1.232**	**57.3**	**42.8**	**14.5**
1976		**74.366**	**1.298**	**57.3**	**42.8**	**14.5**
1977		**76.292**	**1.370**	**55.7**	**41.6**	**14.1**
1978		**78.091**	**1.439**	**54.3**	**40.3**	**14.0**
1979		**78.900**	**1.479**	**53.3**	**39.1**	**14.2**
1980		**75.955**	**1.475**	**51.5**	**37.0**	**14.5**
1981		**73.989**	**1.512**	**48.9**	**34.3**	**14.6**
1982		**70.842**	**1.480**	**47.9**	**32.9**	**15.0**
1983	1st Quarter[1]	68.231	1.491	45.8	31.0	14.8
	2nd Quarter[1]	70.000	1.525	45.9	31.0	14.9
	3rd Quarter[1]	71.250	1.550	46.0	30.6	15.4
	4th Quarter[1]	72.453	1.573	46.1	30.9	15.2
	Year	**70.497**	**1.535**	**45.9**	**30.9**	**15.0**
1984	1st Quarter[1]	74.495	1.611	46.2	30.8	15.4
	2nd Quarter[1]	75.279	1.639	45.9	30.6	15.3
	3rd Quarter[1]	73.383	1.645	44.6	29.7	14.9
	4th Quarter[1]	71.760	1.662	43.2	28.6	14.6
	Year	**73.723**	**1.639**	**45.0**	**29.9**	**15.1**
1985	1st Quarter[1]	75.514	1.665	45.4	29.7	15.7

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



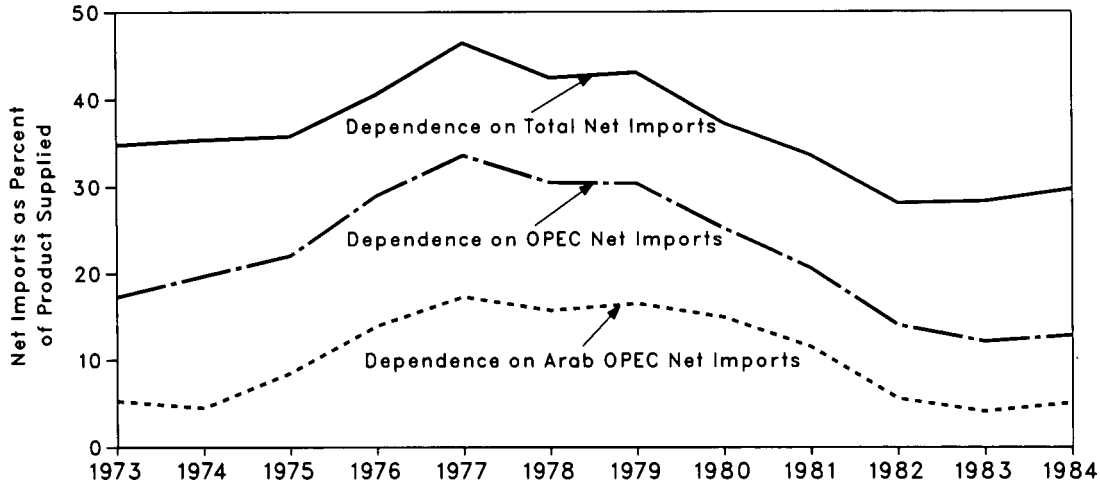
[1]Quarterly data are seasonally adjusted and shown at annual rates.
Notes • Geographic coverage is the 50 States and the District of Columbia.
• Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding.
Sources: • See the last page of this section.

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	1st Quarter	351	1,174	3,079	15,026	2.3	7.8	20.5
	2nd Quarter	444	1,708	4,237	14,825	3.0	11.5	28.6
	3rd Quarter	860	2,501	5,370	15,333	5.6	16.3	35.0
	4th Quarter	857	1,972	4,536	15,732	5.4	12.5	28.8
	Average	**630**	**1,843**	**4,312**	**15,231**	**4.1**	**12.1**	**28.3**
1984	1st Quarter	754	1,855	4,741	16,058	4.7	11.6	29.5
	2nd Quarter	891	2,227	4,755	15,579	5.7	14.3	30.5
	3rd Quarter	872	2,069	4,555	15,668	5.6	13.2	29.1
	4th Quarter	714	1,894	4,589	15,528	4.6	12.2	29.6
	Average	**807**	**2,011**	**4,660**	**15,707**	**5.1**	**12.8**	**29.7**
1985	1st Quarter	327	1,364	3,564	15,807	2.1	8.6	22.5

U.S. Dependence on Petroleum Net Imports



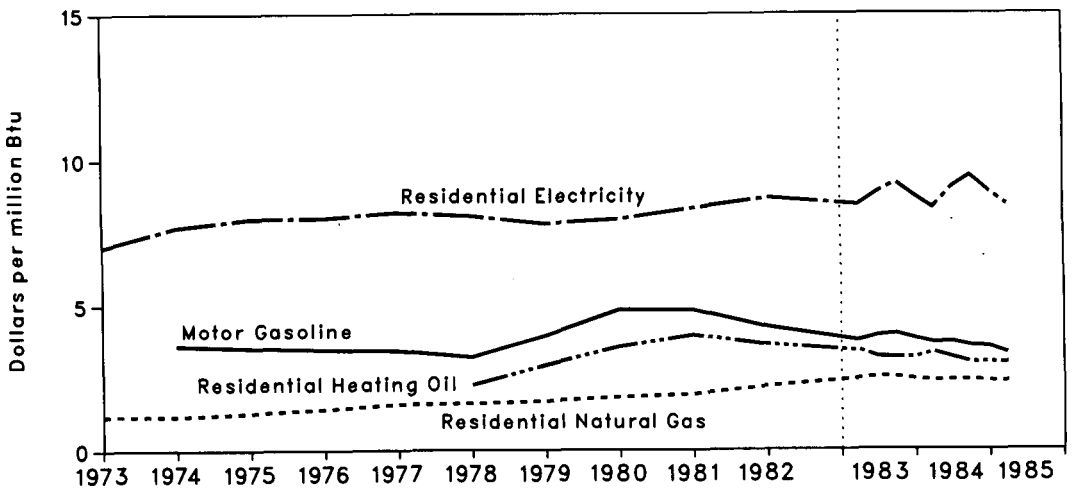
[1]Beginning in October 1977, Strategic Petroleum Reserves are included.
[2]Net imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are refined products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.
[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.
Note: • Geographic coverage is the 50 States and the District of Columbia.
• Annual averages may not equal average of quarters due to independent rounding.
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—Cost of Fuels to End Users in Constant (1972) 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	1st Quarter	47.1	3.77	47.3	3.41	252.6	2.45	2.89	8.47
	2nd Quarter	49.3	3.94	44.2	3.19	260.0	2.52	3.03	8.88
	3rd Quarter	50.0	4.00	43.9	3.17	258.1	2.50	3.14	9.20
	4th Quarter	47.9	3.83	43.9	3.17	250.9	2.43	2.99	8.76
	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	245.0	2.38	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	247.2	2.40	3.08	9.03
	3rd Quarter	44.9	3.59	41.6	3.00	248.5	2.41	3.22	9.44
	4th Quarter	44.5	3.56	41.7	3.01	244.3	2.37	3.04	8.91
	Average	**45.5**	**3.64**	**43.9**	**3.17**	**244.1**	**2.37**	**3.04**	**8.91**
1985	1st Quarter	41.7	3.33	41.5	2.99	243.2	2.36	2.89	8.47

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



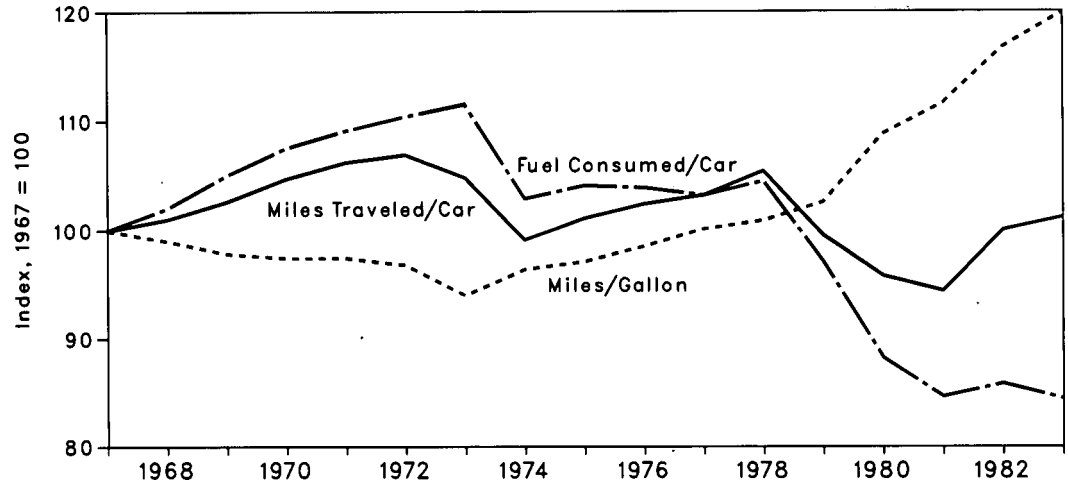
[1]Fuel costs shown on this page are calculated using the Urban Consumer Price Index developed by the Bureau of Labor Statistics. See the Conversion Factors section of this report.
NA=Not available.
Note: • Geographic coverage is the 50 States and the District of Columbia.
• Annual averages may not equal average of quarters due to independent rounding.
Sources: • See the last page of this section.

Energy Summary

Energy Indicator—U.S. Passenger Car Efficiency

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

U.S. Passenger Car Efficiency Index



†Preliminary data.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Notes and Sources for the Energy Summary Section

Notes

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

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

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

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

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

6. Degree-Days: Degree-days are relative measurements of outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65 °F by convention. Heating degree-days are deviations of the mean daily temperature below 65° F. For example, if a weather station recorded a mean daily temperature of 78 °F, cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40 °F would report 25 heating degree-days (and 0 cooling degree-days).

There are several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the *Monthly Energy Review* (MER) is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1980 by the U.S. Department of Commerce, Bureau of the Census. The data shown in the MER are available sooner than the Historical Climatology Series 5-1 and 5-2 developed by the National Climatic Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Sources

Merchandise Trade Value: • 1974 through 1980: U.S. Department of Commerce, Bureau of the Census, "Highlights of U.S. Export and Import Trade," FT990 (January 1982), Appendix for total imports and exports. Energy imports and exports from U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," December issues, plus Bureau of the Census reports EA691 "Exports from the Virgin Islands to Foreign Countries," and IA245V "U.S. Imports for Consumption and General Imports into the Virgin Islands."
• 1981 forward: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," most recent monthly issue.
Gross National Product: • U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business.*
U.S. Dependence on Petroleum Net Imports: • Imports and products supplied—Part 3 of this publication.
• Exports—1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*; 1977 through 1982: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1983 forward: EIA, *Petroleum Statement, Monthly.*
Cost of Fuels to End Users in Constant (1972) Dollars:
• Leaded Regular Motor Gasoline—Bureau of Labor Statistics (BLS).
• Residential Heating Oil—EIA, 1983 forward: EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA Form-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to 1983 are EIA estimates using data from FEA Form P112-M1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9-A, "No. 2 Distillate Price Monitoring Report." See Note 8 in the Notes and Sources for the Price Section for additional information.
• Residential Natural Gas—Annual data 1973 through 1982 from EIA, *Natural Gas Annual*, based on Form EIA-176, "Supply and Distribution of Natural Gas," and predecessors. Annual 1983 and quarterly data are EIA estimates based on the BLS Urban Consumer Price Index for natural gas and are adjusted to conform with final reported annual data. See Note 6 in the Notes and Sources for the Price Section for estimation procedures.
• Residential Electricity—Federal Energy Regulatory Commission (FERC), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."
• Deflator (The Urban Consumer Price Index)—BLS.
U.S. Passenger Car Efficiency: • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

Consumption

Total U.S. energy consumption in March 1985 was 6.3 quadrillion Btu, 4.1 percent below the March 1984 level. Petroleum products accounted for 40.4 percent of the energy consumed in March 1985, while natural gas accounted for 26.8 percent and coal accounted for 22.5 percent.

The transportation sector used 62.7 percent of the petroleum products consumed in March 1985 and the industrial sector used 24.9 percent. Of natural gas consumed, the residential and commercial sector used 49.7 percent; the industrial sector, 34.9 percent; and electric utilities, 12.5 percent. Most of the coal used (81.2 percent) was consumed by electric utilities. The residential and commercial sector used 63.5 percent of total electricity sales, while the industrial sector used 36.5 percent.

Residential and commercial sector consumption was 2.4 quadrillion Btu in March 1985, down 5.0 percent from the level in March 1984. This sector consumed 38.4 percent of the March 1985 total, almost the same as its 38.7-percent share in March 1984.

Industrial sector consumption was 2.3 quadrillion Btu in March 1985, down 5.4 percent from the March 1984 level. The industrial sector accounted for 35.5 percent of the March 1985 total consumption, down from the industrial sector's 36.0-percent share in March 1984.

Transportation sector consumption of energy was 1.7 quadrillion Btu in March 1985, down 0.7 percent from the March 1984 level. This sector consumed 26.1 percent of the March 1985 total, up from the sector's 25.2-percent share in March 1984.

The electric utilities consumption of energy was an estimated 2.1 quadrillion Btu in March 1985, 2.3 percent lower than in March 1984. Coal contributed 55.3 percent of the energy consumed by electric utilities in March 1985, while nuclear electric power contributed 16.2 percent; hydroelectric power, 13.8 percent; natural gas, 10.1 percent; petroleum products, 3.7 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.9 percent.

Consumption Summary for March 1985

(Quadrillion (10^{15}) Btu)

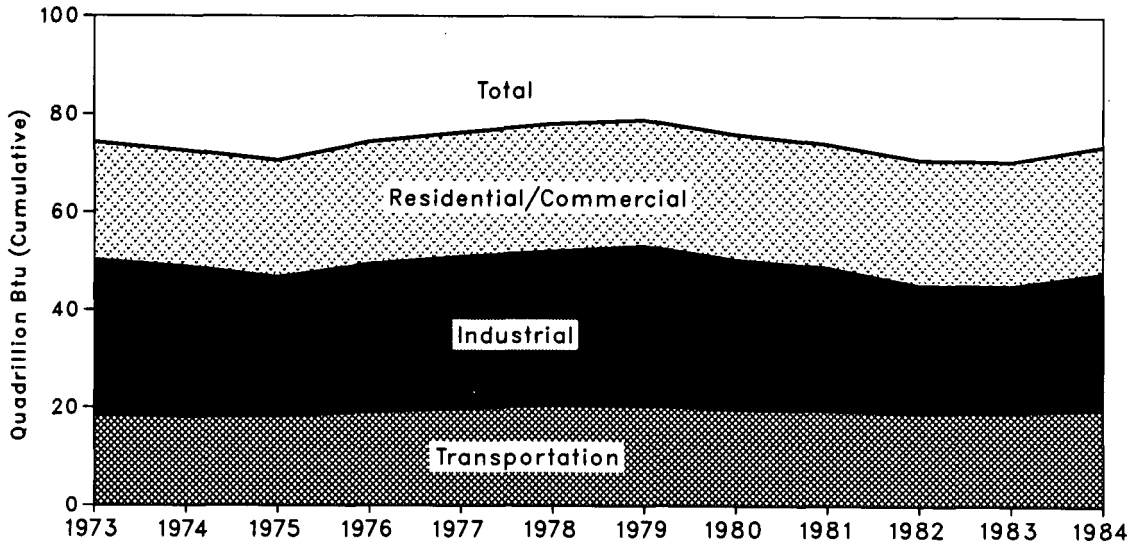
Energy Source	Sector: Residential and Commercial	Industrial	Transportation	Electric Utilities	Total
Coal	0.015	0.254	0.000	1.160	1.428
Natural Gas[1]	0.845	0.593	0.049	0.212	1.700
Petroleum Products	0.242	0.637	1.605	0.077	2.561
Hydroelectric Power	0.000	0.003	0.000	0.290	0.293
Nuclear Electric Power	0.000	0.000	0.000	0.339	0.339
Net Imports of Coal Coke	0.000	0.000	0.000	0.000	0.000
Other[2]	0.000	0.000	0.000	0.018	0.018
Primary Consumption	**1.103**	**1.487**	**1.654**	**2.096**	**6.339**
Electricity	0.410	0.236	0.001	(0.646)	
Net Energy Consumption	1.513	1.723	1.655		4.889
Electrical System Energy Losses	0.919	0.529	0.002	(1.450)	1.450
Total Energy Consumption	**2.432**	**2.252**	**1.657**		**6.339**

[1] Includes supplemental gaseous fuels.
[2] Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
Notes: • Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors.
• Additional notes and sources are provided on the last four pages of this section.

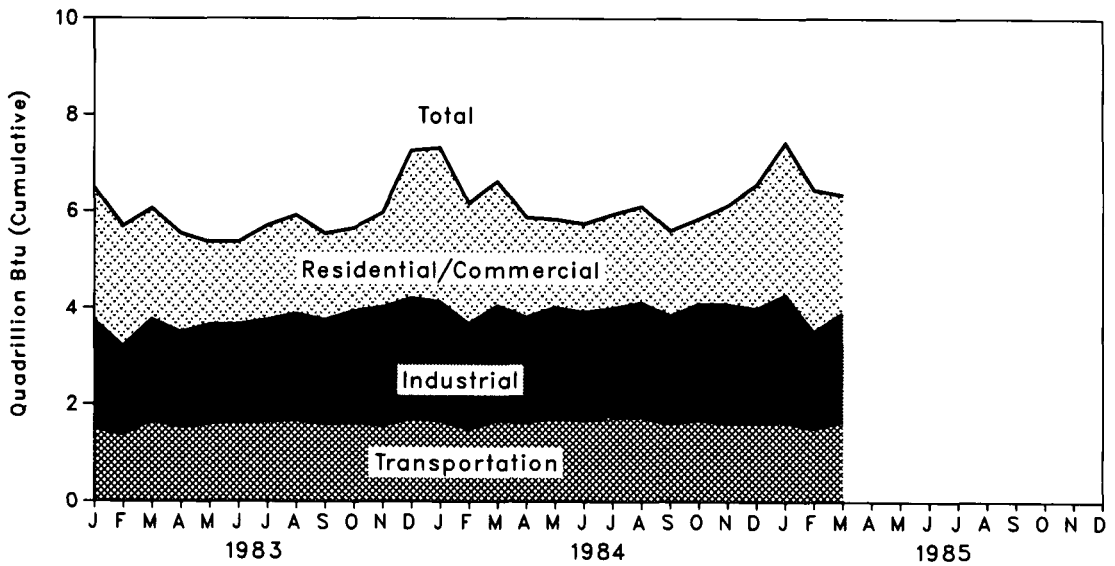
Consumption

Consumption of Energy by End-Use Sector

Yearly



Monthly



Consumption

Consumption of Energy by End-Use Sector

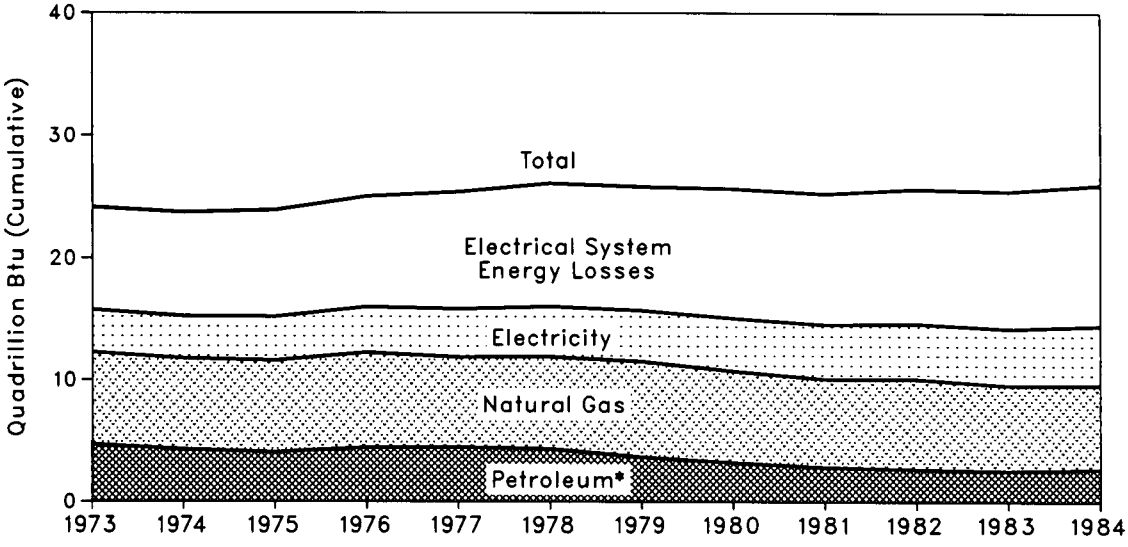
		Residential and Commercial	Industrial	Transportation	Total
			Quadrillion (10^{15}) Btu		
1973	**Total**	**24.147**	**31.538**	**18.596**	**74.288**
1974	**Total**	**23.729**	**30.699**	**18.113**	**72.548**
1975	**Total**	**23.902**	**28.409**	**18.240**	**70.551**
1976	**Total**	**25.020**	**30.245**	**19.093**	**74.366**
1977	**Total**	**25.386**	**31.090**	**19.808**	**76.292**
1978	**Total**	**26.085**	**31.415**	**20.589**	**78.091**
1979	**Total**	**25.809**	**32.625**	**20.464**	**78.900**
1980	**Total**	**25.656**	**30.606**	**19.693**	**75.955**
1981	**Total**	**25.244**	**29.252**	**19.495**	**73.989**
1982	**Total**	**25.632**	**26.140**	**19.066**	**70.842**
1983	January	2.749	2.227	1.506	6.483
	February	2.486	1.821	1.379	5.685
	March	2.295	2.102	1.660	6.058
	April	2.041	1.955	1.541	5.533
	May	1.705	2.049	1.603	5.355
	June	1.703	2.019	1.639	5.364
	July	1.942	2.107	1.648	5.700
	August	2.033	2.209	1.676	5.922
	September	1.783	2.156	1.598	5.538
	October	1.708	2.325	1.616	5.648
	November	1.955	2.448	1.566	5.966
	December	3.041	2.492	1.714	7.246
	Total	**25.440**	**25.909**	**19.146**	**70.497**
1984	January	3.169	2.471	1.661	7.303
	February	2.489	2.182	1.496	6.166
	March	2.560	2.381	1.669	6.610
	April	2.066	2.178	1.633	5.872
	May	1.823	2.302	1.712	5.833
	June	1.824	2.251	1.669	5.746
	July	1.944	2.266	1.731	5.946
	August	1.988	2.376	1.743	6.112
	September	1.759	2.230	1.613	5.603
	October	1.764	2.401	1.688	5.856
	November	2.045	2.462	1.619	6.128
	December	2.557	2.361	1.630	6.548
	Total	**25.989**	**27.863**	**19.863**	**73.723**
1985	January	3.141	2.620	1.652	7.415
	February	2.928	2.004	1.511	6.442
	March	2.432	2.252	1.657	6.339
	Year to Date	**8.501**	**6.876**	**4.820**	**20.197**

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.

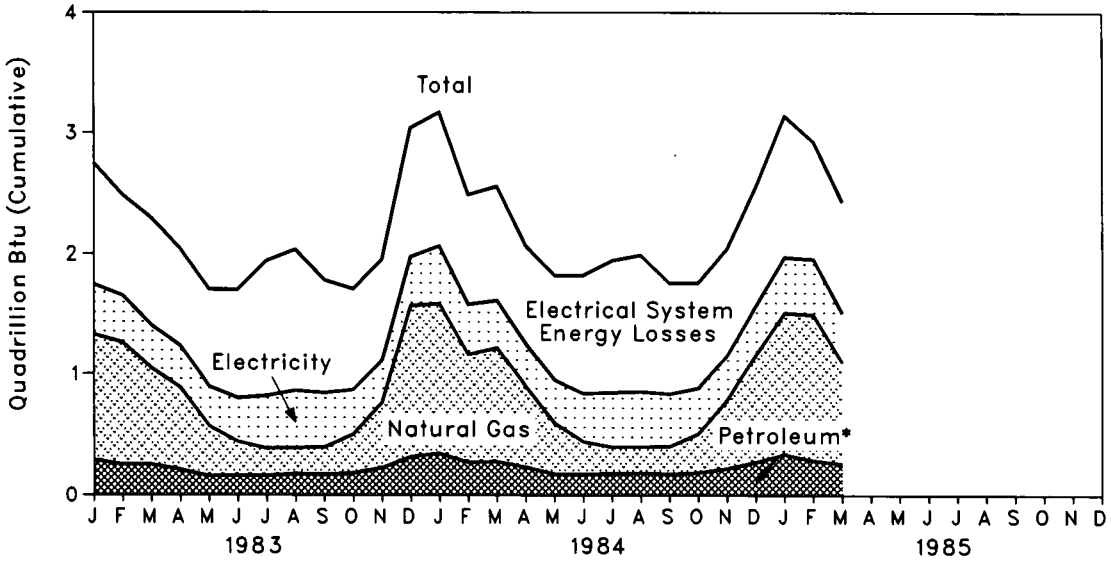
Consumption

Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



*Includes coal.

Consumption

Consumption of Energy by the Residential and Commercial Sector

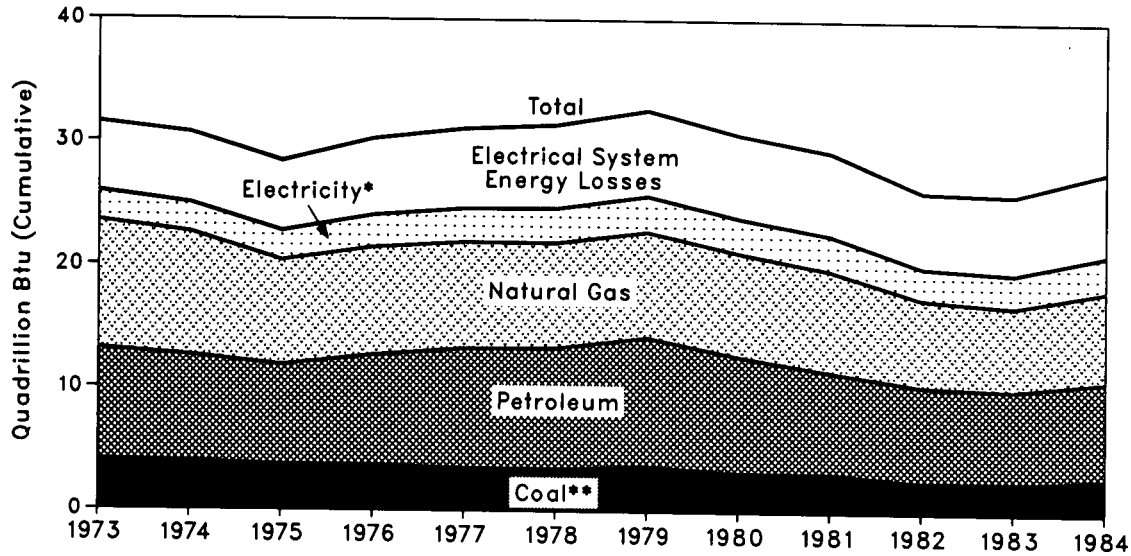
		Coal	Natural Gas[1]	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
					Quadrillion (10^{15}) Btu			
1973	**Total**	**0.259**	**7.626**	**4.391**	**3.495**	**8.377**	**24.147**	
1974	**Total**	**0.260**	**7.518**	**3.996**	**3.475**	**8.480**	**23.729**	
1975	**Total**	**0.212**	**7.581**	**3.805**	**3.604**	**8.700**	**23.902**	
1976	**Total**	**0.206**	**7.866**	**4.181**	**3.747**	**9.021**	**25.020**	
1977	**Total**	**0.207**	**7.461**	**4.206**	**3.955**	**9.556**	**25.386**	
1978	**Total**	**0.215**	**7.624**	**4.070**	**4.116**	**10.061**	**26.085**	
1979	**Total**	**0.188**	**7.891**	**3.448**	**4.184**	**10.100**	**25.809**	
1980	**Total**	**0.147**	**7.539**	**3.035**	**4.355**	**10.580**	**25.656**	
1981	**Total**	**0.171**	**7.242**	**2.634**	**4.497**	**10.700**	**25.244**	
1982	**Total**	**0.189**	**7.433**	**2.449**	**4.566**	**10.993**	**25.632**	
1983	January	0.021	1.046	0.266	0.413	1.003	2.749	2.749
	February	0.018	1.017	0.231	0.390	0.831	2.486	5.235
	March	0.013	0.796	0.236	0.365	0.885	2.295	7.530
	April	0.018	0.679	0.190	0.351	0.801	2.041	9.571
	May	0.011	0.413	0.144	0.327	0.810	1.705	11.276
	June	0.009	0.280	0.152	0.359	0.903	1.703	12.979
	July	0.014	0.226	0.144	0.435	1.123	1.942	14.921
	August	0.013	0.218	0.159	0.472	1.171	2.033	16.953
	September	0.018	0.225	0.150	0.450	0.940	1.783	18.736
	October	0.019	0.324	0.159	0.366	0.841	1.708	20.444
	November	0.020	0.542	0.202	0.350	0.841	1.955	22.399
	December	0.025	1.258	0.290	0.402	1.065	3.041	25.440
	Total	**0.197**	**7.024**	**2.322**	**4.681**	**11.215**	**25.440**	
1984	January	0.024	1.246	0.318	0.476	1.105	3.169	3.169
	February	0.021	0.898	0.247	0.418	0.905	2.489	5.659
	March	0.015	0.946	0.261	0.394	0.942	2.560	8.218
	April	0.022	0.669	0.206	0.360	0.810	2.066	10.285
	May	0.013	0.424	0.158	0.355	0.873	1.823	12.107
	June	0.010	0.272	0.160	0.395	0.986	1.824	13.931
	July	0.016	0.222	0.160	0.449	1.098	1.944	15.876
	August	0.015	0.219	0.165	0.456	1.134	1.988	17.864
	September	0.020	0.230	0.153	0.433	0.923	1.759	19.623
	October	0.016	0.325	0.166	0.377	0.880	1.764	21.387
	November	0.017	0.570	0.200	0.372	0.886	2.045	23.432
	December	0.022	0.892	0.250	0.410	0.983	2.557	25.989
	Total	**0.213**	**6.913**	**2.444**	**4.895**	**11.524**	**25.989**	
1985	January	0.025	1.182	0.309	0.457	1.169	3.141	3.141
	February	0.022	1.215	0.263	0.458	0.971	2.928	6.069
	March	0.015	0.845	0.242	0.410	0.919	2.432	8.501
	Year to Date	**0.062**	**3.241**	**0.814**	**1.324**	**3.059**	**8.501**	

[1]Includes supplemental gaseous fuels.
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.

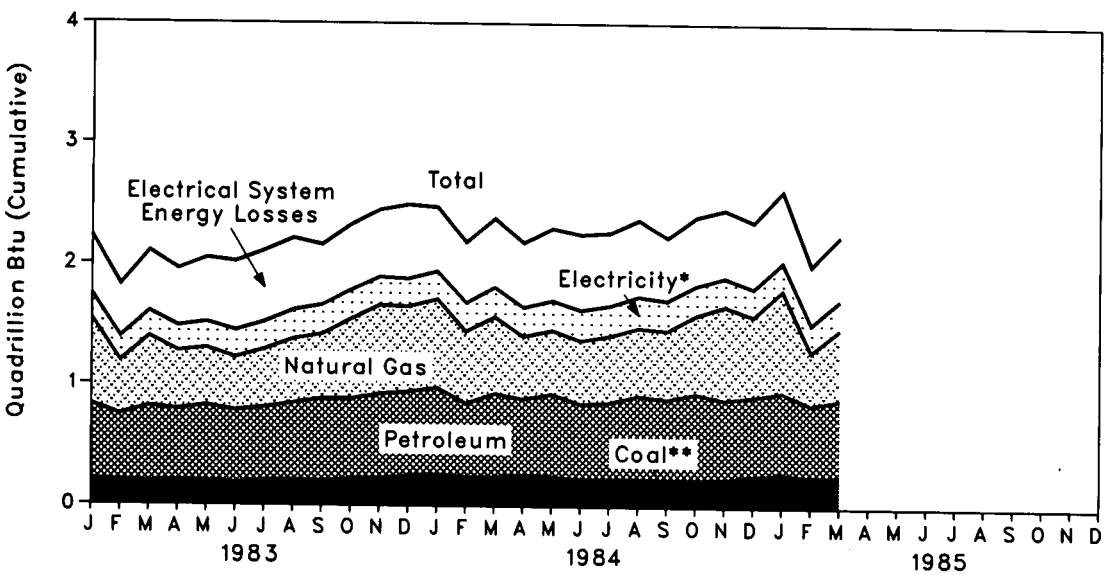
Consumption

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

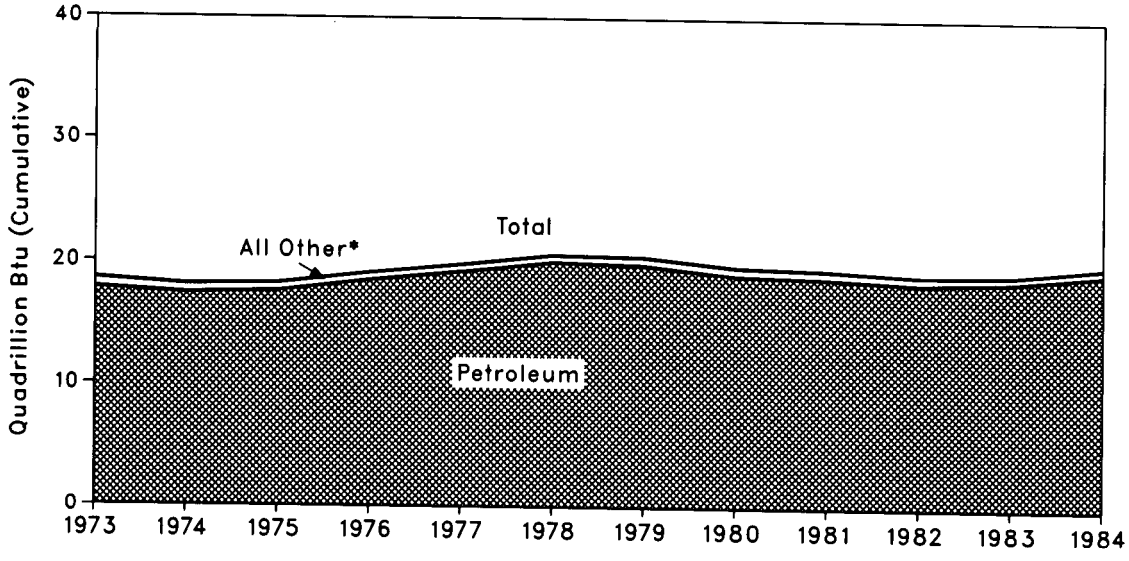
		Coal	Natural Gas[1]	Petroleum	Hydroelectric Power	Net Imports of Coal Coke	Electricity	Electrical System Energy Losses	Total	Year to Date
						Quadrillion (10^{15}) Btu				
1973	**Total**	**4.059**	**10.388**	**9.113**	**0.035**	**(0.008)**	**2.341**	**5.611**	**31.538**	
1974	**Total**	**3.872**	**10.003**	**8.698**	**0.033**	**0.056**	**2.337**	**5.700**	**30.699**	
1975	**Total**	**3.669**	**8.532**	**8.151**	**0.032**	**0.014**	**2.346**	**5.665**	**28.409**	
1976	**Total**	**3.663**	**8.761**	**9.018**	**0.033**	**0.000**	**2.573**	**6.198**	**30.245**	
1977	**Total**	**3.456**	**8.636**	**9.786**	**0.033**	**0.015**	**2.682**	**6.484**	**31.090**	
1978	**Total**	**3.315**	**8.539**	**9.890**	**0.032**	**0.125**	**2.761**	**6.755**	**31.415**	
1979	**Total**	**3.594**	**8.549**	**10.576**	**0.034**	**0.063**	**2.873**	**6.936**	**32.625**	
1980	**Total**	**3.156**	**8.394**	**9.524**	**0.033**	**(0.035)**	**2.781**	**6.752**	**30.606**	
1981	**Total**	**3.158**	**8.257**	**8.295**	**0.033**	**(0.016)**	**2.817**	**6.707**	**29.252**	
1982	**Total**	**2.552**	**7.116**	**7.798**	**0.033**	**(0.022)**	**2.542**	**6.121**	**26.140**	
1983	January	0.211	0.716	0.620	0.003	(0.001)	0.198	0.480	2.227	2.227
	February	0.196	0.444	0.548	0.003	(0.001)	0.201	0.430	1.821	4.048
	March	0.187	0.583	0.626	0.003	(0.001)	0.206	0.498	2.102	6.150
	April	0.205	0.486	0.586	0.003	(0.002)	0.207	0.471	1.955	8.105
	May	0.198	0.480	0.625	0.003	(0.002)	0.214	0.529	2.049	10.154
	June	0.182	0.439	0.601	0.003	(0.001)	0.226	0.568	2.019	12.173
	July	0.206	0.485	0.602	0.003	(0.002)	0.227	0.585	2.107	14.279
	August	0.209	0.533	0.638	0.002	(0.001)	0.238	0.590	2.209	16.488
	September	0.203	0.540	0.679	0.002	(0.001)	0.238	0.496	2.156	18.644
	October	0.217	0.665	0.666	0.002	(0.001)	0.235	0.541	2.325	20.969
	November	0.227	0.741	0.695	0.002	(0.001)	0.230	0.553	2.448	23.417
	December	0.249	0.710	0.696	0.002	(0.003)	0.229	0.607	2.492	25.909
	Total	**2.490**	**6.822**	**7.583**	**0.033**	**(0.016)**	**2.648**	**6.349**	**25.909**	
1984	January	0.258	0.736	0.718	0.003	0.001	0.228	0.528	2.471	2.471
	February	0.238	0.601	0.610	0.003	0.002	0.230	0.498	2.182	4.654
	March	0.240	0.645	0.689	0.003	(0.001)	0.238	0.568	2.381	7.035
	April	0.255	0.525	0.631	0.003	0.000	0.236	0.530	2.178	9.213
	May	0.246	0.536	0.682	0.003	(0.001)	0.241	0.594	2.302	11.516
	June	0.226	0.528	0.625	0.003	(0.002)	0.249	0.622	2.251	13.766
	July	0.228	0.558	0.634	0.003	(0.001)	0.245	0.599	2.266	16.032
	August	0.231	0.568	0.689	0.002	(0.002)	0.254	0.633	2.376	18.408
	September	0.224	0.578	0.664	0.002	0.000	0.243	0.519	2.230	20.638
	October	0.223	0.656	0.716	0.002	(0.003)	0.242	0.565	2.401	23.039
	November	0.233	0.780	0.657	0.002	(0.003)	0.234	0.558	2.462	25.502
	December	0.257	0.672	0.658	0.002	(0.001)	0.227	0.546	2.361	27.863
	Total	**2.860**	**7.383**	**7.972**	**0.033**	**(0.011)**	**2.868**	**6.759**	**27.863**	
1985	January	0.274	0.849	0.677	0.003	0.000	0.229	0.587	2.620	2.620
	February	0.253	0.442	0.596	0.003	0.001	0.227	0.482	2.004	4.624
	March	0.254	0.593	0.637	0.003	0.000	0.236	0.529	2.252	6.876
	Year to Date	**0.781**	**1.883**	**1.911**	**0.009**	**0.002**	**0.692**	**1.598**	**6.876**	

[1]Includes supplemental gaseous fuels.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

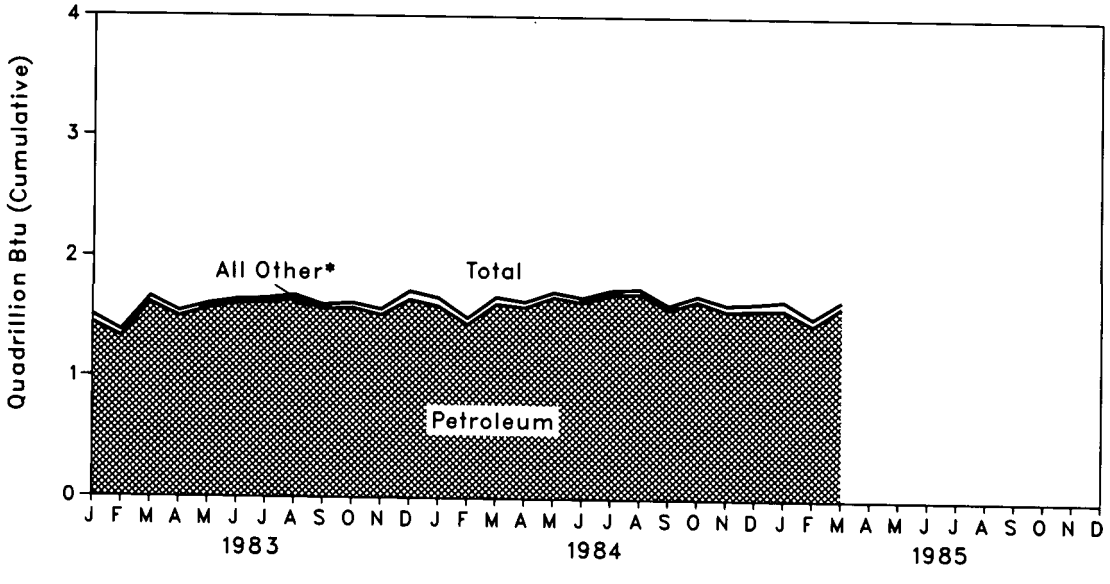
Consumption

Consumption of Energy by the Transportation Sector

Yearly



Monthly



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

Consumption

Consumption of Energy by the Transportation Sector

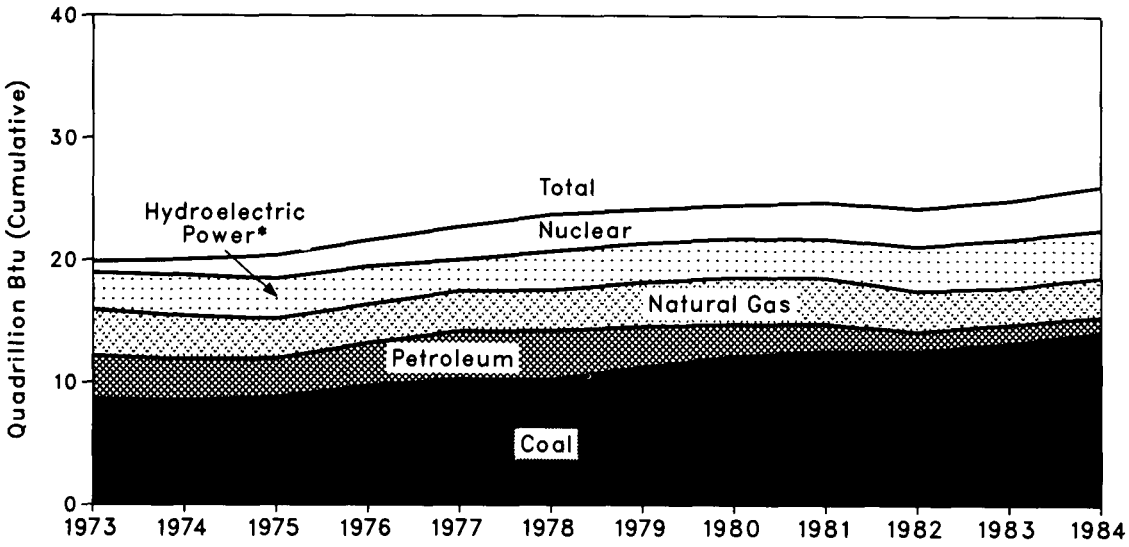
		Coal	Natural Gas[1]	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
				Quadrillion (10^{15}) Btu				
1973	**Total**	**0.003**	**0.743**	**17.821**	**0.009**	**0.020**	**18.596**	
1974	**Total**	**0.002**	**0.685**	**17.396**	**0.009**	**0.022**	**18.113**	
1975	**Total**	**0.001**	**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	January	(2)	0.059	1.444	0.001	0.002	1.506	1.506
	February	(2)	0.049	1.327	0.001	0.002	1.379	2.885
	March	(2)	0.047	1.609	0.001	0.002	1.660	4.545
	April	(2)	0.041	1.497	0.001	0.002	1.541	6.086
	May	(2)	0.034	1.566	0.001	0.002	1.603	7.688
	June	(2)	0.029	1.607	0.001	0.002	1.639	9.327
	July	(2)	0.031	1.614	0.001	0.002	1.648	10.975
	August	(2)	0.033	1.640	0.001	0.002	1.676	12.651
	September	(2)	0.032	1.563	0.001	0.002	1.598	14.249
	October	(2)	0.037	1.576	0.001	0.002	1.616	15.866
	November	(2)	0.045	1.517	0.001	0.002	1.566	17.431
	December	(2)	0.066	1.645	0.001	0.002	1.714	19.146
	Total	**(2)**	**0.504**	**18.605**	**0.011**	**0.026**	**19.146**	
1984	January	(2)	0.066	1.592	0.001	0.002	1.661	1.661
	February	(2)	0.051	1.442	0.001	0.002	1.496	3.157
	March	(2)	0.054	1.613	0.001	0.002	1.669	4.826
	April	(2)	0.042	1.588	0.001	0.002	1.633	6.459
	May	(2)	0.037	1.672	0.001	0.002	1.712	8.171
	June	(2)	0.033	1.633	0.001	0.002	1.669	9.839
	July	(2)	0.034	1.694	0.001	0.002	1.731	11.571
	August	(2)	0.034	1.705	0.001	0.002	1.743	13.313
	September	(2)	0.033	1.577	0.001	0.002	1.613	14.926
	October	(2)	0.038	1.647	0.001	0.002	1.688	16.614
	November	(2)	0.048	1.567	0.001	0.002	1.619	18.233
	December	(2)	0.054	1.573	0.001	0.002	1.630	19.863
	Total	**(2)**	**0.524**	**19.302**	**0.011**	**0.026**	**19.863**	
1985	January	(2)	0.068	1.581	0.001	0.002	1.652	1.652
	February	(2)	0.056	1.452	0.001	0.002	1.511	3.163
	March	(2)	0.049	1.605	0.001	0.002	1.657	4.820
	Year to Date	**(2)**	**0.173**	**4.637**	**0.003**	**0.007**	**4.820**	

[1]Includes 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.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

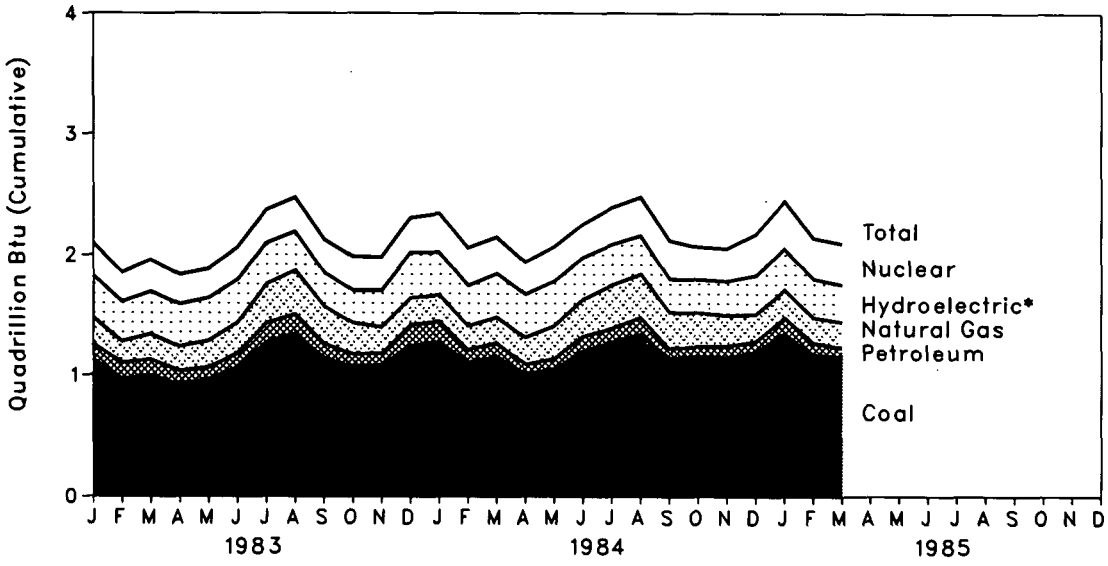
Consumption

Energy Input at Electric Utilities

Yearly



Monthly



*Includes 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	January	1.128	0.215	0.137	0.334	0.273	0.011	2.097	2.097
	February	0.967	0.182	0.134	0.321	0.242	0.008	1.855	3.952
	March	0.996	0.214	0.133	0.345	0.261	0.009	1.958	5.909
	April	0.921	0.209	0.110	0.341	0.244	0.009	1.833	7.743
	May	0.965	0.225	0.097	0.349	0.240	0.007	1.883	9.626
	June	1.064	0.255	0.119	0.348	0.263	0.009	2.059	11.685
	July	1.276	0.324	0.156	0.325	0.279	0.012	2.373	14.058
	August	1.348	0.363	0.158	0.304	0.286	0.015	2.474	16.531
	September	1.146	0.307	0.123	0.264	0.273	0.014	2.127	18.658
	October	1.071	0.259	0.106	0.253	0.281	0.015	1.986	20.644
	November	1.082	0.221	0.099	0.290	0.273	0.013	1.977	22.621
	December	1.249	0.225	0.171	0.363	0.287	0.011	2.307	24.929
	Total	**13.213**	**2.998**	**1.544**	**3.838**	**3.203**	**0.133**	**24.929**	
1984	January	1.278	0.221	0.169	0.341	0.320	0.011	2.340	2.340
	February	1.109	0.193	0.108	0.322	0.310	0.013	2.055	4.395
	March	1.157	0.212	0.115	0.348	0.298	0.015	2.146	6.540
	April	1.009	0.227	0.081	0.343	0.264	0.014	1.938	8.478
	May	1.050	0.272	0.090	0.357	0.282	0.014	2.066	10.544
	June	1.208	0.306	0.121	0.330	0.276	0.013	2.255	12.799
	July	1.280	0.359	0.111	0.321	0.308	0.013	2.394	15.193
	August	1.345	0.360	0.137	0.299	0.322	0.016	2.480	17.673
	September	1.146	0.299	0.083	0.259	0.318	0.015	2.120	19.793
	Octbber	1.161	0.278	0.084	0.258	0.270	0.016	2.068	21.861
	November	1.150	0.252	0.100	0.267	0.268	0.016	2.053	23.914
	December	1.200	0.224	0.086	0.305	0.337	0.018	2.169	26.083
	Total	**14.094**	**3.205**	**1.286**	**3.751**	**3.573**	**0.174**	**26.083**	
1985	January	1.350	0.232	0.132	0.320	0.395	0.018	2.446	2.446
	February	1.177	0.207	0.101	0.304	0.336	0.016	2.140	4.586
	March	1.160	0.212	0.077	0.290	0.339	0.018	2.096	6.682
	Year to Date	**3.687**	**0.651**	**0.310**	**0.914**	**1.069**	**0.052**	**6.682**	

[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.
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), refined petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

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

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

4. Coal: Coal is anthracite, bituminous coal, (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 and 1982: EIA, *Natural Gas Annual.*
- 1983 forward: EIA, *Natural Gas Monthly.*
- Electric utilities consumption—1973 through 1976: FPC Form 4, "Monthly Power Plant Report."
  1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report."
  1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report."

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

Sources for petroleum products supplied by individual products are:

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

Specific petroleum products' end-use allocation procedures follow:

- **Aviation Gasoline**—All product supplied is assigned to the transportation sector.
- **Asphalt**—All product supplied is assigned to the industrial sector.
- **Distillate Fuel**
  - ***Electric Utility Sector, All Periods.***
    Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus 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 1983.***
    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 1983. 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 1983 (cont'd).***
    - Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. 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 1983 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 1983.***
    - Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980 and the American Petroleum Institute since January 1981.
    - The transportation sector highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.
    - Industrial sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.
  - ***Non-Electric Utility Sectors, 1984 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 1983.

- **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 1983. Deliveries for 1983 are used as estimates for 1984 forward. 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 1983. Deliveries for 1983 are used as estimates for 1984 forward. 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 1983. Deliveries for 1983 are used as estimates for 1984 forward. 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)**
  - 1973 through 1982: the annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:
    - Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to 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 52 percent transportation and 48 percent industrial in 1982.
    - LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and for use in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

    The source of the sales data is EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
  - 1983 forward: Because the collection of data under Form EIA-174 was discontinued after data year 1982, the 1982 annual end-use shares based on the 1982 sales data are applied for all succeeding periods to estimate LPG end-use consumption.

- **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 1983.***
    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 1983. 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 1983 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 1983.***
    - Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute since January 1981.
    - Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
    - Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.
  - — ***Non-Electric Utility Sectors, 1984 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 1983.

- **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 and 1983: DOE, Economic Regulatory Administration, ERA-781, "Annual Report of International Electric Import/Export Data."
- 1984 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:
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. Other Energy: "Other" is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
Sources: same as Note 8 above, for Nuclear Electric Power.

11. 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."

12. 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.

Part 3 Petroleum

Petroleum*

Domestic crude oil production during May 1985 was estimated to be 9.0 million barrels per day, 1.4 percent higher than the April 1985 rate, and 2.5 percent higher than the rate in May 1984.

Total petroleum imports averaged 5.4 million barrels per day in May 1985, 2.9 percent more than the April 1985 rate, but 8.7 percent less than the May 1984 rate.

In May 1985, 14.9 million barrels per day of petroleum products were supplied for domestic use, 3.1 percent below the level in April 1985 and 4.5 percent below the level of the previous May. Motor gasoline accounted for 46.4 percent of the total; distillate fuel oil, 17.5 percent; and residual fuel oil, 7.0 percent.

Motor gasoline supplied during May 1985 averaged 6.9 million barrels per day, 0.5 percent below the rate in April 1985 and 0.3 percent above the rate of the previous May. Stocks of motor gasoline totaled 216 million barrels at the end of May 1985, 1 million barrels below the level at the end of April 1985 and 37 million barrels below the level 1 year earlier.

In May 1985, 2.6 million barrels of distillate fuel oil were supplied per day, 6.0 percent lower than the April 1985 rate and 8.0 percent lower than the May 1984 rate. Distillate fuel oil ending stocks in May 1985 were 105 million barrels, 8 million barrels higher than the stocks level of the previous month, and 7 million barrels higher than the May 1984 ending stocks level.

Residual fuel oil supplied in May 1985 averaged 1.0 million barrels per day, 8.6 percent lower than in April 1985 and 15.0 percent lower than the May 1984 rate. Residual fuel oil stocks measured 42 million barrels at the end of May 1985, 5 million barrels lower than the stocks level of the previous month, and 4 million barrels lower than the ending stocks level in May 1984.

*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 February 1985. 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 Production	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**	**[8]1,074**
1975	**Average**	**10,045**	**8,375**	**1,633**	**[6]-17**	**[8]-145**	**16,322**	**1,133**
1976	**Average**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**Average**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**Average**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**Average**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**Average**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	**[8]1,392**
1981	**Average**	**10,230**	**8,572**	**1,609**	**[8]-290**	**[8]130**	**16,058**	**1,484**
1982	**Average**	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	**[8]1,430**
1983	January	10,331	8,697	1,580	[8]-499	[8]772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	Average	**10,299**	**8,688**	**1,559**	**-214**	**234**	**15,231**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April	10,347	8,688	1,616	-565	-128	15,484	1,465
	May	10,415	8,752	1,610	-616	-422	15,566	1,497
	June	10,398	8,743	1,612	-95	-77	15,687	1,502
	July	10,487	8,769	1,649	-184	-184	15,547	1,514
	August	10,476	8,781	1,663	250	185	16,130	1,500
	September	10,464	8,759	1,666	266	-736	15,315	1,514
	October	10,549	8,847	1,648	-798	-211	15,631	1,545
	November	10,558	8,846	1,680	-166	-176	15,602	1,556
	December	10,478	8,797	1,649	-255	275	15,353	1,555
	Average	**10,435**	**8,757**	**1,633**	**-196**	**-83**	**15,707**	
1985	January	10,612	8,929	1,642	18	1,443	16,142	1,510
	February	10,598	8,928	1,629	281	1,232	15,975	1,467
	March	10,588	8,927	1,615	-165	426	15,321	1,459
	April	10,481	8,842	1,600	R-534	R46	R15,345	R1,474
	May†	NA	*8,969*	NA	*-377*	*-692*	*14,869*	*1,501*
	Average	**NA**	**8,919**	**NA**	**-161**	**479**	**15,523**	

[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 production, 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)

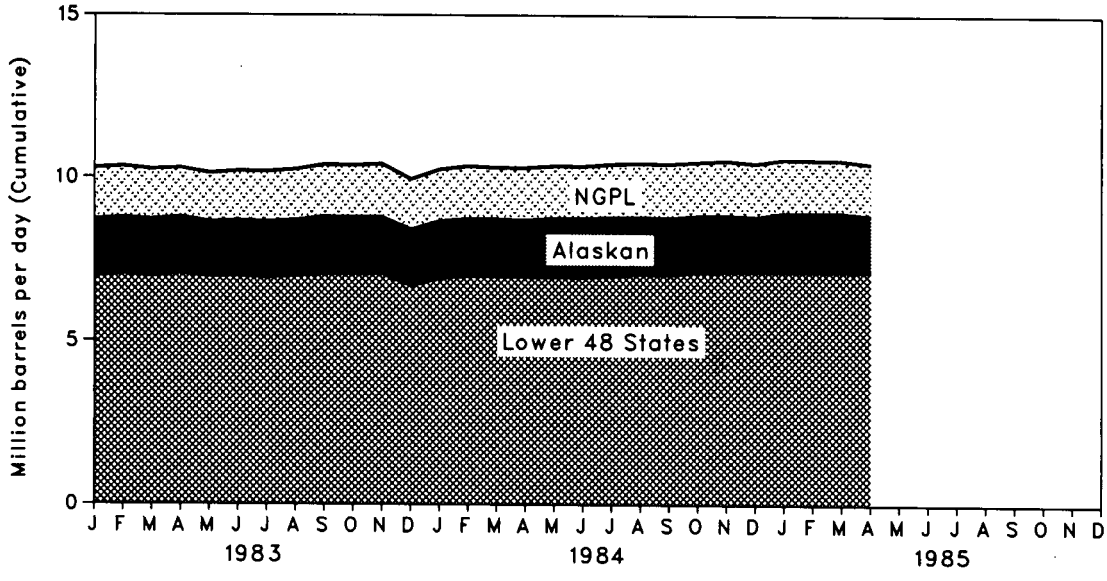
		Imports			Exports			
		Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[7]
		Thousand barrels per day						
1973	**Average**	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974	**Average**	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
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	January	4,438	2,964	1,474	973	117	856	3,464
	February	3,726	2,267	1,459	865	262	603	2,861
	March	3,690	2,290	1,400	801	174	627	2,889
	April	4,727	3,118	1,609	809	88	721	3,918
	May	5,089	3,360	1,729	848	280	568	4,241
	June	5,326	3,577	1,749	774	144	630	4,552
	July	5,741	3,871	1,870	571	145	426	5,170
	August	6,159	4,227	1,933	663	172	491	5,496
	September	6,129	4,210	1,919	684	177	507	5,445
	October	5,258	3,446	1,812	576	140	436	4,682
	November	5,210	3,337	1,873	679	186	494	4,531
	December	5,033	3,213	1,820	639	95	544	4,394
	Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984	January	5,347	3,029	2,318	575	153	422	4,772
	February	5,643	2,952	2,691	582	185	397	5,061
	March	5,253	3,455	1,798	840	236	605	4,413
	April	5,319	3,417	1,902	655	172	483	4,664
	May	5,916	3,927	1,989	766	219	548	5,150
	June	5,304	3,410	1,893	864	222	642	4,440
	July	5,387	3,646	1,741	536	108	429	4,851
	August	5,036	3,244	1,793	732	190	542	4,305
	September	5,173	3,294	1,880	664	162	502	4,510
	October	5,767	3,751	2,016	599	141	458	5,167
	November	5,534	3,552	1,983	854	202	652	4,680
	December	4,909	3,126	1,783	986	185	801	3,924
	Average	**5,381**	**3,402**	**1,979**	**722**	**181**	**541**	**4,660**
1985	January	4,376	2,700	1,676	792	144	647	3,584
	February	3,921	2,126	1,795	857	221	636	3,064
	March	4,689	2,808	1,881	694	189	505	3,996
	April	R5,252	R3,401	R1,851	764	236	528	4,488
	May†	*5,402*	*3,655*	*1,747*	NA	NA	NA	NA
	Average	**4,741**	**2,951**	**1,789**	**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.

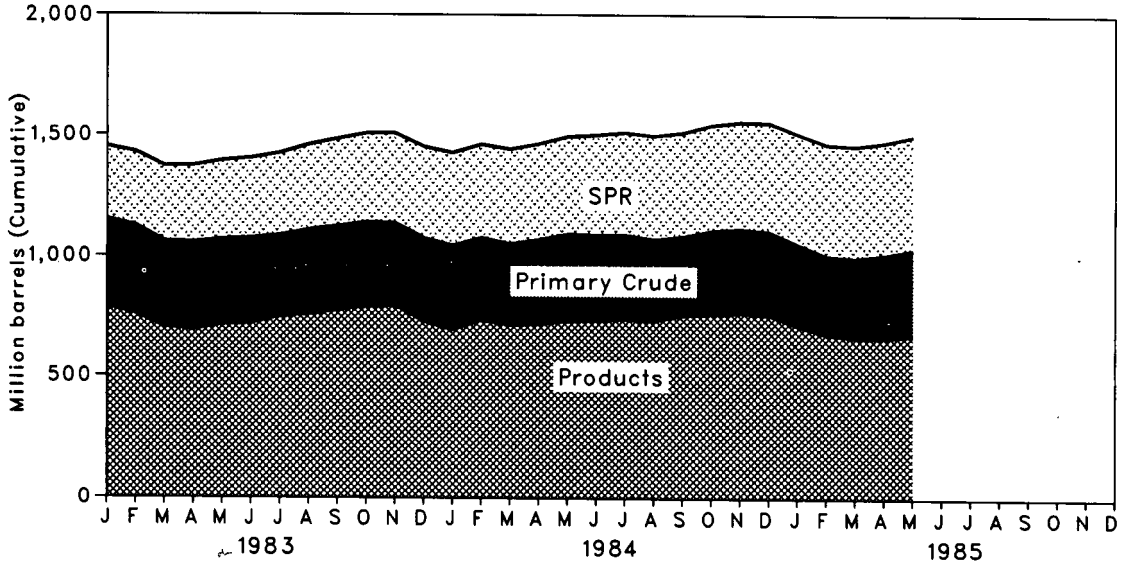
Petroleum

Overview

Production of Crude Oil and Natural Gas Plant Liquids



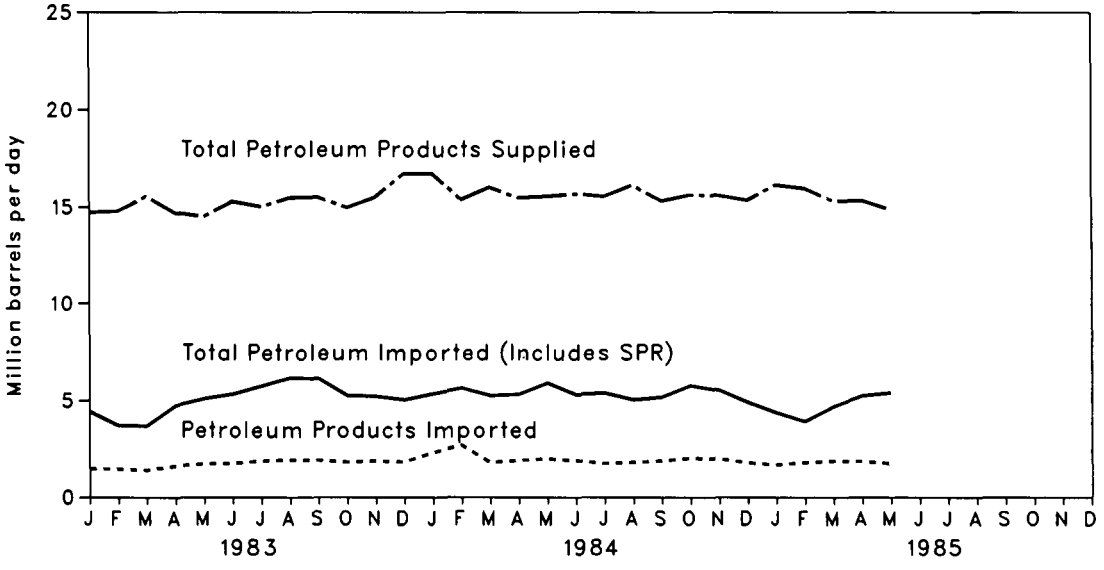
Ending Stocks



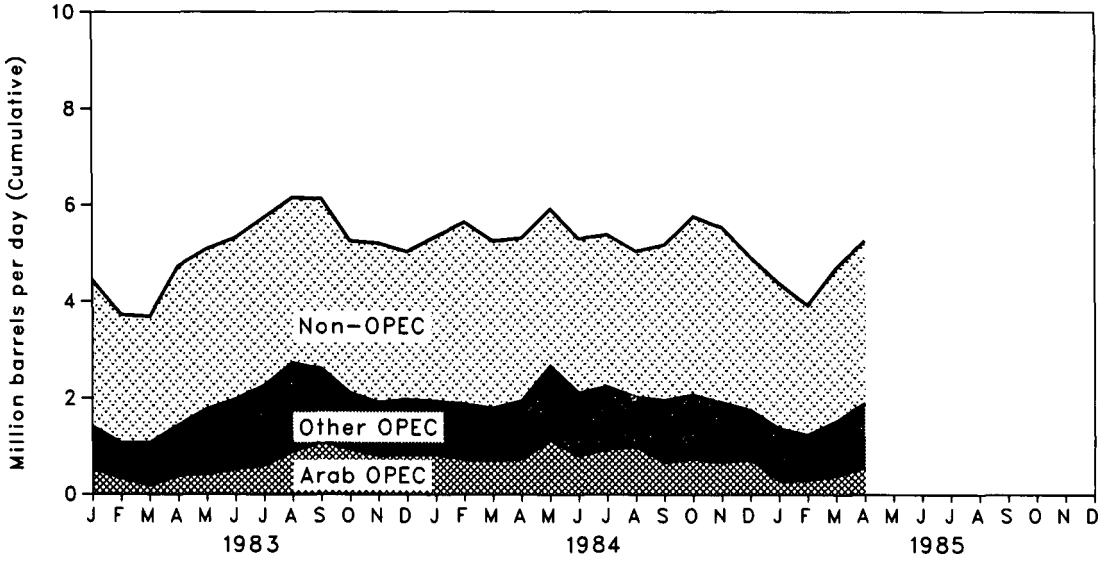
Petroleum

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	January	8,697	1,732	2,964	219	2,746	-219	[6]-280	170
	February	8,758	1,717	2,267	197	2,070	-197	-123	262
	March	8,700	1,732	2,290	201	2,089	-184	267	31
	April	8,776	1,721	3,118	205	2,913	-197	-205	98
	May	8,631	1,662	3,360	289	3,071	-293	278	169
	June	8,667	1,687	3,577	190	3,387	-188	66	370
	July	8,636	1,715	3,871	274	3,597	-264	497	-167
	August	8,679	1,697	4,227	350	3,876	-358	-438	281
	September	8,784	1,738	4,210	309	3,901	-307	68	-30
	October	8,771	1,733	3,446	202	3,244	-201	-73	44
	November	8,770	1,720	3,337	171	3,166	-135	250	34
	December	8,397	1,711	3,213	193	3,020	-252	-78	117
	Average	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**-234**	**20**	**114**
1984	January	8,659	1,741	3,029	200	2,829	-173	-169	451
	February	8,726	1,740	2,952	85	2,868	-96	282	487
	March	8,718	1,740	3,455	148	3,307	-147	145	66
	April	8,688	1,725	3,417	170	3,247	-170	-396	590
	May	8,752	1,793	3,927	246	3,681	-245	-371	463
	June	8,743	1,792	3,410	309	3,101	-309	214	490
	July	8,769	1,769	3,646	329	3,317	-328	144	25
	August	8,781	1,725	3,244	180	3,064	-179	429	383
	September	8,759	1,725	3,294	53	3,240	-53	320	234
	October	8,847	1,708	3,751	187	3,564	-231	-567	385
	November	8,846	1,707	3,552	219	3,332	-160	-6	135
	December	8,797	1,658	3,126	229	2,897	-241	-14	340
	Average	**8,757**	**1,735**	**3,402**	**197**	**3,206**	**-195**	**-1**	**337**
1985	January	8,929	1,788	2,700	223	2,478	-223	241	23
	February	8,928	1,787	2,126	98	2,028	-97	378	346
	March	8,927	1,786	2,808	48	2,760	-48	-117	92
	April	8,842	1,699	R3,401	R108	R3,293	R-111	R-423	411
	May†	*8,969*	*1,827*	*3,655*	*214*	*3,441*	*-217*	*-159*	NA
	Average	**8,919**	**1,778**	**2,951**	**139**	**2,812**	**-140**	**-21**	**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**	**NA**	**242**		**242**
1974	**Average**	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975	**Average**	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976	**Average**	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977	**Average**	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978	**Average**	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979	**Average**	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980	**Average**	**-13**	**15**	**13,481**	**287**	**NA**	**[6]466**	**108**	**[6]358**
1981	**Average**	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982	**Average**	**-59**	**3**	**11,774**	**236**	**NA**	**[6]644**	**294**	**350**
1983	January	NA	2	11,143	117	71	660	301	360
	February	NA	3	10,633	262	71	669	306	363
	March	NA	2	10,859	174	70	667	312	355
	April	NA	2	11,433	88	68	679	318	361
	May	NA	1	11,800	280	63	679	327	353
	June	NA	(s)	12,284	144	64	683	332	351
	July	NA	2	12,360	145	65	676	341	335
	August	NA	1	12,152	172	64	700	352	349
	September	NA	1	12,482	177	66	708	361	347
	October	NA	1	11,782	140	63	716	367	349
	November	NA	2	12,004	186	64	713	371	341
	December	NA	1	11,234	95	67	723	379	344
	Average	**NA**	**2**	**11,685**	**164**	**66**			
1984	January	NA	1	11,579	153	64	733	384	348
	February	NA	1	12,100	185	65	727	387	340
	March	NA	2	11,936	236	62	728	392	336
	April	NA	(s)	11,893	172	64	744	397	348
	May	NA	2	12,243	219	62	764	404	359
	June	NA	2	12,263	222	61	766	414	353
	July	NA	1	12,087	108	60	772	424	348
	August	NA	1	12,403	190	63	764	429	335
	September	NA	-2	12,327	162	66	756	431	325
	October	NA	-1	11,976	141	69	781	438	343
	November	NA	-1	12,103	202	62	786	443	343
	December	NA	(s)	11,758	185	64	794	451	344
	Average	**NA**	**1**	**12,055**	**181**	**64**			
1985	January	NA	1	11,456	144	69	793	457	336
	February	NA	1	11,393	221	66	786	460	325
	March	NA	1	11,404	189	69	791	462	329
	April	NA	(s)	R11,817	236	67	R807	465	R342
	May†	NA	NA	*12,079*	NA	NA	*825*	*471*	*354*
	Average	**NA**	**NA**	**11,633**	**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	January	207	0	282	47	255	43	186	337	54	1,412	537
	February	115	0	214	9	217	0	92	393	28	1,068	338
	March	63	0	103	0	138	0	121	440	201	1,066	183
	April	227	0	162	(s)	210	0	186	523	125	1,432	389
	May	286	0	122	12	405	37	385	455	69	1,771	420
	June	300	0	188	40	466	38	467	335	138	1,973	528
	July	283	0	182	64	464	112	525	434	187	2,251	606
	August	378	0	448	52	433	213	464	511	230	2,728	903
	September	423	0	587	21	501	86	324	432	221	2,595	1,084
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	184	0	545	56	302	21	215	452	135	1,910	807
	December	144	0	569	45	294	9	329	415	163	1,969	826
	Average	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984	January	242	0	463	114	278	0	243	547	51	1,939	828
	February	348	0	324	33	267	0	244	481	174	1,871	723
	March	283	0	307	112	284	67	260	354	127	1,792	717
	April	280	0	320	95	221	0	288	581	158	1,944	734
	May	456	0	329	240	480	0	289	621	242	2,657	1,131
	June	284	0	411	46	415	0	243	574	139	2,112	806
	July	332	0	429	112	384	0	204	535	242	2,237	946
	August	404	0	438	82	281	0	114	487	216	2,021	993
	September	343	0	159	113	333	17	160	689	147	1,961	672
	October	333	0	287	114	436	0	208	578	115	2,070	754
	November	295	0	183	124	409	24	163	536	173	1,907	665
	December	220	0	210	211	314	12	159	449	174	1,750	725
	Average	**318**	**0**	**322**	**117**	**342**	**10**	**214**	**536**	**163**	**2,023**	**809**
1985	January	95	0	106	60	274	0	262	481	89	1,367	289
	February	174	0	108	0	232	0	131	524	64	1,233	307
	March	252	0	85	52	283	0	180	575	84	1,512	390
	April	286	8	186	70	313	0	280	669	86	1,899	561
	Average	**202**	**2**	**121**	**46**	**276**	**0**	**215**	**562**	**81**	**1,506**	**387**

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

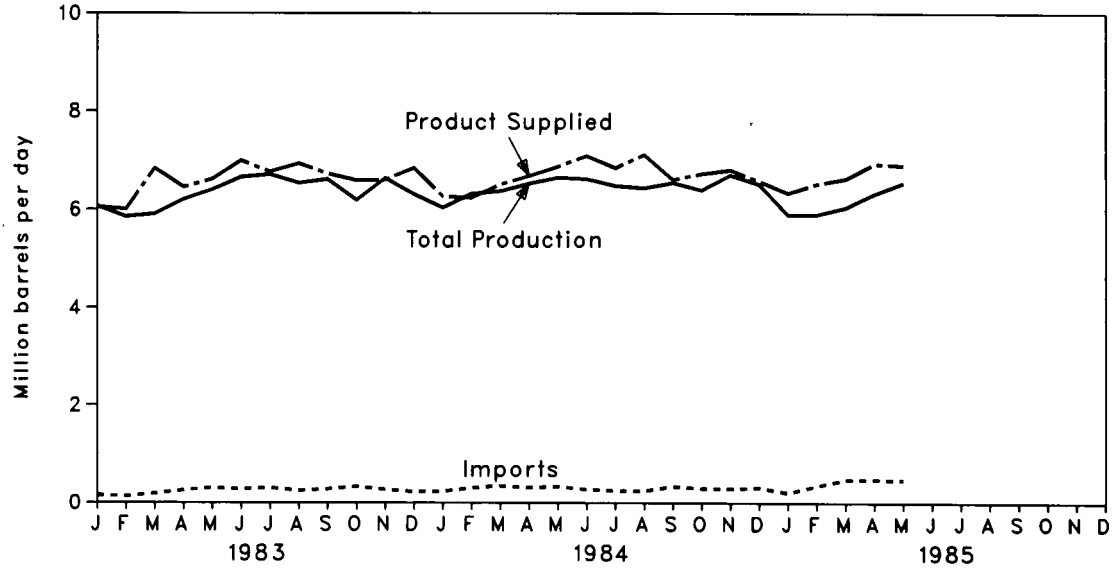
		Imports from Non-OPEC Sources[1]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand barrels per day										
1973	**Average**	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**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	January	68	534	849	228	73	314	40	299	621	3,026	4,438
	February	92	586	722	183	81	193	50	192	558	2,658	3,726
	March	86	488	775	187	78	240	43	162	565	2,624	3,690
	April	174	454	981	216	85	421	20	183	759	3,295	4,727
	May	135	518	944	153	108	484	42	235	699	3,318	5,089
	June	137	586	830	173	120	440	48	262	757	3,353	5,326
	July	69	634	849	198	107	369	37	364	864	3,490	5,741
	August	144	542	906	197	90	461	40	313	738	3,431	6,159
	September	148	533	849	261	82	475	33	307	845	3,534	6,129
	October	171	532	771	172	106	414	48	357	580	3,151	5,258
	November	148	556	726	144	110	334	55	427	801	3,300	5,210
	December	127	604	710	153	113	429	22	278	628	3,063	5,033
	Average	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984	January	152	624	705	277	54	382	53	390	772	3,408	5,347
	February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
	March	88	726	707	169	93	400	34	247	996	3,460	5,253
	April	88	691	859	207	91	282	37	257	863	3,375	5,319
	May	31	715	675	192	57	418	38	336	796	3,259	5,916
	June	50	499	732	234	104	318	53	268	934	3,192	5,304
	July	14	574	738	99	120	362	27	292	924	3,150	5,387
	August	57	551	621	205	98	388	34	236	826	3,015	5,036
	September	101	537	762	133	103	490	38	245	803	3,213	5,173
	October	152	685	827	112	122	486	37	321	955	3,697	5,767
	November	88	637	822	174	115	544	44	283	921	3,628	5,534
	December	75	690	684	141	98	337	46	235	853	3,160	4,909
	Average	**86**	**629**	**739**	**185**	**94**	**396**	**42**	**294**	**893**	**3,358**	**5,381**
1985	January	90	610	765	125	113	345	32	235	695	3,009	4,376
	February	37	730	649	39	119	150	50	213	702	2,688	3,921
	March	32	900	921	52	137	141	29	235	730	3,177	4,689
	April	0	880	950	18	107	214	42	205	937	3,353	5,252
	Average	**40**	**780**	**825**	**59**	**119**	**214**	**38**	**222**	**766**	**3,064**	**4,570**

Footnotes continued.
[1]Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.
(s)=Less than 500 barrels per day.
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.

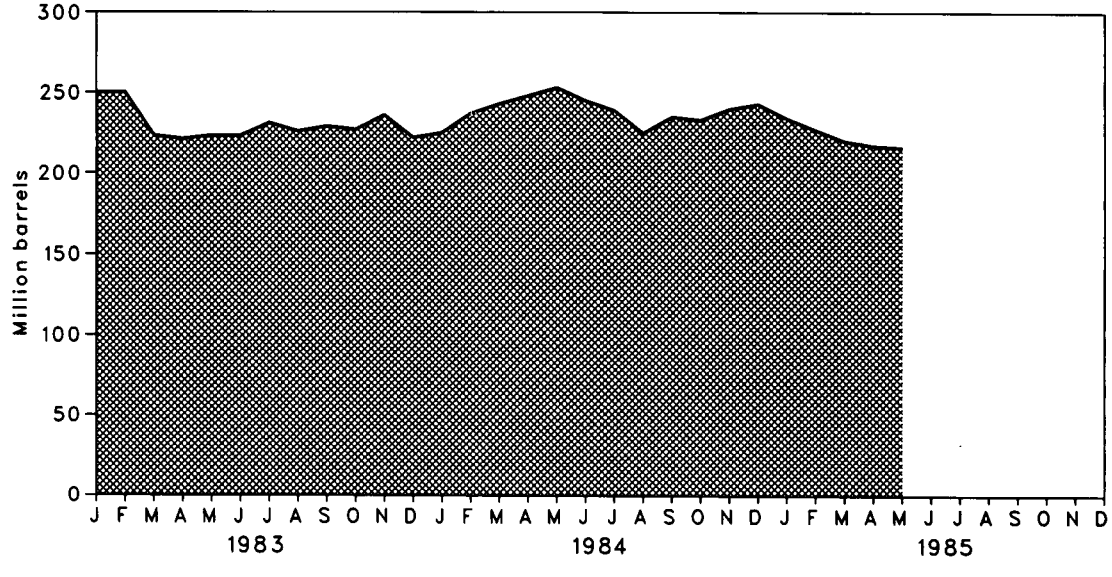
Petroleum

Finished Motor Gasoline Supply and Disposition

Products Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Finished Motor Gasoline Supply and Disposition

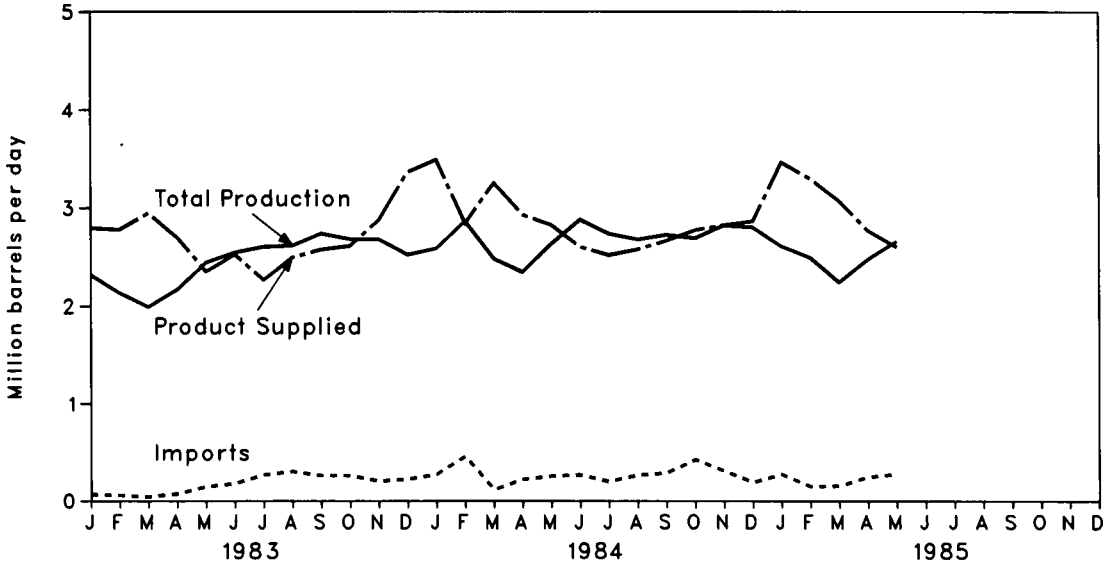
		Supply			Disposition				Ending Stocks[1]	
						Product Supplied				
		Total Production	Imports[2]	Stock Withdrawal[2,3]	Exports	Total	Unleaded[4]	Unleaded Percent of Total	Total Motor Gasoline[5]	Finished Motor Gasoline
		Thousand barrels per day							Million barrels	
1973	**Average**	**6,535**	**134**	**9**	**4**	**6,674**			**209**	
1974	**Average**	**6,360**	**204**	**-24**	**2**	**6,537**			**[6]218**	
1975	**Average**	**6,520**	**184**	**[6]-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**	**[6]261**	
1981	**Average[7]**	**6,405**	**157**	**[6]28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
1982	**Average**	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**	**[6]235**	
1983	January	6,065	153	[6]-167	(s)	6,051	3,364	55.6	250	207
	February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
	March	5,906	186	768	23	6,836	3,622	53.0	223	183
	April	6,201	255	-3	1	6,452	3,492	54.1	221	183
	May	6,397	305	-83	1	6,617	3,558	53.8	223	185
	June	6,655	277	84	22	6,994	3,792	54.2	223	183
	July	6,707	302	-225	18	6,765	3,746	55.4	231	190
	August	6,537	250	161	13	6,936	3,836	55.3	226	185
	September	6,611	279	-149	14	6,727	3,691	54.9	229	189
	October	6,188	330	72	2	6,588	3,711	56.3	227	187
	November	6,634	269	-298	2	6,603	3,692	55.9	236	196
	December	6,308	224	339	25	6,846	3,966	57.9	222	186
	Average	**6,340**	**247**	**45**	**10**	**6,622**	**3,647**	**55.1**		
1984	January	6,037	233	-1	1	6,268	3,606	57.5	225	186
	February	6,320	303	-384	2	6,237	3,585	57.5	237	197
	March	6,375	343	-197	9	6,512	3,747	57.5	243	203
	April	6,528	308	-153	(s)	6,682	3,854	57.7	248	207
	May	6,650	329	-106	(s)	6,873	3,990	58.1	253	211
	June	6,620	272	217	17	7,092	4,210	59.4	245	204
	July	6,481	247	130	9	6,849	4,094	59.8	239	200
	August	6,436	243	437	1	7,114	4,263	59.9	225	187
	September	6,545	333	-263	2	6,614	3,982	60.2	235	194
	October	6,396	293	42	1	6,730	4,074	60.5	233	193
	November	6,705	286	-175	11	6,805	4,243	62.3	240	198
	December	6,513	308	-225	16	6,580	4,185	63.6	243	205
	Average	**6,467**	**291**	**-55**	**6**	**6,698**	**3,987**	**59.5**		
1985	January	5,889	204	245	2	6,336	4,026	63.5	234	198
	February	5,900	347	277	2	6,521	4,048	62.1	227	190
	March	6,041	473	118	3	6,629	4,189	63.2	220	186
	April	R6,322	R475	R145	11	R6,931	4,377	63.1	R217	R182
	May†	*6,545*	*467*	*-112*	NA	*6,897*	NA	NA	*216*	*182*
	Average	**6,143**	**393**	**132**	**NA**	**6,664**	**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.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

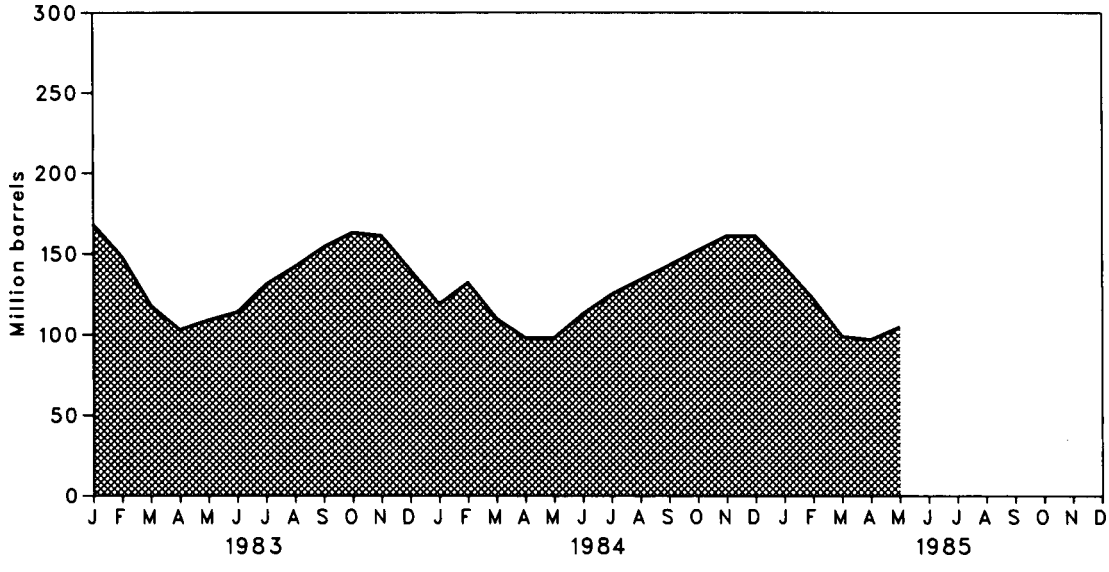
Petroleum

Distillate Fuel Oil Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



Petroleum

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Product Supplied[3]	
		Thousand barrels per day						Million barrels
1973	**Average**	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974	**Average**	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[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	January	2,321	68	[4]580	NA	173	2,797	168
	February	2,135	59	691	NA	105	2,780	148
	March	1,993	42	971	NA	59	2,947	118
	April	2,171	73	500	NA	47	2,697	103
	May	2,444	147	-186	NA	50	2,354	109
	June	2,546	179	-161	NA	40	2,524	114
	July	2,604	267	-546	NA	55	2,270	131
	August	2,615	301	-379	NA	43	2,495	142
	September	2,739	259	-386	NA	37	2,575	154
	October	2,681	260	-276	NA	55	2,611	163
	November	2,680	203	45	NA	54	2,874	161
	December	2,522	221	676	NA	54	3,365	140
	Average	**2,456**	**174**	**124**	**NA**	**64**	**2,690**	
1984	January	2,585	270	676	NA	40	3,490	119
	February	2,864	458	-439	NA	41	2,842	132
	March	2,480	115	727	NA	66	3,256	110
	April	2,347	220	393	NA	32	2,929	98
	May	2,633	252	-10	NA	48	2,827	98
	June	2,879	266	-490	NA	53	2,602	113
	July	2,736	198	-375	NA	40	2,518	125
	August	2,678	263	-291	NA	74	2,575	134
	September	2,724	285	-322	NA	22	2,665	143
	October	2,692	424	-295	NA	47	2,773	152
	November	2,821	308	-281	NA	24	2,824	161
	December	2,803	190	-11	NA	120	2,862	161
	Average	**2,686**	**270**	**-57**	**NA**	**51**	**2,848**	
1985	January	2,608	271	624	NA	41	3,462	142
	February	2,491	148	724	NA	64	3,299	122
	March	2,244	153	715	NA	44	3,069	99
	April	R2,474	R244	R75	NA	27	R2,767	R97
	May†	*2,659*	*275*	*-279*	NA	NA	*2,600*	*105*
	Average	**2,496**	**220**	**367**	**NA**	**NA**	**3,036**	

[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 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.
[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.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
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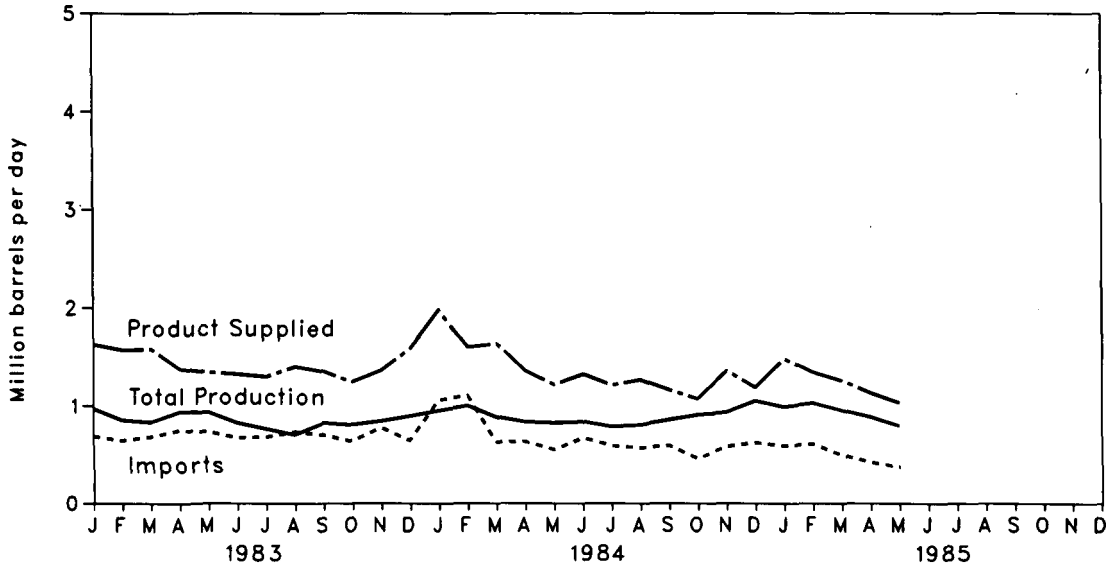
Sources: • See the last page of this section.

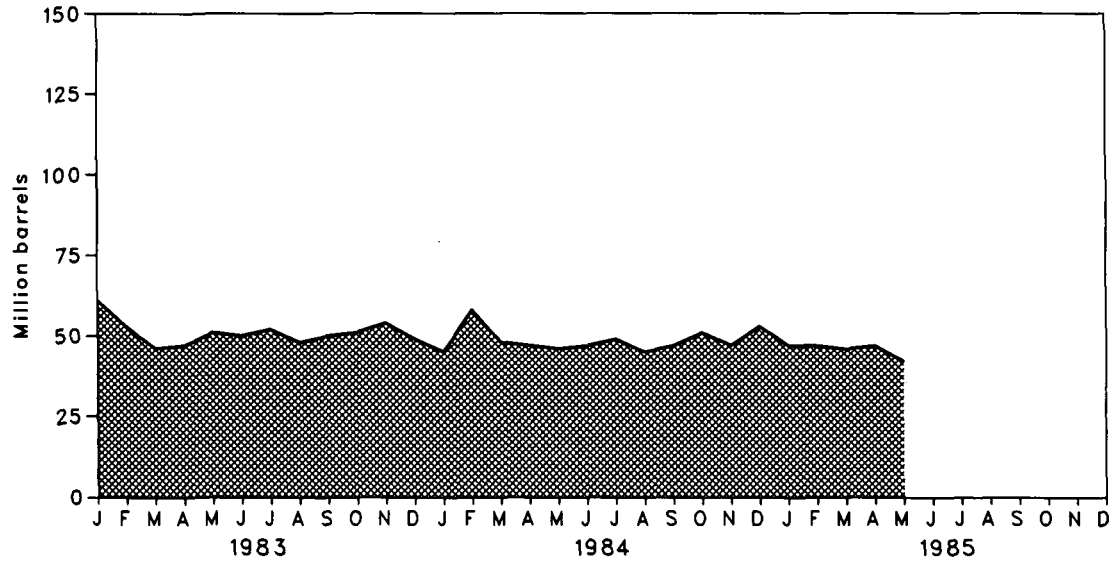
Petroleum

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**	**[4]60**
1975	**Average**	**1,235**	**1,223**	**[4]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**	**[4]92**
1981	**Average[5]**	**1,321**	**800**	**[4]37**	**48**	**118**	**2,088**	**78**
1982	**Average**	**1,070**	**776**	**32**	**48**	**209**	**1,716**	**[4]66**
1983	January	972	691	[4]258	NA	294	1,626	61
	February	857	647	257	NA	191	1,570	53
	March	835	686	227	NA	169	1,579	46
	April	941	753	-10	NA	310	1,374	47
	May	936	738	-141	NA	190	1,342	51
	June	828	677	36	NA	218	1,323	50
	July	769	684	-64	NA	90	1,299	52
	August	710	739	115	NA	165	1,400	48
	September	826	706	-47	NA	134	1,351	50
	October	807	638	-50	NA	153	1,243	51
	November	845	780	-97	NA	167	1,362	54
	December	897	649	182	NA	141	1,587	49
	Average	**852**	**699**	**55**	**NA**	**185**	**1,421**	
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March	887	633	321	NA	204	1,637	48
	April	840	637	9	NA	130	1,357	47
	May	829	554	35	NA	200	1,218	46
	June	841	676	-17	NA	176	1,324	47
	July	792	596	-77	NA	99	1,213	49
	August	808	572	146	NA	260	1,266	45
	September	861	596	-77	NA	214	1,165	47
	October	912	461	-123	NA	174	1,075	51
	November	936	588	119	NA	286	1,357	47
	December	1,055	627	-193	NA	299	1,190	53
	Average	**893**	**674**	**-11**	**NA**	**190**	**1,365**	
1985	January	991	594	208	NA	312	1,481	47
	February	1,031	614	-7	NA	295	1,343	47
	March	954	496	22	NA	216	1,256	46
	April	R888	R422	R-11	NA	167	R1,133	R47
	May†	*799*	*374*	*119*	NA	NA	*1,035*	*42*
	Average	**931**	**498**	**68**	**NA**	**NA**	**1,249**	

[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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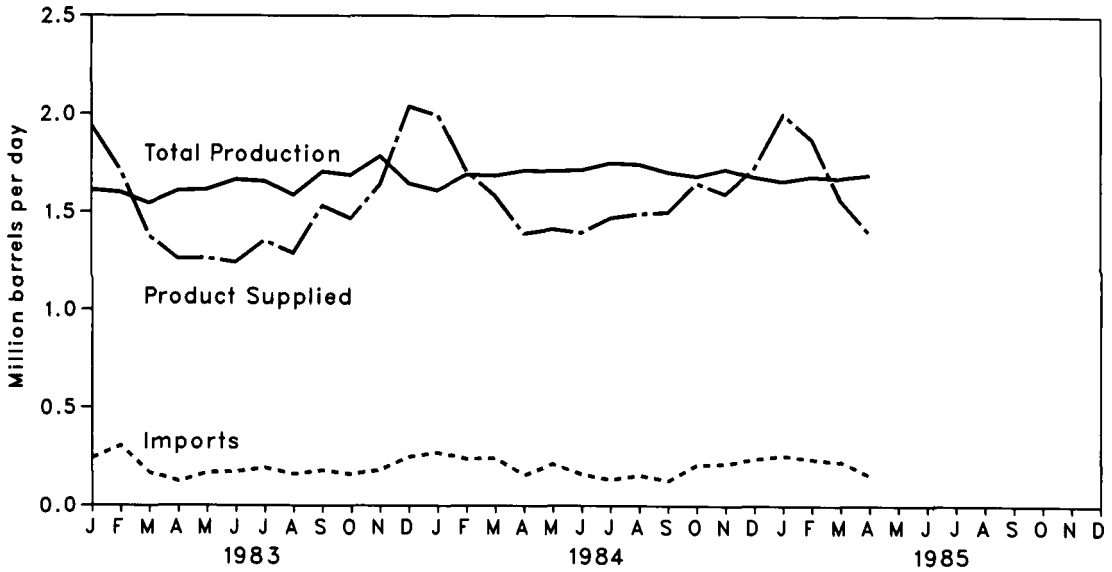
Sources: • See the last page of this section.

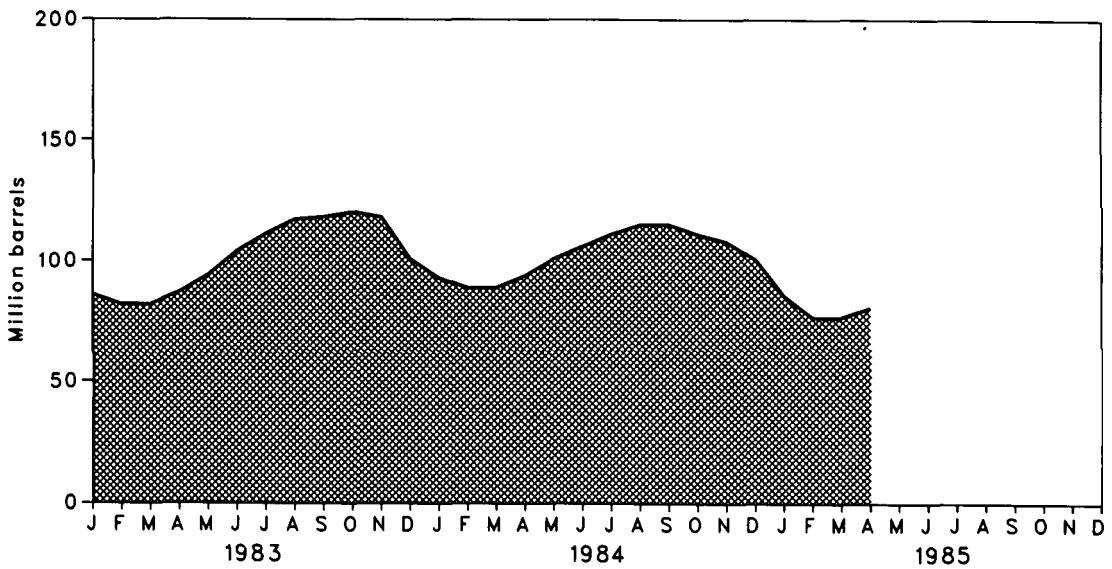
Petroleum

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	January	1,611	240	[4]520	313	118	1,939	86
	February	1,600	305	128	244	76	1,713	82
	March	1,543	166	-9	197	127	1,377	82
	April	1,607	124	-156	198	116	1,260	87
	May	1,613	167	-225	207	84	1,263	94
	June	1,664	172	-334	203	59	1,241	104
	July	1,656	191	-221	217	55	1,354	111
	August	1,586	160	-199	229	29	1,289	117
	September	1,705	178	-30	236	86	1,531	118
	October	1,688	160	-81	268	32	1,467	120
	November	1,785	180	70	362	33	1,640	118
	December	1,645	247	575	363	66	2,038	[4]101
	Average	**1,642**	**190**	**4**	**253**	**73**	**1,509**	
1984	January	1,610	269	[4]470	333	23	1,993	93
	February	1,690	237	146	323	41	1,708	89
	March	1,685	241	12	289	68	1,581	89
	April	1,711	155	-170	253	54	1,389	94
	May	1,709	211	-221	244	42	1,412	101
	June	1,714	158	-189	237	53	1,394	106
	July	1,750	132	-138	232	43	1,469	111
	August	1,744	154	-132	241	34	1,491	115
	September	1,704	128	-24	283	26	1,499	115
	October	1,683	207	137	322	56	1,648	111
	November	1,719	212	90	376	52	1,593	108
	December	1,681	237	241	351	82	1,727	101
	Average	**1,700**	**195**	**19**	**291**	**48**	**1,576**	
1985	January	1,658	255	466	309	70	2,001	86
	February	1,682	237	338	313	72	1,872	77
	March	1,672	223	-13	270	52	1,560	77
	April	1,691	156	-115	260	78	1,394	81
	Average	**1,676**	**218**	**167**	**287**	**68**	**1,705**	

[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.
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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	January	3,194	322	[4]-419	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479	361	883	257	2,823	[4]256
	Average	**3,460**	**411**	**6**	**712**	**242**	**2,923**	
1984	January	3,391	486	[4]-177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April	3,584	582	-207	627	268	3,063	274
	May	3,683	642	-118	775	257	3,175	277
	June	3,863	521	404	1,229	343	3,213	265
	July	3,866	567	278	1,034	238	3,438	257
	August	3,855	561	24	648	172	3,621	256
	September	3,768	539	-51	712	238	3,306	258
	October	3,580	632	30	724	180	3,336	257
	November	3,530	592	64	948	281	2,960	255
	December	3,383	421	464	1,054	284	2,931	240
	Average	**3,633**	**549**	**21**	**799**	**246**	**3,158**	
1985	January	3,258	352	-102	494	223	2,792	243
	February	3,385	449	-99	658	204	2,874	246
	March	3,436	536	-415	627	190	2,739	259
	April	3,570	553	-49	776	245	3,054	260
	Average	**3,412**	**472**	**-169**	**637**	**216**	**2,863**	

[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 1983: EIA, *Petroleum Supply Annual.*
- January 1983 through April 1985: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- May 1985: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1983 through May 1985: 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 April 1985 was an estimated 1.5 trillion cubic feet (Tcf). This was 1.8 percent higher than in April 1984. Dry natural gas production during the first 4 months of 1985 totaled an estimated 5.9 Tcf or 49.1 billion cubic feet (Bcf) per day compared with 48.9 Bcf per day for the first 4 months of 1984.

Consumption of natural and supplemental gas in April 1985 was an estimated 1.4 Tcf, 2.6 percent less than in April 1984. Estimated consumption during the first 4 months of 1985 totaled 7.2 Tcf, 1.4 percent higher (on a daily-average basis) than during the comparable 1984 period.

Deliveries to residential consumers during March 1985 (latest data available) were an estimated 543 Bcf. This was 10.7 percent lower than in March 1984. Residential consumption totaled 2,096 Bcf, or 23.3 Bcf per day, during the first quarter of 1985. This was 6.3 percent higher, on a daily-average basis, than during the first quarter of 1984. Total deliveries to industrial consumers during March 1985 were an estimated 485 Bcf. This was 9.9 percent lower than in March 1984.

Imports of natural gas in April 1985 were an estimated 76 Bcf, 5.6 percent higher than in the previous April. Receipts of foreign gas during April 1985 included Algerian liquefied natural gas (LNG) equivalent to approximately 3 Bcf.

Stocks of working gas* in underground natural gas storage reservoirs at the end of April 1985 totaled 1,862 Bcf. This was 14.9 percent above stocks available a year earlier. Net injections into storage during April 1985 were 112 Bcf, 143.5 percent higher than during the previous April.

*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	January	1,688	125	20	7	1,536	72	1,464
	February	1,488	111	17	7	1,353	64	1,289
	March	1,552	125	18	8	1,401	66	1,335
	April	1,470	123	16	8	1,323	62	1,261
	May	1,467	114	17	9	1,328	62	1,266
	June	1,415	121	19	7	1,268	60	1,208
	July	1,502	128	18	8	1,348	63	1,285
	August	1,555	127	20	8	1,400	66	1,334
	September	1,514	123	19	8	1,364	64	1,300
	October	1,591	125	18	8	1,440	68	1,372
	November	1,602	117	19	9	1,457	68	1,389
	December	1,753	119	21	8	1,605	75	1,530
	Total	**18,597**	**1,458**	**222**	**95**	**16,822**	**790**	**16,033**
1984	January	1,858	119	22	7	1,709	80	1,629
	February	1,621	115	19	6	1,481	70	1,411
	March	1,666	112	21	7	1,526	72	1,454
	April	1,642	120	19	7	1,495	70	1,425
	May	1,644	127	20	7	1,490	70	1,420
	June	1,593	124	20	8	1,442	68	1,374
	July	1,649	126	19	8	1,496	70	1,426
	August	1,628	127	19	8	1,475	69	1,406
	September	1,547	121	15	7	1,403	66	1,337
	October	1,634	128	18	7	1,481	70	1,411
	November	1,627	124	16	8	1,478	69	1,409
	December	1,745	131	21	7	1,587	75	1,512
	Total	**19,854**	**1,474**	**229**	**87**	**18,064**	**849**	**17,214**
1985	January	1,810	138	20	8	1,644	77	1,567
	February	1,620	124	18	7	1,471	69	1,402
	March	*1,700*	*129*	*19*	*7*	*1,545*	*73*	*1,472*
	April	*1,677*	*128*	*19*	*7*	*1,523*	*72*	*1,451*
	Year to Date	**6,807**	**519**	**76**	**29**	**6,183**	**291**	**5,892**

[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 1983 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	With-drawals from Storage[1]	Supple-mental Gaseous Fuels[2]	Imports[2]	Total Supply/ Disposition[3]	Additions to Storage[1]	Exports[2]	Consump-tion[2]	Un-accounted 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	January	1,464	474	15	112	2,065	26	5	1,975	59
	February	1,289	341	13	95	1,738	39	5	1,642	52
	March	1,335	280	12	86	1,713	63	5	1,591	54
	April	1,261	171	11	74	1,517	88	5	1,373	51
	May	1,266	43	9	61	1,379	205	5	1,118	51
	June	1,208	23	8	59	1,298	273	3	974	48
	July	1,285	26	8	58	1,377	287	5	1,034	51
	August	1,334	37	9	56	1,436	265	6	1,112	53
	September	1,300	28	9	67	1,404	277	4	1,071	52
	October	1,372	42	10	64	1,488	183	4	1,246	55
	November	1,389	169	12	80	1,650	86	5	1,503	56
	December	1,530	634	17	107	2,288	31	5	2,191	61
	Total	**16,033**	**2,270**	**132**	**920**	**19,354**	**1,822**	**55**	**16,835**	**[5]642**
1984	January	1,629	563	17	95	2,304	54	4	2,202	44
	February	1,411	300	13	70	1,794	62	4	1,690	38
	March	1,454	359	14	69	1,896	50	5	1,802	39
	April	1,425	99	11	72	1,607	145	5	1,419	38
	May	1,420	30	10	73	1,533	258	6	1,231	38
	June	1,374	26	9	63	1,472	325	4	1,106	37
	July	1,426	28	9	59	1,522	341	5	1,138	38
	August	1,406	30	9	57	1,502	313	5	1,146	38
	September	1,337	30	9	58	1,434	287	5	1,106	36
	October	1,411	55	10	68	1,544	244	4	1,258	38
	November	1,409	221	12	83	1,725	82	4	1,601	38
	December	1,512	298	14	94	1,918	87	4	1,786	41
	Total	**17,214**	**2,038**	**137**	**861**	**20,251**	**2,249**	**55**	**17,485**	**463**
1985	January	1,567	650	17	104	2,338	31	5	2,260	42
	February	1,402	440	14	99	1,955	51	4	1,862	38
	March	*1,472*	217	16	89	1,794	101	4	1,649	40
	April	*1,451*	94	11	76	1,632	206	5	1,382	39
	Year to Date	**5,892**	**1,401**	**58**	**368**	**7,719**	**389**	**18**	**7,153**	**159**

[1]Monthly and annual data for 1980 through 1982 include underground storage and liquefied natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 on the last two pages of this section.
[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.
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 1983 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	January	89	57	674	341	606	208	1,829	1,975
	February	79	48	651	335	352	177	1,515	1,642
	March	81	46	507	265	484	208	1,464	1,591
	April	77	40	435	224	394	203	1,256	1,373
	May	77	33	260	141	389	218	1,008	1,118
	June	74	28	170	102	352	248	872	974
	July	78	30	126	93	393	314	926	1,034
	August	81	32	115	96	436	352	999	1,112
	September	79	31	120	98	444	299	961	1,071
	October	84	36	189	125	561	251	1,126	1,246
	November	85	44	336	190	634	214	1,374	1,503
	December	93	64	798	422	596	218	2,034	2,191
	Total	**978**	**490**	**4,381**	**2,433**	**5,643**	**2,911**	**15,367**	**16,835**
1984	January	99	64	[3]805	[3]404	615	215	2,039	2,202
	February	86	49	[3]580	[3]291	497	187	1,555	1,690
	March	89	52	608	310	538	206	1,661	1,802
	April	87	41	426	223	422	220	1,291	1,419
	May	87	36	264	147	433	264	1,108	1,231
	June	84	32	160	104	427	299	990	1,106
	July	87	33	124	91	454	349	1,018	1,138
	August	86	33	117	95	465	350	1,027	1,146
	September	82	32	128	95	478	291	992	1,106
	October	86	37	193	122	550	270	1,135	1,258
	November	86	47	353	200	670	245	1,468	1,601
	December	92	52	576	289	559	217	1,642	1,786
	Total	**1,051**	**508**	**4,331**	**2,370**	**6,108**	**3,113**	**15,926**	**17,485**
1985	January	96	66	766	380	727	225	2,098	2,260
	February	85	54	788	390	344	201	1,723	1,862
	March	90	48	543	277	485	206	1,511	1,649
	Year to Date	**271**	**168**	**2,096**	**1,046**	**1,556**	**632**	**5,332**	**5,771**

[1]Includes supplemental gaseous fuels.
[2]Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.
[3]Estimated on the basis of heating degree-day data obtained from the National Oceanic and Atmospheric Administration.
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 1983 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

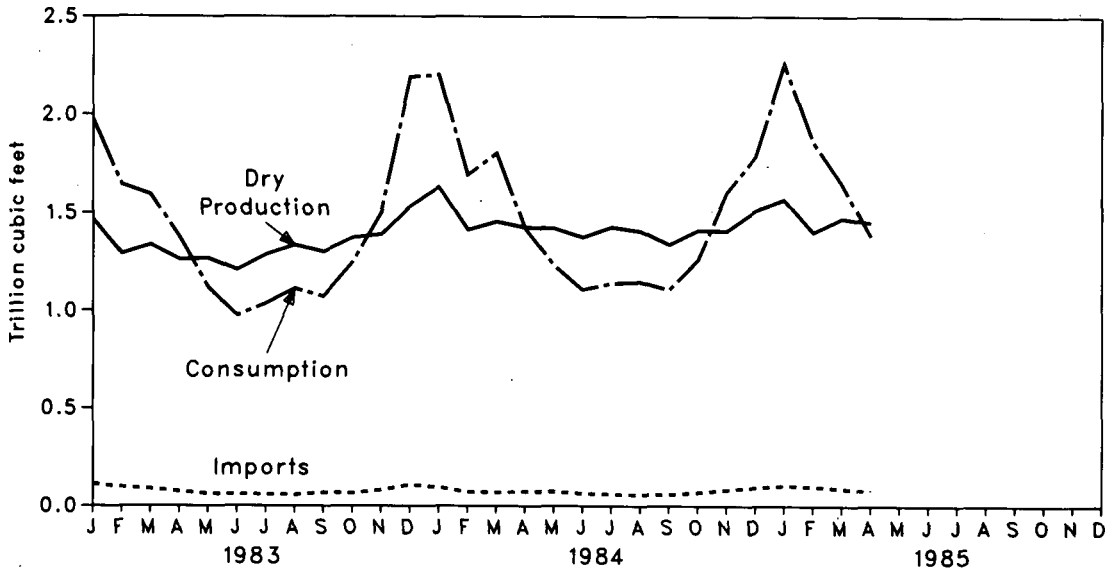
		Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
		Base Gas	Working Gas	Total[1]	Volume	Percent	Injections	Withdrawals	Net[2]
		Volumes in billion cubic feet							
1973	**Total**	**2,864**	**2,034**	**4,898**	**305**	**17.6**	**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	January	3,813	2,644	6,457	462	21.2	24	449	-424
	February	3,811	2,356	6,167	569	31.9	36	325	-289
	March	3,812	2,148	5,959	544	33.9	59	266	-207
	April	3,818	2,074	5,893	398	23.8	82	160	-78
	May	3,818	2,222	6,041	188	9.3	191	40	151
	June	3,819	2,454	6,272	85	3.6	255	22	234
	July	3,826	2,696	6,522	-8	-0.3	268	25	243
	August	3,823	2,908	6,732	-89	-3.0	247	35	212
	September	3,823	3,141	6,964	-110	-3.4	258	26	232
	October	3,825	3,270	7,095	-94	-2.8	171	40	131
	November	3,841	3,175	7,015	-134	-4.1	80	158	-78
	December	3,847	2,595	6,442	-476	-15.5	29	597	-567
	Total						**1,700**	**2,142**	**-442**
1984	January	3,847	2,091	5,937	-553	-20.9	54	563	-509
	February	3,828	1,876	5,704	-480	-20.4	62	300	-238
	March	3,824	1,572	5,396	-575	-26.8	50	359	-308
	April	3,822	1,620	5,442	-454	-21.9	145	99	46
	May	3,827	1,843	5,670	-379	-17.1	258	30	227
	June	3,828	2,141	5,969	-313	-12.7	325	26	299
	July	3,829	2,456	6,285	-240	-8.9	341	28	313
	August	3,829	2,739	6,568	-169	-5.8	313	30	283
	September	3,829	2,996	6,825	-144	-4.6	287	30	257
	October	3,837	3,177	7,014	-92	-2.8	244	55	189
	November	3,849	3,014	6,862	-161	-5.1	82	221	-139
	December	3,774	2,877	6,651	281	10.8	87	298	-211
	Total						**2,249**	**2,038**	**211**
1985	January	3,789	2,242	6,032	152	7.3	31	650	-619
	February	3,842	1,853	5,696	-23	-1.2	51	440	-389
	March	3,836	1,746	5,582	174	11.0	101	217	-116
	April	3,831	1,862	5,693	242	14.9	206	94	112

[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; and 1984—8,043. Current total capacity is 8,069.
[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 1983 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

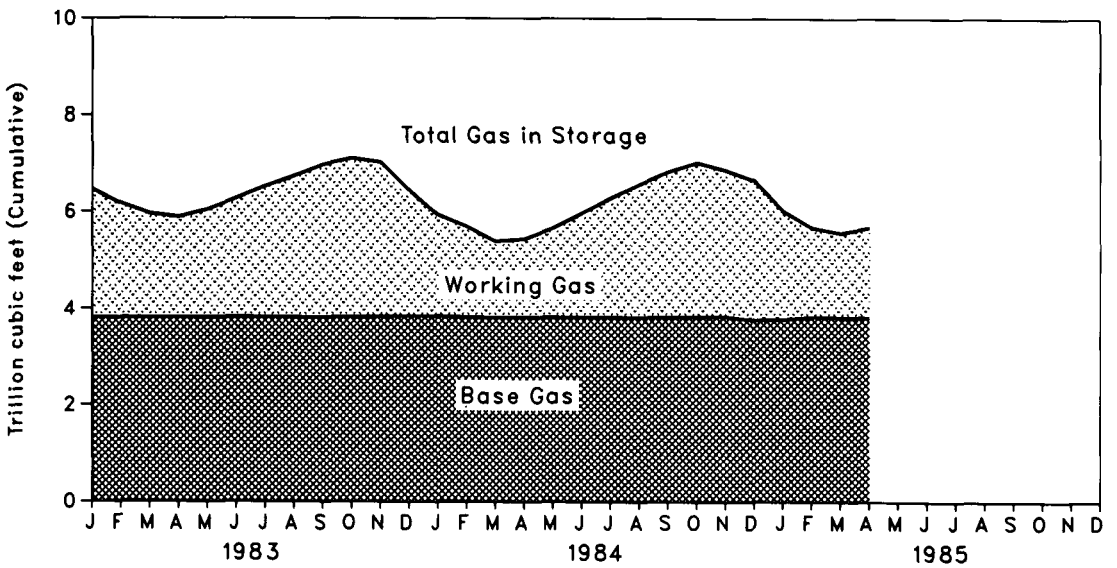
Natural Gas

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 1983.* These data are not available for periods prior to 1980. For 1983, of the 31 producing States, 20 reported data on nonhydrocarbon gases removed. These 20 States accounted for 56 percent of total 1983 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 38 percent of the 1983 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 five States and computed for two States. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for that year. For further informaton 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 1983.*

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 1983* 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 1983.* 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 quantities lost; the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; metering inaccuracies; differences between billing cycle and calendar period time frames; the effect of variations in company accounting and billing practices; and imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of 167 billion cubic feet (Bcf) in the "Unaccounted for" category in 1983, as compared to 1982 figures, reflects unusually large differences resulting from the use of the annual billing cycle (nominally December 15, 1982, through December 15, 1983) for consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 333-Bcf 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 only partially reflected in 1983 consumption data. For underground storage data, see Table F2 in the June 1984 *Natural Gas Monthly,* which was published in August 1984.

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 1983 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 1983: Energy Information Administration (EIA), *Natural Gas Annual 1983;* January 1984 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 1983: EIA, *Natural Gas Annual 1983;* January 1984 forward: EIA computations.
Withdrawals from and Additions to Storage: 1973 through 1983: EIA, *Natural Gas Annual 1983;* January 1984 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."
Supplemental Gaseous Fuels: 1980 through 1983: EIA, *Natural Gas Annual 1983;* January 1984 forward: EIA computations.
Imports and Exports: 1973 through 1983: Form FPC-14, "Imports and Exports of Natural Gas"; January 1984 forward: EIA computations.
End-Use Consumption: • All data except electric utility—1973 through 1983: EIA, *Natural Gas Annual, 1983;* January 1984 forward: EIA computations.
• Electric utility data—EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).
Underground Storage: 1973 and 1974: American Gas Association, *Gas Facts;* 1975 through 1979: EIA, Form FPC-8 and Form EIA-191, and the *Natural Gas Annual;* 1980 forward: EIA, Form FPC-8, Form EIA-191, and Form 176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Part 5 Oil and Gas Resource Development

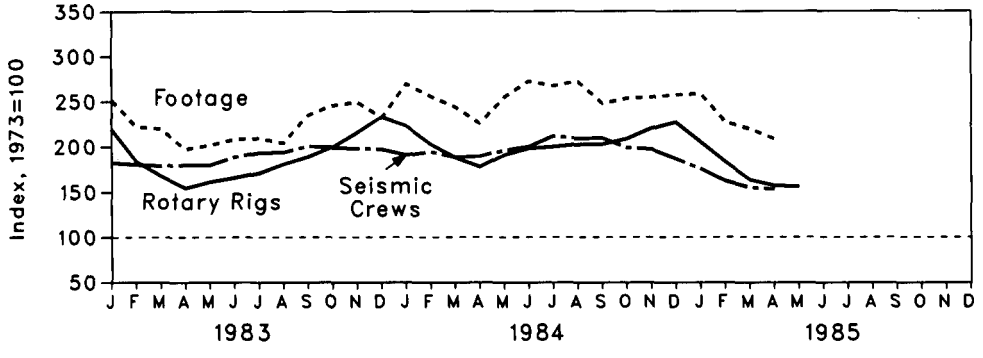
Oil and Gas Resource Development

The 383 crews engaged in seismic exploration in April 1985 were 19.0 percent fewer than the seismic crews working in April 1984. The 47 marine vessels were 6.0 percent fewer and the 336 land crews were 20.6 percent fewer than those working in April 1984.

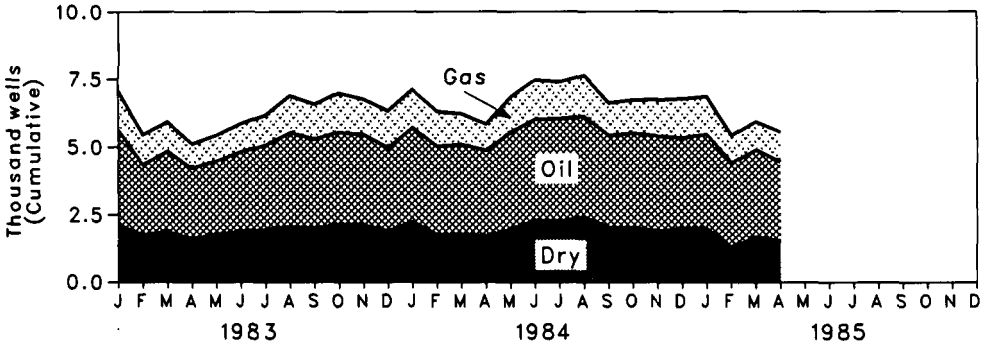
The May 1985 rotary rig count of 1,865 was 18.1 percent less than the May 1984 count of 2,277. The 200 rigs operating offshore during May 1985 were 2 rigs fewer than those working in May 1984.

Total well completions during April 1985 were an estimated 5,550, a decrease of 5.0 percent from the 5,840 wells estimated in April 1984. Oil well completions in April 1985 were an estimated 2,910, a 7.6-percent decrease from the comparable 1984 figure of 3,150 wells. Gas well completions were 1,100 in April 1985, an increase of 13.4 percent over the April 1984 figure of 970. Total footage drilled in April 1985 was 23.9 million feet, a decrease of 7.6 percent from the April 1984 figure of 25.9 million feet.

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			Monthly 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	January	49	407	456	218	2,404	2,622
	February	47	404	451	216	1,976	2,192
	March	45	402	447	210	1,793	2,003
	April	39	410	449	213	1,633	1,846
	May	39	410	449	209	1,717	1,926
	June	43	428	471	202	1,777	1,979
	July	46	437	483	178	1,861	2,039
	August	49	435	484	181	1,975	2,156
	September	57	444	501	175	2,077	2,252
	October	50	448	498	177	2,205	2,382
	November	49	446	495	159	2,413	2,572
	December	48	445	493	210	2,570	2,780
	Average	**47**	**426**	**473**	**196**	**2,033**	**R2,229**
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	NA	NA	NA	200	1,665	1,865
	Average	**NA**	**NA**	**NA**	**222**	**1,846**	**2,068**

[1]Monthly data are averages of 4- or 5-week reporting periods and are not calendar months.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Averages may not equal sum of components due to independent rounding.
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."

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**	**10.46**	**27.68**	**139.42**
1974	**Total**	**13.67**	**7.17**	**12.22**	**33.05**	**153.85**
1975	**Total**	**16.98**	**8.17**	**13.75**	**38.90**	**181.16**
1976	**Total**	**17.68**	**9.42**	**13.85**	**40.95**	**187.37**
1977	**Total**	**18.72**	**12.13**	**15.06**	**45.91**	**216.14**
1978	**Total**	**19.07**	**14.42**	**16.63**	**50.12**	**238.70**
1979	**Total**	**20.73**	**15.22**	**16.09**	**52.05**	**244.36**
1980	**Total**	**32.28**	**17.25**	**20.32**	**69.86**	**312.72**
1981	**Total**	**42.99**	**20.03**	**27.24**	**90.26**	**409.82**
1982	**Total**	**39.01**	**18.79**	**26.38**	**84.19**	**378.27**
1983	January	3.48	1.45	2.14	7.07	29.78
	February	2.60	1.11	1.74	5.44	23.77
	March	2.95	1.09	1.88	5.92	26.04
	April	2.62	0.89	1.60	5.12	22.60
	May	2.70	0.96	1.77	5.44	23.88
	June	2.93	1.05	1.88	5.87	23.83
	July	3.11	1.11	1.95	6.17	24.81
	August	3.46	1.35	2.06	6.86	27.16
	September	3.30	1.28	1.98	6.56	26.88
	October	3.38	1.43	2.16	6.96	29.09
	November	3.33	1.30	2.12	6.75	28.57
	December	3.06	1.36	1.90	6.32	27.49
	Total	**36.94**	**14.37**	**23.17**	**74.48**	**313.89**
1984	January	3.47	1.39	2.24	7.11	31.90
	February	3.25	1.29	1.77	6.31	28.33
	March	3.33	1.13	1.76	6.22	28.86
	April	3.15	0.97	1.72	5.84	25.89
	May	3.57	1.29	1.97	6.83	30.16
	June	3.72	1.44	2.30	7.45	31.23
	July	3.78	1.34	2.26	7.39	31.63
	August	3.71	1.50	2.42	7.63	32.22
	September	3.40	1.19	2.03	6.62	28.40
	October	3.49	1.22	2.01	6.72	30.00
	November	3.50	1.33	1.90	6.73	29.19
	December	3.33	1.44	2.00	6.77	30.47
	Total	**41.70**	**15.55**	**24.39**	**81.64**	**358.28**
1985	January	3.48	1.38	1.98	6.84	30.60
	February	3.11	1.01	1.29	5.41	24.28
	March	3.23	1.04	1.67	5.94	26.05
	April	2.91	1.10	1.54	5.55	23.92
	Year to Date	**12.73**	**4.53**	**6.48**	**23.74**	**104.85**

Statistics shown on this page were developed using a new model that estimates well completions and associated footage. See the explanation of changes on the last two pages of this section and the feature article in the front of this issue.

[1]Data exclude service wells and stratigraphic and core tests.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Due to the method of estimation, data shown on this page are frequently revised. See the last two pages of this section for further explanation.
Source: • Energy Information Administration computations based on well reports submitted to the American Petroleum Institute. See the last two pages of this section for further explanation.

Explanation of Changes in the Oil and Gas Resource Development Section

The data series on rotary rigs in operation is now shown in onshore and offshore categories. The annual line-miles of seismic exploration data series have been discontinued in the *Monthly Energy Review* (MER) because there are no monthly data available. However, those data are published in the *Annual Energy Review*.

Beginning with this issue of the MER, the Energy Information Administration (EIA) has revised the exploratory and development wells drilled data series. In order to present a consistent series, historical as well as current statistics have been 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 this issue, therefore, published figures are 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 model 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 model imputes the missing portions to determine values for total well completions and footage. Data for the most recent 5 years are preliminary because completions are still being reported for that period.

The three well types considered in the model are oil, gas, and dry. By convention, wells with both oil and gas zones are categorized as oil. Well classes in the model 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).

Analysis of the reported data for completion years 1970 through 1982 showed that the average cumulative coverage within 36 months was 99.2 percent, that is, almost all wells were reported within 3 years after completion. The analysis further showed that 65.6 percent were reported within 3 months, 83.1 percent within 6 months, and 92.9 percent within 1 year after completion. Over that time period, however, the reporting process slowed. For instance, in 1971, 75 percent of the completions were reported by the end of the following month. By 1981, only 33 percent of the completions were reported within that time.

Additional information may be obtained from "Estimating Well Completions," the feature article appearing in the front of this publication.

Explanation of Changes in the Oil and Gas Resource Development Section (Continued)

		Previous Series					New Series				
		Exploratory and Development Wells Drilled[1,2]					Exploratory and Development Well Completions[1,3]				
		Oil	Gas	Dry	Total	Total Footage	Oil	Gas	Dry	Total	Total Footage
		Number of wells				Thousand feet	Thousand wells				Million feet
1973	**Total**	**9,902**	**6,385**	**10,305**	**26,592**	**136,391**	**10.25**	**6.97**	**10.46**	**27.68**	**139.42**
1974	**Total**	**12,784**	**7,240**	**11,674**	**31,698**	**150,551**	**13.67**	**7.17**	**12.22**	**33.05**	**153.85**
1975	**Total**	**16,408**	**7,580**	**13,247**	**37,235**	**174,434**	**16.98**	**8.17**	**13.75**	**38.90**	**181.16**
1976	**Total**	**17,059**	**9,085**	**13,621**	**39,765**	**181,780**	**17.68**	**9.42**	**13.85**	**40.95**	**187.37**
1977	**Total**	**18,912**	**11,378**	**14,692**	**44,982**	**210,848**	**18.72**	**12.13**	**15.06**	**45.91**	**216.14**
1978	**Total**	**17,775**	**13,064**	**16,218**	**47,057**	**227,110**	**19.07**	**14.42**	**16.63**	**50.12**	**238.70**
1979	**Total**	**19,383**	**14,681**	**15,752**	**49,816**	**238,659**	**20.73**	**15.22**	**16.09**	**52.05**	**244.36**
1980	**Total**	**27,026**	**15,730**	**18,089**	**60,845**	**284,461**	**32.28**	**17.25**	**20.32**	**69.86**	**312.72**
1981	**Total**	**37,671**	**17,894**	**22,973**	**78,538**	**361,407**	**42.99**	**20.03**	**27.24**	**90.26**	**409.82**
1982	**Total**	**40,301**	**18,952**	**26,542**	**85,795**	**395,993**	**39.01**	**18.79**	**26.38**	**84.19**	**378.27**
1983	January	2,376	891	1,640	4,907	20,922	3.48	1.45	2.14	7.07	29.78
	February	2,885	1,184	2,211	6,280	27,659	2.60	1.11	1.74	5.44	23.77
	March	3,433	1,607	2,630	7,670	34,210	2.95	1.09	1.88	5.92	26.04
	April	3,031	1,403	1,979	6,413	27,423	2.62	0.89	1.60	5.12	22.60
	May	3,187	1,747	1,830	6,764	28,564	2.70	0.96	1.77	5.44	23.88
	June	3,523	1,242	2,113	6,878	28,154	2.93	1.05	1.88	5.87	23.83
	July	2,689	1,127	1,639	5,455	22,970	3.11	1.11	1.95	6.17	24.81
	August	2,641	1,080	1,535	5,256	22,634	3.46	1.35	2.06	6.86	27.16
	September	3,736	1,282	2,016	7,034	30,374	3.30	1.28	1.98	6.56	26.88
	October	2,976	1,221	1,702	5,899	24,965	3.38	1.43	2.16	6.96	29.09
	November	3,240	1,145	1,990	6,375	26,833	3.33	1.30	2.12	6.75	28.57
	December	3,490	1,699	2,209	7,398	31,051	3.06	1.36	1.90	6.32	27.49
	Total	**37,207**	**15,628**	**23,494**	**76,329**	**325,760**	**36.94**	**14.37**	**23.17**	**74.48**	**313.89**
1984	January	[3]3,253	[3]1,058	[3]2,004	[3]6,315	[3]27,915	3.47	1.39	2.24	7.11	31.90
	February	3,212	1,425	2,123	6,760	27,623	3.25	1.29	1.77	6.31	28.33
	March	4,092	1,373	2,941	8,406	34,156	3.33	1.13	1.76	6.22	28.86
	April	2,821	1,162	1,690	5,673	26,234	3.15	0.97	1.72	5.84	25.89
	May	3,137	1,155	1,637	5,929	26,417	3.57	1.29	1.97	6.83	30.16
	June	3,723	1,362	2,298	7,383	32,174	3.72	1.44	2.30	7.45	31.23
	July	2,629	1,138	1,831	5,598	25,454	3.78	1.34	2.26	7.39	31.63
	August	3,968	1,421	2,121	7,510	31,612	3.71	1.50	2.42	7.63	32.22
	September	3,946	1,332	2,900	8,178	32,867	3.40	1.19	2.03	6.62	28.40
	October	3,434	1,238	2,058	6,730	28,065	3.49	1.22	2.01	6.72	30.00
	November	3,131	1,071	1,695	5,897	24,287	3.50	1.33	1.90	6.73	29.19
	December	3,718	1,955	1,924	7,597	31,431	3.33	1.44	2.00	6.77	30.47
	Total	**41,064**	**15,692**	**25,223**	**81,979**	**348,235**	**41.70**	**15.55**	**24.39**	**81.64**	**358.28**
1985	January	[3]2,440	1,054	1,479	4,973	22,319	3.48	1.38	1.98	6.84	30.60
	February	3,128	1,150	1,867	6,145	27,250	3.11	1.01	1.29	5.41	24.28
	March	3,965	1,422	2,921	8,308	37,424	3.23	1.04	1.67	5.94	26.05
	April	3,341	1,615	1,980	7,026	33,142	2.91	1.10	1.54	5.55	23.92

[1]Data exclude service wells and stratigraphic and core tests.
[2]Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), (4,4,5), and (4,4,5). In 1984, weekly data are aggregated into months differently to more closely represent the actual number of weeks in the calendar months—(5,4,5), (4,4,5), (4,5,4), and (4,4,5). Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.
[3]Totals may not equal the sum of components due to independent rounding.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • Previous Series: 1973 through 1984-American Petroleum Institute, "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States." 1985—Energy Information Administration aggregation of American Petroleum Institute data using their pre-1985 methodology.
• New Series: Energy Information Administration computations based on well reports submitted to the American Petroleum Institute.

Part 6 Coal

Coal

Coal production in April 1985 was 75.2 million short tons, 4.5 percent more than the 71.9 million short tons produced in April 1984.

Electric utility coal consumption in March 1985 totaled 54.7 million short tons, 0.3 percent more than consumption in March 1984. Consumption of coal by electric utilities during the first quarter of 1985 was 173.8 million short tons, a daily average of 5.2 percent more than during the first quarter of 1984.

Electric utility coal stocks of 166.3 million short tons at the end of March 1985 were 6.5 million short tons (4.1 percent) above the level 1 year earlier.

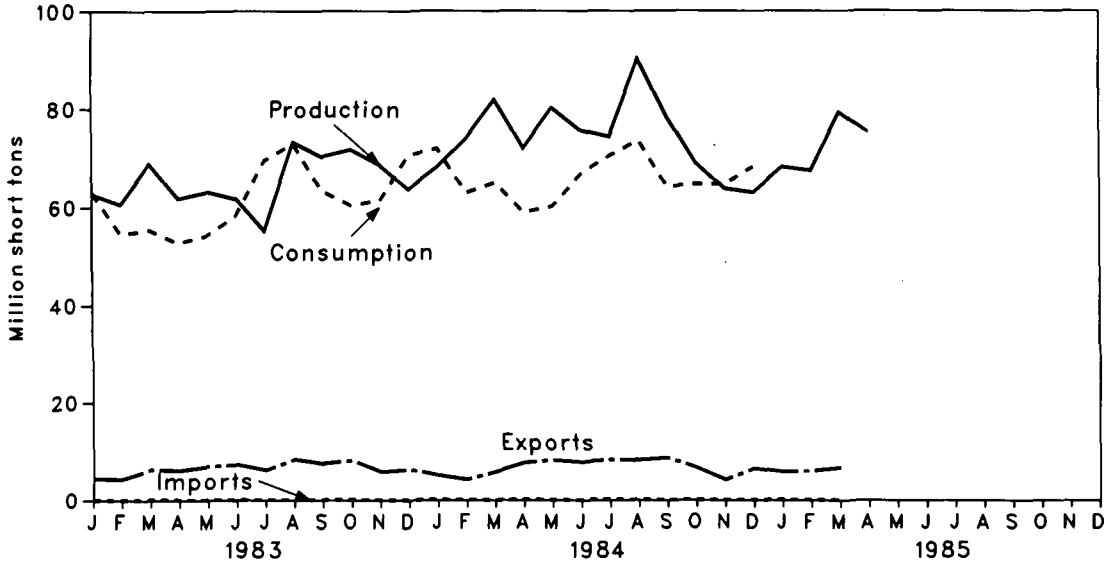
Imports of coal in March 1985 totaled 103 thousand short tons, 48 thousand short tons more than the amount imported in March 1984. Coal imports during the first quarter of 1985 were 20.9 percent higher, on a daily-average basis, than during the first quarter of 1984.

Exports of coal in March 1985 totaled 6.7 million short tons, 15.2 percent more than the amount exported during March 1984. Coal exports in March 1985 were principally to Europe (50.4 percent) and Japan (30.1 percent). During the first quarter of 1985, 18.5 million short tons of coal were exported, a daily average of 24.0 percent more than during the first quarter of 1984.

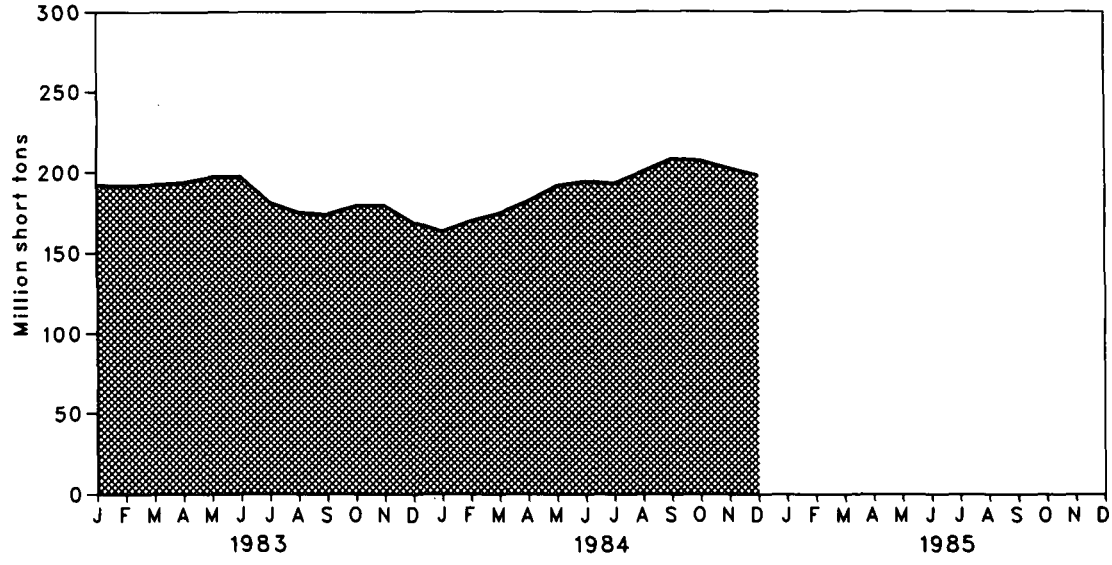
Coal

Overview

Production, Consumption, Imports, and Exports



Stocks at End of Period



Coal

Overview

		Production	Consumption	Imports	Exports[1]	Stocks[2]
				Thousand short tons		
1973	**Total**	**598,568**	**562,584**	**127**	**53,587**	**104,335**
1974	**Total**	**610,023**	**558,402**	**2,080**	**60,661**	**96,323**
1975	**Total**	**654,641**	**562,641**	**940**	**66,309**	**128,050**
1976	**Total**	**684,913**	**603,790**	**1,203**	**60,021**	**134,438**
1977	**Total**	**697,205**	**625,291**	**1,647**	**54,312**	**157,098**
1978	**Total**	**670,164**	**625,225**	**2,953**	**40,714**	**145,551**
1979	**Total**	**781,134**	**680,524**	**2,059**	**66,042**	**181,646**
1980	**Total**	**829,700**	**702,729**	**1,194**	**91,742**	**204,028**
1981	**Total**	**823,775**	**732,627**	**1,043**	**112,541**	**185,274**
1982	**Total**	**838,112**	**706,911**	**742**	**106,277**	**195,254**
1983	January	62,731	63,019	78	4,471	191,902
	February	60,654	54,692	71	4,382	191,574
	March	68,896	55,434	120	6,291	192,315
	April	61,837	52,816	144	6,115	193,402
	May	63,210	54,327	102	6,952	196,982
	June	61,797	58,237	133	7,279	197,033
	July	55,213	69,478	87	6,140	181,222
	August	73,291	72,947	115	8,380	175,067
	September	70,312	63,317	97	7,525	173,743
	October	71,754	60,454	190	8,131	179,166
	November	68,684	61,411	32	5,838	179,281
	December	63,713	70,541	102	6,269	168,654
	Total	**782,091**	**736,672**	**1,271**	**77,772**	
1984	January†	68,154	71,919	81	5,062	162,943
	February†	73,933	62,994	140	4,251	169,617
	March†	81,864	65,028	55	5,813	174,283
	April†	71,939	58,946	148	7,688	181,900
	May†	80,204	60,164	72	8,221	191,280
	June†	75,586	66,707	49	7,828	194,065
	July†	74,299	70,422	193	8,318	192,657
	August†	90,163	73,558	147	8,235	200,143
	September†	78,394	64,133	95	8,710	208,019
	October†	R68,933	64,664	104	6,641	206,742
	November†	R63,729	64,613	68	4,190	202,188
	December†	R62,946	68,147	134	6,526	197,880
	Total†	**890,143**	**791,296**	**1,286**	**81,483**	
1985	January†	68,097	NA	126	5,817	NA
	February†	67,422	NA	101	6,030	NA
	March†	79,302	NA	103	6,696	NA
	April†	75,195	NA	NA	NA	NA

[1]Excludes shipments of anthracite to U.S. Armed Forces overseas (347,000 short tons in 1982, 341,000 short tons in 1983, and 298,000 short tons in 1984).
[2]Stocks held by electric utilities, coke plants, and general industry at the end of period. Excludes stocks at retail dealers that are consumed by the residential and commercial sector, and stocks held by coal producers and distributors.
†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.
• See Note on the last page of this section for methodology used to calculate production, consumption, and stocks.
Sources: • See the last page of this section.

Coal

Consumption by End-Use Sector

			Industrial			
		Electric Utilities	Coke Plants	Other Industrial[1] Including Transportation	Residential and Commercial	Total
				Thousand short tons		
1973	**Total**	**389,212**	**94,101**	**68,154**	**11,117**	**562,584**
1974	**Total**	**391,811**	**90,191**	**64,983**	**11,417**	**558,402**
1975	**Total**	**405,962**	**83,598**	**63,670**	**9,410**	**562,641**
1976	**Total**	**448,371**	**84,704**	**61,799**	**8,916**	**603,790**
1977	**Total**	**477,126**	**77,739**	**61,472**	**8,954**	**625,291**
1978	**Total**	**481,235**	**71,394**	**63,085**	**9,511**	**625,225**
1979	**Total**	**527,051**	**77,368**	**67,717**	**8,388**	**680,524**
1980	**Total**	**569,274**	**66,657**	**60,347**	**6,451**	**702,729**
1981	**Total**	**596,797**	**61,014**	**67,395**	**7,421**	**732,627**
1982	**Total**	**593,666**	**40,908**	**64,097**	**8,240**	**706,911**
1983	January	53,351	2,813	5,970	884	63,019
	February	45,772	2,742	5,405	773	54,692
	March	47,110	2,567	5,206	551	55,434
	April	43,589	3,206	5,254	767	52,816
	May	45,691	3,151	5,023	463	54,327
	June	50,338	2,734	4,798	367	58,237
	July	60,390	3,269	5,220	599	69,478
	August	63,767	3,252	5,362	566	72,947
	September	54,212	3,196	5,156	752	63,317
	October	50,689	3,307	5,659	799	60,454
	November	51,185	3,335	6,046	845	61,411
	December	59,117	3,461	6,880	1,082	70,541
	Total	**625,211**	**37,033**	**65,980**	**8,448**	**736,672**
1984	January	60,225	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†	63,629	NA	NA	NA	NA
	February†	55,463	NA	NA	NA	NA
	March†	54,690	NA	NA	NA	NA

[1]See Note on the last page of this section.
†Preliminary data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Coal

Stocks by End-Use Sector at End of Period

		Electric Utilities	Industrial: Coke Plants	Industrial: Other Industrial	Total[1]
		Thousand short tons			
1973	**Year**	**86,967**	**6,998**	**10,370**	**104,335**
1974	**Year**	**83,509**	**6,209**	**6,605**	**96,323**
1975	**Year**	**110,724**	**8,797**	**8,529**	**128,050**
1976	**Year**	**117,436**	**9,902**	**7,100**	**134,438**
1977	**Year**	**133,219**	**12,816**	**11,063**	**157,098**
1978	**Year**	**128,225**	**8,278**	**9,048**	**145,551**
1979	**Year**	**159,714**	**10,155**	**11,777**	**181,646**
1980	**Year**	**183,010**	**9,067**	**11,951**	**204,028**
1981	**Year**	**168,893**	**6,475**	**9,906**	**185,274**
1982	**Year**	**181,132**	**4,642**	**9,479**	**195,254**
1983	January	178,604	4,338	8,960	191,902
	February	179,101	4,034	8,439	191,574
	March	180,671	3,728	7,916	192,315
	April	181,371	4,089	7,942	193,402
	May	184,567	4,450	7,965	196,982
	June	184,236	4,812	7,985	197,033
	July	168,566	4,489	8,167	181,222
	August	162,557	4,165	8,345	175,067
	September	161,384	3,842	8,518	173,743
	October	166,574	4,010	8,582	179,166
	November	166,457	4,178	8,645	179,281
	December	155,598	4,346	8,710	168,654
1984	January	149,403	4,947	8,593	162,943
	February	155,593	5,548	8,476	169,617
	March	159,775	6,149	8,359	174,283
	April	165,592	7,171	9,137	181,900
	May	173,171	8,194	9,915	191,280
	June	174,155	9,217	10,693	194,065
	July	171,095	9,658	11,904	192,657
	August	176,928	10,099	13,116	200,143
	September	183,151	R10,541	14,327	208,019
	October	184,779	9,083	12,880	206,742
	November	182,130	7,625	12,433	202,188
	December	179,727	6,166	11,986	197,880
1985	January†	167,524	NA	NA	NA
	February†	162,476	NA	NA	NA
	March†	166,313	NA	NA	NA

[1]Total excludes stocks at retail dealers that are consumed by the residential and commercial sector, and stocks held by producers and distributors.
†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.

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. Monthly and quarterly stock data are not available for the residential and commercial sector.

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

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

Sources

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

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

- Electric Utilities—October 1977 forward: EIA, Form EIA-759 (formerly FPC Form 4), "Monthly Power Plant Report."
- Coke Plants—October 1977 through December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual"; January 1981 forward: EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement."
- Other Industrial—October 1977 through December 1979: EIA, Form EIA-3, "Monthly Fuel Consumption Report-Manufacturing Plants"; January 1980 forward: EIA, Form EIA-3, "Quarterly Fuel Consumption Report-Manufacturing Plants" and Form EIA-6, "Coal Distribution Report."
- Residential and Commercial—October 1977 through December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report."

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

Part 7 Electric Utilities

Electric Utilities

During March 1985, electric utilities generated 194.7 billion kilowatthours of electricity, 2.7 percent below the March 1984 generation level. Coal-fired generation totaled 111.2 billion kilowatthours, slightly above the March 1984 level. Nuclear generation totaled 31.0 billion kilowatthours, 13.5 percent above the March 1984 level. Hydroelectric generation was 24.6 billion kilowatthours in March 1985, 19.2 percent below the March 1984 level. Natural gas-fired generation was 19.8 billion kilowatthours, 0.9 percent above the level 1 year earlier. Petroleum-fired generation totaled 7.1 billion kilowatthours, 34.1 percent below the March 1984 level.

During the first quarter of 1985, electric utilities generated 620.6 billion kilowatthours of electricity, 3.5 percent (on a daily-average basis) above first-quarter 1984 generation. Coal-fired generation during the first quarter of 1985 totaled 352.3 billion kilowatthours, a daily average of 5.8 percent more than in the same period of 1984. Nuclear generation totaled 98.0 billion kilowatthours, a daily-average increase of 16.5 percent from the first-quarter 1984 level. Hydroelectric generation during the first quarter of 1985 was 78.0 billion kilowatthours, a daily average of 10.5 percent below the generation in the same period of 1984. Natural gas-fired generation was 61.2 billion kilowatthours, a daily-average increase of 7.2 percent from the first-quarter 1984 level. Petroleum-fired generation totaled 28.5 billion kilowatthours during the first quarter of 1985, a daily-average decrease of 21.8 percent from the level in the same period of 1984. Electricity generated from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources totaled 2.6 billion kilowatthours during the first quarter of 1985, a daily-average increase of 39.8 percent compared with the first-quarter 1984 level.

Sales of electricity to all ultimate consumers in the United States in March 1985 were 189.5 billion kilowatthours, 2.1 percent above March 1984 sales. Sales to residential consumers during March 1985 were 65.8 billion kilowatthours, 3.3 percent above the level of sales during the same month in 1984. Commercial sales were 47.7 billion kilowatthours, 5.4 percent more than the amount sold to commercial consumers in March 1984. Sales to industrial consumers totaled 69.1 billion kilowatthours in March 1985, 0.8 percent less than the 1984 figure. In March 1985, other sales totaled 6.9 billion kilowatthours, 0.2 percent above the March 1984 level.

During the first quarter of 1985, electric utilities sold 591.9 billion kilowatthours of electricity, a daily-average increase of 2.8 percent from the first quarter of 1984 level. Residential sales during the first quarter of 1985 totaled 221.0 billion kilowatthours, 3.1 percent (on a daily-average basis) above comparable sales in 1984. Commercial sales totaled 146.7 billion kilowatthours, a daily-average increase of 5.4 percent from first-quarter 1984 commercial sales. Industrial sales during the first quarter of 1985 were 202.9 billion kilowatthours, a daily-average increase of 0.6 percent compared with sales in the same period of 1984. Other sales were 21.2 billion kilowatthours, a daily average of 2.8 percent above comparable 1984 sales.

Electric utility petroleum consumption (excluding petroleum coke) during March 1985 was 12.3 million barrels, 32.8 percent below the March 1984 level. Coal consumption during March 1985 was 54.7 million short tons, 0.3 percent above the March 1984 rate. During March 1985, electric utilities consumed 206.2 billion cubic feet of natural gas, slightly higher than the March 1984 consumption level.

Electric utility petroleum consumption (excluding petroleum coke) during the first quarter of 1985 totaled 49.4 million barrels, a daily average of 19.9 percent below consumption in the same period of 1984. Coal consumption during the first quarter of 1985 was 173.8 million short tons, an daily-average increase of 5.2 percent compared with the 1984 rate. During the first quarter of 1985, electric utilities consumed 632.3 billion cubic feet of natural gas, a daily average of 5.1 percent above the first-quarter 1984 consumption level.

On March 31, 1985, utility stocks of anthracite, bituminous coal, and lignite totaled 166.3 million short tons, 4.1 percent above the level of March 31, 1984. Petroleum stocks (excluding petroleum coke) on March 31, 1985, totaled 81.2 million barrels, 8.8 percent below the level on the same date in 1984.

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	January	108,164	12,880	19,721	25,073	29,235	506	195,579
	February	92,692	12,586	16,659	22,198	27,950	395	172,479
	March	95,598	12,556	19,686	23,890	30,302	455	182,488
	April	88,114	10,337	19,174	22,335	29,989	424	170,372
	May	91,296	9,050	20,445	22,051	31,194	356	174,392
	June	101,512	11,139	23,091	24,152	30,692	462	191,048
	July	121,560	14,710	29,615	25,602	28,113	565	220,165
	August	129,313	14,731	33,147	26,201	25,828	738	229,957
	September	108,868	11,299	28,040	25,007	21,712	678	195,604
	October	101,951	9,941	23,783	25,797	20,747	712	182,931
	November	103,225	9,229	20,169	25,010	24,678	637	182,949
	December	117,131	16,041	20,567	26,361	31,691	528	212,319
	Total	**1,259,424**	**144,499**	**274,098**	**293,677**	**332,130**	**6,456**	**2,310,285**
1984	January	120,850	15,939	20,245	29,313	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	129,066	12,076	R22,001	36,186	27,498	906	227,733
	February	111,994	9,264	19,370	30,809	25,880	803	198,121
	March	111,223	7,116	19,813	31,041	24,583	930	194,707

[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]

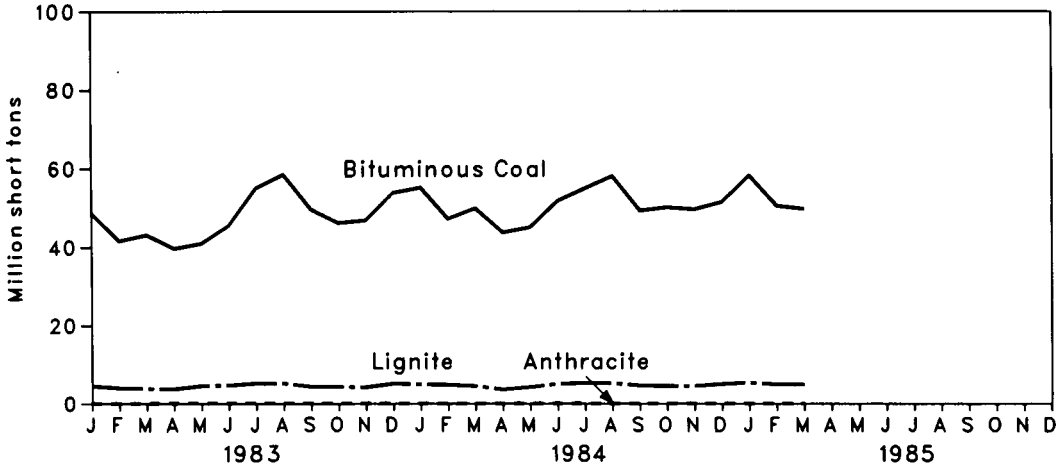
		Residential	Commercial	Industrial	Other[2]	Total
				Million kilowatthours		
1973	**Total**	**579,231**	**388,266**	**686,085**	**59,328**	**1,712,910**
1974	**Total**	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**
1975	**Total**	**588,140**	**403,049**	**687,680**	**68,222**	**1,747,091**
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	January	69,967	44,019	57,938	7,252	179,176
	February	65,039	42,475	59,032	6,919	173,465
	March	58,912	41,518	60,261	6,893	167,584
	April	56,284	40,679	60,548	6,296	163,807
	May	49,669	40,305	62,729	6,216	158,919
	June	54,138	45,086	66,152	6,228	171,604
	July	69,965	51,013	66,424	6,752	194,153
	August	78,374	53,245	69,611	6,885	208,115
	September	73,197	52,147	69,618	6,960	201,922
	October	55,374	45,517	68,924	6,492	176,307
	November	53,704	42,666	67,544	6,560	170,474
	December	66,326	45,119	67,217	6,765	185,428
	Total	**750,948**	**543,788**	**775,999**	**80,219**	**2,150,955**
1984	January	83,295	49,243	66,709	7,289	206,537
	February	69,818	46,293	67,445	6,690	190,246
	March	63,656	45,252	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	67,220	7,270	201,365
	February	78,011	49,406	66,582	7,046	201,045
	March†	65,766	47,673	69,095	6,917	189,451

[1]Electricity sales to all ultimate consumers.
[2]Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.
†Initial estimates.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA), • 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; • March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; • January 1983 forward: Form EIA 826, "Electric Utility Company Monthly Statement."

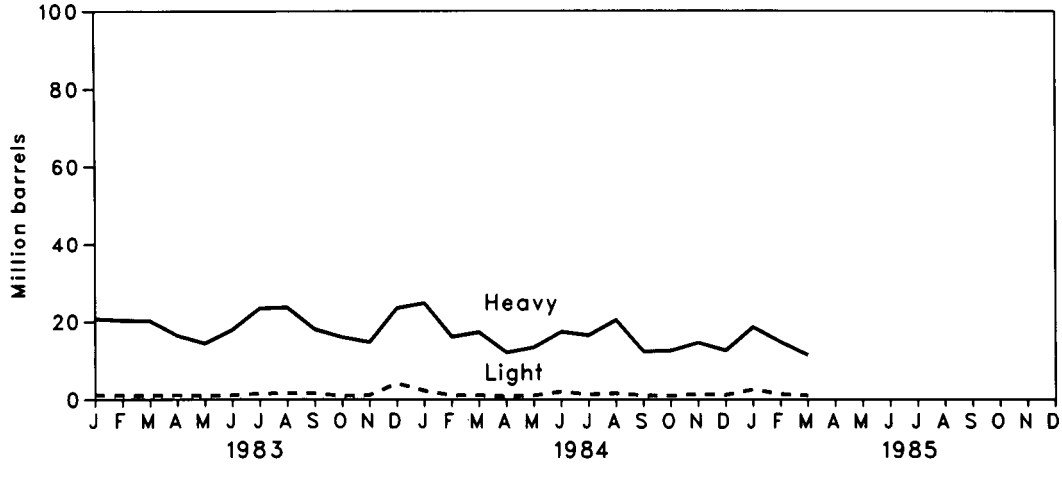
Electric Utilities

Primary Energy Consumed to Produce Electricity

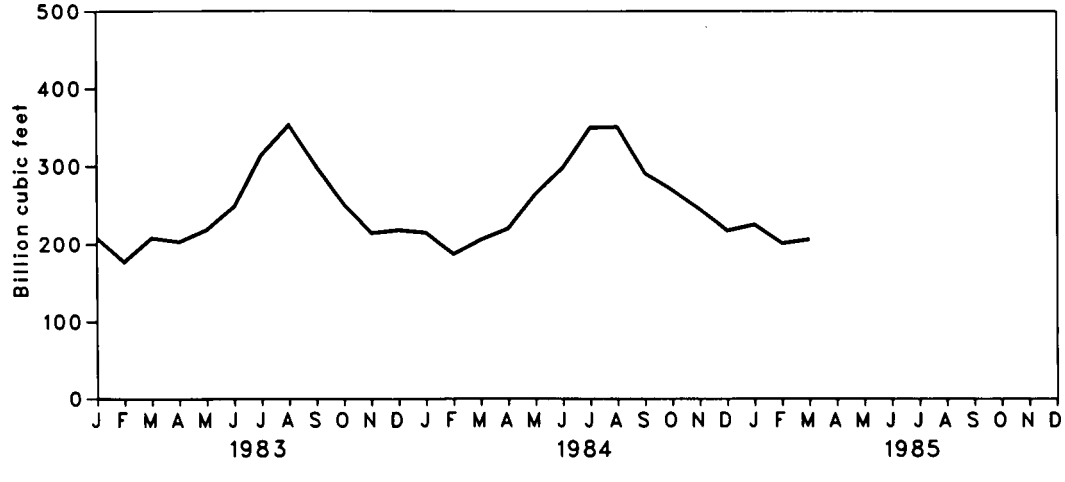
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

Primary Energy Consumed to Produce Electricity

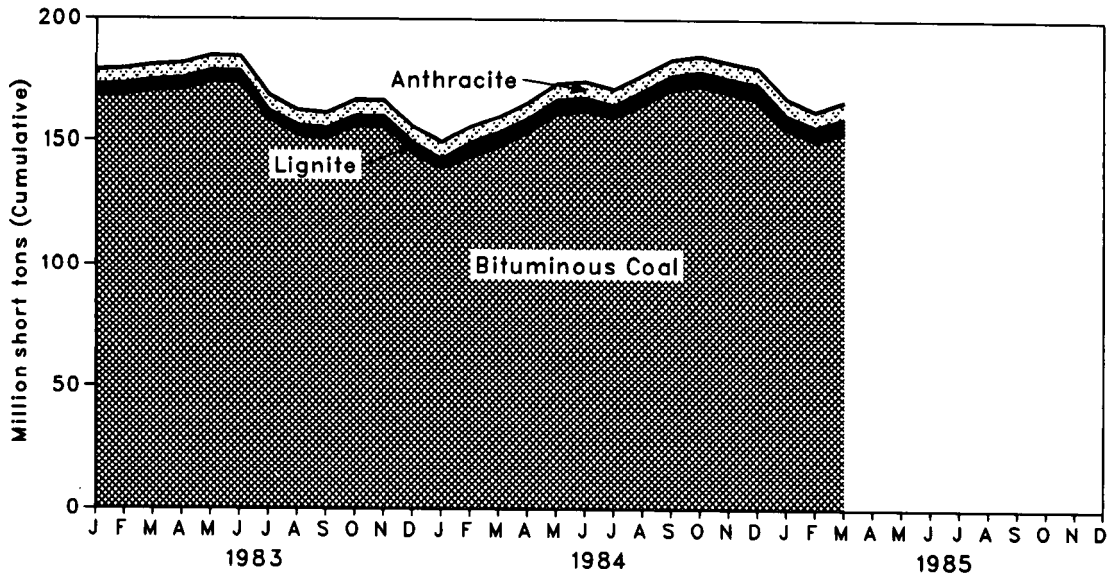
		Coal				Petroleum				Natural Gas[1]
		Anthracite	Bituminous Coal	Lignite	Total	Heavy[2]	Light[3]	Total Liquids	Petroleum Coke	
		Thousand short tons				Thousand barrels			Thousand short tons	Million cubic feet
1973	**Total**	**1,443**	**376,975**	**10,794**	**389,212**	**(4)**	**(4)**	**560,248**	**507**	**3,660,172**
1974	**Total**	**1,498**	**378,643**	**11,670**	**391,811**	**(4)**	**(4)**	**536,274**	**625**	**3,443,428**
1975	**Total**	**1,480**	**388,523**	**15,960**	**405,962**	**(4)**	**(4)**	**506,128**	**70**	**3,157,669**
1976	**Total**	**1,350**	**425,205**	**21,817**	**448,371**	**(4)**	**(4)**	**555,920**	**68**	**3,080,868**
1977	**Total**	**1,425**	**451,051**	**24,650**	**477,126**	**(4)**	**(4)**	**623,705**	**98**	**3,191,200**
1978	**Total**	**1,064**	**448,763**	**31,407**	**481,235**	**(4)**	**(4)**	**635,839**	**398**	**3,188,363**
1979	**Total**	**1,046**	**488,129**	**37,876**	**527,051**	**(4)**	**(4)**	**523,297**	**268**	**3,490,523**
1980	**Total**	**951**	**526,680**	**41,642**	**569,274**	**391,163**	**29,051**	**420,214**	**179**	**3,681,595**
1981	**Total**	**1,221**	**550,784**	**44,792**	**596,797**	**329,798**	**21,313**	**351,111**	**139**	**3,640,154**
1982	**Total**	**1,075**	**543,346**	**49,245**	**593,666**	**234,434**	**15,337**	**249,771**	**149**	**3,225,518**
1983	January	73	48,695	4,583	53,351	20,728	1,110	21,838	17	208,341
	February	73	41,668	4,032	45,772	20,305	984	21,289	19	176,965
	March	75	43,165	3,870	47,110	20,174	945	21,119	16	208,013
	April	92	39,716	3,781	43,589	16,374	1,054	17,429	24	202,917
	May	104	41,002	4,585	45,691	14,360	937	15,297	30	218,184
	June	88	45,560	4,690	50,338	17,892	1,020	18,912	23	247,825
	July	89	55,082	5,219	60,390	23,383	1,433	24,815	25	314,357
	August	92	58,475	5,200	63,767	23,622	1,543	25,165	24	352,031
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,517
	October	91	46,263	4,335	50,689	15,993	870	16,863	22	251,151
	November	86	46,883	4,216	51,185	14,690	1,075	15,766	17	214,275
	December	88	53,854	5,176	59,117	23,440	4,034	27,474	21	218,191
	Total	**1,036**	**570,108**	**54,067**	**625,211**	**228,984**	**16,512**	**245,497**	**261**	**2,910,767**
1984	January	98	55,142	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**	**3,112,342**
1985	January	88	58,139	5,402	63,629	18,574	2,478	21,052	18	224,873
	February	70	50,453	4,940	55,463	14,729	1,315	16,044	17	201,160
	March	78	49,699	4,913	54,690	11,323	970	12,294	16	206,247

[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."

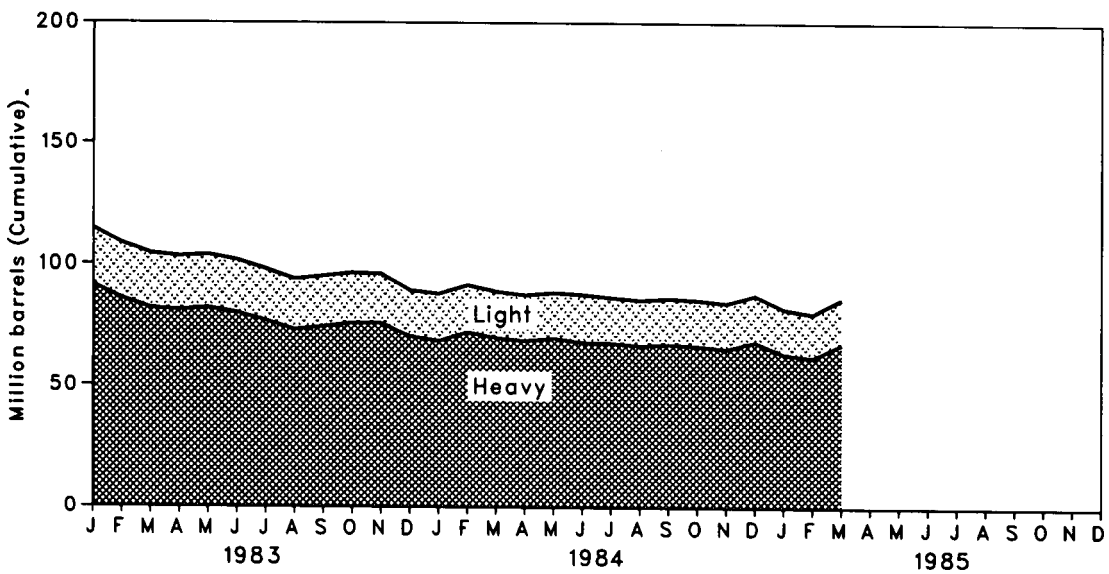
Electric Utilities

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	January	6,107	168,287	4,210	178,604	91,523	23,183	114,706	54
	February	6,104	168,635	4,362	179,101	85,847	22,665	108,512	53
	March	6,143	170,327	4,201	180,671	81,957	22,387	104,344	54
	April	6,120	170,815	4,436	181,371	81,243	21,967	103,211	47
	May	6,145	173,969	4,453	184,567	82,091	21,758	103,849	44
	June	6,230	173,483	4,524	184,236	80,197	21,471	101,667	52
	July	6,299	158,701	3,566	168,566	76,881	21,101	97,982	50
	August	6,380	152,140	4,038	162,557	73,266	20,763	94,029	45
	September	6,435	150,778	4,171	161,384	74,560	20,696	95,256	47
	October	6,506	156,012	4,056	166,574	75,949	20,568	96,517	53
	November	6,531	155,931	3,995	166,457	75,930	20,271	96,201	63
	December	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55
1984	January	6,500	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	154,999	5,806	167,524	63,546	18,511	82,057	57
	February	6,736	150,023	5,717	162,476	62,072	18,073	80,145	50
	March	6,782	153,697	5,834	166,313	62,558	18,652	81,209	43

[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.
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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	January	21,373	465	21,838	101,394	13,312	114,706
	February	20,885	404	21,289	95,459	13,053	108,512
	March	20,728	392	21,119	91,394	12,750	104,344
	April	16,997	432	17,429	90,667	12,544	103,211
	May	14,968	330	15,297	91,360	12,489	103,849
	June	18,437	475	18,912	89,283	12,384	101,667
	July	23,927	888	24,815	85,891	12,091	97,982
	August	24,166	999	25,165	82,307	11,722	94,029
	September	18,532	996	19,529	83,511	11,745	95,256
	October	16,518	345	16,863	84,873	11,644	96,517
	November	15,336	430	15,766	84,804	11,397	96,201
	December	25,978	1,496	27,474	78,285	11,090	89,375
	Total	**237,845**	**7,652**	**245,497**			
1984	January	25,838	1,082	26,921	76,756	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	19,842	1,210	21,052	71,522	10,535	82,057
	February	15,576	467	16,044	70,051	10,094	80,145
	March	11,957	337	12,294	70,364	10,845	81,209

[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 March 1985, U.S. nuclear power plants generated a total of 31.0 billion net kilowatthours of electricity, at an average capacity factor of 57.2 percent. This generation was an increase of 13.5 percent compared with March 1984 generation. Nuclear power supplied 15.9 percent of the electricity distributed in March 1985, compared with 13.7 percent in March of the previous year.

For the period from January through March 1985, on a daily-average basis, nuclear generation increased 16.5 percent compared with first-quarter generation in 1984. The monthly capacity factor for the first quarter of 1985 averaged 63.3 percent compared with an average monthly capacity factor of 61.7 percent in the same period in 1984. During the first quarter of 1985, nuclear power supplied 15.8 percent of the electricity distributed compared with a 14.0-percent share of the electricity distributed in the first quarter of 1984.

In Illinois, Commonwealth Edison's Byron-1 first generated electricity on March 1, 1985. Byron-1 had received a full-power license from the Nuclear Regulatory Commission (NRC) to begin power ascension for commercial operation on February 14. On March 11, Wolf Creek, an 1,186-net-megawatt-electric (MWe) pressurized-water reactor (PWR) in Kansas, received a low-power license to start pre-critical testing before power ascension. Wolf Creek is owned jointly by the Kansas City Power and Light and the Kansas Gas and Electric companies. On March 16, Waterford-3, a 1,104-net-MWe PWR operated by the Lousiana Power and Light Company, received a full-power license. Waterford-3 had received a low-power license on December 16, 1984. On March 20, Fermi-2, a 1,150-net-MWe boiling water reactor operated by Detroit Edison, received a low-power license.

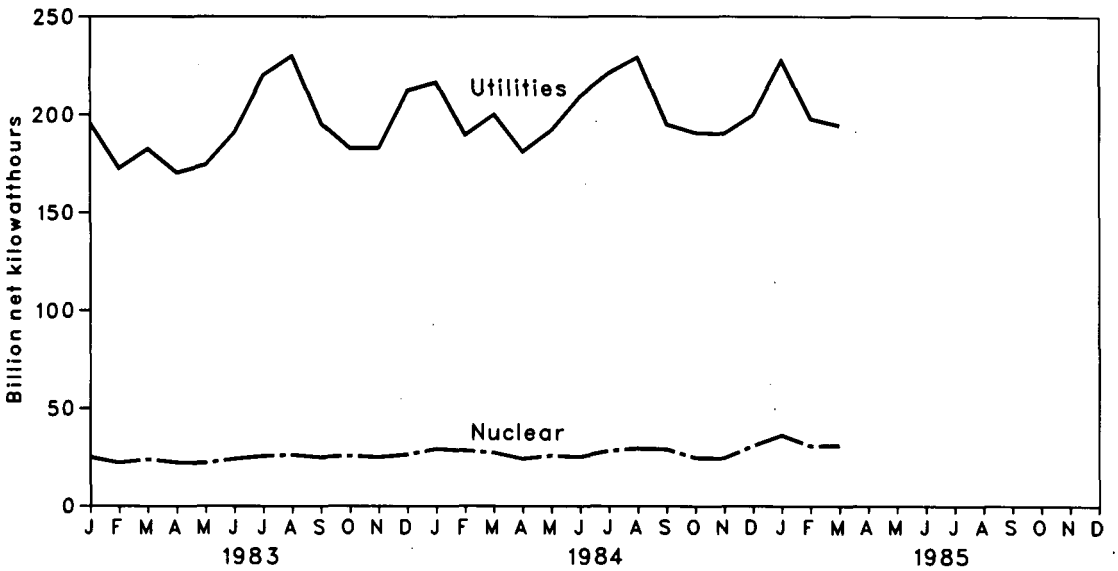
With the addition of Waterford-3, there were 89 operable U.S. nuclear power reactors as of March 31, 1985, with a collective net generating capacity of 72.9 thousand MWe. Of the 89 operable reactors, 6 units were in power ascension (Byron-1, Callaway-1, Catawba-1, Diablo Canyon-1, Grand Gulf-1, and Waterford-3), and 22 units generated no electricity or operated substantially below capacity in March (Arnold, Browns Ferry-2, Cooper, Crystal River-3, Dresden-2, Farley-2, Fitzpatrick, Fort St. Vrain, Ginna, Hanford-1, Kewaunee, LaCrosse, LaSalle-2, McGuire-2, Millstone-2, Oconee-2, Peach Bottom-2, Salem-2, San Onofre-2, Susquehanna-1, Three Mile Island-1, and Zion-1). Four units had licenses from the NRC authorizing fuel-loading and low-power testing (Fermi-2, Limerick-1, Palo Verde-1, and Wolf Creek), and one unit (Shoreham) was authorized to load fuel and conduct cold criticality testing.

As of March 31, 1985, there were 132 domestic nuclear power plants in planning, construction, or operation, with an aggregate design capacity of 123 million net kilowatts.

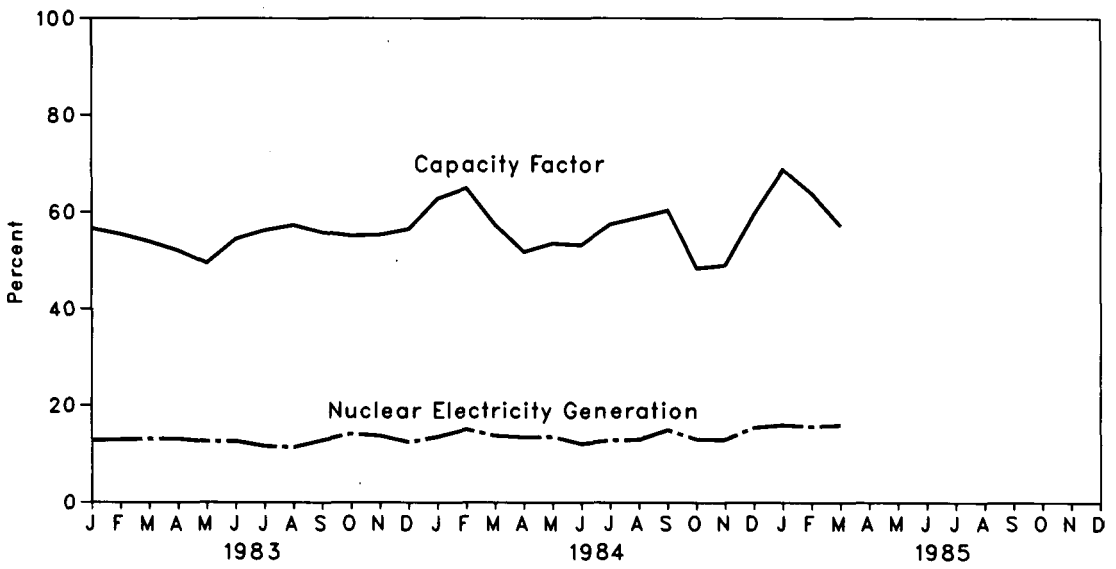
Nuclear

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	Maximum Dependable Capacity of Operable Reactors[1] [3]	Capacity Factor[4]
			Million net kilowatthours	Percent	Million net kilowatts	Percent
1973	**Year**	**39**	**83,479**	**4.5**	**22.900**	**52.9**
1974	**Year**	**48**	**113,976**	**6.1**	**31.710**	**48.3**
1975	**Year**	**54**	**172,505**	**9.0**	**33.312**	**59.7**
1976	**Year**	**60**	**191,104**	**9.4**	**43.277**	**57.8**
1977	**Year**	**65**	**250,883**	**11.8**	**46.046**	**64.1**
1978	**Year**	**70**	**276,403**	**12.5**	**49.629**	**65.7**
1979	**Year**	**68**	**255,155**	**11.4**	**49.326**	**58.7**
1980	**Year**	**70**	**251,116**	**11.0**	**51.059**	**57.1**
1981	**Year**	**74**	**272,674**	**11.9**	**55.534**	**58.4**
1982	**Year**	**77**	**282,773**	**12.6**	**59.552**	**57.2**
1983	January	77	25,073	12.8	59.532	56.6
	February	77	22,198	12.9	59.632	55.4
	March	77	23,890	13.1	59.632	53.9
	April	77	22,335	13.1	59.658	52.1
	May	78	22,051	12.6	59.883	49.5
	June	79	24,152	12.6	61.686	54.4
	July	79	25,602	11.6	61.230	56.2
	August	79	26,201	11.4	61.440	57.3
	September	80	25,007	12.8	62.227	55.8
	October	80	25,797	14.1	62.876	55.1
	November	80	25,010	13.7	62.809	55.3
	December	80	26,361	12.4	62.809	56.5
	Year	**80**	**293,677**	**12.7**	**62.809**	**54.8**
1984	January	80	29,313	13.5	62.772	62.8
	February	80	28,436	15.0	62.942	64.9
	March	81	27,345	13.7	64.036	57.4
	April	82	24,231	13.4	65.049	51.8
	May	82	25,867	13.5	64.986	53.5
	June	83	25,299	12.1	66.091	53.2
	July	83	28,284	12.8	66.091	57.5
	August	84	29,493	12.9	67.341	58.9
	September	84	29,146	14.9	67.066	60.4
	October	85	24,774	13.0	68.497	48.5
	November	86	24,575	12.9	69.534	49.1
	December	86	30,872	15.4	69.522	59.7
	Year	**86**	**327,634**	**13.6**	**69.522**	**56.5**
1985	January	87	36,186	15.9	70.667	68.8
	February	88	30,809	15.6	71.841	63.8
	March	89	31,041	15.9	†72.931	†57.2

[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 maximum dependable capacity (MDC) is used. When a reactor has not operated long enough to permit determination of a net MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced to reflect the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. For the definitions of net MDC and net DER, see Note 3 on the last page of this section.
[4]For an explanation of the method of calculating the capacity factor, see Note 4 on the last page of this section.
†Preliminary data.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Nuclear

Status of Nuclear Reactor 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**	**60**	**1**	**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**	**R77**	**0**	**R75**	**11**	**3**	**0**	**R163**	**R157**
1983	January	77	2	60	3	2	0	144	135
	February	77	2	60	3	2	0	144	135
	March	77	3	59	3	2	0	144	135
	April	77	4	57	3	2	0	143	134
	May	78	3	57	3	2	0	143	134
	June	79	2	57	3	2	0	143	134
	July	79	2	57	3	2	0	143	134
	August	79	2	57	3	2	0	143	134
	September	80	1	57	3	2	0	143	134
	October	80	1	56	2	2	0	141	133
	November	80	1	56	0	2	0	139	131
	December	80	3	53	0	2	0	138	129
1984	January	80	3	51	0	2	0	136	128
	February	80	3	51	0	2	0	136	128
	March	81	3	50	0	2	0	136	128
	April	82	3	49	0	2	0	136	128
	May	82	3	49	0	2	0	136	128
	June	83	3	48	0	2	0	136	128
	July	83	3	48	0	2	0	136	128
	August	84	2	44	0	2	0	132	123
	September	84	2	44	0	2	0	132	123
	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

[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 have not had the operational experience needed to determine a net maximum dependable capacity (MDC). See Note 3 on the last page of this section.
R = Revised data.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Notes and Sources for the Nuclear Section

Notes

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

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

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

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

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

4. Monthly Capacity Factors: The monthly capacity factors are computed as the actual monthly generation divided by the maximum possible generation for that month. The maximum possible generation is the number of hours in the month multiplied by the net monthly maximum dependable capacity. This fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

Sources

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

Electricity Generation:
- 1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report."
- October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report."
- 1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

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

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

Reactor Construction and Planning Data:
- 1973 through June 1982—Compiled from various sources, primarily the Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and from the Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.
- July 1982 forward—Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and various trade journals.

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

Price

Crude Oil

The average price of domestic crude oil purchased at the wellhead was $23.87 per barrel in March 1985. This was 1.0 percent above the previous month's level but 8.4 percent below the level in March 1984.

During March 1985, the composite refiner acquisition cost of crude oil was $26.77 per barrel, 0.9 percent above the previous month's average of $26.53. The cost of imported crude oil increased $0.18 per barrel from the February 1985 level to $27.23 per barrel in March. This was 5.9 percent below the March 1984 average. The cost of domestic crude oil in March 1985 was $26.61, an increase of $0.22 from the February 1985 average.

Motor Gasoline

The national city average retail price of leaded regular gasoline at all types of stations was $1.12 per gallon in April 1985, 4.5 percent higher than the price in March 1985. The price of unleaded regular gasoline at all types of stations was $1.21 per gallon in April, 4.0 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged $1.34 per gallon in April, 2.3 percent higher than during March 1985.

Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users (utilities, industry, and other ultimate consumers) in March 1985 was $0.67 per gallon, 2.3 percent below the previous month's price and 2.0 percent below the March 1984 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in March 1985 was $0.62 per gallon, 4.2 percent below the February 1985 average and 3.4 percent below the March 1984 average.

Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end users in March 1985 was $1.21 per gallon, 0.2 percent above the price in the previous month but 1.9 percent below the price in March 1984. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in March 1985 was $0.80 per gallon, down 0.6 percent from the previous month's price and down 6.1 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in March 1985 was $1.05 per gallon, 0.3 percent below the price in February 1985 and 5.7 percent below the March 1984 price. The average price for resale was $0.76 per gallon in March 1985, 6.0 percent below the price 1 year earlier.

Natural Gas

In February 1985, the average wellhead price of marketed natural gas production was $2.57 per thousand cubic feet (Mcf), $0.02 per Mcf lower than in January 1985 and $0.13 per Mcf (4.8 percent) below the February 1984 price. The average price of natural gas delivered to electric utility plants was $3.71 per Mcf in February 1985, $0.06 per Mcf (1.6 percent) less than the January 1985 price but $0.12 per Mcf above the February 1984 price. The average price of natural gas used by residential consumers in April 1985 was $6.14 per Mcf, $0.02 per Mcf lower than in March 1985 but $0.14 per Mcf (2.3 percent) more than the April 1984 price.

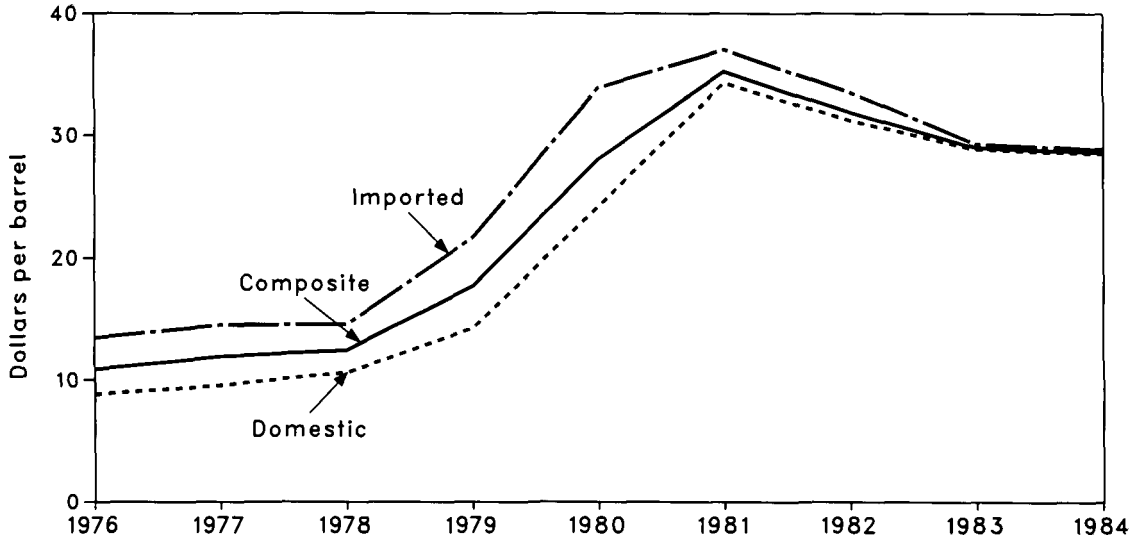
Electricity

The average retail price of electricity sold by selected privately owned utilities to residential consumers in March 1985 was 7.48 cents per kilowatthour (kWh), an increase of 4.0 percent from the February 1985 price and 4.2 percent above the March 1984 price. The average price of electricity sold to commercial consumers was 7.36 cents per kWh in March 1985, a 2.1-percent increase from the previous month's price and up 3.1 percent from the March 1984 price. The average electricity price to industrial users during March 1985 was 5.13 cents per kWh, an increase of 0.2 percent from the previous month's price and 5.1 percent more than during March 1984.

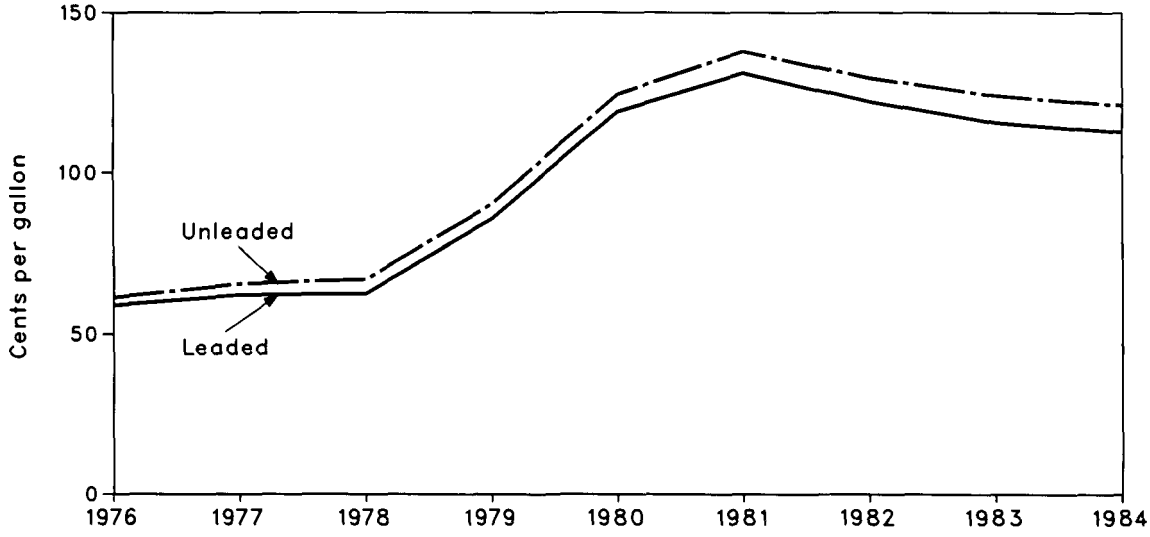
Price

Selected Petroleum Series

Refiner Aquisition 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	January	27.22	29.47	30.62	30.55	31.40	30.73
	February	26.41	27.79	29.08	29.16	30.76	29.49
	March	26.08	26.88	27.84	28.69	28.43	28.64
	April	25.85	27.18	28.24	28.45	27.95	28.33
	May	26.08	27.36	28.55	28.68	28.53	28.64
	June	25.98	27.71	29.00	28.67	29.23	28.85
	July	25.86	27.84	28.99	28.74	28.76	28.75
	August	26.03	27.89	29.22	28.58	29.50	28.88
	September	26.08	27.88	29.24	28.69	29.54	28.97
	October	26.04	27.84	29.08	28.88	29.67	29.14
	November	26.09	27.75	28.93	28.76	29.09	28.85
	December	25.88	27.50	28.58	28.62	29.30	28.83
	Average	**26.19**	**27.73**	**28.93**	**28.87**	**29.30**	**28.99**
1984	January	25.93	27.56	28.49	28.62	28.80	28.67
	February	26.06	27.78	28.89	28.76	28.91	28.81
	March	26.05	27.70	28.69	28.75	28.95	28.81
	April	25.93	27.84	28.91	28.63	29.11	28.77
	May	26.00	27.87	28.94	28.65	29.26	28.83
	June	26.09	27.78	28.89	28.58	29.19	28.77
	July	26.11	27.19	28.32	28.70	29.00	28.79
	August	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	R26.10	R26.95	26.89	27.51	27.02
	February	R23.63	R†25.96	R†26.86	26.39	27.05	26.53
	March	†23.87	†26.38	†27.13	26.61	27.23	26.77

[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	January	W	34.71	W	26.90	W	W	32.77	21.58
	February	W	33.74	W	25.69	W	W	30.95	21.82
	March	31.07	29.69	W	24.53	29.52	30.03	29.16	20.04
	April	29.37	29.57	W	24.18	29.63	W	30.07	20.05
	May	29.54	29.31	W	24.60	29.72	W	29.61	19.88
	June	29.80	29.59	W	24.13	29.57	W	28.92	20.80
	July	30.15	29.73	28.41	24.92	29.81	27.91	30.00	19.89
	August	30.32	29.60	28.19	25.15	29.92	27.83	29.88	21.56
	September	30.33	29.77	28.03	25.10	29.59	27.73	30.33	21.81
	October	29.98	29.81	28.29	25.72	30.23	28.24	29.73	23.58
	November	29.75	30.34	W	25.76	29.99	28.22	29.42	23.17
	December	W	29.77	28.30	26.20	29.60	27.18	29.05	24.17
	Average	**30.06**	**29.93**	**28.25**	**25.19**	**29.78**	**28.03**	**29.84**	**21.48**
1984	January	27.60	29.89	W	26.22	29.80	27.76	29.29	24.21
	February	28.56	29.09	W	26.04	29.98	26.72	29.70	23.55
	March	28.69	W	NA	26.30	29.89	28.39	29.95	23.86
	April	28.90	29.50	W	26.07	29.93	28.17	29.85	23.93
	May	28.98	29.44	W	26.36	29.67	27.43	29.93	24.07
	June	28.52	29.35	NA	26.58	29.34	W	29.67	24.23
	July	27.43	29.21	W	26.62	29.22	W	28.91	24.37
	August	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	R27.22	W	W	24.02
	February†	W	27.62	NA	26.00	27.41	W	W	R24.36
	March†	26.60	27.01	W	26.28	28.20	NA	W	24.97

[1]The Free on Board (FOB) cost 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	January	33.20	27.62	36.12	W	27.50	W	W	33.48	23.20
	February	32.17	26.19	35.07	W	26.15	32.24	W	33.33	23.36
	March	31.24	24.78	31.17	W	25.06	30.49	31.63	29.92	21.48
	April	30.55	24.35	31.14	W	24.65	30.63	W	30.84	21.45
	May	30.48	24.32	30.82	W	25.17	30.75	W	30.60	21.24
	June	30.88	24.88	31.40	29.10	24.81	30.56	W	30.02	22.07
	July	31.36	25.45	31.46	30.06	25.34	30.91	29.53	30.86	21.30
	August	31.85	25.45	31.65	29.57	25.80	31.21	29.39	30.83	22.82
	September	31.78	25.71	31.27	29.31	25.66	30.70	29.53	31.39	23.12
	October	30.97	26.01	31.14	29.73	26.44	31.16	29.98	30.79	24.75
	November	30.96	25.83	31.30	W	26.29	31.02	29.88	30.33	24.68
	December	30.23	26.69	31.12	28.57	26.88	30.57	28.83	30.00	24.91
	Average	**31.26**	**25.63**	**31.57**	**29.81**	**25.78**	**30.84**	**29.76**	**30.87**	**22.94**
1984	January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
	February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
	March	30.31	26.01	30.81	NA	26.92	30.93	30.20	30.98	24.75
	April	29.81	26.10	31.02	W	26.68	31.08	29.95	30.73	24.86
	May	29.96	27.12	30.80	W	26.92	30.96	28.95	30.75	24.93
	June	29.62	26.00	31.21	NA	27.24	31.05	29.90	30.43	25.29
	July	28.63	27.16	30.26	W	26.98	30.07	W	29.54	25.24
	August	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	R29.26	NA	26.46	R28.70	W	W	25.18
	February†	R26.06	R23.91	R28.73	NA	26.37	R28.55	W	W	R25.37
	March†	27.33	25.13	28.56	W	26.57	29.40	NA	W	25.75

[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	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October	117.2	125.5	139.5	123.9
	November	115.6	124.1	138.4	122.4
	December	114.6	123.1	137.6	121.5
	Average	**115.7**	**124.1**	**138.3**	**122.5**
1984	January	113.1	121.6	136.9	120.0
	February	112.5	120.9	136.1	119.3
	March	112.5	121.0	136.2	119.4
	April	114.5	122.7	137.5	121.1
	May	115.4	123.6	138.0	122.1
	June	114.7	122.9	137.7	121.4
	July	112.9	121.2	137.0	119.7
	August	111.6	119.6	135.5	118.4
	September	112.0	120.3	136.0	118.9
	October	112.7	120.9	136.5	119.5
	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

[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	January	65.0	70.5	57.0	60.1	60.3	64.2
	February	63.0	66.0	55.7	58.5	58.5	62.0
	March	60.0	66.2	55.9	57.0	57.7	60.9
	April	60.1	64.3	56.5	58.7	57.7	61.0
	May	62.6	66.9	57.8	59.7	59.2	63.2
	June	63.2	69.2	58.5	60.1	60.2	64.7
	July	65.2	70.4	60.5	61.4	62.2	65.9
	August	66.7	71.6	62.0	63.2	63.8	67.7
	September	67.0	72.6	63.3	65.3	64.6	69.0
	October	68.8	72.1	62.6	64.9	64.7	68.7
	November	66.5	70.7	62.2	64.4	63.6	67.4
	December	67.3	72.0	60.2	63.1	62.3	67.2
	Average	**64.3**	**69.5**	**59.1**	**61.1**	**60.9**	**65.1**
1984	January	71.0	73.6	62.3	64.6	64.8	69.0
	February	71.4	75.1	65.7	65.8	67.5	70.4
	March	70.5	73.1	61.9	64.7	64.5	68.5
	April	69.2	73.1	64.7	66.5	66.2	69.1
	May	68.3	72.7	65.0	67.4	66.0	69.5
	June	69.8	73.2	66.1	68.9	67.2	71.0
	July	66.8	71.5	64.0	66.7	65.0	69.0
	August	65.6	69.5	62.7	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	R63.4	66.3	R65.0	68.7
	March†	66.2	69.7	60.6	65.0	62.3	67.1

[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.
†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 8 in the Notes and Sources for this section for additional information.
Sources: •See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products for 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	January	88.5	124.8	91.8	94.2	85.7	85.5	47.0
	February	85.4	123.7	89.9	90.0	80.1	80.7	46.7
	March	82.9	121.2	84.5	83.1	76.0	75.2	47.4
	April	86.5	120.0	82.9	84.2	78.9	76.8	50.0
	May	90.4	120.2	84.3	87.7	80.9	80.2	50.5
	June	91.5	115.0	84.1	84.6	80.9	80.3	50.9
	July	92.3	115.2	84.8	85.2	81.7	80.8	50.7
	August	91.5	114.7	85.4	86.7	83.4	81.7	49.8
	September	90.2	113.7	86.3	91.9	85.1	83.5	50.1
	October	88.1	118.9	86.4	90.8	83.5	83.0	49.9
	November	86.6	118.7	84.4	90.4	82.6	82.0	47.3
	December	83.8	118.8	83.6	88.6	80.7	80.1	45.4
	Average	**88.2**	**117.8**	**85.4**	**89.2**	**81.5**	**80.8**	**48.4**
1984	January	83.2	116.7	86.4	95.9	87.5	82.6	47.7
	February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
	March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
	April	86.9	116.8	84.2	90.7	82.8	80.8	44.6
	May	86.6	117.1	84.3	90.9	83.2	81.9	44.4
	June	84.5	116.8	84.2	88.1	82.4	81.9	44.1
	July	81.7	117.2	82.8	87.6	79.4	79.3	42.3
	August	81.1	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	38.2

[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.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
•Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products to End 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	January	97.1	129.2	94.5	104.5	100.9	89.2	72.7
	February	92.5	127.2	92.6	101.4	97.0	84.0	71.7
	March	89.8	126.6	90.6	97.1	93.0	78.0	68.1
	April	94.7	125.2	88.8	93.4	89.1	78.8	68.6
	May	96.6	125.4	87.8	93.8	89.5	81.8	72.2
	June	97.8	125.6	86.3	90.0	87.3	81.5	67.3
	July	98.8	125.1	85.6	89.0	85.1	82.0	66.4
	August	98.4	125.9	85.5	90.8	86.1	83.0	68.9
	September	96.9	124.2	86.1	92.7	88.0	84.8	74.9
	October	95.4	124.7	86.0	98.9	89.0	84.2	69.6
	November	93.9	124.5	85.8	100.0	90.1	83.5	72.8
	December	92.4	124.4	85.5	96.6	92.1	82.2	76.4
	Average	**95.4**	**125.5**	**87.8**	**96.1**	**91.6**	**82.6**	**70.9**
1984	January	90.6	123.9	85.8	106.8	97.7	84.4	76.8
	February	90.2	123.7	86.5	117.9	104.6	87.4	76.3
	March	90.7	123.8	85.6	111.3	94.7	83.2	76.4
	April	92.9	124.4	85.1	105.8	91.9	82.4	76.5
	May	93.4	123.9	85.2	102.4	90.9	83.2	70.4
	June	92.5	124.6	84.5	94.3	86.9	84.0	70.6
	July	90.4	124.3	84.1	90.6	84.3	81.3	69.6
	August	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	R103.7	R86.1	R76.7	R76.1
	March†	87.2	121.4	80.4	103.2	85.8	77.0	74.6

[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 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

Sales Prices of No. 2 Distillate to Residences for Selected 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	January	119.5	109.0	116.3	111.6	116.2	121.5	110.5	122.8	115.4	115.7	120.6	113.7	116.0
	February	115.8	103.7	113.2	105.5	112.2	116.9	108.2	119.7	112.6	110.4	117.6	109.6	112.0
	March	108.3	97.4	105.4	100.8	106.8	109.6	103.9	115.3	108.2	104.6	110.2	104.0	106.9
	April	104.5	99.5	104.4	100.9	108.8	110.6	103.0	113.1	107.9	104.4	106.9	101.8	106.7
	May	105.9	101.6	107.0	102.6	109.6	111.2	104.6	112.9	108.6	105.5	108.2	103.3	107.2
	June	104.3	102.6	105.9	101.2	112.0	112.8	107.3	114.7	108.3	104.6	110.5	102.2	106.8
	July	104.2	102.6	105.3	104.3	109.1	112.3	107.8	112.8	107.2	104.5	109.9	101.3	107.4
	August	103.8	105.6	105.4	103.5	107.9	111.7	102.5	113.3	107.0	105.5	110.0	101.6	107.7
	September	103.8	103.8	106.2	104.0	108.1	111.0	103.5	113.9	108.1	106.1	110.5	102.8	108.1
	October	104.3	102.9	105.6	103.1	108.0	109.4	103.5	113.4	108.7	105.4	110.3	103.3	104.8
	November	104.1	101.8	106.1	101.5	108.7	109.8	103.7	113.5	108.8	104.6	110.2	103.7	104.9
	December	105.6	102.2	108.1	103.7	109.4	110.0	105.5	114.7	109.2	106.7	110.9	104.6	105.2
	Average	**109.1**	**102.8**	**109.1**	**104.1**	**110.5**	**112.9**	**106.0**	**117.0**	**110.3**	**107.9**	**112.1**	**105.8**	**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	R117.1	108.6	105.7	112.0	R103.2	106.8
	March†	106.8	100.5	107.3	102.8	106.2	107.9	104.6	115.9	108.3	105.1	111.3	102.1	105.9

[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	January	105.6	103.8	105.7	110.6	107.8	107.9	108.5	109.1	114.6	113.6	117.7	115.0
	February	104.7	99.5	102.8	108.5	101.6	104.4	104.5	104.8	NA	107.8	114.3	111.6
	March	99.2	96.6	95.7	103.7	96.5	98.2	96.8	99.6	110.7	101.4	109.0	105.1
	April	97.5	97.7	96.8	102.5	100.5	95.8	97.1	99.0	106.6	99.1	106.0	103.5
	May	96.1	100.3	98.2	102.7	101.9	96.5	98.7	99.2	106.0	99.0	105.5	104.8
	June	97.3	100.2	98.2	110.7	102.4	96.1	98.7	98.7	105.0	99.4	105.4	106.0
	July	94.9	99.6	99.4	105.3	102.6	97.3	99.0	99.3	105.8	97.8	105.2	105.0
	August	96.1	100.7	98.9	102.2	104.4	95.2	99.2	98.1	105.1	98.7	104.0	104.9
	September	100.7	102.5	101.4	103.9	103.7	101.2	100.7	98.9	106.2	100.5	105.6	105.7
	October	100.6	101.0	101.5	105.8	104.8	100.2	101.8	99.5	106.1	101.4	106.3	106.0
	November	100.5	100.8	100.7	105.4	104.4	101.0	100.4	99.5	105.5	102.1	106.4	106.0
	December	101.5	99.6	101.1	106.8	104.2	102.1	100.5	100.3	105.5	101.8	106.1	106.7
	Average	**101.0**	**100.4**	**100.7**	**106.4**	**103.1**	**101.3**	**101.2**	**101.8**	**108.8**	**103.6**	**109.0**	**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	R98.3	94.4	97.8	101.0	99.8	98.7	96.1	R96.9	107.6	96.6	R99.8	105.3
	March†	98.1	94.5	96.4	101.2	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0

Footnotes continued.
†Preliminary data. R=Revised data. NA=Not available.
Note: • Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

National Average Natural Gas Prices

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies[1]	Purchased by Electric Plants[1,2]	Residential Price[1,3]
		Dollars per thousand cubic feet					
1973	**Average**	**0.22**	**NA**	**NA**	**NA**	**0.35**	**1.29**
1974	**Average**	**0.30**	**NA**	**NA**	**NA**	**0.49**	**1.43**
1975	**Average**	**0.45**	**NA**	**NA**	**NA**	**0.77**	**1.71**
1976	**Average**	**0.58**	**NA**	**NA**	**NA**	**1.06**	**1.98**
1977	**Average**	**0.79**	**NA**	**NA**	**NA**	**1.33**	**2.35**
1978	**Average**	**0.91**	**2.21**	**0.83**	**1.54**	**1.48**	**2.56**
1979	**Average**	**1.18**	**2.60**	**1.22**	**2.01**	**1.80**	**2.98**
1980	**Average**	**1.59**	**4.42**	**1.63**	**2.53**	**2.28**	**3.68**
1981	**Average**	**1.98**	**4.84**	**2.15**	**3.11**	**2.91**	**4.29**
1982	**Average**	**2.46**	**4.94**	**2.72**	**3.73**	**3.49**	**5.17**
1983	January	2.66	5.03	3.06	4.38	[2]3.57	5.86
	February	2.66	5.09	3.15	4.41	3.41	5.87
	March	2.58	5.01	3.01	4.24	3.45	6.00
	April	2.53	4.58	2.90	4.44	3.35	6.06
	May	2.53	4.40	2.98	4.24	3.55	6.22
	June	2.59	4.41	2.95	4.22	3.58	6.20
	July	2.52	4.31	2.96	4.28	3.72	6.21
	August	2.58	3.93	2.90	4.23	3.75	6.18
	September	2.67	4.02	2.87	4.08	3.70	6.19
	October	2.58	4.03	2.86	4.22	3.60	6.10
	November	2.60	4.26	2.84	4.26	3.53	6.04
	December	2.61	4.33	2.73	4.12	3.49	6.06
	Average	**2.59**	**4.51**	**2.93**	**4.26**	**3.58**	**6.06**
1984	January	2.65	4.40	2.80	4.25	R3.54	5.98
	February	2.70	4.37	2.82	3.97	3.59	6.01
	March	2.62	4.40	2.80	4.18	3.50	5.98
	April	2.59	4.23	2.95	4.11	3.55	6.00
	May	2.61	4.15	2.86	4.17	R3.73	6.19
	June	2.65	4.25	2.89	4.06	3.74	6.13
	July	2.63	4.15	2.95	4.04	R3.87	6.17
	August	2.64	4.12	2.95	4.07	R3.79	6.20
	September	2.57	4.34	2.84	4.10	3.82	6.26
	October	2.63	4.19	2.96	4.06	3.74	6.25
	November	2.64	3.43	3.13	4.26	R3.70	6.12
	December	2.64	3.34	2.95	4.22	R3.68	6.09
	Average	**2.63**	**4.08**	**2.91**	**4.13**	**3.71**	**6.06**
1985	January	2.59	3.21	2.89	4.19	3.77	6.19
	February	2.57	3.08	2.87	4.15	3.71	6.12
	March	NA	NA	NA	NA	NA	6.16
	April	NA	NA	NA	NA	NA	6.14

[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 6 in the Notes and Sources for this section for estimation procedures.
R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Data for 1973 through December 1983 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the Notes and Sources for this section.

Price

Electricity

		Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants[2]				Average Retail Electricity Prices[1] for Selected Privately Owned Utilities[3]				
		Coal	Heavy Oil[4]	Natural Gas[5]	All Fossil Fuels[4]	Residential	Commercial	Industrial	Other	Total[6]
		Cents per million Btu				Cents per kilowatthour				
1973	**Average**	**40.5**	**78.5**	**33.8**	**47.6**	**2.54**	**2.41**	**1.25**	**2.10**	**1.96**
1974	**Average**	**70.9**	**189.0**	**48.2**	**91.4**	**3.10**	**3.04**	**1.69**	**2.75**	**2.49**
1975	**Average**	**81.4**	**200.5**	**75.2**	**104.4**	**3.51**	**3.45**	**2.07**	**3.08**	**2.92**
1976	**Average**	**84.8**	**195.2**	**103.4**	**111.9**	**3.73**	**3.69**	**2.21**	**3.27**	**3.09**
1977	**Average**	**94.7**	**219.8**	**129.1**	**129.7**	**4.05**	**4.09**	**2.50**	**3.51**	**3.42**
1978	**Average**	**111.6**	**212.5**	**142.2**	**141.1**	**4.31**	**4.36**	**2.79**	**3.62**	**3.69**
1979	**Average**	**122.4**	**298.8**	**174.9**	**163.9**	**4.64**	**4.68**	**3.05**	**3.96**	**3.99**
1980	**Average**	**135.1**	**426.7**	**219.9**	**192.8**	**5.36**	**5.48**	**3.69**	**4.76**	**4.73**
1981	**Average**	**153.2**	**533.4**	**280.5**	**225.6**	**6.20**	**6.29**	**4.29**	**5.28**	**5.46**
1982	**Average**	**164.7**	**483.2**	**337.6**	**224.9**	**6.86**	**6.86**	**4.95**	**5.92**	**6.13**
1983	January	[2]166.8	[2]448.9	[2]347.1	[2]216.7	6.65	6.78	5.03	5.91	6.13
	February	167.8	441.4	331.9	213.9	6.73	6.86	4.96	5.97	6.12
	March	168.1	426.0	336.1	215.5	6.93	6.93	5.07	6.16	6.23
	April	168.5	431.6	326.1	215.8	6.91	6.86	4.92	6.15	6.12
	May	165.0	446.6	344.3	216.6	7.20	7.04	4.89	6.60	6.21
	June	167.3	453.6	347.2	220.9	7.41	7.13	4.96	6.62	6.35
	July	165.3	467.0	361.1	237.4	7.50	7.13	5.11	6.24	6.53
	August	164.3	470.4	363.2	230.1	7.52	7.06	5.01	6.37	6.51
	September	163.9	482.8	358.1	226.4	7.55	7.15	5.00	6.58	6.52
	October	164.6	479.6	350.1	219.8	7.50	7.19	5.01	6.66	6.41
	November	163.6	472.2	340.5	212.2	7.25	7.13	4.83	6.63	6.23
	December	162.2	468.7	338.7	219.2	6.97	6.91	4.81	6.40	6.14
	Average	**165.6**	**457.8**	**347.4**	**220.6**	**7.18**	**7.01**	**4.97**	**6.36**	**6.29**
1984	January	161.6	488.9	343.7	221.0	6.77	6.81	4.86	6.33	6.14
	February	164.9	496.3	347.5	217.4	6.97	7.01	4.86	6.51	6.19
	March	163.4	484.0	339.8	208.4	7.18	7.14	4.88	6.68	6.27
	April	165.7	494.1	344.4	210.6	7.33	7.25	4.88	6.73	6.30
	May	168.6	486.9	360.4	220.3	7.59	7.30	4.92	6.85	6.40
	June	169.1	488.3	360.9	223.2	7.90	7.48	5.09	6.78	6.65
	July	168.2	474.6	373.1	231.3	8.00	7.51	5.21	6.97	6.83
	August	167.2	459.6	365.6	223.5	8.06	7.51	5.15	6.75	6.82
	September	167.4	472.5	368.0	217.5	8.06	7.64	5.25	7.05	6.88
	October	168.7	474.1	361.4	218.8	7.95	7.63	5.13	6.86	6.71
	November	166.6	470.6	357.2	216.8	7.62	7.43	5.06	6.99	6.54
	December	165.0	480.4	355.4	218.7	7.34	7.30	5.07	6.70	6.48
	Average	**166.4**	**481.2**	**358.3**	**219.2**	**7.56**	**7.33**	**5.03**	**6.76**	**6.52**
1985	January	164.0	472.7	364.2	218.8	7.28	7.25	5.12	6.80	6.52
	February	167.3	482.4	358.1	218.4	7.19	7.21	5.12	6.77	6.47
	March†	NA	NA	NA	NA	7.48	7.36	5.13	7.01	6.55

[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 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]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.
[4]See Note 7 in the Notes and Sources for this section.
[5]Includes supplemental gaseous fuels.
[6]Average price for total sales to ultimate consumers.
†Initial estimates. NA=Not available.
Note: • Geographic coverage is the 50 States and the the District of Columbia.
Sources: • See the Notes and Sources for this section.

Notes and Sources for the Price Section

Notes

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

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

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

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

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

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

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

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

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

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

8. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous annual data series have been generated for 1978–1980, and monthly series for 1981 and 1982, by estimating the prices that would have been published had the EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment for product and sales type matching, and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale, and between retail and end-user. The resale category continues to include sales among resellers. However, bulk sales to utility, industrial, and commercial accounts previously included in the wholesale category are now counted as made to end users. The end user category continues to include retail sales through company owned and operated outlets but also includes the bulk utility, industrial, and commercial sales. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article reprinted from the December 1983 [3] *Petroleum Marketing Monthly* published by the Energy Information Administration.

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

Notes and Sources for the Price Section (continued)

Sources

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

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

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

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

• No. 2 Distillate to Residences—January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA 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: • Average wellhead price—annual data from EIA, *Natural Gas Annual,* 1973 through 1982. Monthly data are estimated primarily on the basis of values reported by State agencies in 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 from EIA, *Natural Gas Annual,* 1973 through 1982. Monthly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index (CPI-U) for natural gas and are adjusted to conform with final reported annual data. See Note 6 on the previous page for estimation procedures.

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

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

International

Crude Oil Production

World crude oil production during March 1985 was 54.0 million barrels per day (bbl/d), up 0.2 million bbl/d from the level in the previous month. World crude oil production in the first quarter of 1985 averaged 53.5 million bbl/d, compared with 54.2 million bbl/d in the first quarter of 1984.

Organization of Petroleum Exporting Countries (OPEC) output during March 1985 averaged 16.7 million bbl/d, down 55,000 bbl/d from the level during the previous month. OPEC output in the first quarter of 1985 averaged 16.3 million bbl/d, down 10.1 percent from the first-quarter 1984 average of 18.2 million bbl/d. Production by Arab members of OPEC during March 1985 averaged 9.3 million bbl/d, down 0.2 million bbl/d from the February 1985 level. During March 1985, production decreased in Saudi Arabia by 190,000 bbl/d, in Iraq by 50,000 bbl/d, and in Kuwait by 40,000 bbl/d. Production levels remained the same as during the previous month in Libya and the United Arab Emirates, while production increased in Algeria by 40,000 bbl/d, and in Qatar by 25,000 bbl/d. Among non-Arab OPEC countries during March 1985, production increased in Iran and Nigeria by 200,000 bbl/d and 10,000 bbl/d, respectively, while production decreased in both Indonesia and Venezuela by 30,000 bbl/d.

Of the non-OPEC nations during March 1985, production increased in Mexico and Canada by 125,000 bbl/d and 50,000 bbl/d, respectively. Production in the United Kingdom decreased by 50,000 bbl/d, while production in the United States decreased marginally.

Petroleum Consumption

Preliminary petroleum consumption data for March 1985 were available for France, Italy, and the United States. Consumption in the United States and Italy decreased by 696,000 bbl/d and 230,000 bbl/d, respectively, compared with levels 1 year earlier, while consumption in France increased by 10,000 bbl/d, compared with the March 1984 level.

Petroleum Stocks

Preliminary data for March 1985 indicate that petroleum stock levels were higher compared with March 1984 levels in three of the five countries reporting. Petroleum stocks were up in the United Kingdom by 4.5 percent, in the United States by 1.0 percent, and in Japan by 0.9 percent. Italy and West Germany reported decreases in petroleum stocks of 2.7 percent and 2.0 percent, respectively.

Nuclear Electricity Production

In March 1985, the 20 non-Communist nations with significant nuclear power capacity generated 106.9 gross terawatthours (billion kilowatthours) of nuclear-based electricity. This generation was an increase of 20.4 percent compared with March 1984 generation. The United States accounted for 31.0 gross terawatthours (29.0 percent) of total non-Communist generation in March 1985.

During the first quarter of 1985, the 20 non-Communist nations' nuclear generation, on a daily-average basis, increased 19.1 percent compared with first-quarter generation in 1984. The United States accounted for 31.2 percent of that generation compared with its 32.9-percent share in the first quarter of 1984.

In Canada, Bruce-5, an 854-gross-megawatt-electric (MWe) pressurized heavy-water reactor operated by Ontario Hydro, became commercially operable in March. Forsmark-3, a 1,100-gross-MWe boiling-water reactor (BWR) operated by Statens Vattenfallsverk, became connected to Sweden's electrical grid on March 3. Also in Sweden in March, Oskarshamn-3, a 1,100-gross-MWe BWR operated by Aktiebolag, generated electricity for the first time.

With the additions of Bruce-5, Forsmark-3, Oskarshamn-3, and Waterford-3 (see page 87), there were 281 operable reactors in the non-Communist countries as of March 31, 1985, with a collective gross generating capacity of 206.7 gigawatts (million kilowatts). In March 1985, the 89 operable U.S. units accounted for 77.9 gross gigawatts (37.7 percent) of the total non-Communist 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**	**1,380**
1982	**Average**	**710**	**1,012**	**823**	**1,150**	**330**	**6,483**	**1,250**	**11,758**	**1,339**	**2,214**
1983	January	700	850	780	1,100	255	4,950	1,060	9,695	1,225	2,700
	February	600	850	895	900	200	3,510	1,060	8,015	1,015	2,400
	March	600	900	965	900	170	3,910	1,035	8,480	1,180	2,200
	April	700	950	880	1,000	260	3,930	1,145	8,865	1,400	2,000
	May	600	1,000	1,030	1,100	275	4,725	1,175	9,905	1,400	2,300
	June	700	1,000	920	1,100	300	4,620	1,180	9,820	1,400	2,500
	July	700	1,050	1,086	1,100	300	5,536	1,175	10,947	1,490	2,800
	August	700	1,100	1,181	1,100	265	5,931	1,185	11,462	1,490	2,500
	September	700	1,050	1,376	1,150	310	6,026	1,185	11,797	1,470	2,700
	October	700	1,100	1,305	1,150	320	6,005	1,165	11,745	1,520	2,400
	November	700	1,150	1,265	1,150	460	5,915	1,195	11,835	1,560	2,300
	December	700	1,050	1,075	1,150	420	5,825	1,195	11,415	1,440	2,300
	Average	**675**	**1,005**	**1,064**	**1,076**	**295**	**5,086**	**1,147**	**10,348**	**1,385**	**2,426**
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	1,300	R1,110	1,000	R270	R3,510	1,100	R8,890	R1,310	1,900
	February	R650	R1,300	R1,125	1,000	290	R4,025	1,160	R9,550	1,330	R2,100
	March	690	1,250	1,085	1,000	315	3,835	1,160	9,335	1,300	2,300

[1]Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In March 1985, total production in this region amounted to approximately 470,000 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.
Footnotes continued on following page.

International

Crude Oil Production for Major Petroleum Producing Countries (continued)

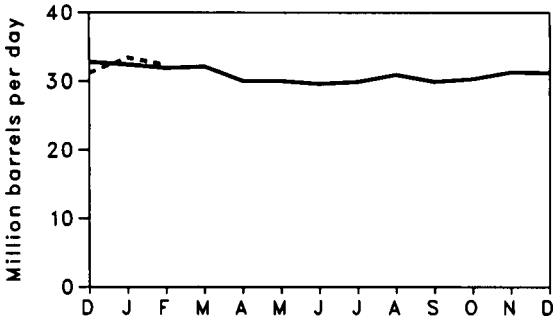
		Nigeria	Venezuela	Total OPEC[3]	Canada	Mexico	United Kingdom	United States	China	USSR	Other[4]	World
						Thousand barrels per day						
1973	**Average**	**2,054**	**3,366**	**30,989**	**1,800**	**465**	**2**	**9,208**	**1,090**	**8,465**	**3,655**	**55,674**
1974	**Average**	**2,255**	**2,976**	**30,729**	**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**	**11,909**	**5,352**	**55,900**
1982	**Average**	**1,295**	**1,895**	**18,868**	**1,372**	**2,748**	**2,065**	**8,649**	**2,045**	**12,080**	**5,631**	**53,458**
1983	January	880	2,060	16,952	1,288	2,980	2,135	8,697	2,085	12,410	5,913	52,460
	February	675	1,758	14,250	1,425	2,295	2,315	8,758	2,110	12,410	6,014	49,577
	March	905	2,055	15,192	1,461	2,415	2,265	8,700	2,110	12,410	5,949	50,502
	April	1,150	1,694	15,506	1,320	2,670	2,170	8,776	2,120	12,000	6,110	50,672
	May	1,625	1,664	17,266	1,383	2,795	2,235	8,631	2,120	11,900	6,095	52,425
	June	1,535	1,669	17,326	1,577	2,775	2,045	8,667	2,120	11,900	6,195	52,605
	July	1,710	1,674	19,033	1,551	2,685	2,280	8,636	2,120	11,900	6,187	54,392
	August	1,300	1,709	18,878	1,488	2,775	2,290	8,679	2,130	11,900	6,092	54,232
	September	1,220	1,704	19,278	1,504	2,735	2,385	8,784	2,130	11,900	6,157	54,873
	October	1,290	1,718	19,075	1,456	2,660	2,355	8,771	2,130	11,900	6,266	54,613
	November	1,245	1,748	19,075	1,483	2,730	2,490	8,770	2,130	11,900	6,386	54,964
	December	1,310	1,753	18,620	1,467	2,690	2,530	8,397	2,130	11,900	6,421	54,155
	Average	**1,241**	**1,768**	**17,562**	**1,450**	**2,686**	**2,291**	**8,688**	**2,120**	**12,034**	**6,150**	**52,981**
1984	January	1,365	1,840	17,980	1,365	2,670	2,525	8,659	2,200	11,900	6,656	53,955
	February	1,565	1,815	18,140	1,445	2,755	2,600	8,726	2,200	11,900	6,642	54,408
	March	1,560	1,815	18,416	1,475	2,710	2,480	8,718	2,200	11,750	6,576	54,325
	April	1,300	1,815	18,300	1,430	2,770	2,475	8,688	2,225	11,750	6,662	54,300
	May	1,300	1,840	17,570	1,415	2,800	2,439	8,752	2,225	11,900	6,737	53,838
	June	1,400	1,805	18,870	1,470	2,820	2,350	8,743	2,225	11,900	6,847	55,225
	July	1,200	1,860	17,860	1,515	2,845	2,470	8,769	2,305	11,870	6,851	54,485
	August	1,150	1,820	16,670	1,435	2,680	2,300	8,781	2,305	11,870	6,859	52,900
	September	1,400	1,850	16,826	1,330	2,705	2,435	8,759	2,335	11,790	6,970	53,150
	October	1,600	1,800	16,893	1,450	2,675	2,615	8,847	2,335	11,790	7,131	53,736
	November	1,600	1,725	16,760	1,460	2,745	2,605	8,846	2,335	11,750	7,183	53,684
	December	1,600	1,770	16,685	1,445	2,830	2,645	8,797	2,335	11,750	7,224	53,711
	Average	**1,419**	**1,813**	**17,577**	**1,436**	**2,750**	**2,495**	**8,757**	**2,269**	**11,827**	**6,862**	**53,973**
1985	January	1,400	1,670	R15,580	1,450	2,635	2,780	8,929	2,390	11,700	R7,214	R52,678
	February	R1,690	1,680	R16,770	R1,450	2,685	R2,650	8,928	2,390	11,700	R7,253	R53,826
	March	1,700	1,650	16,715	1,500	2,810	2,600	8,927	2,390	11,750	7,324	54,016

Footnotes continued.
[4]Other is a calculated total derived from the difference between world production and the nations represented above.
R=Revised data.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.
Sources: • See the last page of this section.

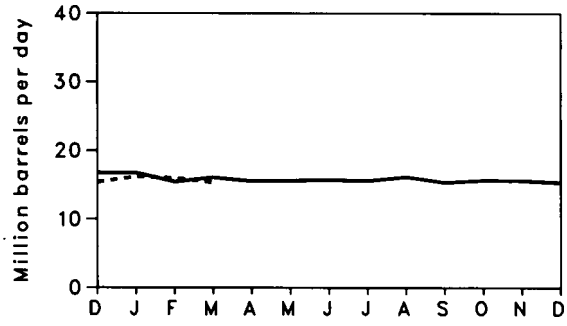
International

Petroleum Consumption for Major Non-Communist Industrialized Countries

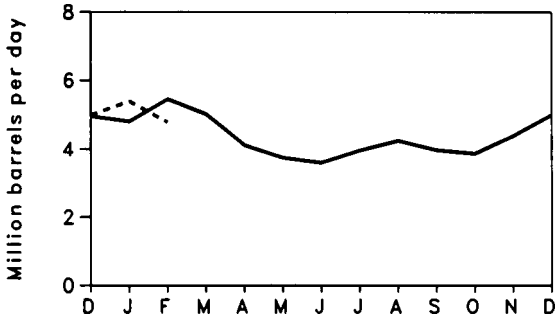
Total IEA



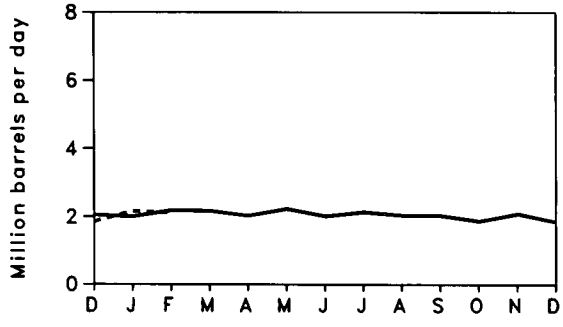
United States



Japan



West Germany



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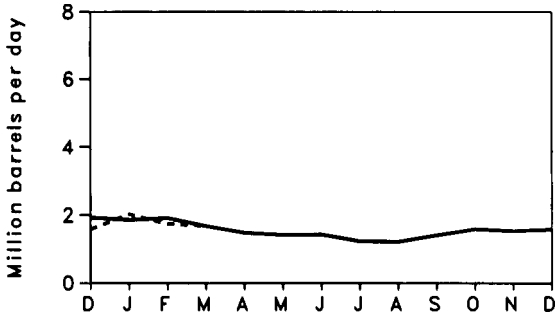
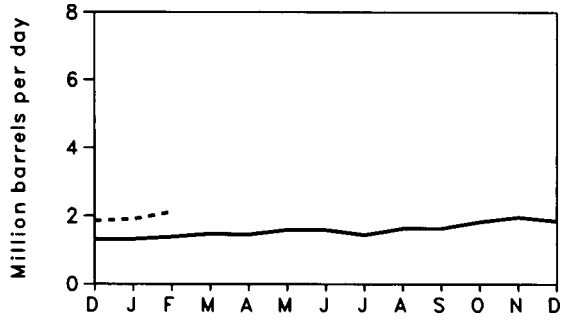


United Kingdom



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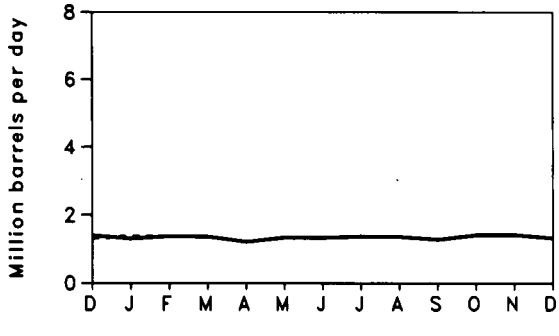

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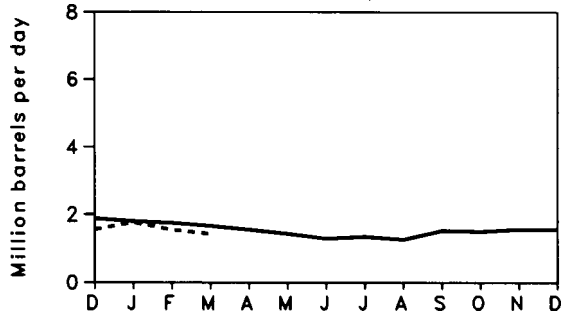


1984 ----- 1985

International

Petroleum Consumption for Major Non-Communist Industrialized Countries[1]

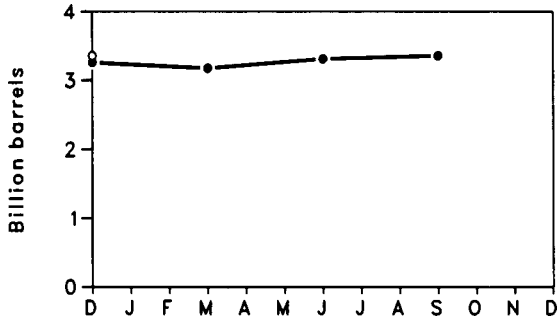
		Canada	France[2]	Italy[3]	Japan[4]	United Kingdom	United States	West Germany	Other IEA[5]	Total IEA[6]
					Thousand barrels per day					
1973	**Average**	**1,597**	**2,219**	**1,525**	**5,000**	**1,958**	**17,308**	**2,693**	**4,069**	**34,150**
1974	**Average**	**1,630**	**2,094**	**1,521**	**4,872**	**1,829**	**16,653**	**2,408**	**4,047**	**32,960**
1975	**Average**	**1,595**	**1,925**	**1,468**	**4,568**	**1,633**	**16,322**	**2,319**	**3,905**	**31,810**
1976	**Average**	**1,647**	**2,075**	**1,503**	**4,786**	**1,601**	**17,461**	**2,507**	**4,265**	**33,770**
1977	**Average**	**1,661**	**1,973**	**1,476**	**5,015**	**1,655**	**18,431**	**2,478**	**4,214**	**34,930**
1978	**Average**	**1,701**	**2,077**	**1,551**	**5,115**	**1,683**	**18,847**	**2,596**	**4,387**	**35,880**
1979	**Average**	**1,766**	**2,107**	**1,607**	**5,173**	**1,690**	**18,513**	**2,664**	**4,487**	**35,900**
1980	**Average**	**1,730**	**1,965**	**1,602**	**4,680**	**1,420**	**17,056**	**2,360**	**4,152**	**33,000**
1981	**Average**	**1,615**	**1,745**	**1,705**	**4,445**	**1,325**	**16,058**	**2,120**	**4,032**	**31,300**
1982	**Average**	**1,450**	**1,645**	**1,614**	**4,196**	**1,337**	**15,296**	**2,045**	**3,962**	**29,900**
1983	January	1,260	1,685	1,675	4,410	1,260	14,722	1,875	3,998	29,200
	February	1,430	1,985	1,865	4,950	1,415	14,792	2,060	4,288	30,800
	March	1,305	1,685	1,605	4,625	1,430	15,541	2,180	4,314	31,000
	April	1,190	1,785	1,415	3,850	1,300	14,692	1,940	3,913	28,300
	May	1,320	1,500	1,470	3,460	1,230	14,505	2,010	3,805	27,800
	June	1,360	1,405	1,475	4,040	1,255	15,289	2,060	4,121	29,600
	July	1,265	1,210	1,365	3,745	1,160	15,019	1,785	3,861	28,200
	August	1,440	1,350	1,315	3,990	1,220	15,480	1,920	4,035	29,400
	September	1,380	1,415	1,590	4,040	1,300	15,506	2,040	4,144	30,000
	October	1,360	1,495	1,625	3,900	1,280	14,962	2,090	4,083	29,300
	November	1,460	1,800	1,840	4,290	1,340	15,500	2,055	4,215	30,700
	December	1,400	1,930	1,880	4,960	1,300	16,726	2,050	4,484	32,800
	Average	**1,345**	**1,600**	**1,590**	**4,185**	**1,290**	**15,231**	**2,005**	**4,054**	**29,700**
1984	January	1,300	1,860	1,800	4,800	1,310	16,726	2,000	4,464	32,400
	February	1,370	1,915	1,750	5,450	1,380	15,389	2,180	4,381	31,900
	March	1,350	1,680	1,660	5,020	1,470	16,017	2,170	4,413	32,100
	April	1,200	1,475	1,550	4,110	1,450	15,484	2,030	4,176	30,000
	May	1,329	1,410	1,435	3,740	1,590	15,566	2,230	4,110	30,000
	June	1,330	1,420	1,295	3,590	1,585	15,687	2,020	4,093	29,600
	July	1,370	1,225	1,350	3,950	1,440	15,547	2,140	4,103	29,900
	August	1,365	1,210	1,270	4,230	1,630	16,130	2,050	4,225	30,900
	September	1,280	1,400	1,525	3,960	1,635	15,315	2,040	4,145	29,900
	October	1,415	1,590	1,500	3,860	1,830	15,631	1,880	4,184	30,300
	November	1,420	1,530	1,560	4,375	1,965	15,602	2,095	4,283	31,300
	December	1,320	1,580	1,560	4,995	1,855	15,353	1,855	4,262	31,200
	Average	**1,338**	**1,523**	**1,520**	**4,338**	**1,595**	**15,707**	**2,057**	**4,245**	**30,800**
1985	January	1,365	2,025	1,765	5,390	R1,905	16,142	R2,165	R4,668	33,400
	February	1,360	1,740	1,552	4,780	2,110	15,975	2,120	4,503	32,400
	March	NA	1,690	1,430	NA	NA	15,321	NA	NA	NA

[1]These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.
[2]Not a member of the International Energy Agency (IEA).
[3]Principal products only prior to 1981.
[4]Excludes liquefied petroleum gases and condensate.
[5]Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.
[6]The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.
R=Revised data. NA=Not available.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Data for 1983 through 1985 are preliminary.
Sources: • See the last page of this section.

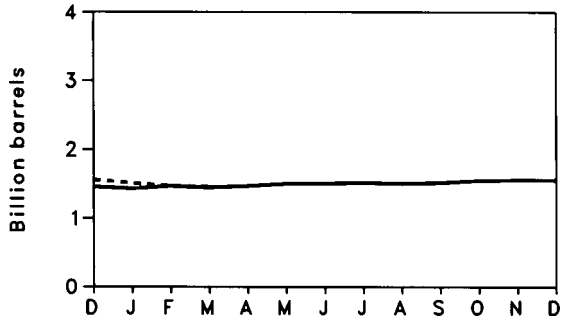
International

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

Total OECD



United States



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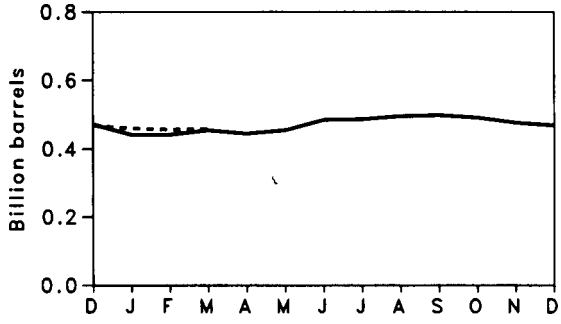
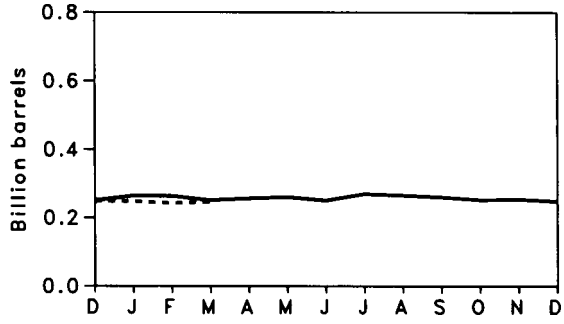


West Germany



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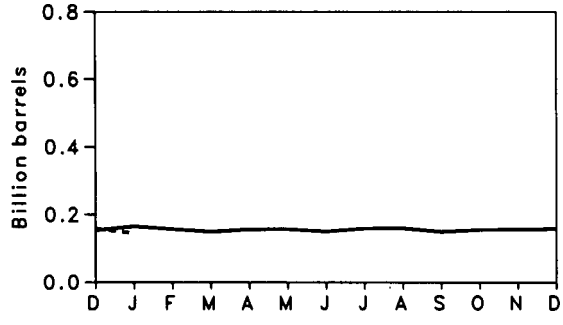

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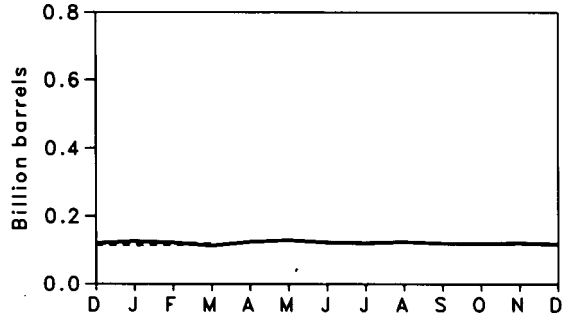
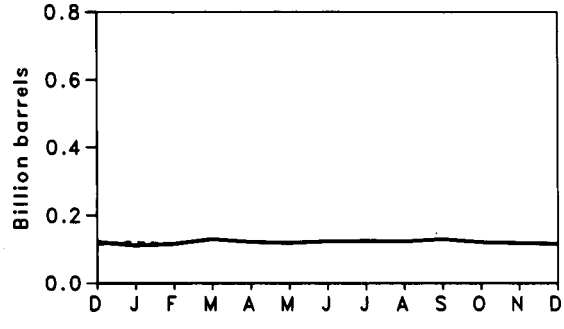


Canada



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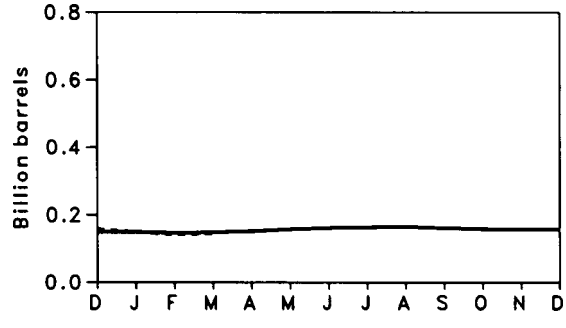

●——● 1984 ○- - -○ 1985

International

Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period[1]

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD[2]	Total OECD[3]
						Million barrels				
1973		**149**	**203**	**NA**	**303**	**156**	**1,008**	**NA**	**NA**	**NA**
1974		**164**	**240**	**169**	**370**	**161**	**1,074**	**215**	**NA**	**NA**
1975		**167**	**239**	**143**	**375**	**164**	**1,133**	**190**	**NA**	**NA**
1976		**156**	**231**	**142**	**394**	**165**	**1,112**	**214**	**NA**	**NA**
1977		**167**	**239**	**161**	**409**	**148**	**1,312**	**225**	**524**	**3,185**
1978		**144**	**201**	**154**	**413**	**157**	**1,278**	**238**	**512**	**3,097**
1979		**150**	**226**	**163**	**460**	**169**	**1,341**	**272**	**594**	**3,375**
1980		**164**	**243**	**170**	**495**	**168**	**1,392**	**319**	**636**	**3,587**
1981		**161**	**214**	**167**	**482**	**143**	**1,484**	**297**	**583**	**3,531**
1982		**136**	**193**	**179**	**468**	**125**	**1,430**	**272**	**557**	**3,360**
1983	January	136	206	170	473	125	1,452	274	NA	NA
	February	133	187	163	450	121	1,430	274	NA	NA
	March	135	162	155	456	120	1,372	262	539	3,201
	April	123	158	151	422	120	1,374	255	NA	NA
	May	125	164	152	437	123	1,394	274	NA	NA
	June	113	158	159	460	116	1,405	261	531	3,203
	July	110	174	151	436	119	1,426	270	NA	NA
	August	110	183	161	433	121	1,460	274	NA	NA
	September	125	165	160	452	125	1,485	263	549	3,324
	October	111	170	157	441	129	1,508	267	NA	NA
	November	105	162	150	440	124	1,510	267	NA	NA
	December	120	153	149	471	119	1,454	250	542	3,258
1984	January	109	165	149	441	125	1,430	264	NA	NA
	February	114	157	146	441	121	1,464	263	NA	NA
	March	128	149	148	454	112	1,444	251	489	3,174
	April	120	156	151	444	123	1,465	256	NA	NA
	May	117	157	157	454	128	1,497	260	NA	NA
	June	122	150	161	484	122	1,502	250	521	3,311
	July	123	159	163	486	120	1,514	269	NA	NA
	August	122	160	165	495	123	1,500	265	NA	NA
	September	129	149	161	498	119	1,514	250	535	3,356
	October	120	155	158	491	118	1,545	252	NA	NA
	November	117	156	157	476	120	1,556	254	NA	NA
	December	115	158	157	468	117	1,555	248	NA	NA
1985	January	R117	145	R149	R459	R115	1,510	248	NA	NA
	February	112	NA	R142	R456	R117	1,467	R242	NA	NA
	March	NA	NA	144	458	117	1,459	246	NA	NA

[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]"Other OECD" includes Organization for Economic Cooperation and Development (OECD) members not shown.
[3]The members of OECD are listed in Note 2 on the last page of this section.
R=Revised data. NA=Not available.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported. Using the new basis, the end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,420 in 1980, and 1,462 in 1982.
Sources: • See the last page of this section.

International

Nuclear Electricity Generation by Non-Communist Countries[1]

		Argentina[2]	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Netherlands	Pakistan
						Billion gross kilowatthours						
1973	**Total**	**0**	**0**	**0**	**18.3**	**0**	**11.6**	**1.9**	**3.1**	**9.4**	**1.1**	**0.5**
1974	**Total**	**1.0**	**0.1**	**0**	**15.4**	**0**	**14.7**	**2.5**	**3.4**	**18.1**	**3.3**	**0.6**
1975	**Total**	**2.5**	**6.8**	**0**	**13.2**	**0**	**18.3**	**2.5**	**3.8**	**22.2**	**3.3**	**0.5**
1976	**Total**	**2.6**	**10.0**	**0**	**18.0**	**0**	**15.8**	**3.2**	**3.8**	**36.7**	**3.9**	**0.5**
1977	**Total**	**1.6**	**11.9**	**0**	**26.8**	**2.7**	**17.9**	**2.8**	**3.4**	**28.1**	**3.7**	**0.3**
1978	**Total**	**2.9**	**12.5**	**0**	**32.9**	**3.3**	**30.5**	**2.3**	**4.4**	**53.2**	**4.1**	**0.2**
1979	**Total**	**2.7**	**11.4**	**0**	**38.4**	**6.7**	**39.9**	**3.2**	**2.6**	**62.0**	**3.5**	**(s)**
1980	**Total**	**2.3**	**12.5**	**0**	**40.4**	**7.0**	**61.2**	**2.9**	**2.2**	**82.8**	**4.2**	**0.1**
1981	**Total**	**2.8**	**12.8**	**0**	**43.3**	**14.5**	**105.2**	**3.1**	**2.7**	**86.0**	**3.7**	**0.2**
1982	**Total**	**1.9**	**15.6**	**0.1**	**42.6**	**16.5**	**108.9**	**2.2**	**6.8**	**104.5**	**3.9**	**0.1**
1983	January	0.2	1.9	0	4.3	1.7	13.8	0.2	0.2	8.0	0.4	(s)
	February	0.2	1.4	0	4.5	1.5	10.9	0.1	0.1	6.8	(s)	(s)
	March	0.2	0.7	(s)	4.6	1.6	11.3	0.2	0.1	7.9	(s)	(s)
	April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2	(s)
	May	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3	(s)
	June	0.2	2.5	0	4.4	1.0	9.3	0.3	0.7	9.1	0.4	(s)
	July	0.3	2.5	0	4.8	1.3	11.0	0.2	0.7	9.6	0.4	0
	August	0.1	2.4	0	3.8	1.6	12.1	0.3	0.5	10.5	0.4	(s)
	September	0.2	2.2	0	4.4	1.5	12.4	0.3	0.6	10.1	0.4	(s)
	October	0.2	2.2	0	4.7	1.4	13.0	0.3	0.6	10.2	0.4	(s)
	November	0.2	2.0	(s)	4.3	1.5	13.4	0.2	0.7	9.2	0.4	(s)
	December	0.2	2.1	0.1	5.0	1.7	16.8	0.3	0.7	10.0	0.4	(s)
	Total	**[2]3.4**	**24.1**	**0.2**	**53.1**	**17.4**	**144.2**	**2.9**	**5.8**	**109.1**	**3.6**	**0.2**
1984	January	0.2	2.7	(s)	5.0	1.7	18.0	0.3	0.4	10.1	0.3	(s)
	February	0.2	2.3	0.2	4.6	1.6	17.1	0.4	0.6	9.2	0.4	0
	March	0.2	1.9	0.1	5.1	1.7	17.8	0.3	0.7	8.8	0.2	0
	April	0.2	2.4	(s)	4.3	1.6	15.4	0.4	0.3	8.9	0.2	(s)
	May	0.2	2.0	0.1	3.6	1.2	14.2	0.5	0.3	10.5	0.4	(s)
	June	0.2	2.6	0.0	3.7	1.3	13.1	0.4	0.3	9.9	0.4	(s)
	July	0.1	2.4	0.0	4.4	1.4	13.1	0.5	0.3	10.6	0.2	(s)
	August	0.1	1.9	(s)	4.7	1.4	13.2	0.4	0.8	11.0	0.3	(s)
	September	0.1	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	0	2.6	0.4	4.7	1.7	17.8	0.3	0.8	11.8	0.4	(s)
	December	0.1	2.6	0.4	5.1	1.7	20.9	0.2	0.8	12.5	0.4	(s)
	Total	**[2]4.5**	**27.7**	**2.0**	**54.0**	**18.5**	**191.2**	**4.1**	**6.9**	**126.5**	**3.7**	**0.3**
1985	January	0.2	2.5	R0.4	5.7	1.7	21.9	0.2	0.8	11.9	0.4	(s)
	February	0.4	1.7	R0.3	5.0	1.6	19.2	0.2	0.7	10.1	0.3	(s)
	March	0.5	2.0	0.3	5.9	1.8	20.6	0.4	0.8	11.3	0.2	0.0

[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 total includes the Embalse reactor for which monthly data are not available for the years 1983 and 1984. This reactor generated 0.9 billion gross kilowatthours in 1983 and 2.8 billion gross kilowatthours in 1984.
[3]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	Switzerland	Taiwan	United Kingdom[3]	West Germany	Non-Communist World Excluding U.S.	United States	Total Non-Communist World
		Billion gross kilowatthours										
1973	**Total**	**0**	**0**	**6.5**	**2.1**	**6.2**	**0**	**28.0**	**11.9**	**100.7**	**88.0**	**188.7**
1974	**Total**	**0**	**0**	**7.2**	**1.6**	**7.0**	**0**	**34.0**	**12.0**	**121.1**	**104.5**	**225.6**
1975	**Total**	**0**	**0**	**7.5**	**12.0**	**7.7**	**0**	**30.5**	**21.7**	**152.7**	**181.7**	**334.4**
1976	**Total**	**0**	**0**	**7.6**	**16.0**	**7.9**	**0**	**36.8**	**24.5**	**187.3**	**201.8**	**389.1**
1977	**Total**	**0**	**0.1**	**6.5**	**19.9**	**8.1**	**0.1**	**38.1**	**35.8**	**207.8**	**263.3**	**471.0**
1978	**Total**	**0**	**2.3**	**7.6**	**23.8**	**8.3**	**2.7**	**36.7**	**35.9**	**263.6**	**292.7**	**556.3**
1979	**Total**	**0**	**3.2**	**6.7**	**21.0**	**11.8**	**6.3**	**38.5**	**42.2**	**300.1**	**270.6**	**570.7**
1980	**Total**	**0**	**3.5**	**5.2**	**26.7**	**14.3**	**8.2**	**37.2**	**43.7**	**354.4**	**265.4**	**619.8**
1981	**Total**	**0**	**2.9**	**9.4**	**37.7**	**15.2**	**10.7**	**38.9**	**53.4**	**442.4**	**288.5**	**730.9**
1982	**Total**	**0**	**3.8**	**8.8**	**38.8**	**15.0**	**13.1**	**44.1**	**63.4**	**489.9**	**298.6**	**788.5**
1983	January	0	0.5	1.0	4.2	1.5	1.5	4.3	6.5	50.0	27.4	77.4
	February	0	0.4	0.9	3.7	1.4	0.8	4.3	5.6	42.7	23.8	66.5
	March	0	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	25.0	71.7
	April	0	0.4	0.8	3.3	1.5	1.7	4.3	4.0	43.1	23.4	66.5
	May	0	0.2	0.4	2.4	1.2	2.0	3.4	2.9	40.6	23.9	64.5
	June	0	0.7	0.6	2.4	0.5	2.0	3.9	4.2	42.4	25.7	68.2
	July	0	0.7	0.6	1.6	1.2	1.6	3.3	5.1	44.9	27.3	72.2
	August	0	1.1	1.0	2.7	1.0	1.4	3.7	4.6	47.3	27.9	75.1
	September	0	1.1	1.0	3.0	1.4	1.2	4.4	6.0	50.2	26.4	76.6
	October	0	0.8	1.1	3.6	1.5	1.6	3.7	7.6	53.0	27.6	80.6
	November	0	1.2	1.1	4.5	1.4	1.6	3.9	7.1	52.8	26.6	79.3
	December	0	1.3	1.4	5.0	1.5	1.7	5.5	6.2	59.8	28.6	88.4
	Total	**0**	**9.0**	**10.7**	**40.5**	**15.5**	**18.9**	**50.0**	**65.8**	**574.3**	**313.6**	**887.9**
1984	January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	61.4	30.8	92.2
	February	0	1.2	1.5	5.0	1.4	1.8	4.6	7.4	59.4	29.4	88.8
	March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	60.2	28.6	88.8
	April	0.1	0.9	1.3	4.5	1.5	1.8	4.2	6.4	54.2	24.7	78.9
	May	0.1	0.8	1.9	3.3	1.3	1.4	4.3	7.2	53.2	27.3	80.6
	June	0.3	0.7	2.2	2.8	0.6	1.8	4.7	7.1	52.0	26.4	78.5
	July	0.5	0.7	2.5	2.4	1.3	2.4	3.7	6.2	R52.9	29.3	82.3
	August	0.7	0.9	2.3	3.5	1.0	2.4	3.6	6.3	R54.5	31.8	86.3
	September	0.7	0.9	2.6	4.2	1.4	2.6	4.9	8.2	R60.7	30.3	91.0
	October	0.7	1.3	1.8	5.0	1.5	2.0	4.1	8.6	R63.6	26.8	90.4
	November	0.4	1.3	1.9	4.5	1.5	1.8	4.4	9.8	R66.1	25.5	91.5
	December	0.5	0.9	2.2	5.4	1.9	2.3	6.3	10.4	74.7	31.3	105.9
	Total	**4.0**	**11.8**	**23.0**	**51.3**	**16.3**	**24.6**	**54.1**	**92.4**	**716.9**	**342.3**	**R1,059.2**
1985	January	0.3	1.0	2.2	5.4	2.2	2.4	5.7	10.4	75.5	37.0	112.5
	February	0.0	1.1	1.9	5.0	2.0	2.1	5.6	9.6	67.1	31.3	98.4
	March	0.0	1.4	2.8	5.6	2.2	2.5	6.6	11.0	75.9	31.0	106.9

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: • See the last page of this section.

Notes and Sources for the International Section

Notes

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

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

Sources

Crude Oil Production: • 1973–1983 annual data (except the United States): Energy Information Administration (EIA), *1983 International Energy Annual.*
• 1973–1985 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly.*
• 1983–1985 monthly data (except U.S. 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.
Petroleum Consumption: • Central Intelligence Agency, "International Energy Statistical Review" (except the United States).
• U.S. data: EIA, *Petroleum Supply Monthly.*
• International Energy Agency totals for latest months are EIA estimates.
Petroleum Stocks: • U.S. data: EIA, *Petroleum Supply Monthly.*
• Other OECD data: OECD, *Quarterly Oil Statistics;* Comite Professionnel du Petrole, *Bulletin Mensuel.*
• Total OECD data: Sum of data for all OECD member countries using above sources.
Nuclear Electricity Generation and Capacities: • *Nucleonics Week.*

Conversion Factors

Units of Measure

Weight

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

Conversion Factors for Crude Oil (Average Gravity)

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

Conversion Factors for Uranium

1 short ton (U_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 Indexes, 1972 = 100.0

	Gross National Product Implicit Price Deflator	Consumer Price Index, All Urban Consumers, All Items
1972	100.00	100.0
1973	105.75	106.2
1974	115.08	117.9
1975	125.79	128.7
1976	132.34	136.1
1977	140.05	144.9
1978	150.42	155.9
1979	163.42	173.5
1980	178.42	197.0
1981	195.60	217.4
1982	207.38	230.7
1983	215.34	238.1
1984‡	223.43	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 Refined Petroleum Products

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

[1] 60 percent butane and 40 percent propane.
[2] 70 percent ethane and 20 percent propane.

Conversion Factors (continued)

Approximate Heat Content of Fuels, 1973–1978

	Units	1973	1974	1975	1976	1977	1978
Coal							
Production	Million Btu/short ton	23.389	23.081	22.907	22.862	22.602	22.252
Consumption	Million Btu/short ton	23.071	22.685	22.510	22.499	22.268	22.022
Non-electric utility users	Million Btu/short ton	24.919	24.823	24.777	24.890	24.721	24.512
Electric utilities	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.60	26.70	26.56	26.60	26.55	26.48
Anthracite							
Production	Million Btu/short ton	23.17	22.56	22.39	22.77	23.18	23.52
Consumption	Million Btu/short ton	22.71	21.95	21.74	22.15	22.69	22.97
Non-electric utility users	Million Btu/short ton	24.34	23.75	23.65	23.84	24.99	25.17
Electric utilities	Million Btu/short ton	17.92	17.20	17.06	17.53	17.24	17.10
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
Bituminous coal and lignite							
Production	Million Btu/short ton	23.391	23.087	22.911	22.863	22.597	22.242
Consumption	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014
Residential and commercial	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078
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	22.585	22.420	22.439	22.528	22.290	22.175
Electric utilities	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284
Imports	Million Btu/short ton	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
Coal coke, imports and exports	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
Crude oil[1]							
Production	Million Btu/barrel	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
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	5.897	5.884	5.858	5.856	5.834	5.839
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808
Petroleum products[2]							
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382
Industrial	Million Btu/barrel	5.565	5.537	5.527	5.535	5.552	5.546
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407
Electric utilities	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251
Imports	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814
LPG consumption average[3]	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669
Natural gas plant liquids							
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925
Natural gas							
Production, dry	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Production, wet	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088
Consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Non-electric utility users	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016
Electric utilities	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation[4]	Btu/kWh	10,389	10,442	10,406	10,373	10,435	10,361
Nuclear power plant generation	Btu/kWh	10,903	11,161	11,013	11,047	10,769	10,941
Geothermal energy power plant generation	Btu/kWh	21,674	21,674	21,611	21,611	21,611	21,611
Electricity consumption	Btu/kWh	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] LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.
[4] 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, 1979–1985

	Units	1979	1980	1981	1982	1983	1984–1985‡
Coal							
Production	Million Btu/short ton	22.466	22.418	22.312	22.242	22.059	22.127
Consumption	Million Btu/short ton	22.103	21.946	21.712	21.669	21.574	21.694
Non-electric utility users	Million Btu/short ton	24.640	24.751	24.506	24.211	24.110	24.230
Electric utilities	Million Btu/short ton	21.364	21.295	21.085	21.194	21.133	21.213
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.55	26.38	26.16	26.22	26.29	26.44
Anthracite							
Production	Million Btu/short ton	23.59	23.35	23.69	23.69	23.24	23.24
Consumption	Million Btu/short ton	22.70	22.16	22.10	23.00	22.41	22.54
Non-electric utility users	Million Btu/short ton	25.20	23.74	25.12	25.37	25.59	25.41
Electric utilities	Million Btu/short ton	17.45	17.65	18.17	18.16	16.52	17.28
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
Bituminous coal and lignite							
Production	Million Btu/short ton	22.459	22.411	22.302	22.234	22.053	22.122
Consumption	Million Btu/short ton	22.100	21.950	21.712	21.671	21.581	21.698
Residential and commercial	Million Btu/short ton	21.884	22.488	22.191	22.373	22.934	22.902
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	22.436	22.690	22.572	22.694	22.679	22.763
Electric utilities	Million Btu/short ton	21.372	21.301	21.091	21.200	21.141	21.219
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.570	26.404	26.176	26.231	26.300	26.445
Coal coke, imports and exports	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
Crude oil[1]							
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.810	5.812	5.818	5.826	5.825	5.823
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	5.810	5.796	5.775	5.775	5.774	5.763
Exports	Million Btu/barrel	5.832	5.820	5.821	5.820	5.800	5.853
Petroleum products[2]							
Consumption	Million Btu/barrel	5.494	5.479	5.448	5.415	5.406	5.393
Residential and commercial	Million Btu/barrel	5.471	5.468	5.409	5.392	5.363	5.265
Industrial	Million Btu/barrel	5.416	5.376	5.310	5.262	5.279	5.245
Transportation	Million Btu/barrel	5.430	5.440	5.434	5.423	5.416	5.423
Electric utilities	Million Btu/barrel	6.258	6.254	6.258	6.258	6.255	6.251
Imports	Million Btu/barrel	5.811	5.748	5.659	5.664	5.677	5.659
Exports	Million Btu/barrel	5.864	5.841	5.837	5.829	5.800	5.871
LPG consumption average[3]	Million Btu/barrel	3.680	3.674	3.643	3.615	3.614	3.599
Natural gas plant liquids							
Production	Million Btu/barrel	3.955	3.914	3.930	3.872	3.839	3.960
Natural gas							
Production, dry	Btu/cubic foot	1,021	1,026	1,027	1,028	1,031	1,031
Production, wet	Btu/cubic foot	1,092	1,098	1,103	1,107	1,115	1,115
Consumption	Btu/cubic foot	1,021	1,026	1,027	1,028	1,031	1,031
Non-electric utility users	Btu/cubic foot	1,018	1,024	1,025	1,026	1,031	1,031
Electric utilites	Btu/cubic foot	1,035	1,035	1,035	1,036	1,030	1,030
Imports	Btu/cubic foot	1,037	1,022	1,014	1,018	1,024	1,024
Exports	Btu/cubic foot	1,013	1,013	1,011	1,011	1,010	1,010

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation[4]	Btu/kWh	10,353	10,388	10,453	10,423	10,445‡	10,445
Nuclear power plant generation	Btu/kWh	10,879	10,908	11,030	11,073	10,905‡	10,905
Geothermal energy power plant generation	Btu/kWh	21,545	21,639	21,639	21,629‡	21,290‡	21,303
Electricity consumption	Btu/kWh	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] LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.
[4] 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 Refined 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 by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book,* Ninth Edition, 1972.

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 by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book,* Ninth Edition, 1972.

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 by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book,* Ninth Edition, 1972.

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.*

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."

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."

Thermal Conversion Factor Source Documentation (continued)

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 by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book,* Ninth Edition, 1972.

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 natural gasoline (see "Natural Gasoline") 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

Coal and Coal Coke

Anthracite, Consumption. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of anthracite production and the heat content of anthracite imports less the heat content of anthracite exports, including shipments to U.S. Armed Forces overseas, and dividing this total heat content by the total anthracite consumed, adjusted for the quantity of anthracite stock changes and unaccounted for.

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 subtracting the total heat content of anthracite received at electric utilities from the total heat content of all anthracite consumed and dividing the resulting amount by the quantity of anthracite consumed by non-electric utility users.

Anthracite, Imports and Exports. • 1973 forward: EIA assumed the anthracite imports and exports to be freshly mined anthracite having an estimated heat content of 25.40 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 thermal content of 25.40 million Btu per short ton) and the heat content of anthracite recovered from culm banks (estimated to have a thermal content of 19.00 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

Thermal Conversion Factor Source Documentation (continued)

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 26.80 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 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 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 each coal-producing district, and the sum 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 27.00 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25.00 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 25.00 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 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 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 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 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 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 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 24.80 million Btu per short ton.

Thermal Conversion Factor Source Documentation (continued)

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 consumed at electric utilities by the quantity consumed at electric utilities. The heat contents and the quantities consumed are from Form EIA-759 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.

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 (Dry), Production. • 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 (Wet), Production. • 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.

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

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."

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. • 1973–1983: 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

Thermal Conversion Factor Source Documentation (continued)

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.* • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption by Industrial Users. • 1973–1983: 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.* • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption by Residential and Commercial Users. • 1973–1983: 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.* • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption for Transportation Use. • 1973–1983: 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.* • 1984 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.

Approximate Heat Rates for Electricity

Fossil Fuel Steam-Electric Power Plant Generation. • 1973–1983: This is the weighted average heat rate of 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.* • 1984 forward: Estimated to be the same as 1983.

Geothermal Energy (Consumed by Electric Utilities). • 1973–1981: Calculated 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 by EIA.

Hydroelectric Power. There is no generally accepted practice for measuring hydroelectric power thermal conversion rates. EIA has selected a rate that is equal to the prevailing heat rate factor at fossil fuel steam-electric power plants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydroelectric power production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydroelectric power is the principal means for producing electricity. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. • 1973 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Nuclear Power. • 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.

Photovoltaic and Solar Thermal Energy (Consumed by Electric Utilities). • 1984 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Wind Energy (Consumed by Electric Utilities). • 1983 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Wood and Waste Energy (Consumed by Electric Utilities). • 1973 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Glossary

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

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

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

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

Butane. A normally gaseous, colorless, paraffinic hydrocarbon (C_4H_{10}) extracted from natural gas and refinery gas streams. Included are isobutane, a branch-chain configuration of $(CH_3)_3CH$ with a boiling point of 10.9 °F and normal butane, a straight-chain configuration of C_4H_{10} with a boiling point of 31.1 °F. Butane is used primarily for blending into motor gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

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

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

Crude Oil (including lease condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are excluded where identifiable.

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

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

Degree-Days, 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.

Distillate Fuel Oil. Light fuel oils distilled during the refining process. Included are products known as No. 1, No. 2, and No. 4 fuel oils; and No. 1, No. 2, and No. 4 diesel fuels that conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

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

Ethane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C_2H_6) with a boiling point of -127.48 °F extracted from natural gas and refinery gas streams. Ethane is used primarily as petrochemical feedstock for production of chemicals and plastic materials.

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

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

Isobutane. See "Butane."

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

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

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

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

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

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

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

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

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

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

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the

gaseous phase or in solution with crude oil in natural reservoirs.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the ASTM and the Gas Processors Association and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Normal Butane. See "Butane."

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

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

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

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 °F end-point, other oils over 400 °F end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Stocks, Primary. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive 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.

Propane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C_3H_8) with a boiling point of -43.67 °F. It is extracted from natural gas and refinery gas streams. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

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

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

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

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

Startup Test Phase of Nuclear Power Plants. A nuclear power plant that has been licensed by the Nuclear Regulatory Commission to operate, but that is in the initial testing phase during which production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer, and places it in "commercial operation" status. A request is then submitted to the appropriate utility rate commission to include the power plant in the rate base calculation.

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

Glossary (continued)

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

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

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

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

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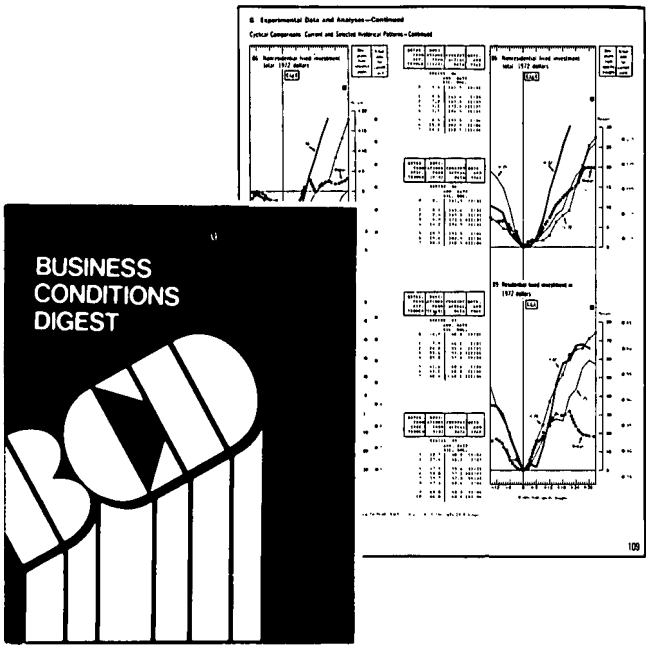

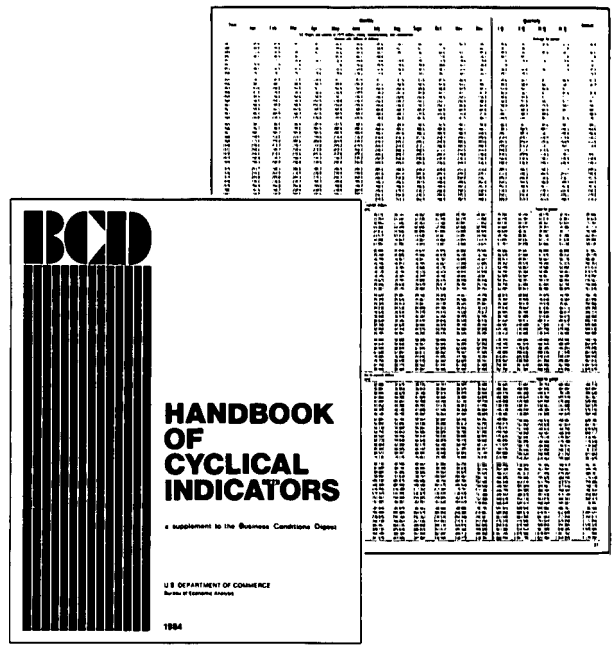

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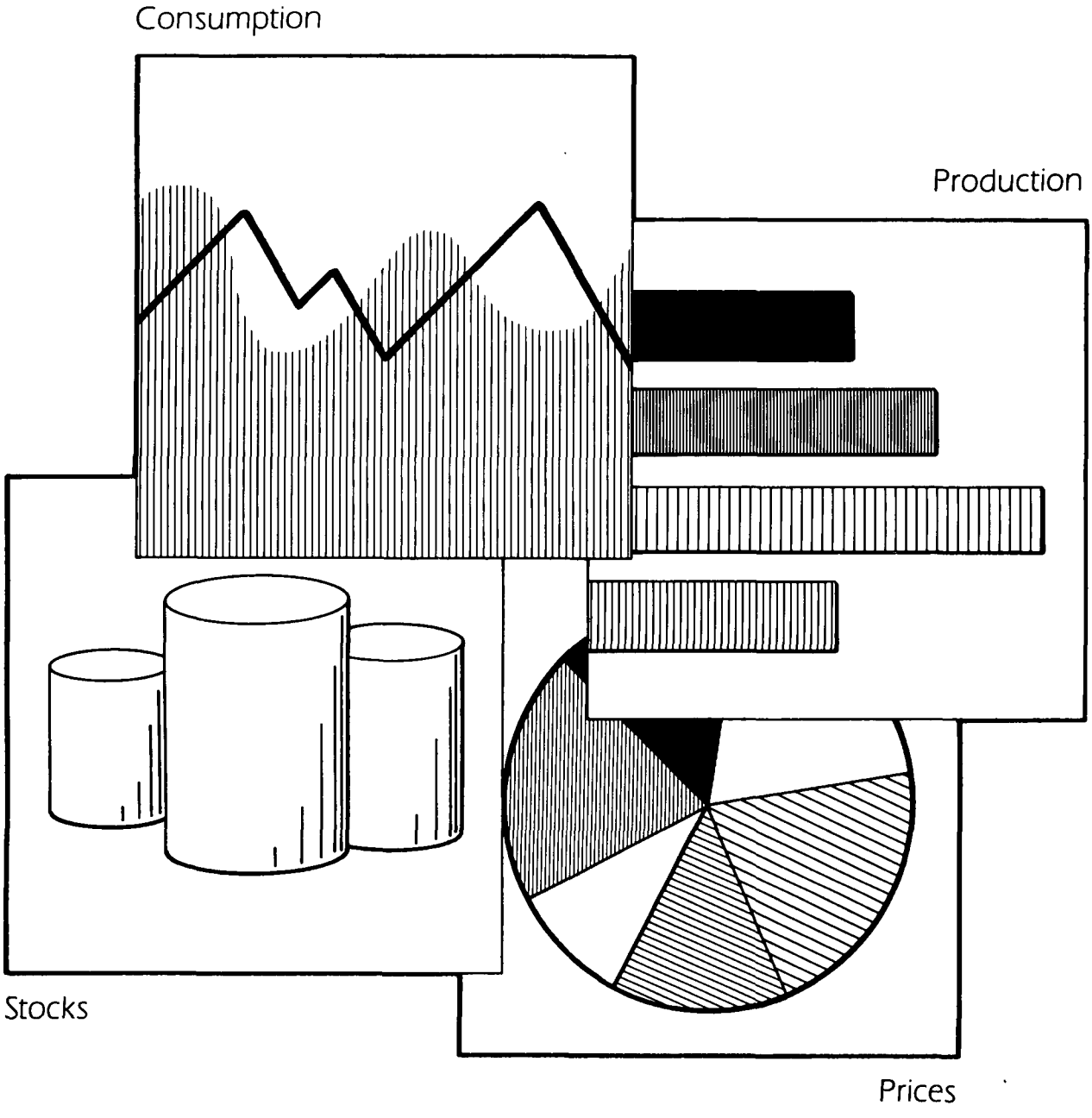

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