

Monthly Energy Review

January 1975



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Administration

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Information Center

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Part 1

Overview

Production of energy in the United States during November decreased a substantial 12 percent from the October output level with most of the drop attributed to the coal strike. This sharp decline compares with decreases of only 1 to 3 percent experienced between these 2 months during 1973 and 1972. Coal production was down 42 percent from the previous month, reflecting the strike by the United Mine Workers of America, between November 12 and December 5. The estimated loss in production was between 30 and 35 million tons. Crude oil production was also down substantially during the month (5 percent), the largest monthly decrease since March 1973. During the first 11 months of 1974, cumulative production of crude oil was more than 4 percent below the level for the comparable 1973 period, while natural gas production remained about 3 percent below last year's level. In contrast, coal production for the first 11 months, in spite of the strike, was 2 percent greater than it was a year ago. Total energy production for the period January through November 1974, including hydroelectric and nuclear power output, was about 1 percent less than that for the same months in 1973.

Imports of fossil fuels also declined in 1974. During the first 11 months of the year they were almost 3 percent below the comparable level in 1973. An 11-percent reduction was registered for refined product imports during this period, while natural gas imports were down 9 percent. Crude oil, up 5 percent from last year's level, was the only category for which imports increased during the year. Moreover, since 1972, crude oil imports have constituted an increasingly larger share of the mix of fossil fuel imports. From 42 percent of the total in 1972, crude oil imports rose to 50 percent in 1973, and for the first 11 months of this year they accounted for 54 percent of total fossil fuel imports. In contrast, the contribution of refined products to total imports has declined from 46 percent in 1972 to 39 percent this year. Natural gas imports have also declined relative to the total, from 12 to 7 percent over the same period.

The reduced import and production levels experienced during 1974 reflected a decline in energy demand which resulted from elevated fuel prices, depressed industrial activity, and rising unemployment, in addition to conservation practices. For the period January through October, domestic consumption of energy was 1.5 percent less than for the comparable period of 1973. Under normal conditions a yearly increase in energy demand of 4 to 5 percent would be expected, as in the first 10 months of 1973, during which domestic consumption of energy was up 4.8 percent from the same period of 1972. Consumption levels for the first 10 months of this year have registered the following percentage changes from the comparable 1973 period: refined petroleum products, -3.7; coal, +1.0; natural gas, -2.5; hydroelectric power, +11.0; and nuclear power, +28.1. However, since 1972, there has been no substan-

tial change in the proportions of the various energy supplies that constitute total domestic consumption. Demand for refined products as of the end of October accounted for 45.7 percent of domestic energy consumption, virtually unchanged from the 1972 level of 45.9 percent. Coal consumption increased from 17.4 percent to 18.4 percent during this period, while the percentage contributed by natural gas declined from 31.8 to 29.9. The combined contribution of hydroelectric and nuclear power to total domestic consumption has increased from 4.9 percent in 1972 to 6.0 percent so far this year.

Although stocks of crude oil and the fuel oils normally decline during November, this year stocks of these fuels actually increased during the month. Crude oil stocks at the end of November represented a 21-day supply, residual a 28-day supply, while distillate inventories were equivalent to a 78-day supply. This compares with supply levels of 19 days, 17 days, and 57 days, respectively, for these fuels at the end of November 1973. The only major petroleum products for which stock declines were registered for the month were motor gasoline and jet fuel, and even these declines were rather minor. Efforts to supplement coal stockpiles during October in anticipation of the impending coal strike resulted in a substantial increase in coal inventories of almost 8 percent over September. However, November figures, which are not yet available, will probably show a significant decline due to delivery curtailments during the strike.

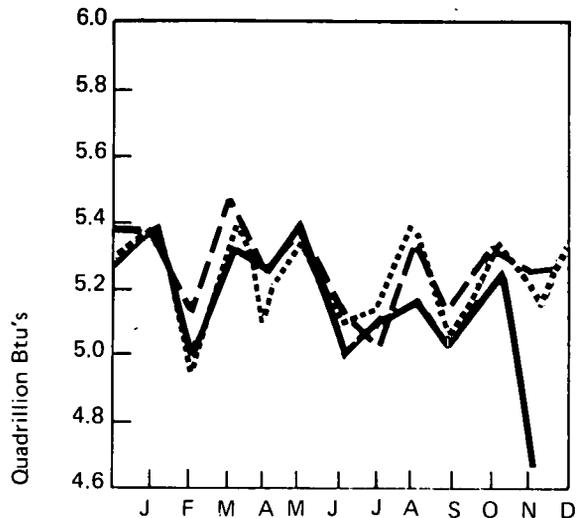
Electric power production during November was almost 2 percent below October, while cumulative production for the year remained about 1 percent below the level for the same period in 1973. As a result, consumption of fossil fuels at utility plants also declined. Compared with the first 10 months of 1973, consumption of fuel oil and natural gas was down 7 to 10 percent, respectively, while coal consumption remained about the same. Together these three fuels were the source of 78 percent of total electric energy production during the year, compared with 81 percent during 1973. Compensating for this decline was a corresponding increase in the production of nuclear and hydroelectric power, from 19 percent of the total to 22 percent. The utility coal and oil stocks position continued to improve during October in anticipation of the strike. Coal stocks rose from a 90-day supply in September to a 95-day supply in October, while oil stocks increased from a 76-day to an 80-day supply during the month.

Retail gasoline prices declined for the fourth consecutive month during November, as the average selling price of regular gasoline fell 0.4¢ per gallon. The average price that retailers paid for gasoline also dropped during the month, but not enough to prevent a further decline in the average dealer margin. A survey of major oil

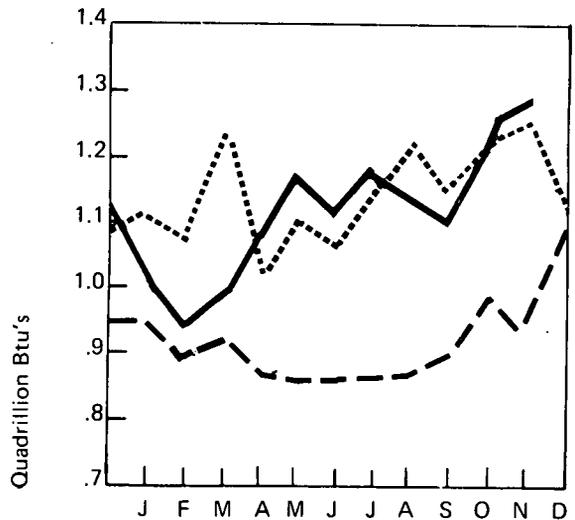
companies indicated that heating oil prices in November were generally unchanged from their October levels. Crude oil refiner acquisition costs continued their downward trend in October, with estimated cost decreases of 12¢ per barrel on domestic oil and 9¢ per barrel on imported oil.

Oil and gas exploration activities posted considerable gains during the first 11 months of this year. An average of 28 percent more crews was engaged in seismic prospecting from May through November 1974 than during 1973. The average number of rotary rigs actively drilling for oil and gas was also up significantly, representing an increase of 22 percent over the 1973 level. Furthermore, by the end of November about 5,000 (21 percent) more wells had been drilled than during the comparable period in 1973, while cumulative footage of wells drilled showed a gain of 14 million feet or 12 percent. Additional increases in petroleum exploration activities have been forecast for 1975 based on estimated increases in exploration and production budgets, the easing of equipment and manpower shortages, and the expanded Federal offshore leasing program.

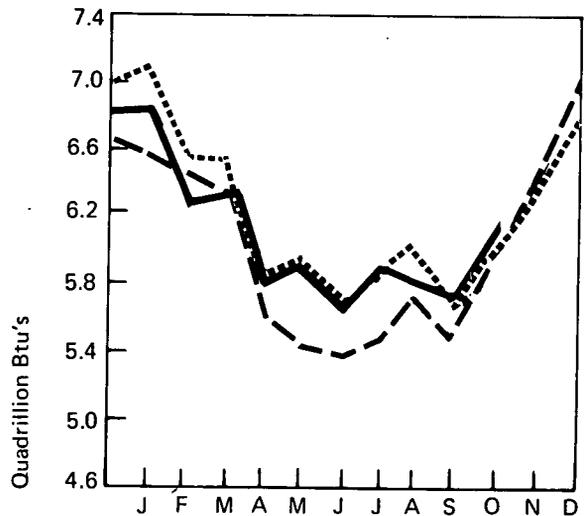
Domestic Production of Energy*



Imports of Fossil Fuels



Domestic Consumption of Energy**



--- 1972
 1973
 ——— 1974

*See Explanatory Note 1.

**See Explanatory Note 2.

Part 2

Energy Sources

Crude Petroleum and Petroleum Products

Crude Oil

Crude oil production averaged 8,456,000 barrels per day in November, which was 195,000 barrels per day or 2.3 percent less than in October. This decline is the largest monthly decline in recent years except for March 1973 when production was curtailed by flooding conditions in the Mississippi River delta. Furthermore, domestic crude oil production was equal to only 68.3 percent of total crude oil input to refineries, its second lowest share since prior to World War II.

Despite declining input to refineries, the shortfall in domestic crude production has required a continuing high level of crude oil imports. The 3,990,000 barrels per day imported in November was the second highest monthly rate after July 1974 when imports were up to compensate for the earlier drawdown in stocks created by the Arab embargo. Crude imports were equivalent to 32.2 percent of crude refinery input in November 1974 compared with 29.3 percent in October 1973, the last

	Crude Input to Refineries		Domestic Production		Imports		Stocks*	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972								
January	11,388		9,114		2,046		236,776	
February	11,356		9,336		2,081		238,882	
March	11,345		9,462		2,067		244,860	
April	11,184		9,513		2,004		253,492	
May	11,478		9,614		2,160		265,305	
June	11,841		9,522		2,085		257,601	
July	11,885		9,496		2,182		251,913	
August	11,915		9,483		2,112		244,333	
September	12,112		9,508		2,364		237,085	
October	11,871		9,482		2,516		239,949	
November	11,851		9,426		2,299		237,519	
December	12,113		9,335		2,667		232,803	
1973								
January	12,190		9,179		2,732		224,056	
February	12,187		9,373		2,873		221,893	
March	12,201		9,175		3,162		230,696	
April	12,208		9,233		3,049		235,383	
May	12,281		9,303		3,215		244,777	
June	12,862		9,209		3,220		235,846	
July	12,750		9,195		3,501		230,750	
August	12,636		9,161		3,593		235,660	
September	12,560		9,077		3,471		228,280	
October	12,758		9,172		3,740		233,520	
November	12,374		9,144		3,452		237,001	
December	12,150		9,041		2,891		229,504	
1974								
January	11,491		8,907		2,382		220,261	
February	11,102		9,156		2,248		228,004	
March	11,355		8,950		2,462		231,705	
April	11,823		8,952		3,267		243,687	
May	12,333	12,777	8,903		3,908	3,748	256,726	252,270
June	12,697	12,709	8,777		3,925	3,957	255,762	253,008
July	12,811	12,905	8,754	8,698	4,091	4,167	255,936	252,399
August	12,644	12,731	8,682	8,717	3,924	3,852	251,905	247,406
September	12,124	12,253	8,621	8,622	3,797	3,758	253,623	250,487
October		R12,430		R8,651		3,936		R255,003
November		**12,389		**8,456		**3,990		**256,333

*See definitions.

**Preliminary data.

R=Revised data.

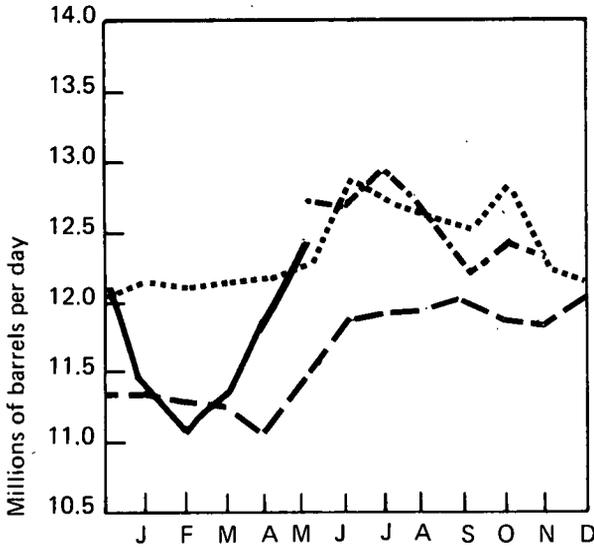
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

month before the Arab embargo had an impact on U.S. imports. Based on preliminary data, Nigeria was the principal source of crude oil imports in November with more than 800,000 barrels per day. Canada followed with about 700,000 barrels per day, down considerably from the 1973 daily average of 1,000,000 barrels.

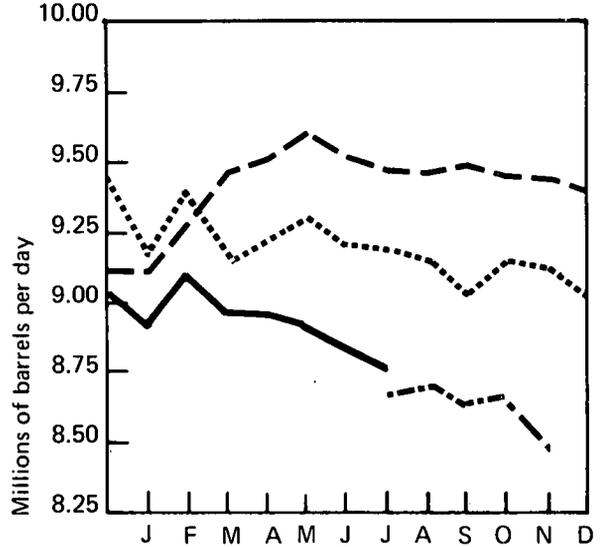
Crude oil stocks going into the high-demand winter season were at the highest level since November 1971 and were equivalent to 20.7 days of crude input to

refineries. This compares with 18.6 days in November 1973, 20.4 days in November 1972, and 23.9 days in November 1971.

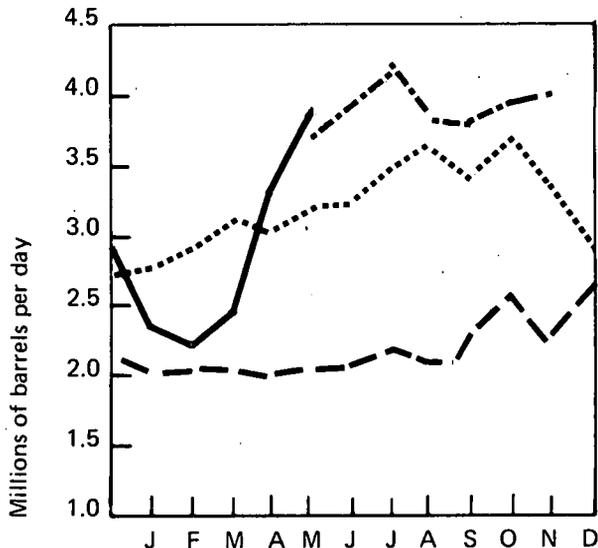
Crude Input to Refineries*



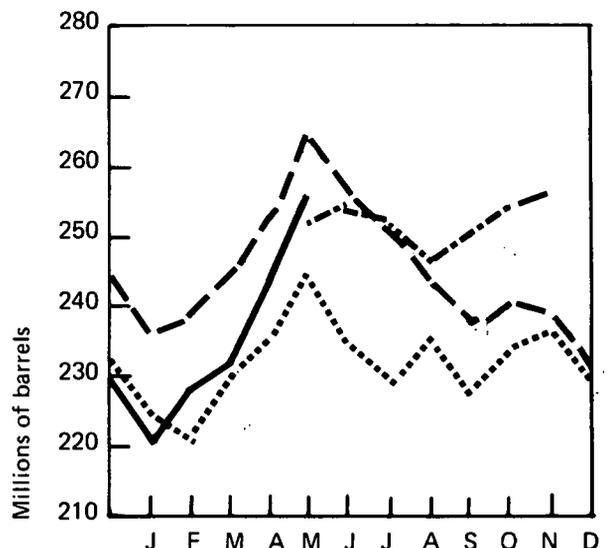
Domestic Production*



Imports*



Stocks*



--- 1972
 1973
 ——— 1974 BOM
 -.-.-.- 1974 FEA

*See Explanatory Note 3.

Total Refined Petroleum Products

Demand for refined petroleum products was predictably higher in November than in October. However, the increase was only 290,000 barrels per day, compared with increases averaging 1,287,000 barrels per day for the same months in 1971, 1972, and 1973. The relatively small November 1974 increment reflected economic as well as inventory conditions. Slackening industrial activity, coupled with rising unemployment and inflation, seem to have reduced the normally expected increase in demand. Furthermore, with the threat of possibly another embargo, an earlier than

normal transfer of fuel oils from primary to secondary storage facilities may have occurred during the summer months, thereby reducing the necessity for large withdrawals from primary stocks during November. (Product demand by definition equals total withdrawal of refined products from primary and selected secondary storage terminals.) Normally, fuel oil distributors and large industrial and utility consumers wait until October and November to build up stocks for the winter heating season.

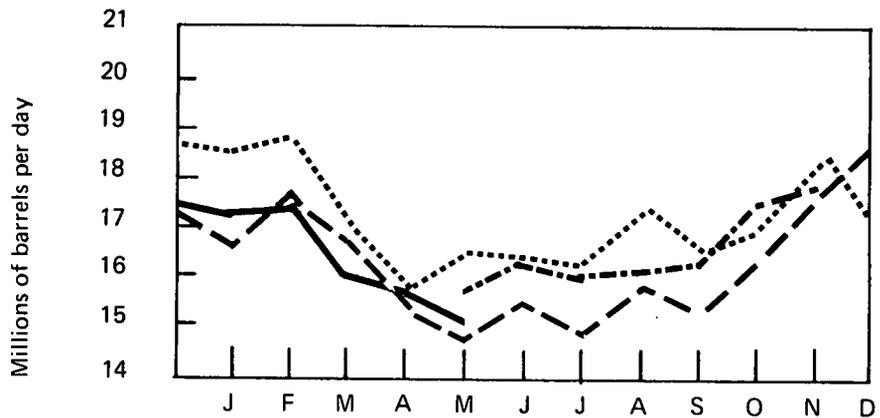
		Domestic Demand		Imports*	
		In thousands of barrels per day			
		BOM	FEA	BOM	FEA
1972	January	16,735		2,721	
	February	17,861		2,764	
	March	16,870		2,730	
	April	15,529		2,298	
	May	14,801		2,208	
	June	15,615		2,382	
	July	14,821		2,215	
	August	15,936		2,344	
	September	15,489		2,342	
	October	16,455		2,607	
	November	17,610		2,653	
	December	18,738		3,039	
1973	January	18,667		3,079	
	February	18,941		3,501	
	March	17,193		3,413	
	April	15,924		2,540	
	May	16,603		2,603	
	June	16,471		2,659	
	July	16,387		2,671	
	August	17,414		2,913	
	September	16,620		2,903	
	October	17,095		2,785	
	November	18,434		3,412	
	December	17,429		3,055	
1974	January	17,270		2,973	
	February	17,371		2,973	
	March	16,045		2,753	
	April	15,919		2,703	
	May	R15,720	15,624	2,580	2,454
	June	16,176	16,459	2,493	2,218
	July	16,301	16,156	2,397	2,143
	August	16,546	16,221	2,434	2,281
	September	15,994	16,372	2,225	2,180
	October		R17,587		R2,739
	November		**17,877		**3,152

*See definitions. **Preliminary data. R=Revised data.

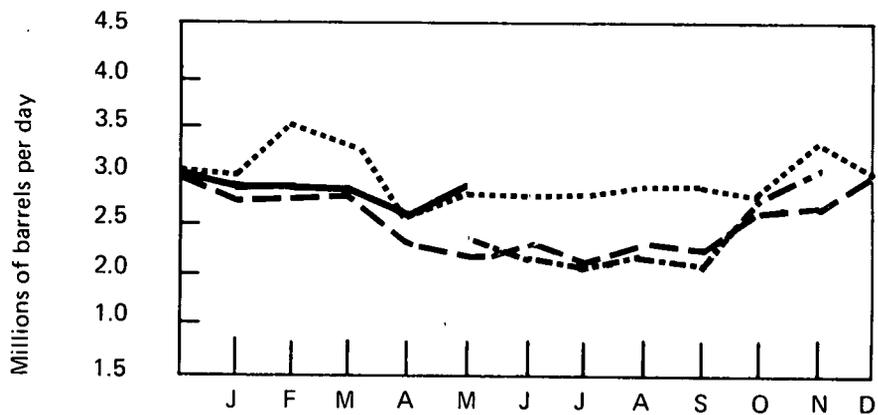
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

Imports of refined products were up seasonally to 3,152,000 barrels per day, a 413,000 barrel-per-day increase over October. Imports of refined products in November accounted for 17.6 percent of demand, and imports of both crude oil and total refined petroleum products were equivalent to 40.0 percent of demand. In September 1973, prior to the Arab embargo, crude and product imports were equal to 38.4 percent of demand.

Domestic Demand*



Imports*



*See Explanatory Note 3.

--- 1972
 1973
 ——— 1974 BOM
 - · - · - 1974 FEA

Motor Gasoline

Motor gasoline demand for November 1974 at 6,636,000 barrels per day was about 2.5 percent below the level for this month during both 1972 and 1973. November demand increased 1.4 percent over the previous month after showing declines in September and October. In 1972 and 1973, demand from October to November increased 2.0 percent and 2.2 percent, respectively.

Production for November decreased 1.6 percent from October, continuing a declining trend that has now

lasted 4 months. This is consistent with seasonal trends as emphasis on production is shifted to heating oils. Production for November 1974 also was 2.1 percent below November 1973 and 3.1 percent below November 1972. From 1972 to 1973, average yearly production rose from 6,279,000 barrels per day to 6,475,000 barrels per day. However, for the first 11 months of 1974 production averaged 6,344,000 barrels per day, which is a decrease of 2.0 percent from the 1973 average.

Motor gasoline imports were up 53.7 percent from the previous month and 24.5 percent compared with

	Domestic Demand		Production		Imports		Stocks*		
	In thousands of barrels per day								
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA	
1972	January	5,549	6,151		51		239,633		
	February	5,710	5,989		66		249,927		
	March	6,412	5,913		67		236,831		
	April	6,283	5,833		52		225,153		
	May	6,445	6,023		74		214,736		
	June	6,822	6,244		75		200,143		
	July	6,673	6,612		69		200,710		
	August	6,938	6,588		81		192,706		
	September	6,453	6,605		70		199,690		
	October	6,350	6,532		71		207,776		
	November	6,479	6,436		69		208,930		
	December	6,378	6,424		69		212,770		
1973	January	6,118	6,341		59		221,823		
	February	6,437	6,141		95		216,367		
	March	6,513	6,150		71		207,581		
	April	6,541	6,377		63		204,708		
	May	6,907	6,714		102		202,081		
	June	6,964	6,993		174		208,374		
	July	7,023	6,986		133		211,488		
	August	7,249	6,880		157		205,122		
	September	6,581	6,620		127		210,278		
	October	6,677	6,621		194		214,525		
	November	6,823	6,375		216		207,343		
	December	6,223	6,099		188		209,395		
1974	January	5,804	5,900		163		217,463		
	February	6,100	5,969		184		219,058		
	March	6,162	5,982		225		220,307		
	April	6,457	6,311		260		223,752		
	May	6,745	6,406	6,328	6,301	250	228	218,670	229,878
	June	6,919	6,895	6,663	6,642	211	145	217,381	226,652
	July	6,959	6,941	6,792	6,835	212	122	218,838	227,195
	August	7,061	6,849	6,815	6,776	253	192	218,951	231,015
	September	6,388	6,652	6,453	6,485	202	140	227,031	230,181
	October		6,543		6,339		175		R229,365
	November		**6,636		**6,239		**269		**225,518

*See definitions.

**Preliminary data.

R=Revised data.

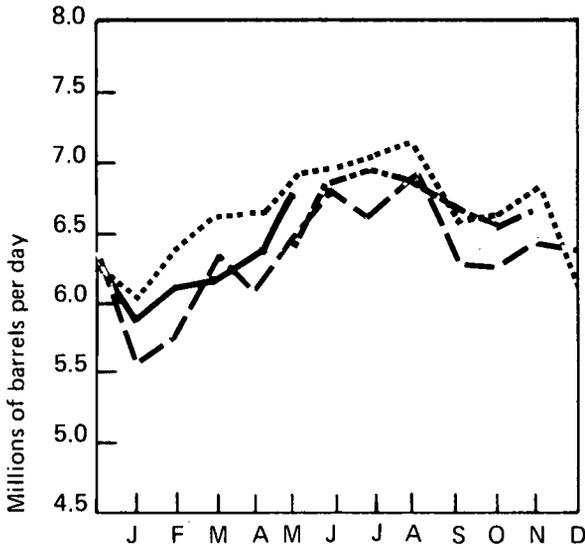
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

November of last year. (The effect of last year's embargo was not yet fully evident in the 1973 November import figures due to the time lag involved in tanker transport from the Mideast.) Since import statistics fluctuate considerably from month to month, yearly average figures are more significant. Imports of motor gasoline averaged 68,000 barrels per day in 1972 and 132,000 barrels per day in 1973, an increase of 94.1 percent. For the first 11 months of 1974 imports averaged 182,000

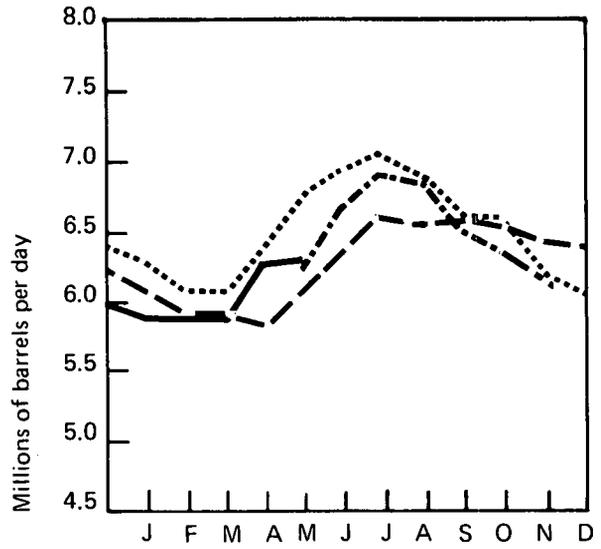
barrels per day, representing increases of 167.6 percent over 1972 and 37.9 percent over 1973.

November stocks closed 1.7 percent lower than October, but were 8.8 percent higher than November of the previous year.

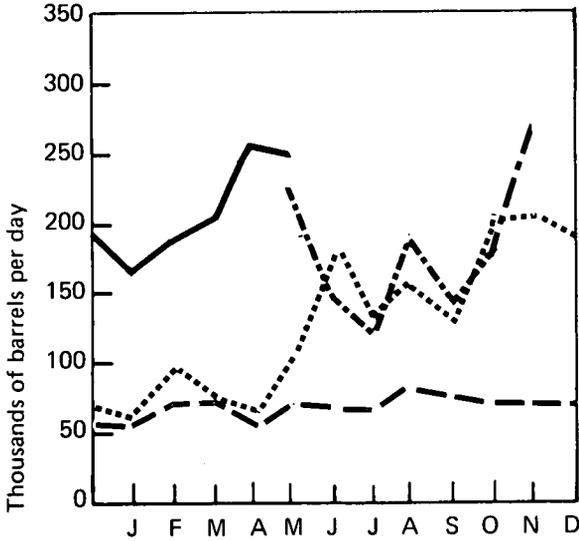
Domestic Demand*



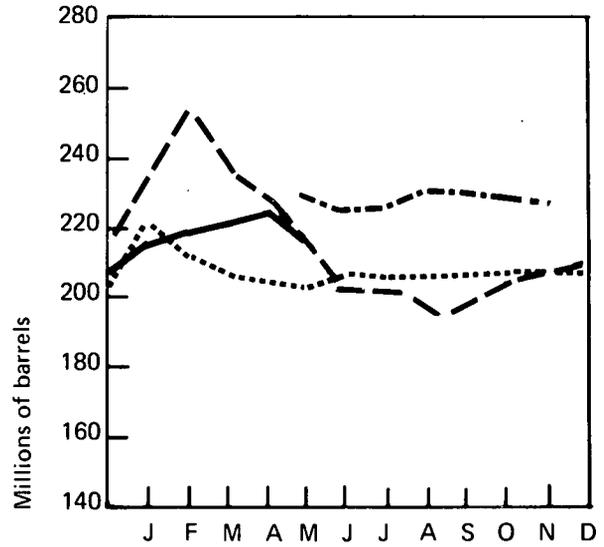
Production*



Imports*



Stocks*



- - - 1972
 1973
 ——— 1974 BOM
 - - - - 1974 FEA

*See Explanatory Note 3.

Jet Fuel

November domestic demand for total jet fuels dropped 3 percent from the October level but was 4 percent higher than during November 1973. Demand for kerosine jet fuel (mainly for commercial use) decreased 7 percent in November in contrast to an 11-percent increase in demand for naphtha jet fuel (primarily for military use).

Imports of jet fuels continued the generally upward trend begun in May, rising 3 percent in November. Imports of kerosine jet fuel dropped 3 percent, while imports of naphtha jet fuel rose dramatically by 33 percent. Total jet fuel imports were 16 percent less than

those in November 1973 but were 21 percent greater than imports during November 1972.

Production of total jet fuels was off 5 percent from last month but was virtually the same as last November. Kerosine-type dropped 7 percent, while production of naphtha-type rose 3 percent.

Inventory levels this year have been running considerably higher than a year ago. From May through October, stock levels were up 20 to 30 percent over last year. However, stock levels at the end of November were only

	Domestic Demand		Production		Imports		Stocks		
	In thousands of barrels per day								
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA	
1972	January	1,021		784		179	25,857		
	February	1,141		900		220	25,230		
	March	1,008		906		167	27,147		
	April	986		877		124	27,568		
	May	999		887		159	28,885		
	June	1,163		859		292	28,356		
	July	1,000		873		165	29,429		
	August	946		837		181	31,649		
	September	1,035		810		190	30,597		
	October	1,171		822		286	28,633		
	November	1,050		800		184	26,650		
	December	1,030		811		189	25,493		
1973	January	1,110		864		231	24,814		
	February	1,090		898		221	25,437		
	March	993		917		152	27,585		
	April	1,015		887		145	27,881		
	May	1,113		840		211	25,825		
	June	1,007		836		163	25,447		
	July	1,045		825		231	25,661		
	August	1,049		844		180	24,851		
	September	1,065		847		229	25,149		
	October	1,066		875		208	25,577		
	November	1,013		852		263	28,539		
	December	1,038		830		210	28,544		
1974	January	895		800		136	29,732		
	February	860		783		75	29,617		
	March	956		832		139	29,996		
	April	941		868		132	31,725		
	May	1,053	915	868	873	205	97	32,324	33,574
	June	952	1,016	810	886	141	115	32,200	33,128
	July	1,028	1,032	802	813	214	188	31,671	32,231
	August	1,031	1,076	805	849	206	202	30,989	31,594
	September	1,109	1,100	867	883	217	183	30,186	30,587
	October		1,092		905		216		R31,488
	November		*1,056		*861		*222		*31,249

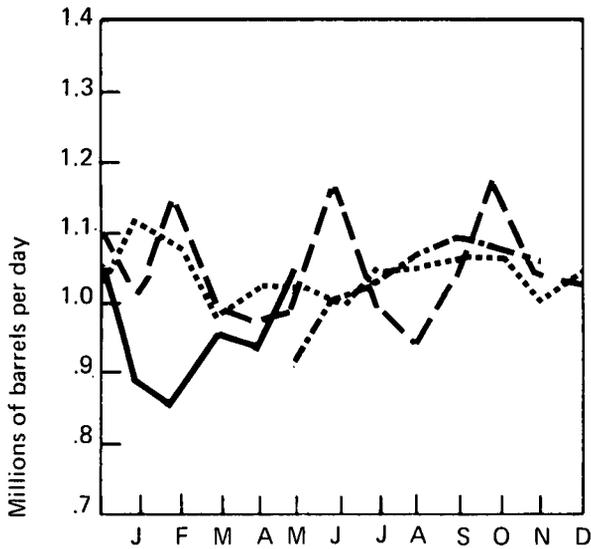
*Preliminary data.

R=Revised data.

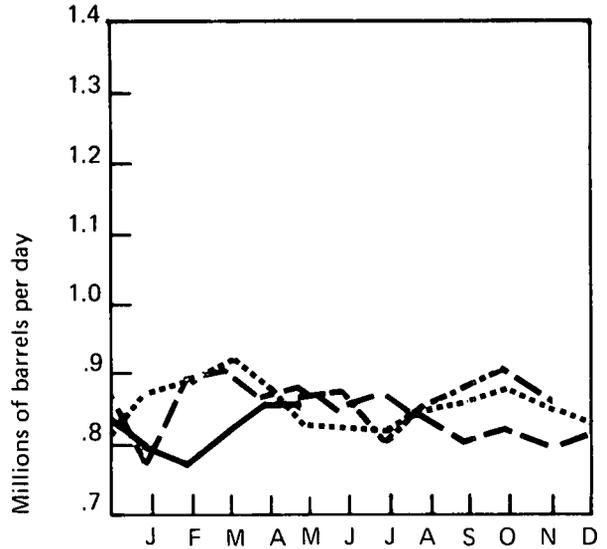
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

9 percent above those of November 1973. This is due to the fact that last November's inventories registered a considerable increase of 12 percent over October 1973, in contrast to this November, when stocks remained at about the same level as those of October 1974.

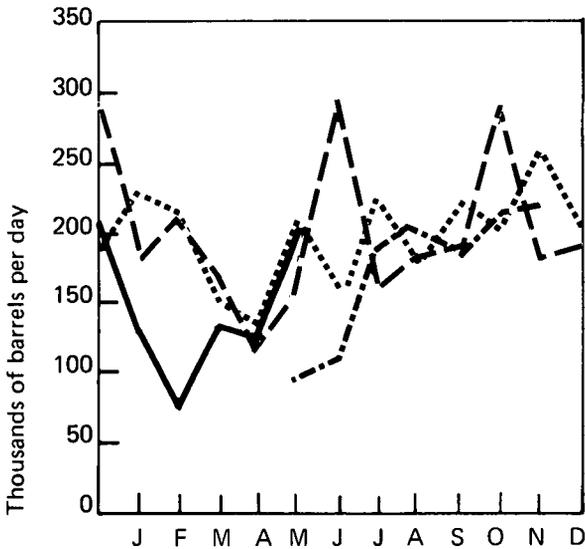
Domestic Demand*



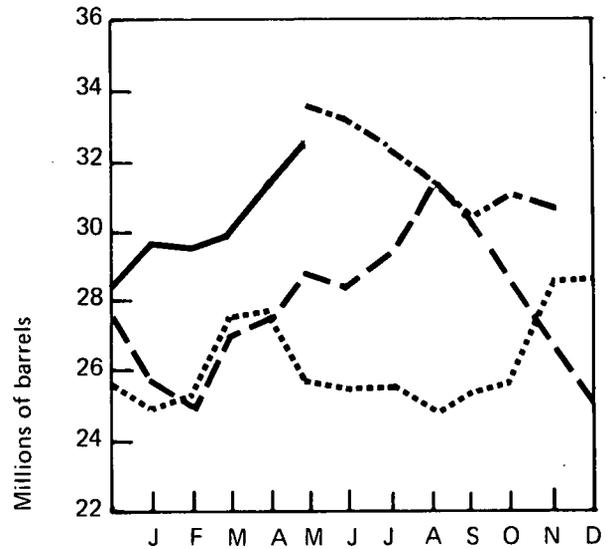
Production*



Imports*



Stocks*



- - - 1972
 1973
 ——— 1974 BOM
 - · - · - 1974 FEA

*See Explanatory Note 3.

Distillate Fuel Oil

Domestic demand for distillate fuel oil in November 1974 of 3,077,000 barrels per day represented an increase of only 9.2 percent over October 1974. This compares with increases of 20.3 percent and 22.6 percent experienced for these same 2 months during 1973 and 1972, respectively. November domestic demand, however, was 471,000 barrels per day less than that for November 1973 and 306,000 barrels per day lower than November 1972, due mainly to conservation practices and the downturn in the economy.

November distillate fuel oil imports rose to 404,000 barrels per day, up sharply by 140,000 barrels per day or

53 percent over the previous month. However, this level was not as great as the 493,000 barrels per day imported during November 1973.

November 1974 distillate fuel oil production was 39,000 barrels per day below the level for November 1973 but 64,000 barrels per day above the level for November 1972. Compared with the previous month, production this November was up 96,000 barrels per day.

Inventories of distillate fuel oil in November increased 6.3 million barrels or 2.7 percent over October. This stock increase compares with decreases of 1.4 percent

	Domestic Demand		Production*		Imports		Stocks*	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972								
January	3,723		2,538		197		160,027	
February	4,164		2,653		204		122,154	
March	3,482		2,564		257		101,728	
April	2,778		2,476		189		98,288	
May	2,250		2,585		132		112,892	
June	2,194		2,623		96		128,739	
July	1,765		2,529		97		155,557	
August	2,064		2,582		92		174,674	
September	2,205		2,624		99		190,250	
October	2,759		2,722		203		195,530	
November	3,383		2,719		227		182,581	
December	4,232		2,938		382		154,284	
1973								
January	4,134		3,028		360		130,958	
February	4,243		2,937		672		113,276	
March	3,314		2,667		579		111,270	
April	2,635		2,510		240		114,698	
May	2,652		2,544		247		119,104	
June	2,412		2,825		215		137,844	
July	2,329		2,752		319		160,869	
August	2,554		2,801		286		177,271	
September	2,660		2,813		298		190,171	
October	2,916		2,911		436		202,965	
November	3,508		2,922		493		200,182	
December	3,685		3,136		434		196,421	
1974								
January	3,820		2,880		449		181,179	
February	3,835		2,399		293		149,125	
March	3,145		2,226		267		128,822	
April	2,848		2,522		216		125,553	
May	2,453	2,616	2,704	2,741	271	288	141,806	151,345
June	2,386	2,249	2,783	2,818	228	175	160,645	173,639
July	2,302	2,251	2,792	2,881	214	168	182,458	198,374
August	2,295	2,271	2,704	2,779	111	112	198,673	217,632
September	2,377	2,473	2,551	2,655	144	143	208,269	227,069
October		R2,816		R2,787		264		R234,347
November		**3,077		**2,883		**404		**240,651

*See definitions.

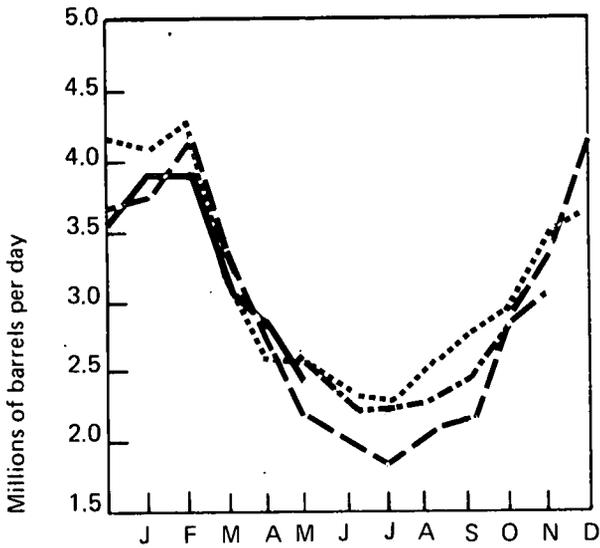
**Preliminary data.

R=Revised data.

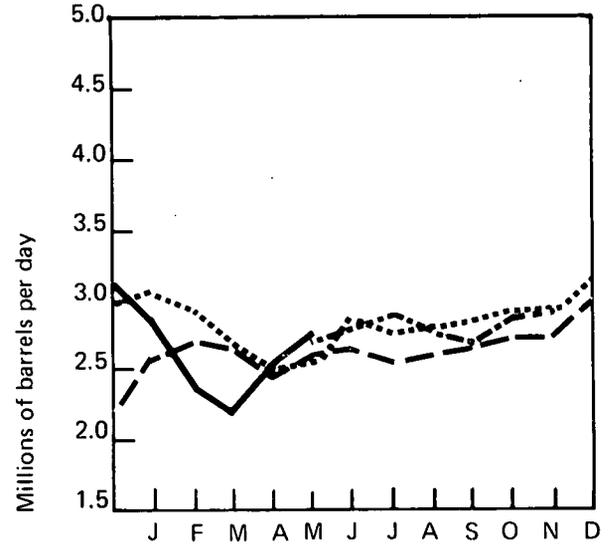
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

and 6.6 percent experienced for the corresponding months in 1973 and 1972, respectively.

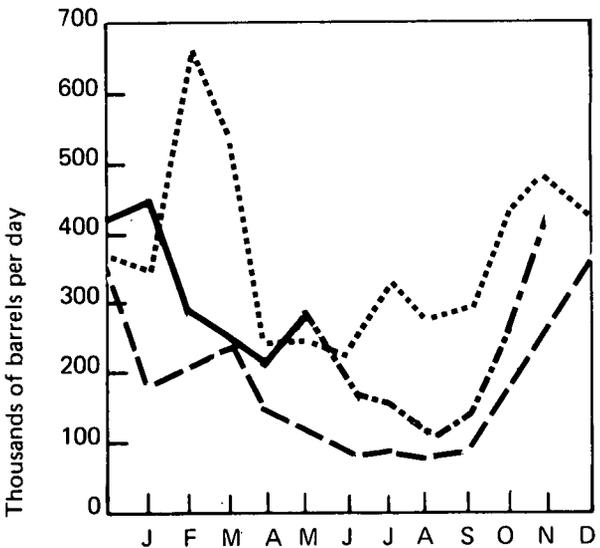
Domestic Demand*



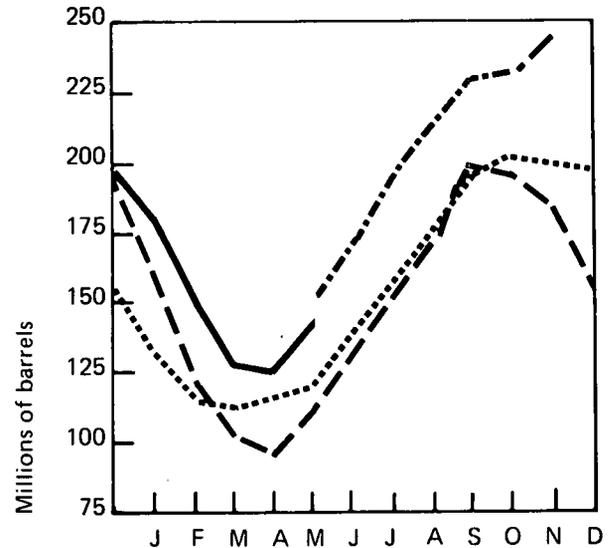
Production*



Imports*



Stocks*



- - - 1972
 1973
 ——— 1974 BOM
 - · - · 1974 FEA

*See Explanatory Note 3.

Oil Heating Degree-Days

November oil heating degree-days for the Midwest and eastern sections of the country were very close to normal for this time of year. However, the six Southern States comprising PAD District III were almost 12 percent colder than usual, while temperatures in the western third of the country were above normal.

So far this heating season, most of the Nation has been above normal in degree-days (and below normal in temperature). The western third of the country, much of Florida, and a few areas in the Midwest and South have been warmer than normal.

(See Explanatory Note 4 for explanation of oil heating degree-days.)

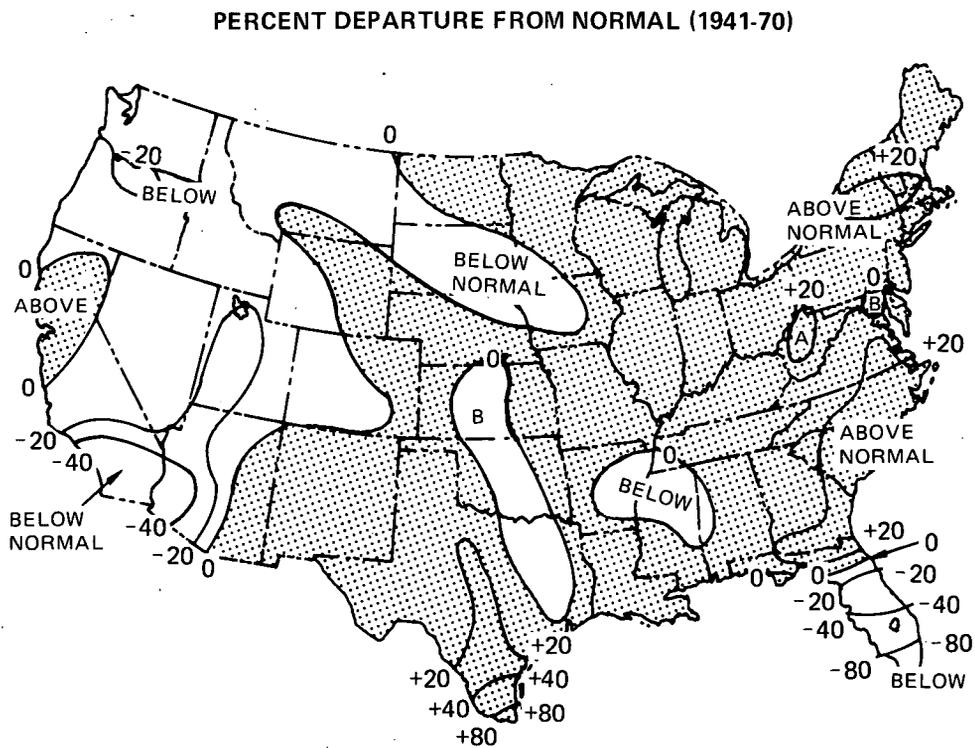
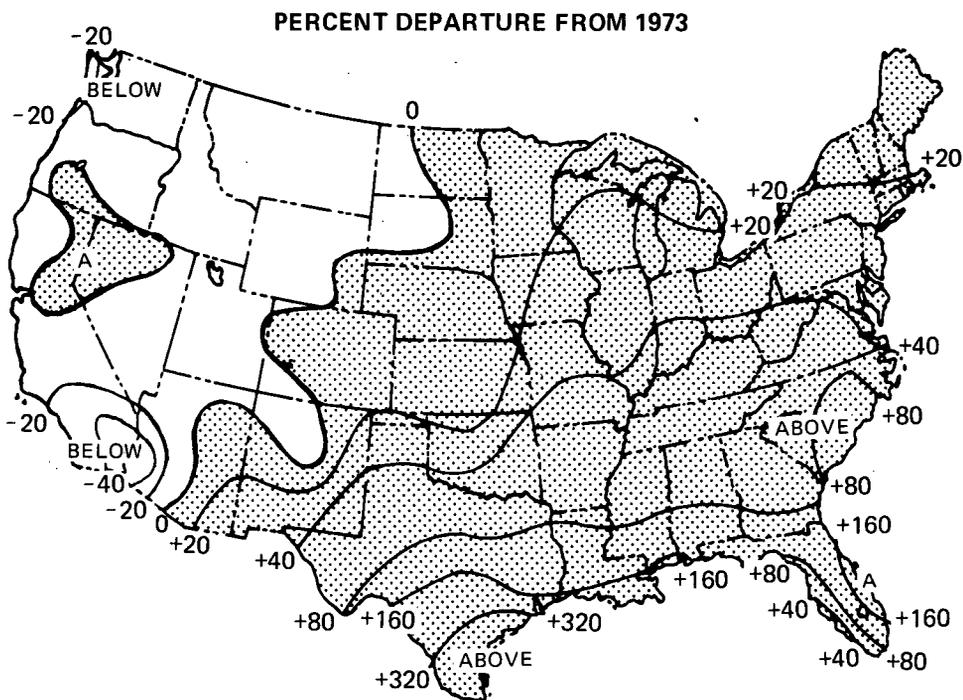
OIL HEATING DEGREE-DAYS*

Petroleum Administration for Defense (PAD) Districts	November			Cumulative Since July 1		
	1974	1973**	Normal (1941-70)**	1974	1973**	Normal (1941-70)**
PAD District I	521.3	489.4 (6.5)	513.2 (1.6)	967.9	788.0 (22.8)	867.2 (11.6)
New England	654.9	627.1 (4.4)	634.4 (3.2)	1,330.7	1,119.2 (18.9)	1,158.0 (14.9)
Conn., Maine, Mass., N.H., R.I., Vt.						
Middle Atlantic	582.7	569.2 (2.4)	582.2 (0.1)	1,074.4	889.7 (20.8)	977.0 (10.0)
Del., Md., N.J., N.Y., Pa.						
Lower Atlantic	273.7	200.0 (36.9)	261.4 (4.7)	419.5	278.3 (50.7)	377.3 (11.2)
Fla., Ga., N.C., S.C., Va., W. Va.						
PAD District II	739.4	659.8 (12.1)	741.5 (-0.3)	1,386.2	1,097.6 (26.3)	1,287.5 (7.7)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wis.						
PAD District III	319.5	178.2 (79.3)	285.6 (11.8)	404.4	238.2 (69.8)	385.1 (5.0)
Ala., Ark., La., Miss., N. Mex., Tex.						
PAD District IV	725.7	746.0 (-2.7)	789.7 (-8.1)	1,381.8	1,445.4 (-4.4)	1,489.3 (-7.2)
Colo., Idaho, Mont., Utah, Wyo.						
PAD District V	442.8	487.4 (-9.2)	491.3 (-9.9)	888.0	1,008.7 (-12.0)	1,038.1 (-14.5)
Ariz., Calif., Nev., Oreg., Wash.						
U.S. Total	561.0	518.3 (8.3)	557.6 (0.6)	1,040.8	853.4 (22.0)	957.4 (8.7)

*See Explanatory Note 4 for explanation of oil heating degree-days.

**Percentage change in parenthesis.

HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1974
DECEMBER 1, 1974



NOTE: Above normal heating degree-days correspond to below normal temperatures.
Source: Department of Commerce - NOAA
Based on preliminary telegraphic reports.

Residual Fuel Oil

Domestic demand for residual fuel oil in November increased 5.2 percent over the previous month. This compares with increases of 22.4 percent and 20.4 percent experienced for the same months in 1973 and 1972, respectively. Demand for the first 11 months of 1974 at 2,485,000 barrels per day was 10.9 percent below the corresponding period of 1973, but was virtually the same as that for the first 11 months of 1972.

Residual fuel oil production in November increased 113,000 barrels per day or 10.2 percent over October

1974 and was 164,000 barrels per day or 15.5 percent above November 1973. Since 1972, production of residual fuel oil has increased markedly. Average daily production for the first 11 months of 1974 at 1,061,000 barrels was 11.1 percent and 37.8 percent greater than that for the same periods in 1973 and 1972, respectively.

Imports of residual fuel oil in November increased 6.1 percent over October 1974, but were 25.2 percent below the level for November 1973 and 17.9 percent below that for November 1972. Imports for the period January

	Domestic Demand		Production		Imports		Stocks	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972								
January	2,815		924		1,892		59,440	
February	3,171		963		1,923		50,891	
March	2,682		828		1,926		51,566	
April	2,444		739		1,676		49,425	
May	2,111		664		1,573		53,035	
June	2,196		661		1,649		56,109	
July	2,107		673		1,594		60,230	
August	2,257		674		1,653		61,399	
September	2,239		710		1,625		63,692	
October	2,362		745		1,655		63,758	
November	2,843		890		1,769		57,702	
December	3,151		1,124		1,968		55,216	
1973								
January	3,262		1,112		1,977		49,154	
February	3,305		1,038		2,072		43,058	
March	3,071		955		2,185		44,711	
April	2,472		877		1,703		47,044	
May	2,518		948		1,666		49,207	
June	2,602		915		1,757		51,811	
July	2,430		882		1,597		53,363	
August	2,690		851		1,850		53,586	
September	2,667		878		1,842		55,091	
October	2,547		984		1,556		54,964	
November	3,118		1,061		1,942		51,985	
December	2,910		1,158		1,793		53,480	
1974								
January	3,035		1,072		1,732		46,548	
February	3,010		1,029		1,923		45,004	
March	2,516		912		1,674		47,222	
April	2,432		984		1,587		51,339	
May	2,251	2,111	995	992	1,353	1,250	54,356	64,548
June	2,455	2,177	1,026	1,058	1,549	1,260	57,891	68,646
July	2,432	2,135	1,056	1,091	1,433	1,197	59,787	73,066
August	2,539	2,368	1,067	1,126	1,530	1,342	60,988	76,011
September	2,454	2,419	1,032	1,070	1,400	1,274	60,251	72,723
October		R2,501		R1,112		1,369		R72,151
November		*2,630		*1,225		*1,453		*73,585

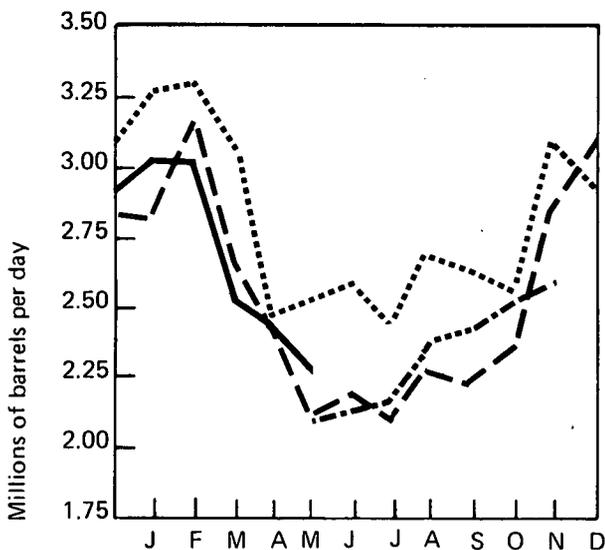
*Preliminary data. R = Revised data.

Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

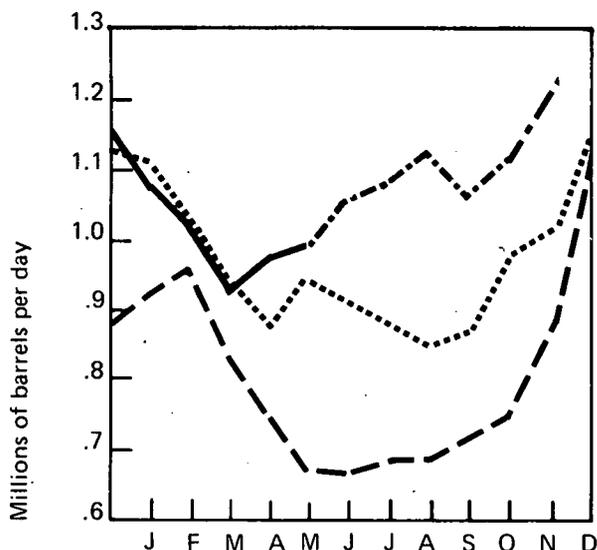
through November 1974 averaged 1,460,000 barrels per day which was 20.3 percent and 15.2 percent less than average for the corresponding periods in 1973 and 1972, respectively. This decline in imports is attributed to a combination of increased production and reduced consumption levels.

Inventories of residual fuel oil increased by about 2 percent in November over the preceding month in a countertrend to the seasonal decline which is normally experienced during this month.

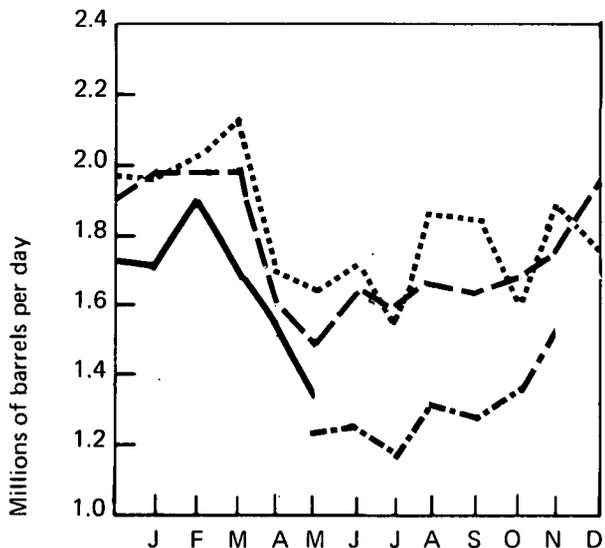
Domestic Demand*



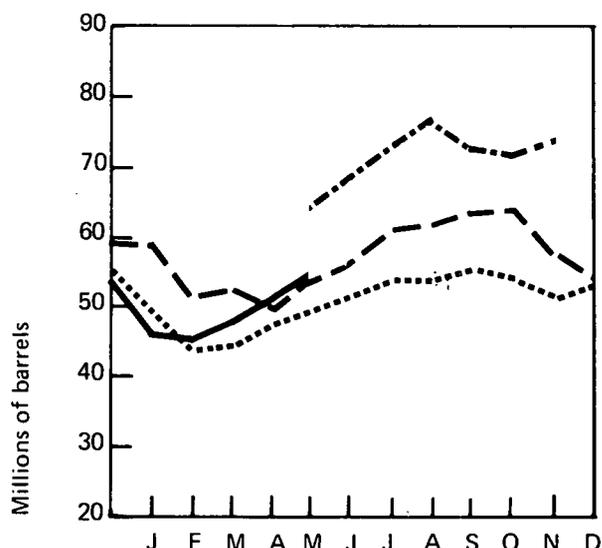
Production*



Imports*



Stocks*



*See Explanatory Note 3.

--- 1972
 1973
 ——— 1974 BOM
 -.-.- 1974 FEA

Natural Gas Liquids

Stocks of natural gas liquids, which had been increasing steadily during the summer months, were up only 1 percent in September over August levels. However, they were still 22 percent higher than stocks at the end of September 1973.

September production was down 2 percent compared with the previous month and was 6 percent lower than in September 1973. Imports were up about 2 percent over August 1974 but were 15 percent less than those for September 1973. Domestic demand for natural gas liquids was 11 percent greater in September than in

August and was also 6 percent higher than that for September a year ago.

An examination of average daily production, imports, and domestic demand for the first 9 months of 1974 reveals declines in each category when compared with the same period in 1973. Imports fell most sharply, off 8 percent. Declines in demand and production were less severe, each representing decreases of about 3 percent.

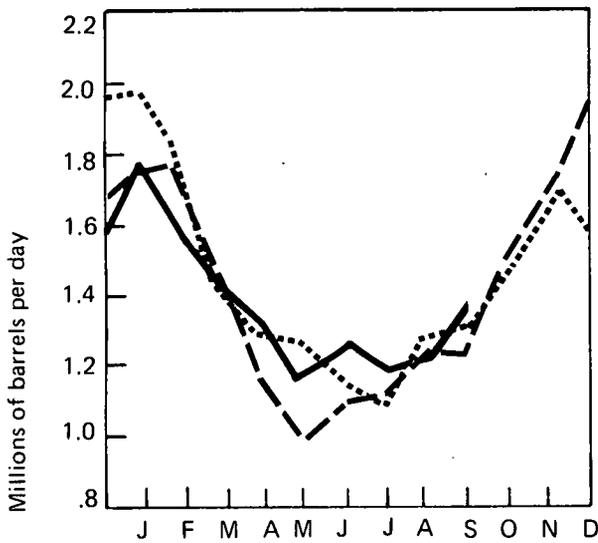
		Domestic Demand*	Production*	Imports	Stocks*
		In thousands of barrels per day			In thousands of barrels
1972	January	1,746	1,705	196	76,704
	February	1,752	1,747	182	68,232
	March	1,417	1,768	186	68,777
	April	1,181	1,769	118	75,101
	May	995	1,737	147	84,984
	June	1,114	1,734	134	92,831
	July	1,121	1,731	141	100,363
	August	1,243	1,739	164	104,397
	September	1,244	1,751	168	108,853
	October	1,525	1,769	202	105,098
	November	1,768	1,757	221	94,673
	December	1,946	1,721	231	79,238
1973	January	1,994	1,680	313	64,343
	February	1,857	1,745	312	55,997
	March	1,406	1,734	258	58,471
	April	1,297	1,749	199	65,297
	May	1,268	1,739	215	73,942
	June	1,149	1,727	163	83,057
	July	1,104	1,737	193	93,362
	August	1,268	1,748	226	98,996
	September	1,288	1,741	197	103,907
	October	1,485	1,756	235	104,215
	November	1,693	1,774	276	98,320
	December	1,598	1,729	223	94,106
1974	January	1,779	1,699	305	85,820
	February	1,593	1,728	294	84,734
	March	1,408	1,741	224	89,362
	April	1,321	1,696	215	95,707
	May	1,181	1,689	182	104,739
	June	1,242	1,684	200	111,356
	July	1,187	1,657	163	118,804
	August	1,221	1,676	163	125,120
	September	** 1,359	** 1,638	** 167	** 126,454

*See Explanatory Note 5.

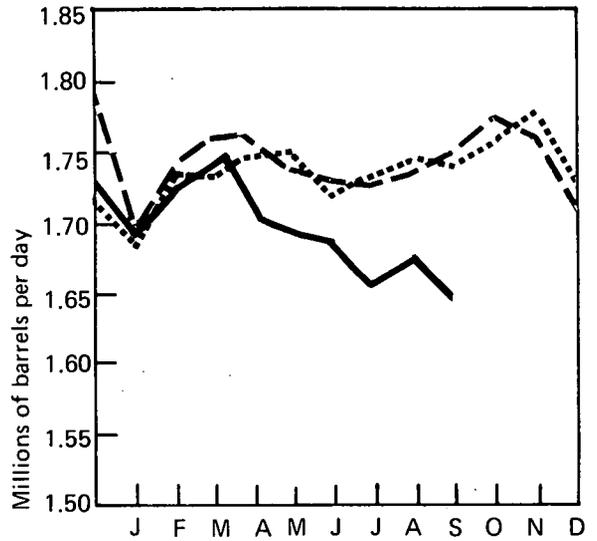
**Preliminary data.

Source: Bureau of Mines.

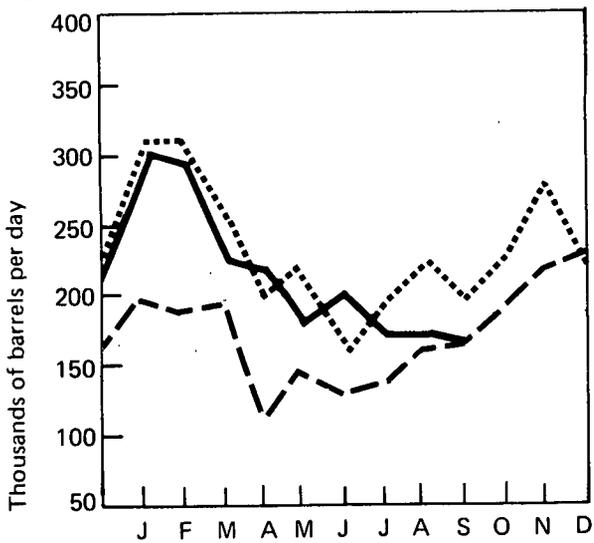
Domestic Demand



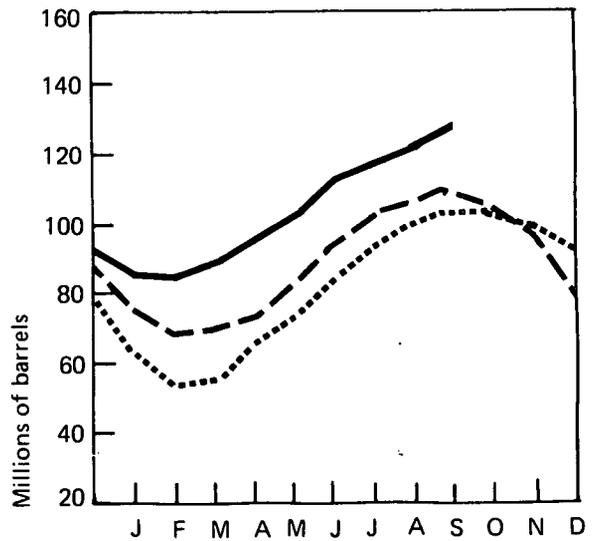
Production



Imports



Stocks



--- 1972
..... 1973
—— 1974

Natural Gas

Marketed production of natural gas during September 1974 was 6.1 percent less than that for September 1973. This decrease was the largest single-month decline experienced this year, eclipsing the 5.5 percent drop reported only last month. For the first 9 months of 1974, marketed production was 3.3 percent below the level for the same period in 1973.

Imports of natural gas and producer sales to interstate pipelines also declined during September, and were 14.6

and 8.9 percent, respectively, lower than their levels in September 1973.

During the first 9 months of 1974, imports fell 7.9 percent from the corresponding 1973 level of 768 billion cubic feet, while producer sales to major interstate pipelines were down 4.2 percent during this period.

		Marketed Production	Domestic Producer Sales to Major Interstate Pipelines	Imports
		In billion cubic feet		
1972	January	1,994	1,086	117
	February	1,902	1,035	112
	March	1,937	1,091	88
	April	1,893	1,050	134
	May	1,867	1,045	111
	June	1,797	985	108
	July	1,837	1,013	102
	August	1,859	1,007	97
	September	1,854	970	114
	October	1,889	1,040	103
	November	1,896	1,041	111
	December	1,961	1,065	111
1973	January	1,994	1,069	93
	February	1,821	963	84
	March	1,952	1,052	91
	April	1,864	1,007	88
	May	1,898	1,026	86
	June	1,839	963	79
	July	1,880	999	80
	August	1,896	994	85
	September	1,840	956	82
	October	1,875	1,001	91
	November	1,863	1,000	85
	December	1,926	1,036	89
1974	January	1,944	1,033	86
	February	1,773	941	79
	March	1,907	1,027	85
	April	1,812	987	83
	May	1,853	981	80
	June	1,777	928	74
	July	1,827	947	74
	August	R1,797	932	76
	September	R*1,727	871	R70
	October	R**1,790		R**75
	November	**1,810		**77

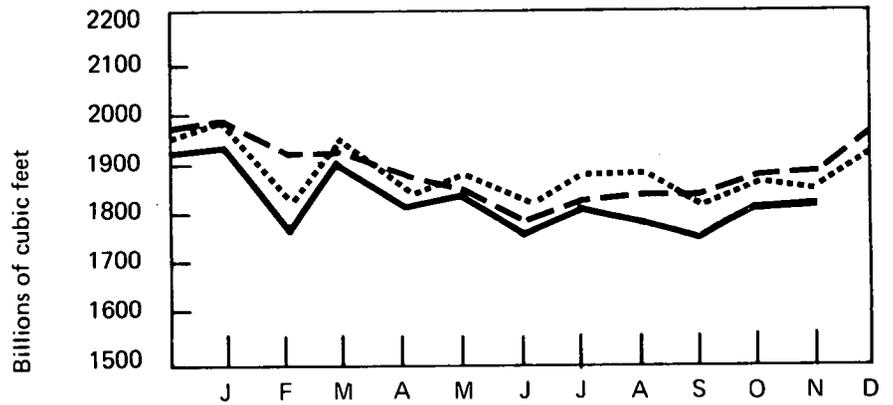
*Preliminary data.

**Projected data.

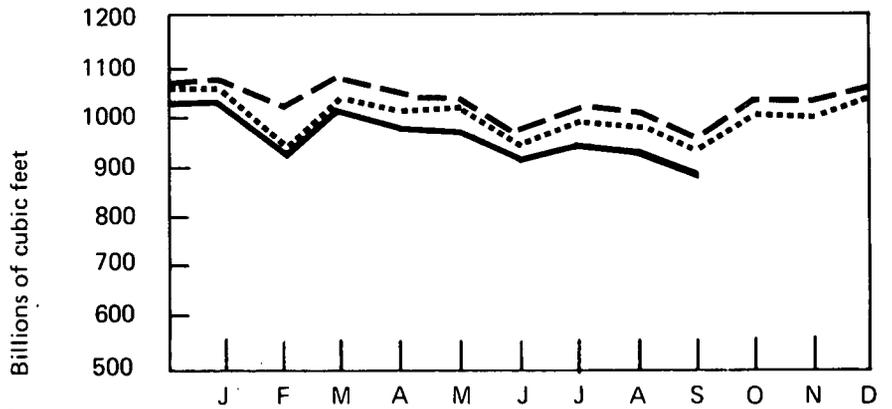
R=Revised data.

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

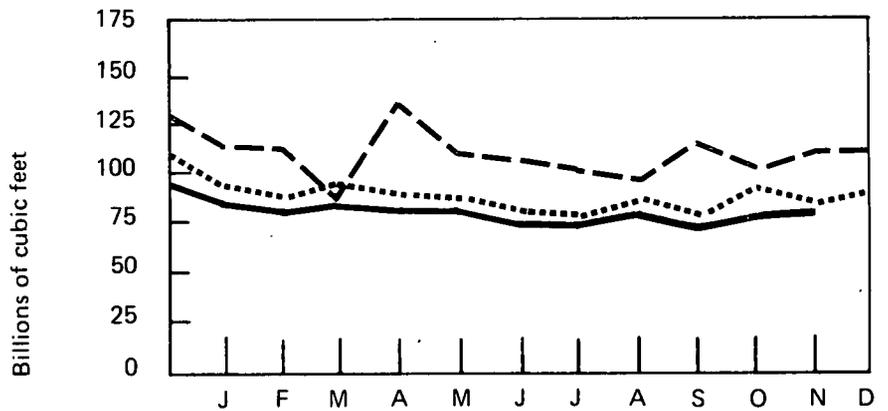
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



- - - 1972
 1973
 ——— 1974

Coal

Production of bituminous coal and lignite in October 1974 totaled 58.7 million tons, a phenomenal increase of 14 percent over the 1974 monthly average. Moreover, this was the largest volume of coal produced in any month since January 1947. A major portion of the increase can be attributed to stepped-up demand as consumers prepared for the impending coal strike by the United Mine Workers of America (UMWA). Preliminary production figures for November 1974 at 33.8 million tons showed a decrease of 35 percent from the 1974 monthly average, reflecting the impact of the UMWA strike that lasted from November 12 to December 5.

During the height of the strike, production was running about 35 percent of normal. A preliminary estimate of production lost due to the strike is between 30 and 35 million tons. For the first full workweek following the contract settlement, production totaled 10.1 million tons, which was about 84 percent of normal. A major reason that production had not returned to normal was that miners were honoring the picket lines of mine construction workers, whose separate contract had not yet been settled.

Bituminous and Lignite

		Domestic Consumption *	Production **	Exports	Stocks
In thousands of short tons					
1972	January	43,951	49,680	3,660	R91,178
	February	43,178	49,112	3,630	R92,183
	March	43,773	54,438	4,624	R96,795
	April	40,158	49,814	4,915	R102,981
	May	40,588	52,879	5,416	R110,577
	June	40,505	50,083	4,882	R115,723
	July	43,071	40,964	3,627	R111,353
	August	44,698	52,169	6,337	R114,665
	September	42,002	49,374	4,923	R116,196
	October	43,050	51,671	5,173	R120,135
	November	44,104	50,297	5,380	R121,401
	December	47,698	44,904	3,392	R117,442
1973	January	49,838	49,379	2,954	R111,080
	February	44,652	45,893	2,669	R108,937
	March	44,814	50,547	3,377	R111,595
	April	42,689	46,999	5,063	R112,611
	May	43,627	51,420	5,140	R116,881
	June	45,115	46,613	4,969	R110,056
	July	47,706	43,801	4,164	R107,467
	August	48,840	55,874	5,125	R106,878
	September	45,471	48,338	3,424	R106,231
	October	46,427	54,382	5,882	R107,462
	November	46,703	49,826	5,214	R107,149
	December	50,130	48,666	4,889	R102,152
1974	January	50,415	53,470	2,813	R99,275
	February	45,122	49,010	4,627	R96,940
	March	46,402	51,455	3,179	R99,895
	April	44,065	53,820	4,944	R106,972
	May	45,712	R57,135	6,032	R110,018
	June	44,631	47,635	6,369	R110,965
	July	48,547	47,855	5,307	R106,091
	August	48,753	50,285	5,088	105,810
	September	44,506	52,460	4,893	109,205
	October	45,776	58,705	7,342	116,671
	November		***33,835		

*See Explanatory Note 6.

**See Explanatory Note 7.

***Preliminary data.

R=Revised data.

Source: Bureau of Mines.

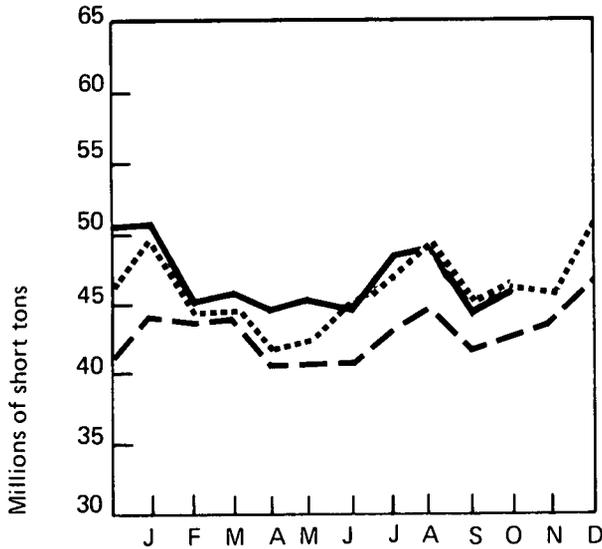
Domestic coal consumption was 45.8 million tons in October, representing an increase of about 1.3 million tons or 2.8 percent over September. Coal used at electric utilities increased 1.0 million tons compared with September, whereas consumption by other major consuming categories showed very little change.

The impact of the strike on the consuming sectors was greatest in the steel industry, as weekly consumption of coal declined to 70 percent of normal by the last week of the strike. In order to conserve coal stocks, this reduced consumption level was necessary even prior to

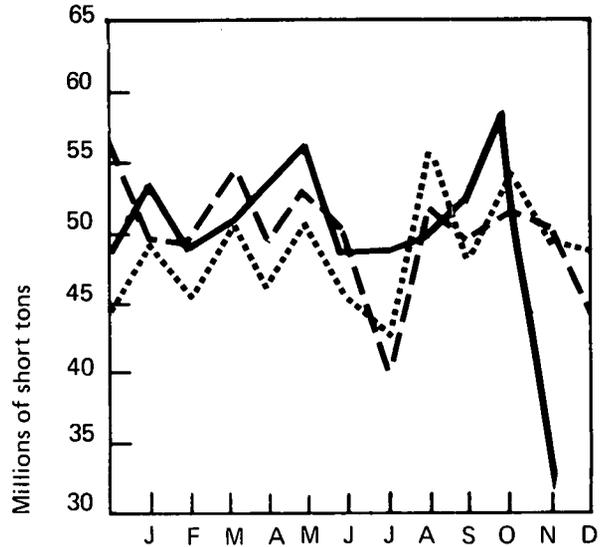
the strike. Production of raw steel as reported by the American Iron and Steel Institute declined for the 6 consecutive weeks prior to November 30 by a total of 10.6 percent. An undetermined portion of this decline can reasonably be attributed to the effects of the coal strike. There was no major impact of the strike in any other consuming sector. Electric utilities, the largest coal consumers, had no significant disruptions since they had ample stocks on hand.

Total coal stocks as of the end of October 1974 were 116.7 million tons, up significantly from September

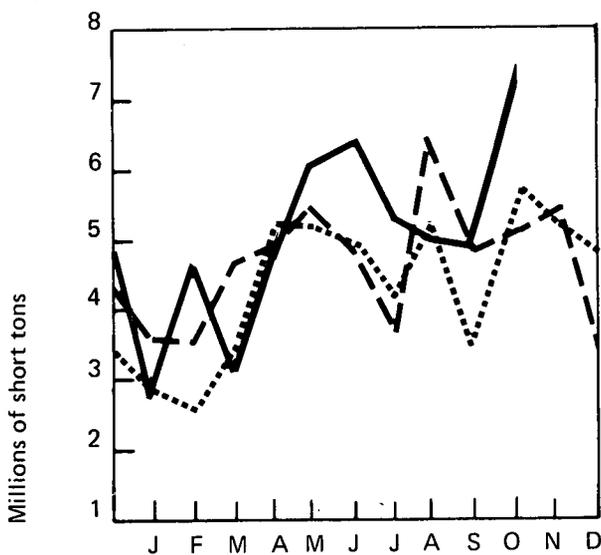
Domestic Consumption



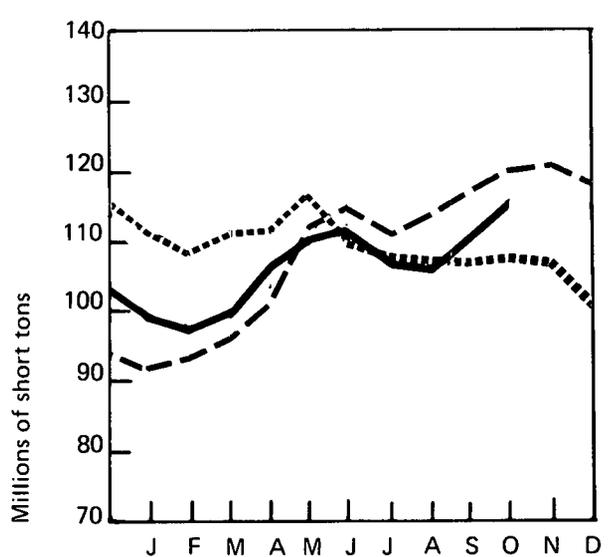
Production



Exports



Stocks



--- 1972
 1973
 ——— 1974

Coal (Continued)

when they stood at 109.2 million tons. Stocks were also substantially higher than at the end of October 1973 when they were reported at 107.5 million tons. Clearly, every effort was made to increase inventories in anticipation of a coal strike in November. However, as consumption continued and receipts were curtailed by the strike, inventories of coal began to decline. By the end of the first week in December stocks had declined 13.0 million tons, or 13 percent, at electric utilities and 2.5 million tons, or 25 percent, at coking plants. All figures on coal stocks have been revised to reflect the enlarged sample of manufacturing plants on which the figures are based.

Reported inventories at these additional plants were greater than had previously been estimated.

Exports of coal for October were 7.3 million tons, 53 percent higher than the 1974 monthly average. These high exports reflected the foreign concern over the UMWA strike. By the last week in November, exports had fallen 1.0 million tons per week from 1.9 million tons for the week just prior to the strike. Despite this sharp decline, a preliminary estimate of exports for November is about 6.0 million tons, still considerably above the monthly average for the year.

Part 3

Electric Utilities

Electric Utilities

Production of electricity by utilities during November at 149,093 million kilowatt-hours declined 1.8 percent from the level for October but was 5.9 percent greater than production during November 1973.

Electric utilities used 8.1 percent less natural gas to generate electricity during October 1974 than they did during October 1973. Consumption of coal and fuel oil was also lower, by 1.3 percent and 4.7 percent, respectively. Consistent with these decreases in consumption of fossil fuels, energy source data indicated that the portion of electricity production contributed by

fossil fuels declined from 83.0 percent of the total in October 1973 to 79.0 percent in October of this year. Compensating for this 4.0 percent drop was a corresponding increase in production derived from hydroelectric and nuclear power.

Coal stocks at electric utilities as of the end of October were 7.5 percent higher than those for the same month of 1973 and represented a 95-day supply. Oil stocks closed 54.0 percent higher than a year ago, representing on the average an 80-day supply.

		Total Production	Percentage Produced from Each Source					
		In millions of kilowatt hours	Coal	Oil	Gas	Nuclear	Hydro- electric	Other*
1972	January	144,575	45.4	17.9	16.6	2.9	16.9	0.3
	February	137,301	45.7	17.3	18.0	2.6	16.1	0.3
	March	140,056	44.3	15.2	20.0	3.0	17.2	0.3
	April	132,138	43.6	13.4	22.3	2.7	17.7	0.3
	May	137,745	43.3	12.7	24.0	2.1	17.6	0.3
	June	145,523	42.3	13.3	25.5	2.6	15.9	0.4
	July	157,846	42.1	14.1	25.7	2.9	14.9	0.3
	August	162,822	42.8	13.7	25.7	3.5	13.9	0.4
	September	147,358	43.4	14.7	25.5	3.2	12.9	0.3
	October	143,742	44.3	14.1	25.2	3.2	13.0	0.2
	November	143,867	45.7	18.3	17.2	3.7	14.8	0.3
	December	154,350	45.9	19.5	14.4	3.9	16.0	0.3
1973	January	159,320	47.2	19.3	13.1	3.9	15.8	0.7
	February	143,109	47.4	18.1	14.0	4.1	16.0	0.4
	March	147,754	45.6	16.2	16.2	4.5	17.2	0.3
	April	139,273	46.0	14.4	17.9	4.2	17.2	0.3
	May	147,021	44.2	14.6	20.2	3.8	16.8	0.4
	June	160,962	43.5	16.0	21.6	4.2	14.5	0.2
	July	172,539	44.1	16.5	22.5	4.0	12.7	0.2
	August	175,928	44.5	17.2	21.6	4.4	11.9	0.4
	September	156,304	45.6	17.2	21.0	4.9	11.0	0.3
	October	153,888	45.6	17.6	19.8	4.8	11.8	0.4
	November	140,785	47.3	16.6	16.5	5.7	13.5	0.4
	December	153,276	47.9	16.3	13.2	5.1	17.1	0.4
1974	January	152,226	48.2	17.1	13.5	4.9	15.9	0.4
	February	141,723	46.7	15.7	13.3	5.5	18.4	0.4
	March	148,046	45.3	14.7	15.6	5.5	18.5	0.4
	April	137,586	45.0	14.1	17.4	4.3	19.0	0.2
	May	153,076	44.3	14.7	18.4	4.0	18.3	0.3
	June	148,119	44.6	14.6	20.0	4.1	16.5	0.2
	July	175,057	43.0	15.4	21.1	5.5	14.6	0.4
	August	174,021	43.0	15.6	20.3	7.3	13.4	0.4
	September	151,963	43.5	16.1	19.1	7.1	14.0	0.2
	October	R 151,768	44.0	16.6	18.4	7.0	13.8	0.2
	November	149,093						

*Includes electricity produced from geothermal power, wood, and waste. R = Revised data.

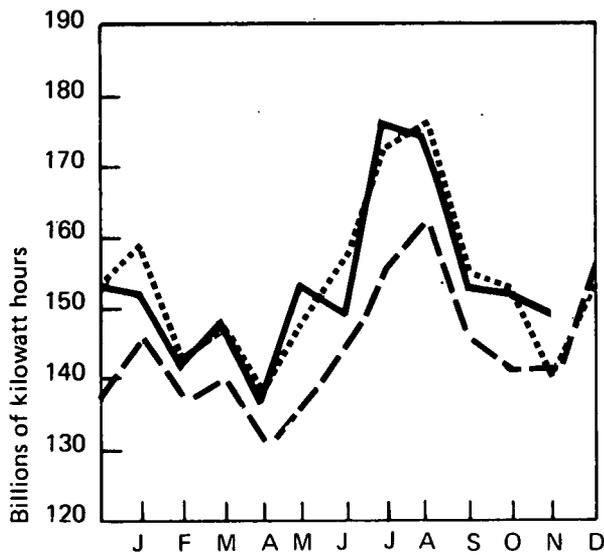
Sources: Federal Power Commission.

Production data for latest month are from Edison Electric Institute.

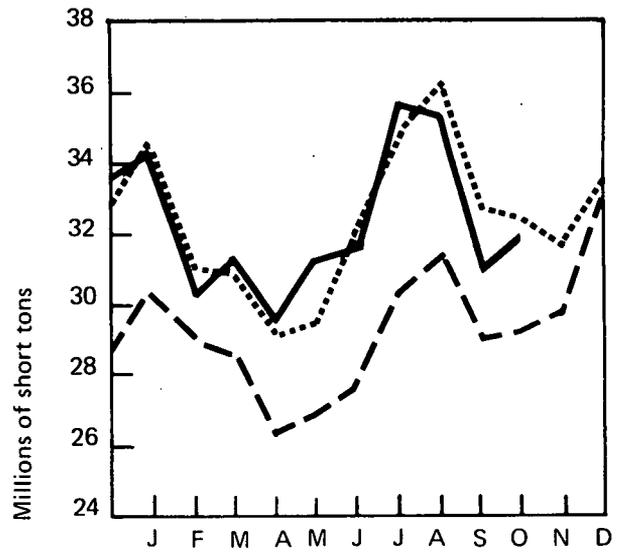
		Fuel Consumption			Stocks at End of Month	
		Coal	Oil	Gas	Coal	Oil
		In thousands of short tons	In thousands of barrels	In millions of cubic feet	In thousands of short tons	In thousands of barrels
1972	January	30,231	46,555	251,029	76,876	46,055
	February	28,946	43,325	258,859	77,138	47,111
	March	28,472	38,809	294,804	80,296	52,213
	April	26,093	32,325	312,229	84,984	55,730
	May	26,823	32,106	351,543	91,778	57,399
	June	27,749	35,098	394,585	96,553	58,815
	July	30,214	40,646	433,533	93,760	60,786
	August	31,651	41,073	448,594	96,611	66,024
	September	28,988	38,723	398,799	98,396	66,004
	October	29,133	42,876	337,567	102,205	65,531
	November	29,926	47,914	262,447	102,477	62,067
	December	32,817	54,479	234,683	98,671	57,686
1973	January	34,591	55,773	219,270	95,017	53,691
	February	30,921	46,978	212,983	92,993	50,858
	March	30,746	42,701	255,314	93,986	54,885
	April	29,209	35,845	267,151	94,991	62,411
	May	29,683	38,097	316,989	98,722	64,259
	June	31,953	46,669	363,239	97,995	65,003
	July	34,833	50,956	414,408	92,215	67,987
	August	36,065	55,166	482,053	91,356	73,259
	September	32,723	47,937	418,776	90,156	74,863
	October	32,398	48,033	327,010	91,428	76,343
	November	31,856	45,158	247,038	90,369	81,224
	December	33,704	44,696	217,049	86,880	88,228
1974	January	34,468	46,700	222,080	83,366	89,053
	February	30,062	41,186	185,468	80,962	92,645
	March	31,135	40,007	244,288	84,257	94,187
	April	29,452	38,124	238,272	90,901	100,210
	May	31,341	41,046	304,166	93,628	103,606
	June	31,892	41,084	341,067	95,811	104,316
	July	35,809	48,909	399,259	91,616	105,919
	August	35,365	49,084	380,979	89,691	110,997
	September	30,965	44,791	320,978	92,704	113,570
	October	31,968	45,767	300,317	98,373	117,564

Source: Federal Power Commission.

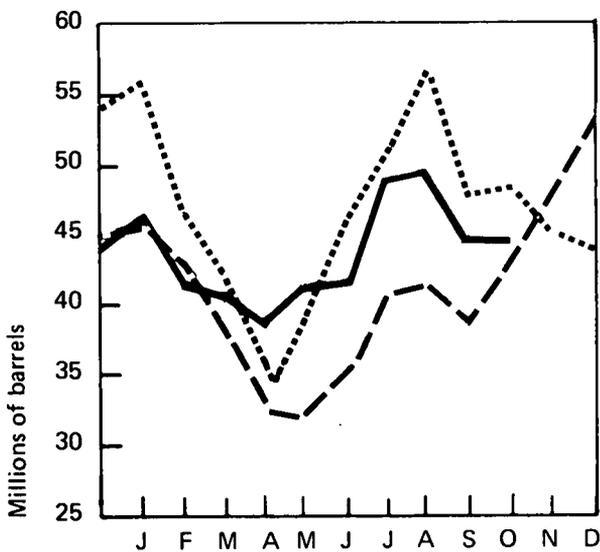
Total Production



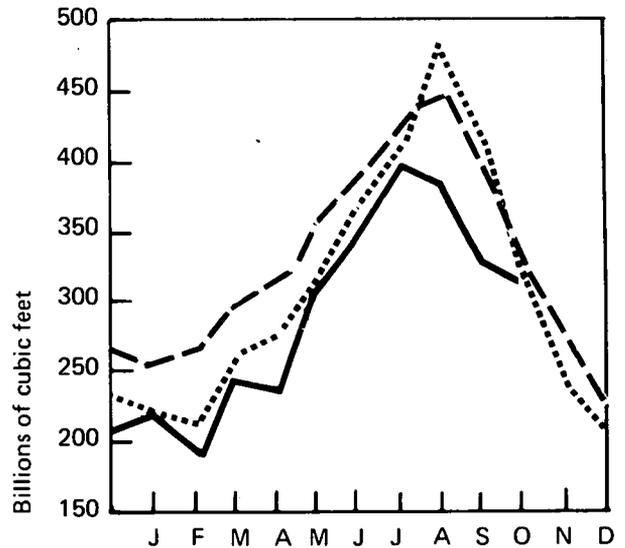
Coal Consumption



Oil Consumption

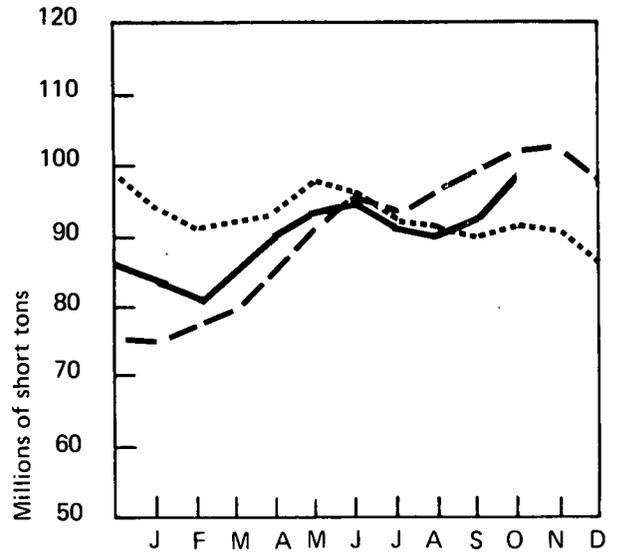


Gas Consumption

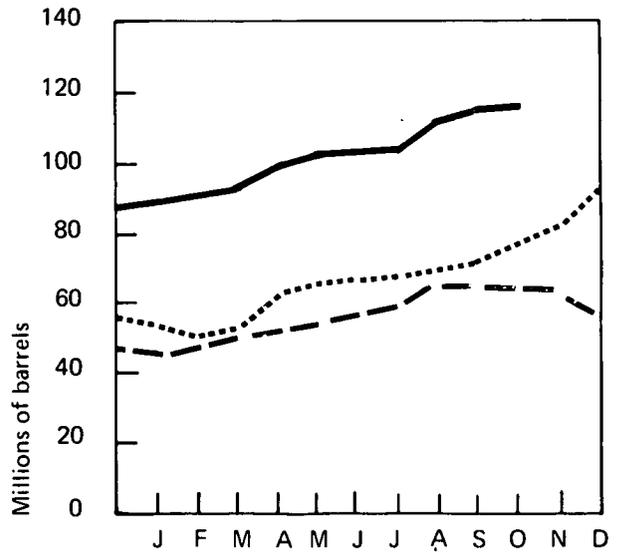


- - - 1972
 1973
 ——— 1974

Coal Stocks



Oil Stocks



--- 1972
..... 1973
—— 1974

Part 4 Resource Development

Oil and Gas Exploration

Rotary rigs engaged in drilling for oil and gas during November averaged 1596, the highest level for this month since 1963 and an increase of 12 over the October rig count. In late spring of 1973 rotary rig activity began a trend that has now lasted 19 months. For each month in this period, the number of rigs was significantly higher than during the corresponding month in the previous year. Active rigs in November represented an increase of 15.8 percent over the level for the same month last year.

During November there were 156 fewer wells drilled than in October. The number of oil wells and dry holes decreased by 43 and 188, respectively, while gas wells showed a gain of 75. For the period January through November, total wells were about 5,000 above the level for the same period in 1973, and cumulative footage of wells drilled was 136 million feet compared with 121 million feet during the first 11 months of 1973. Based on the gains posted in drilling activity for the year-to-date, both well completions and total footage by the end

		Rotary Rigs in Operation	Wells Drilled				Total Footage of Wells Drilled
			Oil	Gas	Dry	Total	
		Monthly average					
1972	January	1,147	807	281	851	1,939	9,441,238
	February	1,071	965	350	955	2,270	12,381,669
	March	1,034	1,210	394	889	2,493	12,406,433
	April	1,002	923	355	788	2,066	9,902,253
	May	1,005	920	332	816	2,068	10,218,488
	June	1,049	1,042	395	903	2,340	11,009,513
	July	1,104	833	335	795	1,963	9,212,931
	August	1,130	946	410	924	2,280	11,334,867
	September	1,152	1,065	468	1,009	2,542	11,634,026
	October	1,165	792	539	919	2,250	10,944,312
	November	1,186	860	535	975	2,370	12,360,912
	December	1,241	985	536	1,290	2,811	14,190,138
1973	January	1,219	758	406	899	2,063	10,972,665
	February	1,126	777	487	765	2,029	10,655,936
	March	1,049	953	504	909	2,366	12,317,756
	April	993	699	489	777	1,965	10,433,987
	May	1,046	749	407	647	1,803	9,622,110
	June	1,118	767	432	795	1,994	10,814,600
	July	1,155	912	504	840	2,256	10,995,939
	August	1,222	724	456	739	1,919	9,632,819
	September	1,266	854	690	940	2,484	12,075,280
	October	1,334	790	554	958	2,302	11,693,672
	November	1,390	822	606	865	2,293	11,823,350
	December	1,405	1,087	827	1,208	3,122	15,529,582
1974	January	1,372	763	577	803	2,143	10,391,797
	February	1,355	901	600	816	2,317	12,160,308
	March	1,367	936	638	1,003	2,577	12,844,135
	April	1,381	947	700	945	2,592	13,349,007
	May	1,412	957	520	870	2,347	11,459,595
	June	1,432	1,238	586	982	2,806	12,976,388
	July	1,480	1,008	461	884	2,353	11,801,777
	August	1,518	1,210	555	968	2,733	12,409,855
	September	1,527	1,200	600	1,091	2,891	12,676,090
	October	1,584	1,131	551	1,241	2,923	14,080,534
	November	1,596	1,088	626	1,053	2,767	11,794,937

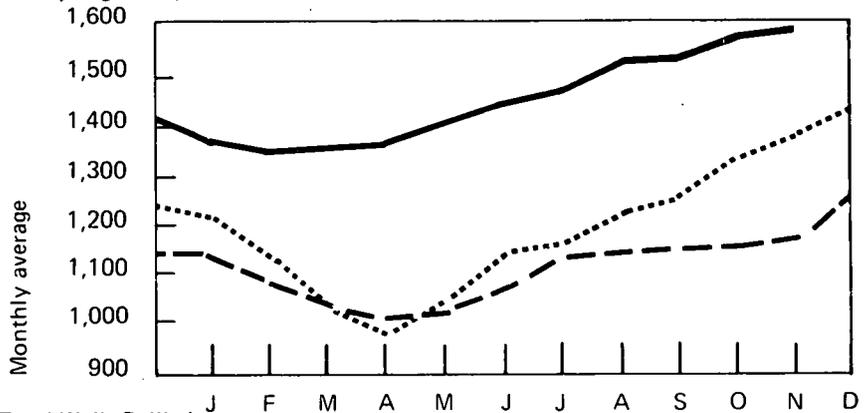
Sources: Rotary Rigs - Hughes Tool Company.
Wells - American Petroleum Institute.

of the year 1974 should be higher than any year since 1969 when 32,187 wells and 157 million feet were drilled.

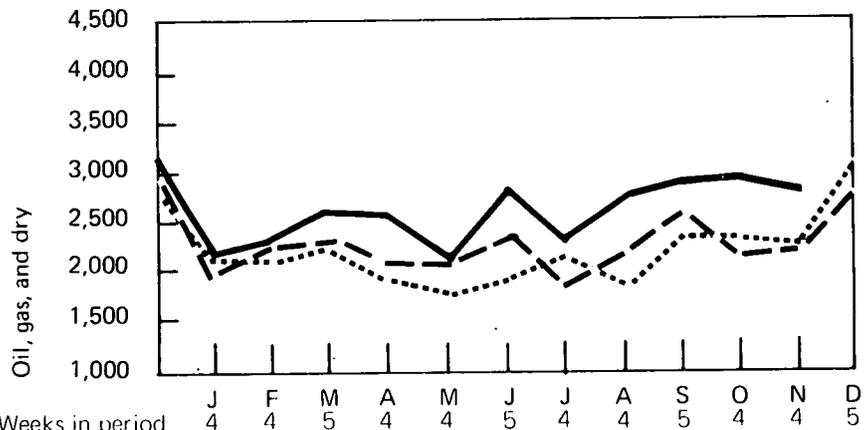
for 1973. Moreover, increased oil and gas exploration activity is forecast for 1975. This optimistic outlook is based on estimated increases in exploration budgets, the easing of personnel and equipment shortages, numerous long-term contracts extending into or through 1975, and the stepped-up Federal offshore leasing program. A major exploration effort is foreseen off the East Coast (Baltimore Canyon Trough) and Alaska (Cook Inlet and Gulf of Alaska) in response to lease sales which are scheduled for these areas toward the end of 1975.

There were 306 crews (30 offshore, 276 onshore) engaged in seismic exploration for oil and gas during November. This represents a decrease of 2 offshore crews and 12 land crews from the October count, which is normal for the year-end slack period. Seismic activity so far this year has averaged 28 percent above the level

Rotary Rigs in Operation

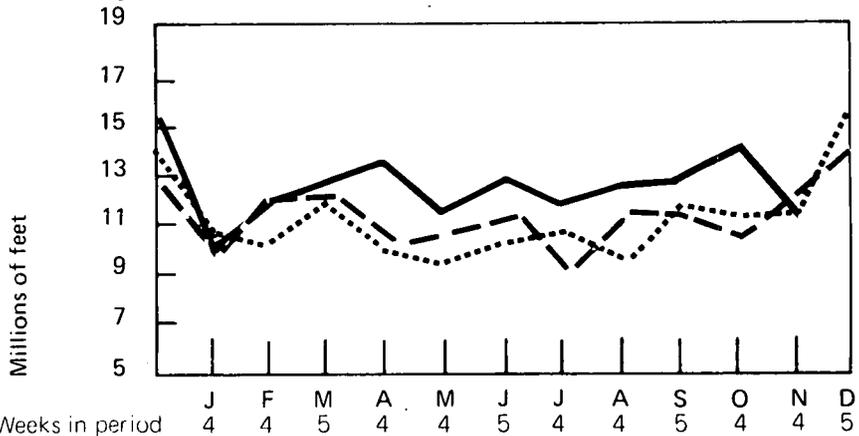


Total Wells Drilled



Weeks in period

Total Footage of Wells Drilled



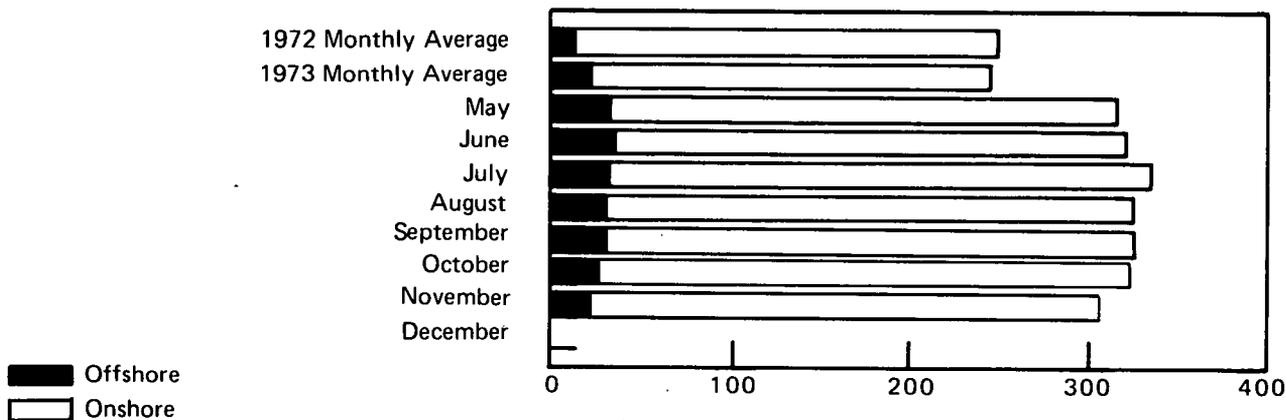
--- 1972
 1973
 ——— 1974

Weeks in period

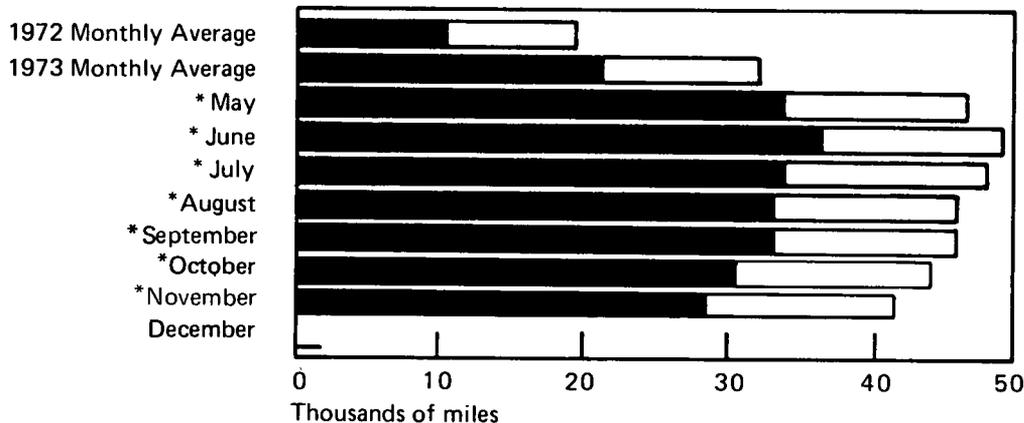
Oil and Gas Exploration (Continued)

	Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
	Offshore	Onshore	Total	Offshore	Onshore	Total
1972 Monthly Average	12	239	251	10,306	9,333	19,639
1973 Monthly Average	23	227	250	21,579	10,597	32,175
1974					Estimates*	
May	35	278	313	33,320	13,066	46,386
June	38	279	317	36,176	13,113	49,289
July	35	299	334	33,320	14,053	47,373
August	34	287	321	32,368	13,489	45,857
September	34	287	321	32,368	13,489	45,857
October	32	288	320	30,464	13,586	44,000
November	30	276	306	28,564	12,972	41,532

Crews Engaged in Seismic Exploration



Line Miles of Seismic Exploration



*See Explanatory Note 8. Source: Society of Exploration Geophysicists.

Part 5

Price

Motor Gasoline

A survey of retail dealers during November indicated that the national average selling price of regular gasoline declined from its October level by 0.4¢ per gallon, which was the fourth consecutive monthly decrease. Retailers of independent brand gasoline continued to decrease their selling prices by larger amounts than retailers of major brand gasoline. During November the average price for regular gasoline sold by independent retailers was 3.9¢ per gallon lower than the average major brand retail gasoline price. On a regional basis, Region 2

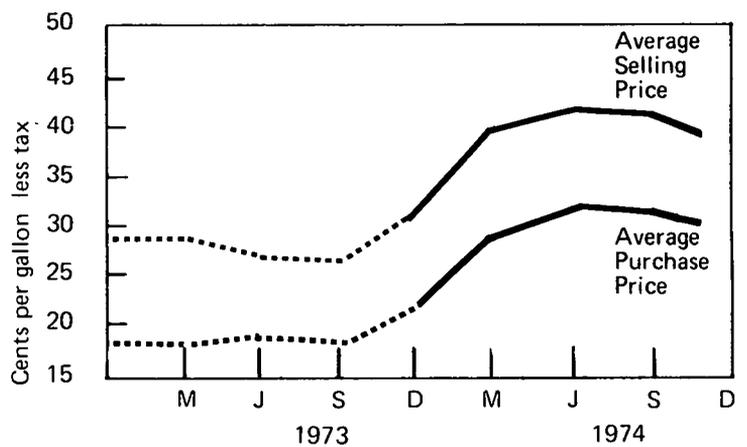
(Washington, D.C., Baltimore, Philadelphia) had the highest selling price for the third consecutive month. With the exception of Region 9 (San Francisco, Seattle), for which no change was recorded, all regions showed reductions in their average selling prices from the prior month. The average price that retailers pay for regular gasoline also dropped in November, but not enough to prevent the average dealer margin from continuing its downward trend. The dealer margin has declined 2.0¢ per gallon from its high in March.

Regular Gasoline at Retail Outlets

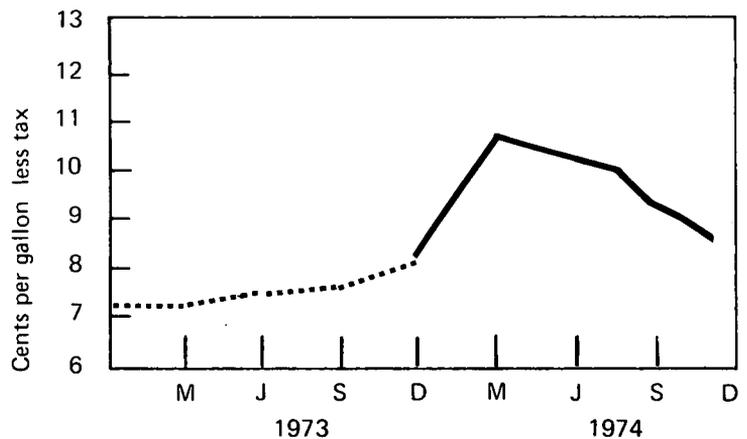
	Average Selling Price	Average Purchase Price	Average Dealer Margin
Cents per gallon, less tax			
1973			
January	25.31	18.46	6.85
February	24.81	18.09	6.72
March	25.94	18.75	7.19
April	26.32	19.02	7.30
May	26.49	19.21	7.28
June	26.78	19.22	7.56
July	26.82	19.22	7.60
August	26.81	19.21	7.60
September	26.74	19.13	7.61
October	27.7	20.2	7.4
November	29.3	21.6	7.7
December	31.3	23.1	8.2
1974			
January	34.1	25.2	8.9
February	36.6	27.5	9.1
March	40.1	29.2	10.8
April	41.2	30.5	10.7
May	42.5	31.9	10.5
June	42.9	32.6	10.3
July	43.0	32.8	10.2
August	42.7	32.9	9.7
September	42.0	32.6	9.4
October	40.2	31.2	9.0
November	39.8	31.0	8.8

Sources: Platts Oilgram through September 1973. FEA retail gasoline survey from October 1973 forward.

Average Retail Prices For Regular



Average Margins For Regular



..... 1973
 ——— 1974

A survey during November of 21 major oil companies indicated that 4 companies lowered their prices, 13 did not change prices, and 4 companies increased prices.

A November survey of dealer tankwagon (DTW) and jobber buying prices of gasoline sold by major companies to branded retail outlets indicated that there was little change at the wholesale price level. The jobber margin also remained relatively unchanged for the month.

Product at Retail Outlets	Average Selling Price		Average Margins	
	November 1974	October 1974	November 1974	October 1974
	Cents per gallon, less tax			
Regular Gasoline:				
Major	40.6	40.8	9.3	9.5
Independent	36.7	37.7	6.6	7.0
National Average	39.8	40.2	8.8	9.0
Premium Gasoline:				
Major	44.9	45.0	10.4	10.5
Independent	40.6	41.4	8.0	8.5
National Average	44.1	44.4	9.9	10.2
No Lead Gasoline:				
Major	42.4	42.5	9.7	9.8
Independent	38.7	39.4	7.5	7.8
National Average	41.7	41.9	9.3	9.4
Diesel Fuel:				
Major	38.5	38.4	8.3	8.5
Independent	34.0	34.5	4.7	5.3
National Average	37.1	37.1	7.2	7.5

Source: FEA retail gasoline survey.

Regular Gasoline at Retail Outlets	Average Selling Price	Average Margin
	November 23, 1974	November 23, 1974
	Cents per gallon, less tax	
Regions		
1 Boston	40.5	8.6
New York		
2 Washington	40.8	9.6
Baltimore		
Philadelphia		
3 Buffalo	40.2	8.2
Cleveland		
Pittsburgh		
4 Atlanta	40.7	8.9
Cincinnati		
5 Detroit	40.3	8.6
Chicago		
6 Milwaukee	39.8	8.6
Minneapolis		
7 Dallas	39.1	9.4
Houston		
8 Kansas City	39.4	8.8
St. Louis		
9 San Francisco	40.0	9.8
Seattle		
10 Los Angeles	38.5	8.1
San Diego		
National Average	39.8	8.8

Source: FEA retail gasoline survey.

Motor Gasoline (Continued)

Retail Gasoline Price Changes During November 1974

Company	Effective Date	Amount of Change Cents per gallon
Amerada Hess	November 1	-3.4
American Petrofina		None
Ashland	November 1	-1.0
Atlantic Richfield	November 7	1.0
B.P.		None
Cities Service		None
Champlin	November 2	-1.0
Continental	November 9	-1.0
Exxon		None
Getty		None
Gulf		None
Kerr-McGee		None
Mobil	November 2	2.0
Phillips	November 11	1.0
Shell		None
Standard Oil of California	November 1	1.5
Standard Oil of Indiana		None
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California		None

Source: FEA survey.

Major Brand Regular Gasoline, November 1974

Marketing Region	Retail DTW Price	Change from Previous Month	Branded Jobber Price	Change from Previous Month	Regional Jobber Margin	Change from Previous Month
			Cents per gallon			
Northeast	31.96	-0.04	27.83	-0.14	4.13	0.10
Mid Atlantic	31.44	0.36	27.30	0.10	4.14	0.26
Southeast	30.33	0.01	26.58	-0.05	3.75	0.06
Central	31.36	-0.22	27.47	-0.04	3.89	-0.18
Western	31.19	0.50	27.46	0.50	3.73	0
Southwest Pacific	29.85	0.30	26.16	0.01	3.69	0.29
	31.14	0.94	27.34	0.77	3.80	0.17
Average	31.04	0.27	27.16	0.16	3.88	0.11

Source: FEA survey.

Heating Oil

The average price of heating oil sold to residential customers decreased 0.7¢ during October to 35.6¢ per gallon. The average price for institutional and utility use also decreased, but by a smaller amount of 0.4¢ per gallon. The price for industrial use, however, increased by 2.4¢ to 33.3¢ per gallon. The average purchase price for heating oil jobbers increased 0.2¢ in October to 28.9¢ per gallon.

unchanged during the month. Two companies increased prices, 17 did not change prices, and 2 decreased prices. In comparison, during October, 7 companies increased prices, 12 left prices unchanged, and 2 decreased prices.

The November survey of 21 major oil companies indicated that heating oil prices remained generally

Average Prices for October 1974

	Average Purchase Price	Residential		Institutional and Utility		Industrial	
		Selling Price	Margin	Selling Price	Margin	Selling Price	Margin
				Cents per gallon			
New England	29.9	36.7	6.8	35.4	5.5	34.3	4.4
Mid Atlantic	29.4	35.9	6.5	34.7	5.3	33.5	4.1
Southeast	28.8	36.9	8.1	34.3	5.5	35.1	6.3
East North-Central	27.7	33.3	5.6	32.3	4.6	31.2	3.5
West North-Central	27.4	33.8	6.4	32.1	4.7	30.8	3.4
East South-Central	28.3	34.1	5.8	30.3	2.0	32.8	4.5
Mountain	29.9	35.6	5.7	33.9	4.0	34.9	5.0
West Coast	29.2	36.3	7.1	34.9	5.7	35.0	5.8
National Average	28.9	35.6	6.7	34.1	5.2	33.3	4.4

Source: FEA.

Price Changes During October 1974

Company	Effective Date	Amount of Change
		Cents per gallon
Amerda Hess		None
American Petrofina		None
Ashland		None
Atlantic Richfield		None
B.P.		None
Cities Service		None
Champlin		None
Continental	November 9	1.0
Exxon		None
Getty	November 27	1.0
Gulf	November 6	-2.0
Kerr—McGee		None
Mobil		None
Phillips		None
Shell		None
Standard Oil of California		None
Standard Oil of Indiana	November 11	-1.0
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California		None

Source: FEA survey.

Crude Oil

Final September reports indicated that the average free market price of domestic crude petroleum during that month was \$10.10 per barrel, up 12¢ per barrel from the August level. A survey during November of major producers disclosed that new oil postings were higher than September levels in many geographical areas. A number of these increases were effective retroactively to October 1. The preliminary estimate of the October average new oil price, taking into account these higher retroactive postings, is \$10.78 per barrel.

The percentages of production accounted for by new oil and released oil during September were 13 and 8

percent, respectively. The estimated total percentage of oil being sold at the free market price, including the 12 percent contributed by stripper well production, was 33 percent.

A preliminary estimate of the average cost for domestic crude petroleum delivered to refiners during October was \$7.06 per barrel, down slightly from the revised September figure of \$7.18 per barrel.

A preliminary estimate of the refiner acquisition cost of imported crude petroleum during October was \$12.44 per barrel, a decrease of 9¢ per barrel from the revised

Percentage of Domestic Production Sold at Controlled and Uncontrolled Prices

		Controlled		Uncontrolled	
		Old Oil	New Oil	Released	Stripper
1974	January	60	17	10	13
	February	62	15	10	13
	March	60	16	11	13
	April	60	16	11	13
	May	62	15	10	13
	June	63	15	9	13
	July	64	15	9	12
	August	66	14	8	12
	September	67	13	8	12

Source: FEA.

Domestic Crude Petroleum Prices at the Wellhead

		Old	New
		Dollars per barrel	
1974	January	5.25	9.82
	February	5.25	9.87
	March	5.25	9.88
	April	5.25	9.88
	May	5.25	9.88
	June	5.25	9.95
	July	5.25	9.95
	August	5.25	9.98
	September	5.25	R10.10
	October	5.25	*R10.78

*Preliminary estimate.

R=Revised data.

Source: FEA.

September figure of \$12.53 per barrel. The October amount was 62¢ per barrel less than the June high of \$13.06 per barrel.

Landed costs of crude petroleum still vary considerably by country of origin. Of the eight largest sources of imported crude petroleum, the lowest cost crude in September came from Venezuela at \$11.01 per barrel and the highest came from Algeria at \$13.83 per barrel. The cost of imported Canadian crude oil was stable during the month. Landed costs from the remaining seven countries, with the exception of the United Arab

Emirates, declined. Crude oil from Indonesia showed the largest cost decrease, down 96¢ per barrel.

Preliminary data indicated that the composite cost of crude petroleum purchased by refiners, including both imported and domestic crude costs, remained relatively stable during October. The October composite cost was \$9.18 per barrel, up 4¢ per barrel from its September level and down 27¢ per barrel from its high in June.

Refiner Acquisition Cost of Crude Petroleum*

		Domestic	Imported	Composite
		Dollars per barrel		
1974	January	6.72	9.59	7.46
	February	7.08	12.45	8.57
	March	7.05	12.73	8.68
	April	7.21	12.72	9.13
	May	7.26	13.02	9.44
	June	7.20	13.06	9.45
	July	7.19	12.75	9.30
	August	7.20	12.68	9.17
	September	R7.18	R12.53	R9.13
	October	**7.06	**12.44	**9.18

**Preliminary data.

R = Revised data.

Source: FEA.

Estimated Landed Cost of Imported Crude Petroleum From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Nigeria	Saudi Arabia	U. A. Emirates	Venezuela
		Dollars per barrel							
1973	December	NA	6.32	6.42	6.37	8.54	5.49	NA	6.70
1974	January	NA	6.70	NA	8.53	12.13	NA	NA	10.28
	February	NA	10.90	NA	12.11	12.74	NA	NA	11.31
	March	NA	11.14	12.13	13.02	13.26	NA	NA	11.78
	April	13.63	11.02	12.49	12.83	13.67	11.59	NA	11.38
	May	14.67	11.47	12.95	13.84	13.83	11.53	NA	11.28
	June	14.43	12.56	13.21	13.44	13.03	11.32	13.06	10.39
	July	13.65	12.65	13.77	13.02	12.75	11.97	12.34	10.64
	August	13.96	12.49	14.38	12.31	12.70	12.16	12.69	11.20
	September	13.83	12.51	13.42	11.87	12.28	11.45	NA	11.01

NA = Not available.

Source: FEA.

*See Explanatory Note 9.

Utility Fossil Fuels

Nationally, the average cost of fossil fuels delivered to utilities during August 1974 was 95.4¢ per million Btu, an increase of 3.2¢ over the July national average.

Regionally, the average costs of fossil fuels delivered to utilities in August continued their upward trends with two exceptions, the West South Central region and the Pacific region, where fuel cost decreases of 2.3¢ and 0.1¢ per million Btu, respectively, were posted. Although individual fuel costs increased in the Pacific region, the average utility fuel cost remained basically unchanged from the July level as less expensive gas was substituted

for more expensive oil. The most notable fuel cost increases occurred in the New England and the West North Central regions where the average fossil fuel cost rose by 5.2¢ and 5.0¢ per million Btu, respectively.

On an individual fuel basis, coal prices exhibited the greatest monthly increase. The national average cost of coal advanced 4.4¢ per million Btu during August. The largest regional coal price increase, 7.1¢ per million Btu, was in the South Atlantic region. More importantly, the price of coal in the East North Central region, which is by far the heaviest consumer of coal as a utility fuel,

Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants

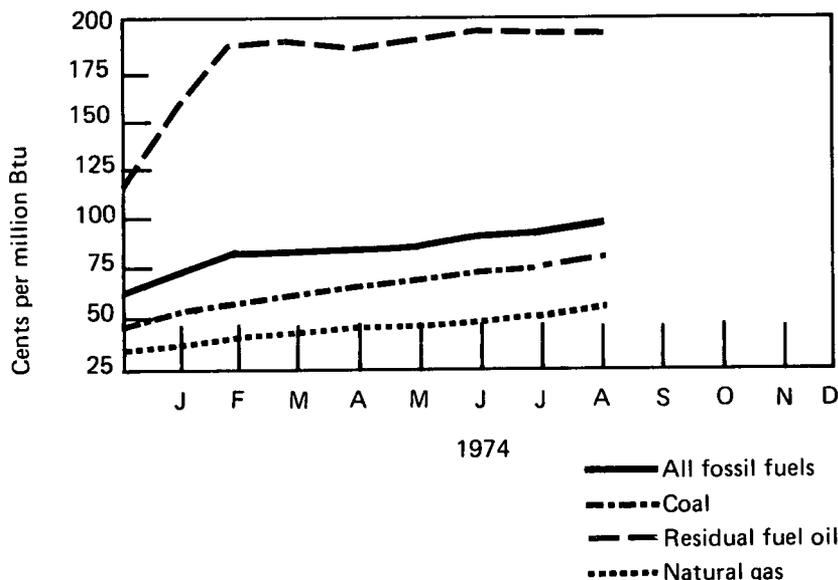
All Fossil Fuels*

Cents per million Btu

Region	1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
New England		147.7	175.7	192.7	186.8	180.0	184.7	186.2	191.4
Middle Atlantic		111.6	129.0	123.9	124.9	124.2	137.6	144.7	147.8
East North Central		52.5	57.0	62.3	63.7	68.9	76.9	79.1	82.7
West North Central		47.8	40.5	36.5	42.4	43.9	47.2	45.3	50.3
South Atlantic		88.5	100.6	102.8	105.9	109.8	119.0	123.7	128.2
East South Central		46.0	52.4	54.1	54.4	58.3	62.5	65.7	68.2
West South Central		48.9	46.2	48.0	44.1	47.3	50.0	59.4	57.1
Mountain		43.7	48.1	42.7	43.1	36.3	40.3	45.0	46.8
Pacific		119.7	160.3	114.1	117.8	122.4	117.9	118.9	118.8
National Average		74.4	81.6	80.9	81.1	81.2	87.7	92.2	95.4

*See Explanatory Note 10.

National Average



rose by 4.7¢ per million Btu. On the other hand, a reduction in coal prices of 13.1¢ per million Btu was registered in the New England region. This decrease was less significant because coal receipts accounted for only 7.4 percent of the total fuels purchased by utilities in New England during August.

Residual fuel oil prices on a national level increased 0.4¢ per million Btu during August, reflecting continuing stable market conditions. Nevertheless, some regional price fluctuations did occur. The regions posting the largest residual price increases were the Pacific region

(15.4¢ per million Btu) and the West North Central region (25.4¢ per million Btu). The greatest price declines were in the West South Central region (8.2¢ per million Btu) and the East North Central region (18.3¢ per million Btu).

Natural gas prices continued their gradual upward trend with an increase in the national average of 2.0¢ per million Btu in August. The largest regional price advance occurred in the Pacific region (4.0¢ per million Btu) and the most sizable decrease occurred in the Middle Atlantic region (11.0¢ per million Btu).

Coal

Cents per million Btu

Region	1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
New England		102.8	114.2	132.0	136.8	128.8	95.9	106.8	93.7
Middle Atlantic		60.2	69.5	73.1	80.8	79.3	88.6	94.3	97.4
East North Central		48.9	52.4	57.4	59.2	65.3	71.7	73.0	77.7
West North Central		36.7	36.3	37.7	41.0	41.7	42.0	44.0	48.3
South Atlantic		66.3	76.7	81.7	85.3	88.0	90.2	100.4	107.5
East South Central		43.3	49.8	51.6	52.7	54.2	57.9	57.7	61.6
West South Central		13.6	13.6	13.6	13.6	13.6	17.7	17.7	17.7
Mountain		25.9	26.8	26.1	26.7	24.9	25.7	25.0	25.1
Pacific		35.0	NA	35.1	35.3	35.6	35.5	37.8	38.3
National Average		51.4	56.9	60.8	64.0	65.8	69.5	72.9	77.3

Residual Fuel Oil*

Cents per million Btu

Region	1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
New England		156.6	190.5	208.1	199.4	193.1	201.1	199.2	201.8
Middle Atlantic		186.5	208.1	212.2	196.0	208.6	207.7	208.6	204.5
East North Central		110.3	127.2	158.3	183.6	138.7	198.2	182.7	164.4
West North Central		160.0	154.8	169.1	178.2	160.9	179.3	152.7	178.1
South Atlantic		140.6	167.3	172.7	172.8	174.9	181.5	178.7	178.9
East South Central		112.5	132.2	136.0	153.0	164.9	171.5	169.6	172.6
West South Central		107.5	126.8	144.6	159.4	152.1	161.1	187.5	179.3
Mountain		159.2	174.9	172.1	174.1	194.4	199.2	176.2	179.0
Pacific		155.5	191.2	161.8	180.8	188.7	202.5	204.9	220.3
National Average		158.2	185.9	188.0	186.5	188.1	194.9	194.2	194.6

Natural Gas**

Cents per million Btu

Region	1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
New England		57.1	73.3	134.2	116.4	116.3	124.7	138.7	141.2
Middle Atlantic		64.2	72.7	72.4	59.5	59.3	77.3	85.2	74.2
East North Central		63.8	62.4	65.7	60.1	72.0	76.1	77.3	80.5
West North Central		35.7	38.0	39.5	41.2	41.8	41.7	42.1	43.3
South Atlantic		51.7	57.3	61.9	63.2	57.8	59.8	60.9	58.3
East South Central		45.5	48.1	47.7	50.7	50.5	52.8	63.3	58.9
West South Central		32.9	35.2	37.6	39.1	39.5	43.6	43.8	46.8
Mountain		47.9	54.5	48.4	48.3	48.8	49.2	50.8	49.5
Pacific		48.2	47.6	46.6	49.8	50.4	50.7	60.0	64.0
National Average		37.3	39.8	42.5	43.6	44.0	47.9	49.8	51.8

NA=Not available.

*See Explanatory Note 10.

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

Source: Federal Power Commission

Definitions

Base Production Control Level

The total number of barrels of domestic crude petroleum produced from a particular property in the corresponding month of 1972.

Ceiling Price

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

Controlled Crude Oil

Domestically produced crude petroleum that is subject to the ceiling price for crude oil. For a particular property which is not a stripper-well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

Crude Oil Domestic Production

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

Crude Oil Imports

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

Crude Oil Input to Refineries

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

Crude Oil Stocks

Stocks held at refineries and at pipeline terminals. Does not include stocks held on leases (storage facilities adjacent to the wells), which historically total approximately 13 million barrels.

Dealer Tankwagon (DTW) Price

The price at which a retail 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 Non-controlled Crude Oil

That portion of domestic crude oil production including new, released, and stripper oil which may be sold at a price exceeding the ceiling price.

Electricity Production -

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

Firm Natural Gas Service

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

Interruptible Natural Gas Service

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

Jet Fuel

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

Jobber

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

Jobber Margin

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

Jobber Price

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

Landed Cost

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

Line Miles of Seismic Exploration

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

Motor Gasoline Production

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

Motor Gasoline Stocks

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

Natural Gas Imports

This is based on data collected by the Federal Power Commission from major interstate pipeline companies.

Natural Gas Liquids

Products obtained from natural gasoline plants, cycling plants, and fractionators after processing the natural gas. Included are ethane, liquified 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, kerosine, and distillate fuel oil.

Natural Gas Marketed Production

Gross withdrawals from the ground, less gas used for repressuring and quantities vented and flared. Gas volumes are reported at a base pressure of 14.73 pounds per square inch absolute at 60°F. Data are from Bureau of Mines and are collected from reports received from the Interstate Oil Compact Commission provided by State agencies.

New Oil

The volume of domestic crude petroleum produced from a property in a specific month which exceeds the base production control level for that property.

Old Oil

Same as controlled crude oil.

Primary Stocks of Refined 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.

Refined Products Domestic Demand

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.

Refined Products Imports

Imports of motor gasoline, naphtha-type jet fuel, kerosine-type jet fuel, liquified petroleum gases, kerosine, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, and asphalt. Imports of bonded bunkers, jet fuel, distillate and residual fuel oils for onshore military use, and receipts from Puerto Rico, the Virgin Islands, and Guam are based on data reported to the Oil Import Administration of FEA. All other figures are compiled by Bureau of Mines from Department of Commerce data.

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 Oil

That portion of the base production control level for a property which is equal to the volume of new oil produced in that month and which may be sold above the ceiling price. The amount of released oil may not exceed the base production control level for that property.

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 refiner 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.

Stripper Well Lease

A property of which the average daily production of crude petroleum and petroleum condensates, including natural gas liquids, per well did not exceed 10 barrels per day during the preceding calendar month.

Well

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

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas (wet), and coal (anthracite, bituminous, and lignite), as well as electricity output from hydroelectric and nuclear powerplants. 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. 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, and 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. 1974 electricity imports were estimated on the basis of imports levels during 1973.

3. Except for domestic production of crude oil, graphic presentations of petroleum volumetric data show Bureau of Mines (BOM) figures for 1972 through May 1974 and FEA figures for May 1974 forward. It was during this month that FEA began publishing the *Weekly Petroleum Statistics Report* which presents volumetric data on domestic petroleum receipts and imports for all refiners and bulk terminal operators, as well as production and stock levels for each major petroleum product. FEA statistics for domestic production of crude oil, however, were not available until July 1974.

Conceptually, the major difference between FEA and BOM data occurs in the "Stocks" series. Stock levels reported by FEA for the major petroleum products are higher than those reported by BOM, because the FEA series includes stocks of independent terminal operators not counted by BOM.

4. Oil heating degree-days relate demand for distillate heating fuel to outdoor air temperature. Heating degree-days are defined as deviations of the mean daily temperature at a sampling station below a base temperature equal to 65°F by convention. Numerous studies have shown that when the outside temperature is 65°, most buildings can maintain an indoor air temperature of 70° without the use of heating fuels.

Mean daily temperature information is forwarded to the National Oceanic and Atmospheric Administration, Department of Commerce, from approximately 200 weather stations around the country. These data are used to calculate statewide heating degree-day averages based on population. The population-weighted State figures are aggregated into Petroleum Administration for Defense Districts and the national average, using a weighting scheme based on each State's consumption of distillate fuel oil per degree-day (1972 data base).

5. Domestic demand figures for natural gas liquids (NGL) as reported by BOM and reproduced in this volume do not include amounts utilized at refineries for blending purposes in the production of finished products, principally gasoline. Consumption of NGL at refineries for this purpose has remained at a fairly constant level since 1972 of around 700,000 - 850,000 barrels per day. NGL domestic demand statistics do incorporate, however, some liquefied gases produced at refineries (LRG) which are used for fuel and petrochemical feedstocks. The NGL production and stock series reported in this volume include only those liquids obtained from or held as stocks at natural gas processing plants and do not incorporate minor quantities of these liquids produced and/or held as stocks at refineries.

6. Bituminous coal and lignite consumption data reported by the Bureau of Mines are derived from

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

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

8. Mileage estimates for 1974 were derived by multiplying the monthly seismic crew counts by the average number of miles traversed per crew month in 1973.

9. 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. The estimated landed cost of imported crude petroleum from selected countries does not represent the total cost of all imported crude. Imported crude costs to U.S. company-owned refineries in the Caribbean are not included in the landed cost, and costs of crude petroleum from countries which export only small amounts to the U.S. are also excluded.

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

Units of Measure

Weight

1 metric ton *contains* 1.102 short tons

Conversion Factors for Crude Oil

Average gravity

1 barrel (42 gallons) *weighs* 0.136 metric tons
(0.150 short tons)

1 metric ton *contains* 7.33 barrels

1 short ton *contains* 6.65 barrels

Approximate Heat Content of Various Fuels

Petroleum

Crude oil	5.800 million Btu/barrel
Refined products, average	5.508 million Btu/barrel
Gasoline	5.248 million Btu/barrel
Jet fuel, naphtha-type	5.355 million Btu/barrel
Jet fuel, kerosine-type	5.670 million Btu/barrel
Distillate fuel oil	5.825 million Btu/barrel
Residual fuel oil	6.287 million Btu/barrel

Natural gas liquids 3.99 million Btu/barrel

Natural gas

Wet	1,101 Btu/cubic foot
Dry	1,031 Btu/cubic foot

Coal

Bituminous and lignite	
Production	24.05 million Btu/short ton
Consumption	23.75 million Btu/short ton
Anthracite	25.40 million Btu/short ton

Hydroelectric power 10,379 Btu/kilowatt hour

Nuclear power 10,660 Btu/kilowatt hour



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