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Feature Article

Trends in United States Petroleum Imports

by

David A. Carleton

Office of Energy Systems Data

Federal Energy Administration

Introduction

United States petroleum imports have been a topic of economic and political interest since this country became a net petroleum importer following World War II. Prior to that time, beginning in the early 1920's, the United States had been a net exporter. This export position deteriorated as a consequence of large reserves of crude oil found in Venezuela and in the Middle East during the 1930's and 1940's. After World War II, this oil became available for export at relatively low costs.

Between 1947 and 1957, U.S. petroleum imports increased at an average annual rate of nearly 14 percent, and U.S. dependence on imports rose from 8 percent to 18 percent of domestic petroleum demand. The Voluntary Oil Import Program was initiated in 1957 to stem the growth in imports and to stimulate domestic production for national security purposes. This was followed by the Mandatory Oil Import Program in 1959. The primary purpose of these programs was to establish import quota allocations* which would limit petroleum imports, especially to the East Coast (PAD** District I). Table 1 shows U.S. dependence on petroleum imports for the period 1947 through 1977.

During the period 1959 through 1967, petroleum imports increased at an average annual rate of 4 percent, from 1.7 million barrels per day in 1958 to 2.5 million barrels per day in 1967. Concomitantly, U.S. dependence on imports rose slightly from 19 percent of domestic demand to 20 percent. From 1968 through 1973, domestic production fell increasingly short of demand, and, as a result, imports increased 16 percent annually reaching 6.3 million barrels per day in 1973, or 36 percent of domestic demand. Much of the increase during this period came from Canada, Saudi Arabia, which has a large productive capacity, and Nigeria, whose crude oil is especially adaptable to the U.S. market.

The growing U.S. dependence on foreign supplies came to focus during the 1973-74 Arab oil embargo when the

Table 1. United States Dependence on Petroleum Imports

	Domestic Demand	Imports	Ratio of Imports to Domestic Demand
	Thousand of barrels per day		Percent
1947	5,451	437	8.0
1948	5,775	514	8.9
1949	5,803	645	11.1
1950	6,507	850	13.1
1951	7,041	844	12.0
1952	7,280	952	13.1
1953	7,604	1,034	13.6
1954	7,760	1,052	13.6
1955	8,459	1,248	14.8
1956	8,779	1,436	16.4
1957	8,818	1,574	17.8
1958	9,083	1,700	18.7
1959	9,451	1,780	18.7
1960	9,661	1,911	19.8
1961	9,806	1,917	19.5
1962	10,234	2,082	20.3
1963	10,551	2,130	20.2
1964	10,816	2,259	20.9
1965	11,304	2,468	21.8
1966	11,850	2,573	21.7
1967	12,560	2,537	20.2
1968	13,393	2,837	21.2
1969	14,137	3,166	22.4
1970	14,697	3,419	23.3
1971	15,212	3,926	25.8
1972	16,367	4,741	29.0
1973	17,308	6,256	36.1
1974	16,629	6,112	36.8
1975*	16,288	5,993	36.8
1976**	17,185	7,217	42.0
1977**	18,039	8,324	46.1

*Preliminary.

** Forecast.

Sources: Bureau of Mines and Federal Energy Administration.

*Quota allocations were discontinued in early 1973 in favor of a license fee program which will become totally operable in 1980.

**Petroleum Administration for Defense.

interruption of some supplies created widespread shortages. During 1974 and 1975, our petroleum imports were at slightly reduced levels, initially because of the embargo, but later because of lowered demand stemming from reduced economic activity, higher prices, and conservation practices. However, even though petroleum imports fell 2.3 and 2.0 percent in 1974 and 1975, respectively, United States vulnerability increased slightly because of declining domestic crude oil production. During both of these years, imports were equivalent to approximately 37 percent of demand.

During the first half of 1976, imports rose significantly as the United States continued to increase its dependence on imported oil, especially petroleum produced by the Arab members of the Organization of Petroleum Exporting Countries (OPEC). Total imports during the 6 months averaged 6.8 million barrels per day (equal to 40 percent of petroleum demand) of which 2.6 million barrels per day, or about 38 percent, came directly or indirectly from Arab members of OPEC.

Tables 2 through 4 give the quantity of total crude oil and refined petroleum products imported into the United States by country of crude oil origin and indicate the U.S. dependence on these countries for petroleum. Quantities for each country include indirect imports of refined products, primarily from Caribbean refineries, which have been refined from crude oil originating in that country.

Crude Oil and Refined Products Imports

The proportions of crude oil and of refined products in the total petroleum imports mix has changed considerably in recent years. During the period immediately following the implementation of the Mandatory Oil Imports Program in 1959, crude oil constituted about 55 percent of petroleum imports. Refined products (including unfinished oils) accounted for the remainder. During the last half of the 1960's, the crude oil portion of petroleum imports declined significantly, reaching a record low of 39 percent in 1970. This shift to refined product imports was the result of a 1966 amendment to the oil import program which relaxed controls on residual fuel oil imported into PAD District I, a large residual fuel consuming region. In effect, this amendment encouraged U.S. refiner/marketers, especially large marketers of residual fuel oil, to expand their refinery capacity in foreign countries for the purpose of exporting fuel oils to the United States. Many chose Caribbean locations. Since 1970, however, imports of crude oil have increased more rapidly than imports of refined products. Figure 1 displays the proportion of crude and refined products imported during selected periods.

The recent increase in crude oil imports is the result of not only the decline in domestic crude oil production, but also the Federal two-tier domestic crude oil pricing system and the attendant "entitlements program" (also referred to as the domestic crude oil allocation program). In effect, after an entitlement transaction, re-

Table 2. U.S. Petroleum Imports by Country of Crude Oil Origin

Country	Thousands of barrels per day			
	1973	1974	1975*	1st Half 1976*
OPEC				
Venezuela	1,634	1,458	1,026	911
Saudi Arabia	740	675	846	1,180
Nigeria	608	912	827	986
Iran	434	731	531	482
Indonesia	238	341	447	572
Libya	308	40	327	482
Algeria	151	207	288	412
Other**	278	305	450	583
Subtotals: Arab OPEC	1,377	1,106	1,769	2,552
Non-Arab OPEC	3,014	3,563	2,973	3,056
Total OPEC	4,391	4,669	4,742	5,608
Canada	1,313	1,068	845	625
Other	552	375	406	539
Total Imports	6,256	6,112	5,993	6,772

*Preliminary.

**Includes United Arab Emirates, some members of which do not belong to OPEC.

Sources: Bureau of Mines, Bureau of the Census, and Federal Energy Administration.

Table 3. U.S. Petroleum Imports by Country of Crude Oil Origin in Percent of Total U.S. Petroleum Imports

Country	1973	1974	1975*	1st Half 1976*
OPEC				
Venezuela	26.1	23.9	17.1	13.4
Saudi Arabia	11.8	11.1	14.1	17.4
Nigeria	9.7	14.9	13.8	14.6
Iran	7.0	12.0	8.9	7.1
Indonesia	3.8	5.6	7.5	8.4
Libya	4.9	0.7	5.5	7.1
Algeria	2.4	3.4	4.8	6.1
Other**	4.5	4.8	7.4	8.7
Subtotals: Arab OPEC	22.0	18.1	29.5	37.7
Non-Arab OPEC	48.2	58.3	49.6	45.1
Total OPEC	70.2	76.4	79.1	82.8
Canada	21.0	17.5	14.1	9.2
Other	8.8	6.1	6.8	8.0
Total	100.0	100.0	100.0	100.0

*Preliminary.

**Includes United Arab Emirates, some members of which do not belong to OPEC.

Sources: Bureau of Mines, Bureau of the Census, and Federal Energy Administration.

Table 4. U.S. Petroleum Imports by Country of Crude Oil Origin in Percent of U.S. Domestic Petroleum Demand

Country	1973	1974	1975*	1st Half 1976*
OPEC				
Venezuela	9.5	8.8	6.3	5.4
Saudi Arabia	4.2	4.1	5.2	7.0
Nigeria	3.5	5.5	5.1	5.8
Iran	2.5	4.4	3.3	2.9
Indonesia	1.4	2.1	2.7	3.4
Libya	1.8	0.2	2.0	2.9
Algeria	0.9	1.2	1.8	2.4
Other**	1.6	1.8	2.8	3.4
Subtotals: Arab OPEC	8.0	6.7	10.9	15.1
Non-Arab OPEC	17.4	21.4	18.3	18.1
Total OPEC	25.4	28.1	29.2	33.2
Canada	7.7	6.4	5.2	3.7
Other	3.0	2.3	2.4	3.1
Total Imports	36.1	36.8	36.8	40.0
U.S. Petroleum Demand (TB/D)	17,308	16,629	16,288	16,918

*Preliminary.

**Includes United Arab Emirates, some members of which do not belong to OPEC.

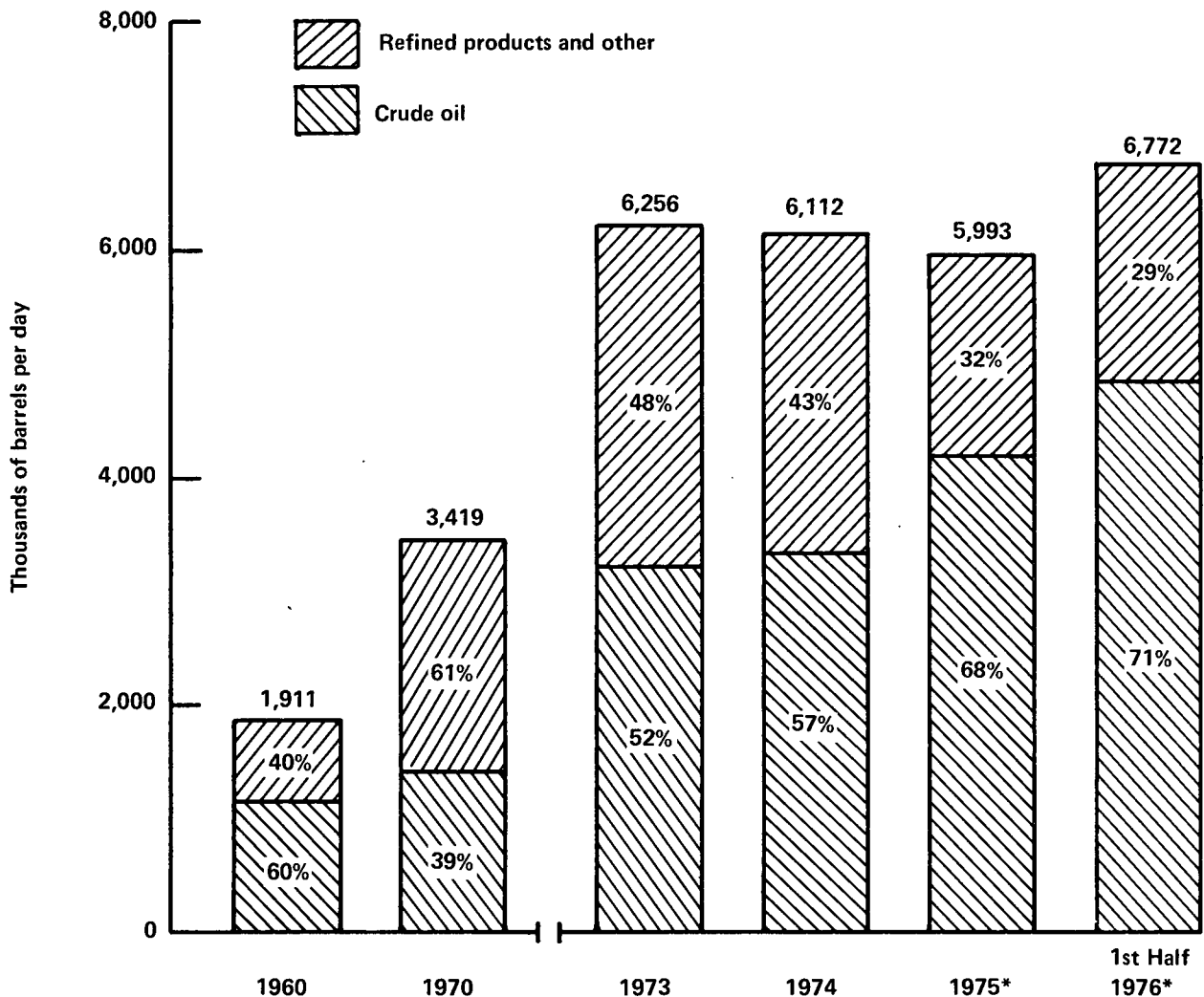
Sources: Bureau of Mines, Bureau of the Census, and Federal Energy Administration.

finers' crude costs approximate the weighted average price of lower tier oil, upper tier oil, and imported oil. Since this average price is significantly lower than the imported price and since importers of refined products receive less benefits than crude oil importers (or none at all), the entitlements program encourages refiner/marketers to meet their import requirements with crude oil rather than finished products.

Geographic Origin of Imports

In 1957, Western Hemisphere countries, primarily Canada and Venezuela, were the source of 80 percent of U.S. petroleum imports. The Eastern Hemisphere supplied the remaining 20 percent. This ratio generally held through 1971 when the share was 78 percent and 22 percent, respectively.

Figure 1. U.S. Petroleum Imports by Type



*Preliminary.

Sources: Bureau of Mines and Bureau of the Census.

Beginning in the late 1960's, a growing amount of imports of refined products coming into the United States was from non-crude oil producing countries, primarily in the Western Hemisphere. In 1971, nearly 1 million barrels per day of products received in the United States were shipped from Western Hemisphere refineries, but half of these products was refined from Eastern Hemisphere crude oil. In 1972, a distinct shift to Eastern Hemisphere petroleum reliance began as traditional Western Hemisphere sources were unable to keep

pace with Western Hemisphere demand. Imports from Canada, in keeping with their announced export reduction program, fell from 1.3 million barrels per day in 1973 to 0.6 million barrels per day during the first half of 1976, or from 21 percent of total U.S. petroleum imports to 9 percent.

By 1973, 50 percent of United States imports came either directly or indirectly from Eastern Hemisphere countries. Dependence on Eastern Hemisphere imports

during the first 6 months of 1976 increased to 72 percent of total imports and 29 percent of demand. These changes in the hemisphere of origin are shown in Figure 2.

Imports From Arab Members of OPEC

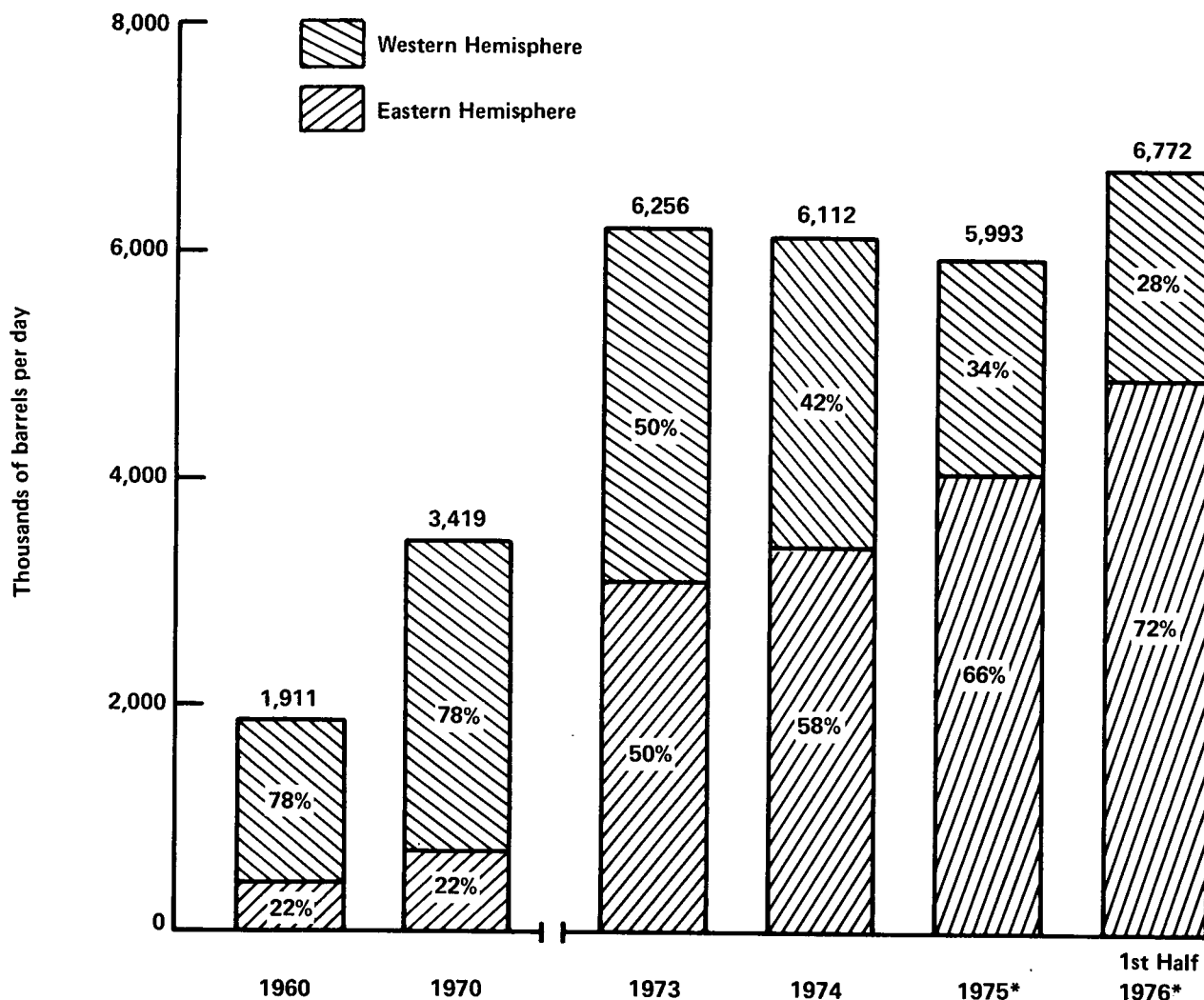
United States dependence on Arab nations for petroleum has been of special concern to Federal planners since the Arab embargo was announced on October 16, 1973, and lifted on March 21, 1974. Because of the time required for ocean shipments from Arab countries to reach the United States, the effective period of the embargo was actually mid-November through mid-April.

Many areas of the country experienced shortages during this period.

During the summer months immediately preceding the embargo in 1973, the United States increasingly relied on Arab sources to satisfy its rapidly rising demand for petroleum. During the third quarter of 1973, 26 percent of United States petroleum imports, including indirect imports, came from Arab members of OPEC compared to 15 percent during the third quarter of 1972.

Because of the Arab embargo, first quarter 1974 direct imports from Arab countries were reduced to a trickle, and indirect imports were curtailed to about two-thirds

Figure 2. Origin of U.S. Petroleum Imports by Hemisphere of Crude Oil Production



*Preliminary.

Sources: Bureau of Mines, Bureau of the Census, and Federal Energy Administration.

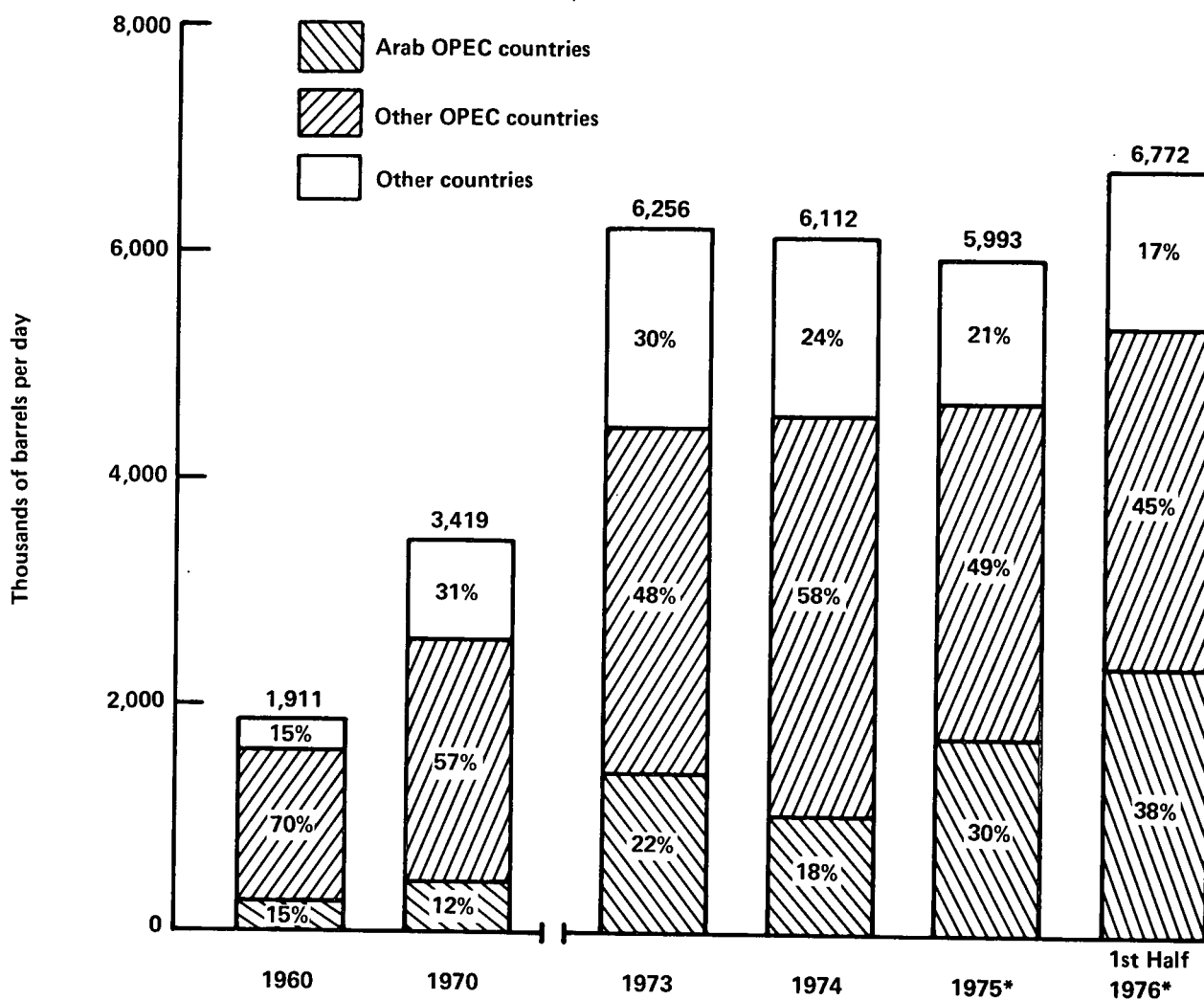
of the level reached during the previous quarter. Although imports from Arab countries increased substantially during the last three quarters of 1974, direct and indirect imports from Arab members of OPEC averaged only 1,106,400 barrels per day for the year, or 18 percent of total imports and 6.6 percent of demand. Imports from Libya declined the most of any Arab country during 1974 because Libya continued the embargo beyond March.

Total direct and indirect imports from Arab members of OPEC in 1975 were 60 percent higher than they were in 1974, and 28 percent higher than in 1973. These figures reflect primarily the drop in crude oil receipts from

Canada, reduced U.S. production, and declining imports of residual fuel oil and middle distillates from Venezuela, Netherlands Antilles, and other Caribbean areas. Saudi Arabia and Libya together accounted for nearly two-thirds of the increase from the 1974 level. Figure 3 displays the increase in imports from OPEC and Arab OPEC countries since 1970.

Because of the entitlements program (cited previously), most Caribbean refineries had difficulty competing in the U.S. market, especially during 1975. As a result, indirect imports into the United States from Arab countries via these refineries were lower in 1975 than in 1973. During this period, indirect imports of Arab oil

Figure 3. Origin of U.S. Petroleum Imports by Country of Crude Oil Production



*Preliminary.

Sources: Bureau of Mines, Bureau of the Census, and Federal Energy Administration.

into the United States declined 11 percent (53,000 barrels per day), while direct imports increased 47 percent (440,000 barrels per day).

Short-Term Import Trends

Petroleum imports are expected to continue to increase to meet rising demand because domestic crude oil and natural gas liquids production are not expected to increase until production from the North Slope begins in the latter part of 1977 when the trans-Alaskan pipeline is completed. Imports are projected to grow 20 percent in 1976 and another 15 percent in 1977. The United States is expected to rely increasingly on OPEC and especially on the Arab members of OPEC to meet these petroleum import requirements.

Part 1

Overview

Average daily energy production in the United States during July fell a substantial 8.1 percent from the June level. Most of the decrease was attributed to a 28.3-percent drop in daily coal production, the result of both the wildcat miners' strike and the miners' annual vacation period. There were no significant changes reported in the production rates of crude oil and natural gas during July. However, average nuclear electric power output posted a sharp 9.4-percent increase over the output rate in June. Average daily domestic energy production for the first 7 months of 1976 remained about 1 percent below the level for the same months in 1975 and 4 percent below the comparable 1974 level.

United States' fossil fuel imports during July averaged 42.9 trillion Btu per day (the equivalent of 7.4 million barrels per day of crude oil), about the same as in June. During the first 7 months of the year, fossil fuel imports were 13.5 percent greater than a year ago, due chiefly to a 31.1-percent increase in crude oil imports. Natural gas imports were also slightly higher (by 1.7 percent). Refined products imports, on the other hand, declined 16.2 percent during the period.

A recently released FEA study* estimates that total operable crude oil refinery capacity in the United States will grow by 899,000 barrels per day in 1976 and reach 16,195 thousand barrels per day by January 1, 1977. This compares with a much smaller increase of 295,000 barrels per day during 1975. Although most of the capacity addition during 1976 will again come from expansion of existing facilities (as in 1975), several new refineries are scheduled for completion during the year, including one plant with a capacity of 200,000 barrels per day.

Energy consumption in the United States during the first half of the year averaged 200 trillion Btu per day (or 34.6 million barrels per day of crude oil equivalent), an increase of 1.6 percent over the average for the first half of 1975, but approximately equal to consumption during the same period in 1974. Leading this year's increase was a

5.7-percent growth in coal use. Coal accounted for 18.5 percent of the total energy consumed in the January-June period, compared with 17.9 percent during the same period last year. Consumption of petroleum products increased 3.3 percent and grew from 45.7 percent of the total energy used to 46.5 percent. Natural gas was the only major energy source to show a consumption decline for the period (of 3.2 percent), and as a consequence, the natural gas share of total energy consumption decreased from 29.3 percent to 27.9 percent. The balance of domestic energy requirements was met by nuclear and hydroelectric power.

Comparatively cool weather prevailed throughout July, and as a result the continental United States accumulated 10.3 percent fewer cooling degree-days than last July and 6.8 percent fewer than the normal for the month. Cumulative cooling degree-days for the May-July period were 13.0 percent below a year ago and 6.7 percent below normal.

In spite of the cooler weather, electric utilities produced 5.6 percent more power this July than last. Electricity production during the first 7 months of the year was up 6.7 percent from the level for the same months in 1975. The rise in production was necessary mainly to meet the increased demands of industrial customers. Electricity sales to industrial users during the first 5 months of 1976 were 11.0 percent higher than sales during the corresponding period in 1975. Sales to commercial customers also increased, by 3.5 percent, while sales to residential customers were about equal to the level of the first 5 months of 1975.

The national average selling price of regular gasoline at full service retail outlets rose to a record high of 59.6 cents per gallon during July. Since April, the average price for gasoline has increased 3.3 cents per gallon. The dealer margin was unchanged for the third month in a row at 7.4 cents per gallon.

Indicators of resource development activity continued to show improvement in July. There was a 4.7-percent increase in the number of seismic crews prospecting for oil

*Peer, E.L., and F.V. Marsik, *Trends in Refinery Capacity and Utilization*, Federal Energy Administration, June 1976.

		Domestic Production of Energy*	Imports of Fossil Fuels**	Domestic Consumption of Energy***
Quadrillion (10 ¹⁵) Btu				
1974	January	R5.390	1.072	6.792
	February	4.978	0.945	6.204
	March	5.293	1.053	6.262
	April	5.198	1.142	5.758
	May	5.373	1.266	5.753
	June	4.944	1.197	5.534
	July	5.140	1.266	5.866
	August	5.155	1.237	5.899
	September	4.999	1.138	5.596
	October	5.263	1.210	6.065
	November	4.540	1.284	6.126
	December	4.845	1.305	6.729
	TOTAL	R61.118	14.114	72.584
1975	January	R5.187	1.330	6.819
	February	R4.799	1.093	R6.106
	March	R5.124	1.128	R6.292
	April	R4.991	R0.970	5.775
	May	R5.108	R1.023	R5.374
	June	R5.000	R1.028	5.326
	July	R4.858	R1.169	5.575
	August	R4.952	R1.213	5.653
	September	R4.896	1.273	5.410
	October	R5.155	R1.226	5.832
	November	R4.893	1.200	5.750
	December	5.063	R1.219	6.805
	TOTAL	R60.025	R13.870	70.717
1976	January	R5.069	1.286	R7.193
	February	R4.862	1.195	R6.151
	March	R5.212	R1.290	R6.343
	April	R†4.997	R†1.237	R†5.669
	May	R†5.034	R†1.195	R†5.641
	June	R†4.996	†1.298	†5.480
	July	†4.745	†1.330	NA
	TOTAL	34.914 (7 months)	8.830 (7 months)	36.477 (6 months)

*See Explanatory Note 1.

**See Explanatory Note 2.

***See Explanatory Note 3.

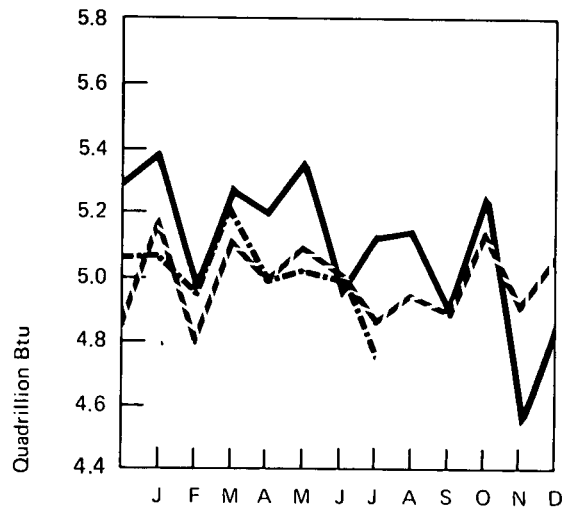
†Preliminary data.

R=Revised data.

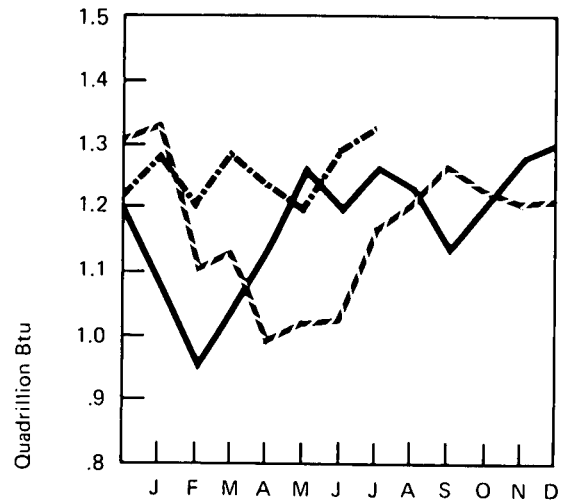
and gas and a 3.3-percent increase in the number of rotary rigs in operation compared with the previous month's levels. Well completions were up 3.9 percent from the July 1975 level.

Total world crude oil production rose 800,000 barrels per day in June to 56.6 million barrels per day. Most of the increase came from members of the Organization of Petroleum Exporting Countries.

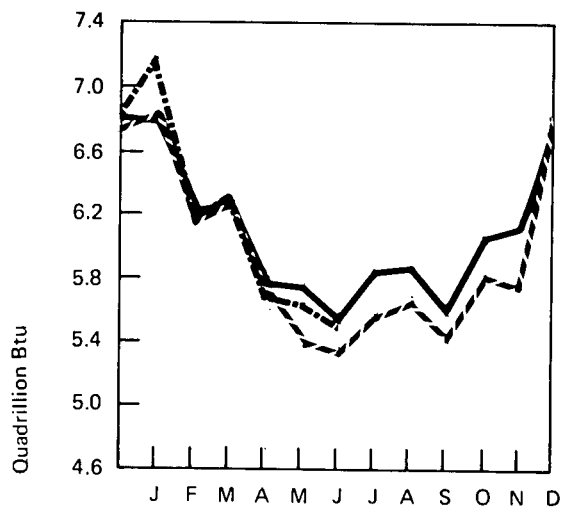
Domestic Production of Energy



Imports of Fossil Fuels



Domestic Consumption of Energy



— 1974
 - - 1975
 - · - 1976

Part 2

Crude Oil and Refined Petroleum Products

Crude Oil and Refined Petroleum Products

The 4-year decline in domestic crude oil production has abated significantly in recent months. Production in July averaged 8,190 thousand barrels per day, essentially unchanged from the June level. During the 3-month period ending with July, production averaged 8,219 thousand barrels per day. This was less than 1 percent under the average production of the previous 6-month period.

Crude oil imports remained high in July (5,625 thousand barrels per day), as input to refineries continued to be at record levels (13,788 thousand barrels per day). According to Bureau of the Census data, Saudi Arabia and Nigeria were the major sources of crude oil imported in July, accounting for 20 percent and 19 percent of the total, respectively. Arab members of the Organization of Petroleum Exporting Countries (OPEC) provided 44 percent of the crude oil imported while other OPEC members supplied 41 percent.

Crude oil inventories at the end of July were adequate, equal to 20.4 days of crude oil input to refineries during the month.

Domestic demand for refined petroleum products in July averaged 15,911 thousand barrels per day. Demand during January through July 1976 exceeded demand for the same period in 1975 by 3.0 percent. Motor gasoline demand was the major component of the increase.

Although refined product imports remained at reduced levels, total petroleum imports (crude plus refined products) were equal to 41 percent of domestic demand in July.

Midsummer stocks of petroleum products were adequate for nonstrategic requirements. Motor gasoline inventories at the end of July equalled 31.1 days of demand, compared with 30.2 days at the end of July 1975.

Natural Gas Liquids

Domestic demand for natural gas liquids in March 1976 was 7.2 percent less than demand during March 1975, but for the first quarter of 1976 was 1.8 percent higher than demand for the same quarter of the previous year.

Production of natural gas liquids during the first quarter of 1976 was about equal to the production level for the first quarter of 1975.

Imports were 9.0 percent higher in March 1976 than in March 1975, and for the first quarter were 13.6 percent higher than for the first quarter in 1975.

Stocks of natural gas liquids at the end of March 1976 were 12.4 percent greater than the level a year earlier.

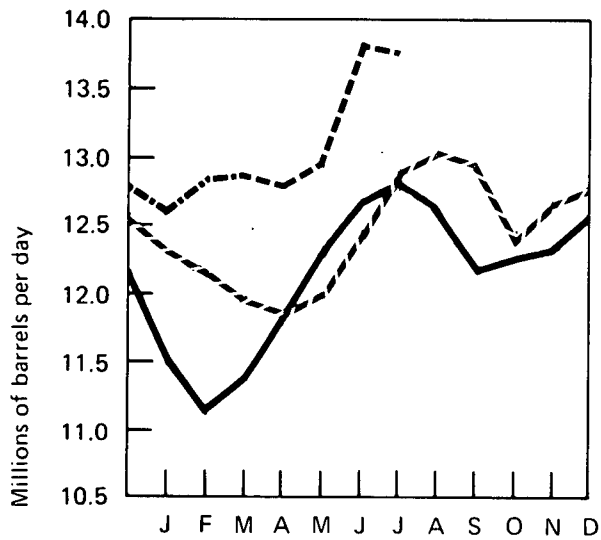
Crude Oil

		Crude Input to Refineries		Domestic Production		Imports		Stocks	
		Thousands of barrels per day						Thousands of barrels	
		BOM	API	BOM	API	BOM	API	BOM	API
1974	January	11,491		8,934		2,382		233,035	
	February	11,102		9,142		2,248		240,723	
	March	11,355		8,965		2,462		244,665	
	April	11,823		8,954		3,267		256,385	
	May	12,333		8,911		3,908		269,455	
	June	12,697		8,780		3,925		268,765	
	July	12,811		8,780		4,091		268,686	
	August	12,644		8,699		3,924		264,840	
	September	12,124		8,443		3,797		266,726	
	October	12,286		8,611		3,810		269,437	
	November	12,332		8,569		3,958		271,144	
	December	12,519		8,527		3,869		265,020	
	AVERAGE	12,133		8,774		3,477			
1975	January	12,297		8,439		4,029		270,462	
	February	12,135		8,575		3,828		276,755	
	March	11,905		8,476		3,656		279,989	
	April	11,803		8,440		3,378		284,990	
	May	11,983		8,371		3,486		276,110	
	June	12,417		8,409		3,905		276,132	
	July	12,915		8,327		4,193		264,157	
	August	13,046		8,237		4,581		256,616	
	September	12,945		8,266		4,689		259,446	
	October	12,365		8,310		4,389		269,584	
	November	12,689		8,271		4,623		270,950	
	December	12,779		8,239		4,476		271,354	
	AVERAGE	12,442		8,362		4,105			
1976	January	12,560		8,211		4,595		298,296	
	February	R12,834		8,196		4,208		277,414	
	March	12,877		8,175		4,738		283,112	
	April		12,791		8,265		5,000		279,134
	May		12,911		8,274		4,851		R282,523
	June		13,828		8,191		5,679		R281,698
	July		13,788		8,190		5,625		281,576
	AVERAGE		13,084		8,215		4,960		
	(7 months)								

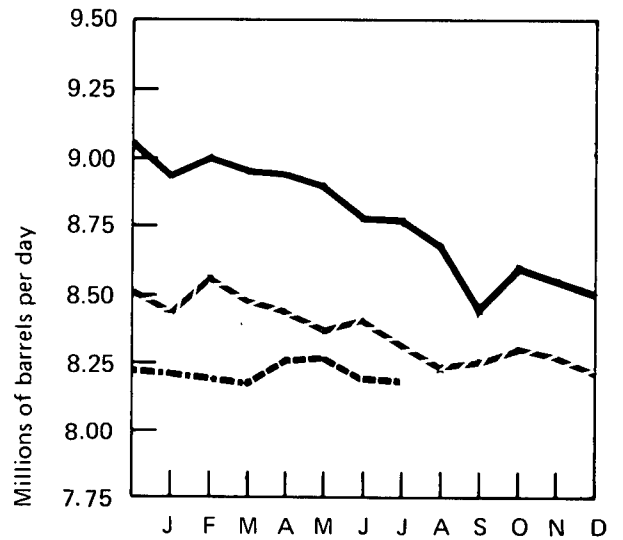
R=Revised data.

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

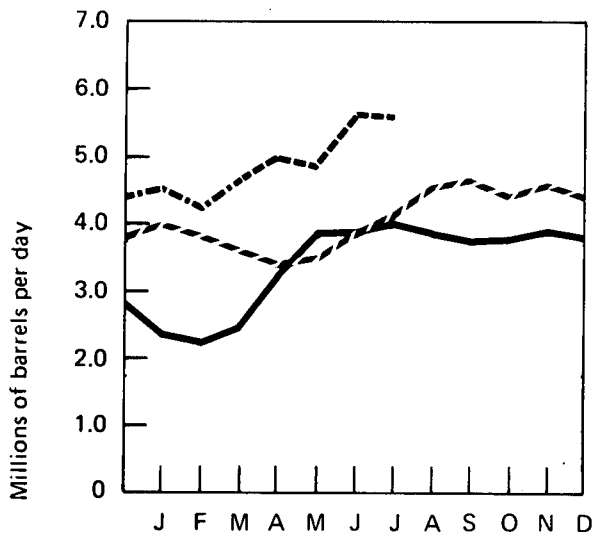
Crude Input to Refineries



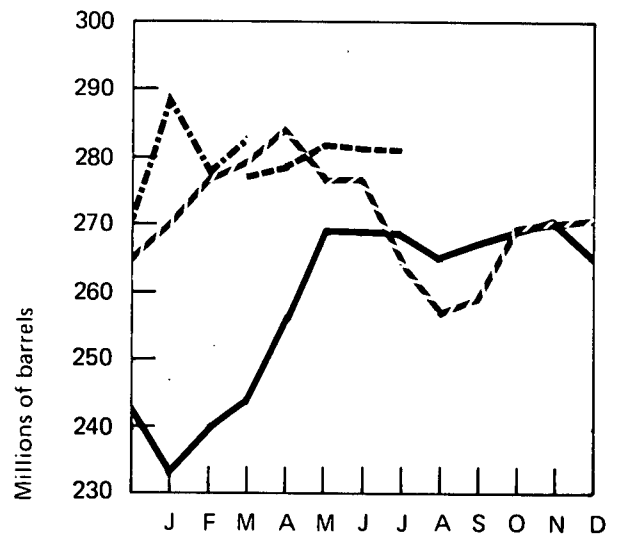
Domestic Production



Imports



Stocks



— 1974 BOM
 - - 1975 BOM
 . . 1976 BOM
 - - 1976 API

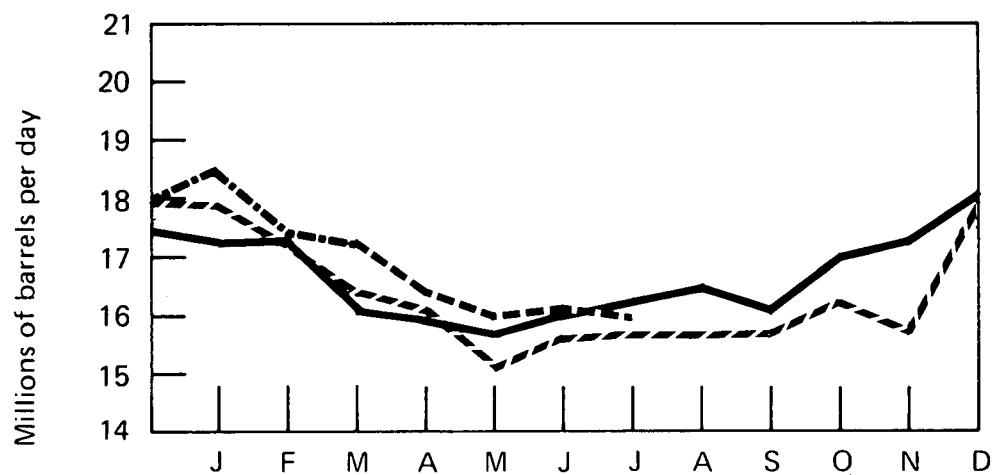
Total Refined Petroleum Products

		Domestic Demand	Imports*		
		Thousands of barrels per day			
		BOM	API	BOM	API
1974	January	17,286		2,989	
	February	17,366		2,968	
	March	16,104		2,812	
	April	15,929		2,713	
	May	15,726		2,586	
	June	16,117		2,435	
	July	16,349		2,445	
	August	16,550		2,438	
	September	16,024		2,255	
	October	17,050		2,366	
	November	17,351		2,840	
	December	18,013		2,798	
	AVERAGE	16,653		2,635	
1975	January	17,983		2,811	
	February	17,248		2,348	
	March	16,316		2,074	
	April	16,041		1,655	
	May	15,118		1,690	
	June	15,611		1,502	
	July	15,762		1,789	
	August	15,767		1,681	
	September	15,769		2,116	
	October	16,344		1,907	
	November	15,721		1,739	
	December	17,987		1,751	
	AVERAGE	16,291		1,920	
1976	January	18,543		2,016	
	February	17,341		2,335	
	March	17,239		1,885	
	April		16,357		1,553
	May		15,935		1,282
	June		16,077		1,281
	July		15,911		1,286
	AVERAGE (7 months)		16,771		1,658

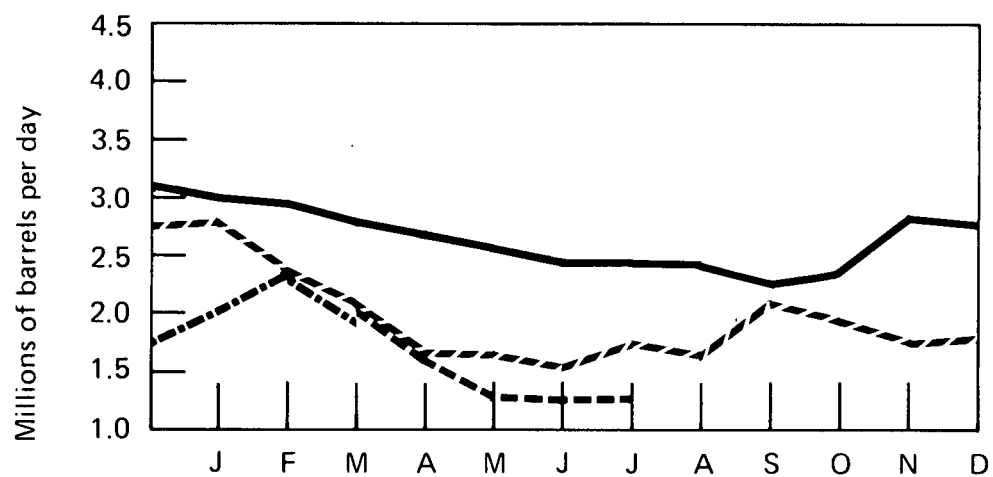
*See definitions.

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

Domestic Demand



Imports



— 1974 BOM
 - - 1975 BOM
 - - - 1976 BOM
 - . - 1976 API

Motor Gasoline

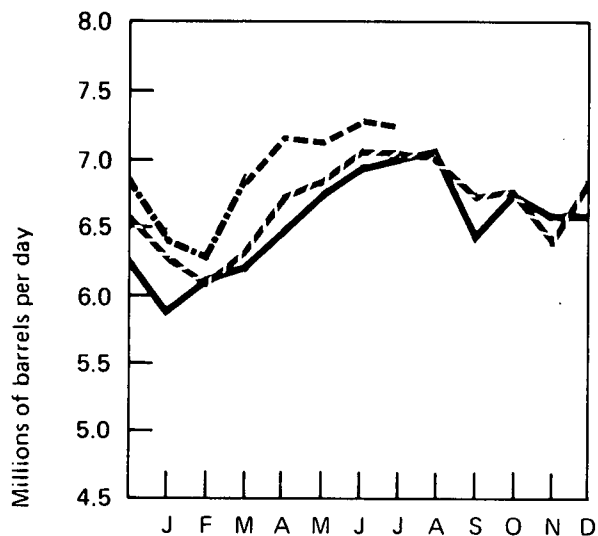
		Domestic Demand	Production*		Imports		Stocks*		
		Thousands of barrels per day						Thousands of barrels	
		BOM	API	BOM	API	BOM	API	BOM	API
1974	January	5,804		5,900		163		217,463	
	February	6,100		5,969		184		219,058	
	March	6,162		5,982		225		220,307	
	April	6,457		6,311		260		223,752	
	May	6,745		6,329		250		218,670	
	June	6,919		6,663		211		217,381	
	July	6,959		6,793		212		218,838	
	August	7,061		6,815		253		218,951	
	September	6,388		6,453		202		227,031	
	October	6,712		6,336		171		220,748	
	November	6,547		6,292		174		218,385	
	December	6,558		6,419		141		224,719	
	AVERAGE	6,537		6,358		204			
1975	January	6,206		6,509		262		242,285	
	February	6,096		6,276		171		251,915	
	March	6,326		6,070		150		248,685	
	April	6,718		6,046		133		232,556	
	May	6,871		6,126		142		213,947	
	June	7,076		6,669		177		207,114	
	July	7,041		7,003		209		212,454	
	August	7,008		6,872		232		215,480	
	September	6,729		6,822		269		226,447	
	October	6,778		6,409		207		221,493	
	November	6,389		6,602		139		232,091	
	December	6,808		6,786		119		234,925	
	AVERAGE	6,674		6,518		184			
1976	January	6,398		6,483		92		240,464	
	February	6,263		6,472		84		248,854	
	March	6,890		6,455		123		239,049	
	April		7,144		6,596		112		225,160
	May		7,114		6,798		110		218,545
	June		7,280		7,295		87		221,654
	July		7,226		7,217		107		224,690
	AVERAGE		6,905		6,760		102		
	(7 months)								

*See definitions.

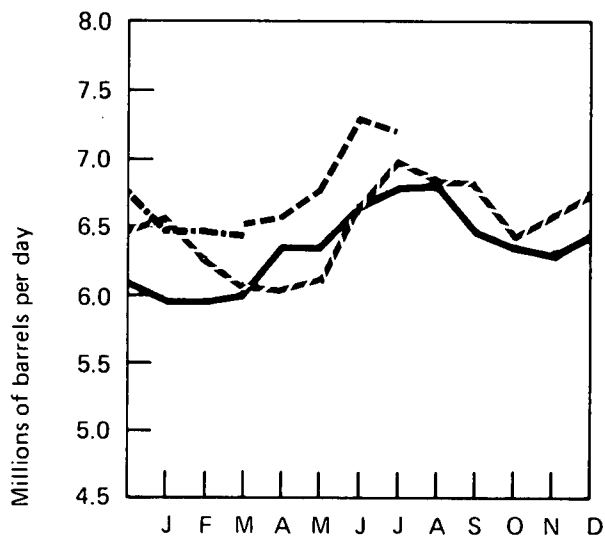
R=Revised data.

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

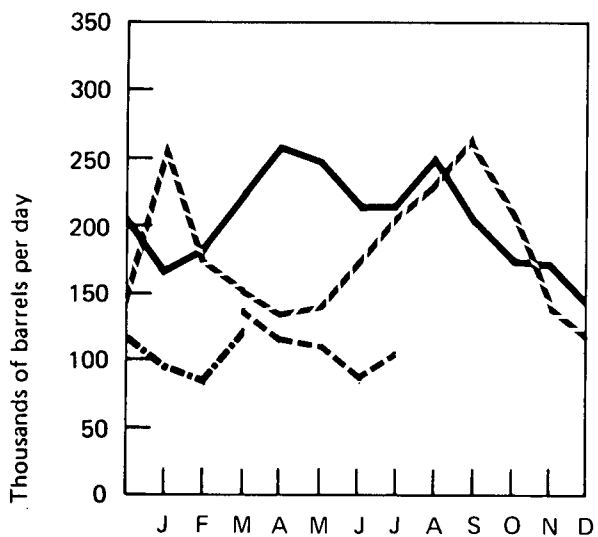
Domestic Demand



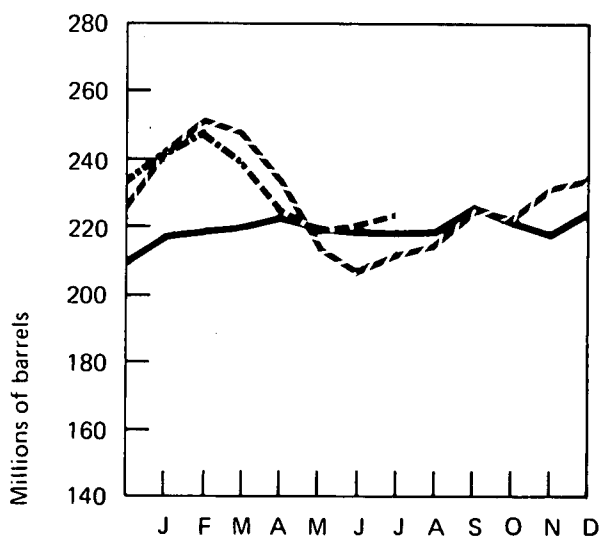
Production



Imports



Stocks



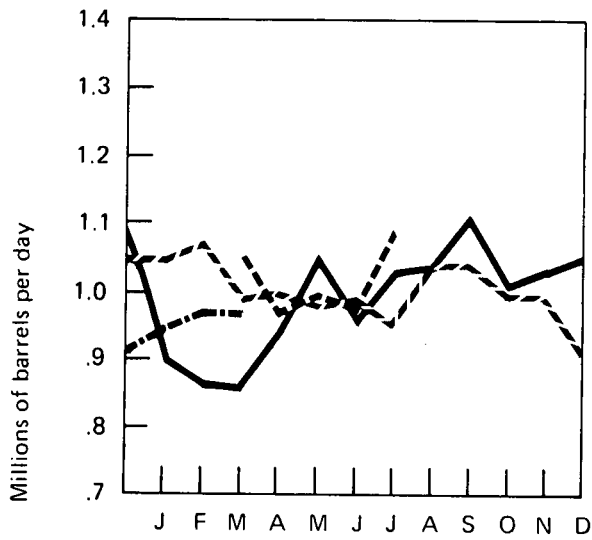
— 1974 BOM
 - - 1975 BOM
 - - - 1976 BOM
 - . - 1976 API

Jet Fuel

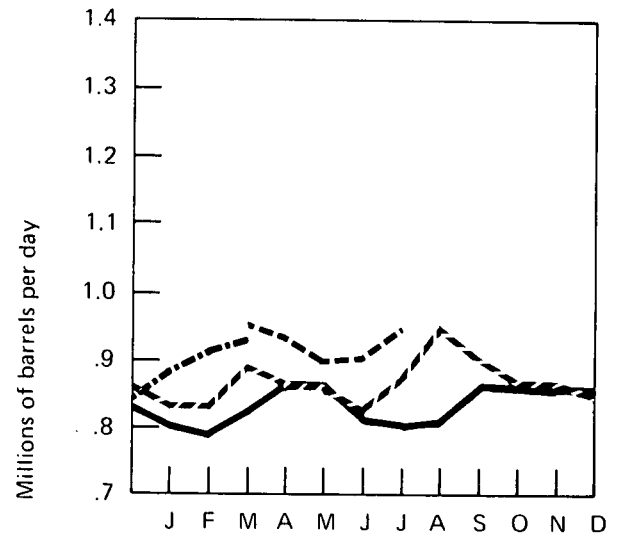
		Domestic Demand	Production		Imports		Stocks		
		Thousands of barrels per day						Thousands of barrels	
		BOM	API	BOM	API	BOM	API	BOM	API
1974	January	895		800		136		29,732	
	February	860		783		75		29,617	
	March	956		832		139		29,996	
	April	941		868		132		31,725	
	May	1,053		868		205		32,324	
	June	952		810		141		32,200	
	July	1,028		802		214		31,671	
	August	1,031		805		206		30,989	
	September	1,109		867		217		30,186	
	October	1,011		868		161		30,564	
	November	1,032		863		140		29,616	
	December	1,043		861		178		29,776	
	AVERAGE		993		836		163		
1975	January	1,041		831		229		30,321	
	February	1,075		835		200		29,133	
	March	982		896		130		30,456	
	April	1,006		864		138		30,263	
	May	977		861		133		30,719	
	June	989		839		106		29,337	
	July	954		883		88		29,798	
	August	1,046		958		132		31,103	
	September	1,040		907		140		31,291	
	October	997		863		106		30,410	
	November	999		864		89		28,977	
	December	911		849		109		30,380	
	AVERAGE		1,001		871		133		
1976	January	948		889		69		30,618	
	February	966		918		72		31,180	
	March	965		927		86		32,619	
	April		965		935		95		31,717
	May		1,001		902		96		31,540
	June		980		913		100		32,459
	July		1,092		953		78		31,118
	AVERAGE			988		920		85	
	(7 months)								

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

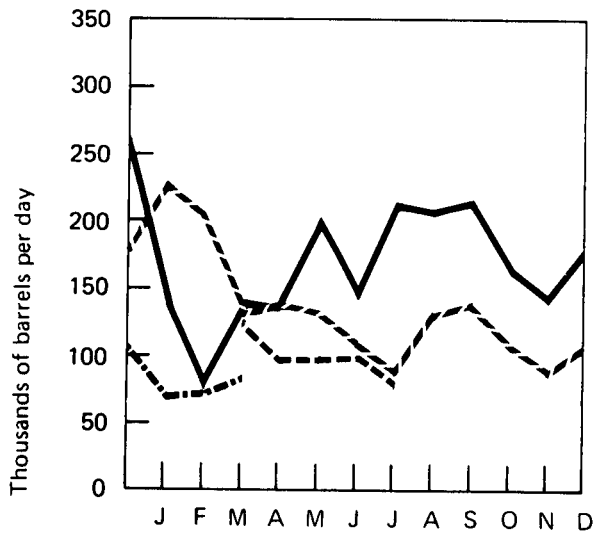
Domestic Demand



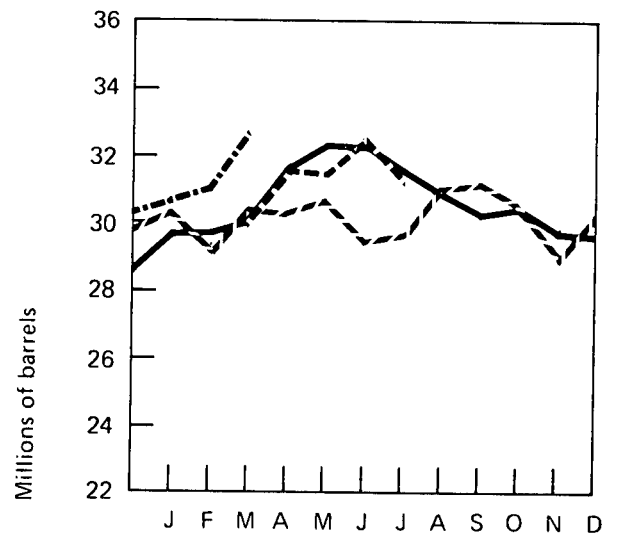
Production



Imports



Stocks



— 1974 BOM
 - - 1975 BOM
 - - 1976 BOM
 - . 1976 API

Distillate Fuel Oil

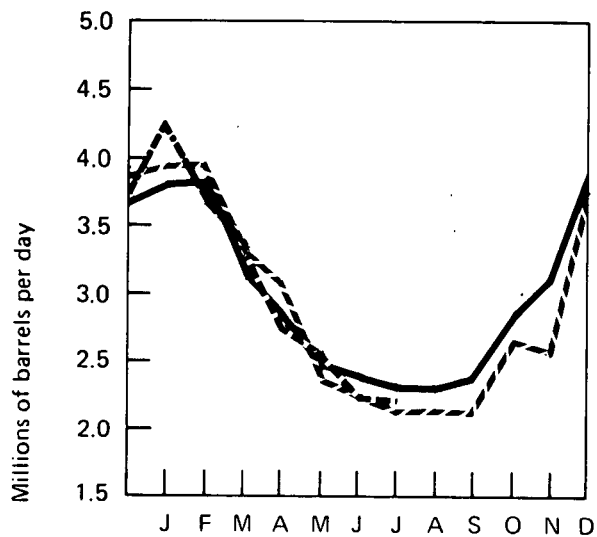
		Domestic Demand	Production*		Imports		Stocks*		
		Thousands of barrels per day						Thousands of barrels	
		BOM	API	BOM	API	BOM	API	BOM	API
1974	January	3,835		2,880		464		181,179	
	February	3,849		2,399		306		149,125	
	March	3,164		2,226		287		128,822	
	April	2,852		2,522		220		125,553	
	May	2,450		2,704		268		141,806	
	June	2,377		2,783		220		160,645	
	July	2,309		2,792		221		182,458	
	August	2,309		2,705		125		198,673	
	September	2,385		2,552		152		208,269	
	October	2,887		2,700		237		209,908	
	November	3,157		2,801		454		212,875	
	December	3,853		2,924		515		223,717	
	AVERAGE		2,948		2,668		289		
1975	January	3,953		2,852		324		199,715	
	February	3,967		2,679		302		176,696	
	March	3,293		2,531		256		161,111	
	April	3,094		2,486		110		146,214	
	May	2,382		2,431		136		152,027	
	June	2,266		2,574		68		163,306	
	July	2,112		2,589		106		181,472	
	August	2,173		2,592		92		197,323	
	September	2,163		2,812		129		220,732	
	October	2,675		2,744		103		226,113	
	November	2,544		2,767		96		235,749	
	December	3,778		2,783		124		208,787	
	AVERAGE		2,849		2,653		153		
1976	January	4,296		2,734		162		165,428	
	February	3,675		2,961		195		150,439	
	March	3,333		2,793		148		138,306	
	April		2,707		2,617		90		144,032
	May		2,588		2,622		75		R147,387
	June		2,267		2,856		48		R166,474
	July		2,224		2,895		52		188,953
	AVERAGE			3,012		2,781		110	
	(7 months)								

*See definitions.

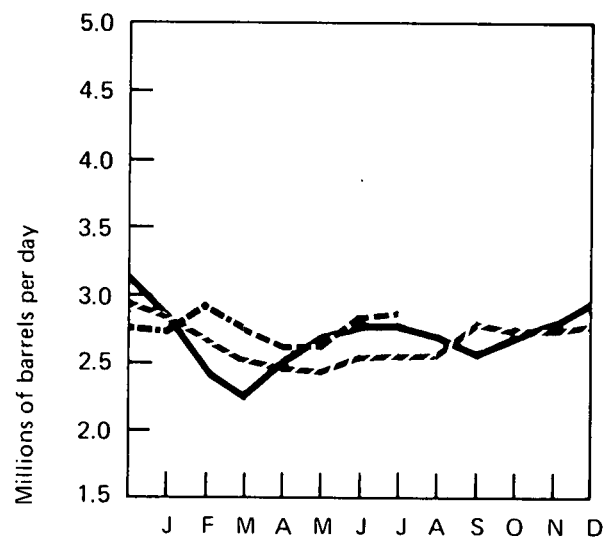
R=Revised data.

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

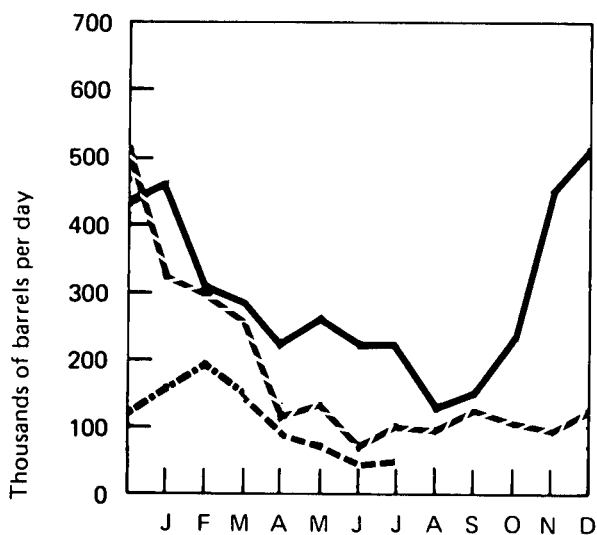
Domestic Demand



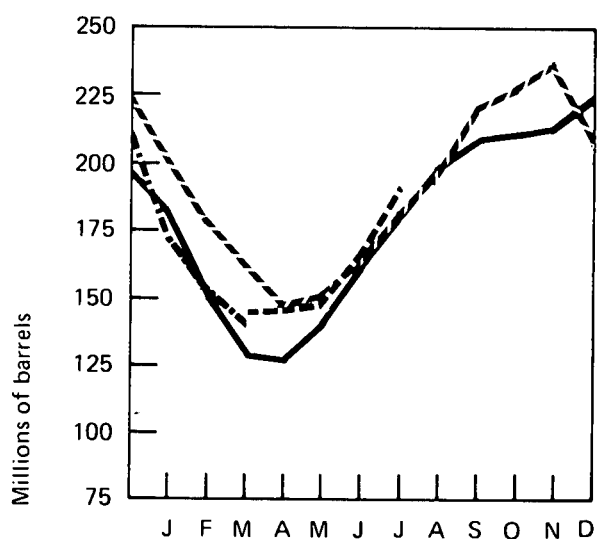
Production



Imports



Stocks



— 1974 BOM
 - - 1975 BOM
 - - - 1976 BOM
 - . - 1976 API

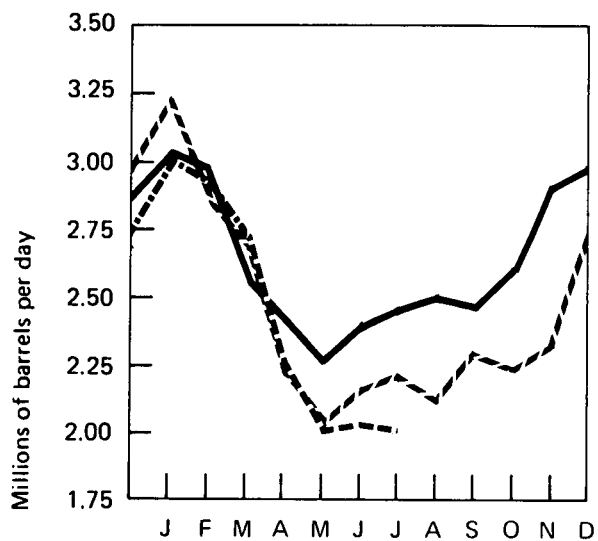
Residual Fuel Oil

		Domestic Demand		Production		Imports		Stocks	
		Thousands of barrels per day						Thousands of barrels	
		BOM	API	BOM	API	BOM	API	BOM	API
1974	January	3,035		1,072		1,733		46,548	
	February	2,991		1,029		1,904		45,004	
	March	2,556		912		1,713		47,222	
	April	2,437		985		1,593		51,339	
	May	2,260		995		1,362		54,356	
	June	2,405		1,026		1,500		57,891	
	July	2,473		1,056		1,474		59,787	
	August	2,529		1,067		1,520		60,988	
	September	2,475		1,032		1,421		60,251	
	October	2,611		1,099		1,465		58,679	
	November	2,935		1,229		1,753		60,363	
	December	2,983		1,335		1,630		74,939	
	AVERAGE	2,639		1,070		1,587			
1975	January	3,242		1,415		1,647		60,233	
	February	2,849		1,354		1,402		66,495	
	March	2,668		1,299		1,292		64,148	
	April	2,225		1,245		1,047		66,340	
	May	2,049		1,151		1,123		73,498	
	June	2,179		1,152		904		69,660	
	July	2,239		1,155		1,144		71,526	
	August	2,118		1,146		982		71,857	
	September	2,329		1,183		1,312		76,938	
	October	2,238		1,165		1,221		81,858	
	November	2,349		1,214		1,169		83,131	
	December	2,728		1,354		1,099		74,126	
	AVERAGE	2,433		1,235		1,194			
1976	January	3,016		1,415		1,353		66,592	
	February	2,929		1,394		1,626		68,859	
	March	2,722		1,311		1,285		65,132	
	April		2,226		1,273		969		66,870
	May		2,004		1,224		802		R66,627
	June		R2,045		1,201		872		67,150
	July		2,024		1,229		841		68,609
	AVERAGE		2,422		1,292		1,104		
	(7 months)								

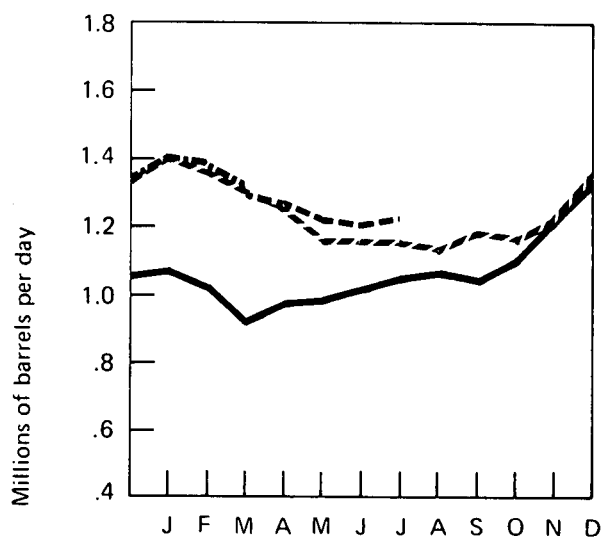
R=Revised data.

Sources: Bureau of Mines (BOM) and American Petroleum Institute (API) as indicated.

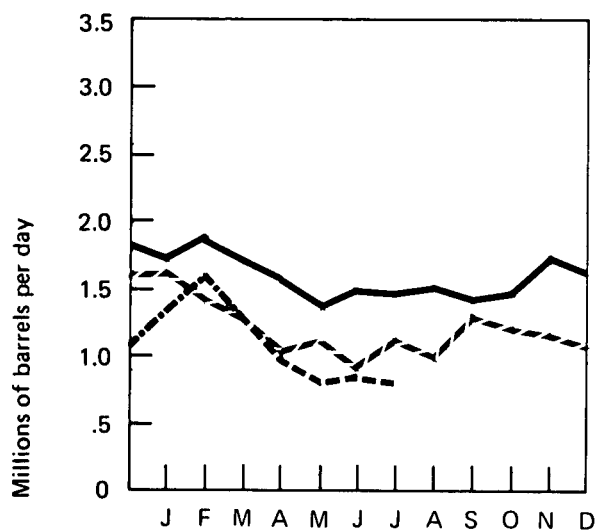
Domestic Demand



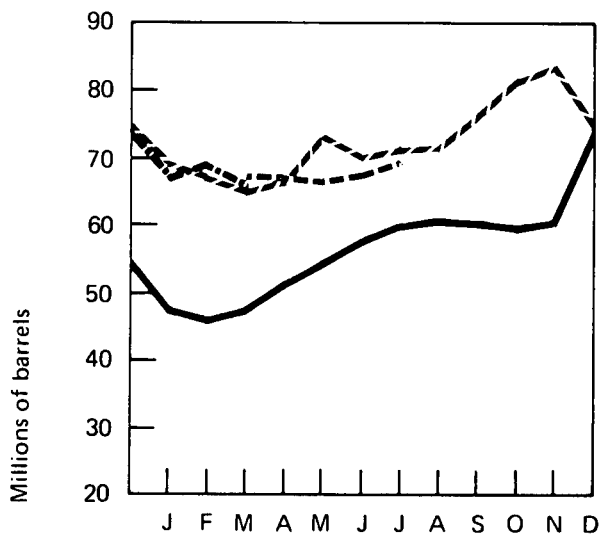
Production



Imports



Stocks



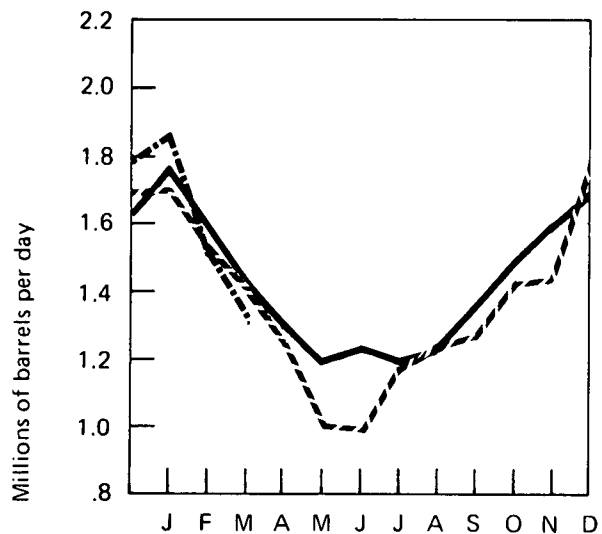
— 1974 BOM
 - - 1975 BOM
 - - 1976 BOM
 - . 1976 API

Natural Gas Liquids

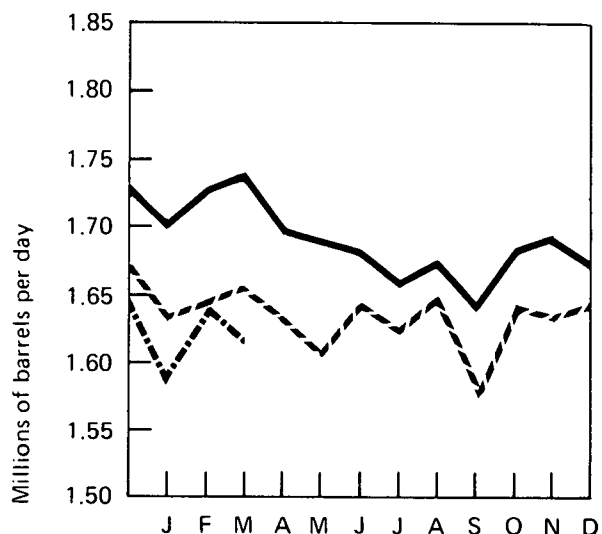
		Domestic Demand*	Production*		Used at Refineries*	Imports	Stocks*
			At processing plants	At refineries			Thousands of barrels
		Thousands of barrels per day					
1974	January	1,778	1,699	327	794	304	91,210
	February	1,593	1,728	337	777	294	90,145
	March	1,408	1,741	341	720	224	94,817
	April	1,321	1,696	353	690	215	101,352
	May	1,180	1,690	340	678	182	110,881
	June	1,242	1,684	368	718	199	117,915
	July	1,187	1,657	364	723	163	125,427
	August	1,221	1,676	361	742	163	131,675
	September	1,360	1,638	348	738	166	133,215
	October	1,493	1,686	330	788	200	130,557
	November	1,604	1,694	301	795	208	124,447
	December	1,692	1,670	286	796	230	114,295
	AVERAGE	1,422	1,688	338	746	212	
1975	January	1,708	1,630	307	756	257	105,400
	February	1,512	1,646	296	734	181	100,945
	March	1,404	1,658	280	731	178	99,168
	April	1,242	1,635	273	667	176	100,408
	May	1,002	1,607	299	628	97	112,737
	June	998	1,646	323	659	166	125,215
	July	1,191	1,621	336	701	173	131,359
	August	1,227	1,650	357	690	163	137,074
	September	1,278	1,577	326	703	209	140,278
	October	1,429	1,643	310	729	198	138,981
	November	1,444	1,635	309	759	196	135,976
	December	1,787	1,646	310	768	232	124,278
	AVERAGE	1,352	1,633	311	710	186	
1976	January	1,885	1,585	305	728	240	109,450
	February	1,518	1,640	316	793	270	106,647
	March	1,303	1,615	333	674	194	111,483
	AVERAGE (3 months)	1,570	1,613	318	730	234	

*See Explanatory Note 4.
Source: Bureau of Mines.

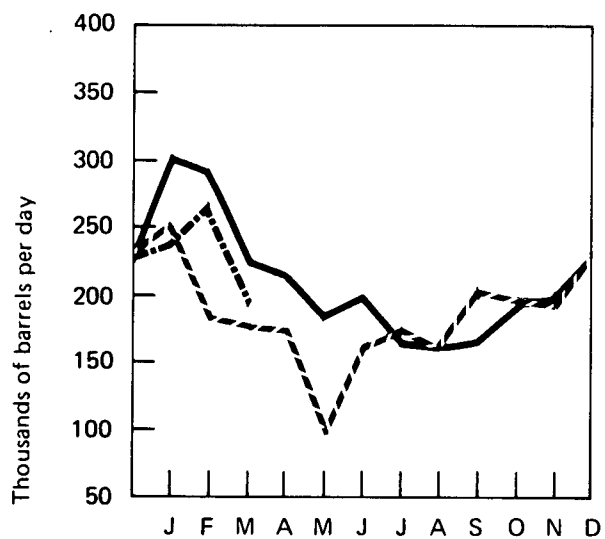
Domestic Demand



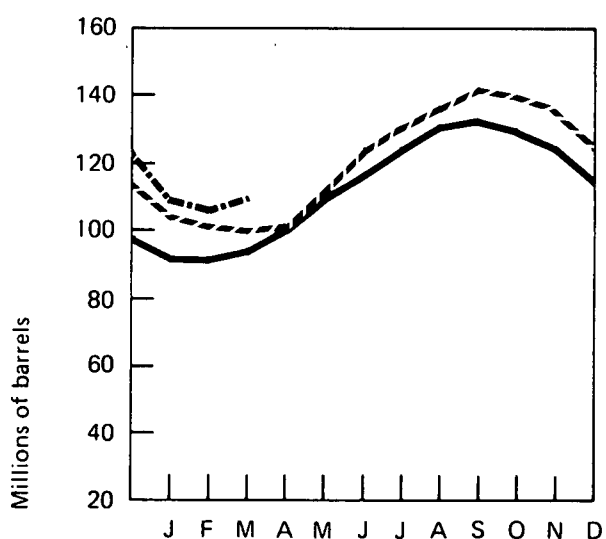
Production at Processing Plants



Imports



Stocks



— 1974
 - - 1975
 - . - 1976

U.S. Petroleum Supply and Demand—1976

	Actual*		Forecast**	
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Thousands of barrels per day				
Supply				
Crude oil and lease condensate production	8,194	8,244	8,046	7,972
Natural gas plant liquids production	1,612	1,585	1,575	1,592
Other hydrocarbon supply	37	36	36	36
Crude oil imports	4,520	5,173	5,604	5,543
Refined products imports***	2,073	1,371	1,541	2,191
Total new supply	16,436	16,409	16,802	17,334
Processing gain	485	500	478	473
Stock change—all oils	-797	+574	+524	-395
Total net supply	17,718	16,335	16,756	18,202
Demand				
Crude oil and refined products exports	192	200	198	195
Crude oil losses	14	14	13	13
Domestic demand for refined products†	17,715	16,121	16,545	17,994
Total demand	17,921	16,335	16,756	18,202
Unaccounted for crude oil††	-203	0	0	0

*Partially estimated.

**See Explanatory Note 5 for discussion of basic assumptions for forecast.

***Includes plant condensate and unfinished oils.

†Includes international bunkers.

††Balancing item resulting from statistical inconsistencies.

Sources: 1st Quarter—BOM; 2nd Quarter—API, FEA estimates; 3rd and 4th Quarters—FEA forecast.

Natural Gas

Marketed production of natural gas during July was estimated to be 3.4 percent lower than production during July 1975. Domestic consumption and imports were also estimated to be down from last July's levels, by 7.6 percent and 2.5 percent, respectively.

Marketed production and consumption during the first 7 months of 1976 were about 2 percent below their respective levels during the same months in 1975, but imports were approximately 2 percent higher.

Domestic producer sales to interstate pipelines during April showed a 6.3-percent drop from sales in April 1975. During the first 4 months of the year, sales were 5.0 percent below the volume for the corresponding period in 1975.

Natural Gas

		Domestic Consumption*	Marketed Production*	Domestic Producer Sales to Major Interstate Pipelines	Imports
Billion cubic feet					
1974	January	2,230	R1,928	1,033	86
	February	2,054	1,759	941	79
	March	2,003	1,886	1,027	85
	April	1,691	1,793	987	83
	May	1,608	1,846	981	80
	June	1,439	1,740	928	74
	July	1,514	1,818	947	74
	August	1,510	1,790	932	76
	September	1,537	1,755	870	70
	October	1,706	1,767	936	83
	November	1,827	1,729	921	82
	December	2,104	1,790	959	87
	TOTAL	21,223	21,601	11,462	959
1975	January	2,123	R1,778	950	81
	February	1,943	R1,640	867	75
	March	1,904	R1,740	948	83
	April	1,651	R1,677	906	R82
	May	1,335	R1,689	898	R80
	June	1,255	R1,634	859	R76
	July	1,310	R1,677	873	R80
	August	1,370	R1,677	882	R75
	September	1,372	R1,603	836	74
	October	1,560	R1,646	877	R80
	November	1,663	R1,618	853	81
	December	2,055	1,730	903	R86
	TOTAL	19,511	R20,109	10,652	R953
1976	January	2,280	R1,745	894	83
	February	1,808	R1,641	850	79
	March	1,778	R1,709	894	85
	April	1,470	R1,633	849	R85
	May	1,390	R**1,634	NA	R82
	June	1,210	***1,580	NA	***77
	July	1,280	***1,620	NA	***78
	TOTAL (7 months)	11,216	11,562	3,487 (4 months)	569

*See Explanatory Note 6.

**Preliminary data.

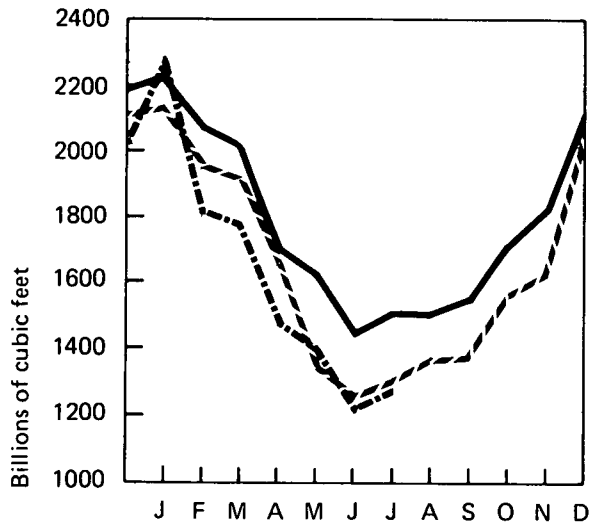
***Projected data.

R=Revised data. NA=Not available.

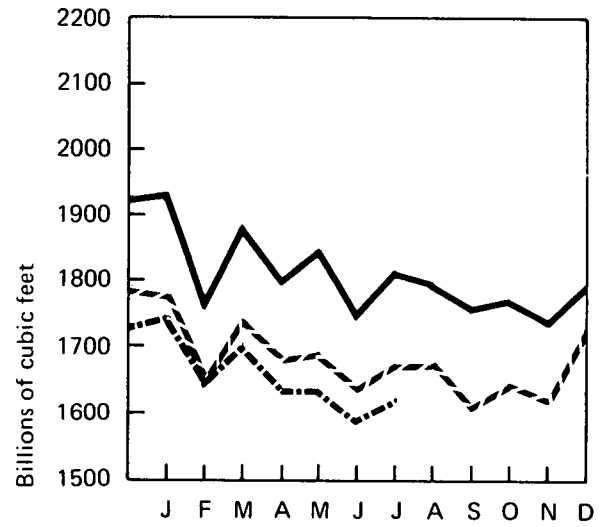
Note: All monthly Domestic Consumption data are estimated.

Sources: Consumption, Marketed Production, and Imports—Bureau of Mines; Domestic Producer Sales—Federal Power Commission.

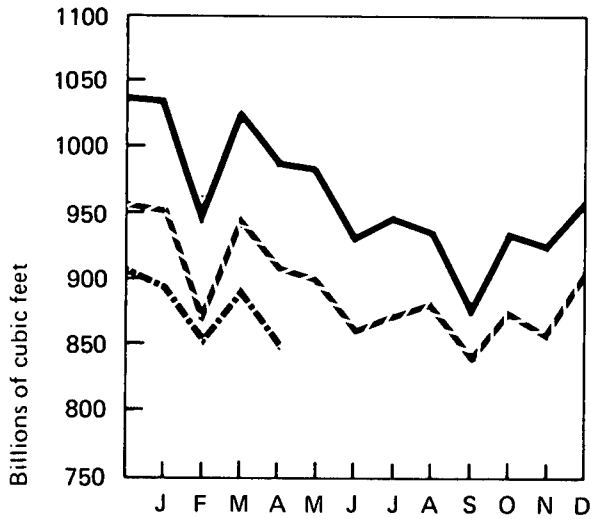
Domestic Consumption



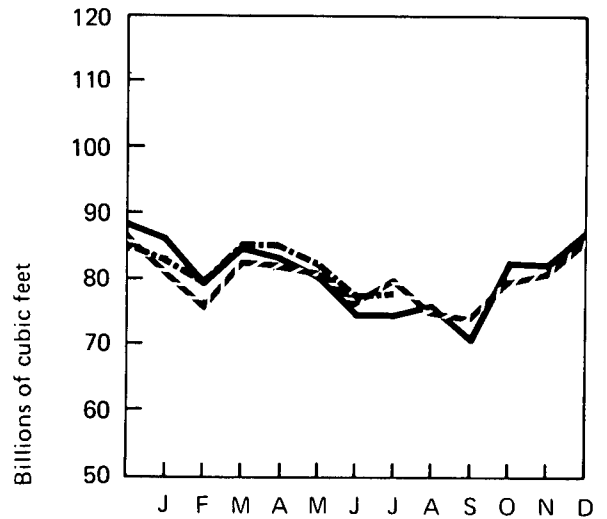
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



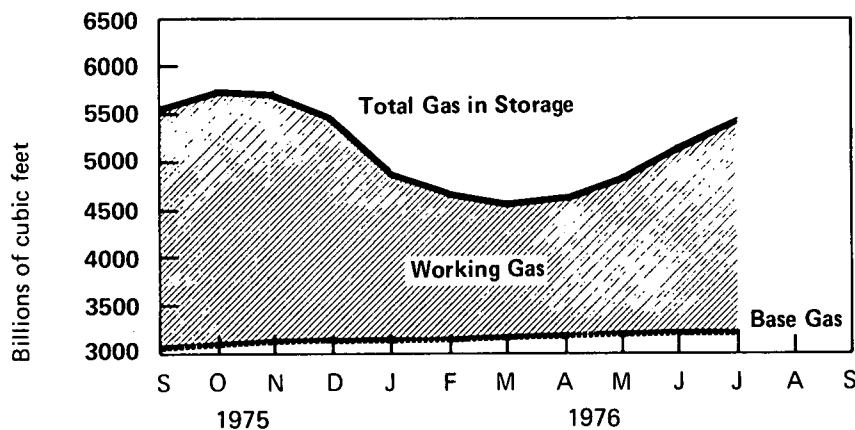
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Natural Gas (Continued)

Natural Gas in Underground Storage*

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections
Billion cubic feet							
1974	October**	5,445	3,042	2,403	***	***	***
1975	September	5,558	3,084	2,474	232	38	194
	October	5,770	3,128	2,642	185	51	134
	November	5,760	3,172	2,588	99	150	-51
	December	5,423	3,173	2,250	41	394	-353
1976	January	4,868	3,194	1,674	19	630	-611
	February	4,660	3,197	1,463	73	292	-219
	March	4,543	3,195	1,348	85	217	-132
	April	4,650	3,208	1,443	181	68	113
	May	4,878	3,214	1,664	248	23	225
	June	5,163	3,220	1,943	308	19	289
	July	5,457	3,238	2,219	317	19	298

Gas in Storage



*See Explanatory Note 7.

**Data reported as of November 1, 1974.

***Between November 1, 1974, and August 31, 1975, a total of 1,658 billion cubic feet of gas was injected into storage and 1,686 billion cubic feet was withdrawn, for net storage injections of - 28 billion cubic feet.

Sources: Federal Energy Administration and Federal Power Commission.

Coal

Production of bituminous coal and lignite dropped to 43.3 million tons in July from a June level of 58.4 million tons. This decline reflects the impact of both the miners' wildcat strike which occurred during the last 2 weeks of July and the miners' annual vacation which began June 28 and ended July 26.

June coal exports were 6.6 million tons, the highest monthly level so far this year.

Domestic consumption of bituminous coal and lignite during April 1976 totaled 45.9 million tons, an increase of 5.3 percent over the consumption level of April 1975.

Coal stocks at the end of April (128.6 million tons) were 25.3 percent greater than the stock level during April 1975.

Bituminous and Lignite

		Domestic Consumption*	Production*	Exports	Stocks
		Thousands of short tons			
1974	January	50,046	53,712	2,813	97,836
	February	44,929	50,053	4,627	95,812
	March	45,858	51,278	3,179	101,568
	April	43,595	54,402	4,944	107,167
	May	44,951	57,662	6,032	112,882
	June	44,315	48,065	6,369	111,935
	July	48,605	49,392	5,307	106,160
	August	48,579	51,808	5,088	105,478
	September	43,844	52,686	4,893	109,173
	October	45,868	60,495	7,342	118,670
	November	44,598	33,702	6,744	109,192
	December	47,521	40,151	2,587	95,528
	TOTAL**	552,709	603,406	59,926	
1975	January	49,841	54,885	4,254	95,512
	February	R45,699	51,135	4,470	R97,028
	March	R47,202	51,910	5,653	R97,832
	April	R43,537	53,135	6,159	R102,663
	May	42,683	55,370	7,011	109,796
	June	44,727	55,730	6,269	115,014
	July	47,496	45,560	4,691	109,313
	August	49,102	51,160	5,859	108,680
	September	43,829	55,560	4,529	112,102
	October	44,563	61,000	4,647	120,371
	November	45,545	53,035	7,593	125,813
	December	50,290	51,520	4,534	127,159
	TOTAL**	R554,514	640,000	65,669	
1976	January	R53,144	51,495	3,697	R119,402
	February	R47,105	52,630	3,050	R119,232
	March	R48,967	60,050	3,979	R123,697
	April	R45,894	57,850	5,780	R128,601
	May	***46,837	56,605	5,667	***133,985
	June	NA	58,430	6,569	NA
	July	NA	†43,250	NA	NA
	TOTAL**	241,947 (5 months)	380,310 (7 months)	28,742 (6 months)	

*See Explanatory Note 8.

**Totals may not add due to rounding.

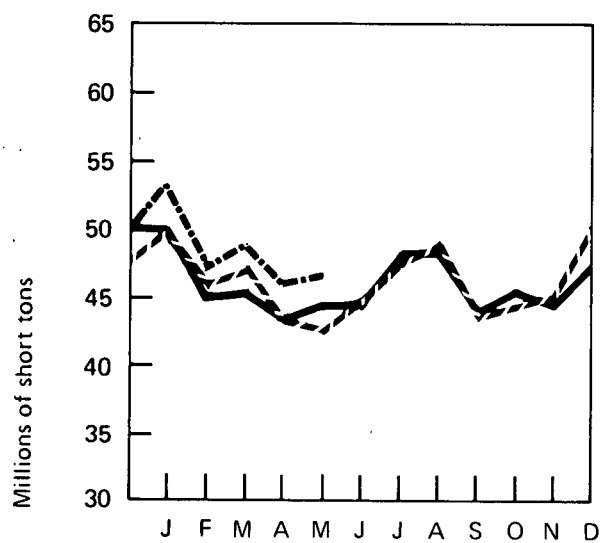
***FEA estimate based on data provided by Bureau of Mines and Federal Power Commission.

†Preliminary data.

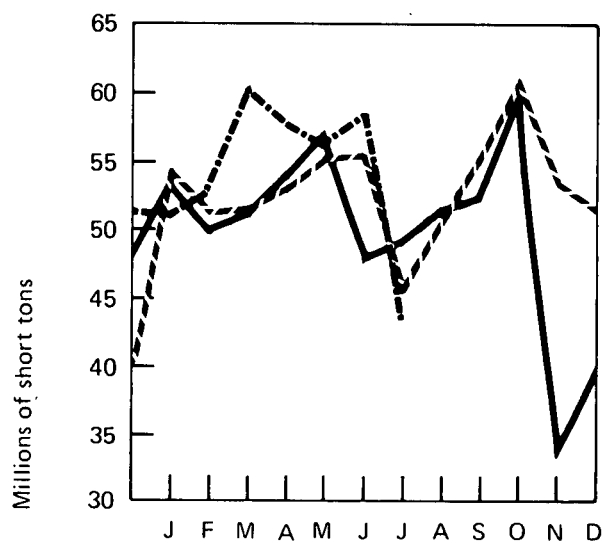
R=Revised data. NA=Not available.

Source: Bureau of Mines.

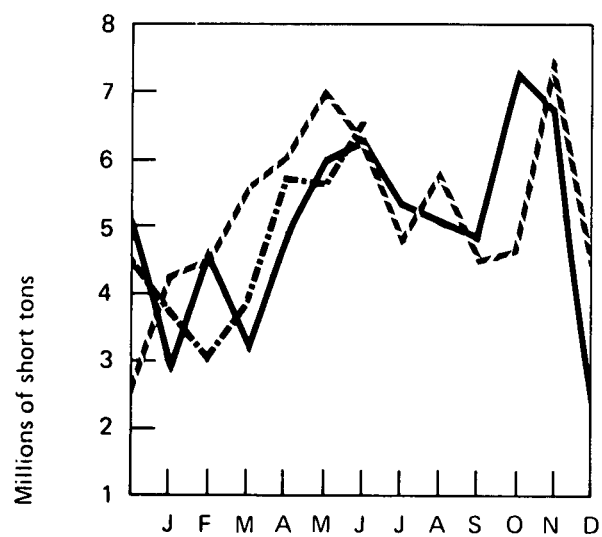
Domestic Consumption



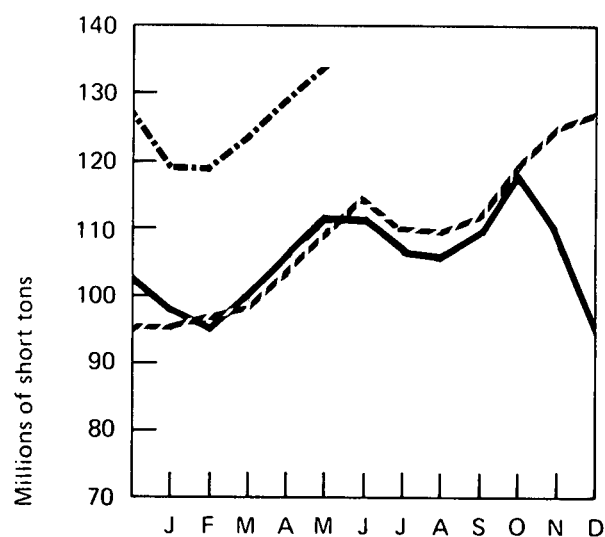
Production



Exports



Stocks

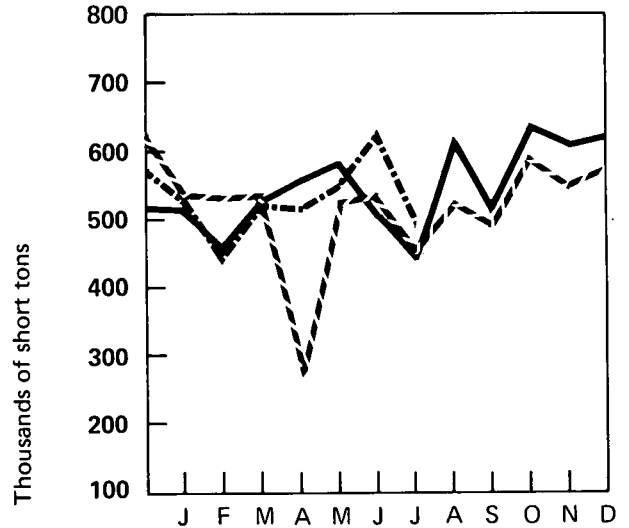


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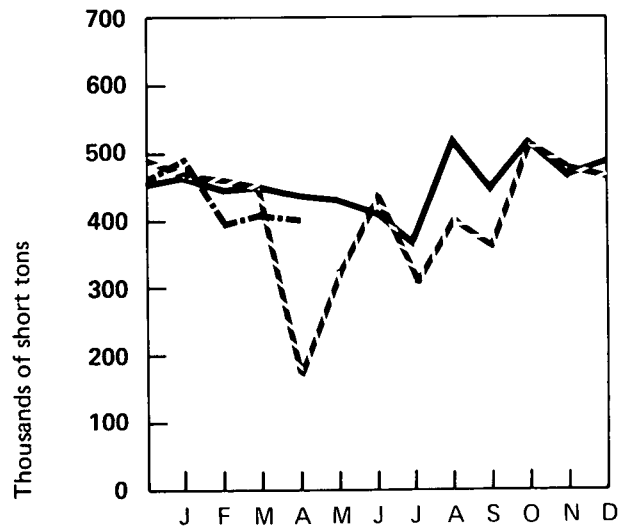
Anthracite

Production

		Production	Domestic Consumption
		Thousands of short tons	
1974	January	516	466
	February	458	441
	March	531	457
	April	563	437
	May	589	435
	June	505	412
	July	443	360
	August	620	526
	September	516	441
	October	641	522
	November	610	463
	December	625	488
	TOTAL	6,617	5,488
1975	January	535	470
	February	530	461
	March	540	453
	April	270	164
	May	530	321
	June	540	446
	July	R455	R305
	August	530	409
	September	495	360
	October	595	513
	November	550	479
	December	575	461
	TOTAL	R6,145	R4,842
1976	January	530	493
	February	440	390
	March	525	416
	April	520	403
	May	555	NA
	June	R630	NA
	July	490	NA
	TOTAL	3,690	1,702
		(7 months)	(4 months)



Domestic Consumption



— 1974
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*Preliminary.

NA=Not available.

Sources: Production data are from Bureau of Mines; consumption data are FEA estimates based on figures provided by Bureau of Mines.

Electric Utilities

Preliminary data indicate that July 1976 production of electricity by utilities was 185.7 billion kilowatt hours, 5.6 percent above the level for July 1975. Electricity production during the first 7 months of 1976 totaled 1,171.0 billion kilowatt hours, 6.7 percent above the level for the same months in 1975.

During the first 6 months of 1976, electric utilities consumed 10.8 percent more coal, 5.3 percent more oil, and 2.2 percent more natural gas than during the first half of 1975.

Sales of electricity to industrial users during the first 5 months of 1976 were 11.0 percent higher than sales during the first 5 months of 1975. Sales to commercial users were up 3.5 percent in the same period, while sales to residential customers showed almost no change.

Cooling Degree-Days

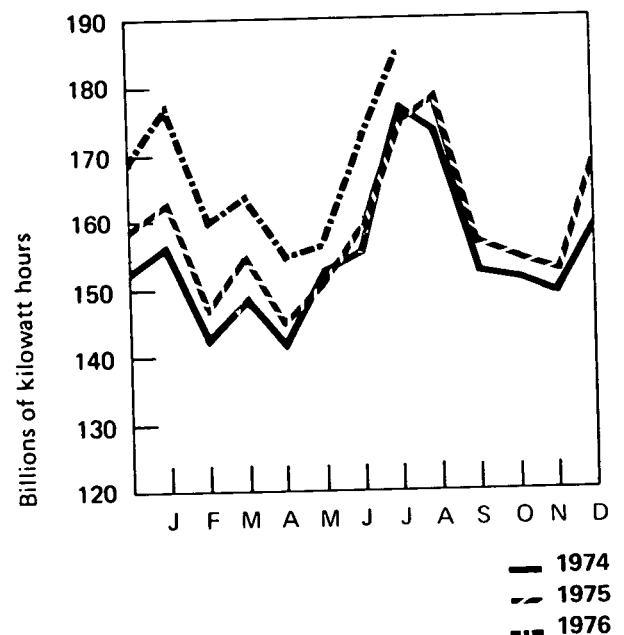
During July, the continental United States accumulated 10.3 percent fewer cooling degree-days than last July, and 6.8 percent fewer than the normal for the month, reflecting relatively cooler weather.

Aggregate cooling degree-days for the period May 3 to August 1 were also below the total for the comparable period in 1975 and below normal (by 13.0 percent and 6.7 percent, respectively).

Electric Utilities

		Total Net Production	Percentage Produced from Each Source					
		Millions of kilowatt hours	Coal	Oil	Gas	Nuclear	Hydro- electric	Other*
1974	January	156,906	47.0	16.6	13.3	4.8	18.2	0.1
	February	142,371	46.6	15.7	13.3	5.6	18.6	0.2
	March	149,933	45.3	14.6	15.8	5.8	18.4	0.1
	April	141,914	44.5	13.9	16.9	4.9	19.6	0.2
	May	153,439	44.3	14.7	18.4	4.2	18.2	0.2
	June	156,027	43.3	14.7	20.3	4.4	17.1	0.2
	July	177,798	42.9	15.6	20.9	5.6	14.8	0.2
	August	173,699	43.1	15.6	20.3	7.0	13.8	0.2
	September	152,084	42.9	16.4	19.3	7.1	14.1	0.2
	October	151,786	44.3	16.7	18.6	7.0	13.2	0.2
	November	149,581	44.9	18.4	15.2	7.2	14.1	0.2
	December	159,309	45.6	19.3	12.4	8.1	14.4	0.2
	TOTAL	1,864,847	AVG. 44.5	16.1	17.2	6.0	16.1	0.1
1975	January	163,498	45.8	18.7	12.1	8.1	15.2	0.1
	February	146,338	46.0	17.0	12.3	8.3	16.3	0.1
	March	154,932	44.6	15.0	13.0	9.2	18.1	0.1
	April	145,289	44.2	14.6	14.0	8.7	18.3	0.2
	May	151,168	42.5	13.9	16.9	8.2	18.3	0.2
	June	159,963	43.4	14.3	18.0	7.2	16.9	0.2
	July	175,856	43.1	14.2	19.4	8.6	14.5	0.2
	August	179,202	43.9	15.6	19.0	8.7	12.6	0.2
	September	156,802	44.8	13.7	19.1	9.1	13.1	0.2
	October	154,748	44.6	14.2	17.0	9.4	14.6	0.2
	November	152,334	46.0	14.2	14.3	9.3	16.0	0.2
	December	168,654	46.5	15.9	12.3	9.7	15.4	0.2
	TOTAL	1,908,784	AVG. 44.6	15.1	15.7	8.7	15.7	0.2
1976	January	177,873	47.0	18.1	11.1	8.9	14.7	0.2
	February	159,628	46.4	16.2	12.1	9.7	15.4	0.2
	March	164,152	46.6	15.5	12.9	8.6	16.2	0.2
	April	154,020	47.2	15.0	14.1	7.8	15.7	0.2
	May	156,966	45.9	13.9	16.1	7.5	16.4	0.2
	June	R172,615	44.3	14.5	17.1	9.1	14.8	0.2
	July	185,731	NA	NA	NA	9.5	NA	NA
	TOTAL	1,170,985 (7 months)						

Total Net Production



*Includes electricity produced from geothermal power, wood, and waste.

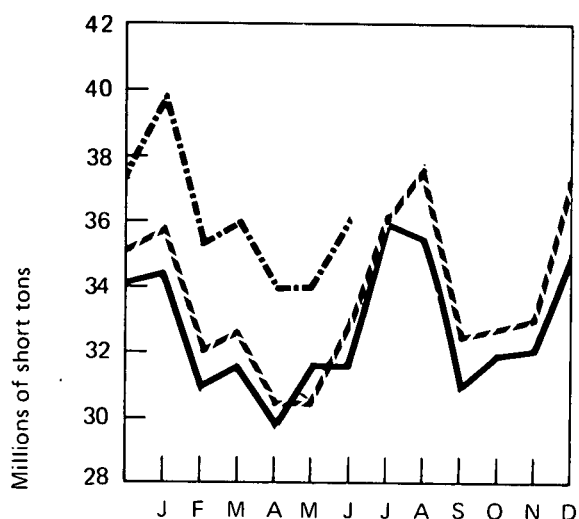
R=Revised data. NA=Not available.

Sources: Federal Power Commission; data for latest month are from Edison Electric Institute and U.S. Nuclear Regulatory Commission.

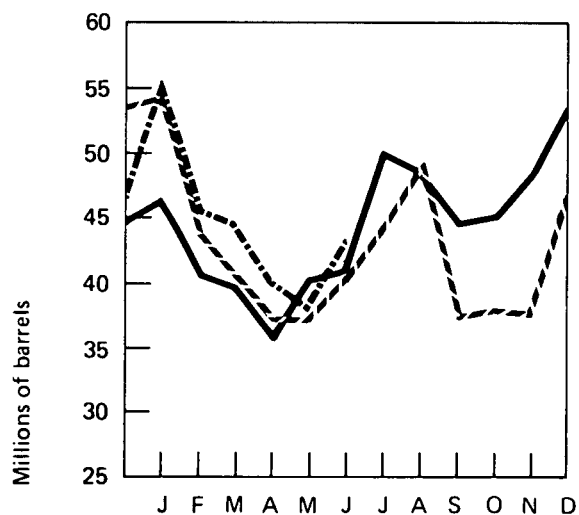
Fuel Consumption

		Coal	Oil	Gas
		Thousands of short tons	Thousands of barrels	Millions of cubic feet
1974	January	34,599	46,745	219,338
	February	30,857	40,687	201,587
	March	31,638	39,645	254,175
	April	29,679	35,959	259,313
	May	31,700	40,831	306,945
	June	31,719	41,227	346,584
	July	36,111	50,119	403,391
	August	35,555	48,970	380,585
	September	30,989	44,550	313,079
	October	32,127	45,268	298,109
	November	32,211	48,525	238,908
	December	35,176	53,648	207,095
	TOTAL	392,361	536,174	3,429,109
1975	January	35,853	54,169	204,931
	February	32,104	43,670	188,684
	March	32,783	40,399	210,283
	April	30,452	37,099	213,580
	May	30,410	37,015	271,790
	June	33,058	40,791	306,147
	July	36,367	44,329	359,160
	August	37,839	49,262	359,117
	September	32,488	37,207	315,165
	October	32,811	38,099	274,122
	November	33,185	37,604	227,070
	December	37,324	46,727	213,246
	TOTAL	404,674	506,371	3,143,295
1976	January	39,887	56,076	204,410
	February	35,364	45,109	200,369
	March	36,082	44,172	220,482
	April	34,015	40,008	224,611
	May	34,067	37,842	265,901
	June	36,183	43,411	310,228
	TOTAL (6 months)	215,598	266,618	1,426,001

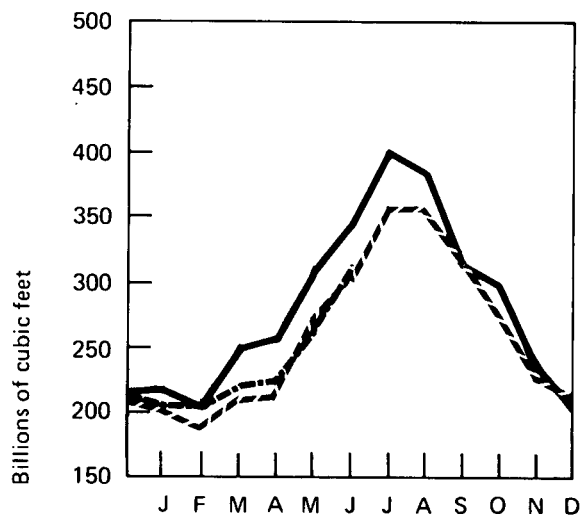
Coal Consumption



Oil Consumption



Gas Consumption



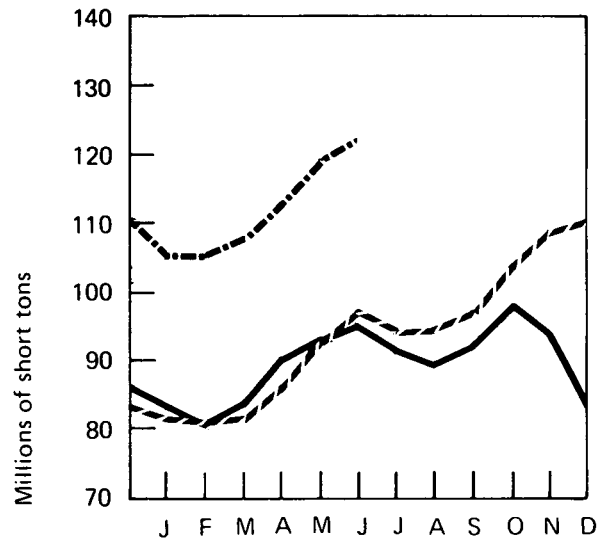
Source: Federal Power Commission.

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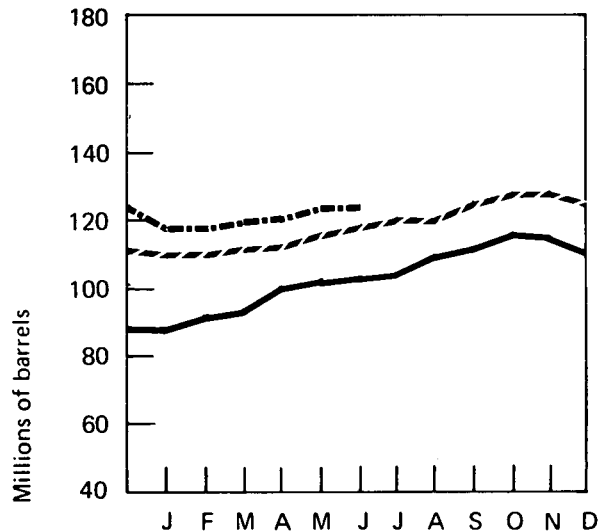
Electric Utilities (Continued)

		Stocks at End of Month	
		Coal	Oil
		Thousands of short tons	Thousands of barrels
1974	January	83,366	89,053
	February	80,962	92,645
	March	84,257	94,187
	April	90,901	100,210
	May	93,628	103,606
	June	95,811	104,316
	July	91,616	105,919
	August	89,691	110,997
	September	92,704	113,570
	October	98,373	117,564
	November	93,825	116,558
	December	83,652	111,990
1975	January	81,429	110,304
	February	81,065	111,581
	March	81,872	113,377
	April	86,656	113,930
	May	93,027	116,940
	June	97,834	119,653
	July	94,067	121,076
	August	94,107	120,601
	September	97,790	126,137
	October	104,776	128,338
	November	109,065	129,629
	December	110,688	125,028
1976	January	105,301	117,575
	February	105,609	118,509
	March	108,435	120,348
	April	113,029	121,957
	May	119,409	125,534
	June	122,331	125,606

Coal Stocks



Oil Stocks

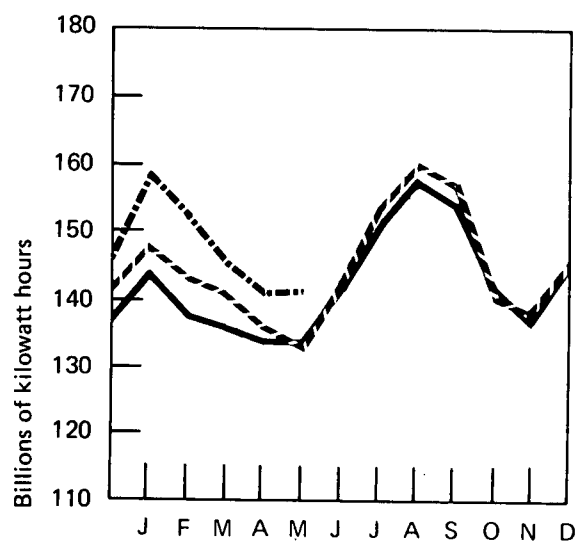


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Source: Federal Power Commission.

		Sales				
		Residential	Commercial	Industrial	Other*	Total
		Millions of kilowatt hours				
1974	January	52,846	30,608	55,754	4,995	144,203
	February	47,832	29,542	54,978	4,708	137,060
	March	46,154	29,309	55,999	4,693	136,155
	April	43,294	28,986	56,497	4,610	133,387
	May	41,215	29,876	57,386	4,685	133,162
	June	46,596	32,800	58,077	4,641	142,114
	July	53,435	35,229	57,899	4,965	151,528
	August	56,558	36,414	59,803	5,069	157,844
	September	53,252	35,830	60,366	4,983	154,431
	October	44,177	32,112	60,053	4,792	141,134
	November	42,773	30,968	57,361	4,969	136,071
	December	50,368	31,757	53,878	4,974	140,977
	TOTAL	578,500	383,431	688,051	58,084	1,708,066
1975	January	55,547	33,026	54,280	5,245	148,098
	February	52,185	32,441	53,142	4,984	142,752
	March	49,974	32,005	53,182	4,914	140,075
	April	46,883	31,335	52,526	4,737	135,481
	May	43,226	31,608	53,364	4,745	132,943
	June	48,461	35,266	54,104	4,777	142,608
	July	56,829	37,891	53,973	5,052	153,745
	August	59,979	38,768	56,067	5,223	160,037
	September	56,983	37,550	56,797	5,320	156,650
	October	45,142	33,329	56,486	5,194	140,151
	November	44,019	32,288	56,174	5,235	137,716
	December	51,900	33,183	55,532	5,357	145,972
	TOTAL	611,128	408,690	655,627	60,783	1,736,228
1976	January	60,091	34,833	57,448	6,380	158,752
	February	54,264	33,583	58,228	5,874	151,949
	March	47,037	31,963	60,554	5,988	145,542
	April	43,551	31,598	60,106	5,407	140,662
	May	42,786	33,990	59,452	5,591	141,819
	TOTAL (5 months)	247,729	165,967	295,788	29,240	738,724

Total Sales



*Includes street lighting and trolley cars.

Source: Federal Power Commission; data for latest month are from Edison Electric Institute.

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Cooling Degree-Days*

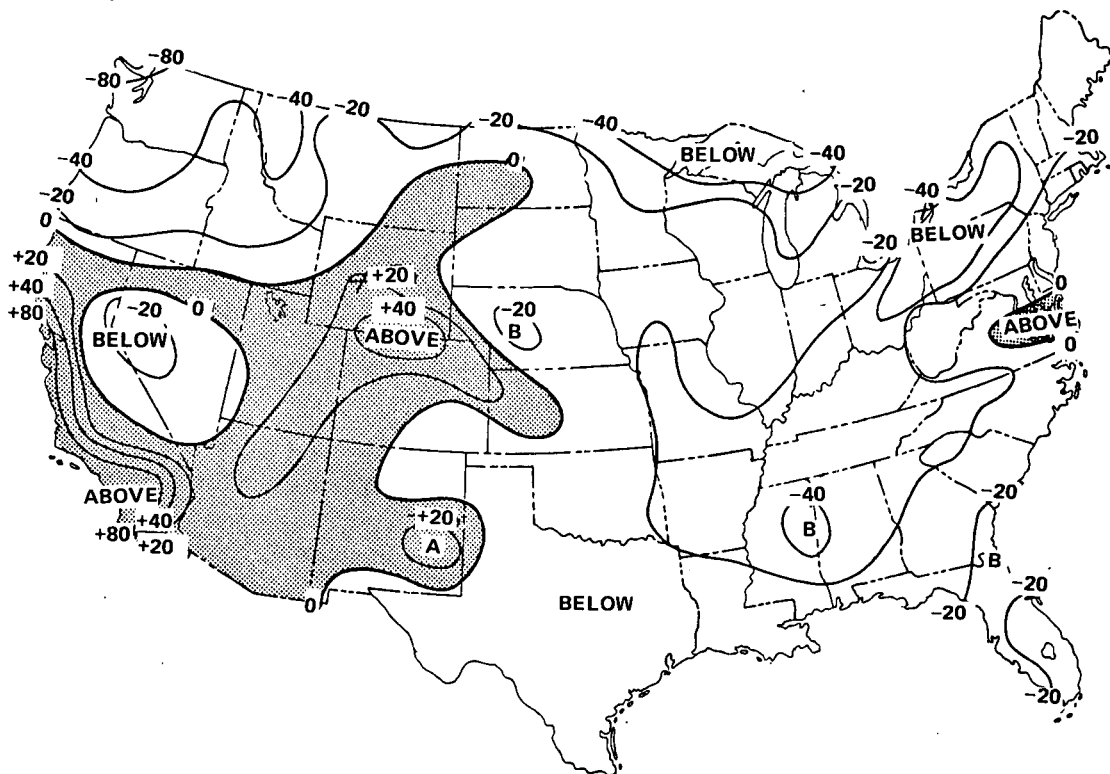
Petroleum Administration for Defense (PAD) Districts	JULY (June 28 - August 1)			Cumulative Since May 3		
	1976	1975**	Normal (1941-70)**	1976	1975**	Normal (1941-70)**
PAD District I	348.1	405.1 (-14.1)	385.5 (-9.7)	659.3	749.1 (-12.0)	676.6 (-2.5)
New England Conn., Maine, Mass., N.H., R.I., Vt.	226.5	368.0 (-38.4)	258.1 (-12.2)	456.5	539.0 (-15.3)	354.5 (28.8)
Middle Atlantic Del., Md., N.J., N.Y., Pa.	296.5	372.8 (-20.5)	350.0 (-15.3)	548.4	613.7 (-10.6)	548.2 (0.0)
Lower Atlantic Fla., Ga., N.C., S.C., Va., W.Va.	479.1	470.1 (1.9)	494.8 (-3.2)	915.2	1,044.9 (-12.4)	1,010.8 (-9.5)
PAD District II	324.1	374.5 (-13.5)	339.0 (-4.4)	526.1	658.2 (-20.1)	576.3 (-8.7)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.						
PAD District III	534.9	558.5 (-4.2)	611.3 (-12.5)	999.0	1,195.2 (-16.4)	1,249.4 (-20.0)
Ala., Ark., La., Miss., N. Mex., Tex.						
PAD District IV	339.1	335.7 (1.0)	299.7 (13.2)	429.6	394.6 (8.9)	401.6 (7.0)
Colo., Idaho, Mont., Utah, Wyo.						
PAD District V	247.9	239.7 (3.4)	233.2 (6.3)	442.8	387.5 (14.3)	391.3 (13.2)
Ariz., Calif., Nev., Oreg., Wash.						
U.S. TOTAL	348.3	388.5 (-10.3)	373.7 (-6.8)	620.3	712.7 (-13.0)	665.1 (-6.7)

*See Explanatory Note 9 for explanation of cooling degree-days.

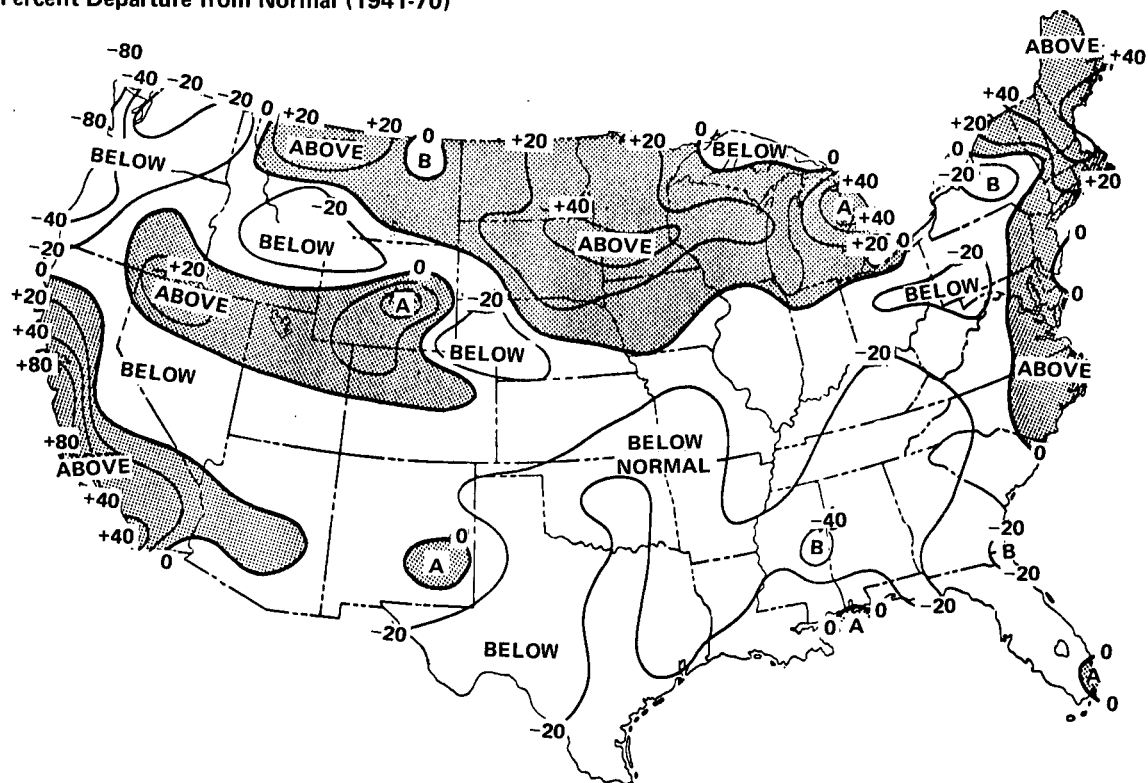
**Percentage change in parentheses.

Cooling Degree-Days Accumulated from January 1, 1976 through August 1, 1976

Percent Departure from 1975



Percent Departure from Normal (1941-70)



Note: Above normal cooling degree-days correspond to above normal temperatures.
Source: Department of Commerce-NOAA.

Part 6

Nuclear Power

The 53 domestic reactors in commercial operation, with a total maximum dependable capacity of 35,184 megawatts, performed at 66 percent of capacity during July, a sharp increase from 60 percent in June.

St. Lucie 1, the nuclear reactor owned by the Florida Power and Light Company which achieved commercial operating status in June, has since been shutdown for repairs (because of uneven power in the reactor core) and has been returned to power ascension status.

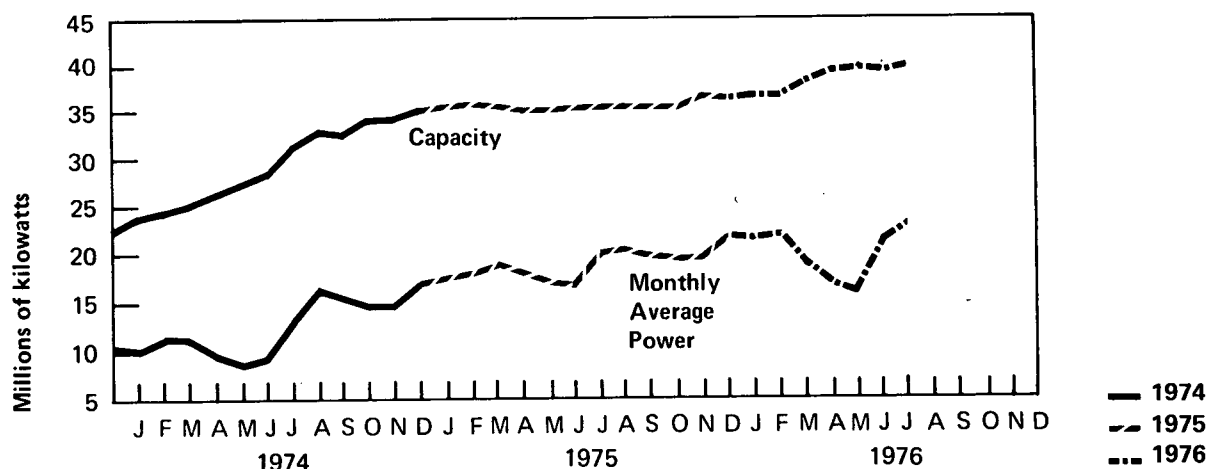
All three of the Tennessee Valley Authority's Browns Ferry reactors were loaded with fuel during July. Unit 3 will begin power ascension in August, but units 1 and 2 must undergo an additional safety review before power ascension may begin because of an electrical fire which occurred in March 1975. The Brown Ferry reactors have a combined design capacity of 3,195 megawatts and represent the world's largest nuclear facility.

Nuclear Power

U.S. Nuclear Powerplant Operations*

		Maximum Dependable Capacity	Average Power	Percent of Total Domestic Electricity Generation
		Thousands of net kilowatts		
1974	January	24,006	10,194	4.8
	February	24,776	11,992	5.6
	March	25,305	11,715	5.8
	April	26,862	9,826	4.9
	May	27,670	8,791	4.2
	June	28,748	9,740	4.4
	July	31,374	13,577	5.6
	August	33,045	16,442	7.0
	September	32,609	15,159	7.1
	October	34,464	14,409	7.1
	November	34,480	14,528	7.2
	December	35,317	17,375	8.1
	AVERAGE	29,921	12,865	6.0
1975	January	35,691	17,843	8.1
	February	35,899	18,063	8.3
	March	35,686	19,091	9.2
	April	35,017	17,516	8.7
	May	35,017	16,613	8.2
	June	35,322	16,097	7.2
	July	35,596	20,297	8.6
	August	35,589	20,618	8.7
	September	35,540	19,892	9.1
	October	35,540	19,464	9.4
	November	36,752	19,586	9.3
	December	36,424	21,985	9.7
	AVERAGE	35,671	18,926	8.7
1976	January	36,750	21,315	8.9
	February	36,879	22,213	9.7
	March	38,072	18,935	8.6
	April	39,763	16,604	7.8
	May	39,902	15,903	7.5
	June	39,781	R21,779	9.1
	July	**40,168	**23,820	**9.5
	AVERAGE (7 months)	39,039	20,270	8.8

U.S. Nuclear Powerplants



*Includes all units licensed to operate, whether in commercial operation or power ascension status.

**Preliminary data.

R=Revised data.

Sources: Average Power for latest month and Capacity are from U.S. Nuclear Regulatory Commission; Percent of Total Domestic Electricity Generation for latest month is based on data from Edison Electric Institute; remaining data are from Federal Power Commission.

Status of Nuclear Powerplants – July 31, 1976

Status	Number of Plants				Design Capacity	
	Boiling Water Reactors	High Temperature Gas Reactors	Pressurized Water Reactors	Other*	Total	Net Electrical Megawatts
Licensed to operate	24	1	34	0	59	41,000
Construction permit granted	20	0	55	0	75	78,000
Construction permit pending	22	0	37	5	64	71,000
Orders placed for plant	3	0	15	0	18	21,000
Publicly announced	—	—	—	20	20	25,000
TOTAL	69	1	141	25	236	236,000

*Includes 1 Liquid Metal Fast Breeder Reactor and 24 announced intentions to order for which a reactor type has not been chosen.

Source: U.S. Nuclear Regulatory Commission.

U.S. Uranium Enrichment – July 1976

	Domestic Customers	Foreign Customers	Total
Separative Work Performed (in metric tons of separative work units)	85.518	465.338	550.856
Cost (in millions of dollars)	5.212	27.342	32.554
Product Quantity (in metric tons of uranium)	24.783	98.478	123.261
Feed Requirement (in metric tons of uranium)	115.734	578.023	693.757

Source: U.S. Energy Research and Development Administration.

Nuclear Power Generation by Major Non-Communist Countries – July 1976

Country	Number of Reactors*	Capacity	Generation of Electricity			
			Generation July	Percent of Design Capacity		
				July	Year	
		Thousands of gross electrical kilowatts	Millions of gross kilowatt hours		1974	1975
Canada	5	2,380	1,777	100	74	64
Federal Republic of Germany	8	4,750	1,218	35	57	72
France	10	3,065	1,034	45	57	68
Great Britain	30	6,200	**2,144	**47	61	57
India	3	620	276	60	55	46
Italy	3	630	393	84	61	69
Japan	12	6,600	3,021	62	61	36
Spain	3	1,120	774	93	75	77
Sweden	5	3,310	845	34	20	44
Switzerland	3	1,050	549	70	76	84
United States	58	42,715	18,680	59	57	60
TOTAL	140	72,440	30,711	57	58	58

*Includes only operational units, i.e., those which have generated electricity during, or prior to, the current month.

**Figures are for 4-week operating period.

Source: *Nucleonics Week*.

Summary of Monthly Nuclear Fuel Cycle – June 1976

Fuel Cycle Activity	Product	Processed Material*	Percent Utilization of Industry Capacity	Energy Content of Processed Material**	Energy Consumed in Fuel Cycle Activity***	Cost Contribution to Electric Power†
		MTU except where noted			Billion Btu	Mills per kilowatt hour
Milling	Yellowcake (U ₃ O ₈) Deliveries	666	60	230,000	376	1.04
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	544	38	188,000	117	0.07
Enrichment	Enriched UF ₆ Deliveries	341 (1322 MT-SWU)	††	854,000	9,900	0.86
Fabrication	Finished Fuel Assemblies Shipped	42	26	161,000	100	0.46
Powerplant Operation	Electricity Generated	15,676 (million kWhe)	55	166,000	723 (million kWhe)	9.82
	Spent Fuel Discharged	NA	—	—	—	} †††0.97
Reprocessing	Spent Fuel Received	32	—	—	—	
	Spent Fuel Reprocessed	0	—	—	—	

*Units of measure are discussed in Explanatory Notes 10 and 11.

**Assumes 25,000 MWD/MTU for heat content of enriched uranium and a 6.1 feed to product ratio at the enrichment plant.

***Energy requirements for processing are obtained from U.S.A.E.C. Report No. WASH 1248.

†Cost contribution is computed from unit prices paid for current month's production and requirement for a model 1000 MWh reactor operating at 80 percent capacity factor, given in U.S.A.E.C. Report No. WASH 1117-74. Because of the long lead time required for nuclear fuel processing, the sum of numbers in this column does not necessarily reflect the fuel cost of current electricity production.

††ERDA's enrichment plans are presently operating at maximum utilization of available electric power, with the excess production being placed in the "Preproduction stockpile" in anticipation of high demand for enriched uranium in the 1980's.

†††Figure represents current industry estimate for cost of spent fuel shipment, reprocessing, and waste deposition.

NA=Not available.

Source: ERDA.

Energy Consumption

Domestic energy consumption in June 1976 totaled 5.480 quadrillion Btu, up 2.9 percent from the June 1975 level, but down 0.9 percent from June 1974. No sectoral breakdown is available for the month as yet.

The revised consumption total for May was 5.641 quadrillion Btu. Of the total, 1.962 quadrillion Btu was consumed by the residential and commercial sector, up about 2 percent from consumption for the same month in both 1975 and 1974. Direct consumption of primary fuels amounted to 52 percent of the sector's total consumption (coal was 0.7 percent, dry natural gas was 26.0 percent, and petroleum products were 25.3 percent). Consumption of electricity accounted for the remaining 48.0 percent.

The industrial sector consumed 2.084 quadrillion Btu during May 1976, 9.1 percent more than in May 1975, but 8.8 percent less than for May 1974. Coal accounted for 16.0 percent of the total, 28.8 percent was dry natural gas, 21.9 percent was petroleum products, and 33.2 percent was electricity.

Consumption in the transportation sector was 1.596 quadrillion Btu, up 3.9 percent from the May 1975 level and up 3.2 percent from the May 1974 level. Petroleum products comprised 96.3 percent of the total. Natural gas used for pipeline transportation and electricity used by railroads and for street and highway lighting accounted for the balance.

Petroleum Consumption and Forecast

Demand for petroleum products during July 1976 averaged 15.911 million barrels per day, which was 2.2 percent below the forecast level, but 0.9 percent above the demand level for July 1975.

Domestic demand for motor gasoline in July was 7.226 million barrels per day, which was nearly equal to the forecast level of 7.248 million barrels per day, and 2.6 percent greater than demand in July 1975.

Domestic demand for distillate fuel oil was 2.224 million barrels per day in July. This was 1.8 percent below the forecast level, but

5.3 percent above the demand level for July 1975.

Domestic demand for residual fuel oil averaged 2.024 million barrels per day in July, which was 8.3 percent below the forecast level, and 9.6 percent below the demand level for last July.

Energy Consumption by Economic Sector and Primary Source — May 1976 [Quadrillion (10¹⁵) Btu]

Sector ¹	Primary Energy Source					Primary Energy Consumption	Electricity Distributed ⁷	Net Energy Consumption	Electrical Energy Loss Distributed ⁸	Ultimate Energy Disposition
	Coal ²	Natural Gas (dry) ³	Petroleum ⁴	Hydroelectric ⁵	Nuclear ⁶					
Residential and Commercial	0.013	0.510	0.497	—	—	1.020	0.276	1.296	0.666	1.962
Industrial	0.334	0.601	0.454	0.003	—	1.391	0.203	1.594	0.490	2.084
Transportation	0.001	0.040	1.537	—	(⁹)	1.578	0.005	1.583	0.012	1.596
Electric Utilities	0.743	0.273	0.231	0.278	0.126	1.652	—	—	—	—
TOTAL	1.091	1.423	2.720	0.281	0.126	5.641	0.484	4.474	1.168	5.641

¹ See Explanatory Note 12 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

² Data are from the Bureau of Mines. Includes anthracite and bituminous coal and lignite.

³ Aggregate data are from the Bureau of Mines. FPC provided data on natural gas consumed by electric utilities. Data from the American Gas Association are used for the Residential and Commercial Sector, adjusted to include a portion of the AGA "Other" category. Natural gas used in transportation, mostly for pipeline use, is estimated to be 3.5 percent of total natural gas consumption less electric utilities. This percentage is derived from 1974 Bureau of Mines data on consumption. The Industrial Sector is then the difference between the total and the sum of the other sectors.

⁴ Aggregate petroleum data are from the Bureau of Mines. FPC provided data on oil consumed by electric utilities.

Petroleum consumed in transportation was calculated based on Department of Transportation data as follows: Motor gasoline - 100 percent; naphtha jet fuel - 100 percent; kerosene jet fuel - 97 percent; distillate fuel oil - 30.3 percent; residual fuel oil - 11.2 percent; all other products - 4.7 percent. The remainder is distributed to economic sectors using the following percentage shares, derived from 1974 Bureau of Mines data on consumption: Residential and Commercial - 52.3 percent; Industrial - 47.7 percent.

⁵ FPC hydroelectric power production plus net imports of electricity from Canada. These imports, estimated at 0.011 quadrillion Btu per month, were assumed to be from hydroelectric power sources. Monthly industrial hydroelectric power consumption is estimated to be one-twelfth of the preliminary Bureau of Mines annual figure for 1975.

⁶ FPC nuclear power production.

⁷ Electricity was distributed using Edison Electric Institute data on kilowatt-hour sales to ultimate customers. Electrical energy consumed by railroads and for street and highway lighting was distributed to the Transportation Sector. All "other" sales, largely for use in government buildings, were distributed to the Residential and Commercial Sector.

⁸ In generating electricity with nuclear or fossil fuels, approximately 65 percent of the energy is lost in the form of heat. Transmission and distribution losses consume about an additional 3 percent of the energy inputs of the utility industry. In order to fully account for all energy consumed both directly and indirectly (i.e., ultimate energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage.

⁹ Negligible.

Percent Changes in Energy Consumption for May 1976 by Sources and Economic Sectors

	May 1976 Consumption	Percent Change from May 1976	Cumulative Percent Change from 1975 (January through May)*
	Quadrillion Btu		
Refined Petroleum Products	2.725	+5.4	+3.3
Motor Gasoline	1.157	+3.5	+4.9
Jet Fuel	0.174	+2.5	-4.5
Distillate	0.467	+8.6	-0.2
Residual	0.391	-2.2	-1.0
Other Petroleum Products	0.536	+13.7	+10.6
Natural Gas (Dry)	1.423	+4.1	-2.4
Coal (Anthracite, bituminous, and lignite)	1.091	+9.9	+5.1
Electricity (Sales)	0.484	+6.7	+4.9
TOTAL ENERGY USE	5.641	+5.0	+1.4
Economic Sector Consumption			
Residential and Commercial	1.962	+1.8	-0.7
Industrial	2.084	+9.1	+3.0
Transportation	1.596	+3.9	+2.8

*Calculated on daily average basis.

Energy Consumption (Continued)

Energy Consumption by the Residential and Commercial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ²	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1974	January	0.040	1.158	0.662	0.296	0.696	2.851	2.851
	February	0.034	1.027	0.590	0.275	0.599	2.525	5.376
	March	0.027	0.902	0.569	0.268	0.642	2.409	7.785
	April	0.019	0.754	0.530	0.258	0.595	2.155	9.940
	May	0.016	0.499	0.497	0.254	0.654	1.920	11.859
	June	0.015	0.357	0.503	0.282	0.684	1.841	13.701
	July	0.014	0.293	0.507	0.315	0.843	1.972	15.672
	August	0.021	0.265	0.519	0.330	0.807	1.941	17.613
	September	0.025	0.278	0.513	0.316	0.651	1.784	19.397
	October	0.027	0.395	0.589	0.271	0.636	1.919	21.316
	November	0.027	0.569	0.583	0.263	0.636	2.078	23.394
	December	0.031	0.930	0.628	0.292	0.736	2.617	26.010
	TOTAL	0.297	7.427	6.688	3.420	8.178	26.010	
1975	January	0.035	1.124	0.648	0.315	0.764	2.886	2.886
	February	R0.023	1.105	0.553	0.300	0.652	2.634	R5.520
	March	R0.023	1.018	0.566	0.291	0.700	R2.598	R8.117
	April	R0.011	0.905	0.506	0.278	0.639	R2.339	R10.457
	May	0.012	0.522	0.457	0.267	0.671	1.928	R12.384
	June	0.015	0.332	0.452	0.297	0.746	1.842	R14.227
	July	0.017	0.293	0.482	0.336	0.864	1.990	R16.217
	August	0.014	0.264	0.461	0.350	0.878	1.966	R18.184
	September	0.015	0.281	0.501	0.336	0.684	1.825	R20.009
	October	0.015	0.353	0.555	0.280	0.677	1.880	R21.889
	November	0.015	0.523	0.517	0.273	0.659	1.987	R23.875
	December	0.014	0.910	0.643	0.303	0.778	2.648	R26.524
	TOTAL	R0.208	7.629	6.340	3.625	8.722	R26.524	
1976	January	R0.032	1.229	0.675	0.340	R0.840	R3.115	R3.115
	February	R0.019	1.106	0.583	0.314	R0.702	R2.725	R5.840
	March	R0.019	0.858	R0.587	0.285	R0.702	R2.451	R8.291
	April	R0.015	0.704	0.502	R0.270	R0.632	R2.123	R10.414
	May	0.013	0.510	0.497	0.276	0.666	1.962	12.376
TOTAL		0.098	4.407	2.844	1.484	3.543	12.376	

(See footnotes on page 54)

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ³	Hydroelectric	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
		Quadrillion (10 ¹⁵) Btu							
1974	January	0.378	0.830	0.603	0.003	0.190	0.447	2.451	2.451
	February	0.354	0.804	0.538	0.003	0.188	0.409	2.295	4.746
	March	0.358	0.827	0.519	0.003	0.191	0.457	2.355	7.101
	April	0.352	0.662	0.483	0.003	0.193	0.445	2.139	9.240
	May	0.342	0.788	0.453	0.003	0.196	0.504	2.286	11.526
	June	0.326	0.724	0.458	0.003	0.198	0.480	2.189	13.715
	July	0.325	0.806	0.462	0.003	0.198	0.529	2.323	16.037
	August	0.335	0.853	0.473	0.003	0.204	0.499	2.368	18.405
	September	0.325	0.933	0.468	0.003	0.206	0.424	2.359	20.764
	October	0.347	0.997	0.537	0.003	0.205	0.480	2.569	23.333
	November	0.312	1.001	0.532	0.003	0.196	0.473	2.516	25.849
	December	0.309	0.945	0.573	0.003	0.184	0.464	2.478	28.327
	TOTAL	4.063	10.170	6.100	0.036	2.348	5.611	28.327	
1975	January	0.344	0.773	0.591	0.003	0.185	0.450	2.346	2.346
	February	0.344	0.630	0.505	0.003	0.181	0.394	2.057	4.403
	March	0.365	0.657	0.516	0.003	0.181	0.436	2.158	6.562
	April	0.341	0.515	0.461	0.003	0.179	0.412	1.912	8.473
	May	0.321	0.529	0.417	0.003	0.182	0.458	1.910	10.383
	June	0.299	0.605	0.412	0.003	0.185	0.463	1.967	12.350
	July	0.287	0.646	0.439	0.003	0.184	0.474	2.034	14.384
	August	0.294	0.734	0.420	0.003	0.191	0.480	2.123	16.507
	September	0.294	0.763	0.457	0.003	0.194	0.400	2.111	18.618
	October	0.307	0.917	0.507	0.003	0.193	0.465	2.392	21.010
	November	0.319	0.865	0.471	0.003	0.192	0.463	2.314	23.324
	December	0.338	0.909	0.586	0.003	0.189	0.487	2.513	25.837
	TOTAL	3.855	8.544	5.782	0.036	2.237	5.383	25.837	
1976	January	R0.329	0.822	0.616	0.003	0.196	0.485	R2.451	R2.451
	February	0.312	0.482	0.532	0.003	0.199	0.444	R1.971	R4.422
	March	R0.333	0.681	R0.535	0.003	0.207	0.510	R2.268	R6.690
	April	R0.314	0.526	0.458	0.003	R0.205	R0.480	R1.986	R8.676
	May	0.334	0.601	0.454	0.003	0.203	0.490	2.084	10.760
	TOTAL	1.622	3.111	2.594	0.015	1.009	2.408	10.760	

(See footnotes on page 54)

Energy Consumption (Continued)

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas (dry) ⁴	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1974	January	0.001	0.072	1.399	0.005	0.013	1.490	1.490
	February	0.001	0.066	1.300	0.005	0.011	1.384	2.874
	March	0.001	0.063	1.417	0.005	0.012	1.498	4.371
	April	0.001	0.051	1.397	0.005	0.011	1.465	5.836
	May	0.001	0.047	1.484	0.005	0.012	1.547	7.384
	June	0.001	0.039	1.448	0.005	0.011	1.503	8.887
	July	0.001	0.040	1.514	0.005	0.012	1.571	10.458
	August	0.001	0.041	1.533	0.005	0.012	1.590	12.048
	September	0.001	0.044	1.393	0.005	0.010	1.453	13.501
	October	0.001	0.051	1.507	0.005	0.012	1.576	15.077
	November	0.001	0.057	1.455	0.005	0.013	1.532	16.608
	December	0.001	0.068	1.546	0.006	0.014	1.634	18.242
	TOTAL	0.009	0.638	17.392	0.060	0.143	18.242	
1975	January	0.001	0.069	1.498	0.006	0.014	1.587	1.587
	February	0.001	0.063	1.334	0.005	0.012	1.415	3.002
	March	0.001	0.061	1.456	0.005	0.013	1.536	4.537
	April	0.001	0.052	1.455	0.005	0.012	1.524	6.061
	May	0.001	0.038	1.480	0.005	0.012	1.536	7.597
	June	0.001	0.034	1.466	0.005	0.011	1.516	9.114
	July	0.001	0.034	1.498	0.005	0.012	1.550	10.664
	August	0.001	0.036	1.509	0.005	0.012	1.563	12.227
	September	0.001	0.038	1.420	0.005	0.010	1.473	13.700
	October	0.001	0.046	1.495	0.005	0.013	1.560	15.260
	November	0.001	0.050	1.379	0.006	0.013	1.449	16.709
	December	0.001	0.066	1.556	0.006	0.015	1.643	18.352
	TOTAL	0.008	0.587	17.547	0.062	0.149	18.352	
1976	January	0.001	0.074	1.531	0.006	0.015	1.626	1.626
	February	0.001	0.058	1.378	0.006	0.012	1.454	3.080
	March	0.001	0.056	1.551	0.005	0.013	1.626	R4.706
	April	0.001	0.045	1.498	0.005	0.012	1.560	R6.266
	May	0.001	0.040	1.537	0.005	0.012	1.596	7.862
	TOTAL	0.003	0.273	7.495	0.027	0.064	7.862	

¹ See Explanatory Note 12 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculation is provided in the footnotes of the previous table. Printed totals may differ slightly from the sum of their row/column components due to independent rounding.

² The percentage share used in calculating Residential and Commercial consumption of petroleum was 52.5 percent for 1973 and 52.3 percent for 1974, 1975, and 1976.

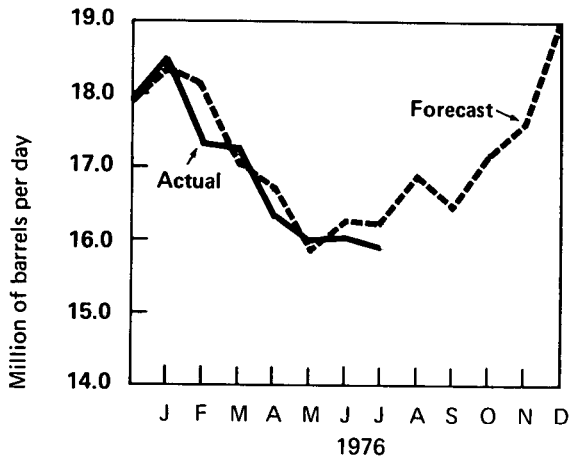
³ The percentage share used in calculating Industrial consumption of petroleum was 47.5 percent for 1973 and 47.7 percent for 1974, 1975, and 1976.

⁴ The percentage share used in calculating Transportation consumption of natural gas was 3.9 percent for 1973 and 3.5 percent for 1974, 1975, and 1976.

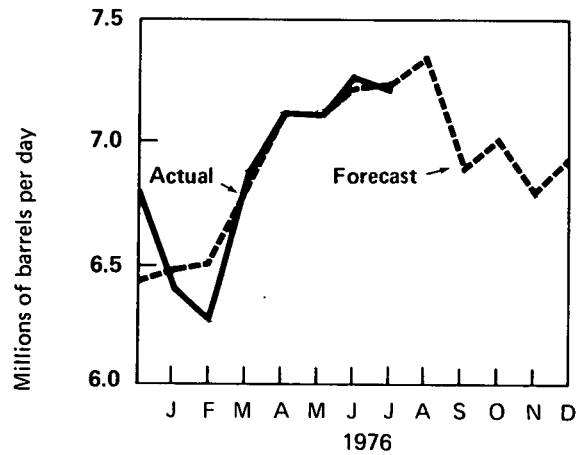
R=Revised data.

Petroleum Consumption and Forecast

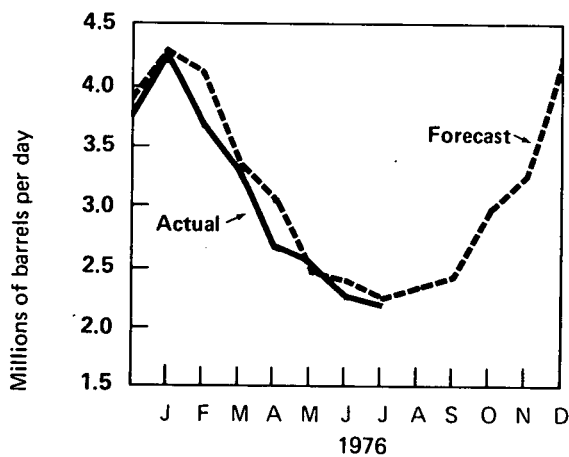
Total Domestic Demand for Petroleum Products



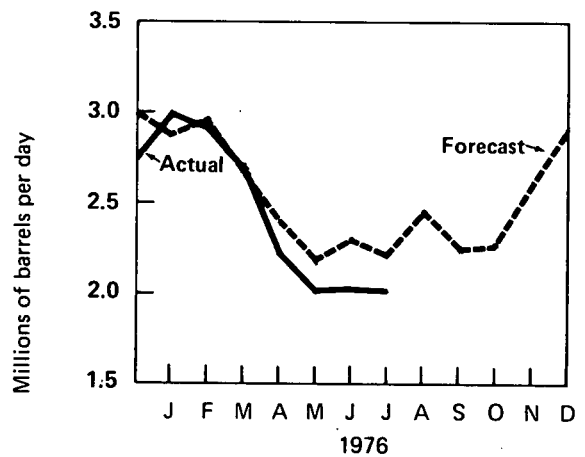
Domestic Demand for Motor Gasoline



Domestic Demand for Distillate Fuel Oil



Domestic Demand for Residual Fuel Oil



Notes:

Domestic Demand — Demand for products, in terms of real consumption, is not available; production plus imports plus withdrawals from primary stocks is used as a proxy for consumption. Secondary stocks, not measured by FEA, are substantial for some products.

Actuals — Based on BOM data for January through March and API data for April through July.

Forecast — See Explanatory Note 5 for discussion of basic assumptions for forecast.

Part 8

Oil and Gas Exploration

Seismic exploration activity increased for the third straight month during July. A total of 270 crews (240 land, 30 marine) were prospecting for petroleum in the United States and its territorial waters, an increase of 12 crews over the June total. In July 1975, 286 crews (249 land, 37 marine) were active.

The number of rotary rigs in operation was seasonally higher during July. An average of 1,597 rigs were at work, 51 more than during the previous month. Compared with July 1975, however, the current count represents a decrease of 19 rigs.

A total of 2,958 wells were drilled during July, 9.3 percent more than in July 1975.

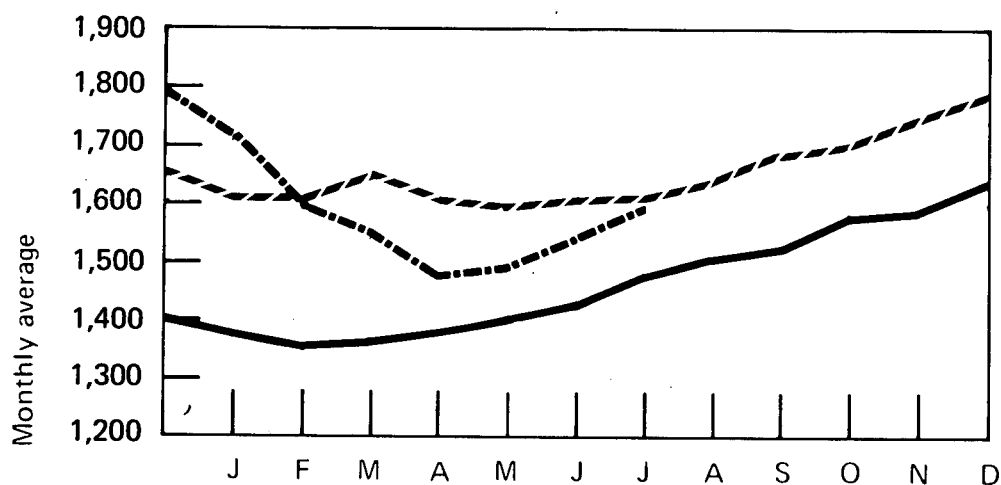
Resource Development

Oil and Gas Exploration

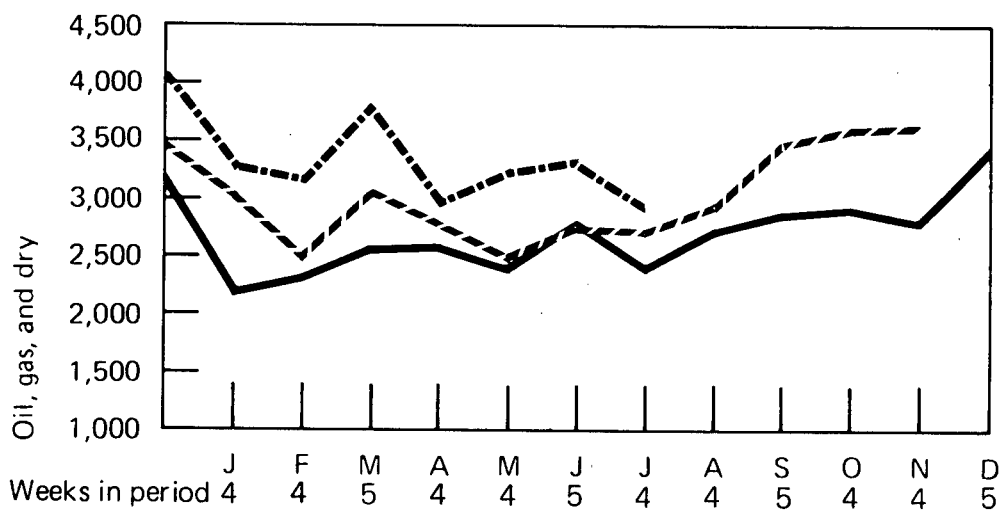
		Rotary Rigs in Operation	Wells Drilled				Total Footage of Wells Drilled
		Monthly average	Oil	Gas	Dry	Total	Thousands of feet
1974	January	1,372	763	577	803	2,143	10,392
	February	1,355	901	600	816	2,317	12,160
	March	1,367	936	638	1,003	2,577	12,844
	April	1,381	947	700	945	2,592	13,349
	May	1,412	957	520	870	2,347	11,460
	June	1,432	1,238	586	982	2,806	12,976
	July	1,480	1,008	461	884	2,353	11,802
	August	1,518	1,210	555	968	2,733	12,410
	September	1,527	1,200	600	1,091	2,891	12,676
	October	1,584	1,131	551	1,241	2,923	14,081
	November	1,596	1,008	626	1,053	2,767	11,795
	December	1,643	1,339	791	1,274	3,404	15,707
AVERAGE	1,475	TOTAL*	12,784	7,240	11,674	31,698	150,551
1975	January	1,615	1,299	655	1,040	2,994	13,189
	February	1,611	1,097	458	933	2,488	12,071
	March	1,651	1,341	658	1,091	3,090	15,472
	April	1,604	1,181	506	1,071	2,758	13,545
	May	1,592	1,100	451	891	2,442	12,054
	June	1,613	1,246	509	1,022	2,777	13,540
	July	1,616	1,229	557	920	2,706	12,545
	August	1,645	1,272	587	1,122	2,981	14,221
	September	1,699	1,504	831	1,165	3,500	15,636
	October	1,716	1,633	682	1,310	3,625	16,689
	November	1,757	1,619	776	1,270	3,665	15,788
	December	1,793	1,817	832	1,424	4,073	17,556
AVERAGE	1,660	TOTAL*	16,408	7,580	13,247	37,235	174,434
1976	January	1,710	1,465	772	1,055	3,292	14,517
	February	1,594	1,341	652	1,159	3,152	14,888
	March	1,540	1,726	821	1,301	3,848	18,126
	April	1,480	1,237	672	994	2,903	13,765
	May	1,496	1,501	658	1,104	3,263	14,196
	June	1,546	1,500	709	1,123	3,332	14,780
	July	1,597	1,312	730	916	2,958	13,716
	AVERAGE (7 months)	1,563	TOTAL* (7 months)	10,046	5,032	7,613	22,691

*Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.
Sources: Rotary Rigs - Hughes Tool Company; Wells - American Petroleum Institute.

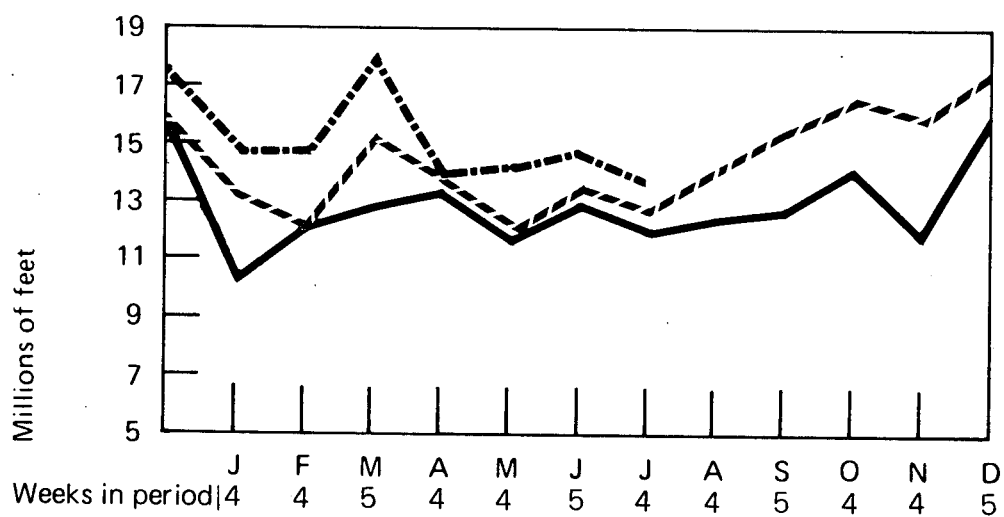
Rotary Rigs in Operation



Total Wells Drilled



Total Footage of Wells Drilled

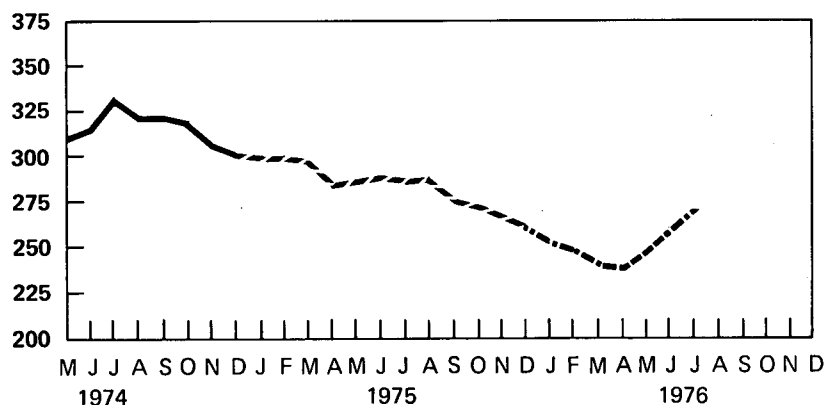


— 1974
 - - 1975
 - · - 1976

Oil and Gas Exploration (Continued)

		Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Monthly average		
1973	Year	23	227	250	21,579	10,597	32,175
1974	Year	31	274	305	28,482	13,219	41,701
1975	Year	30	R254	R284	R25,773	R12,558	R38,331
1974	January-April	NA	NA	NA			
	May	35	278	313			
	June	38	279	317			
	July	35	299	334			
	August	34	287	321			
	September	34	287	321			
	October	32	288	320			
	November	30	276	306			
	December	25	275	300			
1975	January	27	274	301			
	February	24	278	302			
	March	23	276	299			
	April	23	260	283			
	May	32	254	286			
	June	38	251	289			
	July	37	249	286			
	August	40	249	289			
	September	40	234	274			
	October	29	241	270			
	November	27	238	265			
	December	26	233	259			
1976	January	20	232	252			
	February	17	232	249			
	March	18	222	240			
	April	17	221	238			
	May	21	226	247			
	June	29	229	258			
	July	30	240	270			
	AVERAGE (7 months)	22	229	251			

Total Seismic Crews



NA=Not available.

Source: Society of Exploration Geophysicists.

— 1974
 - - 1975
 . . . 1976

Motor Gasoline

The national average selling price of regular gasoline at full service retail outlets was 59.6 cents per gallon during July, an increase of 0.6 cent over June's average price. The average price that retailers paid for regular gasoline also rose 0.6 cent in July, to 52.2 cents per gallon, leaving the average dealer margin unchanged at 7.4 cents per gallon.

Crude Oil

The preliminary average "upper tier" crude oil price was \$11.65 per barrel during June, 9 cents more than the preliminary figure for May.

The preliminary "lower tier" crude oil price increased 2 cents to \$5.15 per barrel during June.

The preliminary domestic average crude oil price was \$7.99 per barrel in June, up 11 cents from the May price.

Utility Fossil Fuels

The national average cost of fossil fuels delivered to utilities was relatively stable in March, increasing only 0.2 cent per million Btu over the cost for the previous month. The Mountain and Pacific regions reported the most substantial increases (10.1 cents and 4.8 cents per million Btu, respectively). However, the Middle Atlantic and South Atlantic regions experienced decreases in fuel costs of 5.4 cents and 4.4 cents per million Btu, respectively.

The national average cost of utility coal advanced 1.9 cents in March to 83.3 cents per million Btu. There were no significant regional fluctuations.

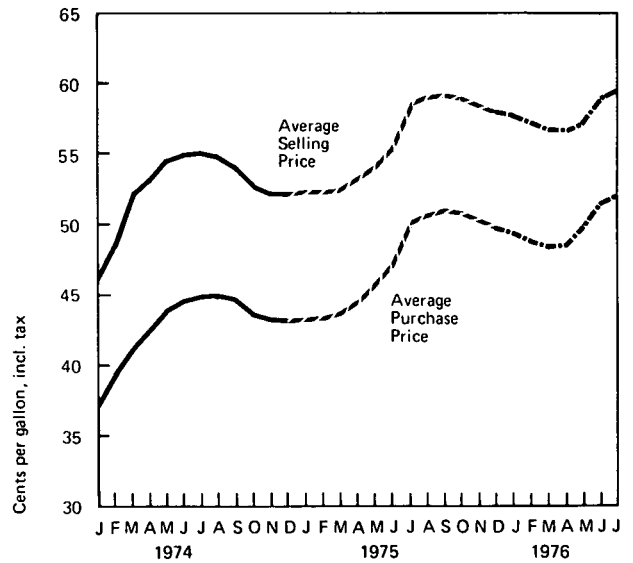
The national average costs of residual fuel oil and natural gas also increased during the month by 2.3 cents and 2.8 cents per million Btu, respectively. On a regional basis, the Middle Atlantic region experienced a substantial decrease in natural gas cost of 89.5 cents per million Btu. This decrease indicates a return to normalcy after a large cost increase during February that was due to small quantities of gas purchased at very high costs.

Motor Gasoline

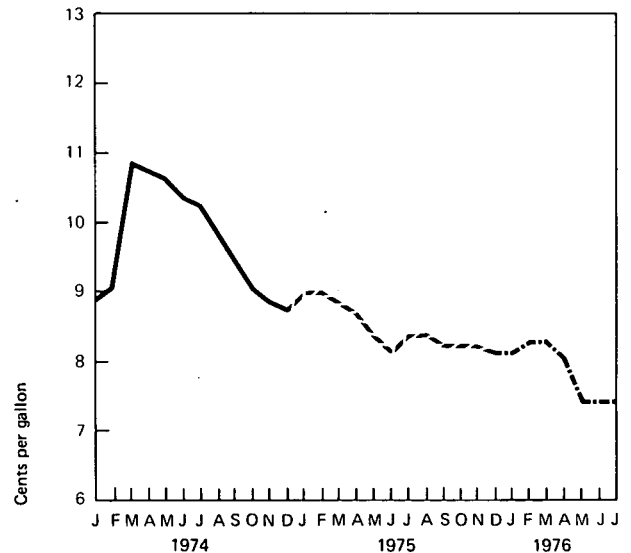
Regular Gasoline at Full Service Retail Outlets

		Average Selling Price	Average Purchase Price	Average Dealer Margin
		Cents per gallon, including tax *		
1974	January	46.3	37.4	8.9
	February	48.8	39.7	9.1
	March	52.3	41.4	10.9
	April	53.4	42.7	10.7
	May	54.7	44.1	10.6
	June	55.1	44.8	10.3
	July	55.2	45.0	10.2
	August	54.9	45.1	9.8
	September	54.2	44.8	9.4
	October	52.4	43.4	9.0
	November	52.0	43.2	8.8
	December	52.0	43.3	8.7
	AVERAGE	52.8	43.1	
1975	January	52.4	43.4	9.0
	February	52.5	43.5	9.0
	March	52.6	43.8	8.8
	April	53.5	44.9	8.6
	May	54.3	46.0	8.3
	June	55.6	47.5	8.1
	July	58.7	50.3	8.4
	August	59.2	50.8	8.4
	September	59.3	51.1	8.2
	October	58.9	50.7	8.2
	November	58.4	50.2	8.2
	December	58.0	49.9	8.1
	AVERAGE	56.2	47.8	
1976	January	57.7	49.6	8.1
	February	57.1	48.8	8.3
	March	56.6	48.3	8.3
	April	56.6	48.6	8.0
	May	57.4	50.0	7.4
	June	59.0	51.6	7.4
	July	59.6	52.2	7.4

Average Retail Prices For Regular



Average Margins For Regular



— 1974
-- 1975
--- 1976

*To derive prices excluding taxes, 12.0 cents per gallon may be deducted for 1973, 12.2 cents per gallon may be deducted for 1974 and 1975, and 12.5 may be deducted for 1976.

Sources: *Platts Oilgram* through September 1973; FEA from October 1973 through December 1974; Lundberg Survey, Inc., from January 1975 forward.

Regular Gasoline at Self Service Retail Outlets

		Average Selling Price	Average Dealer Margin
		Cents per gallon, including tax	
1975	November	55.4	5.5
	December	54.9	5.3
1976	January	54.7	5.4
	February	53.8	5.4
	March	53.2	5.3
	April	53.2	4.9
	May	54.4	4.5
	June	56.3	4.8
	July	56.6	4.6

Source: Lundberg Survey, Inc.

Motor Gasoline (Continued)

Average Selling Prices for Premium and Unleaded Gasoline
at Full Service Retail Outlets

		Premium	Unleaded (Mid-Level)
		Cents per gallon, including tax	
1974	January	50.1	48.8
	February	52.6	50.8
	March	56.0	53.6
	April	57.2	55.1
	May	58.5	57.1
	June	58.5	57.4
	July	59.0	57.2
	August	58.0	56.8
	September	58.2	55.8
	October	56.6	54.1
	November	56.3	53.9
	December	56.3	53.9
1975	January	57.1	NA
	February	57.3	56.2
	March	57.5	56.3
	April	58.2	57.0
	May	59.0	57.9
	June	60.3	58.4
	July	63.1	61.7
	August	63.6	62.2
	September	63.8	62.2
	October	63.4	62.1
	November	63.2	62.1
	December	62.9	61.9
1976	January	62.7	61.3
	February	62.1	60.7
	March	61.6	60.2
	April	61.6	60.5
	May	62.4	61.3
	June	63.9	63.1
	July	64.6	63.5

Sources: FEA for January 1974 through December 1974; Lundberg Survey, Inc., for January 1975 forward.

Average Selling Prices and Margins for Major and Independent Retail Dealers — July 1976

(Cents per gallon, including tax)

Regular Gasoline—Full Service

	Selling Price	Margin
Major	60.3	7.7
Independent	55.9	6.0
National Average	59.6	7.4

Regular Gasoline—Self Service

	Selling Price	Margin
Major	57.2	4.5
Independent	55.0	5.0
National Average	56.6	4.6

Premium Gasoline—Selling Prices

	Full Service	Self Service
Major	65.2	62.8
Independent	60.1	59.3
National Average	64.6	61.8

Unleaded Gasoline—Full Service Selling Prices

	Regular	Mid-Level	Premium
Major	61.7	64.0	68.0
Independent	59.2	59.0	65.4
National Average	61.7	63.5	68.0

Source: Lundberg Survey, Inc.

Average Regional Selling Prices and Dealer Margins for Regular Gasoline at Full Service Retail Outlets — July 1976

Region	Selling Price	Margin
	Cents per gallon, including tax	
1A New England	58.8	9.3
1B Mid Atlantic	60.5	6.4
1C Lower Atlantic	60.3	7.9
2 Mid Continent	59.3	6.7
3 Gulf Coast	57.2	8.6
4 Rocky Mountain	60.9	9.4
5 West Coast	61.2	7.8
National Average	59.6	7.4

Source: Lundberg Survey, Inc.

Motor Gasoline (Continued)

Retail Gasoline Price Changes for 21 Leading Refiners During July 1976
and Entitlement Position* During June 1976

Company	Effective Date of Change	Amount of Change Cents per gallon	Entitlement Position (June)
Amerada Hess		None	Seller
American Petrofina		None	Buyer
Ashland		None	Seller
Atlantic Richfield		None	Buyer
B.P.		None	Seller
Cities Service	July 14	0.50	Buyer
Champlin	July 2	-4.00	Buyer
Continental		None	Buyer
Exxon	July 7	1.00	Buyer
Getty	July 27	1.00	Seller
Gulf	July 8	-1.00	Buyer
Kerr-McGee	July 22	-0.50	Buyer
Mobil	July 30	-1.00	Buyer
Phillips		None	Buyer
Shell	July 17	1.00	Buyer
Standard Oil of California		None	Seller
Standard Oil of Indiana		None	Buyer
Standard Oil of Ohio		None	Seller
Sun		None	Buyer
Texaco	July 21	1.00	Buyer
Union Oil of California	July 7	1.00	Buyer

*See definitions.

Source: FEA.

Jobber Prices for Regular Gasoline Sold by 21 Leading Refiners

		Northeast	Mid-Atlantic	Southeast	Central	Western	Southwest	Pacific	National Average
		Cents per gallon, excluding tax							
1974	January	21.4	21.4	21.1	21.3	22.2	20.1	21.0	21.2
	February	23.7	23.6	22.5	23.9	23.5	22.5	22.6	23.2
	March	25.4	25.2	24.1	25.3	24.5	24.2	25.2	24.8
	April	26.7	26.1	24.8	26.0	25.6	24.7	25.0	25.6
	May	28.5	28.4	26.8	28.2	27.7	26.3	26.3	27.5
	June	29.8	29.4	28.0	29.3	29.3	27.1	27.2	28.6
	July	29.9	29.3	28.0	29.4	28.9	27.8	28.0	28.8
	August	29.7	29.4	28.6	29.6	29.1	28.1	28.6	29.0
	September	29.3	28.9	28.0	28.8	28.7	27.4	27.8	28.4
	October	28.0	27.2	26.6	27.5	27.0	26.2	26.6	27.0
	November	27.8	27.3	26.6	27.5	27.5	26.3	27.3	27.2
	December	27.7	27.6	26.9	27.7	27.9	26.7	27.3	27.4
	AVERAGE								26.7
1975	January	27.8	27.8	27.4	28.2	28.5	27.2	27.8	27.8
	February	28.4	28.2	27.8	28.7	28.3	27.6	27.5	28.1
	March	28.9	28.8	28.4	29.1	29.0	27.8	28.0	28.6
	April	29.6	29.9	29.4	30.4	29.8	29.2	29.8	29.7
	May	30.9	31.0	30.5	31.6	31.2	30.4	31.0	30.9
	June	32.4	32.5	32.0	33.1	32.6	31.6	32.6	32.4
	July	34.4	34.6	33.9	34.9	34.5	33.4	33.7	34.2
	August	35.3	35.1	34.6	35.6	35.2	34.1	34.5	34.9
	September	35.2	35.1	34.5	35.4	35.0	34.1	34.5	34.8
	October	34.3	34.6	34.0	34.9	34.3	33.8	34.2	34.3
	November	34.1	34.3	33.9	34.6	34.3	33.6	34.0	34.1
	December	33.7	34.1	33.6	34.3	33.8	33.3	33.7	33.8
	AVERAGE								32.0
1976	January	33.3	33.9	33.2	34.0	33.2	33.1	33.5	33.5
	February	33.0	33.4	32.6	33.8	32.6	32.9	33.5	33.1
	March	32.4	33.0	31.8	33.4	32.5	32.6	33.2	32.7
	April	33.0	33.5	32.3	33.9	33.2	33.2	33.2	33.2
	May	34.4	34.9	33.6	35.3	34.8	34.8	34.7	34.6
	June	35.7	35.9	34.8	36.5	36.1	35.9	35.5	35.8
	July	36.1	36.3	35.4	36.8	36.3	36.3	36.3	36.2

Source: FEA.

Diesel Fuel

Average Selling Prices and Margins for Diesel Fuel*

(Cents per gallon, including tax)

		Selling Prices		Margins	
		Truck Stops	Service Stations	Truck Stops	Service Stations
1974	January	NA	46.0	NA	6.7
	February	NA	45.9	NA	6.6
	March	NA	46.8	NA	7.2
	April	NA	48.3	NA	7.2
	May	NA	48.4	NA	7.2
	June	NA	49.3	NA	7.7
	July	NA	49.7	NA	7.3
	August	NA	49.9	NA	7.3
	September	NA	49.6	NA	7.4
	October	NA	49.3	NA	7.5
	November	NA	49.3	NA	7.2
	December	NA	49.2	NA	7.5
1975	January	NA	50.6	NA	6.8
	February	49.7	50.2	7.0	7.3
	March	50.1	50.2	7.5	7.4
	April	50.5	50.6	7.4	7.5
	May	50.3	51.0	7.0	7.7
	June	51.4	51.4	7.5	7.9
	July	51.2	52.4	7.3	8.2
	August	52.1	52.6	8.1	8.9
	September	52.1	52.7	7.4	8.7
	October	51.8	53.0	6.2	7.7
	November	52.0	53.0	5.3	6.5
	December	51.7	52.4	5.3	6.7
1976	January	52.0	52.5	5.6	7.2
	February	52.1	52.0	6.0	7.3
	March	51.4	52.4	5.6	7.1
	April	51.1	52.8	5.8	7.8
	May	51.4	59.9	6.9	7.8
	June	52.0	53.3	7.0	7.7
	July	52.1	53.1	6.4	7.1

*See Explanatory Note 13.

Sources: FEA for January 1974 through December 1974; Lundberg Survey, Inc., for January 1975 forward.

Average Selling Prices and Margins for Major and Independent Retail Dealers — July 1976

(Cents per gallon, including tax)

Truck Stops

	Selling Price	Margin
Major	53.5	6.5
Independent	50.3	6.2
National Average	52.1	6.4

Service Stations

	Selling Price	Margin
Major	55.2	7.1
Independent	51.5	7.5
National Average	53.1	7.1

Source: Lundberg Survey, Inc.

Heating Oil

Retail Heating Oil Price Changes for 21 Leading Refiners During July 1976

Company	Effective Date	Amount of Change
		Cents per gallon
Amerada Hess	July 3	0.55
American Petrofina		None
Ashland	July 15	0.20 (Buffalo)
Atlantic Richfield		None
B.P.		None
Cities Service	July 14	0.50
Champlin	July 1	-0.25 Gulf Coast, 0.75 Mid Continent
Continental		NA
Exxon		NA
Getty		NA
Gulf		NA
Kerr-McGee		NA
Mobil		NA
Phillips	July 17	0.50
Shell		NA
Standard Oil of California		NA
Standard Oil of Indiana		None
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California		None

NA=Not available.

Source: FEA.

Residential Heating Oil Prices

		Average Selling Price	Average Purchase Price	Average Dealer Margin
		Cents per gallon		
1974	January	31.1	23.4	7.7
	February	32.8	25.4	7.4
	March	33.8	25.9	7.9
	April	34.0	25.9	8.1
	May	35.1	26.8	8.3
	June	35.3	27.5	7.8
	July	35.2	28.1	7.1
	August	35.8	28.1	7.7
	September	36.3	28.7	7.6
	October	35.6	28.9	6.7
	November	37.9	29.1	8.8
	December	36.9	28.5	8.4
	AVERAGE	34.7	26.9	
1975	January	37.4	29.1	8.3
	February	37.0	28.7	8.3
	March	36.6	28.4	8.2
	April	36.1	29.3	6.8
	May	36.7	30.0	6.7
	June	37.1	30.3	6.8
	July	37.2	30.6	6.6
	August	38.0	31.2	6.8
	September	38.4	31.0	7.4
	October	39.3	31.8	7.5
	November	39.4	32.1	7.3
	December	40.1	32.4	7.7
	AVERAGE	37.7	31.2	
1976	January	40.1	32.4	7.7
	February	40.1	32.4	7.7

Source: FEA.

Residential Heating Oil Prices by Region

		New England	Mid Atlantic	Southeast	East North Central	East South Central	West North Central	West South Central	Mountain	West Coast
Cents per gallon										
1974	January	31.9	31.6	30.8	30.3	29.8	31.3	NA	30.4	30.5
	February	33.8	33.5	32.8	30.9	32.0	32.9	NA	37.2	32.8
	March	31.9	33.7	33.9	34.2	30.6	34.5	NA	NA	NA
	April	34.3	34.8	32.5	33.5	33.7	30.1	NA	34.2	32.6
	May	34.8	35.6	36.2	34.2	34.4	32.6	NA	34.8	37.8
	June	35.9	36.2	35.8	34.9	31.1	33.6	NA	35.9	39.1
	July	35.2	35.5	35.6	34.4	30.2	34.9	NA	36.1	36.3
	August	36.3	36.1	37.8	35.1	33.7	35.2	NA	NA	35.9
	September	37.2	36.5	36.1	35.0	33.6	35.8	NA	32.3	35.1
	October	36.7	35.9	36.9	33.3	34.1	33.8	NA	35.6	36.3
	November	39.0	38.7	37.4	36.4	35.3	35.6	NA	37.3	36.4
	December	38.3	38.7	36.8	34.2	34.7	33.5	NA	35.8	33.9
1975	January	40.2	38.9	36.5	33.2	34.7	34.0	NA	37.5	38.0
	February	39.2	38.4	36.8	33.4	34.7	33.3	NA	36.6	37.7
	March	38.0	37.8	36.4	34.2	33.2	34.3	NA	NA	36.8
	April	37.4	36.8	36.8	33.2	33.7	34.5	NA	38.9	36.8
	May	37.6	36.9	36.4	35.1	34.7	35.4	NA	37.0	37.8
	June	37.7	37.7	36.4	35.8	NA	35.9	NA	37.6	37.6
	July	37.9	36.9	36.9	36.4	34.7	36.8	NA	NA	38.8
	August	38.8	38.2	37.9	36.3	35.7	36.3	NA	41.3	39.3
	September	39.4	38.7	37.6	36.5	35.7	36.8	NA	38.9	40.1
	October	40.3	39.9	38.3	37.4	36.6	37.9	NA	39.0	41.0
	November	41.0	39.6	38.7	37.9	NA	38.1	NA	40.2	41.3
	December	41.0	41.1	39.0	38.5	34.1	38.0	NA	44.8	40.9
1976	January	41.3	40.6	39.9	38.6	NA	39.0	NA	40.2	42.0
	February	41.1	41.6	39.2	38.5	37.2	38.9	NA	NA	40.8

NA=Not available.
Source: FEA.

Heating Oil (Continued)

Average Distributor Purchase Prices for Heating Oil by Region

		New England	Mid Atlantic	Southeast	East North Central	East South Central	West North Central	West South Central	Mountain	West Coast
		Cents per gallon								
1974	January	22.3	23.4	23.3	23.8	23.5	24.0	NA	22.5	23.0
	February	24.9	25.5	25.3	24.8	25.2	26.4	NA	29.7	25.3
	March	24.9	25.0	26.3	25.6	24.0	27.0	NA	NA	NA
	April	25.7	26.0	26.0	27.1	26.3	24.0	NA	26.8	26.0
	May	26.3	27.0	27.5	27.3	27.4	25.8	NA	27.1	26.2
	June	27.5	27.6	27.8	29.0	25.4	27.4	NA	27.3	28.0
	July	28.1	28.2	28.3	27.5	25.2	28.5	NA	28.2	29.1
	August	28.1	28.2	27.9	27.5	29.3	28.8	NA	NA	28.2
	September	29.2	28.9	28.5	27.8	28.2	28.4	NA	29.3	28.8
	October	29.9	29.4	28.8	27.7	28.3	27.4	NA	29.9	29.2
	November	29.8	29.7	28.8	27.8	29.1	27.6	NA	27.9	29.8
	December	29.3	29.4	28.4	27.4	28.8	26.7	NA	29.3	27.0
1975	January	30.3	29.7	28.5	27.2	28.8	27.5	NA	28.5	29.7
	February	29.6	29.3	28.6	27.2	28.8	27.3	NA	29.4	28.5
	March	29.5	29.3	29.1	28.1	26.8	28.1	NA	NA	27.6
	April	29.4	29.5	29.7	28.3	27.8	29.5	NA	29.0	28.5
	May	30.5	30.0	30.0	30.0	28.8	29.4	NA	30.9	28.7
	June	30.4	30.2	30.6	30.5	NA	30.7	NA	31.8	29.0
	July	30.7	30.1	29.9	31.6	28.8	31.4	NA	NA	30.4
	August	31.6	30.8	30.9	31.2	29.8	30.2	NA	31.6	32.8
	September	31.4	30.9	30.7	30.6	29.8	30.6	NA	31.9	31.4
	October	32.0	31.9	31.3	31.5	31.1	31.4	NA	34.4	32.5
	November	32.5	31.7	32.0	32.1	NA	32.0	NA	34.1	32.3
	December	32.9	32.7	31.8	32.0	29.4	31.4	NA	33.9	32.8
1976	January	32.5	32.5	31.9	32.3	NA	32.3	NA	33.6	32.9
	February	32.8	32.9	31.6	31.9	31.3	32.1	NA	NA	31.1

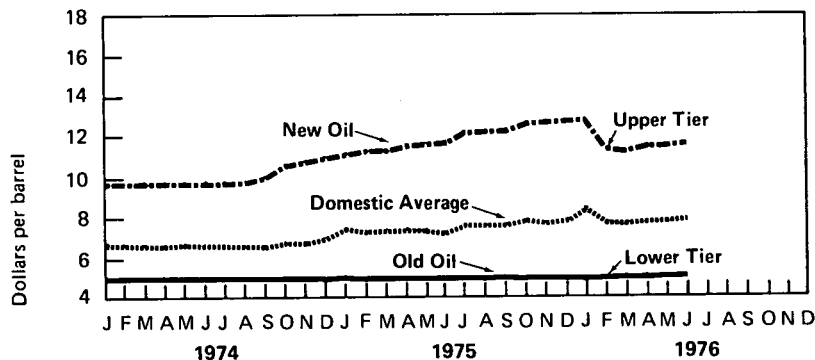
NA=Not available.
Source: FEA.

Crude Oil

Domestic Crude Petroleum Prices at the Wellhead*

		Old	New	Domestic Average
		Dollars per barrel		
1974	January	5.03	9.82	6.95
	February	5.03	9.87	6.87
	March	5.03	9.88	6.77
	April	5.03	9.88	6.77
	May	5.03	9.88	6.87
	June	5.03	9.95	6.85
	July	5.03	9.95	6.80
	August	5.03	9.98	6.71
	September	5.03	10.10	6.70
	October	5.03	10.74	6.97
	November	5.03	10.90	6.97
	December	5.03	11.08	7.09
	AVG.	5.03	10.13	6.87
1975	January	5.05	11.28	7.61
	February	5.03	11.39	7.47
	March	5.03	11.47	7.57
	April	5.03	11.64	7.55
	May	5.03	11.69	7.52
	June	5.03	11.73	7.49
	July	5.03	12.30	7.75
	August	5.03	12.38	7.73
	September	5.04	12.46	7.75
	October	5.03	12.73	7.83
	November	5.03	12.89	7.80
	December	5.03	12.95	7.93
	AVG.	5.03	12.03	7.67
1976	January	5.02	12.99	8.63
		Lower Tier**	Upper Tier**	
	February	R5.06	R11.47	R7.87
	March	R5.07	R11.39	R7.79
	April	R5.07	R11.52	7.86
	May	***5.13	***11.56	***7.88
	June	***5.15	***11.65	***7.99

Crude Oil Wellhead Price



*See Explanatory Note 14. **See definitions. ***Preliminary figure based on early reports. R=Revised data.

Sources: January 1974 through January 1976—FEA Crude Petroleum Production Monthly Report; February 1976 forward—FEA Domestic Crude Oil Purchasers Report.

Percentages of Domestic Production Sold at the Wellhead

		Old Oil	New Oil	Released	Stripper
1975	January *	58	19	10	12
	February *	61	17	9	12
	March	60	18	10	12
	April	61	17	9	12
	May	62	17	8	13
	June	63	16	8	13
	July	62	16	8	14
	August	63	16	7	14
	September *	63	15	7	14
	October	63	16	7	14
	November	64	15	7	14
	December	63	16	7	14
	AVERAGE	62	16	8	13
1976	January	54	21	10	15
		Lower Tier	Upper Tier		
	February	R56	R30	—	R14
	March	57	R29	—	R14
	April *	57	R29	—	R15
	May	57	R29	—	R14
	June **	56	R29	—	R15
	July **	56	30	—	14

*Totals do not add to 100 due to rounding.

**Preliminary.

R=Revised data.

Sources: January 1975 through January 1976—FEA Crude Petroleum Production Monthly Report; February 1976 forward—FEA Domestic Crude Oil Purchasers Report for Lower Tier percentages, FEA estimates Upper Tier and Stripper percentages.

Crude Oil (Continued)

Refiner Acquisition Cost of Crude Petroleum

		Domestic *	Imported**	Composite
		Dollars per barrel		
1974	January	6.72	9.59	7.46
	February	7.08	12.45	8.57
	March	7.05	12.73	8.68
	April	7.21	12.72	9.13
	May	7.26	13.02	9.44
	June	7.20	13.06	9.45
	July	7.19	12.75	9.30
	August	7.20	12.68	9.17
	September	7.18	12.53	9.13
	October	7.26	12.44	9.22
	November	7.46	12.53	9.41
	December	7.39	12.82	9.28
	AVERAGE	7.18	12.52	9.07
1975	January	7.78	12.77	9.48
	February	8.29	13.05	10.09
	March	8.38	13.28	9.91
	April	8.23	13.26	9.83
	May	8.33	13.27	9.79
	June	8.33	14.15	10.33
	July	8.37	14.03	10.57
	August	8.48	14.25	10.81
	September	8.49	14.04	10.79
	October	8.68	14.66	10.85
	November	8.67	15.04	11.05
	December	8.66	14.81	10.98
	AVERAGE	8.39	13.93	10.38
1976	January	9.14	13.27	10.76
	February	8.50	13.21	10.31
	March	8.24	13.27	10.14
	April	***8.45	***13.37	***10.45

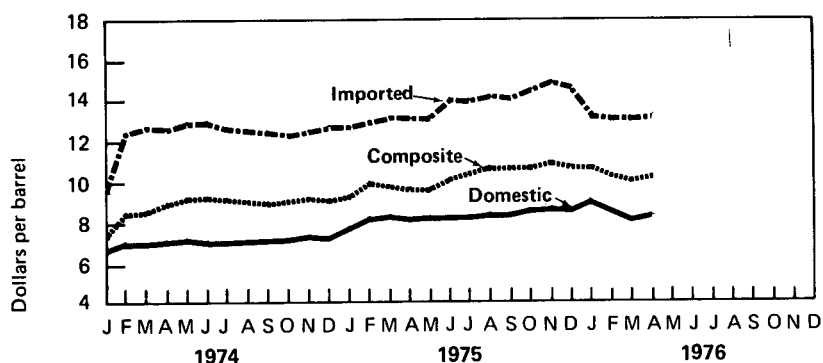
*See Explanatory Note 14.

**See Explanatory Note 15.

***Preliminary data.

Source: FEA.

Crude Oil Refiner Acquisition Cost



Estimated Landed Cost of Imported Crude Petroleum From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
		Dollars per barrel							
1974	January	NA	6.70	NA	8.53	12.13	NA	NA	10.28
	February	NA	10.90	NA	12.11	12.74	NA	NA	11.31
	March	NA	11.14	12.13	13.02	13.26	NA	NA	11.78
	April	13.63	11.02	12.49	12.83	13.67	11.59	NA	11.38
	May	14.67	11.47	12.95	13.84	13.83	11.53	NA	11.28
	June	14.43	12.56	13.21	13.44	13.03	11.32	13.06	10.39
	July	13.65	12.65	13.77	13.02	12.75	11.97	12.34	10.64
	August	13.96	12.49	14.38	12.31	12.70	12.16	12.69	11.20
	September	13.83	12.51	13.42	11.87	12.28	11.45	NA	11.01
	October	13.20	12.53	14.24	12.07	12.12	11.51	12.84	10.95
	November	13.43	12.33	13.45	12.15	12.83	12.15	13.54	11.15
	December	13.08	12.15	14.15	11.63	12.88	11.75	14.59	11.37
1975	January	12.72	12.43	13.30	12.11	12.07	12.07	13.14	11.37
	February	12.11	12.15	13.52	11.86	12.18	11.94	12.67	11.56
	March	12.46	12.79	13.94	12.08	12.56	11.78	13.40	11.66
	April	12.36	12.95	13.71	12.34	12.46	12.16	12.55	11.61
	May	12.41	12.08	13.71	11.93	12.34	12.27	13.29	11.54
	June	12.37	11.90	13.73	12.51	12.49	11.93	12.48	11.51
	July	12.69	12.15	13.98	11.83	12.37	12.08	12.78	11.46
	August	12.68	12.27	13.85	12.17	12.32	12.10	12.60	11.44
	September	12.52	12.63	13.75	11.97	12.42	12.17	12.49	11.42
	October	13.45	13.02	14.00	12.27	13.18	12.64	12.85	12.08
	November	13.28	14.00	13.81	12.47	13.37	12.58	13.23	12.38
	December	13.46	13.96	13.92	13.01	13.57	12.93	13.21	12.31
1976	January	13.56	12.95	13.89	13.01	13.61	13.18	13.50	11.60
	February	13.57	13.24	13.94	12.87	13.52	13.21	13.36	12.09
	March	13.83	13.30	13.94	12.77	13.62	13.18	13.37	11.71
	April	13.73	13.61	13.78	12.91	13.60	13.11	13.18	11.95
	May	13.47	13.62	13.84	12.82	13.62	13.05	13.39	11.61

*See Explanatory Note 15.

Source: FEA.

Crude Oil (Continued)

Unrecouped Costs for Refined Products for 30 Largest Refiners

		Distillate	Motor Gasoline	Aviation Jet Fuel*	Other Products	Total
Millions of dollars						
1974	January	116	91		43	250
	February	184	87		175	446
	March	198	85		237	520
	April	223	215		346	783
	May	261	255		446	963
	June	326	394		630	1,350
	July	355	325		648	1,327
	August	392	349		665	1,405
	September	409	431		650	1,490
	October	295	424		531	1,250
	November	245	475		595	1,315
	December	209	413		492	1,114
1975	January	254	431		672	1,357
	February	300	418		790	1,508
	March	282	452		966	1,700
	April	302	485		807	1,594
	May	292	370		771	1,433
	June	284	266		785	1,334
	July	233	219		624	1,075
	August	280	344		583	1,208
	September	347	335		661	1,342
	October	338	245		673	1,255
	November	426	275		796	1,497
	December	446	211		826	1,483
1976	January	336	242	131	515	1,224
	February**	271	312	124	463	1,170
	March**	272	302	150	469	1,197
	April**	238	353	159	510	1,260

*Prior to January 1976 refiners were not required to maintain separate banks for aviation jet fuel.

**Preliminary.

Source: FEA.

Entitlement Prices*

		Dollars
1974	November	5.00
	December	5.00
1975	January	6.00
	February	6.75
	March	7.31
	April	7.29
	May	7.39
	June	7.82
	July	8.13
	August	8.31
	September	8.31
	October	8.62
	November	8.94
	December	8.55
1976	January	8.09
	February	7.85
	March	7.89
	April	7.85
	May	7.82
	June	7.91

*See definitions

Source: FEA.

Natural Gas

Natural Gas Prices Reported by Major Interstate Pipeline Companies

		PURCHASES			SALES		
		From Domestic Producers	From Canadian and Mexican Sources	Total Purchases	To Industrial Users*	To Resellers**	Total Sales
Cents per thousand cubic feet							
1974	January	24.3	42.7	25.7	48.1	55.0	55.1
	February	25.4	43.2	26.8	49.8	56.4	56.4
	March	25.7	43.2	27.0	50.8	56.9	56.9
	April	25.8	46.4	27.4	49.3	57.6	57.4
	May	25.7	49.3	27.5	49.9	58.6	57.9
	June	26.0	47.7	27.5	50.8	59.4	58.5
	July	26.3	58.7	28.6	52.5	62.0	61.1
	August	26.1	57.5	28.4	55.2	64.4	63.5
	September	27.3	58.8	29.5	54.7	65.2	64.3
	October	27.5	58.9	29.9	56.3	64.4	64.0
	November	28.5	70.9	31.7	58.7	66.8	66.6
	December	32.6	74.5	35.8	60.3	67.2	67.4
1975	January	29.8	104.0	35.2	67.6	71.1	71.4
	February	29.5	105.8	35.2	70.1	74.1	74.4
	March	31.6	102.5	37.0	70.4	77.8	77.9
	April	32.9	102.8	38.3	71.1	82.3	81.9
	May	34.7	100.6	39.8	71.1	83.7	82.8
	June	35.3	98.3	40.2	72.2	85.2	84.0
	July	36.9	101.1	41.8	73.9	84.7	83.6
	August	35.5	141.0	43.3	73.4	85.6	84.3
	September	36.5	141.2	44.5	72.8	85.9	84.6
	October	36.1	140.1	44.3	77.2	86.1	85.6
	November	36.5	162.5	46.7	77.8	86.9	86.6
	December	35.9	161.8	46.0	81.1	79.6	80.1
1976	January	38.6	164.0	48.6	87.5	88.7	89.2
	February	39.5	165.3	49.5	87.7	92.3	92.7
	March	39.5	164.5	49.7	86.4	89.8	90.2
	April	40.6	164.3	51.2	88.6	100.2	99.7

*Represents direct sales by pipelines to industrial users. Does not include sales to industrial users by resellers.

**Includes the cost of gas to the distributing utility at entrance of distribution system or point of receipt.

Source: Federal Power Commission.

Average Retail Prices for Natural Gas Sold to Residential Customers for Heating Use

		Price
		Cents per thousand cubic feet
1974	January	113.3
	February	115.2
	March	116.9
	April	118.2
	May	119.9
	June	120.3
	July	122.0
	August	124.2
	September	125.6
	October	127.4
	November	131.4
	December	134.2
1975	January	137.9
	February	141.3
	March	142.7
	April	147.1
	May	150.1
	June	152.1
	July	151.1
	August	151.8
	September	155.7
	October	156.3
	November	162.3
	December	166.2
1976	January	167.4
	February	171.1
	March	172.9
	April	174.2
	May	176.6
	June	R178.9
	July	180.2

R=Revised data.

Source: Bureau of Labor Statistics.

Utility Fossil Fuels

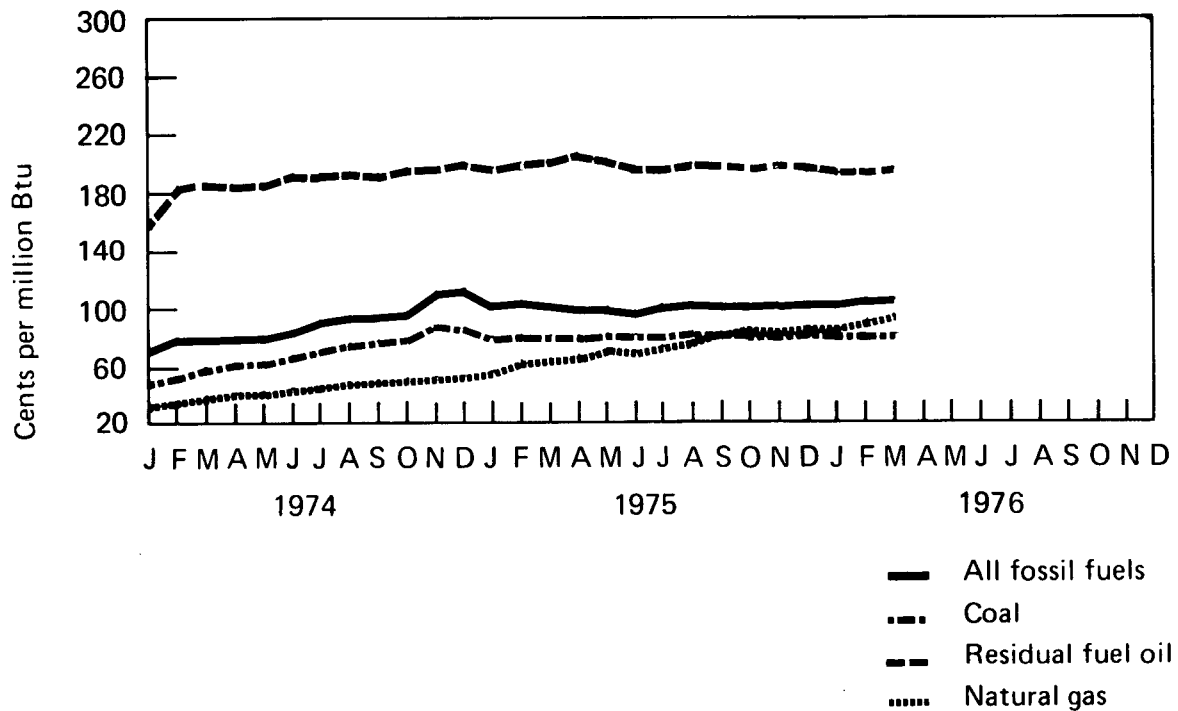
COST OF FOSSIL FUELS DELIVERED TO STEAM ELECTRIC UTILITY PLANTS

All Fossil Fuels*

Region	1975												1976
	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
New England	192.2	196.3	190.5	192.7	189.5	188.0	182.9	182.3	181.2	177.6	181.3	184.6	182.3
Middle Atlantic	141.3	138.3	138.5	140.4	154.5	144.5	132.7	133.7	140.8	140.8	143.6	142.2	136.8
East North Central	86.9	86.6	87.4	87.5	89.2	90.1	88.2	87.0	89.5	92.6	89.9	90.0	88.3
West North Central	85.5	64.5	60.3	62.8	63.0	62.7	63.9	62.6	62.5	65.7	72.7	67.4	67.5
South Atlantic	120.4	120.4	120.1	122.5	126.8	125.2	124.4	118.4	117.0	121.3	122.0	122.7	118.3
East South Central	83.0	83.0	84.8	85.3	86.2	84.5	85.2	83.8	84.5	85.5	88.5	88.0	87.4
West South Central	68.9	70.0	72.9	71.2	76.0	77.5	79.1	79.6	77.0	82.8	88.0	88.2	91.7
Mountain	54.5	51.7	52.1	50.9	51.8	50.4	55.0	50.1	52.3	55.6	50.4	48.3	58.4
Pacific	196.3	209.7	187.3	154.5	147.1	171.3	174.5	177.2	206.6	222.7	214.0	206.5	211.3
NATIONAL AVG.	104.2	101.5	101.0	99.3	102.5	103.8	103.7	101.2	102.4	106.9	107.3	107.6	107.8

*See Explanatory Note 16.

National Average



Coal

Cents per million Btu

Region	1975										1976		
	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
New England	126.9	135.4	125.7	116.5	119.2	127.3	120.4	128.7	127.6	120.8	124.2	122.7	119.4
Middle Atlantic	99.7	98.2	101.7	101.6	105.5	103.8	98.6	101.8	106.1	104.0	102.8	103.4	101.7
East North Central	79.3	80.4	82.0	82.4	82.3	84.3	83.4	82.1	83.8	85.7	83.1	83.1	82.7
West North Central	59.4	60.9	57.7	58.9	60.8	60.7	61.3	61.2	60.6	58.2	59.2	60.2	62.3
South Atlantic	97.4	100.8	98.8	98.4	101.6	101.4	102.4	98.6	98.5	100.1	98.3	99.2	99.7
East South Central	80.1	80.1	81.5	80.5	79.5	79.1	80.8	80.7	82.3	81.9	83.9	83.5	82.6
West South Central	21.0	21.0	21.0	21.0	24.0	24.0	24.0	24.0	24.0	24.0	26.4	26.4	26.4
Mountain	32.0	30.3	31.1	31.0	33.1	32.2	32.8	31.7	33.5	36.1	34.1	33.0	42.4
Pacific	57.2	56.8	57.0	58.4	58.2	58.8	58.9	58.4	59.5	58.9	72.7	76.0	74.5
NATIONAL AVG.	80.6	80.5	81.8	81.4	80.8	82.1	82.1	81.5	81.7	82.2	80.2	81.4	83.3

Residual Fuel Oil*

Cents per million Btu

Region	1975										1976		
	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
New England	204.3	202.9	200.1	201.7	196.3	192.6	187.9	184.1	184.8	181.0	182.5	185.4	183.5
Middle Atlantic	204.4	203.3	200.1	201.5	200.4	199.3	191.2	192.2	191.5	191.6	191.3	179.9	191.8
East North Central	163.4	183.1	157.0	168.3	185.2	191.7	205.9	189.7	211.4	192.4	197.0	193.4	200.9
West North Central	171.5	167.8	163.9	165.5	161.1	157.5	150.3	153.5	161.6	157.1	173.1	162.2	153.4
South Atlantic	186.8	188.9	187.7	189.3	185.4	183.8	181.5	180.7	179.8	173.0	174.6	177.5	178.6
East South Central	163.4	159.7	161.0	165.5	167.8	175.0	174.4	175.5	180.4	171.4	172.8	173.7	174.3
West South Central	175.8	191.5	177.7	182.0	186.2	185.2	174.4	168.4	189.2	187.9	195.3	190.7	183.0
Mountain	190.3	206.0	198.0	199.0	209.1	221.3	223.7	210.3	195.8	202.3	206.8	203.5	205.0
Pacific	241.1	261.1	260.6	245.6	253.8	258.1	257.9	255.5	261.9	259.7	246.6	240.7	240.3
NATIONAL AVG.	204.8	209.3	205.6	200.0	198.9	200.8	200.5	197.0	200.5	198.1	194.1	195.4	197.7

Natural Gas**

Cents per million Btu

Region	1975										1976		
	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
New England	97.1	112.4	110.8	121.7	122.1	154.1	137.7	135.6	133.8	157.7	166.1	166.1	151.6
Middle Atlantic	82.4	101.7	98.3	92.7	91.2	87.6	87.6	90.5	103.1	105.0	107.8	195.8	106.3
East North Central	93.0	105.5	120.8	111.6	103.4	104.6	114.0	120.2	128.3	136.8	126.8	124.4	125.0
West North Central	51.5	54.5	58.6	58.1	59.2	56.9	57.8	55.4	55.8	55.9	56.1	61.6	61.5
South Atlantic	72.6	70.2	71.2	72.2	68.9	69.7	76.4	79.6	78.5	80.8	75.1	82.0	75.5
East South Central	82.2	82.7	76.4	77.0	91.0	95.9	110.3	105.5	120.2	146.6	156.6	157.4	147.5
West South Central	64.5	67.0	71.3	69.2	72.7	75.7	77.9	79.7	77.6	80.3	83.5	87.3	90.8
Mountain	63.7	67.4	68.1	69.6	71.8	71.1	78.6	82.0	86.2	90.4	86.2	85.5	87.4
Pacific	80.5	90.1	82.4	84.1	89.7	111.1	115.2	122.4	136.9	151.1	141.2	151.6	149.5
NATIONAL AVG.	66.4	68.9	72.6	71.3	74.8	79.1	83.8	85.5	83.5	86.1	86.5	92.1	94.9

NA=Not available.

*See Explanatory Note 16.

**Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.

Source: Federal Power Commission.

Utility Fossil Fuels (Continued)

U.S. Average Delivered Prices of Coal at Utilities

		Contract	Spot
		In dollars per short ton	
1974	January	9.83	17.02
	February	10.40	20.57
	March	10.63	22.54
	April	11.28	23.70
	May	11.80	24.21
	June	11.87	25.84
	July	12.05	27.99
	August	12.50	28.87
	September	12.89	30.64
	October	13.30	30.67
	November	14.16	31.95
	December	14.20	31.05
1975	January	14.57	28.12
	February	15.71	25.93
	March	15.68	25.02
	April	15.88	24.52
	May	16.45	23.78
	June	16.40	23.36
	July	16.06	22.35
	August	16.65	22.39
	September	16.76	22.46
	October	16.72	22.52
	November	16.79	22.50
	December	16.90	22.40
1976	January	16.53	21.75
	February	17.04	21.23
	March	17.65	21.36

Source: Federal Power Commission.

Crude Oil Production

Daily world crude oil production increased by an estimated 1.2 million barrels during June to 56.9 million barrels per day. Almost all of the increase came from members of the Organization of Petroleum Exporting Countries (OPEC). Countries showing the largest production gains were Iran (500,000 barrels per day), Iraq (200,000 barrels per day), and Saudi Arabia (70,000 barrels per day). The amount of production capacity shut in by OPEC members during June was 21.4 percent. This was approximately one-third less than the amount shut in during June 1975.

Petroleum Consumption

Petroleum Consumption for Major Free World Industrialized Countries

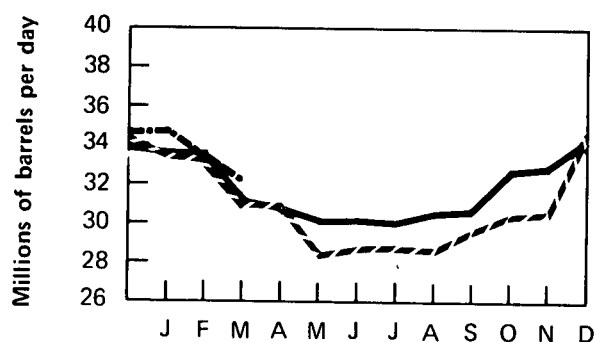
		Total IEA*	Japan**	West Germany	France***	United Kingdom	Canada	Italy†	Other IEA††
Thousands of barrels per day									
1974	Jan	33,700	4,273	2,556	2,523	2,045	1,823	1,755	3,978
	Feb	33,700	4,708	1,969	2,389	2,127	1,863	1,760	3,902
	Mar	31,200	4,508	2,173	2,249	2,133	1,658	1,579	3,504
	Apr	30,600	3,804	2,539	1,970	1,899	1,560	1,421	3,458
	May	30,000	3,718	2,403	1,915	1,704	1,572	1,349	3,534
	June	30,100	3,710	2,414	2,103	1,545	1,455	1,314	3,486
	July	30,000	3,573	2,548	1,703	1,531	1,534	1,368	3,445
	Aug	30,600	3,787	2,476	1,506	1,513	1,463	1,287	3,528
	Sept	30,700	3,868	2,473	1,996	1,663	1,414	1,527	3,761
	Oct	32,800	3,843	2,613	2,045	2,049	1,680	1,569	4,021
	Nov	33,000	4,075	2,432	2,260	2,108	1,713	1,580	3,877
	Dec	34,300	4,401	2,261	2,492	1,983	1,831	1,753	4,074
	AVG.	31,775	4,019	2,408	2,094	1,857	1,630	1,521	3,711
1975	Jan	33,600	3,850	2,183	2,190	1,981	1,691	1,792	3,942
	Feb	33,600	4,242	2,455	2,243	1,906	1,870	1,767	4,000
	Mar	31,000	3,978	2,234	1,952	1,731	1,558	1,558	3,455
	Apr	30,800	3,448	2,431	2,202	1,826	1,592	1,530	3,762
	May	28,200	3,296	2,253	1,640	1,482	1,474	1,174	2,827
	June	28,800	3,325	2,106	1,642	1,414	1,550	1,289	3,438
	July	28,900	3,437	2,319	1,491	1,322	1,536	1,234	3,182
	Aug	28,700	3,397	2,360	1,300	1,208	1,445	1,105	3,381
	Sept	29,800	3,568	2,309	1,785	1,502	1,475	1,465	3,537
	Oct	30,500	3,584	2,328	1,914	1,704	1,544	1,679	3,680
	Nov	30,600	3,940	2,361	2,074	1,723	1,543	1,448	3,594
	Dec	34,600	4,519	2,502	2,653	1,821	1,855	1,600	4,343
	AVG.	30,745	3,712	2,319	1,921	1,613	1,593	1,468	3,592
1976	Jan	34,700	4,143	2,459	2,449	1,707	1,748	1,748	4,351
	Feb	33,400	4,382	2,490	2,484	1,896	1,730	1,713	3,949
	Mar	32,300	4,283	2,742	2,370	1,915	1,788	1,621	2,982
	Apr	NA	3,849	NA	2,109	NA	1,512	1,409	NA
	May	NA	3,630	2,314	1,768	NA	1,532	1,238	NA
	June	NA	NA	NA	NA	NA	NA	1,380	NA
	AVG.	33,468	4,054	2,502	2,234	1,838	1,663	1,518	3,757
	(Year to date)								

Note: All recent figures are estimates.

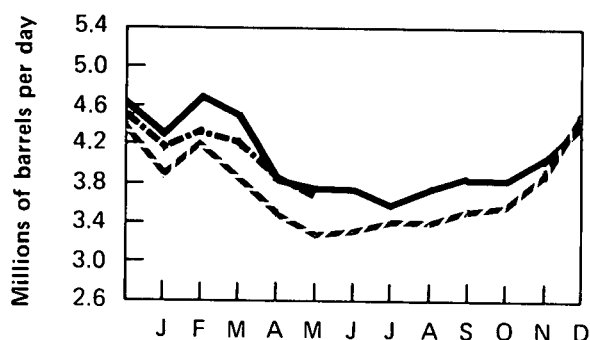
*The 19 signatory nations of the International Energy Agency (IEA) are: Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Except for the United States, inland consumption excludes bunkers, refinery fuel, and losses.

Excludes liquefied petroleum gases and condensates. *Not a member of IEA. †Principal products only. ††Excludes the United States. NA=Not available. R=Revised data. Source: Central Intelligence Agency.

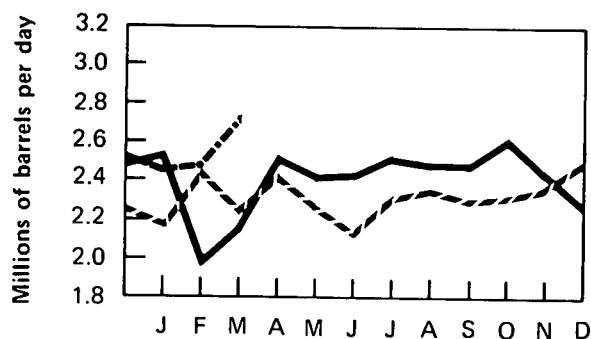
Total IEA



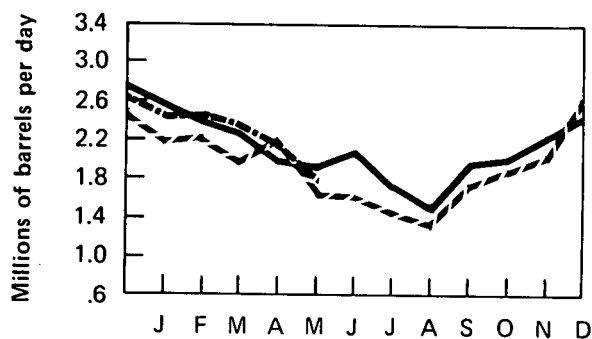
Japan*



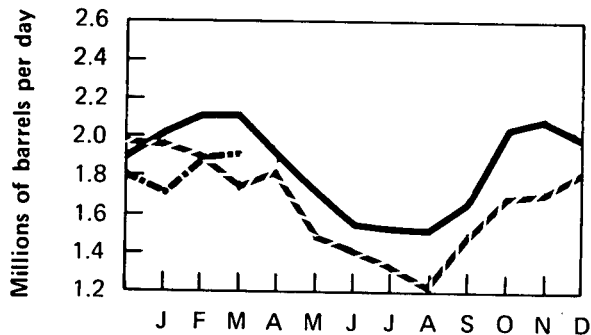
West Germany



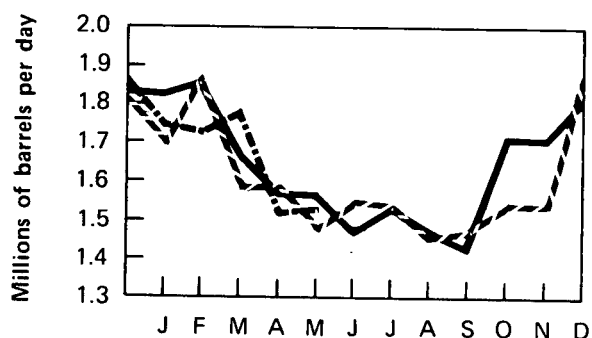
France**



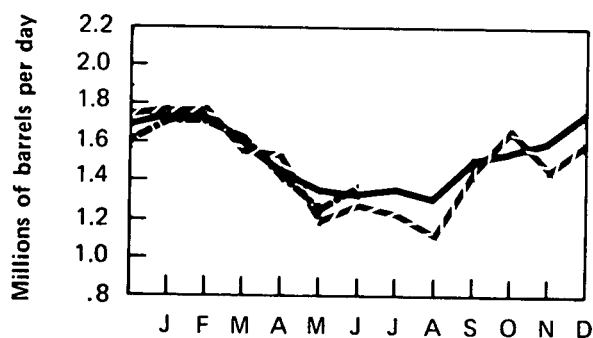
United Kingdom



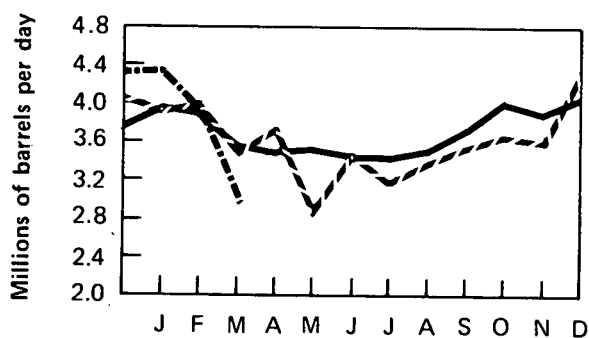
Canada



Italy***



Other IEA†



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

†Excludes the United States.

— 1974
- - - 1975
... 1976

Crude Oil Production

Crude Oil Production for Major Petroleum Exporting Countries — June 1976

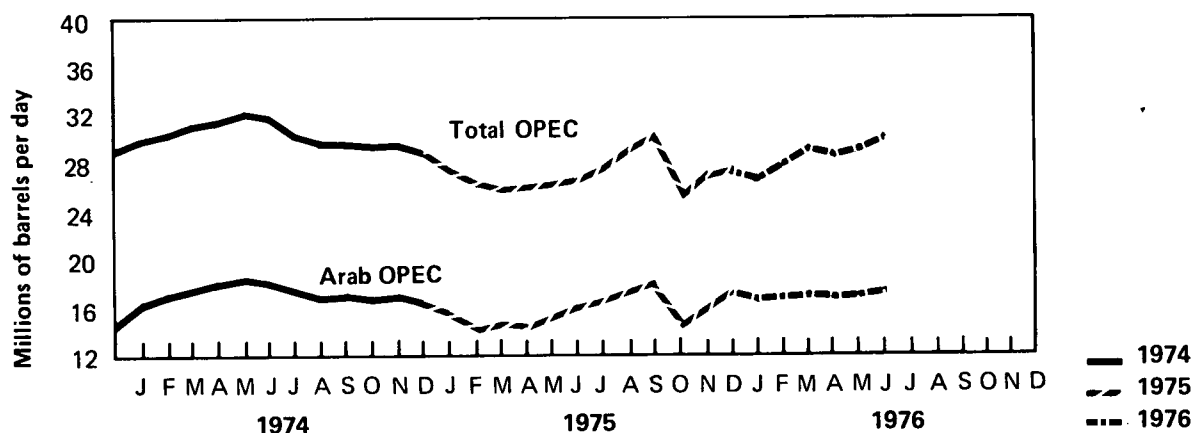
Country	Production				Production Capacity	Production Shut in
	1973	1974	1975	1976 June	June	June
	Thousands of barrels per day					Percent
Algeria	1,070	960	930	1,000	1,000	0
Iraq	2,015	1,975	2,250	2,000	3,000	33.3
Kuwait*	3,020	2,545	2,100	1,860	3,500	46.9
Libya	2,175	1,520	1,520	2,010	2,500	19.6
Qatar	570	520	440	490	700	30.0
Saudi Arabia*	7,600	8,480	7,080	8,520	11,500	25.9
United Arab Emirates	1,530	1,680	1,700	1,940	2,380	18.5
Subtotal: Arab OPEC	17,980	17,680	16,020	17,820	24,580	27.5
Ecuador	210	175	160	110	200	**45.0
Gabon	150	200	220	220	250	12.0
Indonesia	1,340	1,375	1,310	1,480	1,700	12.9
Iran	5,860	6,020	5,350	6,100	6,500	6.2
Nigeria	2,055	2,255	1,790	2,100	2,500	16.0
Venezuela	3,365	2,975	2,350	2,370	2,700	12.2
Subtotal: Non-Arab OPEC	12,980	13,000	11,180	12,380	13,850	10.6
Total: OPEC	30,960	30,680	27,200	30,200	38,430	21.4
Canada	1,800	1,695	1,460	1,455	1,800	19.2
Mexico	465	580	720	800	830	3.6
Total: OPEC, Canada Mexico	33,225	32,955	29,390	32,455	41,060	21.0
Total World	55,740	55,885	53,170	56,890		

* Includes about one-half of Neutral Zone production which amounted to approximately 400,000 barrels per day in June.

** Production drop caused by pipeline failure.

Sources: Central Intelligence Agency and National Energy Board of Canada.

OPEC Countries Crude Oil Production



Definitions

Base Production Control Level

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold from a particular property in the same month of 1972. If domestic crude oil was not produced and sold from that property in every month of 1972, the total number of barrels of domestic crude oil produced and sold from that property in 1972, divided by 12.

2. Effective February 1, 1976: the total number of barrels of old crude oil produced and sold from the property during calendar year 1975, divided by 365, and multiplied by the number of days in the particular month during 1975. A producer may elect to use the total number of barrels of crude oil produced and sold from the property during calendar year 1972, divided by 366, and multiplied by the number of days in the particular month during 1972.

Branded Independent Marketer

A firm which is engaged in the marketing or distribution of refined petroleum products pursuant to (1) an agreement or contract with a refiner (or a firm which controls, is controlled by, or is under common control with such refiner) to use a trademark, trade name, service mark, or other identifying symbol or name owned by such refiner (or any such firm), or (2) an agreement or contract under which any such firm engaged in the marketing or distribution of refined petroleum products is granted authority to occupy premises owned, leased, or in any way controlled by a refiner (or firm which controls, is controlled by, or is under common control with such refiner), but which is not affiliated with, controlled by, or under common control with any refiner (other than by means of a supply contract, or an agreement or contract described in parts (1) or (2) of this definition), and which does not control such refiner.

Ceiling Price

The maximum permissible selling price, prior to February 1, 1976, for a particular grade of domestic crude oil in a particular field is the May 15, 1973, posted price plus \$1.35 per barrel.

Controlled Crude Oil

Crude oil that was domestically produced prior to February 1, 1976, subject to the ceiling price for crude oil. For a particular property which is not a stripper well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

Crude Oil Domestic Production

The volume of crude oil flowing out of the ground. Domestic production is measured at the wellhead and includes lease condensate, which is a natural gas liquid recovered from lease separators or field facilities.

Crude Oil Imports

The monthly volume of crude oil imported which is reported by receiving refineries, including crude oil entering the U.S. through pipelines from Canada.

Crude Oil Input to Refineries

Total crude oil used as input for the refining process, less crude oil lost or used for refinery fuel.

Crude Oil Stocks

Stocks held at refineries and at pipeline terminals.

Cumulative Deficiency

A measure of the cumulative deficit of production below the base production control level after the first month in which new oil was produced and sold from a specific property.

Dealer Tankwagon (DTW) Price

The price at which a dealer purchases gasoline from a distributor or a jobber.

Distillate Fuel Oil

The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on- and off-highway diesel engines, and railroad diesel fuel. Minor quantities of distillate fuel oils produced and/or held as stocks at natural gas processing plants are not included in this series.

Domestic Demand for Refined Petroleum Products

A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies.

Electricity Production

Production at electric utilities only. Does not include industrial electricity generation.

Entitlement Position

The monthly entitlement position of a refiner indicates whether he bought or sold entitlements in that month.

An entitlement is the right to process "deemed old oil," which is the sum of a refiner's receipts of "old" oil and a fraction of his receipts of "upper tier" crude oil. This fraction is set monthly by FEA. A refiner must purchase entitlements for the amount of his "deemed old oil" receipts in excess of the national domestic crude oil supply ratio (NDCOSR). The NDCOSR, as calculated by FEA, reflects the differences in costs to refiners of "old" oil, "upper tier" crude oil, and imported crude oil.

Entitlement Price

The price of an entitlement, fixed by FEA, is the exact differential as reported for the month between the weighted average cost per barrel to refiners of "old" oil and of imported crude oil, less 21 cents, such cost to be equivalent to the delivered cost to the refinery.

Firm Natural Gas Service

High priority gas service in which the pipeline company is under contract to deliver a specified volume of gas to the customer on a non-interruptible basis. Residential and small commercial facilities usually fall into this category.

Interruptible Natural Gas Service

Low priority gas service in which the pipeline company has the contractual option to temporarily terminate deliveries to customers by reason of claim of firm service customers or higher priority users. Large commercial facilities, industrial users, and electric utilities usually fall into this category.

Jet Fuel

Includes both naphtha-type and kerosene-type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes, such as for generating electricity in gas turbines.

Jobber

A petroleum distributor who purchases refined product from a refiner or terminal operator for the purpose of reselling to retail outlets and commercial accounts or for the purpose of retailing through his own retail outlets.

Jobber Margin

The difference between the price at which a jobber purchases refined product from a refiner or terminal operator and the price at which the jobber sells to retail outlets. This does not reflect margins obtained by jobbers through retail sales or commercial accounts.

Jobber Price

The price at which a petroleum jobber purchases refined product from a refiner or terminal operator.

Landed Cost

The cost of imported crude oil equal to actual cost of crude at point of origin plus transportation cost to the United States.

Limited Work Authorization

A Limited Work Authorization (LWA) may be granted by the Atomic Safety and Licensing Board of the Nuclear Regulatory Commission to an applicant who wants to construct a nuclear powerplant providing that the project has been cleared for all requirements of the National Environmental Protection Act and that the geologic and topographic suitability of the reactor site has been found satisfactory. The LWA allows an applicant to proceed with site excavation, install temporary construction and service facilities, construct service roads, and erect structures and components not subject to normal quality assurance inspections. It may save a utility from 6 to 8 months in total construction time. However, because the ultimate approval of a construction permit is based on all evidence revealed during the licensing hearings, the successful award of an LWA is no guarantee that a construction permit will also be granted.

Line Miles of Seismic Exploration

The distance along the earth's surface that is covered by seismic traverses.

Lower Tier Crude Oil

Old crude oil.

Lower Tier Ceiling Price Determination

The lower tier ceiling price for a particular grade of domestic crude oil in a particular field is the sum of (1) the highest posted price at 6 a.m., local time, May 15, 1973, for transactions in that grade of crude oil in that field; or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; and (2) \$1.35 per barrel.

Major Brand

Lundberg Survey, Inc., defines major brand as an integrated company that produces, refines, transports, and markets in Interstate Commerce under its own brand(s) in 20 or more States.

Motor Gasoline Production

Total production of motor gasoline by refineries, measured at refinery outlet. Relatively small quantities of motor gasoline are produced at natural gas processing plants, but these quantities are not included.

Motor Gasoline Stocks

Primary motor gasoline stocks held by gasoline producers. Stocks at natural gas processing plants are not included.

Natural Gas Liquids (NGL)

Products obtained from natural gasoline plants, cycling plants, and fractionators after processing the natural gas. Included are ethane, liquefied petroleum (LP) gases (propane, butane, and propane-butane mixtures), natural gasoline, plant condensate, and minor quantities of finished products such as gasoline, special naphthas, jet fuel, kerosene, and distillate fuel oil.

New Crude Oil

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the base production control for that month and less the current cumulative deficiency.
2. Effective February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the property's base production control level for that month and less the current cumulative deficiency since February 1, 1976.

Nonbranded Independent Marketer

A firm which is engaged in the marketing or distribution of refined petroleum products, but which (1) is not a refiner, (2) is not a firm which controls, is controlled by, is under common control with, or is affiliated with a refiner (other than by means of a supply contract), and (3) is not a branded independent marketer.

Old Crude Oil

1. Prior to February 1, 1976: the total number of barrels of crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month and less the total number of barrels of released crude oil for that property in that month.
2. Effective February 1, 1976: the total number of barrels of crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month.

Power Ascension Nuclear Powerplant

A nuclear powerplant that has been licensed by the Nuclear Regulatory Commission to operate, but which is in the initial testing phase during which production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer, and

places it in "commercial operation" status. A request is then submitted to the appropriate utility rate commission to include the powerplant in the rate base calculation.

Primary Stocks of Refined Petroleum Products

Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

Property

Property means the right to produce domestic crude oil, which arises from a lease or from a fee interest.

Refined Petroleum Products Imports

Imports (into the 50 States and the District of Columbia) of motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, liquefied petroleum gases, petrochemical feedstocks, special naphtha, lubricants, waxes, asphalt, natural gas, plant condensate, and unfinished oils. Included are imports of fuels into bonded storage and receipts from U.S. territories.

Refiner Acquisition Cost

The cost to the refiner, including transportation and fees, of crude petroleum. The composite cost is the average of domestic and imported crude costs and represents the amount of crude cost which refiners may pass on to their customers.

Released Crude Oil

An amount of crude oil produced from a property in a particular month prior to February 1, 1976, which is equal to the total number of barrels of new crude oil produced and sold from that property in that month. The amount of released crude oil for a property in a particular month shall not exceed the base production control level for that property in that month.

Residual Fuel Oil

The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grades Nos. 5 and 6 oil, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

Rotary Rig

Machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Separative Work Unit (SWU)

The measure of work required to produce enriched uranium from natural uranium. Enrichment plants separate natural uranium feed material into two groups, an enriched product group with a higher percentage of U-235 than the feed material and a depleted tails group with a lower percentage of U-235 than the feed material. To produce 1 kilogram of enriched uranium containing 2.8 percent U-235, and a depleted tails assay containing 0.3 percent U-235, it requires 6 kilograms of natural uranium feed and 3 kilograms of separative work units (3 SWU).

Stripper Well Lease

A property whose average daily production of crude oil (excluding condensate recovered in nonassociated production) per well did not exceed 10 barrels per day during any preceding calendar year beginning after December 31, 1972.

Synthetic Natural Gas (SNG)

A product resulting from the manufacture, conversion, or reforming of petroleum hydrocarbons which may be easily substituted for or interchanged with pipeline quality natural gas.

Uncontrolled Crude Oil

That portion of domestic crude oil production including new, released, and stripper oil which, before February 1, 1976, could be sold at a price exceeding the ceiling price.

Unrecouped Costs

Costs which have not been recovered in the current month's product prices but which have been "banked" for later use.

Upper Tier Crude Oil

New crude oil and crude oil produced from a stripper well lease.

Upper Tier Ceiling Price Determination

The upper tier ceiling price for a particular grade of domestic crude oil in a particular field is (1) the highest posted price on September 30, 1975, for transactions in that grade of crude oil in that field in September 1975, or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; less (2) \$1.32 per barrel.

Well

Hole drilled for the purpose of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic tests, or service wells. This is a standard definition of the American Petroleum Institute.

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas (wet), and coal (anthracite, bituminous, and lignite), as well as electricity output from hydroelectric and nuclear powerplants and industrial hydroelectric power production. The volumetric data were converted to approximate heat contents (Btu-values) of the various energy sources using conversion factors listed in the Units of Measure.

2. U.S. imports of fossil fuels include imports of crude oil, refined petroleum products, and natural gas (dry).

3. Domestic consumption of energy includes domestic demand for refined petroleum products, consumption of coal (anthracite, bituminous, and lignite) and natural gas (dry), electricity output from hydroelectric and nuclear powerplants, industrial hydroelectric power production, and net imports of electric power. Approximate heat contents (Btu-values) were derived using conversion factors listed in the Units of Measure. Electricity imports were converted using the Btu-content of hydroelectric power. 1975 and 1976 electricity imports were estimated on the basis of imports levels during 1974.

4. Domestic demand figures for natural gas liquids (NGL) as reported by BOM and reproduced in this publication do not include amounts utilized by refineries for blending purposes in the production of finished products, principally gasoline. Use of NGL at refineries is reported in a separate column. The production series cited in this publication shows both NGL produced at processing plants and liquefied gases produced at refineries. NGL produced at refineries is extracted from crude oil and hence, to avoid double counting, should not be included in calculations of total U.S. production of petroleum liquids. The NGL stock series shown in this volume includes liquids held as stocks at both natural gas processing plants and at refineries.

5. The petroleum short-term demand forecasting model uses historical consumption data to construct a regression equation for each of eight major petroleum products. Each equation attempts to capture the relationship between final demand for that product and the relevant factors influencing that demand. The explanatory factors used in predicting product demand include (1) macroeconomic variables such as disposable personal income and gross national product (GNP), (2) real product prices, (3) variables representing the effects of weather and other seasonal variations in demand, and (4) other factors relevant to a particular product.

The assumptions underlying the current short-time forecast are as follows:

1. Normal weather;
2. Real GNP growth rate of 6.5 percent for 1976;
3. Implementation of the Energy Policy and Conservation Act. Specifically, the composite price of domestic crude oil is set at \$7.66 per barrel beginning February 1976. This price ceiling is permitted to rise with the level of inflation plus a 3 percent production incentive allowance, the total not exceed 10 percent per year;
4. Elimination of the \$2-per-barrel crude oil import fee beginning January 1976; and
5. OPEC maintains a constant real crude oil price from January 1976 through the end of the forecast interval.

The short-term projections are periodically revised to incorporate observed weather conditions and actual values for macroeconomic and other explanatory variables as they become available. This "revised forecast" is termed the "backcast." On page 55 in this issue of the *Monthly Energy Review*, the backcast is solved for December 1975.

The supply model includes an assumed level of domestic crude oil and NGL production and inventory changes. Imports are determined as the incremental supply required to meet total demand for refined products that cannot be satisfied by domestic production or inventory drawdown.

6. Domestic consumption of natural gas includes the quantities sold to consumers plus the gas used for plant and pipeline fuel, after the natural gas liquids have been extracted. All monthly consumption data are estimated.

Marketed production of natural gas includes gross withdrawals from the ground less the quantities used for repressuring and the amount vented and flared, before the natural gas liquids have been extracted.

7. The Federal Energy Administration and Federal Power Commission began the coordinated collection and compilation of monthly underground storage information from all underground storage operators in the United States in October 1975. Initial storage information reported was for the month of September 1975. Comparable monthly information for total U.S. storage operations is not available for prior periods.

The total gas in storage is the total volume of gas (base gas plus working gas) in storage reservoirs as of the end of the month. Base gas is the volume of gas, including all

native gas in place at the time of conversion to storage, needed as a permanent inventory to maintain adequate reservoir pressures and deliverability rates throughout the withdrawal season. Base gas includes the volumes which will not be recoverable upon termination of storage operations. Working gas is the volume of gas above the designated base gas level available for withdrawal.

8. Bituminous coal and lignite consumption as reported by the Bureau of Mines are derived from information provided by the Federal Power Commission, Department of Commerce, and reports from selected manufacturing industries and retailers. Domestic consumption data in this series, therefore, approximate actual consumption. This is in contrast to domestic demand reported for petroleum products, which is a calculated value representing total disappearance from primary supplies.

Bituminous coal and lignite production is calculated from the number of railroad cars loaded at mines, based on the assumption that approximately 60 percent of the coal produced is transported by rail. Production data are estimated by the Bureau of Mines from Association of American Railroads reports of carloadings.

9. Cooling degree-days can be used as a measurement of energy consumption by air-conditioning systems. 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. Mean daily temperature information is forwarded to the National Oceanic and Atmospheric Administration from approximately 200 weather stations around the country. These data are used to calculate statewide cooling degree-day averages based on the population of the area surrounding each weather station. The population-weighted State figures are aggregated into Petroleum Administration for Defense Districts and the national average, also using a population weighting scheme.

10. Quantities of uranium are measured by various units at different stages in the fuel cycle. At the mill, quantities are usually expressed as pounds or short tons of U_3O_8 . After the conversion stage, the units of measure are either metric tons (MT) of UF_6 or metric tons of uranium (MTU). The latter designation expresses only the elemental uranium content of UF_6 .

Following the enrichment stage, the same units are used, but the U-235 content has been enhanced at the expense of loss of material. At the fabrication stage, UF_6 is changed to UO_2 , and the standard unit of measure is the MTU. We have chosen to present all uranium quantities

as MTU; conversion factors to other units are given in the section on Units of Measure.

11. The units used to describe power generation at nuclear plants are all based on the watt, which is a unit of power. (Power is energy produced per unit of time.) As with fossil-fueled plants, nuclear plants have three design power ratings. The thermal rating (expressed in thermal megawatts) is the rate of heat production by the reactor core. The gross electrical rating (expressed in electrical megawatts, MWe) is the generator capacity at the stated thermal rating of the plant. The net electrical rating (also expressed in MWe) is the power available as input to the electrical grid after subtracting the power needed to operate the plant. (A typical nuclear plant needs 5 percent of its generated electricity for its own operation.)

The electrical energy produced by a plant is expressed either as megawatt hours (MWhe) or kilowatt hours (KWhe). Tables in the nuclear section show generated electricity as average electrical power. This enables a more direct comparison to design capacity and to previous months' performances. To obtain the quantity of electricity generated during a given time period (in megawatt hours), multiply the average power level (in megawatts) by the number of hours during that period.

The energy extracted from uranium fuel is expressed as thermal megawatt days per metric ton of uranium (MWD/MTU). The production of plutonium in the fuel rods is expressed as kilograms of plutonium per metric ton of discharged uranium (kg/MTU).

12. The Residential and Commercial Sector consists of housing units, non-manufacturing business establishments (e.g., wholesale and retail businesses), health and educational institutions, and government office buildings. The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments.

The Transportation Sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. The Electric Utilities Sector is made up of privately- and publicly-owned establishments which generate electricity primarily for resale.

13. Prior to January 1975, diesel fuel prices were obtained from retail gasoline dealers that also sold diesel fuel. Beginning in January 1975, the diesel fuel survey was expanded to include selected truck stops plus additional retail gasoline dealers that sold diesel fuel. Selling price estimates are based on a survey of 31 cities. Margins are based on a survey of 10 cities.

14. The domestic crude petroleum wellhead price represents the first sale price for crude oil and lease conden-

sates. The refiner acquisition cost of domestic crude petroleum is the price paid by refiners for domestic crude petroleum, unfinished oils, and natural gas liquids and includes transportation costs from the wellhead to the refinery.

15. The refiner acquisition cost of imported crude petroleum is the average landed cost of imported crude petroleum to the refiner and represents the amount which may be passed on to the consumer. It incorporates transportation costs and fees (including the supplemental import fees) and any other cost incurred in purchasing and shipping crude oil to the United States.

The estimated landed cost of imported crude petroleum 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 petroleum from countries which 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.

16. The weighted average utility fuel cost for the total United States includes distillate fuel oil delivered to utilities whereas the regional breakdown for residual fuel oil prices represents only No. 6 fuel oil prices.

Units of Measure

Weight

1 metric ton	<i>contains</i>	1.102 short tons
1 long ton	<i>contains</i>	1.120 short tons

Conversion Factors for Crude Oil

Average gravity

1 barrel	<i>contains</i>	42 gallons
1 barrel	<i>weighs</i>	0.136 metric tons (0.150 short tons)
1 metric ton	<i>contains</i>	7.33 barrels
1 short ton	<i>contains</i>	6.65 barrels

Conversion Factors for Uranium

1 short ton (U_3O_8)	<i>contains</i>	0.769 metric tons of uranium
1 short ton (UF_6)	<i>contains</i>	0.613 metric tons of uranium
1 metric ton (UF_6)	<i>contains</i>	0.676 metric tons of uranium

Approximate Heat Content of Various Fuels

Petroleum

Crude Oil	5.800 million Btu/barrel
Refined products	
Imports, average	6.000 million Btu/barrel
Consumption, average	5.5061 million Btu/barrel
Gasoline	5.248 million Btu/barrel
Jet Fuel, average	5.600 million Btu/barrel
Naphtha-type	5.355 million Btu/barrel
Kerosene-type	5.670 million Btu/barrel
Distillate fuel oil	5.825 million Btu/barrel
Residual fuel oil	6.287 million Btu/barrel

Natural gas liquids 4.024 million Btu/barrel

Natural gas

Wet	1,097 Btu/cubic foot
Dry	1,024 Btu/cubic foot

Coal

Bituminous and lignite	
Production	23.73 million Btu/short ton
Consumption	23.07 million Btu/short ton
Anthracite	25.40 million Btu/short ton

Electricity Conversion Heat Rates

Fossil fuel steam-electric

Coal	10,176 Btu/kilowatt hour
Gas	10,733 Btu/kilowatt hour
Oil	10,826 Btu/kilowatt hour

Nuclear steam-electric 10,660 Btu/kilowatt hour

Hydroelectric 10,389 Btu/kilowatt hour

Electricity Consumption 3,412 Btu/kilowatt hour

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