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Feature articles appearing in previous issues:

Energy Consumption—March 1975

Nuclear Power—April 1975

The Price of Crude Oil—June 1975

U.S. Coal Resources and Reserves—July 1975

Propane, A National Energy Resource—
September 1975

Short-Term Energy Supply and Demand Forecasting at FEA—October 1975

Curtailments of Natural Gas Service—January 1976

Home Heating Conservation Alternatives and the Solar Collector Industry—March 1976

Trends in United States Petroleum Imports—
September 1976

Crude Oil Entitlements Program—January 1977

Motor Gasoline Supply and Demand—July 1977

Short-Term Petroleum Supply and Demand—
May 1978

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Overview

In April, for the first month this year, energy production in the United States exceeded that for the corresponding month in 1977. Production totaled 5.13 quadrillion Btu (or 29.3 million barrels per day of crude oil equivalent*), 2.8 percent above the output level a year ago. Most of the increase is attributable to an 11.5-percent gain in crude oil output due mainly to the flow of Alaskan North Slope oil. Hydroelectric generation was up an estimated 28.7 percent compared with the April 1977 level. Production of the other primary energy sources declined in April: coal production was 1.2 percent lower than in April 1977, natural gas production was down 2.1 percent, and nuclear power generation declined 12.0 percent. For the first 4 months of 1978, total energy production in the United States was 6.2 percent lower than during the January-April period of 1977 with the following comparisons noted: crude oil, +6.8 percent; coal, -33.9 percent; natural gas, -2.2 percent; hydroelectric, +29.2 percent; and nuclear, +6.7 percent.

Continuing the downtrend that began a year ago, imports of fossil fuels into the United States in April 1978 amounted to 1.4 quadrillion Btu (or 8.0 million barrels per day of crude oil equivalent**), 11.9 percent below the April 1977 level. Crude oil imports were 21.0 percent below the April 1977 level. Imports of refined petroleum products and natural gas, on the other hand, were 16.5 percent and 1.2 percent higher, respectively, than a year ago. During the January-April 1978 period, crude oil accounted for 67.6 percent of the total fossil fuels imported; refined petroleum products, 26.5 percent; and natural gas, 5.9 percent.

The revised domestic energy consumption total for the first quarter of 1978 was 21.2 quadrillion Btu, 3.1 percent higher than consumption during the first quarter of 1977. Except for a 7.8-percent decline in coal consumption ascribed to the strike, energy use in first quarter 1978 showed the following increases compared with first quarter 1977: refined petroleum products, +1.9 percent; natural gas,

+8.0 percent; hydroelectric, +28.3 percent; and nuclear, +12.6 percent.

Production, demand, and stocks of motor gasoline are of major importance as the summer traveling season approaches. In the first 4 months of 1978, production dropped 2.0 percent from last year's level, while total demand for motor gasoline was up 2.1 percent. Unleaded gasoline demand increased at a much greater rate of 34.7 percent. Stocks of motor gasoline, which were unusually high in January, declined to 251 million barrels at the end of April, 3.1 percent lower than stocks on hand in April 1977. The end of the month inventory was equivalent to 34 days' supply at April 1978 consumption rates, about 1 day less than a year ago. Imports of motor gasoline for the January-April 1978 period, which amounted to less than 3 percent of demand, were down 21.6 percent from the amount imported during the same period of 1977.

Production of electricity by utilities totaled 161.4 billion kilowatt hours in April 1978, 2.9 percent above the April 1977 level.

The preliminary average first purchaser price for domestic crude oil in March 1978 was \$8.76 per barrel, 31 cents higher than the price in March 1977. The preliminary composite refiner acquisition cost of imported and domestic crude oil (which includes transportation costs to refineries) was \$12.23 per barrel in March 1978, up 35 cents from the previous year's figure.

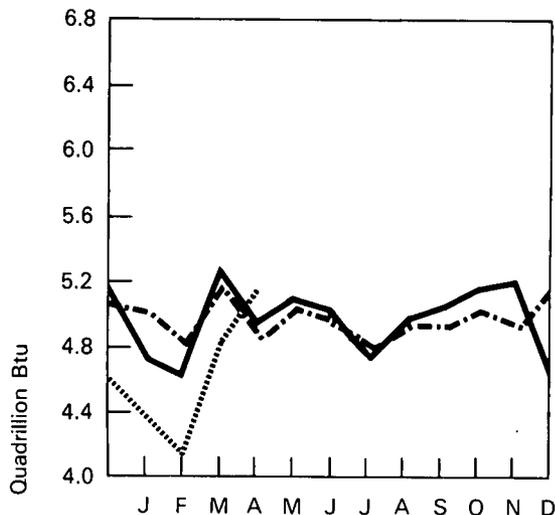
World crude oil production in March 1978 was estimated at 58.3 million barrels per day, raising the 1978 production average to 57.7 million barrels per day, which is 2.4 percent lower than the average for January-March 1977.

*One barrel of crude oil contains approximately 5.8 million Btu.

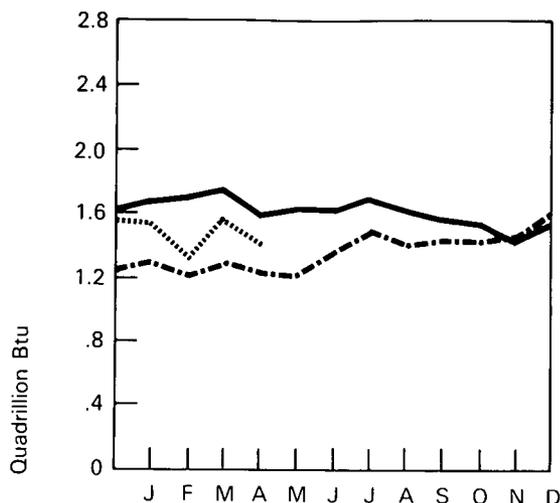
**Excludes crude oil imported for the Strategic Petroleum Reserve.

	Domestic Production of Energy*	Imports of Fossil Fuels**	Domestic Consumption of Energy***
	Quadrillion Btu		
1972 TOTAL	62.937	11.563	71.610
1973 TOTAL	62.373	14.519	74.551
1974 TOTAL	61.154	14.114	72.617
1975 TOTAL	59.946	13.935	70.564
1976			
January	5.071	1.306	7.183
February	4.853	1.223	6.262
March	5.207	1.301	6.256
April	4.934	1.246	5.732
May	5.042	1.231	5.661
June	5.036	1.389	5.692
July	4.796	1.505	5.884
August	4.951	1.417	5.827
September	4.946	1.467	5.606
October	5.025	1.453	6.113
November	4.949	1.498	6.599
December	5.170	1.619	7.515
TOTAL	59.982	16.655	74.330
1977			
January	4.780	1.700	R7.671
February	4.637	1.718	R6.488
March	5.312	1.786	R6.385
April	4.995	1.604	R5.804
May	5.142	1.638	R5.811
June	5.059	1.632	5.907
July	4.824	1.714	R6.012
August	5.025	1.638	R6.109
September	5.181	1.583	5.897
October	5.243	R1.560	6.092
November	R5.238	R1.498	R6.311
December	†4.640	R†1.563	R†7.262
TOTAL	R60.078	R19.633	R75.750
1978			
January	R†4.418	R†1.542	R†7.523
February	†4.114	R†1.321	R†6.863
March	R†4.832	R†1.555	R†6.794
April	††5.134	†1.413	NA
TOTAL (Year to date)	18.499	5.830	R21.181

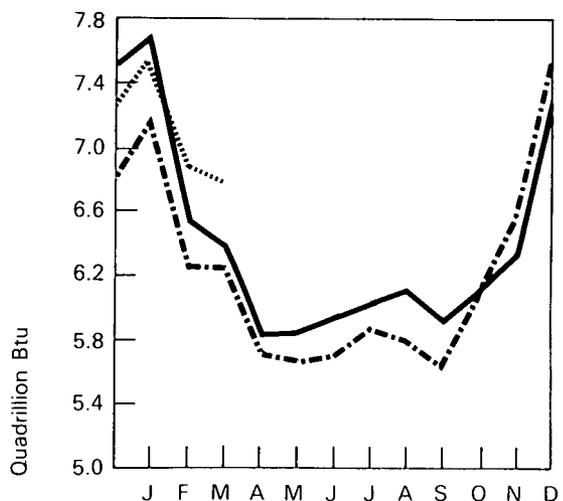
Domestic Production of Energy



Imports of Fossil Fuels



Domestic Consumption of Energy



*See Explanatory Note 1.
 **See Explanatory Note 2.
 ***See Explanatory Note 3.
 †Preliminary data.
 ††Partially estimated.
 R=Revised data.
 NA = Not available.

Source: Energy Information Administration (EIA) calculations based on data appearing elsewhere in this publication.

--- 1976 — 1977 1978

Part 2 Crude Oil and Refined Petroleum Products

Crude Oil and Refined Petroleum Products

Domestic crude oil production averaged 9.0 million barrels per day during April 1978,* 11.5 percent above the April 1977 level. Crude production during the first 4 months of 1978 averaged 8.5 million barrels per day, 6.8 percent higher than the average for the same months of 1977.

Total petroleum imports averaged 7.6 million barrels per day in April 1978,** 12.8 percent below the rate for April 1977. Imports averaged 7.9 million barrels per day during the first 4 months of 1978, 13.9 percent below the level for the same period in 1977.

Total domestic demand for petroleum products averaged 18.2 million barrels per day in April, 3.5 percent higher than demand in April 1977. The major components of April 1978 domestic demand were: motor gasoline (40.5 percent), distillate fuel oil (17.3 percent), and residual fuel oil (17.0 percent). Total domestic demand averaged 19.5 million barrels per day in the January through April 1978 period, 2.2 percent above demand during the similar period in 1977.

Motor gasoline demand in April was 7.4 million barrels per day, 0.3 percent above last April's rate. The January through April 1978 average was 7.0 million barrels per day, 2.1 percent higher than the average for the first 4 months of 1977. Motor gasoline stocks measured 250.9 million barrels at the end of April 1978, 3.1 percent below the level a year earlier.

Distillate fuel oil demand in April 1978 was 3.1 million barrels per day, 6.9 percent above April 1977 demand. Distillate fuel oil demand averaged 4.1 million barrels per day in the first 4 months of 1978, 2.1 percent higher than the rate during the first 4 months of 1977.

Residual fuel oil demand averaged 3.1 million barrels per day in April 1978, 8.3 percent higher than the April 1977 demand level. The

January through April 1978 residual fuel oil demand average was 3.4 million barrels per day, 3.0 percent above the average for January through April 1977.

Strategic Petroleum Reserve

Eighteen crude oil shipments totaling 3.3 million barrels were delivered in April 1978 for the Strategic Petroleum Reserve (SPR), increasing the SPR storage volume at the end of the month to 21.5 million barrels. The average cost of the April deliveries was \$14.95 per barrel (including transportation fees).

*April 1978 estimates are based upon preliminary data from the American Petroleum Institute and will be revised to conform with data from the EIA Petroleum Reporting System as available.

**Excludes crude petroleum imported for the Strategic Petroleum Reserve.

Crude Oil

		Crude Input to Refineries	Domestic Production ¹	Crude Oil Imports ^{1,2}	Strategic Petroleum Reserve (SPR) Imports	Crude Oil Stocks ^{1,3}	Strategic Petroleum Reserve (SPR) Stocks
		Thousands of barrels per day				Thousands of barrels	
1972	AVERAGE	11,696	9,441	2,216		*246,395	
1973	AVERAGE	12,431	9,208	3,244		*242,478	
1974	AVERAGE	12,133	8,774	3,477		*265,020	
1975	AVERAGE	12,442	8,375	4,105		*271,354	
1976	January	12,560	8,232	4,594		289,296	
	February	12,834	8,231	4,208		277,414	
	March	12,877	8,232	4,738		283,112	
	April	12,727	8,077	4,790		286,628	
	May	12,920	8,125	4,669		283,982	
	June	13,799	8,094	5,628		281,715	
	July	13,901	8,127	5,792		282,599	
	August	13,888	8,111	5,556		277,272	
	September	13,716	8,150	5,875		284,357	
	October	13,319	8,063	5,689		297,683	
	November	14,101	8,080	5,946		298,836	
	December	14,333	8,061	5,925		285,471	
	AVERAGE	13,416	8,132	5,287			
1977	January	14,140	7,790	6,288		294,037	
	February	14,740	8,067	6,652		291,387	
	March	14,270	8,022	6,633		299,464	
	April	14,185	8,079	6,785		318,588	
	May	14,605	8,009	6,821		328,559	
	June	14,867	8,039	6,997		333,635	
	July	14,884	8,040	7,021		335,193	
	August	14,645	8,244	6,416		338,300	
	September	14,930	8,416	6,429		334,180	
	October	14,658	8,508	R6,270	93	R340,517	2,646
	November	R14,636	R8,513	R6,230	73	R345,098	5,084
	December	14,741	8,606	R6,045	79	R331,085	7,826
	AVERAGE	R14,607	R8,195	R6,547	21		
1978	January	14,213	8,193	R5,971	114	R331,061	11,106
	February	13,974	R8,241	R5,532	109	R326,699	14,276
	March	R14,154	R8,678	R5,769	132	R337,928	17,078
	April	13,872	9,012	5,360	NA	345,333	NA
	AVERAGE (Year to date)	14,057	8,534	5,664	119		

¹See Definitions.

²Excludes SPR imports.

³Excludes SPR stocks.

⁴Total as of December 31.

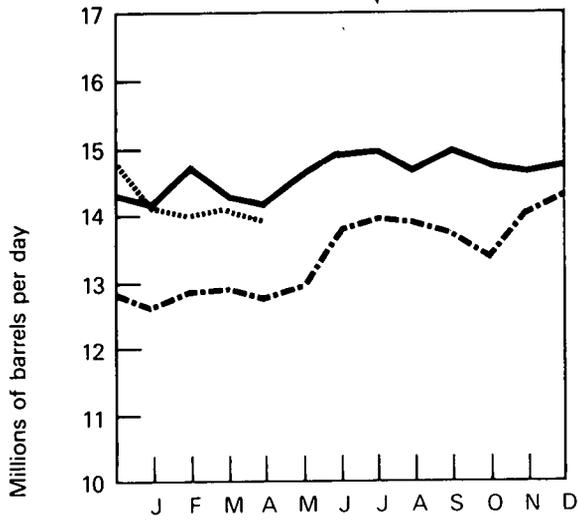
R=Revised data.

NA = Not available.

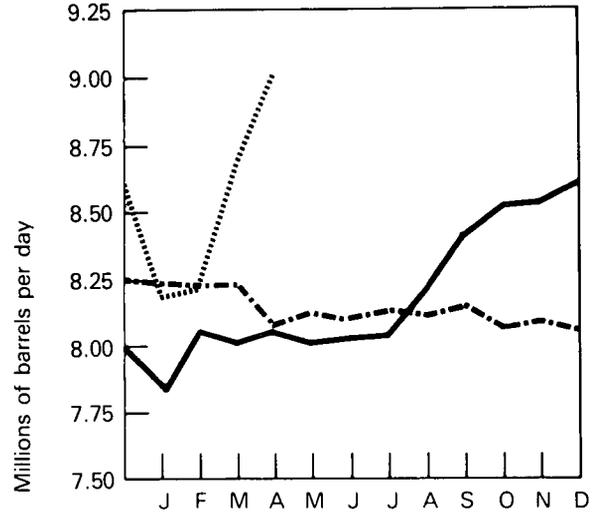
Sources: Data other than Strategic Petroleum Reserve—1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: EIA "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin." Strategic Petroleum Reserve data—EIA Petroleum Reporting System.

Crude Oil

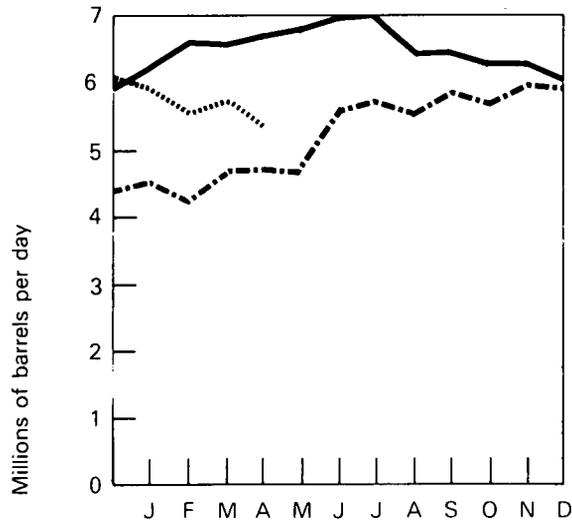
Crude Input to Refineries



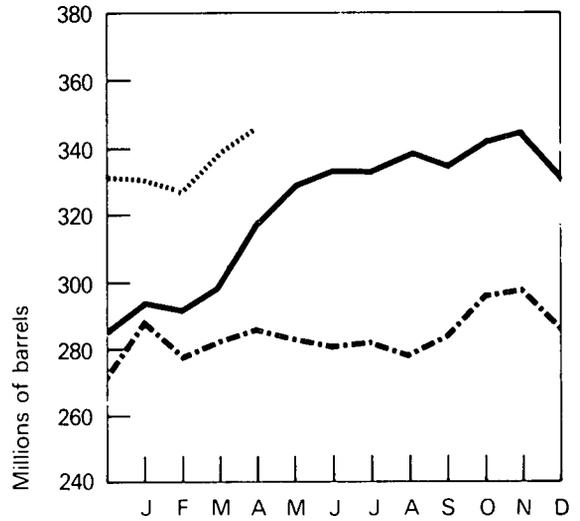
Domestic Production



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Total Refined Petroleum Products

		Domestic Demand	Imports*
		Thousands of barrels per day	
1972	AVERAGE	16,367	2,525
1973	AVERAGE	17,308	3,012
1974	AVERAGE	16,653	2,635
1975	AVERAGE	16,322	1,951
1976	January	18,647	2,119
	February	17,509	2,504
	March	17,302	1,949
	April	16,672	1,806
	May	15,977	1,654
	June	16,825	1,847
	July	16,607	2,092
	August	16,642	1,827
	September	16,837	2,050
	October	17,090	1,847
	November	18,847	2,115
	December	20,560	2,522
	AVERAGE	17,461	2,026
1977	January	20,481	2,594
	February	20,427	3,278
	March	18,056	2,610
	April	17,570	1,886
	May	16,960	1,753
	June	18,048	1,872
	July	17,549	2,021
	August	18,009	2,175
	September	17,733	2,136
	October	17,831	1,862
	November	R18,440	R1,814
	December	20,049	2,064
	AVERAGE	R18,418	R2,166
1978	January	19,605	2,039
	February	R20,778	R2,047
	March	R19,680	R2,285
	April	18,180	2,197
	AVERAGE (4 months)	19,542	2,144

Total Petroleum Imports (Crude Oil and Refined Products)

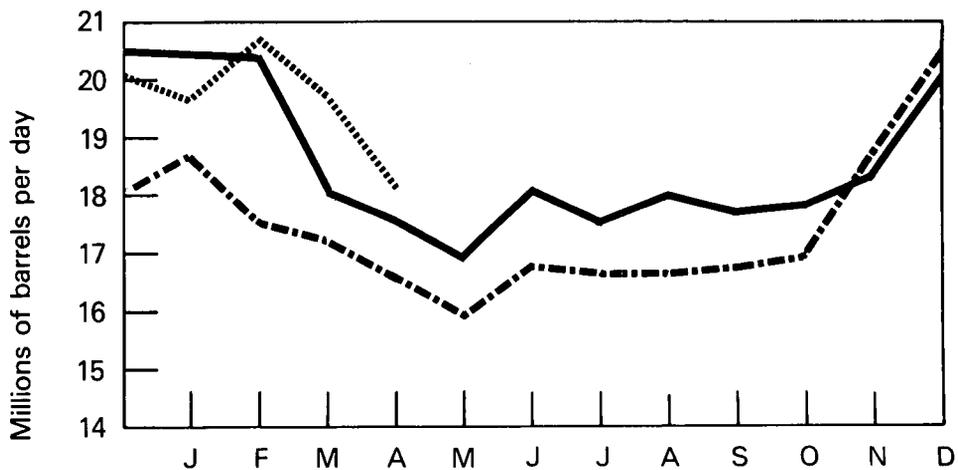
Total Imports (Excluding SPR)	SPR Imports	Total Imports (Including SPR)
Thousands of barrels per day		
4,741		
6,256		
6,112		
6,056		
6,714		
6,712		
6,687		
6,595		
6,323		
7,474		
7,884		
7,382		
7,924		
7,536		
8,060		
8,447		
7,313		
8,882		
9,930		
9,243		
8,671		
8,574		
8,869		
9,042		
8,591		
8,565		
R8,132	93	8,225
R8,044	73	8,117
R8,109	79	8,188
R8,713	21	8,734
R8,010	114	8,124
R7,579	109	7,688
R8,054	132	8,186
7,557	108	7,665
7,808	116	7,924

*See Definitions.

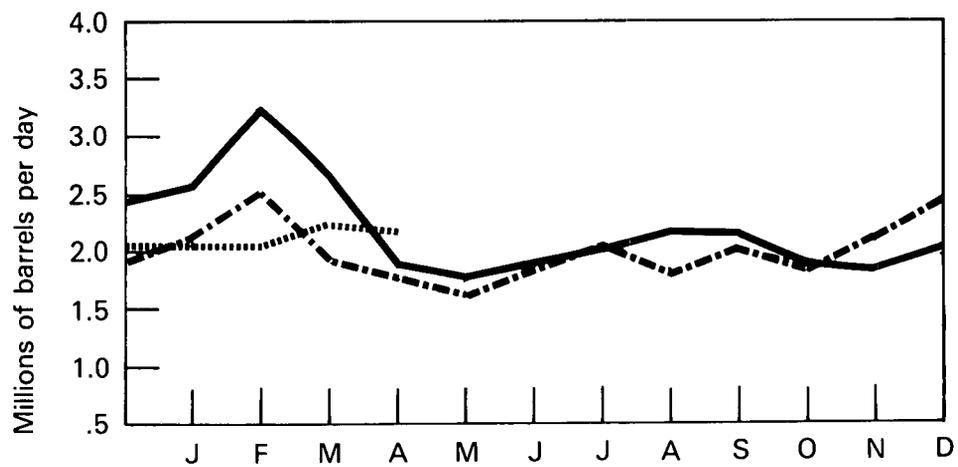
R=Revised data.

Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: EIA "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

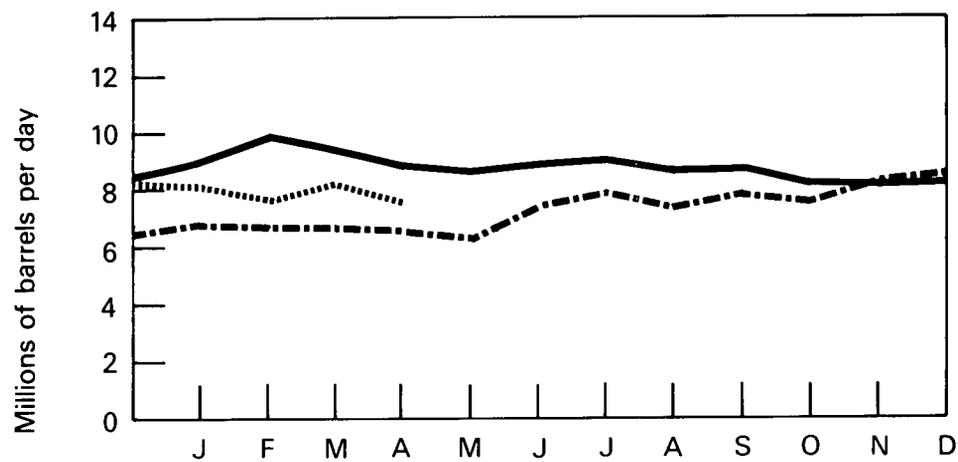
Total Refined Product Domestic Demand



Refined Product Imports



Total Petroleum Imports



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Direct and Indirect* U.S. Petroleum Imports from OPEC Countries

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC**	Total OPEC	Arab Members of OPEC
Thousands of barrels per day											
1973											
Direct	134.2	212.7	222.7	164.3	458.9	487.3	70.6	1,124.7	106.5	2,981.9	914.4
Indirect	17.0	25.0	211.0	144.0	149.0	253.0	13.0	509.0	88.0	1,409.0	463.0
TOTAL	151.2	237.7	433.7	308.3	607.9	740.3	83.6	1,633.7	194.5	4,390.9	1,377.4
1974											
Direct	190.2	300.1	468.8	4.4	697.6	460.6	70.5	979.3	88.3	3,259.8	748.5
Indirect	16.9	40.8	262.2	35.9	214.6	214.6	17.3	478.5	128.7	1,409.5	357.9
TOTAL	207.1	310.9	731.0	40.3	912.2	675.2	87.8	1,457.8	217.0	4,669.3	1,106.4
1975											
Direct	281.5	388.4	280.4	232.0	761.5	715.0	116.7	697.6	116.1	3,589.2	1,381.3
Indirect	6.7	49.3	244.4	97.3	76.3	176.6	37.5	332.5	143.2	1,163.8	408.8
TOTAL	288.2	437.7	524.8	329.3	837.8	891.6	154.2	1,030.1	259.3	4,753.0	1,790.1
1976											
Direct	428.3	537.4	298.5	453.3	1,025.2	1,229.8	255.2	699.2	134.0	5,060.9	2,421.0
Indirect	10.0	32.0	248.0	76.0	94.0	136.0	68.0	273.0	82.0	1,019.0	352.0
TOTAL	438.3	569.4	546.5	529.3	1,119.2	1,365.8	323.2	972.2	216.0	6,079.9	2,773.0
1977											
Direct											
January	493.0	619.2	396.8	627.0	1,285.8	1,328.0	319.5	841.8	324.2	6,236.0	3,000.0
February	666.1	570.3	412.4	638.0	1,265.1	1,441.8	316.7	920.6	241.0	6,472.0	3,141.1
March	459.8	567.0	735.0	701.2	1,300.0	1,371.6	369.5	664.3	184.3	6,352.7	3,022.1
April	660.7	523.9	517.2	782.9	1,242.4	1,437.4	323.5	663.3	250.5	6,401.8	3,363.2
May	392.8	512.7	539.3	784.1	1,072.3	1,724.1	237.1	534.4	435.9	6,232.7	3,451.3
June	436.6	671.6	553.0	827.1	1,190.8	1,432.7	438.6	668.7	343.5	6,562.6	3,374.1
July	573.9	519.0	857.3	763.4	1,194.7	1,369.8	286.1	625.8	377.8	6,567.8	3,232.1
August	632.2	552.8	500.1	640.0	960.5	1,449.4	308.6	744.4	276.9	6,064.9	3,169.8
September	550.8	391.0	448.9	679.2	1,084.8	1,487.4	348.4	744.8	201.0	5,936.3	3,215.1
October	626.2	461.0	413.0	690.5	1,104.2	1,303.3	246.9	586.7	272.0	5,703.9	2,998.1
November	590.6	514.6	422.7	840.1	943.0	1,119.2	420.1	515.1	285.0	5,650.4	3,162.5
December	553.0	467.8	549.0	585.2	987.1	1,054.7	390.4	683.7	282.6	5,553.5	2,799.5
Total Direct	552.0	530.6	530.2	713.1	1,135.1	1,376.2	333.4	681.2	290.2	6,141.9	3,159.6
Indirect	11.1	52.2	297.9	133.8	105.7	208.1	98.5	221.0	100.5	1,228.8	530.8
TOTAL	563.1	582.8	828.1	846.9	1,240.8	1,584.3	431.9	902.2	390.7	7,370.7	3,690.4
1978											
Direct											
January	682.3	453.2	659.3	545.9	822.9	1,200.3	348.7	630.6	212.1	5,555.3	2,646.2
February	617.0	383.2	526.2	575.8	757.0	980.1	485.8	626.1	251.3	5,202.5	2,771.1
March	669.3	487.6	547.3	560.8	943.3	1,109.5	296.2	880.8	225.7	5,720.5	2,783.8
Total Direct	657.5	443.3	579.3	560.3	843.9	1,100.5	373.3	715.4	229.0	5,502.4	2,732.5
Indirect	11.1	52.5	297.9	133.8	105.7	208.1	98.5	221.0	100.5	1,228.8	530.8
TOTAL (3 months)	668.6	495.8	877.2	694.1	949.6	1,308.6	471.8	936.4	329.5	6,731.2	3,263.3

*Indirect imports refer to U.S. imports of petroleum products, primarily from Caribbean and European areas, that have been refined from crude oil produced in other areas. U.S. imports of these products have been prorated to each OPEC country of origin based on the share of total crude oil supply in the Caribbean and European areas which was imported from each OPEC country.

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

Sources: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly" through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand, Monthly" for May through October 1977; EIA "Monthly Petroleum Statistics Report" for October 1977 through March 1978; and EIA estimates.

U.S. Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Mexico	Other	Total
Thousands of barrels per day									
1973	170.8	1,312.9	573.6	99.3	250.6	329.2	15.2	523.5	3,274.2
1974	159.3	1,067.6	509.6	90.4	241.2	391.7	8.4	384.2	2,852.4
1975	152.0	845.2	323.6	89.7	240.9	406.5	71.4	306.1	2,435.4
1976									
January	134.1	681.7	291.7	71.0	343.2	468.4	58.7	321.5	2,370.3
February	127.6	644.9	262.4	122.2	326.3	462.3	70.0	251.7	2,267.4
March	90.4	590.2	328.7	114.0	315.6	424.5	108.0	367.5	2,338.9
April	131.9	578.4	274.9	68.5	291.9	341.2	112.0	404.5	2,203.3
May	95.2	614.9	214.1	70.6	257.5	388.5	89.3	316.4	2,046.5
June	104.2	653.3	190.4	54.3	319.3	427.5	79.5	373.5	2,202.0
July	112.8	581.7	259.1	77.9	279.2	386.5	79.4	434.0	2,210.6
August	98.5	580.9	268.7	81.5	163.6	437.2	88.1	428.5	2,147.0
September	143.1	564.8	273.3	104.1	182.6	408.5	84.8	453.1	2,214.3
October	78.3	562.0	239.0	92.2	215.2	460.5	79.2	422.8	2,149.2
November	140.4	561.8	267.6	104.1	254.3	454.4	132.1	333.2	2,247.9
December	141.5	578.3	400.3	98.5	324.2	408.4	65.5	405.0	2,421.3
TOTAL	116.5	599.3	274.6	88.1	272.6	422.3	87.1	373.5	2,234.0
1977									
January	170.0	505.9	304.1	82.5	316.2	619.6	97.9	549.8	2,646.0
February	289.5	605.1	406.6	86.3	406.3	548.8	168.1	947.8	3,458.5
March	200.4	561.7	257.3	97.4	286.5	505.5	171.5	810.4	2,890.7
April	130.7	506.1	110.1	85.3	210.5	409.0	155.2	662.4	2,269.3
May	138.5	437.8	153.7	105.8	308.1	376.2	173.6	647.6	2,341.3
June	137.7	493.0	196.2	89.4	271.1	322.0	180.7	616.0	2,306.1
July	169.8	482.9	239.0	129.7	275.8	477.7	158.7	540.1	2,473.7
August	168.8	501.5	224.5	88.4	281.2	461.6	213.6	586.9	2,526.5
September	140.2	528.5	201.1	156.7	250.9	433.9	167.6	750.1	2,629.0
October	122.3	487.0	197.4	114.1	288.4	451.9	246.6	612.9	2,520.6
November	184.4	R504.6	R93.3	98.7	R237.2	462.8	230.7	R654.7	R2,466.4
December	170.3	511.1	240.2	97.8	305.5	555.6	186.5	567.1	2,634.1
TOTAL	R167.8	R509.7	R217.8	102.8	286.0	468.7	179.3	R659.6	R2,591.7
1978									
January	170.5	453.6	253.5	98.0	295.0	466.0	236.4	594.8	2,567.8
February	215.6	R487.9	98.1	R92.9	R295.7	490.6	211.2	R593.2	R2,485.2
March	211.5	416.7	238.1	51.5	274.4	492.8	230.9	549.3	2,465.2
TOTAL (3 months)	198.7	451.6	199.8	80.4	288.1	482.9	226.7	578.6	2,506.8

R=Revised data.

Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly," through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand Monthly" for May 1977 through October 1977; and EIA "Monthly Petroleum Statistics Report" for October 1977 through March 1978.

Motor Gasoline

Domestic Demand

		Total	Unleaded	Unleaded Percent of Total	Production*	Imports	Stocks* Thousands of barrels
Thousands of barrels per day							
1972	AVERAGE	6,376	NA	NA	6,281	68	**212,770
1973	AVERAGE	6,674	NA	NA	6,527	134	**209,395
1974	AVERAGE	6,537	NA	NA	6,358	204	**218,346
1975	AVERAGE	6,675	NA	NA	6,518	184	**234,925
1976	January	6,398	NA	NA	6,483	92	240,464
	February	6,263	1,117	17.8	6,473	84	248,854
	March	6,890	1,456	21.1	6,455	123	239,049
	April	7,159	1,312	18.3	6,562	99	223,965
	May	6,853	1,393	20.3	6,775	112	225,037
	June	7,482	1,549	20.7	7,303	188	225,365
	July	7,315	1,594	21.8	7,174	190	226,922
	August	7,168	1,553	21.7	7,149	141	230,578
	September	7,079	1,628	23.0	6,878	171	229,751
	October	6,929	1,552	22.4	6,678	138	226,300
	November	7,038	1,604	22.8	6,938	146	227,742
	December	7,138	1,797	25.2	7,176	84	231,387
	AVERAGE	6,978	1,508	21.6	6,838	131	
1977	January	6,466	1,549	24.0	6,934	222	252,608
	February	6,897	1,773	25.7	6,817	184	255,519
	March	6,899	1,657	24.0	6,864	245	262,118
	April	7,348	1,863	25.4	6,968	269	258,831
	May	7,034	1,803	25.6	6,950	202	262,498
	June	7,595	2,142	28.2	7,145	246	256,389
	July	7,441	2,146	28.8	7,248	248	258,152
	August	7,419	2,096	28.3	7,191	187	256,904
	September	7,317	2,080	28.4	7,062	220	255,859
	October	7,132	2,135	29.9	6,932	179	255,194
	November	R7,191	2,060	28.6	7,123	179	R258,537
	December	7,378	2,400	32.5	7,145	196	256,864
	AVERAGE	6,978 7,177	1,976	28.6 27.5	7,033	215	
1978	January	6,644	2,097	31.6	6,943	210	272,601
	February	6,914	2,162	R31.3	6,620	210	270,181
	March	R7,242	2,425	33.5	R6,749	R141	R259,214
	April	7,371	NA	NA	6,717	166	250,879
	AVERAGE (Year to date)	7,043	2,230	NA	6,761	181	

$$\text{Unleaded: Shipments (P320)} \pm \text{P/C Stocks (P322)} \pm \text{Bulk T. Stocks (P321)} = \text{demand}$$

$$\text{Total Motor's Production (P320)} \dots \dots \dots$$

$$\pm \text{Refinery Stocks (P320)}$$

$$+ \text{Imports}$$

*See Definitions.

**Total as of December 31.

Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

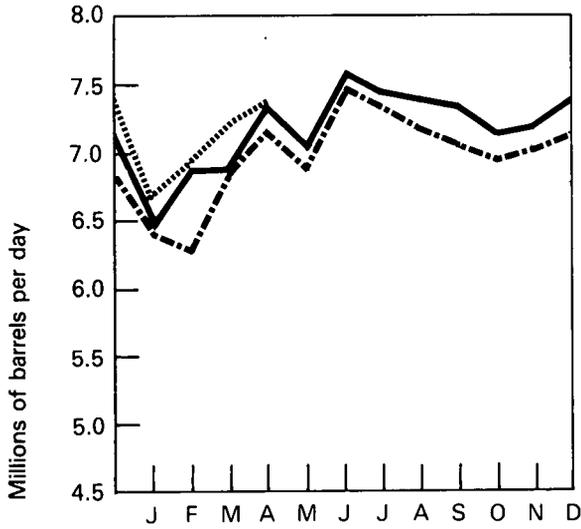
R=Revised data.

NA=Not available.

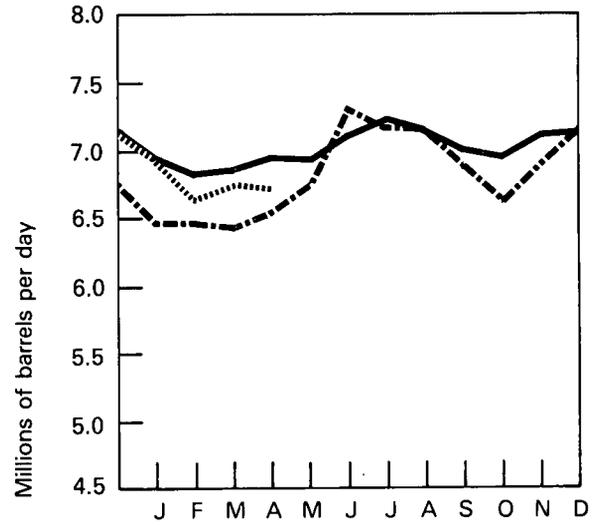
Sources: Data other than unleaded—1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum, Statement, Monthly;" May 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin." Unleaded data—EIA Petroleum Reporting System.

Motor Gasoline

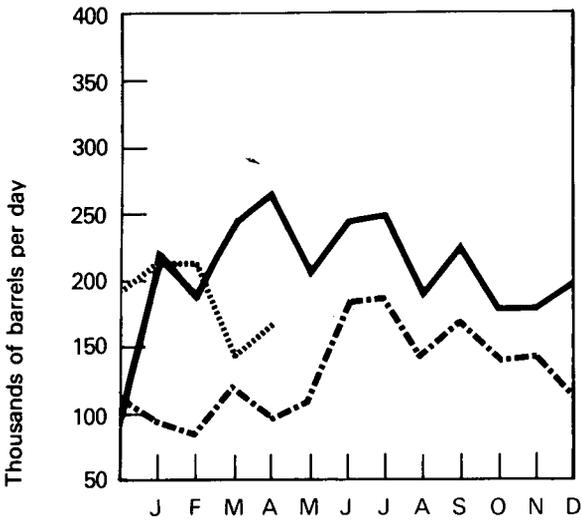
Domestic Demand



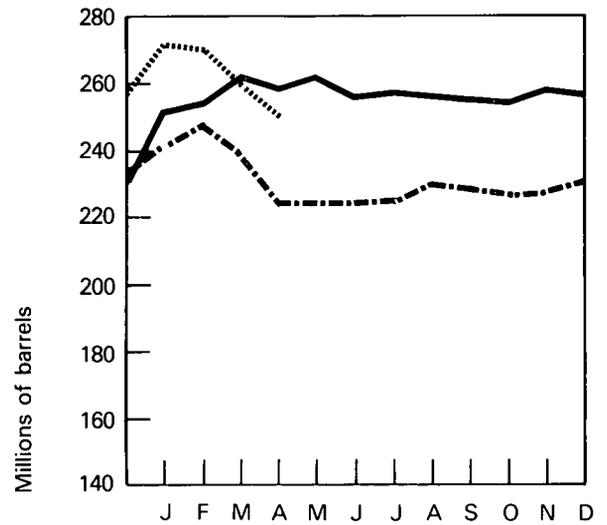
Production



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Jet Fuel

		Domestic Demand	Production	Imports	Stocks
		Thousands of barrels per day			Thousands of barrels
1972	AVERAGE	1,045	847	194	*25,493
1973	AVERAGE	1,059	859	212	*28,544
1974	AVERAGE	993	836	163	*29,435
1975	AVERAGE	1,001	871	133	*30,380
1976	January	948	889	69	30,618
	February	965	918	71	31,180
	March	965	927	86	32,619
	April	1,010	927	108	33,332
	May	960	899	106	34,664
	June	972	879	68	33,879
	July	1,099	933	130	32,732
	August	965	942	38	33,121
	September	1,048	990	63	33,204
	October	911	890	50	34,032
	November	978	920	56	33,859
	December	1,027	900	72	32,085
	AVERAGE	987	918	76	
1977	January	1,054	917	77	30,170
	February	1,036	974	74	30,455
	March	1,041	954	98	30,739
	April	1,019	991	86	32,355
	May	993	979	57	33,644
	June	989	996	30	34,707
	July	1,043	969	85	35,048
	August	1,113	1,009	71	33,986
	September	1,050	1,004	53	34,159
	October	1,016	973	67	34,861
	November	R1,038	950	R107	R35,409
	December	1,108	978	83	33,991
	AVERAGE	R1,042	974	R74	
1978	January	962	922	62	34,605
	February	1,091	994	53	33,332
	March	R1,101	R972	R88	R32,011
	April	1,071	995	73	34,656
	AVERAGE (4 months)	1,055	970	69	

*Total as of December 31.

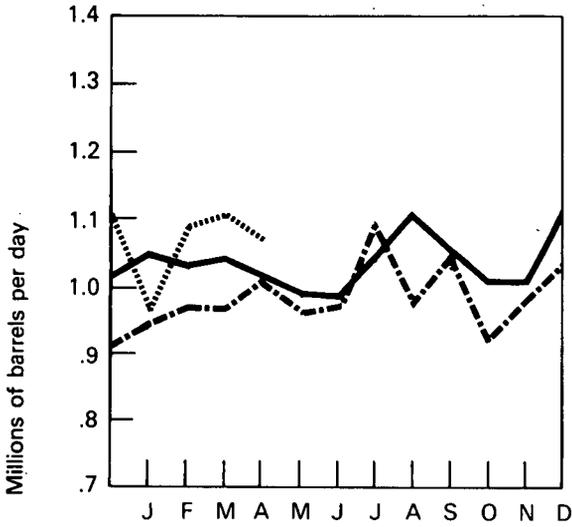
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

R=Revised data.

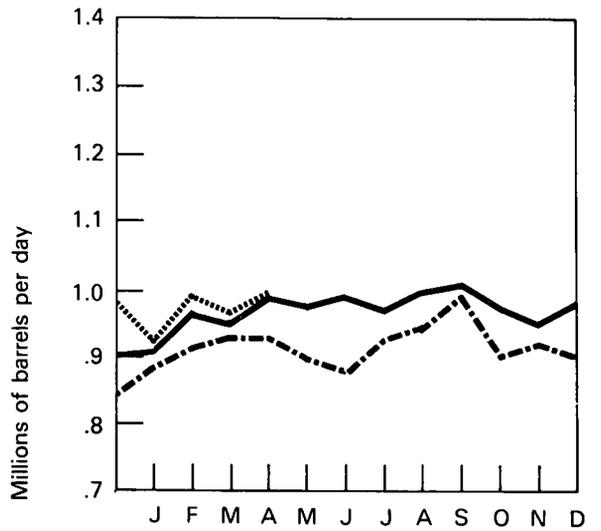
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: EIA "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Jet Fuel

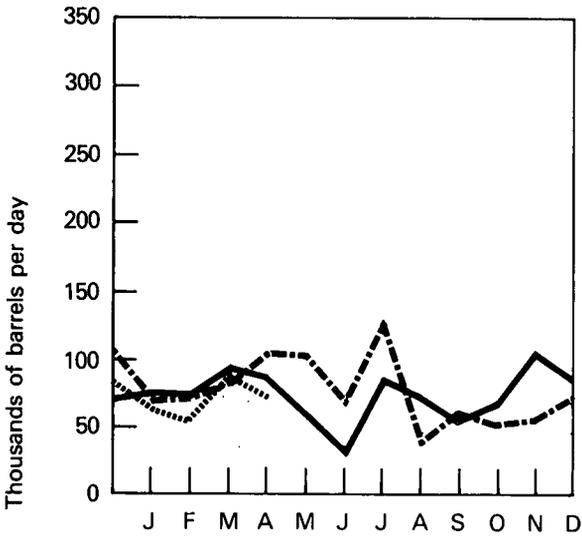
Domestic Demand



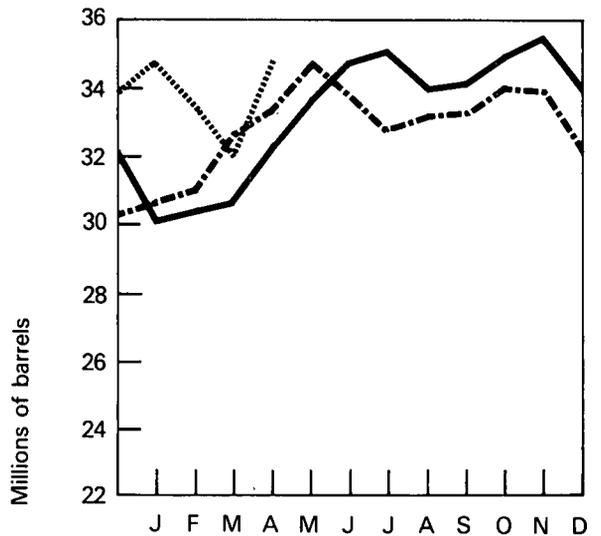
Production



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Distillate Fuel Oil

		Domestic Demand	Production*	Imports	Stocks*
		Thousands of barrels per day			Thousands of barrels
1972	AVERAGE	2,913	2,630	182	**154,284
1973	AVERAGE	3,092	2,820	392	**196,421
1974	AVERAGE	2,948	2,668	289	**200,029
1975	AVERAGE	2,851	2,653	155	**208,787
1976	January	4,297	2,734	163	165,428
	February	3,697	2,961	218	150,439
	March	3,339	2,793	153	138,306
	April	2,788	2,655	96	137,249
	May	2,519	2,738	97	147,057
	June	2,436	2,885	151	165,064
	July	2,255	2,959	126	190,861
	August	2,237	2,982	131	217,930
	September	2,620	2,947	149	232,230
	October	3,031	2,995	144	235,599
	November	3,714	3,180	135	223,648
	December	4,667	3,255	196	185,948
		AVERAGE	3,133	2,924	146
1977	January	5,111	3,375	350	142,989
	February	4,714	3,702	664	133,261
	March	3,421	3,179	519	141,882
	April	2,942	3,001	153	148,246
	May	2,777	3,124	99	162,123
	June	2,776	3,198	135	178,842
	July	2,545	3,192	192	204,899
	August	2,635	3,274	161	229,757
	September	2,717	3,314	169	252,783
	October	3,038	3,363	150	267,392
	November	R3,420	R3,339	R188	R270,571
	December	4,172	3,280	236	250,153
		AVERAGE	R3,349	R3,276	R249
1978	January	4,426	3,106	196	215,110
	February	R4,889	R2,923	R210	R165,847
	March	R4,077	R2,982	R196	R137,897
	April	3,144	2,914	139	137,147
		AVERAGE (4 months)	4,123	2,983	185

*See Definitions.

**Total as of December 31.

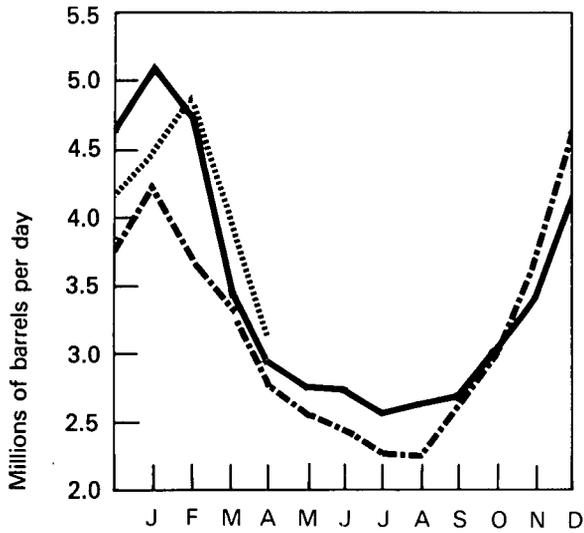
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

R=Revised data.

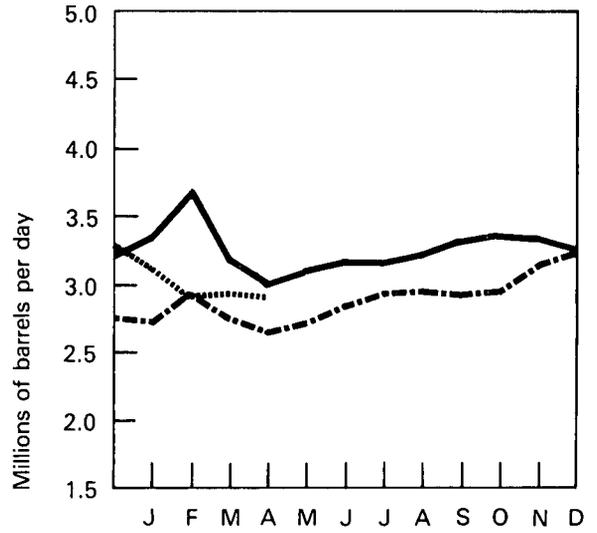
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: EIA "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Distillate Fuel Oil

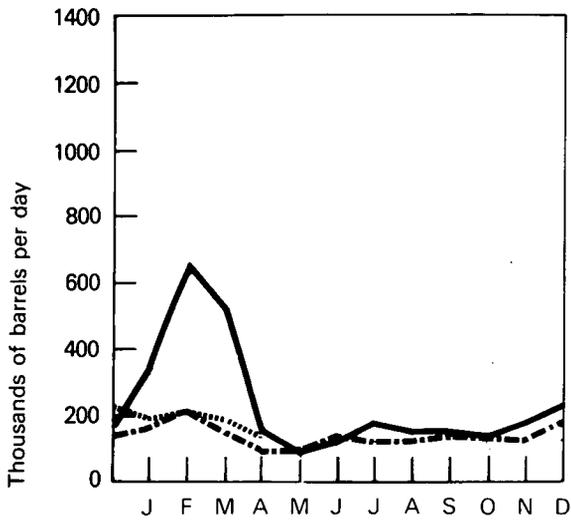
Domestic Demand



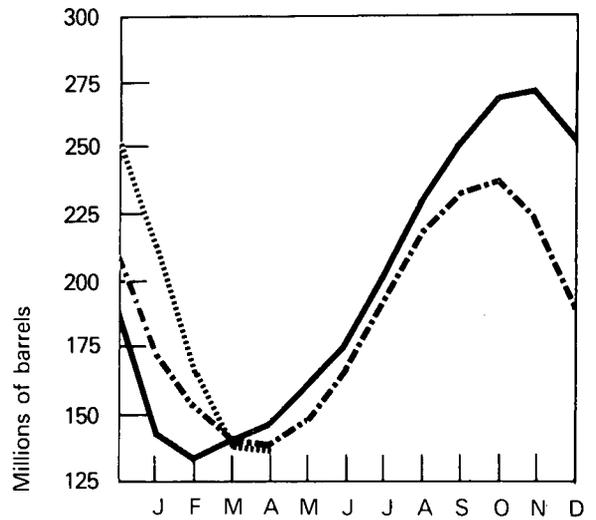
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Residual Fuel Oil

		Domestic Demand	Production	Imports	Stocks
		Thousands of barrels per day			Thousands of barrels
1972	AVERAGE	2,529	799	1,742	*55,216
1973	AVERAGE	2,822	971	1,853	*53,480
1974	AVERAGE	2,639	1,070	1,587	*59,694
1975	AVERAGE	2,462	1,235	1,223	*74,126
1976	January	3,118	1,415	1,455	66,592
	February	3,077	1,394	1,774	68,859
	March	2,779	1,311	1,342	65,132
	April	2,496	1,283	1,258	66,458
	May	2,439	1,257	1,134	65,147
	June	2,509	1,241	1,229	64,272
	July	2,548	1,266	1,455	69,812
	August	2,678	1,321	1,307	68,490
	September	2,526	1,330	1,452	76,436
	October	2,547	1,351	1,270	79,117
	November	3,253	1,581	1,474	73,284
	December	3,645	1,772	1,828	72,344
		AVERAGE	2,801	1,377	1,413
1977	January	3,741	1,889	1,596	64,749
	February	3,662	1,951	1,943	71,414
	March	3,150	1,715	1,417	71,186
	April	2,855	1,687	1,125	70,165
	May	2,719	1,671	1,145	73,376
	June	2,954	1,714	1,181	71,924
	July	2,805	1,729	1,271	77,770
	August	3,046	1,634	1,441	78,762
	September	2,926	1,750	1,458	87,522
	October	2,707	1,749	1,218	95,896
	November	R2,819	R1,695	R1,094	R95,155
	December	3,339	1,809	1,354	89,548
		AVERAGE	R3,057	1,748	1,350
1978	January	3,508	1,890	1,359	81,462
	February	R3,694	1,787	1,317	64,758
	March	R3,504	R1,746	R1,682	R62,177
	April	3,093	1,555	1,659	70,768
		AVERAGE (4 months)	3,447	1,745	1,508

*Total as of December 31.

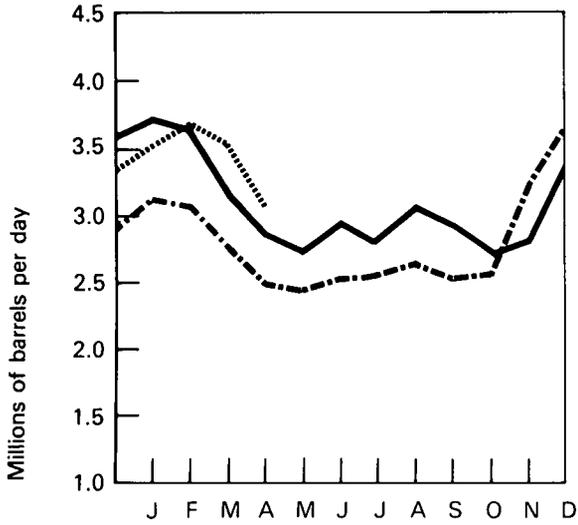
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

R=Revised data.

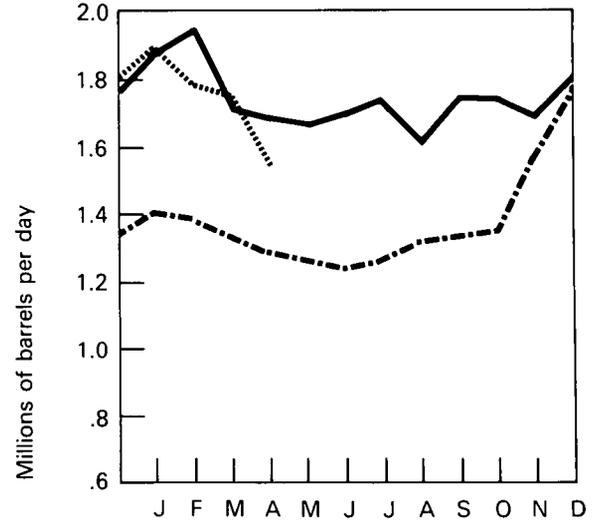
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through November 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" December 1977 through March 1978: EIA "Monthly Petroleum Statistics Report;" April 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Residual Fuel Oil

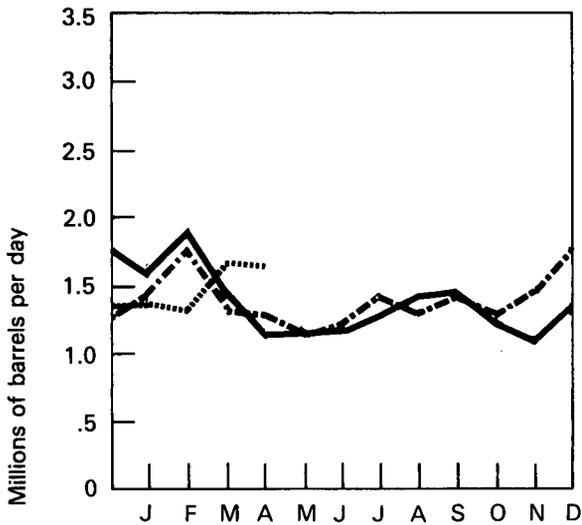
Domestic Demand



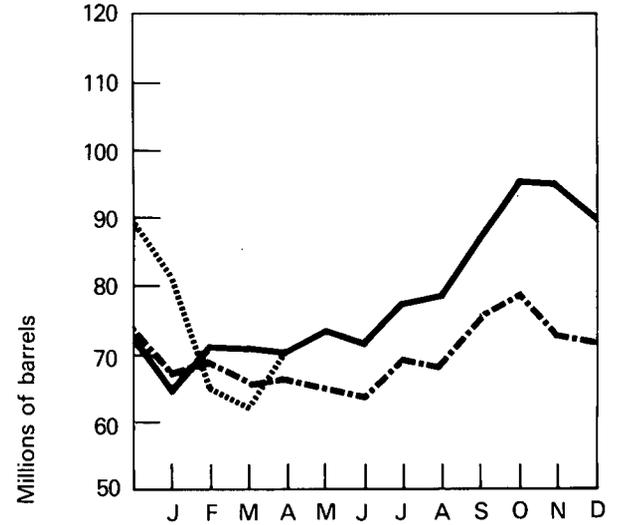
Production



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Natural Gas Liquids

		Domestic Demand*	Production*		Used at Refineries*	Imports	Stocks*
			At processing plants	At refineries			
		Thousands of barrels per day					Thousands of barrels
1972	AVERAGE	1,420	1,744	365	826	174	**92,024
1973	AVERAGE	1,454	1,738	375	815	239	**106,659
1974	AVERAGE	1,422	1,688	338	746	212	**120,175
1975	AVERAGE	1,352	1,633	311	710	185	**132,653
1976	January	1,885	1,585	305	728	240	116,707
	February	1,518	1,640	316	793	270	113,373
	March	1,303	1,615	333	674	194	117,486
	April	1,201	1,616	349	716	171	123,100
	May	1,138	R1,581	376	R673	144	131,421
	June	1,110	1,606	356	718	163	139,291
	July	1,103	1,592	354	710	147	147,034
	August	1,213	1,596	362	695	160	152,704
	September	1,243	1,602	352	713	152	156,436
	October	1,497	1,601	309	709	203	152,666
	November	1,747	R1,615	331	726	244	143,422
	December	1,921	1,589	341	853	269	124,518
		AVERAGE	1,407	R1,603	340	725	196
1977	January	2,018	1,549	323	730	331	106,524
	February	1,887	1,589	336	693	238	94,128
	March	1,354	1,687	331	688	239	100,025
	April	1,228	1,664	337	672	198	108,235
	May	1,167	1,620	397	614	165	120,018
	June	1,235	1,616	364	622	203	129,315
	July	1,133	1,609	381	594	157	141,631
	August	1,181	1,593	360	659	204	150,830
	September	1,220	1,585	355	654	148	156,726
	October	1,242	1,632	355	710	168	162,440
	November	1,765	1,627	352	700	187	152,971
	December***	R1,760	1,637	345	R727	R254	R144,617
		AVERAGE	R1,430	1,618	353	R672	R208
1978	January***	1,947	1,557	327	674	294	130,797
	February***	1,748	1,578	340	640	211	123,066
	March***	1,607	1,589	347	636	232	120,220
	April***	1,395	1,584	338	624	217	123,300
	AVERAGE (4 months)	1,675	1,577	338	644	239	

*See Explanatory Note 4.

**Total as of December 31.

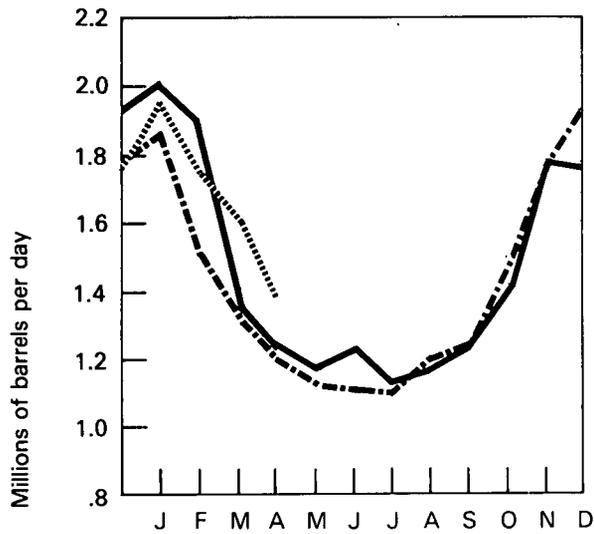
***Estimated.

R=Revised data.

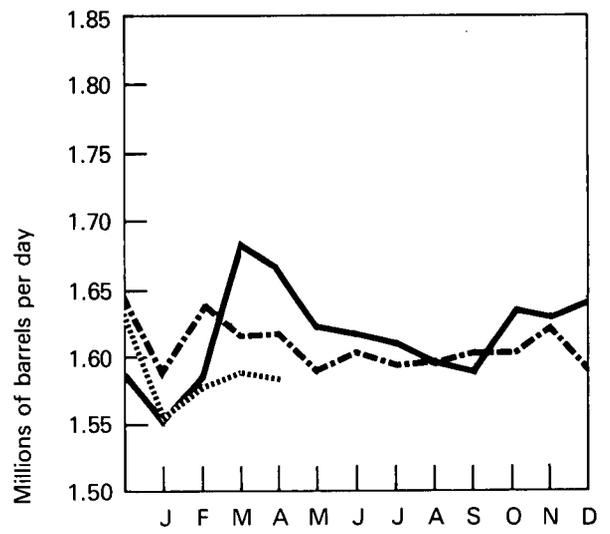
Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" through April 1977; EIA *Energy Data Reports*, "Petroleum Statement, Monthly" and EIA estimates for May 1977 forward.

Natural Gas Liquids

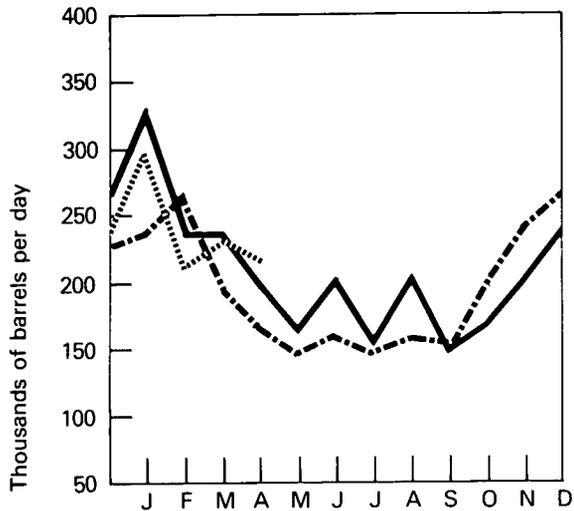
Domestic Demand



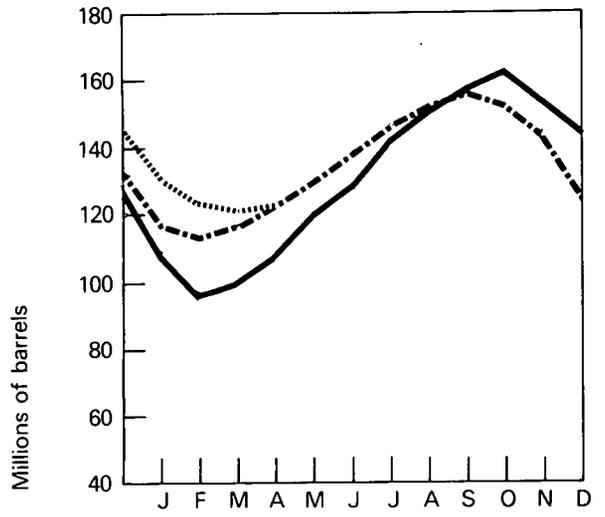
Production at Processing Plants



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA

U.S. Petroleum Supply and Demand

	1977 Actual				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Thousands of barrels per day					
Supply					
Crude oil and lease condensate production	7,956	8,042	8,231	8,543	8,195
Natural gas plant liquids production	1,609	1,633	1,596	1,629	1,617
Other hydrocarbon supply	43	54	52	50	50
Crude oil imports ¹	6,520	6,867	6,624	6,181	6,547
Refined products imports ²	2,813	1,836	2,110	1,914	2,166
Total new supply	18,941	18,432	18,613	18,318	18,575
Processing gain	521	450	543	552	517
Stock change—all oils ³	-278	+1,190	+1,177	-30	+517
Total net supply	19,740	17,692	17,979	18,899	18,574
Unaccounted for crude oil ⁴	+114	+88	+59	+120	+95
Demand					
Crude oil and refined products exports	210	245	259	226	235
Crude oil losses	15	15	16	16	16
Domestic demand for refined products ⁵	19,629	17,520	17,764	18,777	18,418
Total demand	19,854	17,780	18,039	19,019	18,669

¹Excludes crude oil imported for the Strategic Petroleum Reserve.

²Includes plant condensate and unfinished oils.

³Excludes petroleum stored in the Strategic Petroleum Reserve.

⁴Balancing item resulting from statistical inconsistencies.

⁵Includes international bunkers.

NA=Not available.

Sources: 1st Quarter 1977—BOM *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" 2nd, 3rd, and 4th Quarters 1977—BOM *Mineral Industry Surveys*, "Petroleum Statement, Monthly," Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly," EIA "Monthly Petroleum Statistics Report," and EIA estimates.

Strategic Petroleum Reserve

		Crude Oil Deliveries*	Cumulative Deliveries	Average Delivered Price	Cumulative Average Delivered Price
		Barrels		Dollars per barrel	
1977	July	414,172	414,172	13.565	13.565
	August	0	414,172	—	—
	September	674,961	1,089,133	13.59	13.58
	October	1,539,263	2,628,396	14.22	13.95
	November	2,434,463	5,062,859	14.50	14.21
	December	2,455,466	7,518,325	14.58	14.33
1978	January	3,531,481	11,049,806	14.46	14.37
	February	3,058,683	14,108,489	14.38	14.37
	March	4,106,270	18,214,759	14.46	14.39
	April	3,252,374	21,467,133	14.95	14.47

*Does not include cargoes in transit at the end of the reporting month, nor cargoes that discharged into Caribbean transshipment terminals for eventual transfer to SPRO terminals.

Source: U.S. Department of Energy, Strategic Petroleum Reserve Office.

Natural Gas

Domestic consumption of natural gas in April 1978 was an estimated 5.1 percent higher than in April 1977. Estimated consumption during the first 4 months of 1978 was 7.5 percent above that of January—April 1977, largely the result of colder weather and substitution of gas in place of coal during the coal strike.

Marketed production of natural gas in April 1978 was an estimated 2.1 percent lower than during the previous April, and production for the first 4 months of 1978 was an estimated 2.2 percent below that for the same period in 1977.

Imports of natural gas in April were estimated to be only slightly higher than in April 1977, but estimated imports for the first 4 months of 1978 were 5.6 percent less than for January—April 1977. Last year, imports during the 4-month period included 29 billion cubic feet of emergency gas shipments from Canada.

Working gas* in underground natural gas storage reservoirs at the end of April 1978 was 13.7 percent less than that available a year earlier. Net injections into storage during April 1978 totaled 111 billion cubic feet, about one-half the net volume injected in April 1977.

Domestic producer sales to major interstate pipeline companies in February 1978 were 6.3 percent lower than during February 1977.

*Gas available for withdrawal.

Natural Gas

		Domestic Consumption*	Marketed Production*	Domestic Producer Sales to Major Interstate Pipelines	Imports
Billion cubic feet					
1972	TOTAL	22,102	22,532	12,429	1,019
1973	TOTAL	22,049	22,648	12,067	1,033
1974	TOTAL	21,223	21,601	11,462	959
1975	TOTAL	19,538	20,109	10,652	953
1976	January	2,291	1,751	894	84
	February	1,938	1,647	850	78
	March	1,721	1,714	894	85
	April	1,508	1,623	849	86
	May	1,434	1,673	860	82
	June	1,335	1,640	815	76
	July	1,372	1,676	822	73
	August	1,317	1,636	810	77
	September	1,302	1,565	793	74
	October	1,621	1,639	840	85
	November	1,875	1,635	841	81
	December	2,232	1,753	872	83
	TOTAL	19,946	19,952	10,140	964
1977	January	2,386	1,734	848	85
	February	1,793	1,668	807	85
	March	1,693	1,742	910	106
	April	1,408	1,634	830	82
	May	1,352	1,688	830	84
	June	1,311	1,643	789	76
	July	1,304	1,669	801	74
	August	1,343	1,639	784	78
	September	1,403	1,587	741	78
	October	1,490	1,620	831	85
	November	1,663	1,599	830	86
	December	2,082	1,719	882	90
	TOTAL	19,228	19,942	9,883	1,009
1978	January	R2,353	R1,707	862	87
	February	R2,100	**1,610	756	R77
	March	1,890	**1,710	NA	R**91
	April	1,480	**1,600	NA	**83
	TOTAL (4 months)	7,823	6,627	NA	338

*See Explanatory Note 5.

**Preliminary data.

R=Revised data.

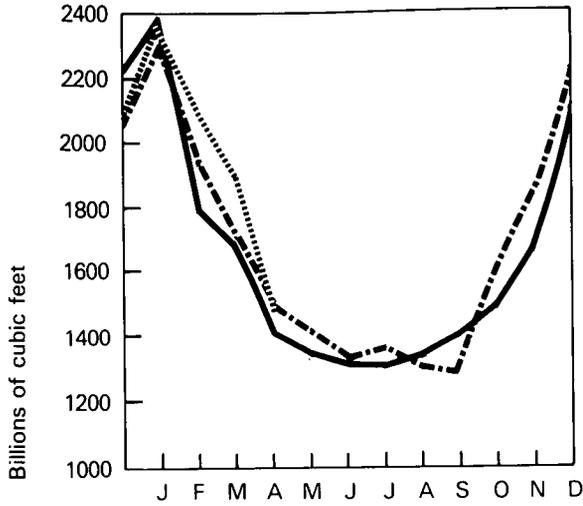
NA=Not available.

Note: All monthly Domestic Consumption data are estimated.

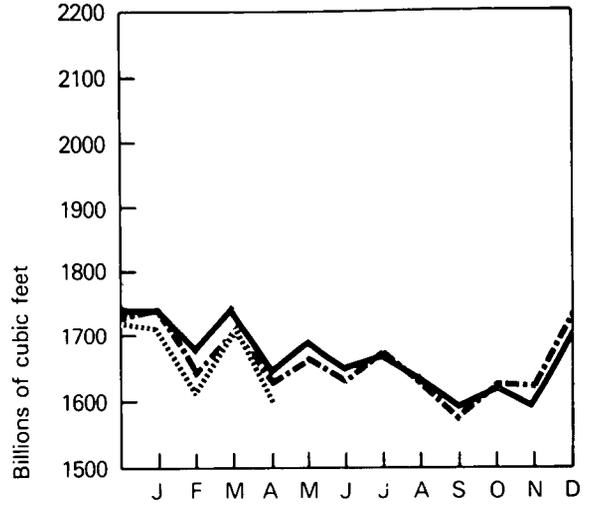
Sources: Domestic Consumption—EIA estimates; Marketed Production and Imports—Bureau of Mines *Mineral Industry Surveys*, "Natural Gas, Monthly" through June 1977 and EIA *Energy Data Reports*, "Natural Gas, Monthly" for July 1977 forward; Domestic Producer Sales—Federal Power Commission Form 11, "Monthly Statement of Gas Operating Revenues, Sales."

Natural Gas

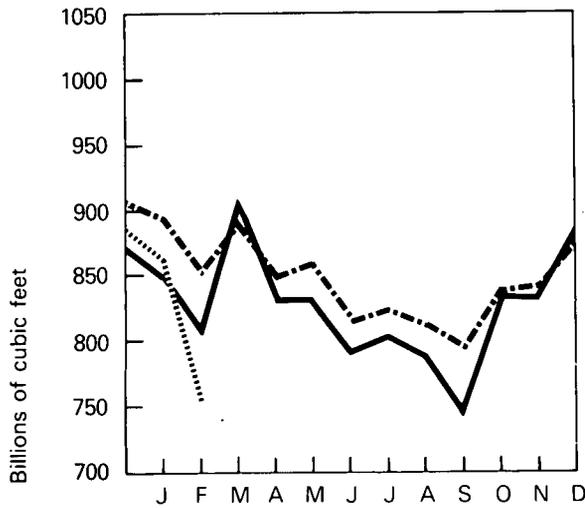
Domestic Consumption



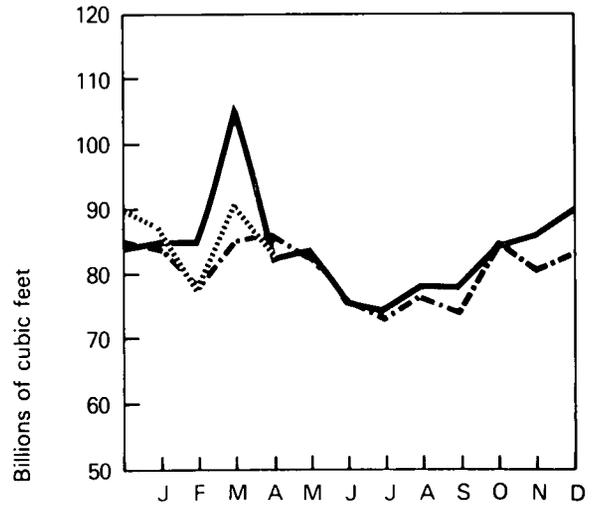
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



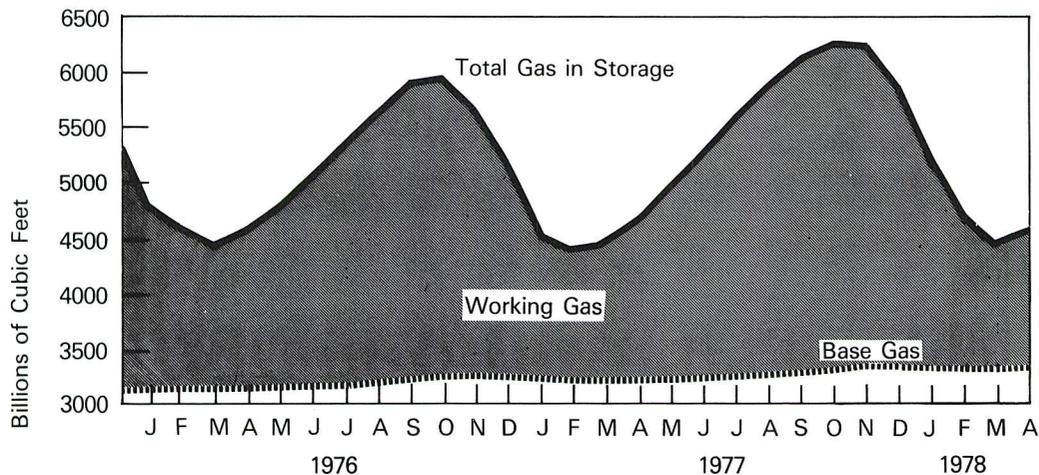
- - - 1976
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Natural Gas (Continued)

Natural Gas in Underground Storage*

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections
Billion cubic feet							
1975	September	5,553	3,085	2,468	220	31	189
	October	5,706	3,107	2,599	190	51	139
	November	5,691	3,150	2,541	98	146	-48
	December	5,358	3,150	2,208	38	371	-333
1976	January	4,817	3,169	1,648	17	526	-509
	February	4,617	3,173	1,444	66	265	-199
	March	4,496	3,170	1,326	79	200	-121
	April	4,607	3,184	1,423	185	75	110
	May	4,827	3,190	1,637	245	24	221
	June	5,116	3,208	1,908	304	27	277
	July	5,412	3,220	2,192	301	6	295
	August	5,698	3,251	2,447	298	17	281
	September	5,946	3,296	2,650	259	22	237
	October	5,966	3,302	2,664	135	116	19
	November	5,713	3,305	2,408	40	291	-251
	December	5,231	3,310	1,921	23	505	-482
1977	January	4,580	3,293	1,287	18	670	-652
	February	4,446	3,283	1,163	101	235	-134
	March	4,501	3,286	1,215	187	132	55
	April	4,713	3,286	1,427	256	43	213
	May	5,024	3,293	1,731	329	17	312
	June	5,330	3,300	2,030	317	12	305
	July	5,665	3,317	2,348	348	15	333
	August	5,945	3,346	2,599	290	21	269
	September	6,188	3,364	2,824	262	2	260
	October	6,302	3,373	2,929	157	44	113
	November	6,224	3,403	2,821	84	160	-76
	December	5,844	3,377	2,467	41	416	-375
1978	January	5,193	3,374	1,819	21	668	-647
	February	4,683	3,373	1,310	21	530	-509
	March	4,497	3,374	1,123	92	278	-186
	April	4,608	3,377	1,231	179	68	111

Gas in Storage



*See Explanatory Note 6.

Sources: Federal Energy Administration Form G318-M-O and Federal Power Commission Form 8 "Underground Gas Storage Report."

Coal

Bituminous coal and lignite production increased from 38.8 million tons in March to 59.5 million tons in April, as most of the striking miners returned to work on the 27th of March. Coal production in the first 4 months of 1978 totaled 144.9 million tons, 34.2 percent less than production for the same period in 1977.

Domestic consumption of bituminous coal and lignite in March 1978 was revised to 44.1 million tons which was 12.4 percent less than the amount consumed during March 1977. In the first quarter of 1978, domestic coal consumption was 144.5 million tons, 7.9 percent below consumption during the first quarter of 1977. Electric utility coal consumption* was 33.9 million tons in March 1978 compared with 37.2 million tons in March 1977. Electric utilities consumed 112.3 million tons of coal in the first quarter of 1978, 5.6 million tons less than the amount consumed in the same period a year earlier. The second largest coal consuming sector, steel company coke plants, used 3.9 million tons in March 1978, over 3 million tons less than in March 1977. In the first quarter of 1978, coal consumption by coke plants amounted to 13.4 million tons, 6.1 million tons below the first quarter 1977 level. Coal consumption in the general industrial sector totaled 16.2 million tons for the first quarter of 1978, 0.8 million tons less than in the first quarter of 1977. Shipments of coal to retail dealers in the first quarter of 1978 totaled 2.5 million tons, up 0.1 million tons from shipments in the first quarter of 1977.

As a result of the coal strike, stocks of bituminous coal and lignite held by utilities and industrial consumers were drawn down by 67.9 million tons during the first quarter of 1978. Electric utility stocks* declined from 131.0 million tons at the first of the year to 75.1 million tons on March 31. Stocks of coking coal were 3.7 million tons on March 31, compared with 12.7 million tons at the beginning of the year. Coal stocks held by general industry declined from 8.4 million tons to 5.4 million tons during the first quarter of 1978.

The United States exported only 325,000 tons of bituminous coal in March 1978 and only 1.8

million tons during the first quarter of 1978. In comparison, exports of bituminous coal in the first quarter of 1977 were 8.6 million tons.

*Does not include anthracite or coke consumption/stocks.

Bituminous and Lignite

		Domestic Consumption*	Production*	Exports	Stocks**
Thousands of short tons					
1972	TOTAL	516,776	595,386	55,997	115,372
1973	TOTAL	556,022	591,738	52,870	103,022
1974	TOTAL	552,709	603,406	59,926	95,528
1975	TOTAL	556,301	648,438	65,669	127,115
1976	January	52,932	52,568	3,697	119,220
	February	46,832	53,773	3,050	119,004
	March	48,624	60,918	3,979	123,471
	April	46,415	59,145	5,780	128,393
	May	46,681	57,934	5,667	136,013
	June	48,445	59,680	6,569	140,144
	July	51,717	44,318	4,880	129,661
	August	52,082	53,622	4,223	123,853
	September	47,689	60,634	5,614	129,878
	October	49,312	58,899	5,871	133,624
	November	51,877	58,780	5,451	135,019
	December	56,144	58,414	4,625	133,555
	TOTAL	598,750	678,685	59,406	
1977	January	56,561	44,525	2,143	118,116
	February	50,033	49,045	3,079	114,363
	March	50,278	66,445	3,390	122,593
	April	46,290	60,280	5,637	129,878
	May	49,120	62,220	5,673	137,673
	June	51,690	62,810	6,019	145,914
	July	56,141	49,425	5,158	137,463
	August	54,758	57,560	4,279	136,832
	September	50,622	69,200	5,037	144,953
	October	50,191	67,420	4,871	158,164
	November	50,245	68,715	4,491	173,063
	December	53,687	30,930	3,910	152,317
	TOTAL	619,616	688,575	53,687	
1978	January	54,405	23,115	870	118,121
	February	R46,014	23,520	555	R93,130
	March	R44,066	38,765	R325	R84,400
	April	NA	59,530	NA	NA
	TOTAL	144,485	144,930	1,750	
	(Year to date)				

*See Explanatory Note 7.

**Total stocks held by utilities, industrial consumers, and retail dealers at end of year or month.

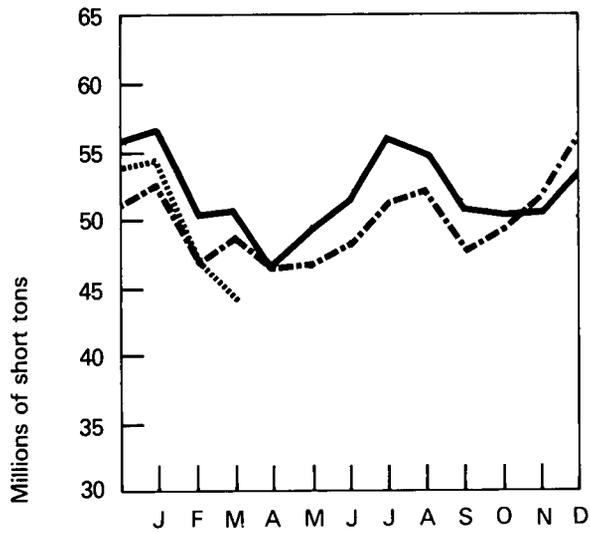
R=Revised data.

NA=Not available.

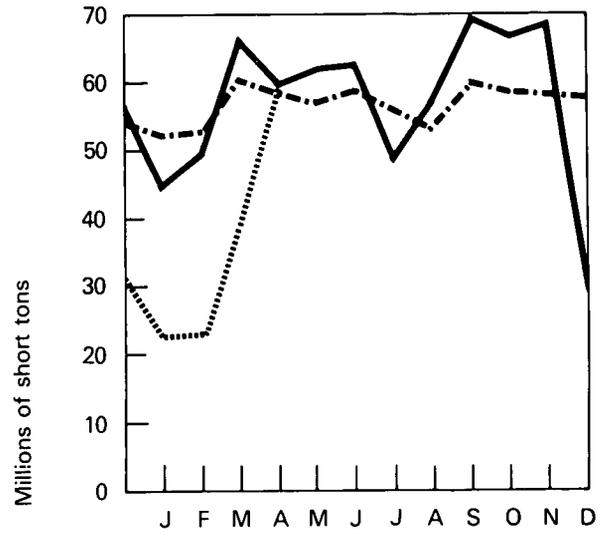
Source: Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Bituminous and Lignite

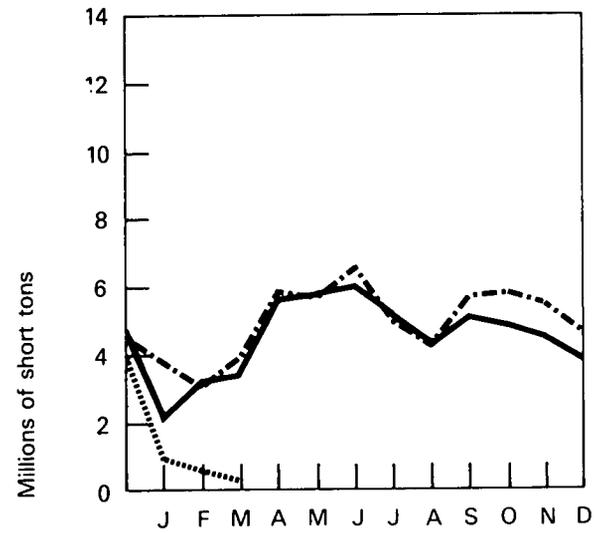
Domestic Consumption



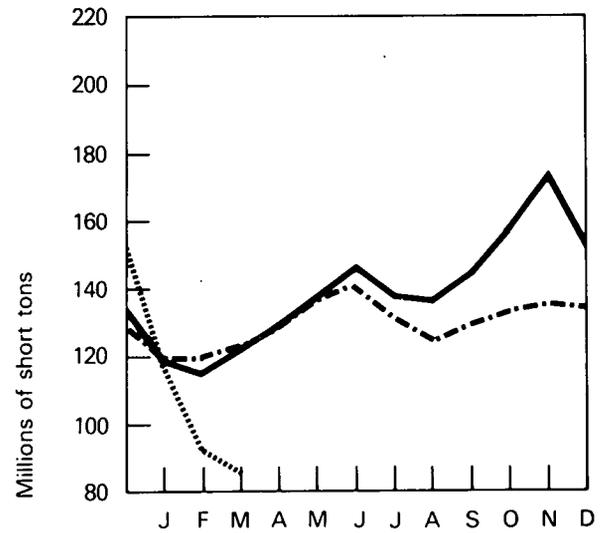
Production



Exports



Stocks

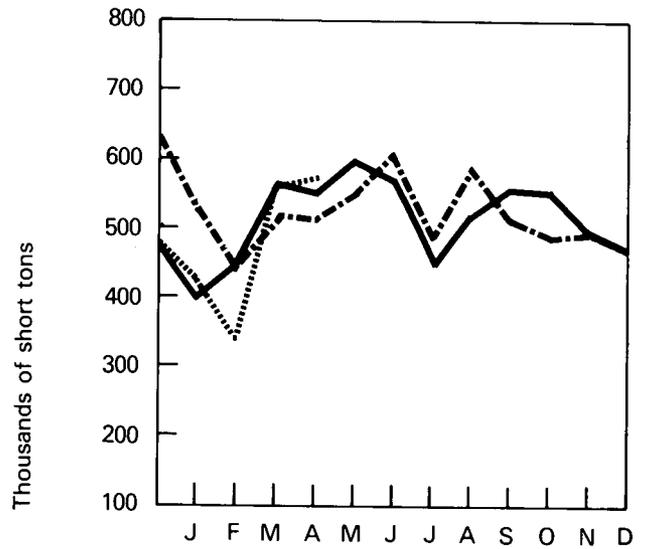


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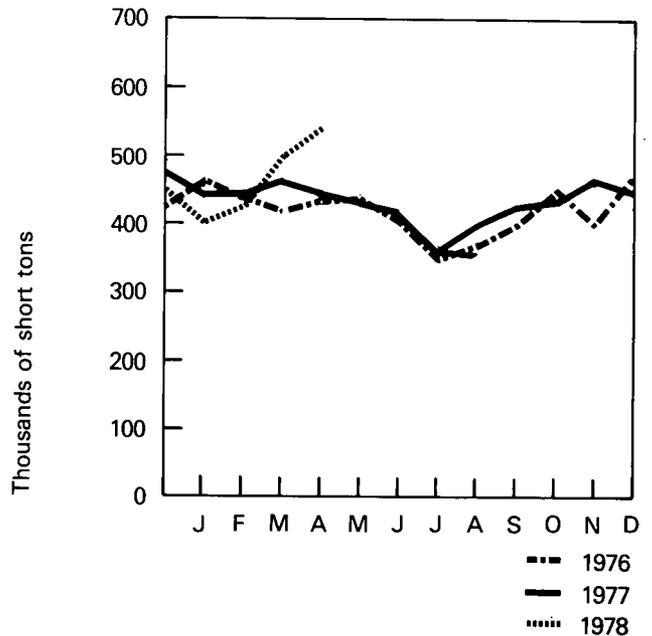
Anthracite

		Production	Apparent Domestic Consumption
		Thousands of short tons	
1972	TOTAL	7,106	5,915
1973	TOTAL	6,830	5,671
1974	TOTAL	6,617	5,448
1975	TOTAL	6,203	5,108
1976	January	525	460
	February	440	430
	March	525	420
	April	520	435
	May	555	440
	June	610	400
	July	490	350
	August	590	375
	September	515	400
	October	490	455
	November	493	400
	December	475	475
	TOTAL	6,228	5,040
1977	January	400	440
	February	450	450
	March	570	470
	April	550	450
	May	600	440
	June	570	420
	July	450	360
	August	525	400
	September	560	430
	October	550	435
	November	500	470
	December	475	450
	TOTAL	6,200	5,215
1978	January	430	400
	February	340	425
	March	R560	R500
	April	575	540
	TOTAL (4 months)	1,905	1,865

Production



Apparent Domestic Consumption



Source: Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Electric Utilities

March 1978 production of electricity by utilities totaled 173.2 billion kilowatt hours, 2.4 percent above the level for March 1977. Hydroelectric output during March was up 24.5 percent from the March 1977 level when drought conditions prevailed in the Pacific Northwest. Total electricity generation during the first 3 months of 1978 was 544.6 billion kilowatt hours, 3.1 percent greater than the output for the same period in 1977. Edison Electric Institute estimates April 1978 production at 161.4 billion kilowatt hours.

Electric utility consumption of coal,* oil, and gas during March 1978 was 34.1 million tons, 64.1 million barrels, and 231.0 billion cubic feet, respectively, representing an increase of 31.7 percent for oil and decreases of 0.3 percent for gas and 8.4 percent for coal compared with consumption levels for the same month in 1977. The decrease in coal consumption was a result of delivery cutbacks during the United Mine Workers of America strike. During the first quarter of 1978, utility coal consumption declined as powerplants either burned larger quantities of oil and gas or bought electricity from those utilities with the capability of burning these alternate fuels to produce electricity. Oil and gas consumption increased 14.6 percent and 5.3 percent, respectively, while coal consumption was 4.6 percent lower.

Reflecting curtailed coal deliveries, utility coal stocks* on March 31, 1978, were 77.4 million tons, 29.4 percent below the March 31, 1977, level. Electric utility oil stocks, on the other hand, were 133.7 million barrels on March 31, 1978, an increase of 17.7 percent over the stock level on the same date in 1977.

Electric utility sales of electricity to ultimate consumers in the United States in February 1978 totaled 168.3 billion kilowatt hours, an increase of 2.8 percent over sales in February 1977. Sales to residential consumers during February 1978 were 63.9 billion kilowatt hours, an increase of 4.1 percent over those for the corresponding month in 1977. Commercial sales were 37.3 billion kilowatt hours, 3.3 percent higher than in February 1977. Sales to industrial consumers totaled 60.8 billion

kilowatt hours, an increase of 0.7 percent compared to the February 1977 level. Other sales totaled 6.3 billion kilowatt hours, or 8.6 percent more than for the same month of the previous year.

*Utility coal consumption and stocks include bituminous and anthracite coal, lignite, and coke.

Electric Utilities

Net Electricity Production

		Coal	Oil	Gas	Nuclear	Hydro- electric	Other*	Total
Millions of kilowatt hours								
1971	TOTAL	714,680	218,622	374,027	38,105	266,301	859	1,612,593
1972	TOTAL	772,857	272,550	375,735	54,091	272,612	1,783	1,749,629
1973	TOTAL	848,988	312,940	340,804	83,334	272,081	2,294	1,860,440
1974	TOTAL	829,973	299,363	320,055	113,976	301,032	2,704	1,867,103
1975	TOTAL	852,968	288,908	299,772	172,506	300,047	3,437	1,917,638
1976	January	83,707	32,214	19,895	16,099	26,070	344	178,329
	February	73,532	24,767	19,163	14,377	24,521	323	156,683
	March	76,570	25,420	21,282	13,993	26,563	346	164,174
	April	72,571	23,299	21,867	10,982	24,137	312	153,168
	May	72,512	21,794	25,319	11,929	25,516	300	157,370
	June	76,939	25,103	29,715	15,757	25,563	314	173,391
	July	83,294	26,997	32,032	17,709	26,064	338	186,434
	August	84,222	28,248	31,394	18,363	23,843	336	186,406
	September	75,384	23,608	28,058	17,290	20,369	327	165,036
	October	76,955	24,168	23,918	17,355	21,042	319	163,757
	November	81,702	30,060	21,119	16,134	19,805	293	169,113
	December	87,220	34,130	20,897	21,115	20,220	332	183,914
	TOTAL	944,608	319,808	294,659	191,103	283,713	3,884	2,037,775
1977	January	89,844	43,363	19,953	22,152	20,700	359	196,371
	February	78,752	29,429	19,480	19,601	15,150	322	162,734
	March	77,520	28,344	22,464	20,672	19,801	356	169,157
	April	70,898	25,834	21,297	19,867	18,642	319	156,857
	May	77,071	27,945	24,706	20,599	18,677	341	169,339
	June	83,152	28,948	29,622	21,517	17,226	335	180,800
	July	92,408	34,866	32,714	21,825	16,798	328	198,939
	August	90,764	32,302	33,293	22,750	16,712	317	196,138
	September	82,593	26,348	30,946	19,630	16,455	342	176,314
	October	79,406	23,061	27,360	19,041	17,220	360	166,448
	November	79,495	24,848	22,602	19,458	20,428	347	167,178
	December	83,614	32,647	21,167	23,771	22,787	337	184,323
	TOTAL	985,517	357,935	305,604	250,883	220,596	4,063	2,124,598
1978	January	R85,027	R39,226	R22,292	R25,833	R25,051	357	R197,786
	February	R70,693	38,103	R20,328	21,833	R22,399	309	R173,665
	March	66,810	36,383	22,595	R22,443	24,661	264	R173,156
	April	NA	NA	NA	17,489	NA	NA	161,375
	TOTAL (4 months)	NA	NA	NA	87,598	NA	NA	705,982

(See chart on page 35)

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

R=Revised data.

NA=Not available.

Source: Federal Power Commission Form 4, "Monthly Powerplant Report" through March 1978; Edison Electric Institute for April 1978 Total and Nuclear Regulatory Commission for April 1978 Nuclear.

Electric Utilities (Continued)

Fuel Consumption

		Coal	Oil			Gas
			Steam*	Gas Turbine/ Internal Combustion**	Total	
		Thousands of short tons	Thousands of barrels			Millions of cubic feet
1971	TOTAL	327,887	362,186	34,282	396,468	3,975,971
1972	TOTAL	352,392	440,229	53,463	493,692	3,976,770
1973	TOTAL	389,707	513,127	47,020	560,147	3,659,388
1974	TOTAL	392,423	482,524	53,721	536,245	3,443,293
1975	TOTAL	406,030	466,940	39,188	506,128	3,157,584
1976	January	39,986	51,114	4,974	56,088	206,528
	February	34,965	40,452	2,676	43,128	199,441
	March	36,099	41,154	2,800	43,954	222,765
	April	33,805	37,663	2,489	40,152	227,826
	May	33,944	35,651	2,220	37,871	266,632
	June	36,381	40,065	3,574	43,639	313,369
	July	39,841	43,143	4,084	47,227	337,640
	August	40,330	45,627	3,443	49,070	329,737
	September	35,895	38,245	2,526	40,771	295,071
	October	36,783	39,101	3,106	42,207	250,046
	November	38,845	47,346	4,971	52,317	217,362
	December	41,582	53,949	5,564	59,513	214,869
	TOTAL	448,456	513,510	42,427	555,937	3,081,286
1977	January	43,255	R66,379	R9,518	R75,897	205,072
	February	37,645	R47,659	R3,150	50,809	200,407
	March	37,218	R46,172	R2,497	R48,669	231,790
	April	34,051	R42,218	R2,213	R44,431	223,081
	May	37,159	R44,779	R3,846	48,625	259,857
	June	40,151	R46,249	R4,305	50,554	310,701
	July	44,977	R54,664	R7,742	62,406	346,466
	August	44,172	R51,950	R4,646	R56,596	350,755
	September	40,168	R43,297	R2,523	R45,820	324,680
	October	38,379	R38,071	R1,899	R39,970	284,847
	November	38,722	R40,654	R2,468	43,122	234,244
	December	41,298	R52,774	R4,066	56,840	219,979
	TOTAL	477,195	R574,866	R48,873	R623,739	3,191,879
1978	January	R42,713	R61,263	R8,239	R69,502	R228,932
	February	R35,884	R59,633	R7,692	67,325	R210,824
	March	34,088	58,622	5,463	64,085	231,012
	TOTAL (3 months)	112,685	179,518	21,394	200,912	670,768

*Primarily residual fuel oil.

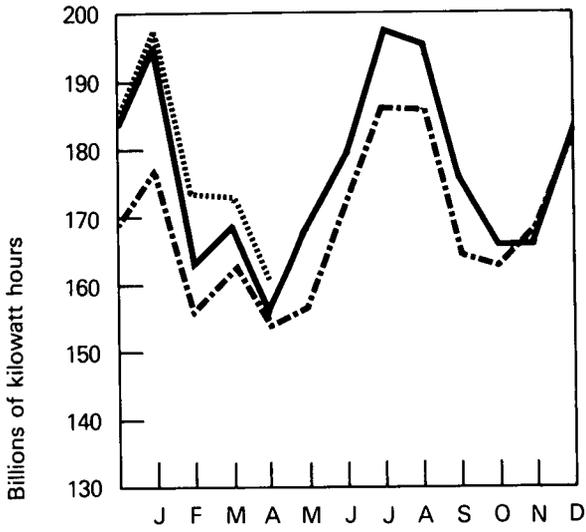
**Primarily middle distillates.

R=Revised.

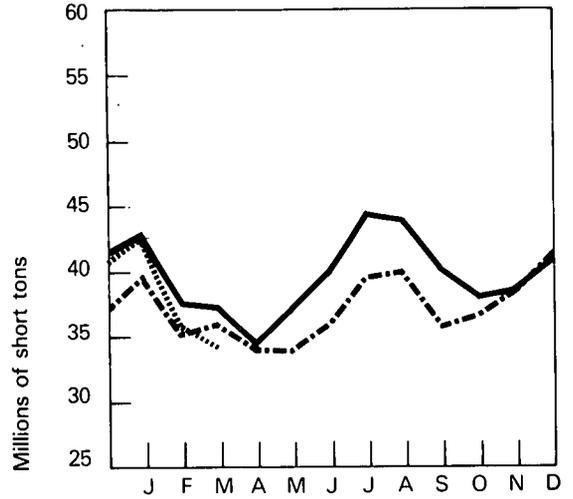
Source: Federal Power Commission Form 4, "Monthly Powerplant Report."

Electric Utilities

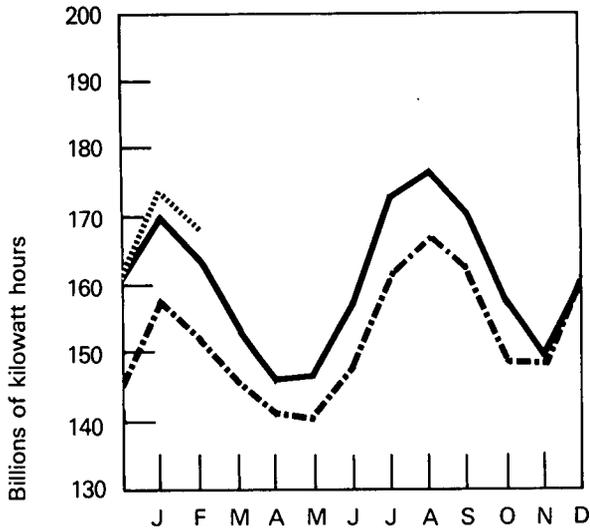
Total Net Electricity Production



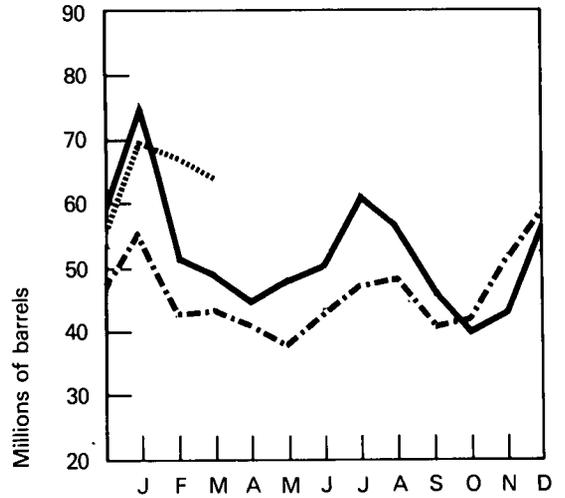
Coal Consumption



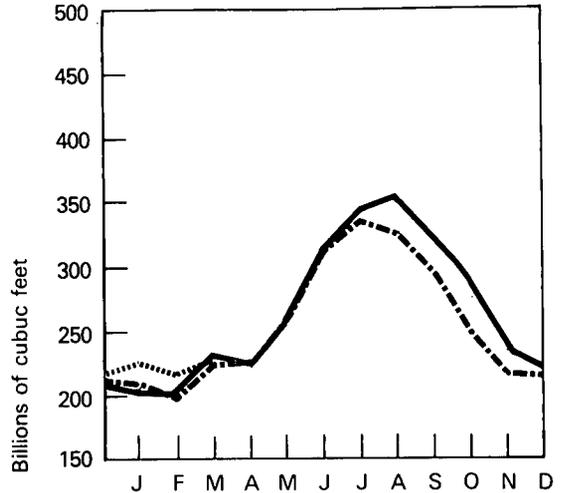
Total Electricity Sales



Oil Consumption



Gas Consumption



--- 1976 — 1977 1978

Electric Utilities (Continued)

Stocks at End of Month

	Coal	Oil			
		Thousands of short tons	Steam*	Gas Turbine/ Internal Combustion**	Total
				Thousands of barrels	
1971	***78,069	***46,451	***3,194	***49,645	
1972	***100,009	***52,575	***5,079	***57,654	
1973	***87,279	***79,121	***10,095	***89,216	
1974	***83,542	***97,201	***15,715	***112,916	
1975	***110,750	***108,358	***16,886	***125,244	
1976					
	January	105,518	102,023	15,922	117,945
	February	104,874	102,147	16,706	118,853
	March	108,450	104,082	16,467	120,550
	April	112,862	103,757	16,642	120,399
	May	119,611	109,142	16,962	126,105
	June	123,048	109,660	16,621	126,281
	July	115,204	110,829	15,862	126,691
	August	110,752	109,823	16,007	125,830
	September	115,399	112,965	17,059	130,024
	October	118,591	114,437	16,954	131,391
	November	119,323	111,137	15,517	126,655
	December	117,493	106,744	14,980	121,724
1977					
	January	106,183	R90,104	R12,739	102,843
	February	103,262	R95,934	R14,098	R110,032
	March	109,620	R98,148	R15,478	113,626
	April	115,915	R101,801	R15,818	R117,619
	May	122,834	R104,095	R15,841	119,936
	June	128,817	R107,932	R15,643	123,575
	July	123,405	R113,250	R16,033	129,283
	August	123,856	R119,599	R17,093	136,692
	September	130,380	R125,360	R17,864	R143,224
	October	139,705	R128,452	R19,127	R147,579
	November	149,731	R129,701	R19,149	148,850
	December	133,288	R125,245	R19,316	144,561
1978					
	January	R105,327	R113,972	R16,230	R130,202
	February	R84,745	R108,063	R19,027	R127,090
	March	77,353	116,445	17,258	133,703

*Primarily residual fuel oil.

**Primarily middle distillates.

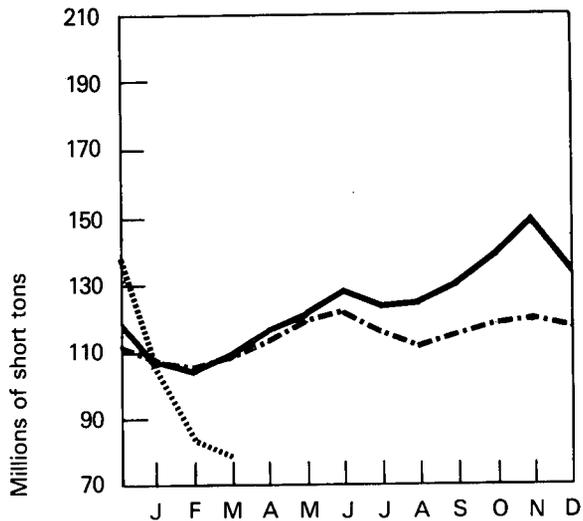
***As of December 31.

R=Revised.

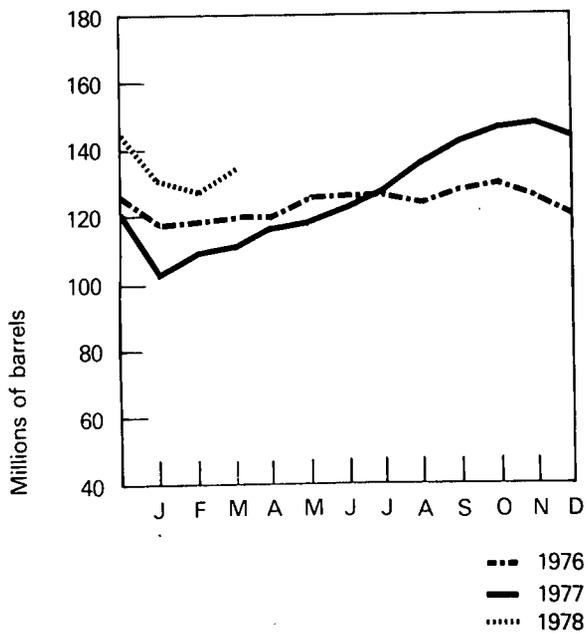
Source: Federal Power Commission Form 4, "Monthly Powerplant Report."

Electric Utilities

Coal Stocks



Oil Stocks



Electric Utilities (Continued)

Electricity Sales*

		Residential	Commercial	Industrial	Other**	Total
Millions of kilowatt hours						
1972	TOTAL	538,609	359,265	640,978	56,309	1,595,161
1973	TOTAL	579,231	388,266	686,085	59,326	1,712,909
1974	TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975	TOTAL	584,711	401,665	675,270	68,153	1,729,799
1976	January	60,126	34,955	57,463	6,359	158,903
	February	54,264	33,809	58,064	5,855	151,992
	March	47,041	32,520	60,322	5,967	145,850
	April	43,563	31,813	59,967	5,386	140,729
	May	41,044	32,538	61,133	5,473	140,188
	June	44,131	35,325	62,654	5,371	147,481
	July	53,702	39,489	62,388	5,856	161,435
	August	57,349	39,933	63,921	5,829	167,032
	September	53,459	38,817	64,382	6,125	162,783
	October	44,751	34,981	64,028	5,649	149,409
	November	46,682	33,622	63,002	5,802	149,108
	December	56,751	35,838	62,640	5,886	161,115
	TOTAL	602,863	423,640	739,964	69,558	1,836,025
1977	January	65,332	37,598	61,481	6,274	170,685
	February	R61,423	R36,105	R60,439	R5,770	R163,737
	March	50,374	33,660	63,275	5,748	153,057
	April	44,564	33,051	63,583	5,078	146,276
	May	41,497	34,111	65,559	5,240	146,407
	June	49,438	37,601	66,073	5,595	158,707
	July	60,955	41,745	64,708	5,935	173,343
	August	62,440	42,433	66,521	5,837	177,231
	September	57,231	40,845	66,579	5,951	170,606
	October	48,696	36,547	66,442	5,979	157,664
	November	44,962	33,979	64,959	5,866	149,766
	December	55,101	36,047	63,809	6,083	161,040
	TOTAL	R642,013	R443,722	R773,428	R69,356	R1,928,519
1978	January	65,547	37,942	R64,300	6,584	R174,373
	February	63,936	37,286	60,817	6,252	168,291
	TOTAL (2 months)	129,483	75,228	125,117	12,836	342,664

(See chart on page 35)

*Electricity sales to ultimate consumers.

**Includes street lighting and transportation uses.

R=Revised.

Source: Federal Power Commission Form 5, "Monthly Statement of Electric Operating Revenue and Income."

Nuclear Power

During April 1978, the 65 fully operable domestic nuclear reactors, with a maximum dependable capacity of 45,746 electrical megawatts,* performed at 53 percent of capacity. This was considerably lower than performance during the previous 3 months and can be attributed to numerous spring refueling shut-downs as utilities prepare for summer peak load requirements. Total electricity generated by all nuclear plants (including those units in startup testing) amounted to 17.5 billion net kilowatt hours, which was 10.9 percent of total net domestic electricity production for April.

Construction permits were issued for four units during April, the WPPSS units 3 and 5 owned primarily by the Washington (State) Public Power Supply System, and the Marble Hill units 1 and 2 owned principally by the Public Service Company of Indiana. These units, all pressurized water reactors, are scheduled for completion at various times between 1982 and 1985. Four reactors in San Joaquin County, California, with an original planned capacity in excess of 5,000 megawatts, were canceled during March by the Los Angeles Department of Water and Power. These units were scheduled for completion by 1989.

The Energy Information Administration forecast released in its 1977 annual report to the Congress in April 1978 predicts that 111,000 megawatts of nuclear power capacity will be in commercial operation by the end of 1985, and 172,000 megawatts by the end of 1990. This mid-case assessment is considerably lower than that forecast by utilities which indicates 149,000 megawatts by the end of 1985 and 204,000 megawatts by the end of 1990.**

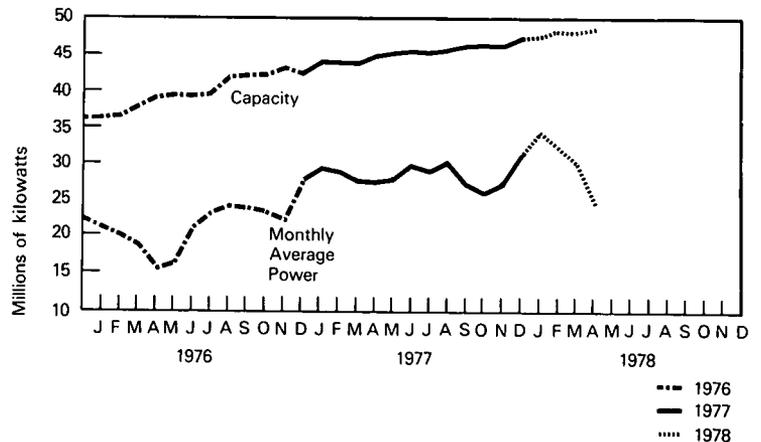
*Does not include four units in startup testing having a total capacity of 3,180 electrical megawatts.

**The utility forecast is taken from individual utility reports filed with the Nuclear Regulatory Commission and the U. S. Department of Energy which are compiled in the Nuclear Powerplant Data Base of the Energy Information Administration.

U.S. Nuclear Powerplant Operations*

	Maximum Dependable Capacity	Average Power	Percent of Total Domestic Electricity Generation
Thousands of net kilowatts			
1972 AVERAGE	7,726	6,174	3.1
1973 AVERAGE	13,850	8,760	4.5
1974 AVERAGE	29,921	13,011	6.1
1975 AVERAGE	35,671	19,692	9.0
1976			
January	36,750	21,638	9.0
February	36,879	20,657	9.2
March	38,072	18,808	8.5
April	39,763	15,142	7.2
May	39,902	16,034	7.6
June	39,781	21,885	9.1
July	40,168	23,802	9.5
August	42,067	24,681	9.8
September	42,896	24,014	10.5
October	42,877	23,327	10.6
November	43,673	22,408	9.5
December	42,877	28,380	11.5
AVERAGE	40,642	21,756	9.4
1977			
January	44,316	29,774	11.3
February	44,282	29,168	12.0
March	44,289	27,785	12.2
April	45,131	27,631	12.7
May	45,222	27,687	12.2
June	45,991	29,885	11.9
July	45,984	29,335	11.0
August	45,982	30,578	11.6
September	46,051	27,264	11.1
October	46,088	25,593	11.4
November	46,088	27,025	11.6
December	47,133	31,350	12.9
AVERAGE	45,554	28,640	11.8
1978			
January	47,167	R34,722	R13.1
February	48,080	32,490	12.6
March	48,062	R30,165	R13.0
April	**48,926	**24,388	**10.9
AVERAGE (4 months)	48,051	30,443	12.4

U.S. Nuclear Powerplants



*Includes all units authorized to generate commercial electricity, including units in startup testing and those owned by the Government.
 **Preliminary data.
 R=Revised data.
 Sources: Capacity data for units in commercial operation or startup testing and Average Power for April 1978 from Nuclear Regulatory Commission. Remaining data from U.S. Department of Energy.

Status of Nuclear Powerplants—April 30, 1978

Status	Number of Plants				Total	Design Capacity
	Boiling Water Reactors	High Temperature Gas Reactors	Pressurized Water Reactors	Other**		Net Electrical Megawatts
In operation or startup testing*	25	1	41	2	69	50,000
Construction permit granted	29	0	61	0	90	98,000
Construction permit pending	8	0	30	3	41	46,000
Orders placed for plant	3	0	8	0	11	13,000
Publicly announced	—	—	—	5	5	6,000
TOTAL	65	1	140	10	216	*** 213,000

*Does not include the Indian Point 1 reactor which is in indefinite shutdown status.

**Includes two dual-purpose Department of Energy-owned reactors, both operating. Also includes 1 Liquid Metal Fast Breeder Reactor and 7 announced intentions to order for which a reactor type has not been chosen.

***Total does not equal sum of components due to independent rounding.

Source: U.S. Department of Energy.

Nuclear Power Generation by Non-Communist Countries—April 1978

Country	Number of Reactors*	Capacity	Electricity Generation	Percent of Design Capacity Used					
				Thousands of gross electrical kilowatts	Millions of gross kilowatt hours	April	Year**		
						1978	1975	1976	1977
Asia									
Japan	15	8,780	3,165	50	46	57	41		
India	3	620	169	38	46	58	51		
Pakistan	1	140	31	31	46	41	28		
Taiwan	1	640	151	33	—	—	—		
Europe									
Belgium	3	1,740	1,103	88	83	65	78		
England***	31	8,100	3,236	59	57	62	55		
Finland	1	440	308	97	—	—	92		
France	12	4,930	2,659	75	68	59	52		
Germany (FR)	10	6,410	2,666	58	72	57	64		
Italy	3	630	394	87	69	69	61		
Netherlands	2	520	375	100	73	84	81		
Spain	3	1,120	627	78	77	77	67		
Sweden	6	3,850	1,989	72	44	55	59		
Switzerland	3	1,060	731	96	84	85	87		
North America									
Canada†	8	4,790	2,809	70	64	80	76		
United States	67	50,430	18,409	51	56	55	64		
South America									
Argentina	1	370	261	99	85	86	55		
Total or Average	170	94,570	††39,084	57	58	59	62		

*Includes fully operational units and those in startup testing which generated electricity during, or prior to, the current month. Capacity and generation figures are shown as gross values, as opposed to net values shown in previous tables of this chapter.

**Averages are computed for those units in operation, including startup units beginning with first month of electricity generation.

***April figures for 21 units are based on a 4-week period; figures for remaining units are for 30 days.

†March figures are based on 4-week period.

††Total does not equal sum of components due to independent rounding.

Source: *Nucleonics Week* magazine.

U.S. Uranium Enrichment—April 1978

	Domestic Customers	Foreign Customers	Total
Separative work performed (in metric tons of separative work units)	72.378	108.668	181.046
Cost (in millions of dollars)	5.417	8.430	13.847
Product quantity (in metric tons of uranium)	16.305	27.578	43.883
Feed requirement (in metric tons of uranium)	90.799	141.651	232.448

Source: U.S. Department of Energy.

Summary of Monthly Fuel Cycle—March 1978

Fuel Cycle Activity	Product	Processed Material ¹	Percent Utilization of Industry Capacity	Energy Content of Processed Material ²	Energy Consumed in Fuel Cycle Activity ³	Cost Contribution to Electric Power ⁴
					Billion Btu	
Milling	Yellowcake (U ₃ O ₈) Deliveries	301	29	103,000	165	1.27
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	1,158	581	395,000	174	0.16
Enrichment	Enriched UF ₆ Deliveries	435 (560 MT-SWU)	(⁶)	891,000	3,964	1.53
Fabrication	Finished Fuel Assemblies Shipped	56	NA	115,000	16	0.47
Powerplant Operation	Electricity Generated	24,402 (million kWhe)	75	260,000	2,320 (million kWhe)	10.93
Spent Fuel	Stored at Reactor Site	219	—	—	—	71.57
	Stored at Non-Reactor Sites	1.0	—	—	—	

¹ Units of measure are discussed in Explanatory Notes 8 and 9.

² Assumes 25,000 MWD/MTU for heat content of enriched uranium and a 6.1 feed to product ratio at the enrichment plant.

³ Energy requirements for processing are obtained from U.S.A.E.C. Report No. WASH 1248.

⁴ Cost contribution is computed from unit prices paid for current month's production and requirement for a model 1000 MWe reactor operating at 65 percent capacity factor. 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.

⁵ Figure for conversion utilization represents material shipped.

⁶ ERDA's enrichment plants 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.

⁷ Figure represents current industry estimate for cost of spent fuel shipment, reprocessing, and waste disposition, exclusive of cost credits for recovered uranium and plutonium.

NA=Not available.

Source: DOE.

Energy Consumption

In February 1978 the combined residential/commercial sector consumed 3.1 quadrillion Btu, 5.5 percent more than in February 1977. Industrial energy consumption for February 1978 was 2.1 quadrillion Btu, 9.3 percent more than in February 1977. Transportation consumption in February was 1.6 quadrillion Btu, up 2.1 percent from the February 1977 level. Total U.S. energy consumption for the first quarter of 1978 was 21.2 quadrillion Btu, 3.1 percent greater than during the similar period in 1977.

Energy Consumption

Domestic Energy Consumption by Primary Energy Type

		Coal*	Natural Gas (dry)	Petroleum	Hydroelectric Power**	Nuclear Electric Power	Total***	Cumulative Total***
Quadrillion (10 ¹⁵) Btu								
1972	TOTAL	12.424	22.699	32.966	2.946	0.576	71.610	
1973	TOTAL	13.294	22.512	34.852	3.006	0.888	74.551	
1974	TOTAL	12.889	21.732	33.468	3.313	1.215	72.617	
1975	TOTAL	12.813	19.948	32.742	3.222	1.839	70.564	
1976	January	1.216	2.337	3.177	0.282	0.172	7.183	7.183
	February	1.076	1.977	2.791	0.265	0.153	6.262	13.455
	March	1.117	1.755	2.948	0.287	0.149	6.256	19.701
	April	1.067	1.538	2.749	0.261	0.117	5.732	25.433
	May	1.073	1.463	2.722	0.276	0.127	5.661	31.094
	June	1.112	1.362	2.774	0.276	0.168	5.692	36.786
	July	1.185	1.399	2.829	0.281	0.189	5.884	42.671
	August	1.194	1.343	2.835	0.258	0.196	5.827	48.498
	September	1.095	1.328	2.776	0.222	0.184	5.606	54.104
	October	1.133	1.653	2.912	0.229	0.185	6.113	60.216
	November	1.192	1.912	3.107	0.216	0.172	6.599	66.816
	December	1.289	2.277	3.503	0.221	0.225	7.515	74.330
	TOTAL	13.751	20.345	35.123	3.075	2.037	74.330	
1977	January	1.287	2.434	3.489	0.224	0.236	R7.671	R7.671
	February	1.140	1.829	3.143	0.167	0.209	R6.488	R14.159
	March	R1.146	1.727	3.076	0.215	0.220	R6.385	R20.544
	April	R1.056	1.436	2.897	0.203	0.212	R5.804	R26.347
	May	R1.120	1.379	2.890	0.203	0.220	R5.811	R32.158
	June	R1.177	1.337	2.976	0.188	0.229	5.907	R38.066
	July	R1.276	1.330	2.990	0.184	0.233	R6.012	R44.078
	August	1.246	1.370	3.068	0.183	0.243	R6.109	R50.188
	September	R1.153	1.431	2.924	0.180	0.209	5.897	R56.085
	October	R1.144	1.520	3.038	0.188	0.203	6.092	R62.177
	November	R1.146	1.696	R3.040	0.221	0.207	R6.311	R68.488
	December	R1.223	2.124	3.416	0.246	0.253	R7.262	R75.750
	TOTAL	R14.114	19.613	R36.947	2.402	2.674	R75.750	
1978	January	R1.238	R2.400	3.340	R0.270	R0.275	R7.523	R7.523
	February	R1.049	R2.142	R3.197	0.242	0.233	R6.863	R14.386
	March	R1.007	1.928	R3.353	R0.266	0.241	R6.794	R21.181
	TOTAL (3 months)	3.294	R6.470	R9.891	R0.777	R0.749	R21.181	

*Includes bituminous coal, lignite, and anthracite coal.

**Includes utility production, industrial production, and net imports.

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

R=Revised.

Source: EIA calculations based on data appearing elsewhere in this publication.

Domestic Energy Consumption by Economic Sector*

		Residential/ Commercial	Industrial	Transportation	Total**
Quadrillion (10 ¹⁵) Btu					
1973	TOTAL	26.515	29.161	18.877	74.551
1974	TOTAL	25.863	28.492	18.261	72.617
1975	TOTAL	26.135	26.071	18.358	70.564
1976	January	3.109	2.421	1.653	7.183
	February	2.688	2.111	1.463	6.262
	March	2.431	2.199	1.626	6.256
	April	2.085	2.068	1.580	5.732
	May	1.917	2.191	1.553	5.661
	June	1.865	2.228	1.599	5.692
	July	1.970	2.278	1.637	5.884
	August	1.978	2.258	1.592	5.827
	September	1.840	2.208	1.558	5.606
	October	1.952	2.561	1.600	6.113
	November	2.374	2.585	1.642	6.599
	December	3.007	2.714	1.794	7.515
	TOTAL	27.215	27.823	19.294	74.330
1977	January	3.425	2.524	1.722	R7.671
	February	R2.970	R1.939	1.579	R6.488
	March	2.493	R2.240	1.651	R6.385
	April	R2.094	R2.086	1.624	R5.804
	May	R1.919	2.285	1.607	R5.811
	June	1.972	2.287	1.648	5.907
	July	R2.116	R2.228	1.669	R6.012
	August	2.108	2.313	1.688	R6.109
	September	1.955	2.329	1.613	5.897
	October	2.003	2.440	1.649	6.092
	November	R2.163	R2.505	R1.643	R6.311
	December	R2.829	2.625	1.808	R7.262
	TOTAL	R28.046	R27.802	R19.902	R75.750
1978	January	R3.279	R2.552	R1.692	R7.523
	February	3.132	2.119	1.612	R6.863
	TOTAL (2 months)	6.411	4.672	3.304	14.386

R=Revised data.

*See Explanatory Note 10 for definitions of the Residential/Commercial, Industrial, and Transportation sectors. The methodology used for sector calculations is provided in the footnotes of the next table.

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

Energy Consumption by Economic Sector and Primary Source—February 1978 [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	0.029	1.283	0.640	—	—	1.952	0.361	2.313	0.819	3.132
Industrial	0.244	0.573	0.622	0.001	—	1.441	0.208	1.649	0.471	2.119
Transportation	0	0.069	1.524	—	(⁹)	1.593	0.006	1.599	0.013	1.612
Electric Utilities	0.775	0.216	0.412	0.241	0.233	1.877	—	—	—	—
TOTAL	1.049	2.142	3.197	0.242	0.233	6.863	0.574	5.561	1.303	6.863

¹ See Explanatory Note 10 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

² Data are from the Energy Information Administration. Includes anthracite and bituminous coal and lignite.

³ Aggregate data and data on utility consumption are from the Energy Information Administration. Data from the American Gas Association are used for the Residential and Commercial Sector, which includes 100 percent of the AGA "Other" category. Natural gas used in transportation, mostly for pipeline use, is estimated to be 3.6 percent of total natural gas consumption less electric utilities. This percentage is derived from 1974, 1975, and 1976 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 and data on oil consumed by electric utilities are from the Energy Infor-

mation Administration. 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, 1975, and 1976 Bureau of Mines data on consumption: Residential and Commercial—50.7 percent; Industrial—49.3 percent.

⁵ EIA hydroelectric power production plus net imports of electricity. These imports are assumed to be from hydroelectric power sources and are estimated at 0.011 quadrillion Btu per month in 1974, 0.005 quadrillion Btu per month for 1975, and 0.007 quadrillion Btu per month for 1976 and 1977. Monthly industrial hydroelectric power consumption is estimated to be one-twelfth of the preliminary Bureau of Mines annual figure for 1976.

⁶ EIA nuclear power production.

⁷ Electricity was distributed using EIA 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.

Energy Consumption (Continued)

Percent Changes in Energy Consumption for February 1978 by Sources and Economic Sectors

	February 1978 Consumption	Percent Change from February 1977*	Cumulative Percent Change from 1977 (January through February)*
	Quadrillion Btu		
Refined Petroleum Products	3.197	+1.7	-1.4
Motor Gasoline	1.016	+0.2	+1.5
Jet Fuel	0.171	+5.3	-2.1
Distillate	0.797	+3.7	-5.6
Residual	0.650	+0.9	-2.9
Other Petroleum Products	0.562	+1.7	+0.3
Natural Gas (Dry)	2.142	+17.1	+6.6
Coal (Anthracite, bituminous, and lignite)	1.049	-8.0	-5.8
Hydroelectric and Nuclear Electric Power	0.475	+26.3	+22.0
TOTAL ENERGY USE	6.863	+5.8	+1.6
Economic Sector Consumption			
Residential and Commercial	3.132	+5.5	+0.3
Industrial	2.119	+9.3	+4.7
Transportation	1.612	+2.1	+0.1

*Computed on a 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								
1973	TOTAL	0.295	7.577	7.077	3.445	8.120	26.515	
1974	TOTAL	0.297	7.427	6.484	3.424	8.232	25.863	
1975	TOTAL	0.253	7.688	6.135	3.538	8.520	26.135	
1976	January	0.031	1.254	0.648	0.340	0.836	3.109	3.109
	February	0.019	1.090	0.581	0.315	0.683	2.688	5.797
	March	0.018	0.856	0.571	0.286	0.699	2.431	8.228
	April	0.020	0.671	0.500	0.271	0.623	2.085	10.313
	May	0.016	0.488	0.506	0.265	0.642	1.917	12.230
	June	0.015	0.333	0.488	0.285	0.745	1.865	14.095
	July	0.011	0.281	0.486	0.333	0.858	1.970	16.065
	August	0.015	0.259	0.506	0.347	0.851	1.978	18.043
	September	0.016	0.272	0.518	0.331	0.702	1.840	19.882
	October	0.020	0.395	0.569	0.286	0.681	1.952	21.834
	November	0.025	0.723	0.622	0.288	0.715	2.374	24.208
	December	0.036	1.083	0.730	0.330	0.828	3.007	27.215
	TOTAL	0.243	7.706	6.726	3.676	8.863	27.215	
1977	January	0.035	1.376	0.712	0.367	R0.935	3.425	3.425
	February	0.024	1.216	0.674	R0.347	R0.709	R2.970	R6.395
	March	0.019	0.845	0.608	0.301	0.720	2.493	R8.888
	April	0.020	0.623	0.538	0.277	0.635	R2.094	R10.981
	May	0.016	0.405	0.529	0.271	0.697	R1.919	R12.900
	June	0.015	0.315	0.544	0.311	R0.788	1.972	R14.872
	July	0.014	0.283	0.503	0.366	0.950	R2.116	R16.988
	August	0.014	0.256	0.551	0.373	0.915	2.108	R19.096
	September	0.015	0.264	0.551	0.350	R0.776	1.955	R21.052
	October	0.018	0.376	0.612	0.306	0.691	2.003	R23.055
	November	0.025	0.552	R0.611	0.284	0.691	R2.163	R25.217
	December	0.030	0.952	0.684	0.326	0.837	R2.829	R28.046
	TOTAL	0.246	7.462	R7.116	R3.877	R9.344	R28.046	
1978	January	0.029	1.257	R0.671	0.369	R0.952	R3.279	R3.279
	February	0.029	1.283	0.640	0.361	0.819	3.132	6.411
	TOTAL (2 months)	0.058	2.540	1.311	0.730	1.771	6.411	

(See footnotes on page 50)

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ³	Hydro-electric	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu									
1973	TOTAL	4.370	10.493	6.403	0.036	2.341	5.518	29.161	
1974	TOTAL	4.062	10.137	6.305	0.036	2.337	5.615	28.492	
1975	TOTAL	3.798	8.425	5.966	0.035	2.302	5.545	26.071	
1976	January	0.316	0.794	0.630	0.003	0.196	0.482	2.421	2.421
	February	0.299	0.618	0.565	0.003	0.198	0.429	2.111	4.532
	March	0.317	0.616	0.556	0.003	0.206	0.503	2.199	6.732
	April	0.316	0.587	0.487	0.003	0.205	0.471	2.068	8.799
	May	0.323	0.658	0.492	0.003	0.209	0.506	2.191	10.990
	June	0.308	0.670	0.475	0.003	0.214	0.559	2.228	13.219
	July	0.307	0.734	0.473	0.003	0.213	0.549	2.278	15.496
	August	0.300	0.709	0.492	0.003	0.218	0.535	2.258	17.754
	September	0.299	0.716	0.504	0.003	0.220	0.467	2.208	19.962
	October	0.314	0.951	0.554	0.003	0.218	0.521	2.561	22.523
	November	0.323	0.905	0.605	0.003	0.215	0.534	2.585	25.108
	December	0.353	0.900	0.710	0.003	0.214	0.536	2.714	27.823
	TOTAL	3.775	8.859	6.540	0.033	2.525	6.091	27.823	
1977	January	R0.319	0.767	0.693	0.001	0.210	0.535	2.524	2.524
	February	0.305	0.349	0.655	0.001	R0.206	R0.422	R1.939	R4.463
	March	0.325	0.591	0.591	0.001	0.216	0.516	R2.240	R6.703
	April	0.306	0.541	0.523	0.001	0.217	0.497	R2.086	R8.789
	May	0.303	0.667	0.514	0.001	0.224	0.576	2.285	R11.074
	June	0.294	0.667	0.529	0.001	0.225	R0.571	2.287	13.361
	July	0.286	0.657	0.489	0.001	0.221	R0.574	R2.228	15.589
	August	0.274	0.718	0.536	0.001	0.227	0.557	2.313	17.902
	September	0.267	0.795	0.536	0.001	0.227	R0.504	2.329	R20.232
	October	0.298	0.807	0.595	0.001	0.227	0.512	2.440	R22.672
	November	R0.297	0.851	R0.594	0.001	0.222	0.540	R2.505	R25.177
	December	0.303	0.878	0.665	0.001	0.218	0.559	2.625	R27.802
	TOTAL	R3.576	8.288	R6.920	0.017	R2.639	6.362	R27.802	
1978	January	0.283	R0.830	R0.652	0.001	R0.219	R0.566	R2.552	R2.552
	February	0.244	0.573	0.622	0.001	0.208	0.471	2.119	4.672
	TOTAL (2 months)	0.528	1.403	1.274	0.003	0.427	1.036	4.672	

(See footnotes on page 50)

Energy Consumption (Continued)

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas ⁴ (dry)	Petroleum ²	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	0.009	0.733	17.940	0.058	0.137	18.877	
1974	TOTAL	0.009	0.656	17.392	0.060	0.144	18.261	
1975	TOTAL	0.001	0.602	17.544	0.062	0.149	18.358	
1976	January	—	0.076	1.556	0.006	0.015	1.653	1.653
	February	—	0.064	1.382	0.006	0.012	1.463	3.116
	March	—	0.055	1.552	0.005	0.013	1.626	4.741
	April	—	0.047	1.516	0.005	0.012	1.580	6.321
	May	—	0.043	1.493	0.005	0.012	1.553	7.874
	June	—	0.037	1.545	0.005	0.012	1.599	9.473
	July	—	0.038	1.581	0.005	0.013	1.637	11.110
	August	—	0.036	1.538	0.005	0.013	1.592	12.702
	September	—	0.037	1.504	0.005	0.011	1.558	14.259
	October	—	0.050	1.531	0.006	0.013	1.600	15.859
	November	—	0.061	1.561	0.006	0.014	1.642	17.500
	December	—	0.074	1.699	0.006	0.015	1.794	19.294
	TOTAL	—	0.619	18.457	0.064	0.154	19.294	
1977	January	—	0.080	1.620	0.006	0.015	1.722	1.722
	February	—	0.058	1.503	0.006	0.012	1.579	3.301
	March	—	0.054	1.580	0.005	0.012	1.651	4.953
	April	—	0.043	1.564	0.005	0.011	1.624	6.577
	May	—	0.040	1.549	0.005	0.013	1.607	8.184
	June	—	0.037	1.594	0.005	0.012	1.648	9.832
	July	—	0.035	1.616	0.005	0.013	1.669	11.501
	August	—	0.036	1.635	0.005	0.012	1.688	13.189
	September	—	0.040	1.557	0.005	0.011	1.613	14.802
	October	—	0.044	1.587	0.005	0.012	1.649	16.451
	November	—	0.052	R1.571	0.006	0.014	R1.643	R18.094
	December	—	0.068	1.719	0.006	0.015	1.808	R19.902
	TOTAL	—	0.588	R19.097	0.064	0.153	R19.902	
1978	January	—	R0.078	1.592	0.006	R0.016	R1.692	R1.692
	February	—	0.069	1.524	0.006	0.013	1.612	3.304
	TOTAL (2 months)	—	0.147	3.116	0.012	0.029	3.304	

¹ See Explanatory Note 10 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculations 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 50.7 percent for 1974, 1975, 1976, 1977, and 1978.

³ The percentage share used in calculating Industrial consumption of petroleum was 47.5 percent for 1973 and 49.3 percent for 1974, 1975, 1976, 1977, and 1978.

⁴ The percentage share used in calculating Transportation consumption of natural gas was 3.9 percent for 1973 and 3.6 percent for 1974, 1975, 1976, 1977, and 1978.

R=Revised data.

Part 8

Oil and Gas Exploration and Development

The number of oil and gas rotary drilling rigs in use in the United States during May rose to 2,249, an increase of 51 over the previous month's count, and the highest May level in 21 years. Total well completions have also increased significantly this year. During the January—April 1978 period, a total of 14,394 wells were drilled compared with 13,607 a year earlier, an increase of 5.8 percent. A 6.6-percent decline in oil well completions was offset by a 19.4-percent increase in gas wells drilled. Dry holes were up 12.4 percent.

Seismic exploration for oil and gas was at a 13-year high during April with 342 crews at work (321 land, 21 marine). The April total represents a 17.1-percent increase over that for April 1977 and a 43.7-percent increase compared with the same month in 1976.

Resource Development

Oil and Gas Exploration and Development

		Rotary Rigs in Operation	Exploratory and Development Wells Drilled*				Total Footage of Wells Drilled*	
		Monthly Average	Oil	Gas	Dry	Total	Thousands of feet	
1972	AVERAGE	1,107	TOTAL	11,306	4,928	11,057	27,291	134,602
1973	AVERAGE	1,194	TOTAL	9,902	6,385	10,305	26,592	136,391
1974	AVERAGE	1,475	TOTAL	12,784	7,240	11,674	31,698	150,551
1975	AVERAGE	1,660	TOTAL	16,408	7,580	13,247	37,235	174,434
1976	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
	August	1,691		1,265	711	1,140	3,116	14,697
	September	1,744		1,474	909	1,199	3,582	16,777
	October	1,794		1,396	750	1,123	3,269	14,542
	November	1,840		1,291	698	1,222	3,211	14,642
	December	1,860		1,512	926	1,414	3,852	17,093
		AVERAGE	1,656	TOTAL**	17,059	9,085	13,621	39,765
1977	January	1,850		1,391	732	1,096	3,219	14,517
	February	1,856		1,321	705	999	3,025	14,443
	March	1,887		1,817	958	1,297	4,072	19,400
	April	1,907		1,405	818	1,059	3,282	15,523
	May	1,982		1,382	877	1,150	3,409	16,702
	June	2,008		1,720	952	1,270	3,942	18,767
	July	2,023		1,304	724	1,022	3,050	14,529
	August	2,066		1,400	961	1,179	3,540	16,838
	September	2,084		1,924	1,105	1,288	4,317	19,333
	October	2,101		1,562	1,024	1,254	3,840	18,000
	November	2,113		1,785	1,091	1,447	4,323	19,537
	December	2,141		1,875	1,387	1,569	4,831	21,365
		AVERAGE	2,001	TOTAL**	18,912	11,378	14,692	44,982
1978	January	2,128		1,184	783	1,233	3,200	15,394
	February	2,135		1,486	851	1,239	3,576	16,933
	March	2,158		1,499	1,247	1,420	4,166	20,392
	April	2,198		1,369	971	1,112	3,452	17,559
	May	2,249		NA	NA	NA	NA	NA
		AVERAGE (5 months)	2,170	TOTAL** (4 months)	5,538	3,852	5,004	14,394

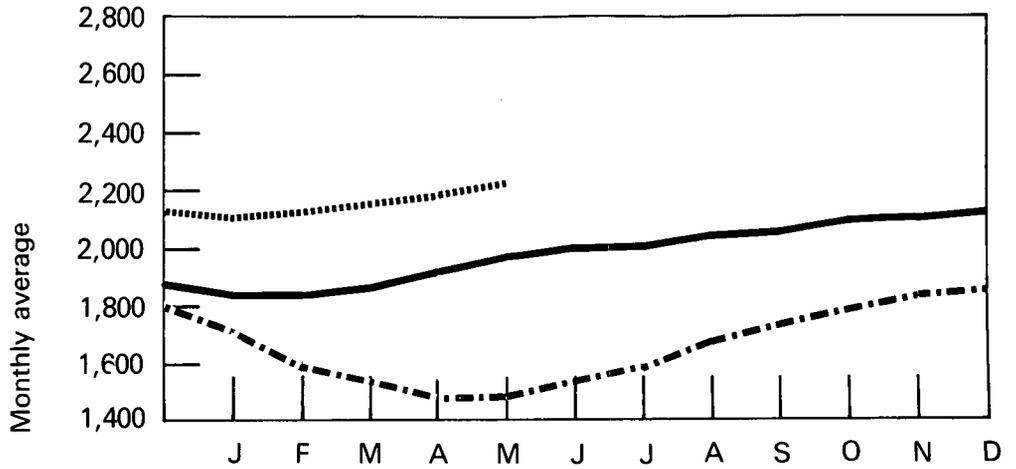
*Excludes service wells and stratigraphic and core tests.

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

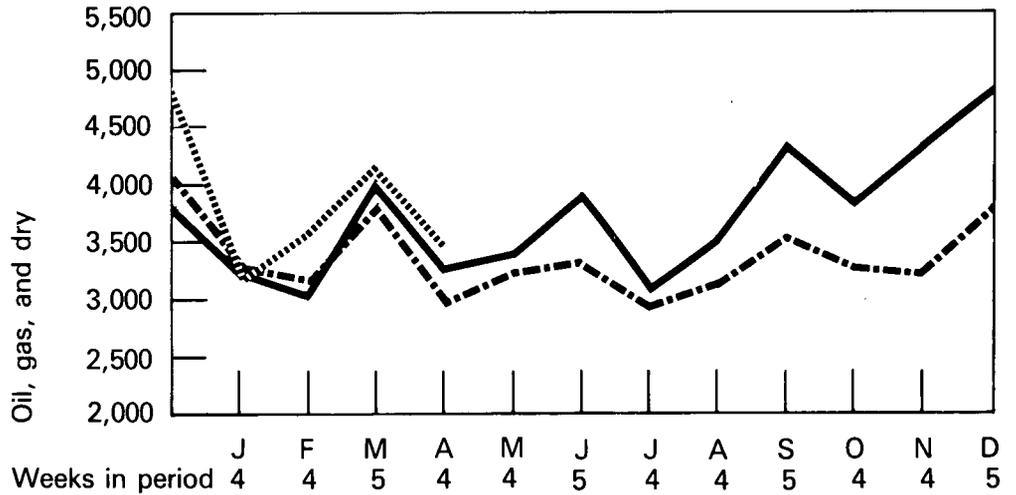
NA=Not available.

Sources: Rotary Rigs: Hughes Tool Company "Rotary Rigs Running - By State;" Wells: American Petroleum Institute "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

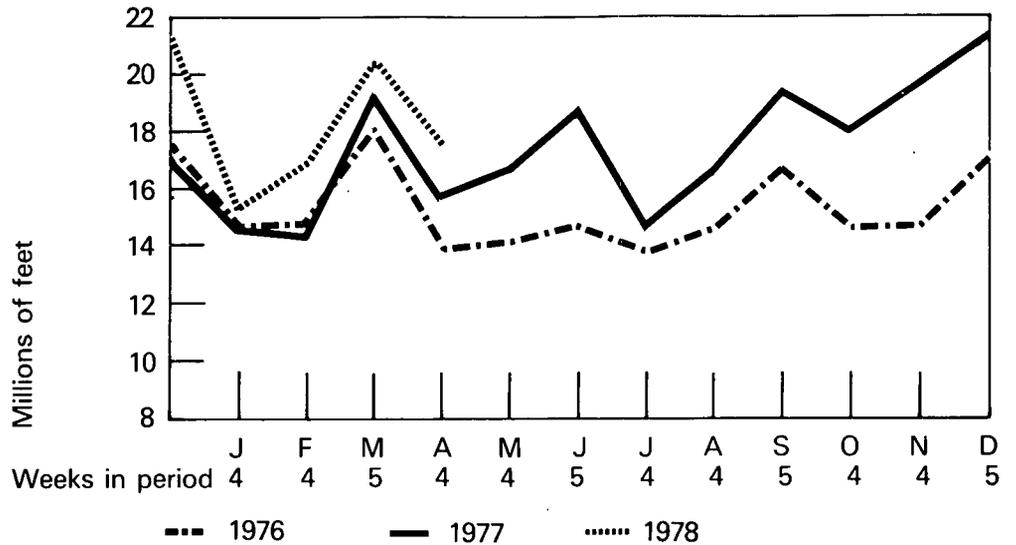
Rotary Rigs in Operation



Total Wells Drilled



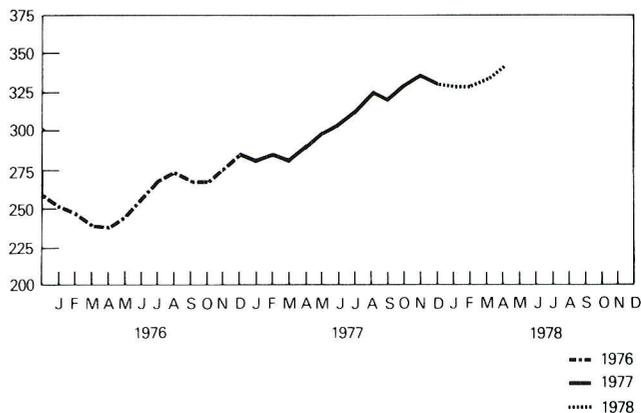
Total Footage of Wells Drilled



Oil and Gas Exploration and Development (Continued)

		Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Monthly average		
1972	Year	12	239	251	10,306	9,333	19,639
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	254	284	25,773	12,558	38,331
1976	Year	25	237	262	18,859	11,910	30,769
1977	Year	27	281	308	NA	NA	NA
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			
	August	33	242	275			
	September	28	240	268			
	October	21	246	267			
	November	25	250	275			
	December	27	259	286			
1977	January	26	254	280			
	February	27	259	286			
	March	22	260	282			
	April	26	266	292			
	May	29	272	301			
	June	31	274	305			
	July	30	285	315			
	August	31	295	326			
	September	29	291	320			
	October	28	302	330			
	November	26	309	335			
	December	26	303	329			
1978	January	26	302	328			
	February	23	305	328			
	March	20	314	334			
	April	21	321	342			
	AVERAGE (4 months)	22	311	333			

Total Seismic Crews



NA=Not available.

Source: Society of Exploration Geophysicists "Monthly Seismic Crew Count" and annual reports published in *Geophysics*.

Price

Crude Oil

The average price of domestic crude oil purchased by refiners in March was \$10.45 per barrel (including transportation costs), \$1.13 above the price 1 year earlier.

The average cost of imported crude oil purchased by refiners was \$14.57 per barrel (including transportation costs to U.S. refineries) in March, 3 cents above the average price 1 year earlier.

The composite refiner acquisition cost of domestic and imported crude oil was \$12.23 per barrel (including transportation costs) in March, up 4 cents from the revised February price, and up 35 cents from the price 1 year earlier.

The average price paid by first purchasers for lower tier crude oil was \$5.34 per barrel in March, up 5 cents from the price paid in February. The upper tier crude oil price increased 6 cents in March to \$11.87 per barrel. The average stripper oil price increased 7 cents to \$13.97 per barrel. The Alaskan North Slope crude oil price dropped to an all time low of \$5.17 per barrel, a decrease of \$1.81 from its high in September 1977. The average price paid for all first purchases of domestic crude oil in March was \$8.76 per barrel, down 8 cents from the February level, but up 31 cents from the price 1 year earlier.

Motor Gasoline

Preliminary data from the U.S. Department of Energy retail motor gasoline survey indicate that, nationally, leaded regular gasoline at full serve pumps sold for an average of 61.7 cents per gallon in March, which is 0.1 cent above the price in February. The price for unleaded regular gasoline at full serve pumps increased 0.2 cent to 65.9 cents per gallon, which was 4.2 cents above the price for leaded regular gasoline at full serve pumps. Self serve leaded and unleaded regular gasoline prices were 57.0 and 61.8 cents per gallon, respectively.

On a regional basis, average selling prices for leaded regular gasoline at full serve pumps

ranged from 60.3 cents per gallon in Region 6* (0.2 cent lower than the February price) to 65.6 cents in Region 9 (0.6 cent lower than the February price). The average price for unleaded regular gasoline at full serve pumps ranged from 63.8 cents in Region 6 (unchanged from the revised February price) to 69.3 cents in Region 9 (0.4 cent lower than the revised February price).

The average price of full serve major brand leaded regular gasoline was 63.3 cents per gallon compared to 59.1 cents per gallon for full serve nonmajor brand leaded regular gasoline.

Aviation Fuels

The average retail price of kerosene type aviation fuel increased by 0.2 cent in March to 38.4 cents per gallon. The price has increased a total of 3.8 cents per gallon in the past 12 months.

Residual Fuel Oil

The average retail price for all grades of No. 6 residual fuel oil in March was \$12.63 per barrel, a 10-cent increase from the revised February price.

Liquefied Petroleum Gases

The average wholesale price of butane decreased 0.2 cent in March to 24.9 cents per gallon. This price is the same as 1 year earlier. The average wholesale price of propane dropped 0.9 cent in March to 25.6 cents per gallon, which is 1.9 cents higher than a year ago.

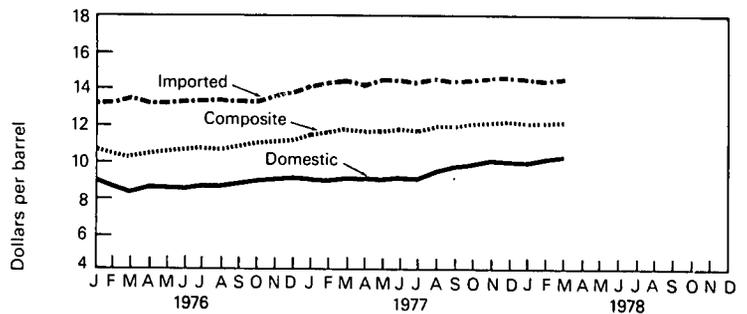
*Regions are defined in Explanatory Note 13.

Crude Oil

Refiner Acquisition Cost of Crude Petroleum*

		Domestic	Imported	Composite
Dollars per barrel				
1974	AVERAGE	7.18	12.52	9.07
1975	AVERAGE	8.39	13.93	10.38
1976	January	9.14	13.27	10.76
	February	8.67	13.26	10.54
	March	8.48	13.51	10.44
	April	8.66	13.39	10.63
	May	8.62	13.41	10.66
	June	8.60	13.48	10.88
	July	8.72	13.51	10.97
	August	8.65	13.58	10.78
	September	8.95	13.47	11.08
	October	9.13	13.49	11.20
	November	9.23	13.58	11.26
	December	9.25	13.71	11.32
		AVERAGE	8.84	13.48
1977	January	9.23	14.11	11.64
	February	9.24	14.50	11.80
	March	9.32	14.54	11.88
	April	9.21	14.36	11.75
	May	9.21	14.62	11.87
	June	9.34	14.63	11.98
	July	9.32	14.44	11.90
	August	9.54	14.68	12.01
	September	9.75	14.50	12.01
	October	9.95	14.56	12.12
	November	10.17	14.61	12.18
	December	10.15	14.76	12.27
		AVERAGE	9.55	14.53
1978	January	10.14	14.52	12.13
	February	R10.25	R14.41	R12.19
	March**	10.45	14.57	12.23

Crude Oil Refiner Acquisition Cost



*See Explanatory Note 11.

**Preliminary data.

R=Revised data.

Sources: 1974 through January 1976—Form FEO-96 "Monthly Cost Allocation Report;" February 1976 forward—FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report."

Crude Oil (Continued)

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	56	30	—	14		
	March	57	29	—	14		
	April	57	29	—	14		
	May	57	29	—	14		
	June	56	29	—	15		
	July	56	30	—	14		
	August	56	30	—	14		
		Lower Tier	Upper Tier		Stripper		
	September	53.4	33.7		12.9		
	October	52.4	34.7		12.9		
November	49.9	36.6		13.4			
December	50.1	36.4		13.6			
	AVERAGE	54.4	31.5		14.1		
1977	January	50.6	36.7		12.7		
	February	49.5	37.2		13.3		
	March	49.2	37.2		13.6		
	April	49.5	36.9		13.6		
	May	48.4	37.6		14.0		
	June	48.8	37.0		14.2		
	Lower Tier	Upper Tier		Stripper	Alaskan North Slope**	Naval Petroleum Reserve**	
July	46.75	36.59		13.30	2.58	0.75	
August	43.31	36.65		13.32	5.79	0.91	
September	42.78	34.07		13.14	9.06	0.91	
October	42.23	34.58		12.92	9.09	1.15	
November	41.41	34.67		13.00	9.84	1.05	
December	40.42	34.61		13.00	10.92	1.03	
	AVERAGE	45.92	36.11		13.32	4.14	0.51
1978	January	41.73	34.19		12.69	10.17	1.19
	February	R40.78	R34.35		R13.68	R9.94	1.23
	March***	38.56	33.48		13.74	13.29	.91

*Totals do not add to 100 due to rounding.

**See footnotes 5 and 6 of previous table.

***Preliminary.

R=Revised data.

Sources: January 1975 through January 1976—Form FEA-90 "Crude Petroleum Production Monthly Report;" February 1976 through August 1976—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report" for Lower Tier percentages and EIA estimates for Upper Tier percentages; September 1976 forward—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report."

Estimated FOB Cost of Imported Crude Petroleum from Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
Dollars per barrel										
1976	January	12.96	NA	12.77	11.61	12.34	12.85	11.67	11.91	11.15
	February	12.89	NA	12.77	11.48	12.34	12.85	11.64	11.93	11.61
	March	12.93	NA	12.78	11.45	12.34	12.94	11.71	11.91	11.26
	April	12.98	NA	12.74	11.58	12.39	12.95	11.72	11.94	11.38
	May	13.01	NA	12.76	11.58	12.45	12.97	11.61	11.85	11.10
	June	13.02	NA	12.74	11.62	12.40	12.97	11.64	11.92	11.03
	July	13.06	NA	12.79	11.64	12.64	13.11	11.58	11.89	10.87
	August	13.06	NA	12.75	11.61	12.52	13.08	11.58	11.92	11.19
	September	13.12	NA	12.73	11.66	12.66	13.06	11.55	11.97	11.53
	October	13.09	NA	12.79	11.63	12.70	13.25	11.65	11.92	11.41
	November	13.12	NA	12.71	11.62	12.74	13.25	11.62	11.96	11.58
	December	13.21	NA	12.82	11.78	12.83	13.36	11.65	12.16	11.77
1977	January	14.03	NA	13.41	12.03	13.64	14.11	11.92	12.53	12.91
	February	14.31	NA	13.43	12.36	13.89	14.24	12.04	12.33	13.30
	March	14.29	NA	13.58	12.79	13.87	14.32	12.24	12.51	12.98
	April	14.34	NA	13.55	12.79	13.98	14.51	12.23	12.53	12.62
	May	14.31	NA	13.57	12.78	13.93	14.56	12.23	12.56	12.60
	June	14.35	NA	13.55	12.68	13.94	14.55	12.21	12.44	12.53
	July	14.43	NA	13.61	12.78	13.99	14.52	12.40	12.70	12.48
	August	14.48	NA	13.63	12.80	13.95	14.54	12.56	13.15	12.37
	September	14.43	NA	13.64	12.73	13.99	14.56	12.72	13.20	12.55
	October	14.43	NA	13.65	12.79	13.93	14.48	12.70	13.22	12.72
	November	14.37	NA	13.65	12.75	13.88	14.53	12.73	13.33	12.71
	December	14.44	NA	13.61	12.71	13.85	14.45	12.77	13.27	12.56
1978	January	14.29	NA	13.67	12.62	13.77	14.18	12.70	13.23	12.73
	February	14.21	NA	13.62	12.68	13.91	14.18	12.78	13.18	12.61
	March	14.19	NA	13.62	12.68	13.75	14.13	12.80	13.20	12.86

NA=Not available.

*The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 13.

Source: FEA Form F701-M-0 "Transfer Pricing Report."

Crude Oil (Continued)

Estimated Landed Cost of Imported Crude Petroleum From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
Dollars per barrel										
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	12.62	12.30	12.87	11.65
1976	January	13.56	12.95	13.89	13.01	13.52	13.61	13.18	13.50	11.60
	February	13.57	13.24	13.94	12.87	13.45	13.52	13.21	13.36	12.09
	March	13.83	13.30	13.94	12.77	13.36	13.62	13.18	13.37	11.71
	April	13.73	13.61	13.78	12.91	13.38	13.60	13.11	13.18	11.95
	May	13.47	13.62	13.84	12.82	13.59	13.62	13.05	13.39	11.61
	June	13.75	14.19	13.84	13.00	13.38	13.78	13.14	13.09	11.55
	July	13.77	13.79	13.80	12.76	13.53	13.81	13.02	13.45	11.44
	August	13.91	13.78	13.78	13.09	13.51	13.87	13.03	13.23	11.77
	September	14.03	13.70	13.80	12.78	13.72	13.82	12.87	13.44	11.98
	October	13.81	13.71	13.84	12.73	13.83	13.99	12.87	13.22	11.84
	November	13.84	13.59	13.77	12.58	13.73	13.95	13.01	13.18	12.01
	December	14.14	13.52	13.75	12.69	13.79	14.11	13.02	13.29	12.19
	AVERAGE	13.81	13.57	13.82	12.82	13.58	13.80	13.04	13.30	11.80
1977	January	14.80	13.92	14.42	13.16	14.64	14.97	13.22	13.56	13.29
	February	15.18	13.74	14.57	13.56	15.12	15.12	13.32	13.46	13.76
	March	15.08	14.34	14.64	13.94	14.88	15.13	13.50	13.80	13.41
	April	15.21	14.02	14.70	13.95	15.12	15.37	13.41	13.78	13.19
	May	15.20	14.94	14.59	13.94	14.91	15.40	13.49	13.85	13.10
	June	15.34	14.49	14.63	13.81	14.92	15.37	13.39	13.72	13.06
	July	15.29	13.91	14.75	13.84	14.88	15.39	13.64	14.20	13.02
	August	15.24	14.24	14.65	13.99	14.70	15.25	13.72	14.36	12.82
	September	15.29	14.14	14.62	13.77	14.99	15.34	14.01	14.41	13.08
	October	15.41	14.00	14.67	13.83	14.81	15.31	13.85	14.56	13.16
	November	15.05	14.52	14.73	13.88	14.73	15.23	13.94	14.19	13.11
	December	15.25	14.27	14.58	13.95	14.81	15.21	13.49	14.48	12.99
1978	January	15.01	14.37	14.60	13.91	14.63	14.88	13.93	14.40	13.00
	February	14.91	14.31	14.53	13.75	14.85	14.90	13.96	14.07	12.93
	March	14.74	13.56	14.56	14.06	14.62	14.89	14.07	14.44	13.22

*See Explanatory Note 14.

Source: FEA Form F701-M-O "Transfer Pricing Report."

		Entitlement Price* (Dollars)	National Old Oil (or Domestic Crude Oil) Supply Ratio*	Crude Oil Entitlement Benefit* (Dollars)
1976	January	8.09	.309	2.50
	February	7.85	.352	2.76
	March	7.89	.358	2.82
	April	7.85	.356	2.79
	May	7.82	.356	2.78
	June	7.91	.328	2.59
	July	7.80	.314	2.45
	August	8.02	.319	2.56
	September	7.80	.296	2.31
	October	7.84	.293	2.30
	November	7.90	.273	2.16
	December	7.97	.263	2.10
1977	January	8.30	.266	2.21
	February	8.53	.267	2.28
	March	8.71	.273	2.38
	April	8.69	.285	2.48
	May	8.77	.280	2.46
	June	8.65	.273	2.36
	July	8.68	.258	2.24
	August	8.75	.266	2.33
	September	8.75	.250	2.19
	October	8.78	.250	2.20
	November	8.61	.239	2.06
	December	8.65	.233	2.02
1978	January	8.61	.240	2.07
	February	8.48	.230	1.95
	March	8.47	.225	1.91

*See Definitions.
Source: DOE.

Crude Oil (Continued)

Unrecouped Costs for Refined Products for 30 Largest Refiners¹

		Distillate ²	Motor Gasoline	Aviation Jet Fuel ³	Other Products	Total
Millions of dollars						
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	279	336	145	456	1,216
	March	263	316	163	456	1,198
	April	237	398	180	524	1,339
	May	264	632	161	446	1,503
	June	—	628	135	349	1,112
	July	—	587	129	384	1,100
	August	—	679	125	352	1,156
	September	—	619	134	340	1,093
	October	—	733	151	372	1,256
	November	—	796	168	368	1,332
	December	—	723	139	317	1,179
1977	January	—	901	166	325	1,392
	February	—	1,038	187	303	1,528
	March	—	956	180	287	1,423
	April	—	1,029	194	343	1,566
	May	—	968	199	328	1,495
	June	—	956	232	347	1,535
	July	—	869	210	387	1,466
	August	—	735	208	454	1,397
	September	—	746	182	494	1,422
	October	—	833	243	504	1,580
	November	—	857	213	534	1,604
	December	—	767	188	463	1,418
1978	January	—	971	188	413	1,572
	February	—	1,206	200	431	1,837

¹Beginning with February 1977, data for only 29 refiners are included in this table due to the merger between Skelly Oil Company and Getty Oil Company.

²Includes No. 2 heating oil and No. 2 diesel fuel only. After May 1976, reporting of the distillate bank is no longer required due to decontrol of middle distillates.

³Prior to January 1976 refiners were not required to maintain separate banks for aviation jet fuel.

Source: FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report."

Motor Gasoline

Leaded Regular Gasoline—Full Serve

Leaded Regular Gasoline—Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin	Average Retail Dealer Selling Price	Average Retail Dealer Margin
		Cents per gallon, including tax		Cents per gallon, including tax	
1975	January	52.4	9.0	NA	NA
	February	52.5	9.0	NA	NA
	March	52.6	8.8	NA	NA
	April	53.5	8.6	NA	NA
	May	54.3	8.3	NA	NA
	June	55.6	8.1	NA	NA
	July	58.7	8.4	NA	NA
	August	59.2	8.4	NA	NA
	September	59.3	8.2	NA	NA
	October	58.9	8.2	NA	NA
	November	58.4	8.2	55.4	5.5
	December	58.0	8.1	54.9	5.3
		AVERAGE	56.2	8.4	55.1
1976	January	57.7	8.1	54.7	5.4
	February	57.1	8.3	53.8	5.4
	March	56.6	8.3	53.2	5.3
	April	56.6	8.0	53.2	4.9
	May	57.4	7.4	54.4	4.5
	June	59.0	7.4	56.3	4.8
	July	59.6	7.4	56.6	4.6
	August	60.1	7.4	56.7	4.4
	September	60.2	7.6	56.5	4.3
	October	60.2	7.6	56.5	4.4
	November	60.0	7.8	56.4	4.5
	December	59.9	7.9	56.1	4.5
		AVERAGE	58.7	7.8	55.4
1977	January	59.9	7.9	56.2	4.5
	February	60.7	7.9	57.1	4.4
	March	61.3	7.8	57.7	4.4
	April	62.2	8.1	58.4	4.4
	May	62.9	7.9	58.9	4.2
	June	63.4	8.1	59.3	4.3
	July	63.4	8.3	59.2	4.4
	August	63.4	8.4	58.8	4.2
	September	63.3	8.6	58.5	4.2
	October	63.2	8.8	58.2	4.2
	November	63.1	8.7	58.1	4.0
	December	63.3	9.0	58.2	4.2
		AVERAGE	62.6	8.3	58.2
1978	January	61.7	NA	57.2	NA
	February	61.6	NA	57.1	NA
	March	*61.7	NA	*57.0	NA

*Preliminary data.

NA = Not available.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 forward.

Motor Gasoline (Continued)

Unleaded Regular Gasoline—Full Serve

Unleaded Regular Gasoline—Full Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin	Average Retail Dealer Selling Price	Average Retail Dealer Margin
		Cents per gallon, including tax		Cents per gallon, including tax	
1975	January	NA	NA	NA	NA
	February	56.1	NA	NA	NA
	March	56.2	NA	NA	NA
	April	57.1	NA	NA	NA
	May	57.9	NA	NA	NA
	June	58.8	NA	NA	NA
	July	61.5	NA	NA	NA
	August	62.0	NA	NA	NA
	September	62.1	NA	NA	NA
	October	62.1	NA	NA	NA
	November	62.0	NA	NA	NA
	December	61.4	NA	NA	NA
	AVERAGE	59.8	NA	NA	NA
1976	January	61.2	NA	NA	NA
	February	60.6	NA	NA	NA
	March	60.1	NA	NA	NA
	April	60.4	NA	NA	NA
	May	61.1	NA	NA	NA
	June	62.9	NA	NA	NA
	July	63.2	NA	NA	NA
	August	63.9	NA	NA	NA
	September	64.0	NA	NA	NA
	October	64.0	NA	NA	NA
	November	63.9	NA	NA	NA
	December	63.9	NA	NA	NA
	AVERAGE	62.5	NA	NA	NA
1977	January	64.0	NA	NA	NA
	February	65.0	NA	NA	NA
	March	65.4	NA	NA	NA
	April	66.1	NA	NA	NA
	May	66.7	NA	NA	NA
	June	67.2	NA	NA	NA
	July	67.3	NA	NA	NA
	August	67.0	9.5	63.7	6.5
	September	67.0	9.5	63.7	6.5
	October	67.0	9.7	63.6	6.6
	November	67.0	9.6	63.4	6.4
	December	67.2	9.9	63.6	6.7
	AVERAGE	66.4	9.6	63.6	6.5
1978	January	65.8	NA	61.6	NA
	February	65.7	NA	61.8	NA
	March	*65.9	NA	*61.8	NA

*Preliminary data.

NA = Not available.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 forward.

Leaded Premium Gasoline—Full Serve

Leaded Premium Gasoline —Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin	Average Retail Dealer Selling Price	Average Retail Dealer Margin
		Cents per gallon, including tax		Cents per gallon, including tax	
1975	January	57.1	NA	NA	NA
	February	57.3	NA	NA	NA
	March	57.5	NA	NA	NA
	April	58.2	NA	NA	NA
	May	59.0	NA	NA	NA
	June	60.3	NA	NA	NA
	July	63.1	NA	NA	NA
	August	63.6	NA	NA	NA
	September	63.8	NA	NA	NA
	October	63.4	NA	NA	NA
	November	63.2	NA	NA	NA
	December	62.9	NA	NA	NA
	AVERAGE	60.9	NA	NA	NA
1976	January	62.7	NA	59.6	NA
	February	62.1	NA	58.9	NA
	March	61.6	NA	58.4	NA
	April	61.6	NA	58.5	NA
	May	62.4	NA	59.6	NA
	June	63.9	NA	61.4	NA
	July	64.6	NA	61.8	NA
	August	65.2	NA	62.0	NA
	September	65.3	NA	61.9	NA
	October	65.2	NA	61.9	NA
	November	65.2	NA	61.9	NA
	December	65.0	NA	61.6	NA
	AVERAGE	63.8	NA	60.7	NA
1977	January	65.2	NA	61.7	NA
	February	66.1	NA	62.7	NA
	March	66.8	NA	63.3	NA
	April	67.6	NA	64.1	NA
	May	68.4	NA	64.8	NA
	June	68.9	NA	65.2	NA
	July	68.9	NA	65.2	NA
	August	68.9	9.9	65.8	7.2
	September	68.9	10.0	65.8	7.3
	October	68.9	10.1	65.7	7.3
	November	68.9	10.1	65.6	7.3
	December	69.1	10.2	65.8	7.4
	AVERAGE	68.1	10.1	64.7	7.3
1978	January	67.7	NA	63.5	NA
	February	67.7	NA	64.0	NA
	March	*68.0	NA	*63.9	NA

*Preliminary data.

NA = Not available.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 forward.

Motor Gasoline (Continued)

Average Retail Dealer Selling Prices for Major and Nonmajor Retail Dealers—February and March 1978

Leaded Regular Gasoline—Full Serve

Cents per gallon, including tax

	Selling Price	
	Feb	Mar*
	Major	63.3
Nonmajor	58.8	59.1
National Average	61.6	61.7

Unleaded Regular Gasoline—Full Serve

Cents per gallon, including tax

	Selling Price	
	Feb	Mar*
	Major	66.9
Nonmajor	62.5	62.6
National Average	65.7	65.9

Leaded Regular Gasoline—Self Serve

Selling Price

	Feb	Mar*	
	Major	58.2	58.3
	Nonmajor	56.0	55.8
National Average	57.1	57.0	

Unleaded Regular Gasoline—Self Serve

Selling Price

	Feb	Mar*	
	Major	63.1	63.4
	Nonmajor	59.7	59.6
National Average	61.8	61.8	

Leaded Premium Gasoline—Full Serve

Selling Price

	Feb	Mar*	
	Major	69.0	69.1
	Nonmajor	64.4	64.6
National Average	67.7	68.0	

Unleaded Premium Gasoline—Full Serve

Selling Price

	Feb	Mar*	
	Major	NA	69.7
	Nonmajor	NA	71.1
National Average	NA	69.7	

Leaded Premium Gasoline—Self Serve

Selling Price

	Feb	Mar*	
	Major	66.1	66.1
	Nonmajor	61.6	61.4
National Average	64.0	63.9	

Unleaded Premium Gasoline—Self Serve

Selling Price

	Feb	Mar*	
	Major	66.9	66.9
	Nonmajor	60.3	61.7
National Average	66.1	65.9	

*Preliminary data.

Source: EIA-8 "Retail Motor Fuels Service Station Survey."

Average Regional Retail Dealer Selling Prices for Full Serve Leaded Regular Gasoline—February and March 1978

DOE Region**	Selling Price Cents per gallon, including tax	
	Feb	Mar*
1	61.3	61.4
2	60.7	60.7
3	61.3	61.5
4	61.1	61.6
5	61.1	61.5
6	60.5	60.3
7	61.0	60.0
8	64.0	64.0
9	66.2	65.6
10	63.8	64.3
National Average	61.6	61.7

Average Regional Retail Dealer Selling Prices for Full Serve Unleaded Regular Gasoline—February and March 1978

DOE Region**	Selling Price Cents per gallon, including tax	
	Feb	Mar*
1	65.2	65.6
2	64.8	64.8
3	65.0	65.3
4	65.5	66.2
5	65.3	65.5
6	63.8	63.8
7	64.9	64.8
8	67.2	66.8
9	69.7	69.3
10	67.7	68.3
National Average	65.7	65.9

Average Regional Retail Dealer Buying Prices for Full Serve Leaded Regular Gasoline—February and March 1978

DOE Region**	Buying Price Cents per gallon, including tax	
	Feb	Mar*
1	54.5	54.7
2	53.3	53.5
3	53.5	53.7
4	52.8	52.9
5	52.6	52.7
6	49.9	50.0
7	52.4	52.5
8	53.3	53.2
9	53.8	54.0
10	55.2	55.7
National Average	52.8	52.9

Average Regional Retail Dealer Buying Prices for Full Serve Unleaded Regular Gasoline—February and March 1978

DOE Region**	Buying Price Cents per gallon, including tax	
	Feb	Mar*
1	57.6	57.7
2	56.0	56.2
3	56.0	56.5
4	55.8	56.0
5	55.5	55.7
6	52.7	52.9
7	55.4	55.6
8	56.1	56.0
9	56.3	56.5
10	58.1	58.5
National Average	55.7	55.9

*Preliminary data.

**DOE regions are defined in Explanatory Note 15.

NA = Not available.

Source: EIA-8 "Retail Motor Fuels Service Station Survey."

Aviation Fuels

AVIATION FUELS (Cents per gallon)

		Aviation Gasoline		Naphtha-Type*	Kerosene-Type	
		Wholesale	Retail	Retail	Wholesale	Retail
1975	July	40.6	40.6	31.4	29.8	29.2
	August	41.3	42.1	30.8	32.1	29.5
	September	41.2	39.9	30.3	31.5	29.6
	October	41.1	41.2	30.2	31.7	30.0
	November	39.7	42.1	30.6	31.6	30.2
	December	40.9	40.9	30.7	31.9	30.5
1976	January	41.4	41.2	31.0	30.6	31.3
	February	41.2	42.0	31.1	31.1	31.2
	March	41.1	41.9	30.9	31.2	30.7
	April	41.2	42.5	30.5	31.9	30.5
	May	42.1	43.1	30.6	33.0	30.2
	June	42.6	42.3	31.5	32.1	30.3
	July	43.6	44.2	31.3	32.9	30.8
	August	43.7	44.1	31.7	32.1	31.1
	September	43.6	44.7	32.1	32.5	31.4
	October	43.6	43.8	32.1	32.5	31.9
	November	43.4	43.9	32.8	33.4	32.4
	December	43.5	43.7	32.9	34.7	32.2
1977	January	43.4	44.1	33.4	34.6	33.2
	February	44.7	45.0	34.0	37.1	34.1
	March	45.0	45.7	34.5	35.9	34.6
	April	46.0	47.2	34.3	35.9	34.9
	May	46.6	47.8	34.3	36.3	35.1
	June	46.7	47.6	35.1	36.8	35.7
	July	47.0	48.7	35.6	37.1	35.8
	August	47.9	50.1	35.5	36.6	36.0
	September	47.9	49.1	35.6	37.1	37.0
	October	48.1	49.0	35.7	37.3	37.3
	November	48.3	47.8	35.8	37.9	37.5
	December	47.8	48.1	36.2	37.2	37.8
1978	January	47.8	49.1	36.9	37.9	38.5
	February**	48.3	48.4	36.5	38.3	38.2
	March**	47.8	49.4	36.9	37.8	38.4

*Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.

**Preliminary data.

Note: Wholesale refers to the price of aviation fuel sold to refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Heating Oil

Residential Heating Oil Prices*

		Average Selling Price**	Average Purchase Price**	Average Distributor Margin**
Cents per gallon				
1974	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	R40.2	R32.0	R8.8
	February	R40.2	R32.0	R8.8
	March	39.4	31.5	9.2
	April	39.0	31.3	9.1
	May	39.0	31.4	8.6
	June	39.3	31.8	8.6
	July	39.3	32.3	8.0
	August	39.8	32.2	8.5
	September	40.2	32.6	8.7
	October	40.7	33.1	8.6
	November	41.9	33.4	9.1
	December	43.0	34.5	9.2
1977	January	44.4	35.8	9.3
	February	45.3	36.7	9.4
	March	45.8	37.0	9.5
	April	45.9	37.1	9.6
	May	45.7	37.1	9.5
	June	45.7	37.1	9.3
	July	45.8	37.2	9.3
	August	46.0	37.3	9.2
	September	46.2	37.4	9.4
	October	46.7	37.5	9.8
	November	47.6	37.3	10.2
	December	47.9	37.2	10.4
1978	January	48.5	38.1	10.5
	February	R48.6	37.8	11.0
	March***	48.6	37.6	11.1

*See Explanatory Note 16.

**Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.

***Preliminary data.

R=Revised data.

Sources: 1974 through December 1975—Form CLC-92 "No. 2 Heating Oil Monthly Price Adjustment Report;" January 1976 forward—FEA Form P112-M-1 "No. 2 Heating Oil Supply/Price Monitoring Report."

70 Residential Heating Oil Prices by Region

		Census Region									
		New England	Mid-Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	
		Cents per gallon									
1976	January	41.5	40.0	39.6	38.3	37.8	38.2	35.0	41.2	41.6	
	February	41.4	40.3	39.4	38.0	37.7	38.3	34.4	41.0	42.1	
	March	41.5	39.8	39.2	37.0	36.7	37.6	34.5	40.4	41.9	
	April	41.2	40.0	38.9	37.1	35.9	37.3	34.6	40.3	40.8	
	May	41.1	39.7	38.2	37.1	35.6	37.3	34.0	40.4	42.1	
	June	40.9	41.1	39.1	37.7	37.2	37.3	34.3	40.3	42.8	
	July	40.7	39.8	39.1	37.9	36.9	37.3	34.4	40.1	45.0	
	August	41.5	40.3	39.5	38.2	37.2	37.7	34.3	39.7	44.7	
	September	41.9	40.8	37.5	38.3	38.0	38.8	34.8	41.1	46.0	
	October	42.3	41.4	40.4	39.0	38.5	38.7	35.1	42.1	46.0	
	November	43.3	42.4	42.1	40.1	39.8	39.5	36.3	42.8	46.5	
	December	44.4	43.6	42.9	41.5	41.0	41.9	36.3	42.7	43.8	
1977	January	45.8	44.9	44.2	43.2	43.1	43.0	36.9	43.4	44.6	
	February	46.6	45.8	45.7	43.9	43.4	44.0	38.8	44.2	45.2	
	March	47.1	46.3	45.5	44.4	43.8	44.6	40.2	44.7	45.9	
	April	47.2	46.5	45.5	44.8	43.3	44.2	40.8	44.8	46.4	
	May	47.0	46.4	45.6	44.7	43.7	43.7	40.7	44.8	46.5	
	June	47.1	46.4	45.7	44.7	44.0	43.3	41.2	45.8	46.8	
	July	47.1	46.4	45.7	44.7	44.2	44.2	41.2	44.2	47.9	
	August	47.4	46.6	45.6	44.7	43.7	44.5	41.0	44.9	48.2	
	September	47.7	46.7	45.8	45.0	44.2	44.9	41.1	44.9	47.2	
	October	48.0	47.3	46.4	45.3	43.9	45.4	41.1	45.4	47.4	
		DOE Region*									
		1	2	3	4	5	6	7	8	9	10
	November	48.5	48.1	47.0	46.1	45.7	NA	44.2	45.4	44.9	47.4
	December	48.9	48.6	47.5	46.6	46.1	NA	44.5	45.7	44.5	47.3
1978	January	49.4	49.2	48.1	47.5	46.4	NA	44.5	45.2	44.7	47.4
	February	49.5	49.3	48.4	47.6	46.4	NA	45.2	45.5	45.6	47.5
	March**	49.4	49.3	48.4	47.7	46.5	NA	44.4	45.0	47.0	47.7

*DOE regions are defined in Explanatory Note 15.

NA=Not available. Data for Region 6 are based on a sample of less than four reporting firms.

Note: Average regional distributor purchase prices for heating oil for the period January 1975 through February 1976 are published on page 70 of the October 1977 issue of the *Monthly Energy Review*.

Source: FEA Form P112-M-1 "No. 2 Heating Oil Supply/Price Monitoring Report."

Diesel Fuel

Average Selling Prices and Margins for No. 2 Diesel Fuel*

		Selling Price		Margin	
		Truckstops	Service Stations	Truckstops	Service Stations
Cents per gallon, including tax					
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	52.9	6.9	7.8
	June	52.0	53.3	7.0	7.7
	July	52.1	53.1	6.4	7.1
	August	52.3	53.2	6.0	7.0
	September	52.2	53.1	5.7	6.8
	October	52.4	53.1	5.8	6.5
	November	52.9	53.3	6.1	6.4
	December	53.1	53.5	5.7	5.9
1977	January	53.9	54.3	4.9	5.3
	February	55.3	55.6	5.5	5.9
	March	56.0	56.4	5.7	6.2
	April	56.6	56.7	6.5	6.7
	May	56.9	57.1	6.5	6.8
	June	57.3	57.4	7.1	7.2
	July	57.3	57.3	7.2	7.2
	August	57.0	57.2	6.7	7.2
	September	56.8	57.3	6.5	7.1
	October	56.9	57.2	6.4	6.9
	November	56.9	57.3	6.5	6.7
	December	57.4	57.5	6.6	6.9

*See Explanatory Note 17.

NA=Not available.

Source: Lundberg Survey, Inc.

Diesel Fuel (Continued)

Average Selling Prices and Margins for Major and Independent No. 2 Diesel Fuel Retail Dealers—December 1977

Cents per gallon, including tax

Truckstops

	Selling Price	Margin
Major	58.4	5.9
Independent	56.8	7.3
National Average	57.4	6.6

Service Stations

	Selling Price	Margin
Major	59.0	5.9
Independent	56.4	7.5
National Average	57.5	6.9

Source: Lundberg Survey, Inc.

No. 1 Diesel Fuel Prices

		Wholesale	Retail
Cents per gallon, excluding tax			
1975	July	30.1	37.7
	August	30.8	38.2
	September	31.5	36.9
	October	33.1	35.4
	November	33.3	35.0
	December	34.2	35.5
1976	January	33.8	37.1
	February	33.6	35.3
	March	33.9	34.8
	April	34.2	35.4
	May	34.5	37.5
	June	34.7	37.9
	July	35.0	38.1
	August	36.0	38.2
	September	35.3	37.7
	October	36.3	36.4
	November	35.7	37.0
	December	35.5	36.7
1977	January	37.1	37.8
	February	38.4	39.2
	March	39.0	39.6
	April	39.7	40.6
	May	39.5	41.7
	June	40.2	41.2
	July	40.3	41.3
	August	40.9	41.3
	September	39.0	41.1
	October	40.1	39.8
	November	40.9	40.4
	December	39.5	41.4
1978	January	39.8	41.3
	February*	R39.4	41.5
	March*	39.3	41.0

*Preliminary.

R=Revised data.

Note: Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and -operated retail dealers sell to consumers.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

RESIDUAL FUEL OIL
(Dollars per barrel)

		NO. 5		NO. 6								BUNKER "C"	
				0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Total			
		Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail
1975	July	10.19	11.28	11.57	12.86	10.90	12.05	10.25	10.59	10.66	11.70	7.88	10.54
	August	10.19	11.04	11.53	13.22	10.85	12.34	9.72	10.53	10.49	11.89	8.76	10.43
	September	10.58	11.07	11.75	12.94	10.63	11.65	9.87	10.52	10.48	11.52	8.93	10.29
	October	10.15	11.12	11.50	12.98	10.37	12.09	9.75	10.38	10.30	11.69	8.88	10.31
	November	10.90	11.27	12.21	12.96	10.33	12.03	9.90	10.34	10.47	11.68	9.01	10.43
	December	10.83	11.64	11.89	12.87	10.37	11.83	9.65	10.06	10.24	11.42	9.07	10.15
1976	January	11.08	11.63	12.13	12.39	10.62	11.61	9.57	10.23	10.53	11.35	8.75	10.35
	February	10.55	11.57	12.42	12.78	10.87	11.84	9.70	10.35	10.73	11.52	8.53	10.27
	March	10.41	11.89	12.36	12.81	11.05	11.80	9.56	10.21	10.74	11.43	8.59	10.35
	April	10.21	11.58	11.44	12.34	10.86	11.77	9.53	10.28	10.38	11.43	8.66	10.12
	May	9.87	11.49	11.71	11.87	10.80	11.40	9.47	9.89	10.11	10.95	8.75	10.65
	June	9.91	11.23	11.71	12.24	10.33	11.36	9.73	10.03	10.12	11.04	8.57	10.10
	July	10.06	11.70	11.73	12.12	10.22	11.36	9.83	10.04	10.25	11.04	9.23	10.34
	August	9.78	11.48	11.85	12.29	10.45	11.46	9.61	10.22	10.20	11.20	8.93	9.98
	September	10.36	11.37	11.85	12.50	10.33	11.55	10.04	10.28	10.35	11.30	9.22	10.05
	October	10.40	11.86	11.96	12.85	11.08	11.99	10.00	10.73	10.75	11.82	9.57	10.81
	November	11.04	12.04	12.41	13.15	11.57	12.21	10.40	10.99	11.16	11.95	10.31	10.88
	December	11.49	12.64	13.18	13.29	11.80	12.76	11.04	11.48	11.87	12.44	9.95	11.24
1977	January	12.00	13.20	14.06	14.34	12.79	13.68	11.51	12.32	12.45	13.32	10.34	11.89
	February	12.28	13.63	14.00	14.60	12.91	14.06	12.04	12.74	12.69	13.71	10.24	12.00
	March	12.15	13.76	14.00	14.58	13.47	14.51	11.62	12.70	12.68	13.84	9.97	11.74
	April	11.62	13.26	12.88	14.63	13.05	14.10	11.27	12.50	12.04	13.61	10.14	11.75
	May	11.54	12.69	13.56	14.48	11.90	13.73	11.05	12.15	11.64	13.42	9.97	11.41
	June	11.25	13.10	13.12	14.28	11.88	13.27	11.10	11.93	11.72	13.02	10.30	11.39
	July	11.24	12.67	13.31	14.38	11.73	13.12	11.02	12.06	11.62	13.01	10.91	11.44
	August	11.61	12.75	13.32	14.15	11.83	13.08	11.89	12.01	12.06	13.00	11.08	11.58
	September	11.70	12.84	13.35	14.33	11.79	13.11	11.78	12.19	12.03	12.94	11.20	11.72
	October	11.52	13.14	13.38	14.30	11.69	13.15	11.71	12.33	12.10	13.15	10.98	11.87
	November	11.29	13.16	12.85	14.24	11.66	12.93	11.44	12.15	11.76	12.96	10.42	11.66
	December	11.64	13.53	12.87	13.95	11.38	12.60	10.77	11.95	11.28	12.70	11.27	11.37
1978	January	R11.45	R13.36	R12.72	14.19	R11.56	R12.70	R10.71	R12.00	11.33	12.79	R9.73	11.15
	February*	R11.73	R13.35	R12.20	14.05	R11.64	12.42	R10.53	R11.78	11.25	R12.53	R9.66	10.84
	March*	11.26	13.72	12.79	13.99	11.76	12.79	10.42	11.72	11.36	12.63	8.87	10.47

*Preliminary.

R=Revised data.

Note: Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, institutional, commercial, and residential accounts.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Propane and Butane

Wholesale Propane and Butane Prices*

		Propane	Butane
		Cents per gallon	
1975	July	17.9	17.5
	August	18.8	18.2
	September	19.8	19.7
	October	19.9	20.4
	November	20.2	20.5
	December	20.6	20.2
	AVERAGE (6 months)	19.7	19.4
1976	January	21.2	20.6
	February	21.0	21.6
	March	20.1	21.3
	April	19.4	20.9
	May	19.0	21.6
	June	19.5	21.4
	July	19.9	22.2
	August	20.2	22.3
	September	20.6	22.0
	October	20.9	22.7
	November	21.4	22.4
	December	22.1	23.6
	AVERAGE	20.6	21.9
1977	January	22.9	23.0
	February	24.0	24.3
	March	23.7	24.9
	April	23.6	24.2
	May	24.5	25.8
	June	24.5	25.6
	July	24.9	26.2
	August	25.5	26.1
	September	25.9	27.4
	October	26.8	26.3
	November	26.5	25.8
	December	26.7	25.8
1978	January	27.0	25.9
	February**	26.5	25.1
	March**	25.6	24.9

*Wholesale refers to the price at which refiners, resellers, retailers, and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.

**Preliminary data.

Source: FEA Form P302-M-1.

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							
1975	January	30.4	104.0	35.8	67.8	70.9	71.2
	February	29.5	105.9	35.2	70.1	74.0	74.3
	March	33.5	102.5	38.8	70.4	77.7	77.8
	April	32.8	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	98.9	40.2	72.2	85.1	83.9
	July	36.7	101.1	41.7	73.9	84.6	83.6
	August	35.5	141.0	43.3	73.4	86.5	85.1
	September	36.5	141.1	44.4	72.8	85.9	84.7
	October	36.0	140.1	44.3	77.2	85.9	85.4
	November	36.5	162.5	46.7	77.8	86.7	86.4
	December	35.8	161.8	45.9	80.7	87.6	87.5
1976	January	38.3	164.0	48.7	88.2	90.1	90.6
	February	39.7	165.3	50.1	88.2	93.8	94.1
	March	39.4	164.5	49.9	86.8	92.0	92.2
	April	40.5	164.3	51.5	89.0	96.5	96.4
	May	42.2	165.0	52.7	87.4	99.2	98.5
	June	43.7	166.6	54.0	89.8	99.4	98.8
	July	43.8	168.4	53.8	94.6	102.7	102.0
	August	56.4	167.7	65.7	98.2	105.3	104.6
	September	68.6	183.7	77.9	103.9	93.1	94.7
	October	57.6	190.1	69.3	106.7	105.8	106.2
	November	52.6	182.4	63.6	113.5	106.7	107.5
	December	54.0	189.4	65.7	132.1	117.8	118.6
1977	January	59.4	201.8	71.6	143.2	124.3	125.4
	February	R63.4	R199.7	R76.4	R130.6	R130.4	R131.0
	March	69.8	200.4	83.4	129.8	132.2	132.5
	April	65.2	190.7	76.4	128.4	130.9	131.1
	May	69.1	191.3	80.4	128.4	133.9	133.6
	June	69.2	189.1	79.6	125.6	135.1	134.2
	July	72.1	187.7	81.8	134.5	135.9	135.8
	August	71.1	185.5	81.5	133.9	134.0	134.0
	September	71.8	194.7	84.0	131.8	135.7	135.4
	October	74.2	211.9	87.4	133.9	135.6	135.6
	November	74.3	214.2	87.1	134.9	141.7	141.5
	December	73.9	216.5	86.8	138.5	132.2	133.1
1978	January	74.0	211.1	86.4	150.4	138.2	139.2
	February	76.3	212.7	89.3	158.2	141.5	142.8

*Represents direct sales by pipeline companies 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.

R=Revised.

Source: Federal Power Commission Form 11, "Natural Gas Pipeline Company Monthly Statement."

Natural Gas (Continued)

Intrastate Natural Gas Prices for Selected States by Type of Contract*

	California		Kansas		Louisiana		Oklahoma		Texas	
	New Contracts	Renegotiated or Amended								
Cents per thousand cubic feet										
1975										
January	75.00	76.89	55.30	—	98.04	102.96	95.99	76.03	139.90	164.04
February	—	—	—	—	128.68	113.06	97.30	64.49	154.72	163.11
March	—	—	—	—	115.78	125.89	107.70	55.05	96.66	97.50
April	—	—	64.65	45.24	149.78	134.81	132.58	87.79	160.09	176.32
May	—	—	—	—	126.80	123.53	129.31	106.56	156.72	158.59
June	—	53.68	65.00	—	130.91	129.57	94.22	120.29	165.00	187.54
July	—	65.51	—	—	117.22	125.63	133.87	114.62	183.22	178.22
August	—	75.00	198.24	—	132.87	114.20	136.77	121.21	151.87	132.50
September	—	86.00	152.89	70.38	121.89	141.23	143.73	106.69	169.87	180.77
October	135.53	—	—	—	75.16	117.60	143.09	144.14	168.10	187.30
November	—	—	157.95	139.02	138.42	71.65	140.61	133.15	149.43	182.17
December	—	—	—	80.00	139.64	131.92	132.50	153.86	187.20	140.90
1976										
January	—	83.97	103.81	84.54	138.75	131.23	149.87	109.39	181.05	193.31
February	—	40.00	—	109.68	125.00	145.30	133.72	146.71	176.63	191.54
March	—	—	150.36	—	145.66	155.39	162.83	168.57	178.70	176.44
April	195.00	—	150.00	—	142.99	154.05	162.12	148.30	202.60	152.95
May	122.00	60.39	180.39	149.84	125.54	106.05	156.35	164.02	154.00	197.22
June	—	—	114.45	150.82	147.11	137.67	169.56	168.14	178.01	192.98
July	—	117.15	137.57	150.83	127.55	141.71	148.20	95.00	151.19	176.23
August	—	97.38	—	—	138.70	164.23	151.81	171.49	157.98	198.81
September	—	—	—	125.68	164.10	156.39	164.85	172.00	184.07	197.66
October	—	—	—	111.72	144.64	149.91	163.48	161.16	196.58	188.80
November	—	—	150.82	144.21	—	131.91	162.57	90.73	186.80	182.82
December	—	97.47	160.73	—	194.51	152.45	167.55	175.98	198.71	202.54
1977										
January	—	105.58	155.49	—	155.82	137.65	172.35	167.49	193.36	204.06
February	—	107.27	121.66	—	141.33	120.84	147.86	131.27	185.55	203.22
March	119.79	116.28	148.18	—	219.43	208.97	168.57	168.28	197.14	190.83
April	—	—	137.10	156.38	216.41	150.35	165.61	167.89	192.22	205.44
May	—	107.20	119.00	—	197.53	158.97	156.52	171.09	204.06	201.27
June	—	112.21	91.49	—	180.21	169.61	166.69	169.51	194.54	206.41
July	—	139.02	88.57	174.53	174.90	169.64	172.95	168.25	206.96	202.46
August	—	—	131.97	90.49	177.99	166.66	164.33	158.46	188.96	183.57
September	—	—	—	136.66	163.72	162.49	171.78	172.70	167.14	212.44

*Prices are for FERC jurisdictional natural gas companies selling more than 1 billion cubic feet per year in interstate commerce. Source: Federal Power Commission Form 45, "Summary of Intrastate Natural Gas Prices."

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

Cents per
thousand
cubic feet

1975	January	141.2
	February	144.7
	March	146.1
	April	150.6
	May	153.7
	June	155.7
	July	154.7
	August	155.4
	September	159.4
	October	160.6
	November	166.2
	December	170.2
1976	January	171.4
	February	175.2
	March	177.0
	April	178.4
	May	180.8
	June	183.2
	July	184.5
	August	185.8
	September	191.2
	October	195.0
	November	198.3
	December	208.3
	AVERAGE	185.8
1977	January	213.8
	February	217.0
	March	219.9
	April	223.7
	May	227.0
	June	227.3
	July	229.9
	August	230.1
	September	230.4
	October	235.1
	November	238.4
	December	237.3
1978	January	241.6
	February	243.0
	March	247.0

Utility Fossil Fuels

COST OF FOSSIL FUELS DELIVERED TO STEAM ELECTRIC UTILITY PLANTS

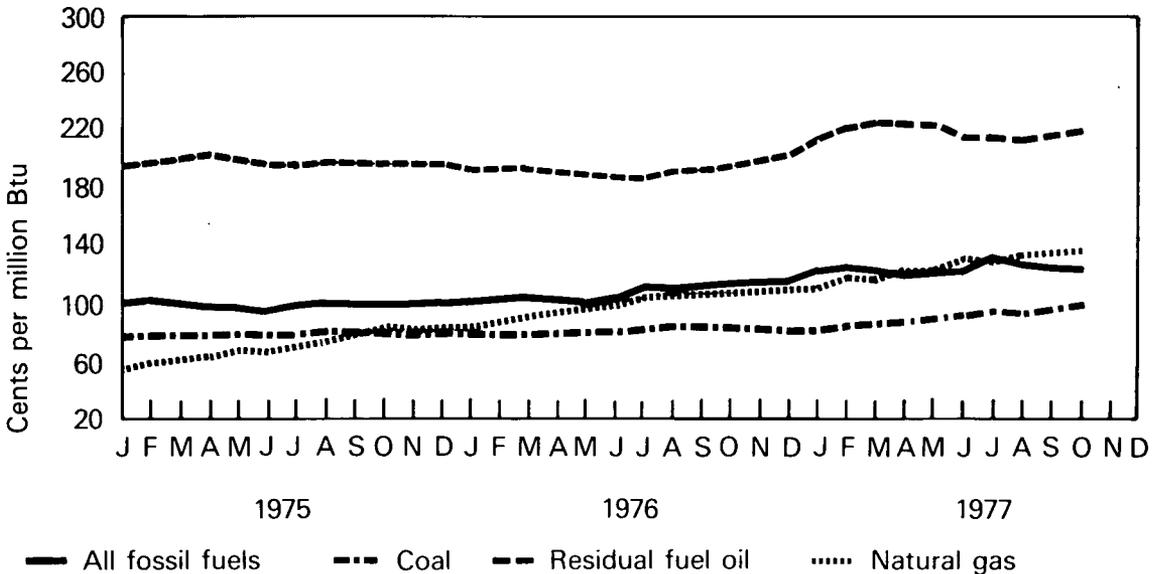
All Fossil Fuels*

Region	1976			1977									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT
	Cents per million Btu												
New England	184.0	186.9	197.0	207.7	211.4	225.3	213.9	215.1	213.3	209.9	206.7	206.8	205.2
Middle Atlantic	136.8	139.8	146.5	161.8	162.1	152.2	149.9	149.4	152.1	167.9	158.8	151.3	144.8
East North Central	95.8	96.8	94.4	104.1	102.7	104.0	102.6	103.9	107.3	109.7	105.2	106.5	108.8
West North Central	73.5	76.1	78.5	85.4	85.3	82.0	79.0	82.5	84.0	87.9	86.2	86.5	89.2
South Atlantic	127.2	129.1	134.7	146.5	142.5	137.3	132.7	133.8	137.9	148.9	146.6	143.7	137.6
East South Central	93.8	92.3	96.7	99.8	101.8	100.1	100.3	102.3	104.5	110.4	106.6	109.9	112.0
West South Central	101.6	106.2	106.9	113.6	119.8	116.9	117.5	117.2	124.3	123.2	122.5	123.2	121.3
Mountain	55.4	54.2	53.9	53.0	55.2	60.4	64.3	68.8	69.9	71.8	72.6	73.7	74.7
Pacific	199.1	214.5	218.9	219.2	213.6	209.8	217.6	219.0	212.6	221.2	223.8	221.2	238.7
NATIONAL AVG.	111.1	115.2	118.6	126.8	128.4	123.5	122.0	123.1	125.1	133.2	129.4	128.6	127.6

*See Explanatory Note 18.

Source: Federal Power Commission Form 423.

National Average



Coal

Region	1976			1977									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT
	Cents per million Btu												
New England	125.6	125.6	124.4	127.6	126.8	127.5	127.9	128.1	130.1	130.6	133.1	134.0	122.4
Middle Atlantic	102.6	100.2	101.2	105.9	101.2	100.8	102.5	103.1	107.4	111.7	107.0	106.0	104.6
East North Central	89.2	90.2	90.7	90.7	91.5	94.1	93.9	94.3	95.5	99.8	97.3	99.5	101.7
West North Central	69.3	69.6	67.6	66.5	68.4	71.5	72.5	75.5	77.0	77.9	77.4	78.5	84.3
South Atlantic	105.4	103.8	104.1	105.4	106.5	108.1	108.4	110.9	113.9	119.2	115.9	121.1	122.0
East South Central	88.3	87.4	90.6	91.2	94.1	93.6	96.5	95.8	95.0	99.9	98.4	103.1	104.3
West South Central	43.7	51.5	56.6	58.8	61.1	64.3	60.2	60.3	63.9	59.2	62.1	64.4	65.2
Mountain	38.2	39.1	38.1	37.6	38.9	41.1	42.4	46.3	47.4	43.0	50.1	47.5	51.4
Pacific	76.0	75.6	74.5	77.6	80.5	74.0	70.8	70.9	71.2	71.7	71.1	71.3	71.4
NATIONAL AVG.	86.9	86.6	86.6	85.9	88.0	89.9	90.1	91.8	93.3	96.2	94.3	98.0	100.5

Residual Fuel Oil*

Region	1976			1977									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT
	Cents per million Btu												
New England	188.1	192.0	198.9	213.6	223.5	231.7	218.5	223.4	216.2	212.5	211.3	210.2	210.8
Middle Atlantic	199.5	200.5	208.3	220.5	235.8	237.2	230.8	227.7	223.1	220.5	218.5	220.8	225.8
East North Central	225.8	223.9	227.9	247.5	267.7	257.8	256.3	250.9	248.6	247.1	241.6	264.7	256.5
West North Central	156.8	167.9	191.5	201.0	210.3	205.5	298.7	193.6	186.6	179.0	185.0	186.9	185.3
South Atlantic	184.1	189.2	197.0	212.4	213.7	222.8	217.8	211.7	210.1	207.2	199.2	211.0	211.4
East South Central	166.6	167.8	166.4	166.2	182.7	180.4	180.5	175.7	177.7	175.9	178.3	177.7	186.5
West South Central	176.6	180.3	179.9	192.0	198.1	201.9	200.3	198.3	194.3	187.6	188.5	184.2	192.6
Mountain	221.9	209.3	181.2	201.0	210.9	220.9	220.6	224.9	215.3	232.5	230.7	216.4	214.3
Pacific	231.2	234.1	233.4	231.3	231.0	232.1	235.8	235.2	235.7	240.0	240.1	240.6	241.6
NATIONAL AVG.	198.8	203.5	207.5	217.2	223.3	228.0	226.2	227.7	217.8	217.0	213.0	218.3	220.3

Natural Gas**

Region	1976			1977									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT
	Cents per million Btu												
New England	155.4	185.2	186.1	200.1	200.1	200.1	200.1	195.9	193.9	185.8	187.2	188.1	185.3
Middle Atlantic	125.2	111.9	127.8	211.3	349.8	155.9	155.4	154.7	144.2	165.5	162.4	165.1	162.6
East North Central	153.0	168.8	188.9	186.5	174.7	170.6	184.7	176.7	177.3	183.5	185.9	183.7	182.3
West North Central	80.8	84.1	84.0	86.1	93.4	88.8	96.0	102.9	104.8	106.7	106.8	109.0	103.8
South Atlantic	89.3	89.1	90.4	80.4	112.1	93.6	85.7	76.2	74.4	91.1	100.9	91.7	94.2
East South Central	158.5	162.2	160.8	165.1	170.3	157.8	154.7	139.7	134.3	148.5	149.9	135.7	138.6
West South Central	101.0	106.6	106.8	108.1	114.6	111.2	113.7	116.5	122.1	122.5	123.7	123.7	122.5
Mountain	112.2	118.2	136.0	133.3	115.0	129.1	134.9	134.4	132.9	133.3	130.7	149.8	136.9
Pacific	169.0	177.5	188.7	196.8	189.2	181.0	204.5	208.9	200.5	211.0	218.8	217.9	219.7
NATIONAL AVG.	109.9	113.1	111.3	111.1	123.5	121.1	125.6	125.6	130.5	131.7	135.4	138.4	139.4

*See Explanatory Note 18.

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

Source: Federal Power Commission Form 423.

Utility Fossil Fuels (Continued)

U.S. Average Delivered Prices of Coal at Utilities

		Contract	Spot
		Dollars per short ton	
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
	April	17.76	21.43
	May	18.12	21.17
	June	18.05	20.88
	July	17.93	21.00
	August	18.19	21.35
	September	18.55	21.46
	October	18.49	21.28
	November	18.26	21.56
	December	18.15	21.49
1977	January	17.87	21.93
	February	18.28	22.71
	March	18.75	23.27
	April	18.82	22.41
	May	18.97	23.73
	June	19.03	24.62
	July	19.35	25.13
	August	18.95	24.73
	September	19.75	26.14
	October	20.31	26.83

International

Petroleum Consumption

Total 1977 petroleum consumption data are now available for each of the major petroleum consumers in the International Energy Agency (IEA) and for total IEA.

France, Italy, and West Germany all showed decreased consumption in 1977 of 4.9 percent, 1.8 percent, and 1.2 percent, respectively, from 1976 levels. On the other hand, consumption in Japan, the United Kingdom, and Canada increased in 1977 by 4.8 percent, 2.3 percent, and 0.4 percent, respectively, from the previous year's levels. Total IEA consumption increased an estimated 3.4 percent in 1977.

In January 1978, petroleum consumption increased in France and in each of the major IEA countries except Japan compared with January 1977. Whereas consumption in Japan fell 3.1 percent, petroleum use in France, Italy, West Germany, Canada, and the United Kingdom increased 5.1, 3.5, 2.8, 2.0, and 1.4 percent, respectively.

Crude Oil Production

World crude oil production in March rose 0.3 million barrels per day (MMBD) over February to 58.3 MMBD. Production by the Organization of Petroleum Exporting Countries (OPEC) remained essentially unchanged at 28.4 MMBD. Decreases in Saudi Arabia and Iraq, which totaled nearly 0.9 MMBD, were offset by increases in Kuwait and Venezuela.

Petroleum Consumption

Petroleum Consumption for Major Free World Industrialized Countries

		Total IEA*	Japan	West Germany	France**	United Kingdom	Canada	Italy***
Thousands of barrels per day								
1973	AVG.	33,600	5,000	2,693	2,219	1,974	1,597	1,525
1974	AVG.	32,390	4,872	2,408	2,094	1,857	1,630	1,521
1975	AVG.	31,235	4,568	2,319	1,925	1,633	1,595	1,468
1976	Jan	35,100	4,941	2,464	2,436	1,679	1,785	1,775
	Feb	34,400	5,246	2,497	2,486	1,865	1,754	1,743
	Mar	34,300	5,165	2,747	2,381	1,879	1,747	1,641
	Apr	31,500	4,526	2,339	2,100	1,716	1,518	1,423
	May	29,900	4,218	2,320	1,796	1,417	1,509	1,253
	June	31,300	4,429	2,393	1,593	1,416	1,560	1,236
	July	31,100	4,416	2,624	1,629	1,346	1,531	1,355
	Aug	31,100	4,461	2,515	1,668	1,296	1,585	1,372
	Sept	32,200	4,517	2,521	1,974	1,501	1,514	1,604
	Oct	32,300	4,523	2,391	1,904	1,568	1,560	1,464
	Nov	35,900	5,160	2,700	2,236	1,750	1,822	1,393
	Dec	39,100	5,846	2,571	2,712	1,869	2,008	1,779
	AVG.	33,180	4,786	2,507	2,075	1,627	1,658	1,503
1977	Jan	37,700	R5,433	R2,393	R2,519	1,830	1,797	1,696
	Feb	38,600	6,025	R2,446	2,386	1,844	1,919	R1,823
	Mar	35,000	R5,539	R2,523	2,109	1,818	1,664	1,573
	Apr	32,800	R4,714	R2,431	R2,043	1,670	1,526	1,326
	May	31,300	R4,314	R2,364	1,846	1,545	1,523	1,268
	June	32,900	R4,484	R2,475	1,715	1,477	1,633	1,340
	July	31,800	R4,716	R2,382	R1,349	1,321	R1,499	1,251
	Aug	32,700	4,709	R2,469	1,390	1,371	R1,689	1,140
	Sept	R33,400	4,742	R2,567	R1,783	1,580	R1,539	R1,502
	Oct	R33,300	R4,664	2,324	1,882	1,570	R1,631	R1,405
	Nov	34,300	R5,093	R2,649	2,181	1,925	1,683	1,605
	Dec	37,900	R5,820	2,719	R2,512	R1,903	R1,896	1,817
	AVG.	R34,300	R5,015	2,478	R1,973	R1,665	R1,665	1,476
1978	Jan	NA	5,266	2,461	2,646	1,856	1,833	1,755

*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.

**Not a member of IEA.

***Principal products only.

NA=Not available.

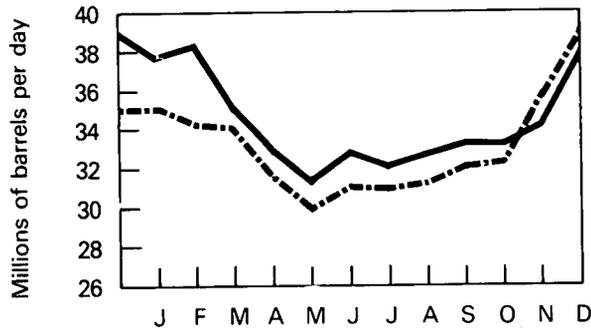
R=Revised data.

Note: Total IEA data represent an estimate of domestic demand in the United States and sales of petroleum products for all other members. Sales exclude refinery fuel, refinery losses, and ocean bunkers. Experience has shown that this total IEA quantity is between 93 and 95 percent of total IEA consumption.

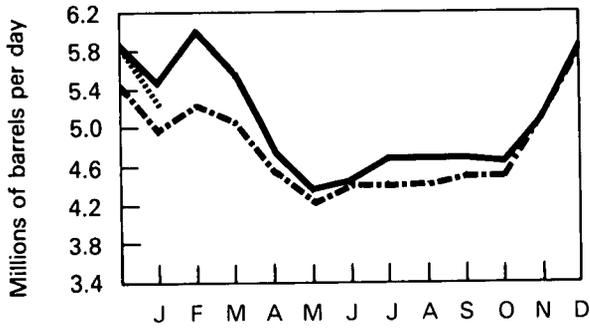
Source: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 17 May 1978.

Petroleum Consumption

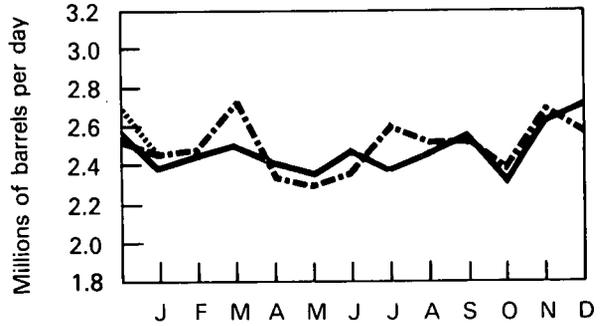
Total IEA



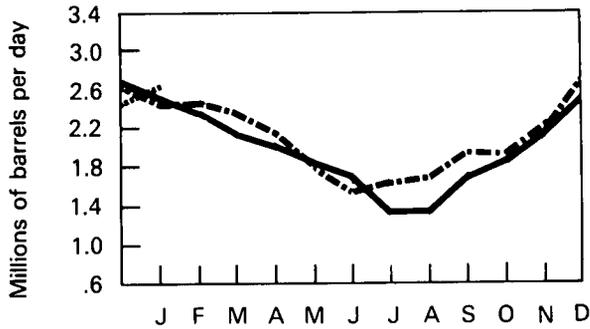
Japan*



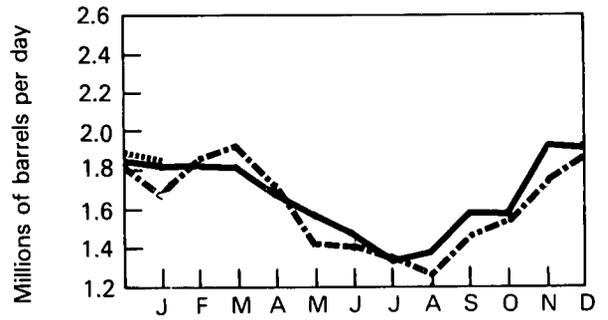
West Germany



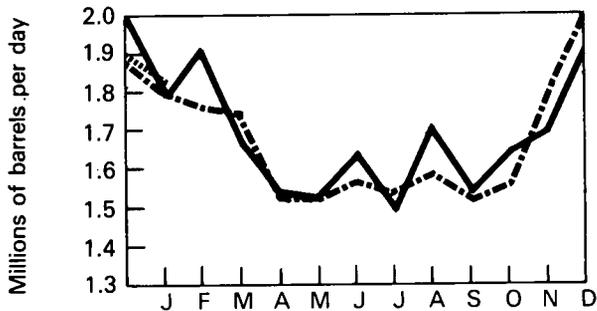
France**



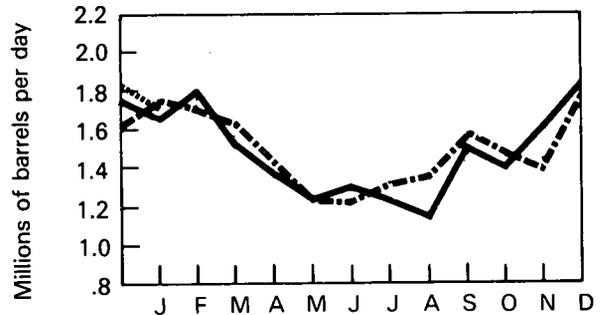
United Kingdom



Canada



Italy***



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

†Excludes the United States.

--- 1976
 — 1977
 1978

Crude Oil Production

Crude Oil Production for Major Petroleum Exporting Countries—March 1978

Country	Production							Production Capacity	Production Shutoff
	1972 Year	1973 Year	1974 Year	1975 Year	1976 Year	1977 Year	1978 March**		
Thousands of barrels per day									
Algeria	1,040	1,070	960	960	990	R1,040	1,000	1,080	7.0
Iraq	1,465	2,020	1,970	2,260	2,415	2,330	2,100	3,000	30.0
Kuwait*	3,283	3,020	2,545	2,085	2,145	1,970	2,140	3,300	35.0
Libya	2,239	2,175	1,520	1,480	1,935	R2,080	1,890	2,300	17.0
Qatar	482	570	520	440	495	430	420	600	30.0
Saudi Arabia*	6,016	7,595	8,480	7,075	8,575	9,200	7,670	10,500	27.0
United Arab Emirates	1,202	1,535	1,680	1,665	1,935	2,010	1,850	2,290	19.0
Subtotal: Arab OPEC	15,727	17,985	17,675	15,965	18,490	R19,060	17,070	23,070	26.0
Ecuador	78	210	175	160	185	180	190	225	15.0
Gabon	125	150	200	225	225	230	220	250	12.0
Indonesia	1,080	1,340	1,375	1,305	1,505	1,690	***1,710	1,700	—
Iran	5,023	5,860	6,020	5,350	5,885	5,660	5,600	6,500	13.0
Nigeria	1,815	2,055	2,255	1,785	2,070	2,100	1,510	2,300	34.0
Venezuela	3,219	3,365	2,975	2,345	2,295	2,240	2,060	2,600	20.0
Subtotal: Non-Arab OPEC	11,340	12,980	13,000	11,170	12,165	12,100	11,290	13,575	16.0
TOTAL OPEC	27,067	30,965	30,675	27,135	30,655	R31,160	28,360	36,645	22.0
Canada	1,540	1,800	1,695	1,460	1,300	1,320	1,360	1,800	24.0
Mexico	440	465	580	720	850	980	1,110	1,500	26.0
TOTAL OPEC, Canada, Mexico	29,047	33,230	32,950	29,315	32,805	R33,460	30,830	39,945	22.0
TOTAL WORLD	50,550	55,755	55,875	52,990	57,340	R59,500	58,300		

*Includes about one-half of the former Kuwait-Saudi Arabia Neutral Zone. Production in March 1978 amounted to approximately 430,000 barrels per day.

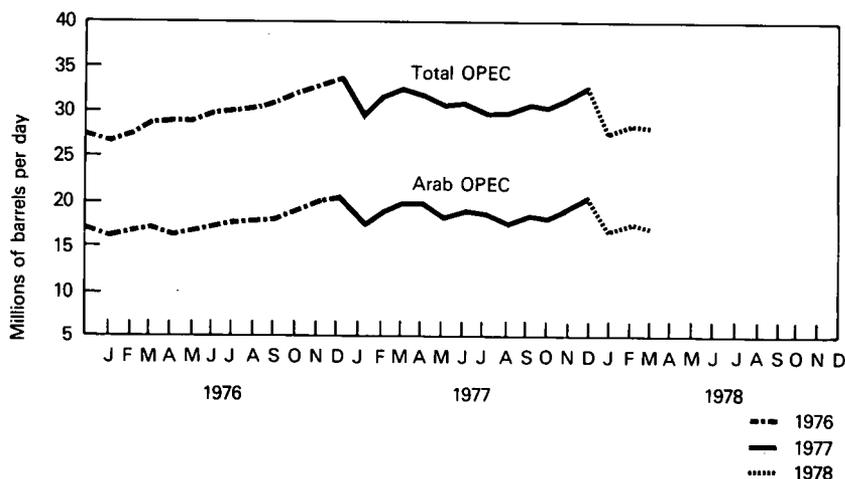
**Estimated.

***Production may exceed capacity for brief periods of time.

R = Revised.

Sources: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 17 May 1978, National Energy Board of Canada, and U.S. Department of Energy.

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) and (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

Domestic crude oil 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 Entitlement Value

The average value a refiner receives from the entitlement program for each incremental barrel of imported crude oil.

It is calculated by multiplying the entitlement price by the National Old Oil Supply Ratio for November 1974 through January 1976 and by the National Domestic Crude Oil Supply Ratio for February 1976 forward.

Crude Oil Imports

The volume of crude oil imported into the 50 States and the District of Columbia, including imports from U.S. territories, but excluding imports of crude oil into the Hawaiian Foreign Trade Zone.

Crude Oil Input to Refineries

Total crude oil input to crude oil distillation units and other units for processing.

Crude Oil Stocks

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

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 Specific 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. (See definition for Domestic Demand for Total Refined Petroleum Products.)

Domestic Demand for Total Refined Petroleum Products

Total domestic demand for petroleum products is calculated as inputs to refineries, plus estimated refinery gain, plus hydrogen input, plus natural gas plant liquids production, plus direct use of crude as fuel, plus product imports, less product exports, plus or minus stock change of products. (See definition for Domestic Demand for Specific Refined Petroleum Products.)

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 ERA. 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 ERA, 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 ERA, is the exact differential as reported for the month between the weighted average delivered cost per barrel to refiners of both imported crude oil and stripper crude oil, and the weighted average delivered cost per barrel to refiners of "old oil," less 21 cents.

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.

Full Serve

Motor vehicle services are provided by an attendant, such as: pumping gas, washing windows, checking under the hood, checking tire pressure, etc.

Full Service Station

A service station selling motor fuels and oils, tires, batteries and accessories (TBA), and performing motor vehicle repairs.

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 the crude oil 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) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77-13847 Appendix).

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 10 or more States.

Motor Gasoline Production

Total production of motor gasoline by refineries, measured at the 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.

National Domestic Crude Oil Supply Ratio

Old oil receipts adjusted for upper-tier receipts, small refiner bias, and other minor adjustments, divided by crude runs to stills adjusted for residual fuel entitlements.

National Old Oil Supply Ratio

Old oil receipts, adjusted for small refiner bias and exemptions, divided by crude runs to stills adjusted for entitlements issued for imported refined products.

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.

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

Prior to August 26, 1976, a property was defined as the right to produce domestic crude oil, which arises from a lease or from a fee interest. This definition was interpreted to apply only to a surface lease. In August 1976 the definition of a property was changed so that a producer may treat as a separate property each separate and distinct producing reservoir subject to the same right to produce crude oil, provided that such reservoir is recognized by the appropriate governmental regulatory authority as a producing formation that is separate and distinct from, and not in communication with, any other producing formation. Although this new definition was not implemented until August 26, 1976, it was made effective retroactively to February 1, 1976. (F.R. 36171, August 26, 1976)

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, plant condensate, and unfinished oils. Included are imports of refined products for bonded and military use, and imports from U.S. territories and the Hawaiian Foreign Trade Zone.

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.

Self Serve

Motor vehicle services are not provided by attendants.

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).

Startup Test Phase of Nuclear Powerplant

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

Stripper Well Property

A property whose average daily production of crude oil per well (excluding condensate recovered in nonassociated production) did not exceed 10 barrels per day during any preceding consecutive 12-month period 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

Effective February 1, 1976, upper tier crude oil included new crude oil and crude oil produced from a stripper well lease. Effective September 1, 1976, upper tier crude oil includes new crude oil only.

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) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77 .13847 Appendix).

Well

A 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). Does not include imports of petroleum for the Strategic Petroleum Reserve.

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. 1977 electricity imports were estimated on the basis of the import level for 1976.

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 (LRG). 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 stock series shown in this volume includes natural gas liquids held as stocks at both natural gas processing plants and at refineries and LRG held at refineries.

5. 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.

6. 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.

7. Bituminous coal and lignite consumption is calculated by EIA 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 EIA from Association of American Railroads reports of carloadings.

8. 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 later 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 Units of Measure section.

9. The units used to describe power generation at nuclear plants are 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 kilowatt hours), multiply the average power level (in kilowatts) 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).

10. 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.

11. 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. 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 costs incurred in purchasing and shipping crude oil to the United States.

12. Prior to February 1976, the domestic crude petroleum wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices. For the 2-year period January 1974 through January 1976, the old oil price at the wellhead was originally estimated to be \$5.25 per barrel based on representative postings. This estimate was revised in July 1976 after a survey of crude oil purchasers was implemented and more complete data became available. Estimates of the average old oil price given in the table for months prior to February 1976 are based on prices for old oil reported on new oil leases, and were not derived from a statistically valid sample of old oil leases.

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

14. 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.

15. The U.S. Department of Energy Regions are defined as follows:

- Region 1—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;
- Region 2—New York, New Jersey, Puerto Rico, Virgin Islands;

- Region 3—Pennsylvania, Maryland, West Virginia, Virginia, District of Columbia, Delaware;
- Region 4—Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;
- Region 5—Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;
- Region 6—Texas, New Mexico, Oklahoma, Arkansas, Louisiana;
- Region 7—Kansas, Missouri, Iowa, Nebraska;
- Region 8—Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;
- Region 9—California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;
- Region 10—Washington, Oregon, Idaho, Alaska.

16. The sample survey and method used to derive data for March 1976 forward differ from those used for prior months. Data for January 1974 through February 1976 are derived from a survey of distributors, and prices and margins are computed as unweighted averages. The average distributor purchase price and average dealer margin for March 1976 forward are for distributors only, whereas the average selling price includes both refiners and distributors. Data for March 1976 forward are computed as sales weighted averages.

17. 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 truckstops 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.

18. 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>	1,000 kilograms or 2,204.62 pounds
1 long ton	<i>contains</i>	2,240 pounds
1 short ton	<i>contains</i>	2,000 pounds

Conversion Factors for Crude Oil

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 ₃ O 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

		1972	1973	1974	1975	1976	1977-78
Bituminous coal and lignite							
Production	Btu/short ton	24,050,000	24,010,000	23,730,000	23,200,000	23,150,000	22,900,000
Consumption	Btu/short ton	23,750,000	23,650,000	23,070,000	22,800,000	22,750,000	22,565,000
Anthracite	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000
Crude petroleum, production	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Petroleum products,							
consumption, average	Btu/barrel	5,503,200	5,517,000	5,506,100	5,495,900	5,495,900	5,495,900
Natural gas liquids	Btu/barrel	4,049,256	4,032,483	4,024,000	3,997,000	3,997,000	3,997,000
Natural gas, wet	Btu/cubic foot	1,100	1,093	1,097	1,095	1,094	1,094
Natural gas, dry	Btu/cubic foot	1,027	1,021	1,024	1,021	1,020	1,020
Hydropower	Btu/kWh	10,379	10,389	10,442	10,406	10,406	10,406
Nuclear Power	Btu/kWh	10,660	10,660	10,660	10,660	10,660	10,660
Petroleum Products:	Btu/barrel						
Natural gasoline		4,620,000					
Liquefied gases		4,011,000					
Gasoline (incl. aviation)		5,248,000					
Special naphtha		5,248,000					
Jet fuel, naphtha-type		5,355,000					
Jet fuel, kerosene-type		5,670,000					
Kerosene		5,670,000					
Distillate fuel oil		5,825,000					
Residual fuel oil		6,287,000					
Still gas		6,000,000					
Lubricants		6,065,000					
Waxes		5,537,000					
Petroleum coke		6,024,000					
Asphalt and road oil		6,636,000					

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