

Monthly Energy Review

February 1976



**Federal Energy
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The *Monthly Energy Review* is prepared in the office of Policy and Analysis under the general supervision of John D. Curtis, Office of Energy Systems Data.

Editor: Judy Gaynor

Editorial and Graphics Review: Office of Communications and Public Affairs

Publications Coordinator: Elizabeth A. Snyder

Overview: Judy Gaynor

Energy Sources:

Crude Petroleum and Products: David A. Carleton, Naomi Kawin

Degree-Days: John H. Roberts

Natural Gas Liquids, Natural Gas: James W. McCarrick

Coal: Patricia Newman

Electric Utilities: Thomas Murphy

Nuclear Power: Andrew W. Reynolds

Consumption: Kenneth A. Vagts, John H. Roberts

Petroleum Consumption Forecast: Christopher B. Alt

Resource Development: Judy Gaynor

Price: Christopher B. Bordeaux, Les Byers, Brian L. Connor, William Davis, William Gillespie, Annie Whatley

International: Elizabeth Bauer

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

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Correspondence regarding editorial matters should be addressed to:

Editor, Monthly Energy Review
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During 1975, the United States produced 1.8 percent less energy than during 1974 and 3.7 percent less than the level for 1973. Energy output for the year totaled 60.065 quadrillion Btu (the equivalent of 28.4 million barrels per day of crude oil). Crude oil production declined 4.6 percent during 1975, reaching the lowest level since 1966. Natural gas output, which peaked in 1973, declined 7.0 percent. Together, these two fuels constituted two-thirds of total energy production for the year. Coal, which accounted for one-fourth of the total, was the only major energy source that showed a production increase over the level for 1974 (up 6.0 percent). The balance of domestic energy output came from nuclear and hydroelectric power, with a combined share of total energy production of 8.2 percent in 1975, an increase from 7.2 percent in 1974.

Consumption of energy in the United States also appears to have declined in 1975. During the first 11 months of the year, a total of 64.243 quadrillion Btu were consumed (equivalent to 33.2 million barrels per day of crude oil), a decrease of 2.8 percent from the level for the corresponding period in 1974 and a 5.2-percent decrease from the same months in 1973. These decreases in energy demand are counter to the trend for the 10-year period prior to 1974 when consumption increased at an average rate of 4.3 percent per year.

Along with the downtrends in energy production and consumption, imports of fossil fuels during 1975 were lower than in both 1974 and 1973. Imports for the year totaled 13.803 quadrillion Btu (or 6.5 million barrels per day of crude oil equivalent), a decline of 1.8 percent from the amount for 1974 and 4.9 percent from 1973. Crude oil imports comprised 63 percent of the 1975 total, refined petroleum products, 30 percent, and natural gas, 7 percent. In 1973, crude oil accounted for 47 percent of total fossil fuel imports, and refined products, 46 percent, demonstrating a distinct shift in the import pattern of these two fuels over the past 2 years. The relative proportion of natural gas imports has remained unchanged.

The principal sources of U.S. crude oil imports during the fourth quarter of 1975 were Saudi Arabia (17 percent), Nigeria (16 percent), and Canada (15 percent). Arab OPEC countries supplied 33 percent while the total OPEC contribution was 76 percent,

compared with 26 percent and 58 percent, respectively, in 1973.

During December, the continental United States accumulated 4.0 percent fewer distillate oil heating degree-days than the normal for the month (reflecting warmer than normal temperatures), but 1.7 percent more (colder) than December 1974. Following an unusually mild November, the New England and Middle Atlantic States, which depend heavily on distillate oil as a heating fuel, experienced significantly colder December weather, accumulating, respectively, 13.4 percent and 10.6 percent more degree-days than in December 1974. The net result was a substantial 890,000-barrel-per-day draw-down of distillate fuel oil stocks. However, distillate stocks, totaling 211 million barrels at the end of December, were still considered adequate for the remainder of the heating season. Inventories of crude oil and residual oil also were at favorable levels at the end of the year.

Production of electricity by public utilities totaled 1.907 billion kilowatt hours in 1975, 2.3 percent higher than the total for 1974. Coal was the source of 44 percent of the electric power generated during the first 11 months of the year; natural gas and hydro-power each supplied 16 percent of the power. Fifteen percent was generated from fuel oil, and most of the remaining 9 percent came from nuclear energy. Compared with 1974, the only noteworthy change in these proportions was for nuclear power. Only 6 percent of total electricity generation came from nuclear energy in 1974.

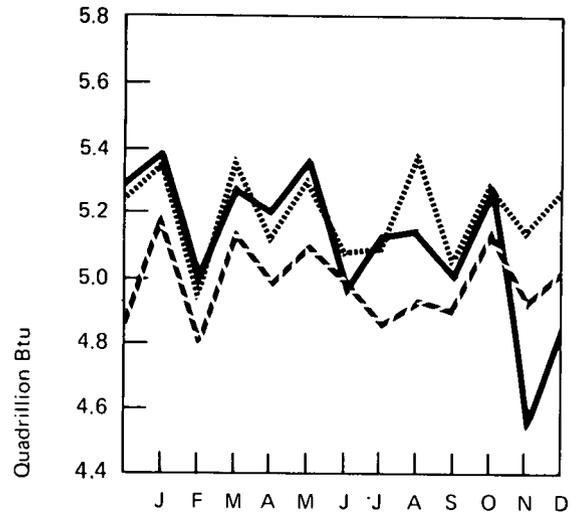
Retail gasoline prices declined during December for the third consecutive month. The national average price of regular gasoline at full service retail outlets decreased 0.4 cent to 58.0 cents per gallon. Residential heating oil prices, on the other hand, advanced 0.7 cent during the month to a record high level of 40.1 cents per gallon.

The average wellhead price of "new" domestic crude oil climbed to \$12.89 per barrel in November, 16 cents above the price for the previous month; "old" oil remained at the controlled price of \$5.25 per barrel. Refiners paid an average of \$8.67 for domestic crude petroleum in November, about the same as in October. The average refiner acquisition cost of imported crude advanced almost 40 cents to just over \$15 per barrel, reflecting the OPEC price increase on October 1, 1975.

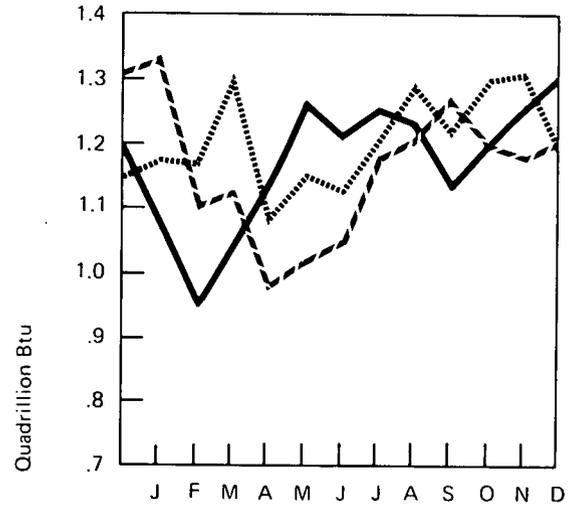
Exploration for new reserves of oil and gas continued at a rapid pace during 1975, following the trend established with the onset of the Arab oil embargo in late 1973. An average of 1,662 rotary rigs were actively drilling for oil and gas in 1975, more than in any year since 1961. The total number of wells completed (37,092) was the highest since 1965.

Worldwide crude oil production increased 1.8 million barrels per day during November to 53.3 million barrels per day, after falling more than 5 million barrels per day in October. (The October decline followed a record high in September.) Most of the November increase was the result of stepped-up production in the Arab-OPEC countries of Saudi Arabia, Kuwait, the United Arab Emirates, and Libya.

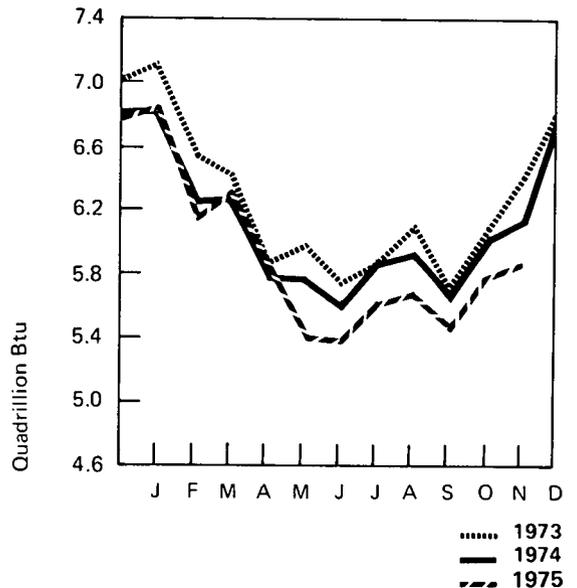
Domestic Production of Energy



Imports of Fossil Fuels



Domestic Consumption of Energy



..... 1973
 ——— 1974
 - - - 1975

		Domestic Production of Energy*	Imports of Fossil Fuels**	Domestic Consumption of Energy***
In quadrillion (10 ¹⁵) Btu				
1973	Jan	5.367	1.167	7.140
	Feb	4.937	1.163	6.507
	Mar	5.370	1.303	6.426
	Apr	5.112	1.078	5.857
	May	5.311	1.154	5.987
	June	5.070	1.122	5.707
	July	5.084	1.209	5.851
	Aug	5.382	1.291	6.092
	Sept	5.035	1.217	5.677
	Oct	5.300	1.303	6.080
	Nov	5.138	1.312	6.431
	Dec	5.276	1.199	6.797
	TOTAL	62.373	14.519	74.551
1974	Jan	5.393	1.069	6.817
	Feb	4.987	0.945	6.230
	Mar	5.297	1.042	6.278
	Apr	5.205	1.140	5.782
	May	5.380	1.264	5.778
	June	4.950	1.207	5.570
	July	5.141	1.257	5.886
	Aug	5.159	1.236	5.927
	Sept	5.004	1.133	5.616
	Oct	5.274	1.205	6.087
	Nov	4.543	1.259	6.129
	Dec	4.847	1.302	6.753
	TOTAL	61.180	14.058	72.853
1975	Jan	5.187	1.330	6.847
	Feb	4.799	1.093	6.130
	Mar	5.124	1.128	6.320
	Apr	4.984	0.970	5.800
	May	5.106	1.024	5.398
	June	5.000	1.029	5.356
	July	4.855	1.167	5.603
	Aug	4.950	1.214	5.682
	Sept	4.898	1.272	5.436
	Oct	†5.174	†1.192	†5.790
	Nov	†4.948	†1.177	†5.881
	Dec	†5.041	†1.206	
	TOTAL	60.065 (12 months)	13.803 (12 months)	64.243 (11 months)

*See Explanatory Note 1.

**See Explanatory Note 2.

***See Explanatory Note 3.

†Preliminary data.

CRUDE OIL

Based on preliminary data published by the American Petroleum Institute, crude oil production in December 1975 fell to 8.224 million barrels per day, the lowest level since April 1967. Production during the year averaged 8.375 million barrels per day, 390,000 barrels per day (4.5 percent) less than in 1974. Louisiana reported the largest production decline of the major producing states (12 percent).

Crude oil refinery input continued at a high level, averaging 12.877 million barrels per day in December. During the year, crude input of 12.465 million barrels per day established a new annual record, slightly exceeding the former record set in 1973. This high refinery operating level reflected Federal programs which encouraged the importation of crude oil in lieu of refined petroleum products. Crude oil imports were up 18 percent in 1975. Nearly all the increase in foreign crude oil supply came from Saudi Arabia, Libya, Venezuela, Algeria, and Indonesia. Imports of crude oil from Canada declined by more than 200,000 barrels per day during the year.

Crude oil stocks at the end of the year were well above normal.

TOTAL REFINED PETROLEUM PRODUCTS

Refined product demand in December averaged 17.648 million barrels per day, up 1.77 million barrels per day over the level for November. This substantial increase resulted from the especially low demand level during November. December demand was considered normal, however, and in fact was about 2.0 percent below the demand level reported by the U.S. Bureau of Mines for the same month in 1974. Most of the December demand increase was met by drawing down distillate and residual fuel oil stocks at a rate of nearly 1.1 million barrels per day during the month.

Refined product imports were considerably less (28 percent) in 1975 than in 1974. However, the United States' dependency on foreign petroleum remained at 37 percent of domestic demand.

DISTILLATE OIL HEATING DEGREE-DAYS

During December the continental United States accumulated 4.0 percent fewer distil-

late oil heating degree-days than the normal for the month (1941-70 average), reflecting continued above average temperatures. December's degree-day total did, however, represent a 1.7-percent increase over the total for December 1974, indicating relatively colder temperatures.

Cumulative degree-days for the current heating season (beginning July 1, 1975) remained well below both the normal for the period (by 5.9 percent) and the corresponding period in 1974 (by 4.8 percent).

NATURAL GAS

Marketed production of natural gas (i.e., production of "wet" gas prior to the extraction of natural gas liquids) in December 1975 is estimated to be 4 percent below the volume for December 1974. Domestic consumption and imports of natural gas are also expected to fall about 4 percent below December 1974 levels.

Total marketed production during 1975, estimated at 20,080 billion cubic feet, is 7 percent below the 21,601 billion cubic feet produced during 1974. Domestic consumption (of "dry" gas) is expected to total 19,543 billion cubic feet, 7.9 percent below the volume consumed in 1974. Imports for the year, estimated at 955 billion cubic feet, are down slightly from the 959 billion cubic feet imported during 1974.

COAL

Production of bituminous coal and lignite totaled 51.5 million tons in December 1975, an increase of 28.3 percent over the amount for December 1974 when production was abnormally low because of the coal strike. Total production for 1975 was 640.0 million tons, an increase of 6.1 percent over the production level for 1974.

Coal exports for November 1975, at 7.6 million tons, were higher than for any month in 1974 and 1975 to date and were 12.6 percent higher than in November 1974.

Total consumption of coal in October 1975 showed no change from October 1974. However, within the consuming sectors, consumption by electric utilities (which account for about 80 percent of the total used) was 5.2 percent greater, while consumption by the other sectors declined 15.2 percent.

Coal stocks grew to 118.6 million tons at the end of October, essentially unchanged from a year earlier.

Crude Oil

	Crude Input to Refineries		Domestic Production		Imports		Stocks*		
	In thousands of barrels per day								
	BOM	FEA	BOM	API	BOM	FEA	BOM	FEA	
1973	January	12,190		9,176		2,732		224,056	
	February	12,187		9,395		2,873		221,893	
	March	12,201		9,272		3,162		230,696	
	April	12,208		9,292		3,049		235,383	
	May	12,281		9,262		3,215		244,777	
	June	12,862		9,214		3,220		235,846	
	July	12,750		9,217		3,501		230,750	
	August	12,635		9,169		3,593		235,660	
	September	12,560		9,065		3,471		228,280	
	October	12,758		9,224		3,739		233,520	
	November	12,374		9,161		3,452		237,001	
	December	12,150		9,063		2,891		229,504	
	AVERAGE	12,431		9,208		3,244			
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		4,091	4,167	255,936	252,399
	August	12,644	12,731	8,682		3,924	3,852	251,905	247,040
	September	12,124	12,253	8,432		3,797	3,758	253,623	249,476
	October	12,286	12,430	8,616		3,810	3,936	256,430	255,003
	November	12,332	12,402	8,569		3,958	3,997	258,123	256,271
	December	12,519	12,671	8,514		3,869	3,979	252,158	248,808
	AVERAGE	R12,133		8,765		3,477			
1975	January	12,297	12,442	8,439		4,029	3,964	258,163	253,836
	February	12,135	12,144	8,575		3,828	4,061	264,348	264,833
	March	11,905	11,961	8,476		3,656	3,853	267,564	271,410
	April	11,803	11,837	8,440		3,378	3,416	269,294	275,393
	May	11,983	11,985	8,371		3,486	3,493	263,336	274,123
	June	12,417	12,421	8,409		3,905	3,907	262,873	268,564
	July	12,915	13,002	8,327		4,193	4,337	252,035	256,965
	August	13,046	13,120	R8,237		4,581	4,661	244,325	250,354
	September	12,945	12,939	8,266		4,689	4,664	247,328	253,597
	October		12,463				4,416		260,887
	November		R12,766				R4,634		R261,869
	December		**12,877				**4,496		**264,638
	AVERAGE***	12,465		8,375		4,109			

*See definitions.

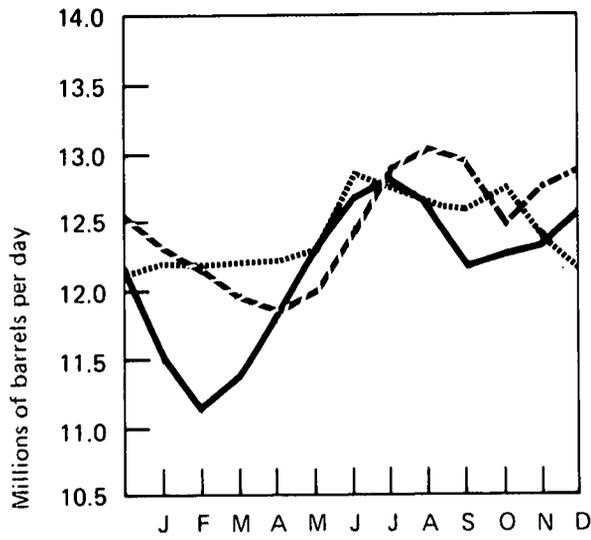
**Preliminary data.

***1975 average for refinery input, imports, and stocks is based on Bureau of Mines (BOM) data for January through September and Federal Energy Administration (FEA) data for October through December. 1975 average for domestic production is based on BOM data for January through September and American Petroleum Institute (API) data for October through December.

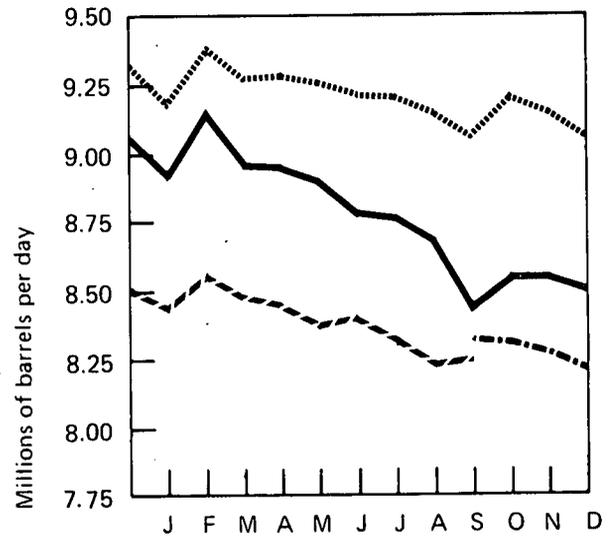
R=Revised data.

Sources: BOM, FEA, and API as indicated.

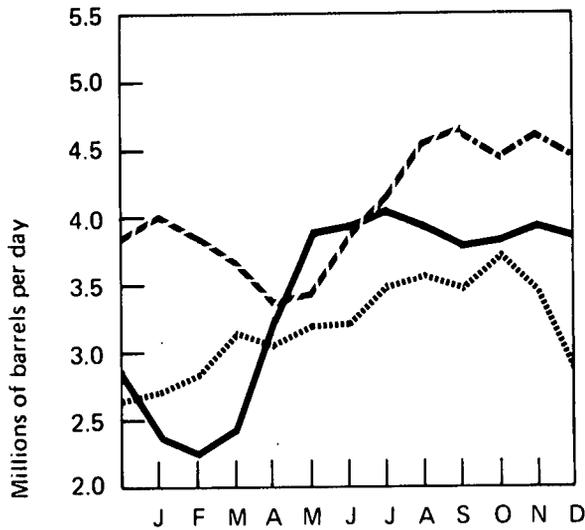
Crude Input to Refineries*



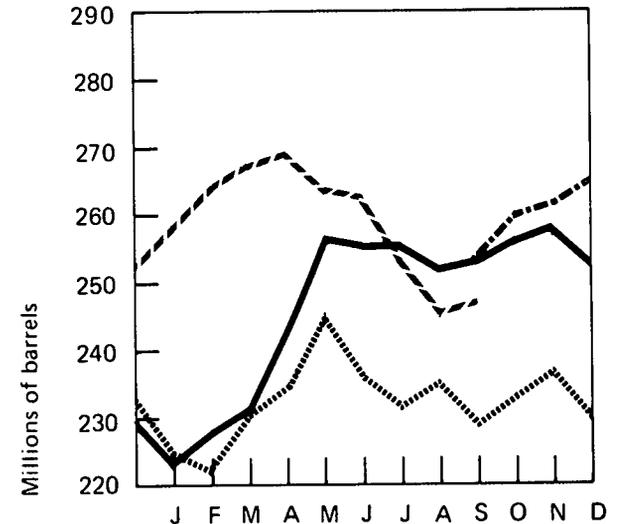
Domestic Production*



Imports*



Stocks*



..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - · - 1975 FEA, API

*See Explanatory Note 4.

Total Refined Petroleum Products

		Domestic Demand		Imports*	
		In thousands of barrels per day			
		BOM	FEA	BOM	FEA
1973	January	18,713		3,125	
	February	19,094		3,635	
	March	17,216		3,448	
	April	15,921		2,545	
	May	16,626		2,626	
	June	16,481		2,670	
	July	16,372		2,678	
	August	17,499		2,999	
	September	16,656		2,941	
	October	17,202		2,894	
	November	18,492		3,470	
	December	17,538		3,164	
	AVERAGE	17,308		3,012	
1974	January	17,270		2,973	
	February	17,371		2,973	
	March	16,045		2,753	
	April	15,919		2,703	
	May	15,720	15,740	2,580	2,454
	June	16,176	16,191	2,493	2,218
	July	16,301	15,853	2,397	2,140
	August	16,546	15,803	2,434	2,281
	September	15,994	16,318	2,225	2,180
	October	17,025	17,121	2,340	2,361
	November	17,214	17,129	2,704	2,581
	December	17,997	17,588	2,781	2,638
	AVERAGE	16,629		2,611	
1975	January	17,983	18,112	2,811	2,484
	February	17,248	17,370	2,348	2,138
	March	16,316	16,567	2,074	1,920
	April	16,041	16,105	1,655	1,810
	May	15,118	15,306	1,690	1,776
	June	15,611	15,688	1,502	1,602
	July	15,762	15,880	1,789	1,875
	August	15,767	16,241	R1,681	1,870
	September	15,769	15,798	2,116	2,144
	October		15,830		1,696
	November		R15,878		R1,605
	December		**17,648		**1,678
	AVERAGE***	16,244		1,885	

*See definitions.

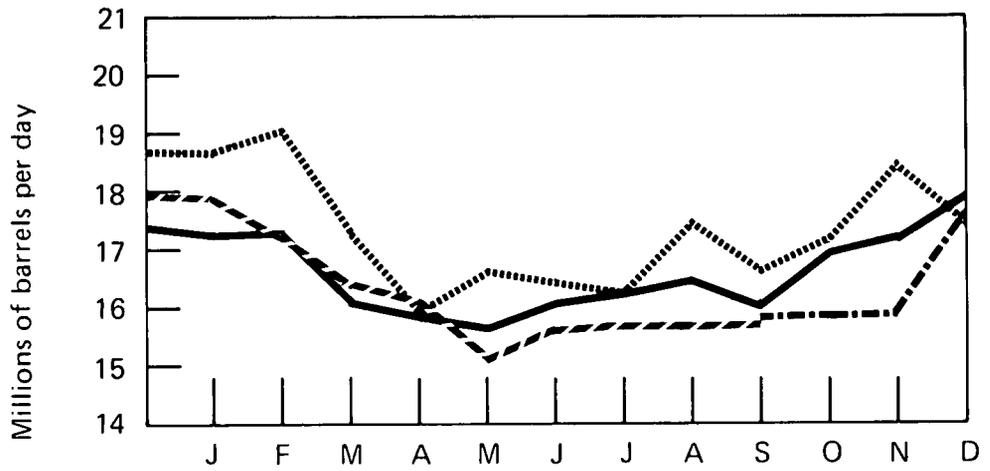
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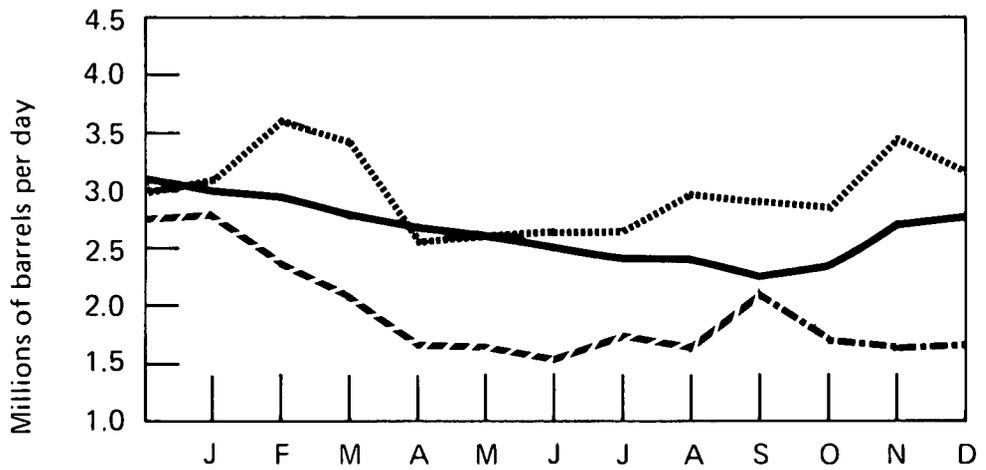
R=Revised data.

Sources: BOM and FEA as indicated.

Domestic Demand*



Imports*



*See Explanatory Note 4.

..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - · - 1975 FEA

Motor Gasoline

	Domestic Demand		Production*		Imports		Stocks*		
	In thousands of barrels per day								
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA	
1973	January	6,118		6,341		59		221,823	
	February	6,437		6,855		95		216,367	
	March	6,513		6,150		71		207,581	
	April	6,541		6,377		63		204,708	
	May	6,907		6,714		101		202,081	
	June	6,964		6,993		174		208,374	
	July	7,023		6,986		133		211,488	
	August	7,257		6,880		164		205,122	
	September	6,581		6,619		127		210,278	
	October	6,677		6,621		194		214,525	
	November	6,823		6,375		216		207,343	
	December	6,237		6,099		202		209,395	
	AVERAGE	6,674		6,527		134			
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	6,712	6,542	6,336	6,340	171	175	220,748	229,275
	November	6,547	6,659	6,292	6,257	174	264	218,385	225,226
	December	6,558	6,551	6,419	6,451	141	170	224,719	227,363
	AVERAGE	6,537		6,358		204			
1975	January	6,206	6,228	6,509	6,574	262	203	242,285	244,425
	February	6,096	6,205	6,276	6,279	171	168	251,915	251,189
	March	6,326	6,408	6,070	6,068	150	146	248,685	245,181
	April	6,718	6,574	6,046	5,997	133	127	232,556	231,542
	May	6,871	6,855	6,126	6,063	142	135	213,947	211,183
	June	7,076	6,951	6,669	6,622	177	156	207,114	205,713
	July	7,041	6,957	7,003	6,992	209	167	212,454	211,942
	August	7,008	7,103	6,872	6,843	232	275	215,480	212,370
	September	6,729	6,740	6,822	6,782	269	246	226,447	221,020
	October		6,593		6,396		178		220,390
	November		R6,422		R6,595		129		R229,417
	December		**6,760		**6,777		**107		**233,248
	AVERAGE***	6,658		6,515		180			

*See definitions.

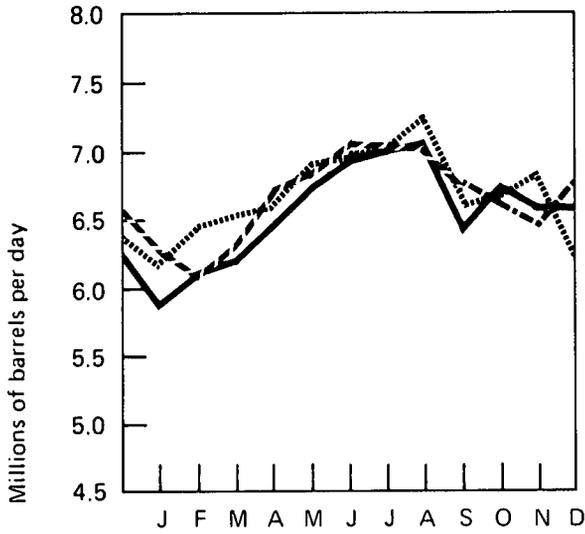
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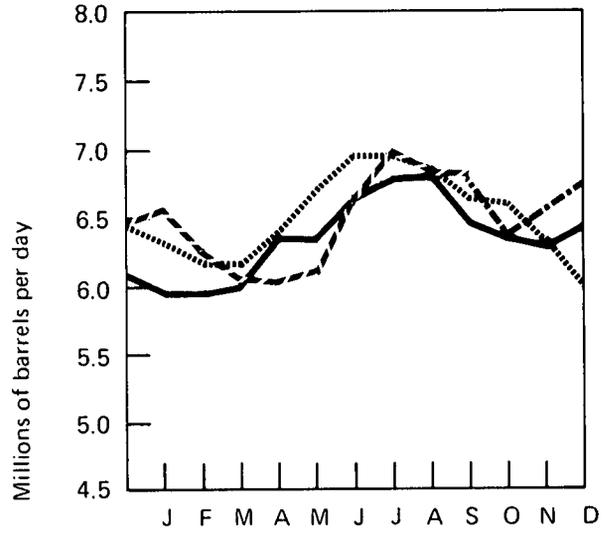
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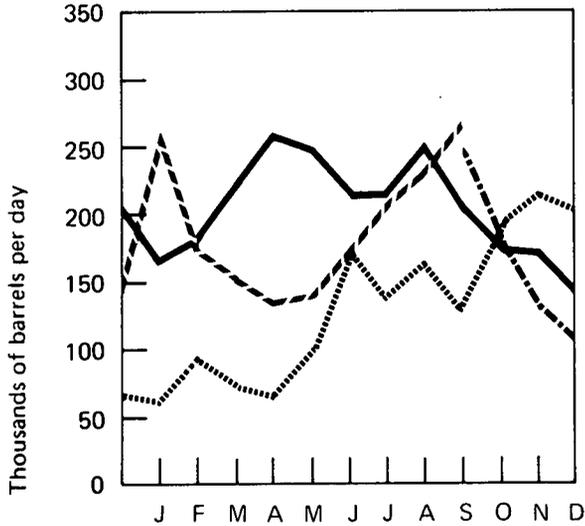
Domestic Demand*



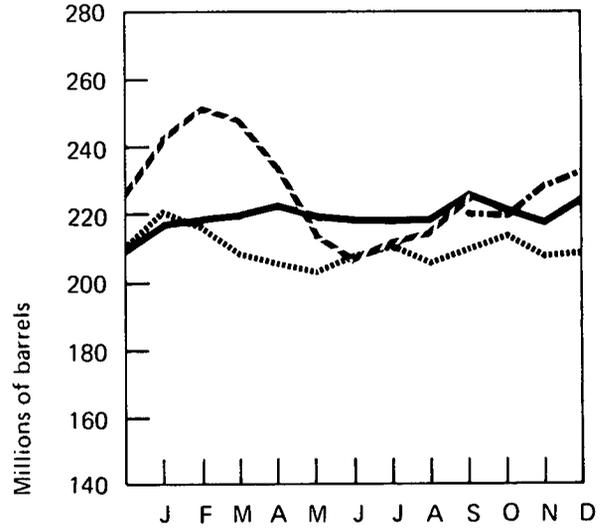
Production*



Imports*



Stocks*



..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - . - 1975 FEA

*See Explanatory Note 4.

Jet Fuel

	Domestic Demand		Production		Imports		Stocks	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1973								
January	1,110		864		231		24,814	
February	1,090		898		221		25,437	
March	994		917		152		27,585	
April	1,015		887		145		27,881	
May	1,112		840		211		25,825	
June	1,007		836		164		25,447	
July	1,046		825		232		25,661	
August	1,049		844		180		24,851	
September	1,070		847		235		25,149	
October	1,104		875		246		25,577	
November	1,025		852		275		28,539	
December	1,087		830		259		28,544	
AVERAGE	1,059		859		212			
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	1,011	1,092	868	905	161	216	30,564	31,488
November	1,032	1,055	863	861	140	222	29,616	31,303
December	1,043	1,138	861	908	178	219	29,776	30,957
AVERAGE	993		836		163			
1975								
January	1,041	1,001	831	847	229	164	30,321	31,221
February	1,075	1,032	835	849	200	167	29,133	30,641
March	982	1,018	896	892	130	136	30,456	30,906
April	1,006	1,034	864	863	138	212	30,263	32,083
May	977	996	861	857	133	124	30,719	31,587
June	989	996	839	837	106	112	29,337	30,122
July	954	984	883	880	88	106	29,798	30,167
August	1,046	1,032	958	955	132	108	31,103	31,105
September	1,040	950	907	901	140	116	31,291	33,053
October		945		814		65		30,978
November		R960		R860		57		R29,634
December		*778		*832		*69		*33,395
AVERAGE**	982		865		123			

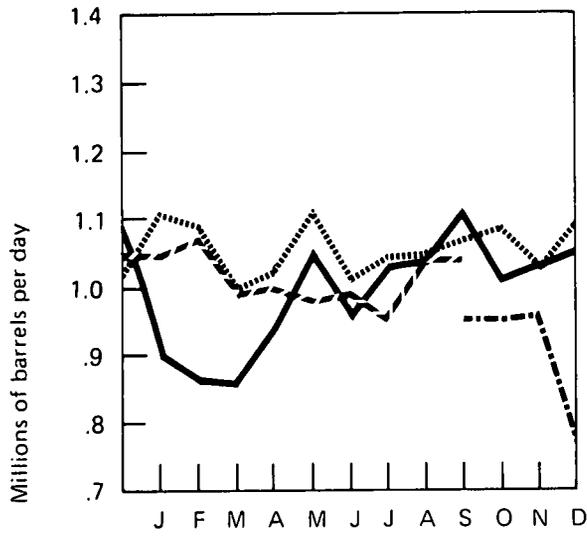
*Preliminary data.

**1975 average is based on Bureau of Mines (BOM) data for January through September and Federal Energy Administration (FEA) data for October through December.

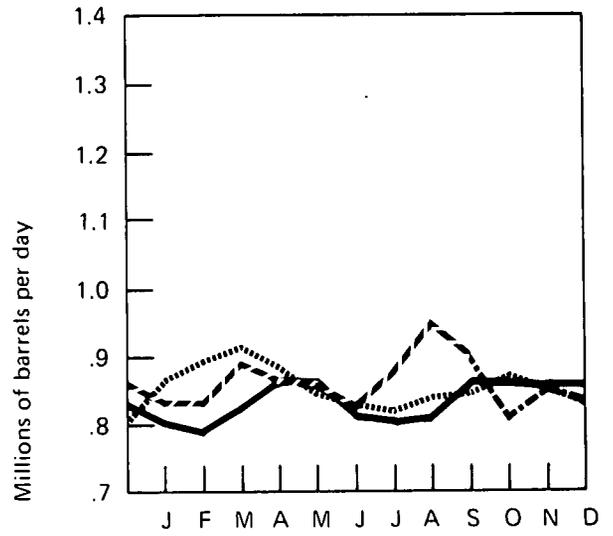
R=Revised data.

Sources: BOM and FEA as indicated.

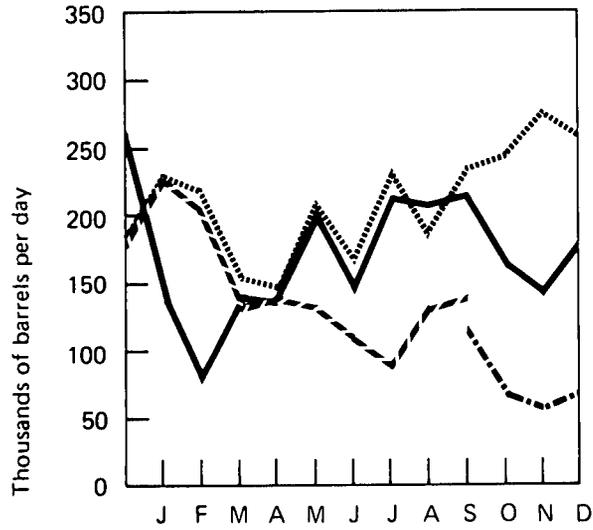
Domestic Demand*



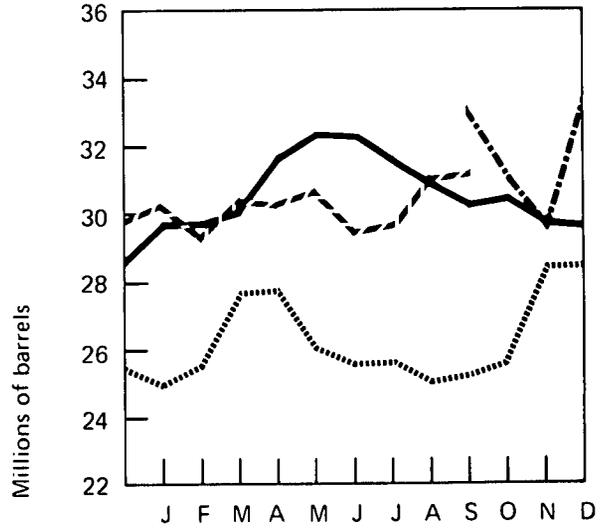
Production*



Imports*



Stocks*



*See Explanatory Note 4.

..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - · - 1975 FEA

Distillate Fuel Oil

	Domestic Demand		Production*		Imports		Stocks*	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1973								
January	4,138		3,028		364		130,958	
February	4,302		2,937		731		113,276	
March	3,337		2,667		602		111,270	
April	2,635		2,510		240		114,698	
May	2,673		2,544		268		119,104	
June	2,419		2,825		222		137,844	
July	2,328		2,752		318		160,869	
August	2,555		2,801		288		177,271	
September	2,675		2,813		313		190,171	
October	2,930		2,911		451		202,965	
November	3,508		2,922		492		200,182	
December	3,690		3,136		439		196,421	
AVERAGE	3,092		2,820		392			
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	2,863	2,816	2,770	2,787	213	264	209,908	234,257
November	3,145	3,058	2,801	2,883	443	403	212,875	241,125
December	3,855	3,923	2,924	3,028	517	466	223,717	227,877
AVERAGE	2,939		2,668		281			
1975								
January	3,953	4,055	2,852	2,954	324	350	199,715	204,576
February	3,967	4,004	2,679	2,707	302	295	176,696	176,530
March	3,293	3,460	2,531	2,614	256	217	161,111	156,980
April	3,094	3,103	2,486	2,532	110	131	146,214	143,714
May	2,382	2,435	2,431	2,496	136	144	152,027	150,068
June	2,266	2,272	2,574	2,639	68	74	163,306	163,252
July	2,112	2,147	2,589	2,659	106	124	181,472	182,975
August	2,173	2,237	2,592	2,650	92	91	197,323	198,539
September	2,163	2,184	2,818	2,844	129	111	220,732	221,659
October		2,631		2,778		106		229,439
November		R2,643		R2,853		94		R238,562
December		**3,932		**2,893		**151		**210,976
AVERAGE***	2,879		2,673		156			

*See definitions.

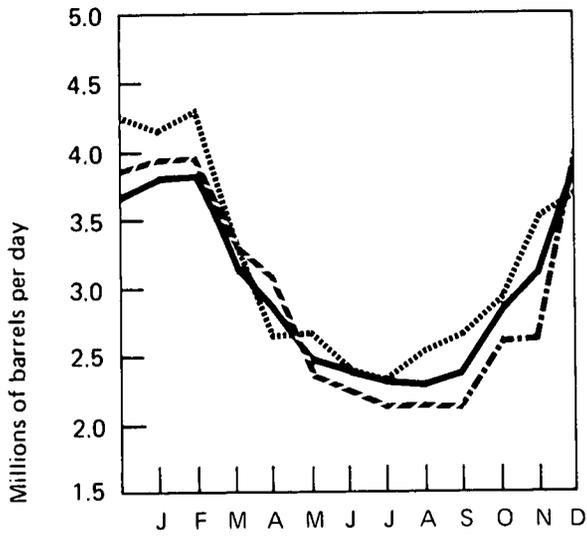
**Preliminary data.

***1975 average is based on Bureau of Mines (BOM) data for January through September and Federal Energy Administration (FEA) data for October through December.

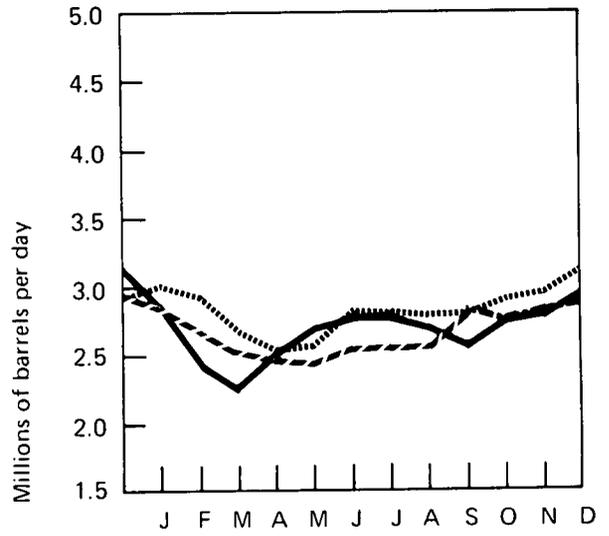
R=Revised data.

Sources: BOM and FEA as indicated.

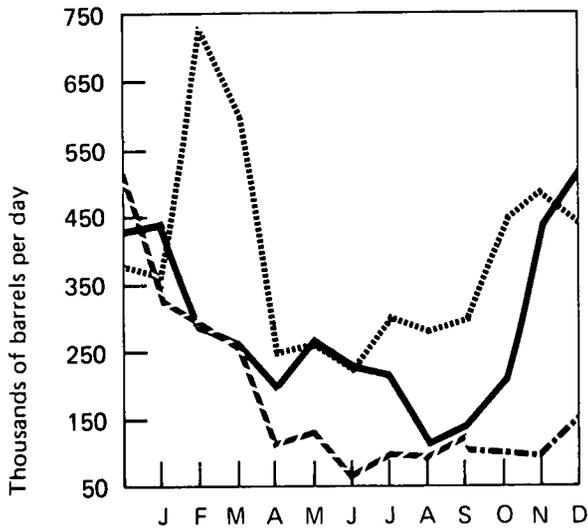
Domestic Demand*



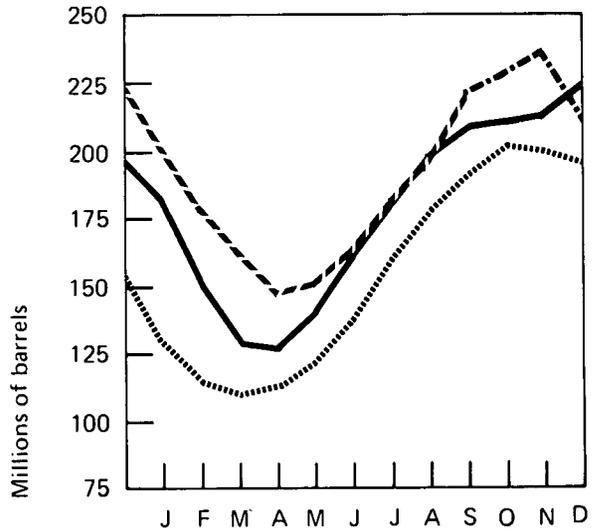
Production*



Imports*



Stocks*



..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - . - 1975 FEA

*See Explanatory Note 4.

Oil Heating Degree-Days

OIL HEATING DEGREE-DAYS*

Petroleum Administration for Defense (PAD) Districts	DECEMBER (December 1 - December 28)					Cumulative Since July 1, 1975		
	1975	1974**		Normal (1941-70)**		1975	1974	Normal (1941-70)**
PAD District I	768.1	708.1	(8.5)	779.8	(-1.5)	1479.5	1664.3 (-11.1)	1626.8 (-9.1)
New England Conn., Maine, Mass., N.H., R.I., Vt.	1087.0	958.2	(13.4)	1054.1	(3.1)	2338.5	2514.4 (-7.0)	2421.9 (-3.4)
Middle Atlantic Del., Md., N.J., N.Y., Pa.	792.7	716.7	(10.6)	836.2	(-5.2)	1453.8	1658.4 (-12.3)	1692.2 (-14.1)
Lower Atlantic Fla., Ga., N.C., S.C., Va., W. Va.	551.3	549.5	(0.3)	555.4	(-0.7)	994.5	1163.3 (-14.5)	1081.8 (-8.1)
PAD District II Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.	972.8	950.9	(2.3)	1006.7	(-3.4)	2137.4	2213.1 (-3.4)	2229.3 (-4.1)
PAD District III Ala., Ark., La., Miss., N. Mex., Tex.	535.4	534.6	(0.2)	530.7	(0.9)	1012.9	1010.4 (0.3)	1007.3 (0.6)
PAD District IV Colo., Idaho., Mont., Utah, Wyo.	881.6	920.9	(-4.3)	971.9	(-9.3)	2256.6	2120.7 (6.4)	2351.0 (-4.0)
PAD District V Ariz., Calif., Nev., Oreg., Wash.	364.2	455.8	(-20.1)	421.1	(-13.5)	782.7	822.5 (-4.8)	853.3 (-8.3)
U.S. TOTAL	924.8	909.6	(1.7)	963.6	(-4.0)	1968.8	2068.6 (-4.8)	2092.3 (-5.9)

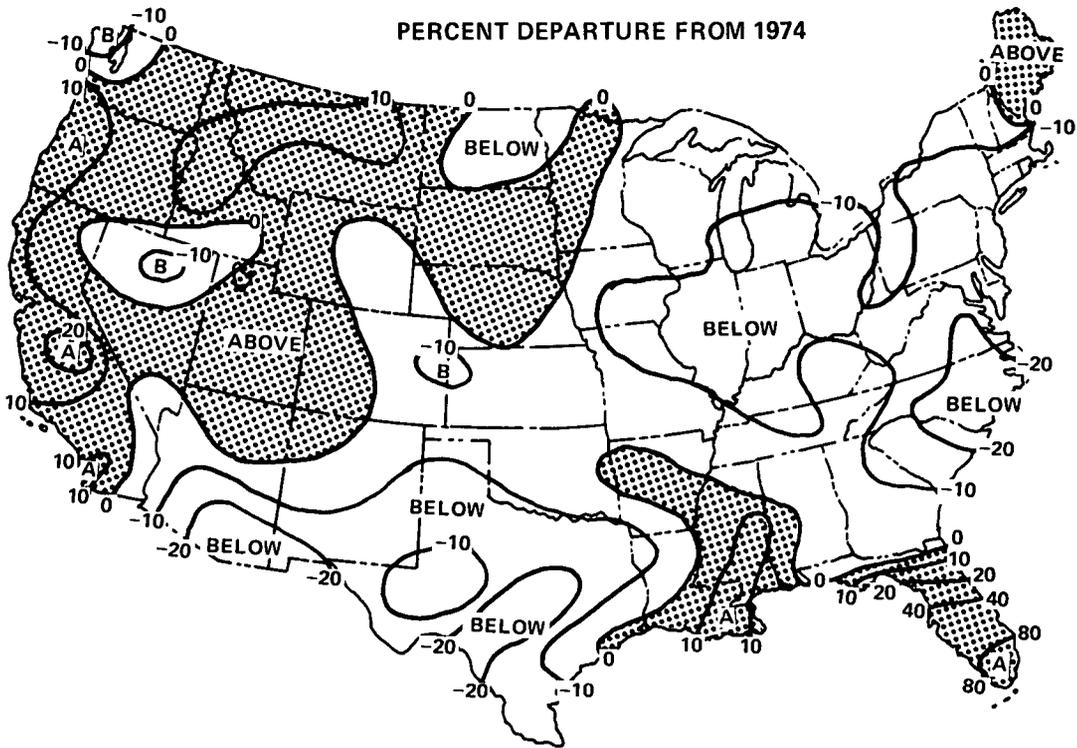
*See Explanatory Note 5 for explanation of oil heating degree-days.

**Percentage change in parenthesis.

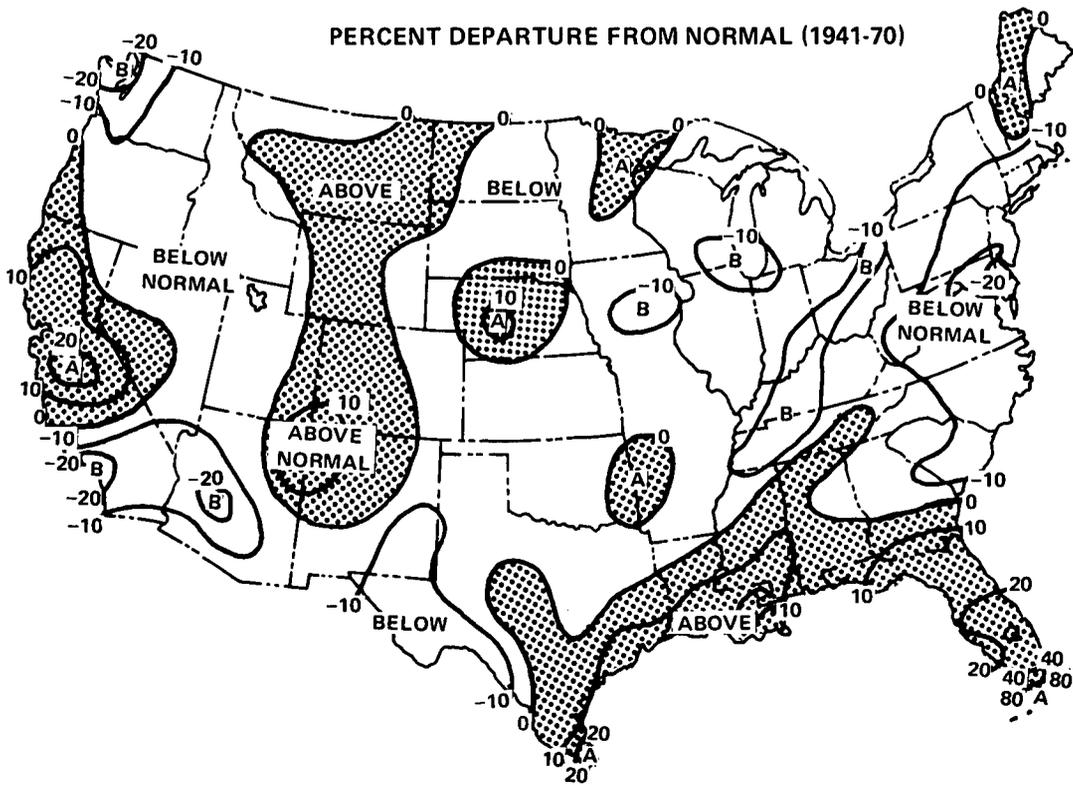
HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1975

December 28, 1975

PERCENT DEPARTURE FROM 1974



PERCENT DEPARTURE FROM NORMAL (1941-70)



NOTE: Above normal heating degree-days correspond to below normal temperatures.

Source: Department of commerce—NOAA.

Residual Fuel Oil

	Domestic Demand		Production		Imports		Stocks	
	In thousands of barrels per day							
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1973								
January	3,306		1,112		2,019		49,154	
February	3,382		1,038		2,147		43,058	
March	3,084		955		2,196		44,711	
April	2,477		877		1,705		47,044	
May	2,521		948		1,668		49,207	
June	2,607		915		1,761		51,811	
July	2,412		882		1,597		53,363	
August	2,755		851		1,913		53,586	
September	2,676		878		1,849		55,091	
October	2,590		984		1,597		54,964	
November	3,158		1,061		1,979		51,985	
December	2,944		1,158		1,826		53,480	
AVERAGE	2,822		971		1,853			
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	2,610	2,501	1,099	1,112	1,464	1,369	58,679	72,090
November	2,819	2,631	1,229	1,226	1,636	1,453	60,363	73,581
December	2,965	2,881	1,335	1,350	1,612	1,561	74,939	74,521
AVERAGE	2,624		1,070		1,572			
1975								
January	3,242	3,103	1,415	1,399	1,647	1,529	60,233	68,628
February	2,849	2,723	1,354	1,304	1,402	1,308	66,495	65,061
March	2,668	2,589	1,299	1,244	1,292	1,252	64,148	61,891
April	2,225	2,184	1,245	1,204	1,047	1,069	66,340	64,121
May	2,049	1,909	1,151	1,113	1,123	1,068	73,498	72,088
June	2,179	2,201	1,152	1,118	904	953	69,660	67,641
July	2,239	2,141	1,155	1,160	1,144	1,110	71,526	71,358
August	2,118	2,217	1,146	1,151	982	1,044	71,857	70,489
September	2,329	2,388	1,183	1,178	1,312	1,319	76,938	73,471
October		2,025		1,142		1,153		81,192
November		R2,412		R1,231		R1,154		R79,908
December		*2,683		*1,340		*1,159		*73,805
AVERAGE**	2,416		1,234		1,193			

*See definitions.

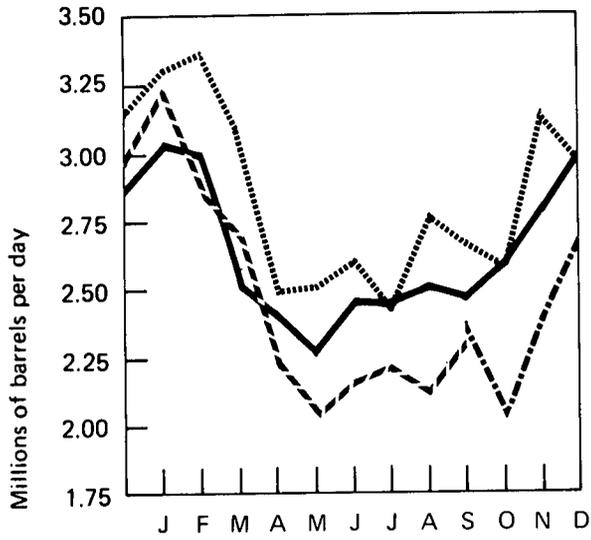
**Preliminary data.

**1975 average is based on Bureau of Mines (BOM) data for January through September and Federal Energy Administration (FEA) data for October through December.

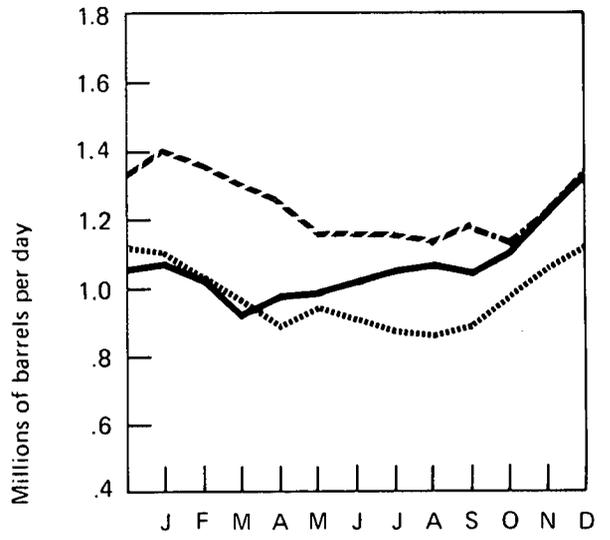
R=Revised data.

Sources: BOM and FEA as indicated.

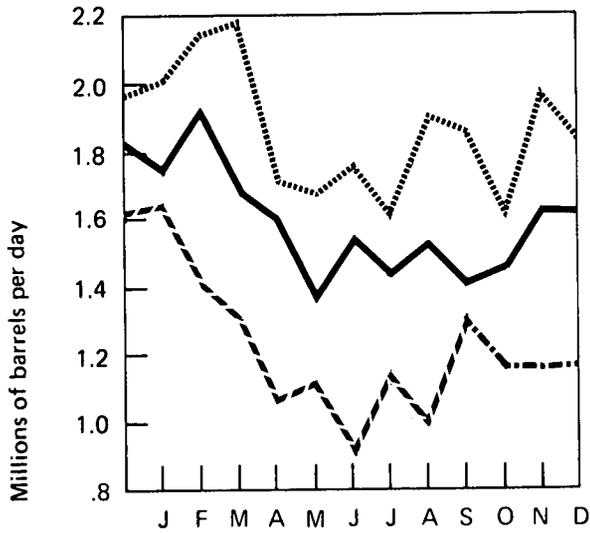
Domestic Demand*



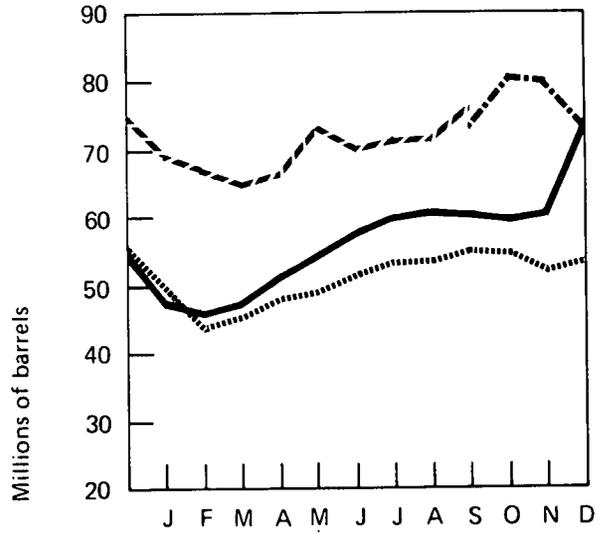
Production*



Imports*



Stocks*



*See Explanatory Note 4.

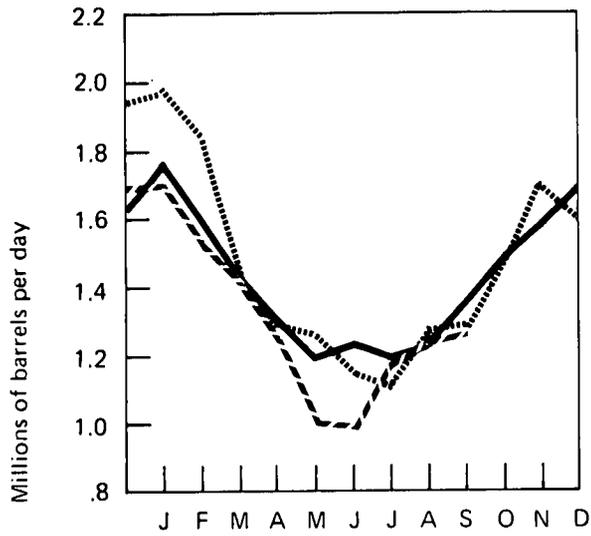
..... 1973 BOM
 ——— 1974 BOM
 - - - 1975 BOM
 - · - 1975 FEA

Natural Gas Liquids

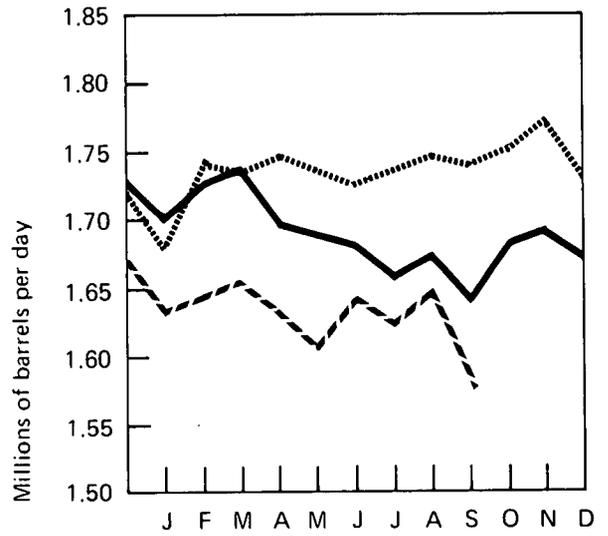
	Domestic Demand*	Production*		Used at Refineries*	Imports	Stocks*
		At processing plants	At refineries			
		In thousands of barrels per day				
1973						
January	1,994	1,680	361	839	312	68,792
February	1,857	1,745	359	836	312	60,606
March	1,407	1,734	378	790	260	63,873
April	1,299	1,750	373	733	201	71,266
May	1,270	1,739	421	733	217	80,650
June	1,149	1,727	388	757	163	89,433
July	1,109	1,737	410	849	199	99,631
August	1,281	1,748	390	858	240	105,068
September	1,297	1,741	370	833	206	110,002
October	1,499	1,756	377	835	249	109,639
November	1,703	1,774	331	876	286	104,192
December	1,607	1,729	338	842	232	98,940
AVERAGE	1,454	1,738	375	815	239	
1974						
January	1,778	1,699	327	794	304	91,210
February	1,593	1,728	337	777	294	90,145
March	1,408	1,741	341	720	224	94,817
April	1,321	1,696	353	690	215	101,352
May	1,180	1,690	340	678	182	110,881
June	1,242	1,684	368	718	199	117,915
July	1,187	1,657	364	723	163	125,427
August	1,221	1,676	361	742	163	131,675
September	1,360	1,638	348	738	166	133,215
October	1,493	1,686	330	788	200	130,557
November	1,596	1,694	301	795	199	124,447
December	1,692	1,670	286	796	230	114,295
AVERAGE	1,422	1,688	338	746	211	
1975						
January	1,708	1,630	307	756	257	105,400
February	1,512	1,646	296	734	181	100,945
March	1,404	1,658	280	731	178	99,168
April	1,242	1,635	273	667	176	100,408
May	1,002	1,607	299	628	97	112,737
June	998	1,646	323	659	166	125,215
July	1,191	1,621	336	701	173	131,359
August	1,227	1,650	357	690	163	137,074
September	1,278	1,577	326	703	209	140,278
AVERAGE (9 months)	1,283	1,630	311	696	178	

*See Explanatory Note 6.
Source: Bureau of Mines.

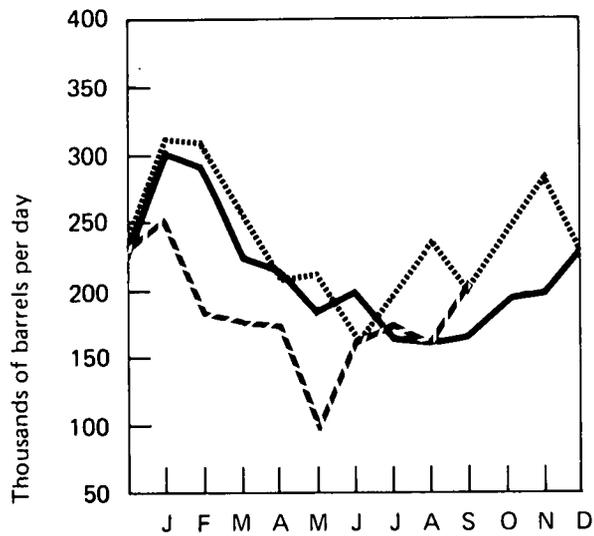
Domestic Demand



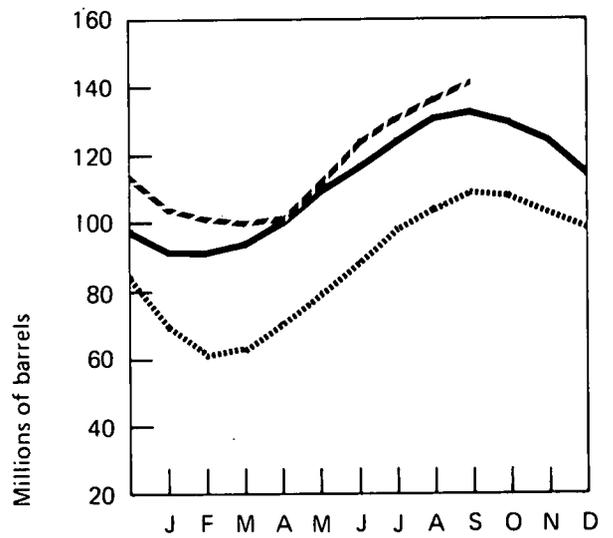
Production at Processing Plants



Imports



Stocks



..... 1973
 ——— 1974
 - - - 1975

Natural Gas

		Domestic Consumption*	Marketed Production*	Domestic Producer Sales to Major Interstate Pipelines	Imports
In billion cubic feet					
1973	January	2,348	1,994	1,069	93
	February	2,126	1,821	963	84
	March	2,015	1,952	1,052	91
	April	1,835	1,864	1,007	88
	May	1,729	1,898	1,026	86
	June	1,534	1,839	963	79
	July	1,558	1,880	999	80
	August	1,582	1,896	994	85
	September	1,527	1,840	956	82
	October	1,708	1,875	1,001	91
	November	1,905	1,863	1,000	85
	December	2,182	1,926	1,038	89
	TOTAL	22,049	22,648	12,067	1,033
1974	January	2,230	1,929	1,033	86
	February	2,054	1,759	941	79
	March	2,003	1,886	1,027	85
	April	1,691	1,793	987	83
	May	1,608	1,846	981	80
	June	1,439	1,740	928	74
	July	1,514	1,818	947	74
	August	1,510	1,790	932	76
	September	1,537	1,755	871	70
	October	1,706	1,767	936	83
	November	1,827	1,729	921	82
	December	2,104	1,790	959	87
	TOTAL	21,223	21,601	11,463	959
1975	January	2,123	1,771	950	81
	February	1,943	1,635	867	75
	March	1,904	1,733	948	83
	April	1,651	1,669	906	83
	May	1,335	1,681	898	81
	June	1,255	1,626	859	78
	July	1,310	1,669	873	79
	August	1,370	1,668	882	76
	September	1,372	R1,596	836	74
	October	R1,560	R**1,652	877	R81
	November	R1,700	***1,660		***80
	December	2,020	***1,720		***84
	TOTAL	19,543 (12 months)	20,080 (12 months)	8,896 (10 months)	955 (12 months)

*See Explanatory Note 7.

**Preliminary data.

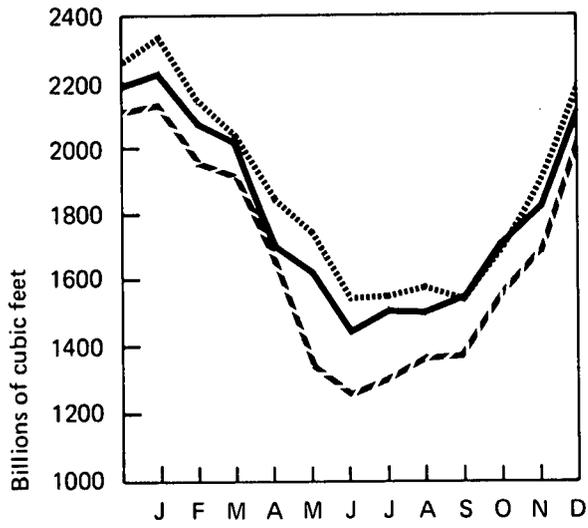
***Projected data.

R=Revised data.

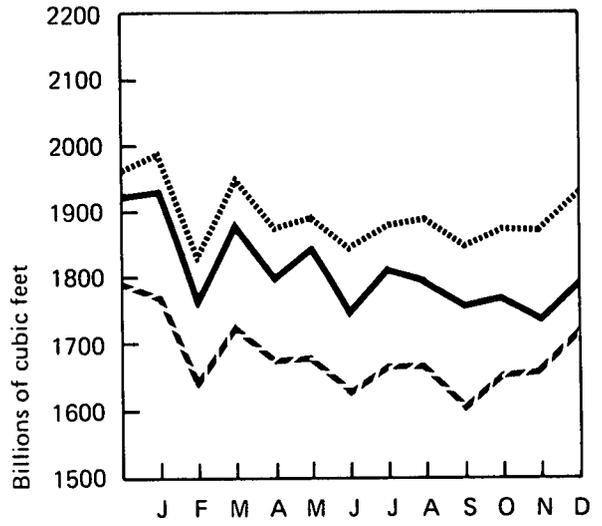
Note: All monthly Domestic Consumption data are estimated.

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

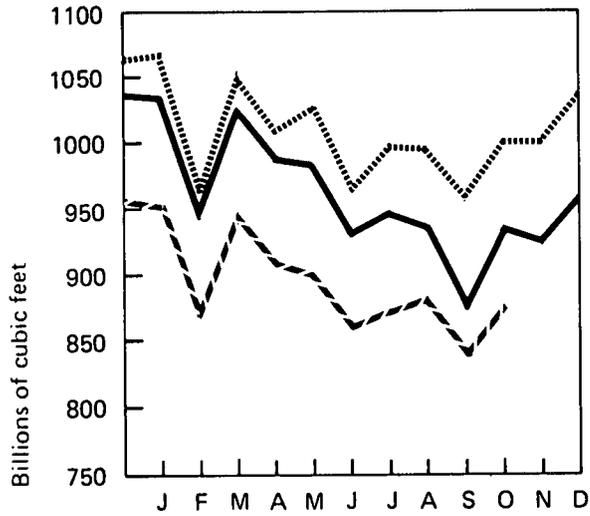
Domestic Consumption



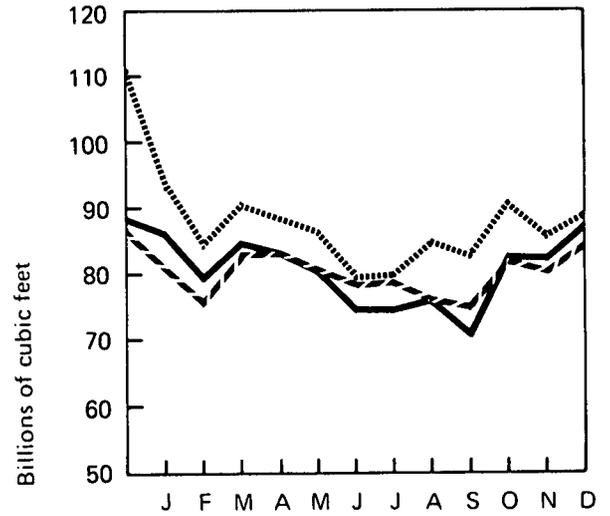
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



..... 1973
 ——— 1974
 - - - 1975

Coal

Bituminous and Lignite

		Domestic Consumption*	Production*	Exports	Stocks
		In thousands of short tons			
1973	January	49,838	49,379	2,954	111,120
	February	44,652	45,893	2,669	108,870
	March	44,814	50,547	3,377	111,490
	April	42,689	46,999	5,063	112,585
	May	43,628	51,420	5,140	116,890
	June	45,115	46,613	4,969	109,960
	July	47,715	43,801	4,188	107,390
	August	48,840	55,874	5,133	106,910
	September	45,471	48,338	3,424	106,230
	October	46,427	54,382	5,882	107,490
	November	46,703	49,826	5,214	107,169
	December	50,130	48,666	4,889	103,022
		TOTAL **	556,022	591,738	52,903
1974	January	50,046	53,712	2,813	97,836
	February	44,929	50,053	4,627	95,812
	March	45,858	51,278	3,179	101,568
	April	43,595	54,402	4,944	107,167
	May	44,951	57,662	6,032	112,882
	June	44,315	48,065	6,369	111,935
	July	48,605	49,392	5,307	106,160
	August	48,579	51,808	5,088	105,478
	September	43,844	52,686	4,893	109,173
	October	45,868	60,495	7,342	118,670
	November	44,598	33,702	6,744	109,192
	December	47,521	40,151	2,587	95,528
		TOTAL **	552,709	603,406	59,926
1975	January	R49,841	54,885	4,254	96,024
	February	R45,726	51,135	4,470	97,164
	March	R47,253	51,910	5,653	97,904
	April	R43,567	53,135	6,159	102,745
	May	42,683	55,370	7,011	109,796
	June	44,887	55,730	6,269	115,041
	July	47,485	45,560	4,691	109,313
	August	49,091	51,160	5,859	108,680
	September	43,818	55,560	4,529	112,102
	October	45,414	61,000	4,647	118,617
	November		R53,035	7,593	
	December		***51,520		
		TOTAL **	459,765 (10 months)	640,000 (12 months)	61,135 (11 months)

*See Explanatory Note 8.

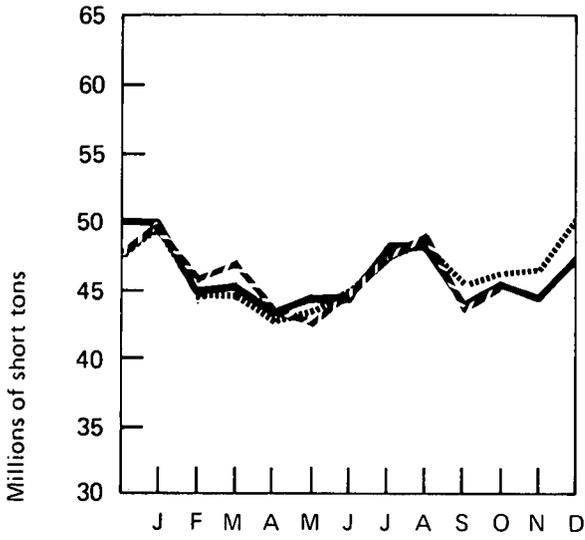
**Totals may not add due to rounding.

***Preliminary data.

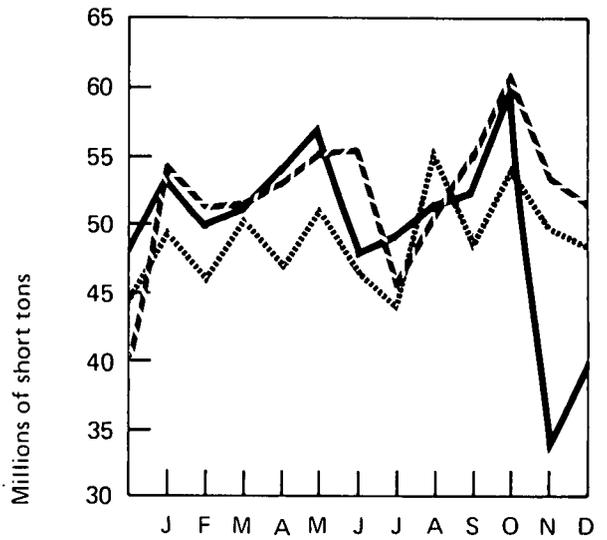
R=Revised data.

Source: Bureau of Mines.

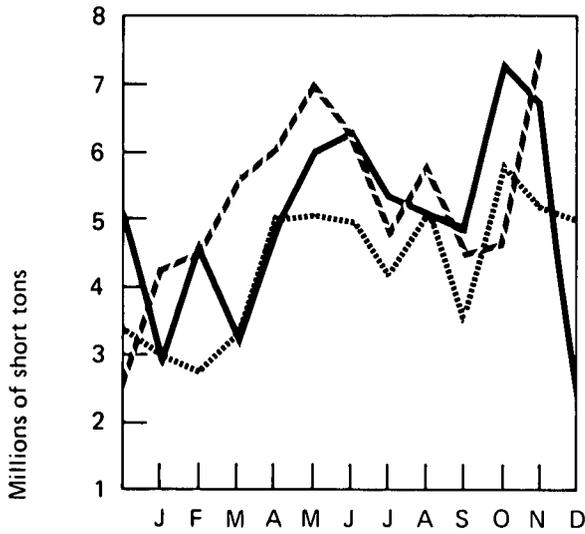
Domestic Consumption



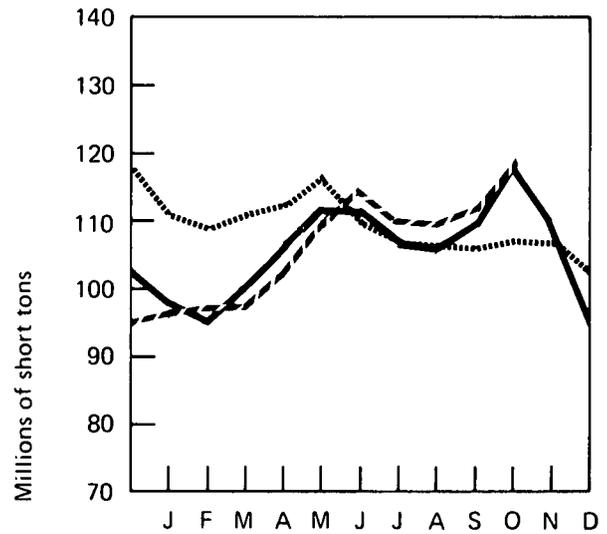
Production



Exports



Stocks



..... 1973
— 1974
- - - 1975

ELECTRIC UTILITIES

Preliminary data indicate that December 1975 production of electricity by utilities was 167.3 billion kilowatt hours, 5.0 percent above the level for December 1974. Production in 1975 totaled 1,907 billion kilowatt hours, an increase of 2.3 percent over the 1,865 billion kilowatt hours produced in 1974.

Coal stockpiles at powerplants increased from a 90-day supply at the end of September to a 99-day supply at the end of November; oil stockpiles increased from 102- to a 103-day supply over the same 2-month period.

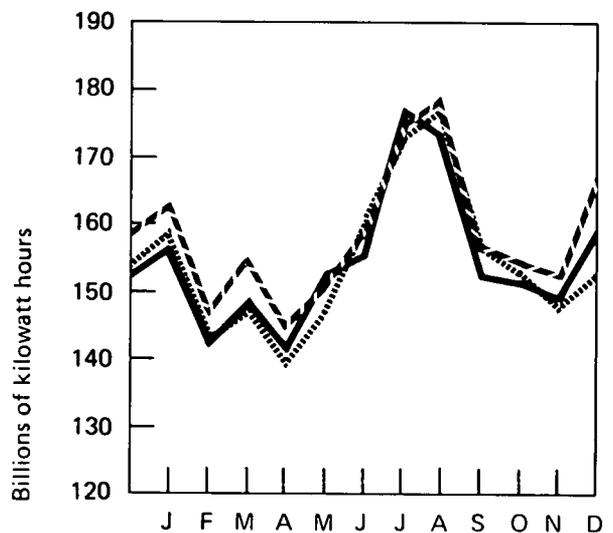
During the first 11 months of 1975, electric utilities consumed 2.8 percent more coal, but 4.7 percent less oil and 9.1 percent less gas, than during the corresponding period of 1974.

Sales of electricity to residential and commercial customers during the first 10 months of 1975 totaled 858.4 billion kilowatt hours, an increase of 6.1 percent for residential customers and 7.0 percent for commercial customers over sales for the similar period of 1974. Sales to industry, however, at 543.9 billion kilowatt hours, were 5.7 percent below the level for the first 10 months of 1974.

Electric Utilities

		Total Net Production		Percentage Produced from Each Source					
		In millions of kilowatt hours		Coal	Oil	Gas	Nuclear	Hydro-electric	Other*
1973	January	159,320		47.2	19.4	13.1	3.9	16.3	0.1
	February	143,109		47.4	18.2	14.1	4.1	16.1	0.1
	March	147,754		45.7	16.2	16.2	4.5	17.3	0.1
	April	139,273		46.1	14.4	17.9	4.2	17.3	0.1
	May	147,021		44.3	14.7	20.2	3.9	16.8	0.1
	June	160,962		43.3	16.1	21.6	4.2	14.7	0.1
	July	173,461		43.9	16.5	22.6	4.0	12.9	0.1
	August	177,022		44.4	17.3	21.9	4.4	11.9	0.1
	September	156,294		45.7	17.3	21.1	4.9	10.9	0.1
	October	153,797		45.6	17.7	19.9	4.9	11.8	0.1
	November	147,823		47.2	17.6	16.1	5.5	13.5	0.1
	December	153,284		47.9	16.3	13.3	5.3	17.0	0.2
	TOTAL	1,859,120	AVERAGE	45.7	16.8	18.3	4.5	14.6	0.1
1974	January	156,906		47.0	16.6	13.3	4.8	18.2	0.1
	February	142,371		46.6	15.7	13.3	5.6	18.6	0.2
	March	149,933		45.3	14.6	15.8	5.8	18.4	0.1
	April	141,914		44.5	13.9	16.9	4.9	19.6	0.2
	May	153,439		44.3	14.7	18.4	4.2	18.2	0.2
	June	156,027		43.3	14.7	20.3	4.4	17.1	0.2
	July	177,798		42.9	15.6	20.9	5.6	14.8	0.2
	August	173,699		43.1	15.6	20.3	7.0	13.8	0.2
	September	152,084		42.9	16.4	19.3	7.1	14.1	0.2
	October	151,786		44.3	16.7	18.6	7.0	13.2	0.2
	November	149,581		44.9	18.4	15.2	7.2	14.1	0.2
	December	159,309		45.6	19.3	12.4	8.1	14.4	0.2
	TOTAL	1,864,847	AVERAGE	44.5	16.1	17.2	6.0	16.1	0.1
1975	January	163,498		45.8	18.7	12.1	8.1	15.2	0.1
	February	146,338		46.0	17.0	12.3	8.3	16.3	0.1
	March	154,932		44.6	15.0	13.0	9.2	18.1	0.1
	April	145,289		44.2	14.6	14.0	8.7	18.3	0.2
	May	151,168		42.5	13.9	16.9	8.2	18.3	0.2
	June	159,963		43.4	14.3	18.0	7.2	16.9	0.2
	July	175,856		43.1	14.2	19.4	8.6	14.5	0.2
	August	179,202		43.9	15.6	19.0	8.7	12.6	0.2
	September	156,802		44.8	13.7	19.1	9.1	13.1	0.2
	October	R154,748		44.6	14.2	17.0	9.4	14.6	0.2
	November	R152,334		46.0	14.2	14.3	9.3	16.0	0.2
	December	167,302							
	TOTAL (12 months)	1,907,432	AVERAGE (11 months)	44.4	15.1	16.0	8.6	15.7	0.2

Total Net Production



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

R=Revised data.

Sources: Federal Power Commission.

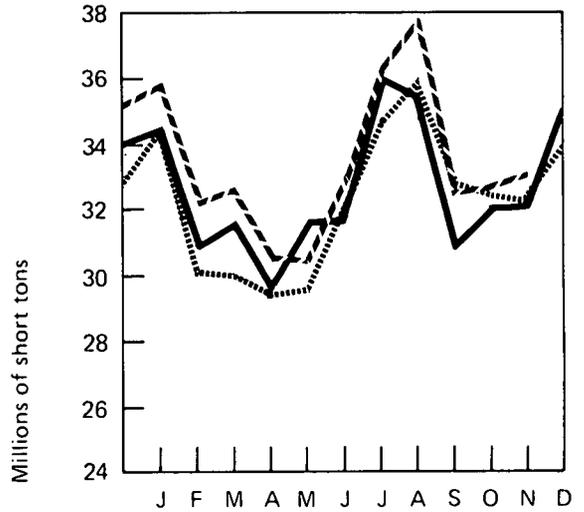
Production data for latest month are from Edison Electric Institute.

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 ——— 1974
 - - - 1975

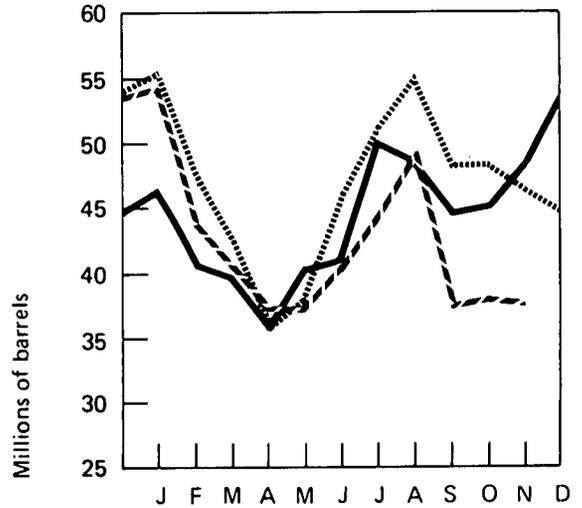
Fuel Consumption

	Coal	Oil	Gas
	In thousands of short tons	In thousands of barrels	In millions of cubic feet
1973			
January	34,591	55,773	219,270
February	30,921	46,978	212,983
March	30,746	42,701	255,314
April	29,209	35,845	267,151
May	29,683	38,097	316,989
June	31,951	46,421	371,221
July	34,863	51,352	422,396
August	36,093	55,356	419,507
September	32,814	48,103	353,040
October	32,470	48,188	328,630
November	32,154	46,420	252,341
December	34,141	44,850	216,988
TOTAL	389,636	560,084	3,635,830
1974			
January	34,599	46,745	219,338
February	30,857	40,687	201,587
March	31,638	39,645	254,175
April	29,679	35,959	259,313
May	31,700	40,831	306,945
June	31,719	41,227	346,584
July	36,111	50,119	403,391
August	35,555	48,970	380,585
September	30,989	44,550	313,079
October	32,127	45,268	298,109
November	32,211	48,525	238,908
December	35,176	53,648	207,095
TOTAL	392,361	536,174	3,429,109
1975			
January	35,853	54,169	204,931
February	32,104	43,670	188,684
March	32,783	40,399	210,283
April	30,452	37,099	213,580
May	30,410	37,015	271,790
June	33,058	40,791	306,147
July	36,367	44,329	359,160
August	37,839	49,262	359,117
September	32,488	37,207	315,165
October	32,811	38,099	274,122
November	33,185	37,604	227,070
TOTAL	367,350	459,644	2,930,049
(11 months)			

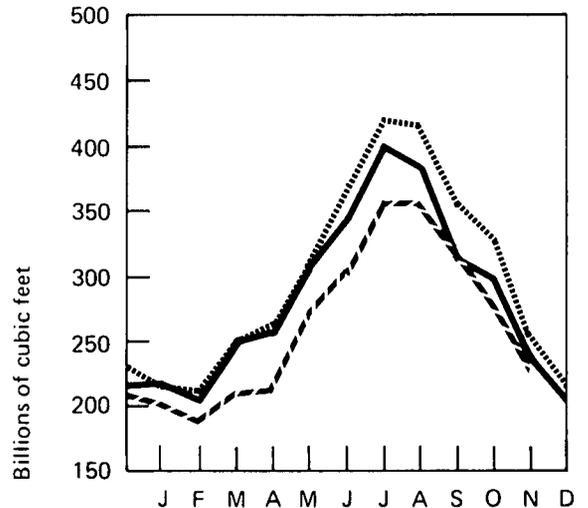
Coal Consumption



Oil Consumption



Gas Consumption



..... 1973
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 - - - 1975

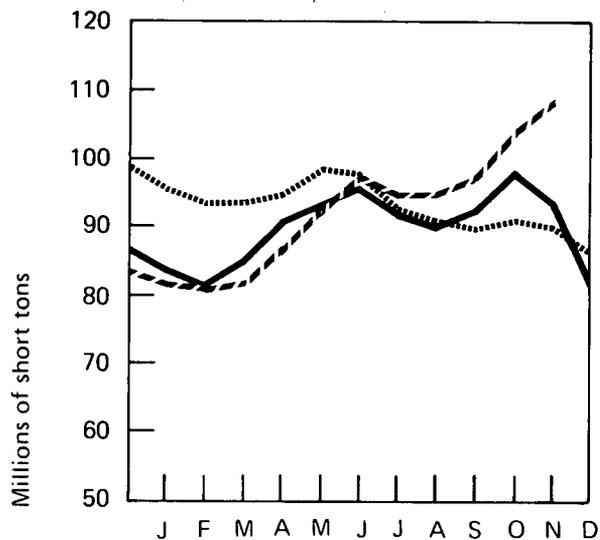
Source: Federal Power Commission.

Electric Utilities (Continued)

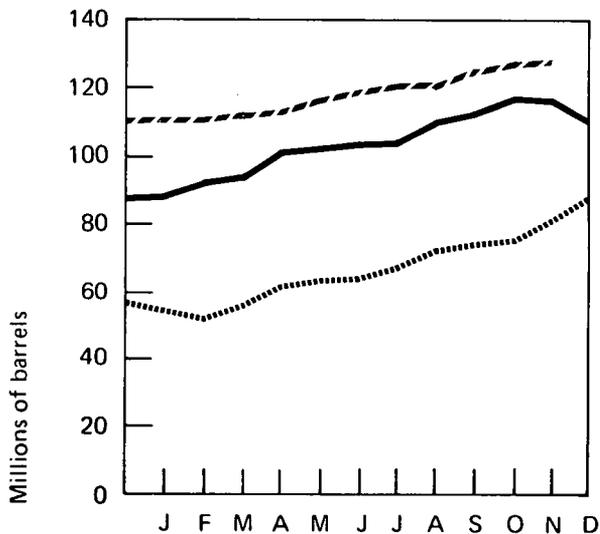
Stocks at End of Month

		Coal	Oil
		In thousands of short tons	In thousands of barrels
1973	January	95,017	53,691
	February	92,993	50,858
	March	93,986	54,885
	April	94,991	62,411
	May	98,722	64,259
	June	97,995	65,003
	July	92,215	67,987
	August	91,356	73,259
	September	90,156	74,863
	October	91,428	76,343
	November	90,369	81,224
	December	86,880	88,228
1974	January	83,366	89,053
	February	80,962	92,645
	March	84,257	94,187
	April	90,901	100,210
	May	93,628	103,606
	June	95,811	104,316
	July	91,616	105,919
	August	89,691	110,997
	September	92,704	113,570
	October	98,373	117,564
	November	93,825	116,558
	December	83,652	111,990
1975	January	81,429	110,304
	February	81,065	111,581
	March	81,872	113,377
	April	86,656	113,930
	May	93,027	116,940
	June	97,834	119,653
	July	94,067	121,076
	August	94,107	120,601
	September	97,790	126,137
	October	104,776	128,338
	November	109,065	129,629

Coal Stocks



Oil Stocks



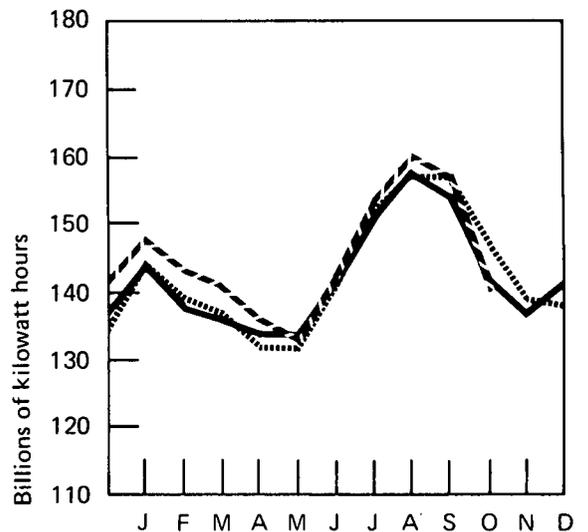
..... 1973
 ——— 1974
 - - - 1975

Source: Federal Power Commission.

Sales

		Residential	Commercial	Industrial	Other*	Total
In millions of kilowatt hours						
1973	January	52,840	31,182	55,274	5,209	144,505
	February	49,601	30,445	54,591	4,909	139,546
	March	46,315	30,100	55,866	4,822	137,103
	April	41,821	29,038	55,937	4,571	131,367
	May	39,825	30,060	56,838	4,638	131,361
	June	44,967	33,194	57,368	4,764	140,293
	July	54,123	36,147	57,152	5,140	152,562
	August	56,742	36,820	58,865	5,054	157,481
	September	56,210	36,711	59,178	5,211	157,310
	October	47,207	33,289	60,514	5,032	146,042
	November	43,175	31,363	58,464	5,085	138,087
	December	46,442	29,788	56,190	4,896	137,316
	TOTAL	579,268	388,137	686,237	59,331	1,712,973
1974	January	52,846	30,608	55,754	4,995	144,203
	February	47,832	29,542	54,978	4,708	137,060
	March	46,154	29,309	55,999	4,693	136,155
	April	43,294	28,986	56,497	4,610	133,387
	May	41,215	29,876	57,386	4,685	133,162
	June	46,596	32,800	58,077	4,641	142,114
	July	53,435	35,229	57,899	4,965	151,528
	August	56,558	36,414	59,803	5,069	157,844
	September	53,252	35,830	60,366	4,983	154,431
	October	44,177	32,112	60,053	4,792	141,134
	November	42,773	30,968	57,361	4,969	136,071
	December	50,368	31,757	53,878	4,974	140,977
	TOTAL	578,500	383,431	688,051	58,084	1,708,066
1975	January	55,547	33,026	54,280	5,245	148,098
	February	52,185	32,441	53,142	4,984	142,752
	March	49,974	32,005	53,182	4,914	140,075
	April	46,883	31,335	52,526	4,737	135,481
	May	43,226	31,608	53,364	4,745	132,943
	June	48,461	35,266	54,104	4,777	142,608
	July	56,829	37,891	53,973	5,052	153,745
	August	59,979	38,768	56,067	5,223	160,037
	September	56,982	37,550	56,797	5,320	156,650
	October	45,142	33,329	56,486	5,194	140,151
	TOTAL (10 months)	515,208	343,219	543,921	50,191	1,452,539

Total Sales



* Includes street lighting and trolley cars.
Source: Federal Power Commission.

..... 1973
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 - - - 1975

NUCLEAR POWER

The 51 nuclear reactors in commercial operation, with a total capacity of 32,363 megawatts, performed at a 67-percent capacity factor in December, up sharply from 58 percent in November. Two new records were achieved; the net monthly average power level rose to 21,822 megawatts, and nuclear generation constituted 9.7 percent of the Nation's total electricity production for the month.

In late December, Millstone 2, a 745-megawatt pressurized water reactor (PWR), attained commercial operating status. The Millstone plant, owned by the Northeast Nuclear Energy Company, is located on Long Island Sound near New London, Connecticut.

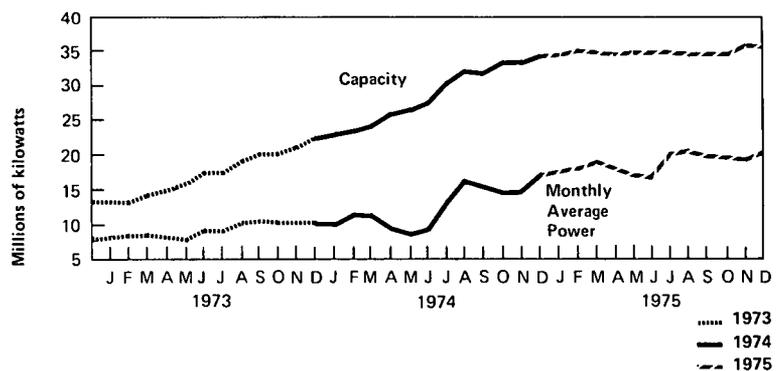
The Atomic Safety and Licensing Boards of the Nuclear Regulatory Commission (NRC) also set a record in December. The Boards approved licenses for 14 reactors, including 1 operating permit, 5 construction permits, 3 limited work authorizations (LWA; see definitions), and clearances to resume offsite construction for 2 units nearing completion in Virginia. During the entire year, NRC issued 3 operating licenses, 5 construction permits, 9 LWA permits for 17 units, and approved the preliminary nuclear plant designs of 3 reactor vendors.

The Sacramento Municipal Utility District, a public utility company, indefinitely postponed Rancho Seco 2, a 1,100-megawatt PWR, because of load-growth uncertainties and related financial problems. Similarly, the Florida Power Corporation announced the cancellation of Florida 1 and 2, each 1,300-megawatt PWR's, citing uncertainties in uranium availability, enrichment, and reprocessing. Since June 30, 1974, construction delays of between 4 months and 5 years have occurred on 125 units totalling 133,845 megawatts, while 23 units totalling 26,455 megawatts have been cancelled.

U.S. Nuclear Powerplant Operations

		Net Electrical Capacity	Net Monthly Average Power	Percent of Total Domestic Electricity Generation
In thousands of kilowatts				
1973	January	13,594	8,395	3.9
	February	13,594	8,821	4.1
	March	14,382	8,991	4.5
	April	15,253	8,161	4.2
	May	16,126	7,657	3.9
	June	17,827	9,429	4.2
	July	17,827	9,355	4.0
	August	19,349	10,463	4.4
	September	20,400	10,815	4.9
	October	20,400	10,036	4.9
	November	21,271	11,308	5.5
	December	22,826	10,543	5.3
AVERAGE	17,761	9,513	4.5	
1974	January	23,156	10,194	4.8
	February	23,926	11,992	5.6
	March	24,455	11,715	5.8
	April	26,012	9,826	4.9
	May	26,820	8,791	4.2
	June	27,898	9,740	4.4
	July	30,524	13,577	5.6
	August	32,195	16,442	7.0
	September	31,759	15,159	7.1
	October	33,614	14,409	7.1
	November	33,630	14,528	7.2
	December	34,467	17,375	8.1
AVERAGE	29,071	12,865	6.0	
1975	January	34,841	17,843	8.1
	February	35,049	18,063	8.3
	March	34,836	19,091	9.2
	April	34,167	17,516	8.7
	May	34,167	16,613	8.2
	June	34,472	16,097	7.2
	July	34,746	20,297	8.6
	August	34,739	20,618	8.7
	September	34,690	19,892	9.1
	October	34,690	R19,464	R9.4
	November	35,902	*19,431	*9.1
	December	*35,574	*21,822	*9.7
AVERAGE	34,823	18,907	8.7	

U.S. Nuclear Powerplants



*Preliminary data.

R=Revised data.

Sources: Average Power for latest 2 months and Capacity are from U.S. Nuclear Regulatory Commission; Percent of Total Domestic Electricity Generation for latest 2 months is based on data from Edison Electric Institute; remaining data are from Federal Power Commission.

Status of Nuclear Powerplants – December 31, 1975

Status	Number of Plants				Capacity	
	Boiling Water Reactors	High-Temperature Gas Reactors	Pressurized Water Reactors	Other*	Total	In Electrical Megawatts
Licensed to operate	23	1	32	0	56	39,000
Construction permit granted	19	0	50	0	69	71,000
Construction permit pending	24	0	44	5	73	80,000
Orders placed for plant	5	0	14	0	19	22,000
Publicly announced	—	—	—	19	19	24,000
TOTAL	71	1	140	24	236	236,000

*Includes 1 Liquid Metal Fast Breeder Reactor and 23 announced intentions to order for which a reactor type has not been chosen.

Source: U.S. Nuclear Regulatory Commission.

U.S. Uranium Enrichment – December 1975

	Domestic Customers	Foreign Customers	Total
Separative Work Performed (in metric tons of separative work units)	535.640	337.903	873.543
Cost (in millions of dollars)	26.845	17.239	43.724
Product Quantity (in metric tons of uranium)	156.948	100.885	257.833
Average Enrichment (in percent U-235)	2.547	2.535	2.543
Feed Requirement (in metric tons of uranium)	732.428	460.925	1193.353

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

Commercial Nuclear Power Generation by Major Non-Communist Countries – December 1975

Country	Number of Reactors	Capacity	Generation of Electricity			
			Generation December	Percent of Capacity		
				December	1974	1975
		In thousands of gross electrical kilowatts	In millions of gross kilowatt hours			
Canada	5	2,380	1,257	71	74	64
Federal Republic of Germany	7	3,450	2,171	85	57	72
France	10	3,070	1,599	70	57	68
Great Britain	29	6,140	*3,367	*66	61	57
India	3	620	398	80	55	46
Italy	3	640	337	71	61	69
Japan	10	5,280	1,757	45	61	36
Spain	3	1,120	623	75	75	77
Sweden	5	3,310	1,861	75	20	44
Switzerland	3	1,050	728	93	76	84
United States	55	39,400	17,649	64	57	60
TOTAL	132	66,460	31,747	64	58	58

*Figures are for 5-week operating period.

Source: Nucleonics Week Magazine.

Summary of Monthly Nuclear Fuel Cycle – November 1975

Fuel Cycle Activity	Product	Processed Material* In MTU except where noted	Percent Utilization of Industry Capacity	Energy Content of Processed Material**	Energy Consumed in Fuel Cycle Activity***	Cost Contribution to Electric Power [†] In mills per kilowatt hour
Milling	Yellowcake (U ₃ O ₈) Deliveries	1,615	††123	553,000	890	0.54
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	370	26	127,000	80	0.07
Enrichment	Enriched UF ₆ Deliveries	344 (1351 MT-SWU)	†††	705,000	37,100	0.86
Fabrication	Finished Fuel Assemblies Produced	103	43	253,000	196	0.46
Powerplant Operation	New Fuel Receipts	41	—	84,000	—	—
	Electricity Generated	14,958 (million kWhe)	58	148,000	2,600	8.37
	Spent Fuel Discharged	39	—	—	—	—
Reprocessing	Spent Fuel Received	8	—	—	—	0.02
	Spent Fuel Reprocessed	0	—	—	—	—

*Units of measure are discussed in Explanatory Notes 9 and 10.

** Assumes 25,000 MWD/MTU for heat content of enriched uranium and a 6:1 feed-to-product ratio at the enrichment plant.

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

† Cost contribution is computed from unit prices paid for current month's production and requirement for a model 1000-MWe reactor operating at 80 percent capacity factor, given in U.S.A.E.C. Report No.WASH 1174-74. Because of the long lead time required for nuclear fuel processing, the sum of the numbers in this column does not necessarily reflect the fuel cost of current electricity production.

†† Includes preproduction from previous months.

††† EDRA'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.

Source: FEA.

ENERGY CONSUMPTION

Domestic energy consumption in November 1975 totaled 5.881 quadrillion Btu, 4.0 percent below the November 1974 level of 6.129 and 8.6 percent below the November 1973 level of 6.431. No sectoral breakdown is available for the month as yet.

The revised consumption total for October was 5.790 quadrillion Btu. Of the total, 1.881 quadrillion Btu was consumed by the residential and commercial sector, a decrease of 2.5 percent from the October 1974 level and 1.1 percent from the October 1973 level. Direct consumption of primary fuels amounted to 48.1 percent of this sector's total consumption (coal was 0.8 percent, dry natural gas, 18.8 percent, and petroleum products, 28.5 percent). Consumption of electricity accounted for the remaining 51.9 percent.

The industrial sector consumed 2.395 quadrillion Btu in October 1975, 7.3 percent below the level for October 1974 and 7.4 percent below the amount for October 1973. Coal accounted for 13.3 percent of the total, 38.1 percent was dry natural gas, 20.4 percent was petroleum products, and 28.2 percent was electricity.

Consumption in the transportation sector was 1.514 quadrillion Btu, a decrease of 3.8 percent from the amount consumed during October 1974 and 4.9 percent below the amount for October 1973. Petroleum products comprised 95.7 percent of the total energy consumed by this sector. Natural gas used for pipeline transportation and electricity used by railroads and for street and highway lighting accounted for the balance.

PETROLEUM CONSUMPTION AND FORECAST

Total domestic demand for petroleum products during December 1975 was 17.648 million barrels per day. This was 172,000 barrels per day (1.0 percent) below the forecast level and 349,000 barrels per day (1.9 percent) below the level for December 1974.

Domestic demand for motor gasoline in December was 6.760 million barrels per day, which was 281,000 barrels per day (4.3 percent) above the forecast level of 6.479 million barrels per day. Demand was also 202,000 barrels per day (3.1 percent) above the level for December 1974.

Domestic demand for distillate fuel oil was 3.932 million barrels per day in December. This was 177,000 barrels per day (4.7 percent) above the forecast level and 77,000 barrels per day greater than demand for December 1974.

Domestic demand for residual fuel oil during December was 2.683 million barrels per day, which was 362,000 barrels per day (11.9 percent) below the forecast level of 3.045 million barrels per day and 282,000 barrels per day (9.5 percent) below demand for December 1974.

Energy Consumption by Economic Sector and Primary Source – October 1975 [In 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	0.015	0.353	0.536	—	—	0.904	0.280	1.184	0.697	1.881
Industrial	0.318	0.913	0.489	0.003	—	1.723	0.193	1.916	0.479	2.395
Transportation	0.001	0.046	1.449	—	(⁹)	1.496	0.005	1.501	0.013	1.514
Electric Utilities	0.753	0.281	0.233	0.246	0.154	1.667	—	—	—	—
TOTAL	1.087	1.593	2.707	0.249	0.154	5.790	0.478	4.601	1.189	5.790

¹See Explanatory Note 11 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

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

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

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

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

⁵FPC hydroelectric power production plus net imports of electricity from Canada. These imports, estimated at 0.011 quadrillion Btu per month, were assumed to be from hydroelectric power sources. Monthly industrial hydroelectric power consumption is estimated to be one-twelfth of the preliminary Bureau of Mines annual figure for 1974.

⁶FPC nuclear power production.

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

⁸In 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.

⁹Negligible.

Percent Changes in Energy Consumption for October 1975 by Sources

	October 1975 Consumption	Percent Change from October 1974	Cumulative Percent Change from 1974 (January through October)
	In quadrillion (10 ¹⁵) Btu		
Refined Petroleum Products	2.707	-7.0	-1.8
Motor Gasoline	1.073	-1.8	+2.1
Jet Fuel	0.164	-6.5	+2.1
Distillate	0.475	-8.1	-1.1
Residual	0.395	-22.4	-7.0
Other Petroleum Products	0.601	-5.0	-6.8
Natural Gas (Dry)	1.593	-8.6	-8.5
Coal (Anthracite, bituminous, and lignite)	1.087	-1.0	-0.4
Electricity (Sales)	0.478	-0.7	+1.5
TOTAL ENERGY USE	5.790	-4.9	-2.7
Economic Sector Consumption			
Residential and Commercial	1.881	-2.5	+2.7
Industrial	2.395	-7.3	-9.9
Transportation	1.514	-3.8	+1.0

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
		In quadrillion (10 ¹⁵) Btu						
1973	January	0.038	1.257	0.707	0.299	0.716	3.017	3.017
	February	0.032	1.113	0.653	0.285	0.610	2.693	5.710
	March	0.025	0.925	0.620	0.272	0.629	2.471	8.181
	April	0.016	0.745	0.527	0.253	0.569	2.109	10.290
	May	0.017	0.539	0.562	0.250	0.612	1.980	12.270
	June	0.017	0.354	0.511	0.279	0.714	1.873	14.143
	July	0.017	0.279	0.503	0.321	0.814	1.934	16.077
	August	0.018	0.253	0.560	0.332	0.835	1.997	18.074
	September	0.024	0.276	0.538	0.330	0.690	1.859	19.933
	October	0.028	0.344	0.592	0.287	0.651	1.902	21.835
	November	0.031	0.610	0.658	0.266	0.615	2.180	24.015
	December	0.033	0.882	0.648	0.271	0.665	2.500	26.515
	TOTAL	0.295	7.577	7.077	3.445	8.120	26.515	
1974	January	0.041	1.158	0.663	0.296	0.705	2.863	2.863
	February	0.035	1.027	0.593	0.275	0.607	2.537	5.400
	March	R0.029	0.902	0.567	0.268	0.650	R2.417	R7.817
	April	R0.020	0.754	0.532	0.258	0.602	2.164	R9.981
	May	0.017	0.499	0.499	0.254	0.661	1.930	R11.911
	June	0.016	0.357	0.510	0.282	0.692	1.857	R13.768
	July	0.015	0.293	0.506	0.315	0.852	1.981	R15.750
	August	0.021	0.265	0.522	0.330	0.817	1.954	R17.704
	September	0.026	0.278	0.513	0.316	0.659	R1.793	R19.497
	October	0.028	0.395	0.591	0.271	0.643	1.930	R21.426
	November	0.028	0.569	0.575	0.263	0.644	2.079	R23.506
	December	0.032	0.930	0.630	0.292	0.745	2.629	R26.135
	TOTAL	R0.310	7.427	6.701	3.420	8.277	R26.135	
1975	January	0.036	1.124	0.651	0.315	R0.774	R2.900	R2.900
	February	0.023	1.105	0.556	0.300	0.661	2.645	R5.545
	March	0.025	1.018	0.568	0.291	R0.708	R2.611	R8.156
	April	0.011	0.905	0.508	0.278	R0.647	R2.350	R10.506
	May	0.011	0.522	0.459	0.267	0.678	1.937	R12.443
	June	0.015	0.332	0.454	0.297	0.754	1.854	R14.297
	July	0.017	0.293	0.484	0.336	0.873	2.004	R16.301
	August	0.014	0.264	0.463	0.350	0.890	1.981	R18.282
	September	0.015	0.281	R0.503	0.336	0.703	R1.837	R20.119
	October	0.015	0.353	0.536	0.280	0.697	1.881	22.000
	TOTAL (10 months)	0.183	6.196	5.185	3.050	7.387	22.000	

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ³	Hydroelectric	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
		In quadrillion (10 ¹⁵) Btu							
1973	January	0.393	0.832	0.640	0.003	0.189	0.452	2.508	2.508
	February	0.362	0.764	0.591	0.003	0.186	0.399	2.305	4.813
	March	0.369	0.802	0.561	0.003	0.191	0.441	2.366	7.179
	April	0.363	0.794	0.477	0.003	0.191	0.430	2.257	9.436
	May	0.369	0.846	0.508	0.003	0.194	0.475	2.395	11.831
	June	0.351	0.787	0.462	0.003	0.196	0.502	2.301	14.132
	July	0.345	0.836	0.455	0.003	0.195	0.494	2.328	16.459
	August	0.340	0.888	0.506	0.003	0.201	0.505	2.444	18.903
	September	0.329	0.876	0.487	0.003	0.202	0.422	2.320	21.223
	October	0.363	1.010	0.535	0.003	0.206	0.469	2.587	23.809
	November	0.374	1.012	0.595	0.003	0.199	0.460	2.644	26.453
	December	0.412	1.046	0.586	0.003	0.192	0.470	2.708	29.161
	TOTAL		4.370	10.493	6.403	0.036	2.341	5.518	29.161
1974	January	0.390	0.824	0.605	0.003	0.190	0.452	2.465	2.465
	February	R0.366	0.798	0.541	0.003	0.188	0.414	2.309	4.774
	March	0.370	0.821	0.518	0.003	0.191	0.463	2.365	7.139
	April	0.364	0.657	0.485	0.003	0.193	0.451	R2.153	R9.292
	May	0.354	0.783	0.455	0.003	0.196	0.510	R2.301	R11.593
	June	0.337	0.719	0.465	0.003	0.198	0.486	2.208	R13.801
	July	0.336	0.802	0.462	0.003	0.198	0.535	2.335	R16.136
	August	0.347	0.848	0.476	0.003	0.204	0.505	2.384	R18.520
	September	0.336	0.928	0.468	0.003	0.206	0.430	2.372	R20.891
	October	0.359	0.992	0.539	0.003	0.205	0.486	2.583	R23.475
	November	0.323	0.996	0.525	0.003	0.196	0.479	2.521	R25.996
	December	R0.320	0.939	0.575	0.003	0.184	0.470	2.490	R28.486
	TOTAL		R4.204	10.108	6.111	0.036	2.348	5.679	R28.486
1975	January	0.356	0.767	0.594	0.003	0.185	R0.456	R2.360	R2.360
	February	0.355	0.625	0.507	0.003	0.181	0.399	2.070	R4.431
	March	0.378	0.651	0.518	0.003	0.181	R0.441	R2.173	6.604
	April	0.353	0.510	0.464	0.003	0.179	R0.417	R1.926	R8.530
	May	0.333	0.525	0.419	0.003	0.182	0.463	1.925	R10.455
	June	0.314	0.601	0.414	0.003	0.185	0.468	1.986	R12.442
	July	0.298	0.642	0.442	0.003	0.184	0.479	2.049	R14.491
	August	0.305	0.730	0.422	0.003	0.191	0.486	2.138	R16.629
	September	0.304	0.759	R0.459	0.003	0.194	0.406	R2.125	R18.753
	October	0.318	0.913	0.489	0.003	0.193	0.479	2.395	21.149
TOTAL (10 months)		3.314	6.723	4.729	0.030	1.856	4.496	21.149	

Energy Consumption (Continued)

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas (dry) ⁴	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
		In quadrillion (10 ¹⁵) Btu						
1973	January	0.001	0.085	1.511	0.005	0.013	1.615	1.615
	February	0.001	0.076	1.417	0.005	0.011	1.510	3.125
	March	0.001	0.070	1.502	0.005	0.012	1.589	4.714
	April	0.001	0.062	1.412	0.005	0.010	1.490	6.204
	May	0.001	0.056	1.540	0.004	0.011	1.612	7.816
	June	0.001	0.046	1.471	0.004	0.011	1.533	9.350
	July	0.001	0.045	1.528	0.004	0.011	1.589	10.939
	August	0.001	0.046	1.588	0.005	0.011	1.651	12.590
	September	0.001	0.047	1.437	0.005	0.010	1.499	14.089
	October	0.001	0.055	1.520	0.005	0.011	1.592	15.681
	November	0.001	0.066	1.523	0.005	0.012	1.607	17.288
	December	0.001	0.078	1.491	0.005	0.013	1.589	18.877
	TOTAL	0.009	0.733	17.940	0.058	0.137	18.877	
1974	January	0.001	0.072	1.398	0.005	0.013	1.489	1.489
	February	0.001	0.066	1.300	0.005	0.011	1.384	2.873
	March	0.001	0.063	1.416	0.005	0.012	1.496	4.369
	April	0.001	0.051	1.397	0.005	0.011	1.465	5.834
	May	0.001	0.047	1.484	0.005	0.012	1.547	7.381
	June	0.001	0.039	1.449	0.005	0.011	1.505	8.885
	July	0.001	0.040	1.513	0.005	0.012	1.570	10.456
	August	0.001	0.040	1.532	0.005	0.012	1.590	12.046
	September	0.001	0.044	1.392	0.005	0.010	1.452	13.497
	October	0.001	0.050	1.506	0.005	0.012	1.574	15.072
	November	0.001	0.057	1.453	0.005	0.013	1.529	16.600
	December	0.001	0.068	1.546	0.006	0.014	1.634	18.234
	TOTAL	0.007	0.636	17.386	0.060	0.145	18.234	
1975	January	0.001	0.069	1.499	0.006	0.014	1.587	1.587
	February	0.001	0.063	1.334	0.005	0.012	1.415	3.002
	March	0.001	0.061	1.456	0.005	0.013	1.536	4.538
	April	0.001	0.051	1.456	0.005	0.012	1.524	6.062
	May	0.001	0.038	1.481	0.005	0.012	1.536	7.598
	June	0.001	0.034	1.466	0.005	0.012	1.517	9.115
	July	0.001	0.034	1.498	0.005	0.013	1.550	10.665
	August	0.001	0.036	1.510	0.005	0.012	1.563	12.228
	September	0.001	0.038	R1.420	0.005	0.010	R1.474	R13.702
	October	0.001	0.046	1.449	0.005	0.013	1.514	15.216
TOTAL (10 months)	0.006	0.469	14.568	0.051	0.123	15.216		

¹ See Explanatory Note 11 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.

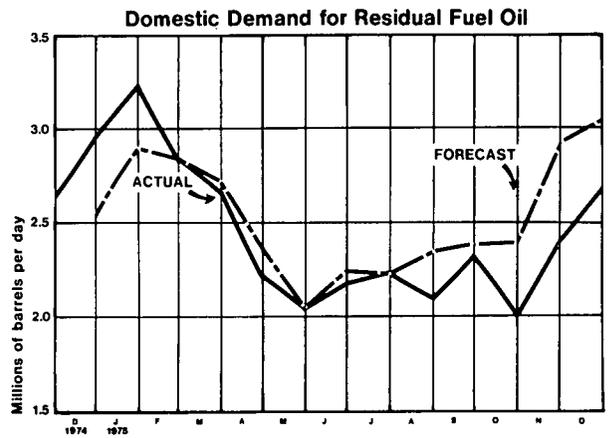
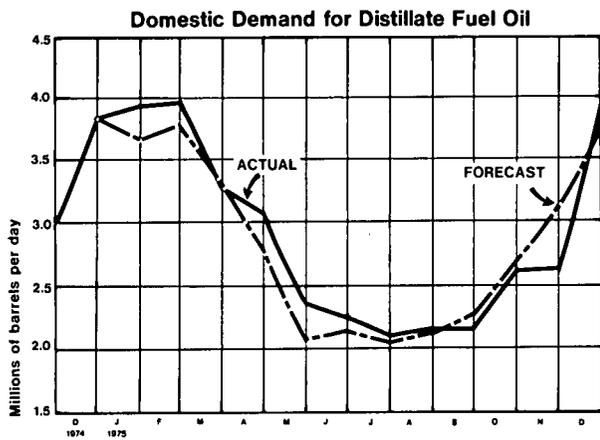
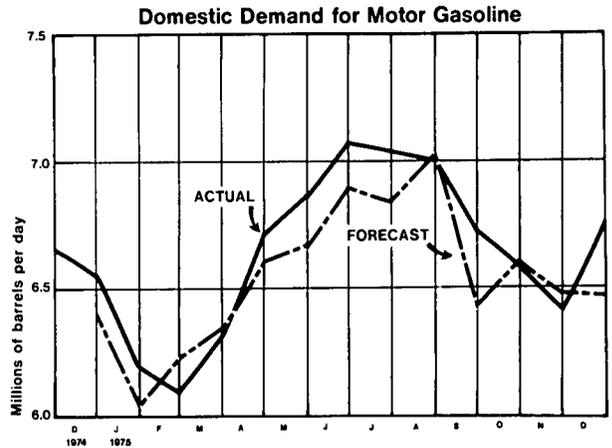
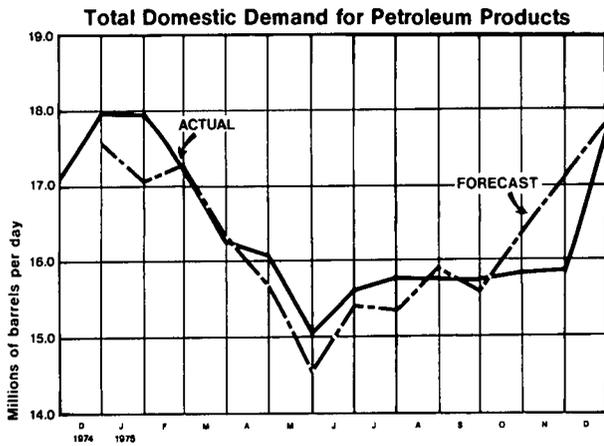
² The percentage share used in calculating Residential and Commercial consumption of petroleum was 52.5 percent for 1973 and 52.3 percent for 1974 and 1975.

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

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

R=Revised data.

Petroleum Consumption and Forecast



Notes:

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

Actuals – Based on BOM data except for 3 most recent months, which are based on FEA data.

Forecast – See Explanatory Note 12 for discussion of basic assumptions of forecast.

Part 6

OIL AND GAS EXPLORATION

An average of 1,662 rotary rigs were drilling for oil and gas during 1975, the highest number since 1961 when 1,761 rigs were in operation. Active rigs in 1975 represented an increase of 13 percent over the number in operation during 1974 and 39 percent above the number for 1973.

Well completions were also significantly higher in 1975. A total of 37,092 wells were drilled in the United States, more than in any year since 1965, and an increase of 17 percent over the number drilled in 1974. Of the total, 16,336 were oil wells, an increase of 28 percent above the number drilled in 1974. Gas wells increased 4 percent to 7,505, reaching an alltime high for the third year in a row.

There was an average of 283 seismic crews (30 offshore and 253 onshore) engaged in prospecting for oil and gas during 1975, 22 fewer than in 1974, but 33 more than in 1973.

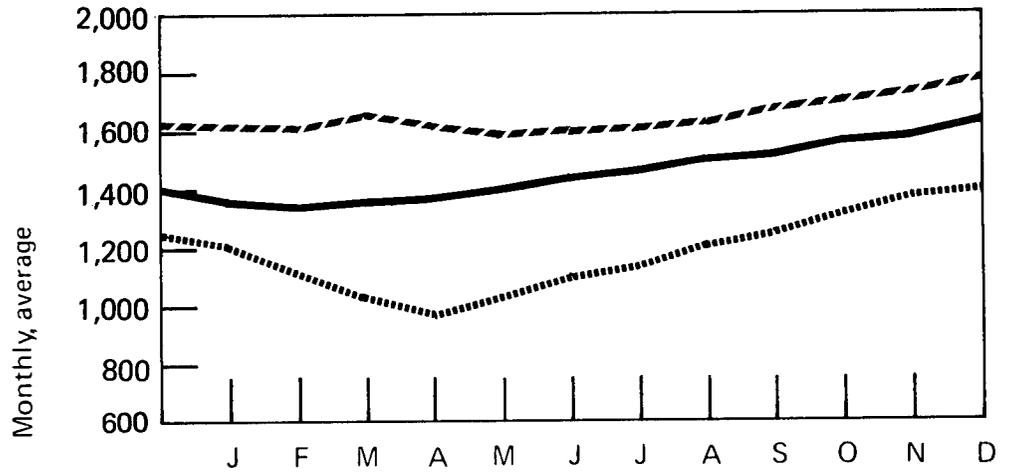
Resource Development

Oil and Gas Exploration

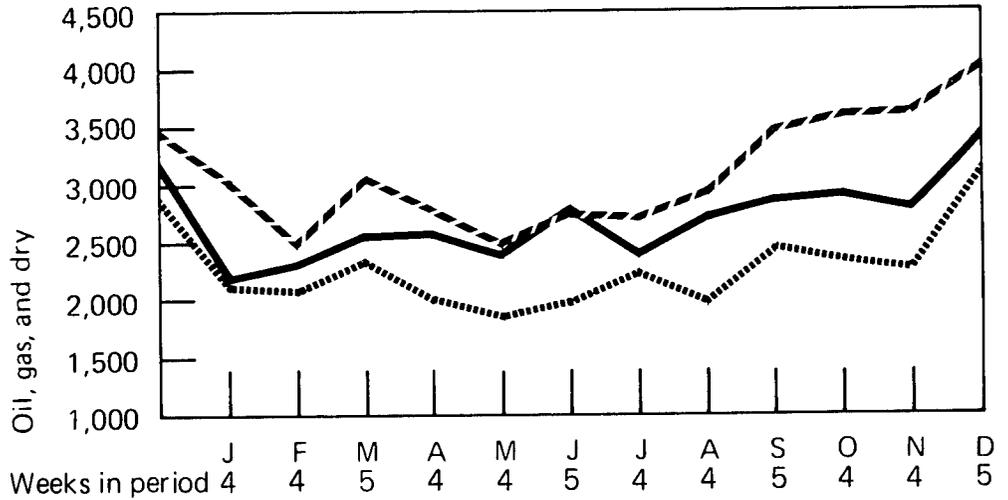
		Rotary Rigs in Operation		Wells Drilled			Total Footage of Wells Drilled
		Monthly average	Oil	Gas	Dry	Total	In thousands of feet
1973	January	1,219	758	406	899	2,063	10,973
	February	1,126	777	487	765	2,029	10,656
	March	1,049	953	504	909	2,366	12,318
	April	993	699	489	777	1,965	10,434
	May	1,046	749	407	647	1,803	9,622
	June	1,118	767	432	795	1,994	10,815
	July	1,155	912	504	840	2,256	10,996
	August	1,222	724	456	739	1,919	9,633
	September	1,266	854	690	940	2,484	12,075
	October	1,334	790	554	958	2,302	11,694
	November	1,390	822	606	865	2,293	11,823
	December	1,405	1,087	827	1,208	3,122	15,530
		AVERAGE	1,194	TOTAL* 9,902	6,385	10,305	26,592
1974	January	1,372	763	577	803	2,143	10,392
	February	1,355	901	600	816	2,317	12,160
	March	1,367	936	638	1,003	2,577	12,844
	April	1,381	947	700	945	2,592	13,349
	May	1,412	957	520	870	2,347	11,460
	June	1,432	1,238	586	982	2,806	12,976
	July	1,480	1,008	461	884	2,353	11,802
	August	1,518	1,210	555	968	2,733	12,410
	September	1,527	1,200	600	1,091	2,891	12,676
	October	1,584	1,131	551	1,241	2,923	14,081
	November	1,596	1,088	626	1,053	2,767	11,795
	December	1,643	1,339	791	1,274	3,404	15,707
		AVERAGE	1,475	TOTAL* 12,784	7,240	11,674	31,698
1975	January	1,615	1,299	655	1,040	2,994	13,189
	February	1,611	1,097	458	933	2,488	12,071
	March	1,651	1,341	658	1,091	3,090	15,472
	April	1,604	1,181	506	1,071	2,758	13,545
	May	1,592	1,100	451	891	2,442	12,054
	June	1,613	1,246	509	1,022	2,777	13,540
	July	1,616	1,229	557	920	2,706	12,545
	August	1,645	1,272	587	1,122	2,981	14,221
	September	1,699	1,504	831	1,165	3,500	15,636
	October	1,716	1,633	682	1,310	3,625	16,689
	November	1,757	1,619	776	1,270	3,665	15,788
	December	1,793	1,817	832	1,424	4,073	17,556
		AVERAGE	1,662	TOTAL* 16,336	7,505	13,251	37,092

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

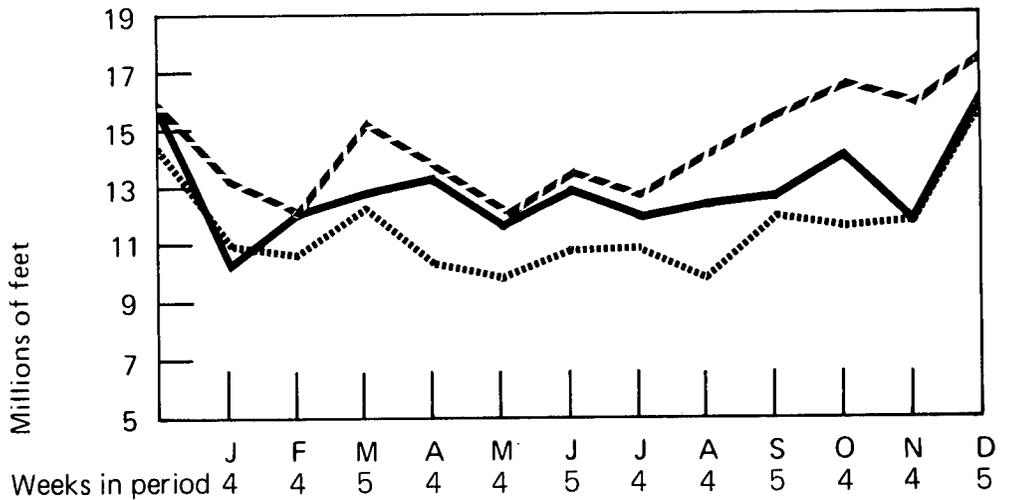
Rotary Rigs in Operation



Total Wells Drilled



Total Footage of Wells Drilled

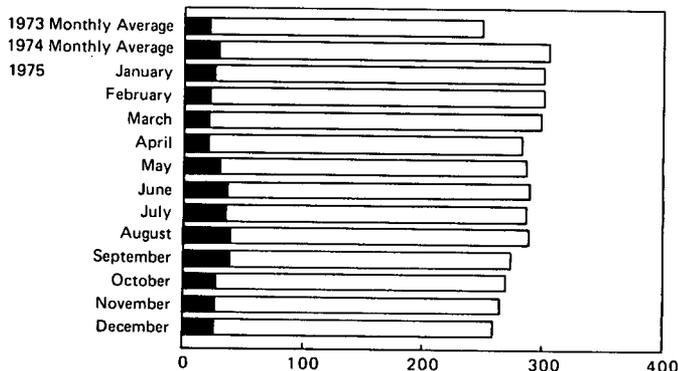


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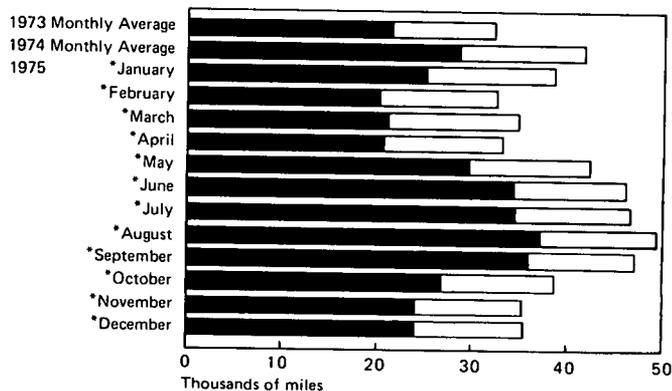
Oil and Gas Exploration (Continued)

	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 Monthly Average	31	274	305	28,482	13,219	41,701
					Estimates*	
May	35	278	313	32,550	13,677	46,227
June	38	279	317	34,200	13,283	47,483
July	35	299	334	32,550	14,710	47,260
August	34	287	321	31,620	14,120	45,740
September	34	287	321	30,600	13,664	44,264
October	32	288	320	29,760	14,169	43,929
November	30	276	306	27,000	13,140	40,140
December	25	275	300	23,250	13,529	36,779
1975						
January	27	274	301	25,110	13,480	38,590
February	24	278	302	20,160	12,353	32,513
March	23	276	299	21,390	13,578	34,968
April	23	260	283	20,700	12,379	33,079
May	32	254	286	29,760	12,496	42,256
June	38	251	289	34,200	11,950	46,150
July	37	249	286	34,410	12,250	46,660
August	40	249	289	37,200	12,250	49,450
September	40	234	274	36,000	11,141	47,141
October	29	241	270	26,970	11,856	38,826
November	27	238	265	24,300	11,331	35,631
December	26	233	259	24,180	11,463	35,643
AVERAGE	30	253	283	27,360	12,206	39,566

Crews Engaged in Seismic Exploration



Line Miles of Seismic Exploration



*See Explanatory Note 13.
Source: Society of Exploration Geophysicists.

MOTOR GASOLINE

The national average selling price of regular gasoline at full service retail outlets continued its downward trend, declining 0.4 cent in December to 58.0 cents per gallon. The average price that retailers paid for regular gasoline declined 0.3 cent to 49.9 cents per gallon, resulting in a net decrease of 0.1 cent in the dealer margin to 8.1 cents per gallon. This margin was the smallest since June 1975.

HEATING OIL

The price of heating oil sold to residential customers reached its highest historical level in December (40.1 cents per gallon), reflecting the gradual price increases for crude oil. Refiners are permitted to pass on only a proportionate share of their increased crude oil costs to heating oil consumers, based on the amount of heating oil sold in the previous year. These price restrictions tend to make heating oil price increases reflect the gradual increases in crude oil costs.

CRUDE OIL

During November, the average domestic "new" oil price was \$12.89 per barrel, 16 cents more than the October price.

The preliminary estimate for the average cost of domestic crude purchased by refiners during November was \$8.67 per barrel, 1 cent below the revised October figure.

The preliminary estimate for the refiner acquisition cost of imported crude during November was \$15.04 per barrel, 38 cents above the October price. This increase reflects price adjustments following the October 1 OPEC price increase.

The preliminary estimate for the composite cost of crude petroleum purchased by refiners during November, at \$11.05 per barrel, was 20 cents higher than the revised October figure.

NATURAL GAS

The average price of natural gas sold to residential customers for heating use increased during December by 3.9 cents to 166.2 cents per thousand cubic feet.

UTILITY FOSSIL FUELS

The national average cost of fossil fuels delivered to utilities during September was 103.7 cents per million Btu, 0.1 cent below

the cost in August. For the second consecutive month, the Middle Atlantic region experienced the largest regional fuel cost decrease (11.8 cents per million Btu). This decrease occurred as a result of a continuing shift to coal use from oil and because of declines in the costs of both coal and residual fuel.

The national average cost of coal in September remained unchanged from the previous month. The only substantial regional price fluctuation occurred in New England, where a decrease of 6.9 cents per million Btu occurred; this, however, affected only a small percentage of coal used by utilities. Both contract and spot prices increased slightly in September by 11 cents and 7 cents per ton, respectively.

The national average cost of residual fuel declined by 0.3 cent to 200.5 cents per million Btu. The most significant regional decreases, in terms of the volume of purchases affected, occurred in New England, the Middle Atlantic region, and the South Atlantic region, where decreases of 4.7, 8.1, and 2.3 cents per million Btu, respectively, were reported.

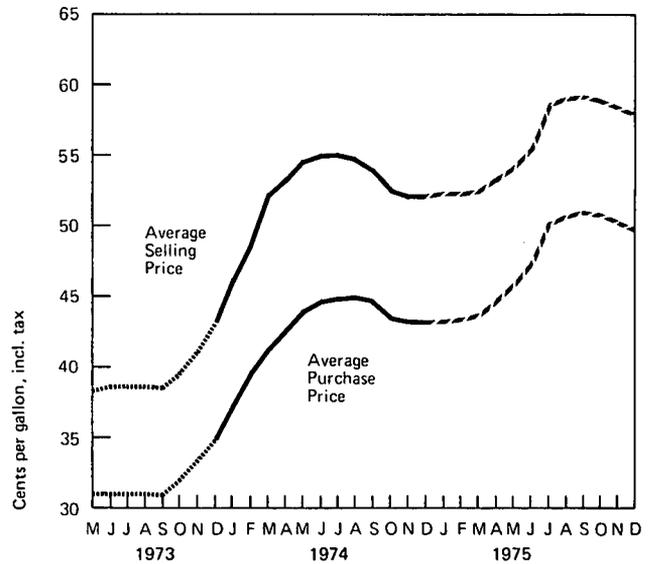
The national average cost of natural gas delivered to utilities continued a gradual upward trend, rising 4.7 cents to 83.8 cents per million Btu during September. The two largest utility gas consuming regions, the West South Central and the Pacific, reported cost advances of 2.2 and 4.1 cents per million Btu, respectively.

Motor Gasoline

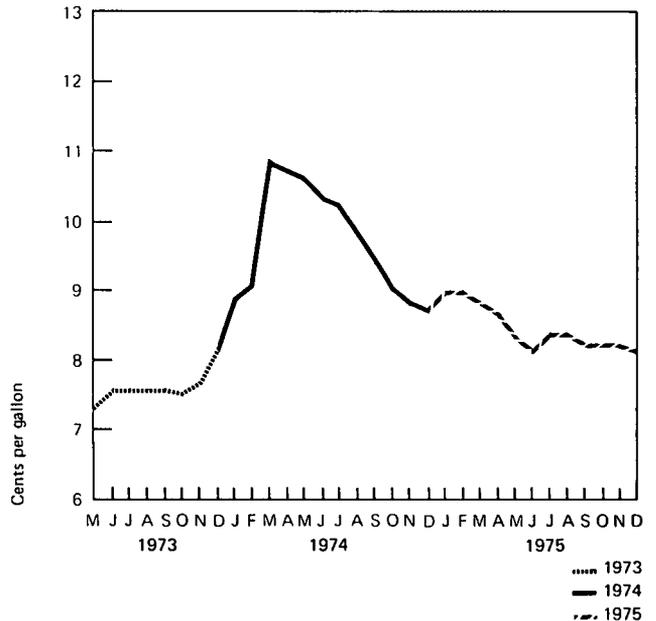
Regular Gasoline at Full Service Retail Outlets

		Average Selling Price	Average Purchase Price	Average Dealer Margin
Cents per gallon, including tax*				
1973	January	37.3	30.5	6.8
	February	36.8	30.1	6.7
	March	37.9	30.8	7.1
	April	38.3	31.0	7.3
	May	38.5	31.2	7.3
	June	38.8	31.2	7.6
	July	38.8	31.2	7.6
	August	38.8	31.2	7.6
	September	38.7	31.1	7.6
	October	39.7	32.2	7.5
	November	41.3	33.6	7.7
	December	43.3	35.1	8.2
AVERAGE	39.0	31.6		
1974	January	46.3	37.4	8.9
	February	48.8	39.7	9.1
	March	52.3	41.4	10.9
	April	53.4	42.7	10.7
	May	54.7	44.1	10.6
	June	55.1	44.8	10.3
	July	55.2	45.0	10.2
	August	54.9	45.1	9.8
	September	54.2	44.8	9.4
	October	52.4	43.4	9.0
	November	52.0	43.2	8.8
	December	52.0	43.3	8.7
AVERAGE	52.8	43.1		
1975	January	52.4	43.4	9.0
	February	52.5	43.5	9.0
	March	52.6	43.8	8.8
	April	53.5	44.9	8.6
	May	54.3	46.0	8.3
	June	55.6	47.5	8.1
	July	58.7	50.3	8.4
	August	59.2	50.8	8.4
	September	59.3	51.1	8.2
	October	58.9	50.7	8.2
	November	58.4	50.2	8.2
	December	58.0	49.9	8.1

Average Retail Prices For Regular



Average Margins For Regular



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

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

Average Selling Prices at Major and Independent Retail Outlets – December 1975

	Cents per gallon, including tax		Cents per gallon, including tax
Regular Gasoline-Full Service		Regular Gasoline-Self Service	
Major	58.8	Major	55.8
Independent	53.9	Independent	52.6
National Average	58.0	National Average	54.9
Premium Gasoline-Full Service		Premium Gasoline-Self Service	
Major	63.6	Major	60.9
Independent	58.1	Independent	56.7
National Average	62.9	National Average	59.7
Diesel Fuel-Truck Stops*		Diesel Fuel-Service Stations*	
Major	53.9	Major	53.8
Independent	49.3	Independent	51.3
National Average	51.7	National Average	52.4

*See Explanatory Note 14.
Source: Lundberg Survey, Inc.

Average Margins for Major and Independent Retail Dealers – December 1975

	Cents per gallon		Cents per gallon
Regular Gasoline-Full Service		Regular Gasoline-Self Service	
Major	8.4	Major	5.4
Independent	6.4	Independent	5.0
National Average	8.1	National Average	5.3
Diesel Fuel-Truck Stops*		Diesel Fuel-Service Stations*	
Major	6.7	Major	6.2
Independent	4.3	Independent	7.1
National Average	5.3	National Average	6.7

*See Explanatory Note 14.
Source: Lundberg Survey, Inc.

Average Regional Retail Selling Prices and Dealer Margins for Regular Gasoline at Full Service Retail Outlets – December 1975

FEA Region	Selling Price	Margin
	Cents per gallon, including tax	
1A New England	57.4	8.3
1B Mid Atlantic	59.6	7.8
1C Lower Atlantic	58.6	8.3
2 Mid Continent	57.7	7.4
3 Gulf Coast	55.3	9.1
4 Rock Mountain	58.8	9.6
5 West Coast	59.6	8.6
NATIONAL AVERAGE	58.0	8.1

Source: Lundberg Survey, Inc.

Motor Gasoline (Continued)

Retail Gasoline Price Changes for 21 Leading Refiners During December 1975 and Entitlement Position* During November

Company	Effective Date of Change	Amount of Change	Entitlement Position (November)
		Cents per gallon	
Amerada Hess		None	Seller
American Petrofina		None	Seller
Ashland	December 17	-1.00 Atlanta, Balt., Pitts., Buff., Clev.; -0.50 Chicago	Seller
Atlantic Richfield		None	Seller
B.P.		None	Seller
Cities Service		None	Buyer
Champlin	December 3	-1.00	Buyer
Continental	December 5	-1.00	Buyer
Exxon		None	Buyer
Getty		None	Seller
Gulf		None	Buyer
Kerr-McGee		None	Buyer
Mobil		None	Buyer
Phillips	December 6	-1.00	Seller
Shell		None	Buyer
Standard Oil of California		None	Seller
Standard Oil of Indiana		None	Buyer
Standard Oil of Ohio		None	Seller
Sun		None	Buyer
Texaco	December 3	-1.00	Seller
Union Oil of California		None	Buyer

*See definitions.

Source: FEA.

Jobber Prices for Regular Gasoline Sold by 21 Leading Refiners

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

Source: FEA.

Heating Oil

Retail Heating Oil Price Changes for 21 Leading Refiners During December 1975

Company	Effective Date	Amount of Change
		Cents per gallon
Amerada Hess		None
American Petrofina	December 9	2.00
Ashland		None
Atlantic Richfield		None
B.P.		None
Cities Service		None
Champlin	December 3	-1.00
Continental		None
Exxon		None
Getty		None
Gulf	December 10	-1.00
Kerr-McGee		None
Mobil		None
Phillips	December 6	1.00
Shell		None
Standard Oil of California		None
Standard Oil of Indiana		None
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California		None

Source: FEA.

Residential Heating Oil Prices

		Average Selling Price	Average Purchase Price	Average Dealer Margin
In cents per gallon				
1974	January	31.1	23.4	7.7
	February	32.8	25.4	7.4
	March	33.8	25.9	7.9
	April	34.0	25.9	8.1
	May	35.1	26.8	8.3
	June	35.3	27.5	7.8
	July	35.2	28.1	7.1
	August	35.8	28.1	7.7
	September	36.3	28.7	7.6
	October	35.6	28.9	6.7
	November	37.9	29.1	8.8
	December	36.9	28.5	8.4
	AVERAGE	34.7	26.9	
1975	January	37.4	29.1	8.3
	February	37.0	28.7	8.3
	March	36.6	28.4	8.2
	April	36.1	29.3	6.8
	May	36.7	30.0	6.7
	June	36.1	30.3	5.8
	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

Source: FEA.

5 Residential Heating Oil Prices by Region

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

NA=Not available.
Source: FEA.

Heating Oil (Continued)

Average Distributor Purchase Prices for Heating Oil by Region

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

NA=Not available.

Source: FEA.

Crude Oil

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
	October	66	14	8	12
	November	67	13	8	12
	December	66	14	8	12
	AVG.	64	15	9	12
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

*Total does not add to 100 due to rounding.

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	10.10
	October	5.25	10.74
	November	5.25	10.90
	December	5.25	11.08
	AVG.	5.25	10.13
1975	January	5.25	11.28
	February	5.25	11.39
	March	5.25	11.47
	April	5.25	11.64
	May	5.25	11.69
	June	5.25	11.73
	July	5.25	12.30
	August	5.25	12.38
	September	5.25	12.46
	October	5.25	12.73
	November	5.25	**12.89

Total Unrecouped Costs* for all Refined Products for 30 Largest Refiners

	Billions of dollars
**1975 January	1.3
February	1.4
March	1.4
April	1.6
May	1.5
June	1.2
July	1.0
August	1.2
September	1.3
October	1.1
November	1.4

*See definitions.

**January through October figures are revised

Source: FEA.

*See Explanatory Note 15.

**Preliminary figure based on early reports.

Source: FEA.

Refiner Acquisition Cost of Crude Petroleum*

		Domestic**	Imported	Composite
Dollars per barrel				
1974	January	6.72	9.59	7.46
	February	7.08	12.45	8.57
	March	7.05	12.73	8.68
	April	7.21	12.72	9.13
	May	7.26	13.02	9.44
	June	7.20	13.06	9.45
	July	7.19	12.75	9.30
	August	7.20	12.68	9.17
	September	7.18	12.53	9.13
	October	7.26	12.44	9.22
	November	7.46	12.53	9.41
	December	7.39	12.82	9.28
	AVERAGE	7.18	12.52	9.07
1975	January	7.78	12.77	9.48
	February	8.29	13.05	10.09
	March	8.38	13.28	9.91
	April	8.23	13.26	9.83
	May	8.33	13.27	9.79
	June	8.33	14.15	10.33
	July	8.37	14.03	10.57
	August	8.48	14.25	10.81
	September	8.49	14.04	10.79
	October	R8.68	14.66	R10.85
	November	***8.67	***15.04	***11.05

*See Explanatory Note 16.

**See Explanatory Note 15.

***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
	October	13.20	12.53	14.24	12.07	12.12	11.51	12.84	10.95
	November	13.43	12.33	13.45	12.15	12.83	12.15	13.54	11.15
	December	13.08	12.15	14.15	11.63	12.88	11.75	14.59	11.37
1975	January	12.72	12.43	13.30	12.11	12.07	12.07	13.14	11.37
	*February	12.11	12.15	13.52	11.86	12.18	11.94	12.67	11.56
	*March	12.46	12.79	13.94	12.08	12.56	11.78	13.40	11.66
	*April	12.36	12.95	13.71	12.34	12.46	12.16	12.55	11.61
	*May	12.41	12.08	13.71	11.93	12.34	12.27	13.29	11.54
	*June	12.37	11.90	13.73	12.51	12.49	11.93	12.48	11.51
	*July	12.69	12.15	13.98	11.83	12.37	12.08	12.78	11.46
	*August	12.68	12.27	13.85	12.17	12.32	12.10	12.60	11.44
	*September	12.52	12.63	13.75	11.97	12.42	12.17	12.49	11.42
	*October	13.45	13.02	14.00	12.27	13.18	12.64	12.85	12.08
*†November	13.28	14.00	13.81	12.47	13.37	12.88	13.23	12.38	

NA=Not available.

*See Explanatory Note 16.

†Preliminary data.

Source: FEA.

Natural Gas

Natural Gas Prices Reported by Major Interstate Pipeline Companies

		PURCHASES			SALES		
		From Domestic Producers	From Canadian and Mexican Sources	Total Purchases	To Industrial Users*	To Resellers**	Total Sales
		Cents per thousand cubic feet					
1973	December	24.5	47.6	26.3	46.4	52.2	52.3
1974	January	24.3	42.7	25.7	48.1	55.0	55.1
	February	25.4	43.2	26.8	49.8	56.4	56.4
	March	25.7	43.2	27.0	50.8	56.9	56.9
	April	25.8	46.4	27.4	49.3	57.6	57.4
	May	25.7	49.3	27.5	49.9	58.6	57.9
	June	26.0	47.7	27.5	50.8	59.4	58.5
	July	26.3	58.7	28.6	52.5	62.0	61.1
	August	26.1	57.5	28.4	55.2	64.4	63.5
	September	27.3	58.8	29.5	54.7	65.2	64.3
	October	27.5	58.9	29.9	56.3	64.4	64.0
	November	28.5	70.9	31.7	58.7	66.8	66.6
	December	32.6	74.5	35.8	60.3	67.2	67.4
1975	January	29.8	104.0	35.2	67.6	71.1	71.4
	February	29.5	105.8	35.2	70.1	74.1	74.4
	March	31.6	102.5	37.0	70.4	77.8	77.9
	April	32.9	102.8	38.3	71.1	82.3	81.9
	May	34.7	100.6	39.8	71.1	83.7	82.8
	June	35.3	98.3	40.2	72.2	85.2	84.0
	July	36.9	101.1	41.8	73.9	84.7	83.6
	August	35.5	141.0	43.3	73.4	85.6	84.3
	September	36.5	141.2	44.5	72.8	85.9	84.6

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

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

Source: Federal Power Commission.

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

		Price
		In cents per thousand cubic feet
1974	January	113.3
	February	115.2
	March	116.9
	April	118.2
	May	119.9
	June	120.3
	July	122.0
	August	124.2
	September	125.6
	October	127.4
	November	131.4
	December	134.2
1975	January	137.9
	February	141.3
	March	142.7
	April	147.1
	May	150.1
	June	152.1
	July	151.1
	August	151.8
	September	155.7
	October	156.3
	November	162.3
	December	166.2

Source: Bureau of Labor Statistics.

Utility Fossil Fuels

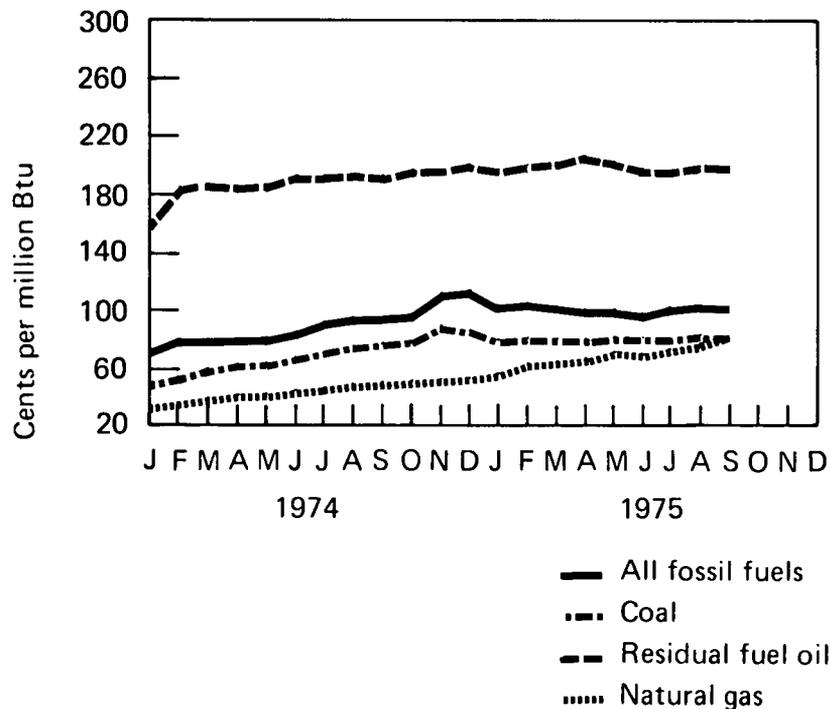
COST OF FOSSIL FUELS DELIVERED TO STEAM-ELECTRIC UTILITY PLANTS

All Fossil Fuels*

Region	1974					1975							
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
New England	191.6	192.6	198.7	196.6	193.6	198.8	192.2	196.3	190.5	192.7	189.5	188.0	182.9
Middle Atlantic	137.5	139.1	170.7	181.6	145.2	147.1	141.3	138.3	138.5	140.4	154.5	144.5	132.7
East North Central	82.5	84.6	102.0	100.9	86.6	85.6	86.9	86.6	87.4	87.5	89.2	90.1	88.2
West North Central	51.0	50.0	60.0	63.3	63.5	69.0	85.5	64.5	60.3	62.8	63.0	62.7	63.9
South Atlantic	132.3	128.4	144.3	144.2	125.1	120.2	120.4	120.4	120.1	122.5	126.8	125.2	124.4
East South Central	69.7	75.2	86.7	86.4	79.4	83.1	83.0	83.0	84.8	85.3	86.2	84.5	85.2
West South Central	52.1	53.7	58.0	57.5	59.8	67.4	68.9	70.0	72.9	71.2	76.0	77.5	79.1
Mountain	45.0	47.8	45.8	46.8	54.6	62.9	54.5	51.7	52.1	50.9	51.8	50.4	55.0
Pacific	127.3	132.8	157.7	191.3	190.0	194.4	196.3	209.7	187.3	154.5	147.1	171.3	174.5
NATIONAL AVG.	95.9	97.7	111.3	114.7	104.3	106.4	104.2	101.5	101.0	99.3	102.5	103.8	103.7

*See Explanatory Note 17.

National Average



Coal													
Cents per million Btu													
Region	1974					1975							
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
New England	93.9	110.3	108.0	93.5	113.0	134.8	126.9	135.4	125.7	116.5	119.2	127.3	120.4
Middle Atlantic	95.2	94.6	117.4	114.4	99.1	104.7	99.7	98.2	101.7	101.6	105.5	103.8	98.6
East North Central	78.1	79.5	95.0	92.2	80.0	78.4	79.3	80.4	82.0	82.4	82.3	84.3	83.4
West North Central	50.5	48.7	57.0	56.0	56.7	57.9	59.4	60.9	57.7	58.9	60.8	60.7	61.3
South Atlantic	114.5	112.6	126.8	125.8	102.3	97.0	97.4	100.8	98.8	98.4	101.6	101.4	102.4
East South Central	64.1	69.7	77.8	80.7	76.3	79.5	80.1	80.1	81.5	80.5	79.5	79.1	80.8
West South Central	17.7	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0	24.0
Mountain	25.1	26.7	28.3	26.4	27.9	30.6	32.0	30.3	31.1	31.0	33.1	32.2	32.8
Pacific	39.0	38.5	38.6	38.5	38.4	57.7	57.2	56.8	57.0	58.4	58.2	58.8	58.9
NATIONAL AVG.	79.1	80.9	90.3	88.9	80.9	81.7	80.6	80.5	81.8	81.4	80.8	82.1	82.1

Residual Fuel Oil*													
Cents per million Btu													
Region	1974					1975							
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
New England	199.8	202.0	207.5	207.5	202.5	204.1	204.3	202.9	200.1	201.7	196.3	192.6	187.9
Middle Atlantic	200.7	205.4	205.7	211.5	202.7	204.1	204.4	203.2	200.1	201.5	200.4	199.3	191.2
East North Central	161.5	161.3	167.1	164.6	144.9	165.0	163.4	183.1	157.0	168.3	185.2	191.7	205.9
West North Central	182.6	179.5	190.7	190.6	189.6	182.3	171.5	167.8	163.9	165.5	161.1	157.5	150.3
South Atlantic	179.3	183.3	182.2	182.2	180.9	181.6	186.8	188.9	187.7	189.3	185.4	183.8	181.5
East South Central	173.9	171.8	167.9	172.0	174.0	171.6	163.4	159.7	161.0	165.5	167.8	175.0	174.4
West South Central	108.8	186.0	179.7	171.7	177.1	178.2	175.8	191.5	177.7	182.0	186.2	185.2	174.4
Mountain	186.7	185.0	185.1	180.0	192.3	192.4	190.3	206.0	198.0	199.0	209.1	221.3	223.7
Pacific	222.3	223.8	219.5	233.0	223.6	235.0	241.1	261.1	260.6	245.6	253.8	258.1	257.9
NATIONAL AVG.	194.3	198.2	198.9	202.1	197.7	202.0	204.8	209.3	205.6	200.0	198.9	200.8	200.5

Natural Gas													
Cents per million Btu													
Region	1974					1975							
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
New England	132.5	NA	NA	NA	NA	NA	97.1	112.4	110.8	121.7	122.1	154.1	137.7
Middle Atlantic	80.5	64.8	70.0	64.3	86.1	84.5	82.4	101.7	98.3	92.7	91.2	87.6	87.6
East North Central	84.3	83.3	80.3	93.9	91.0	92.7	93.0	105.5	120.8	111.6	103.4	104.6	114.0
West North Central	43.8	43.0	44.8	42.3	43.6	43.8	51.5	54.5	58.6	58.1	59.2	56.9	57.8
South Atlantic	55.8	58.5	60.2	64.7	60.3	68.5	72.6	70.2	71.2	72.2	68.9	69.7	76.4
East South Central	71.2	74.3	76.9	87.8	76.2	79.5	82.2	82.7	76.4	77.0	91.0	95.9	110.3
West South Central	46.0	47.8	51.5	52.2	55.6	63.0	64.5	67.0	71.3	69.2	72.7	75.7	77.9
Mountain	52.1	55.7	56.6	70.7	66.9	66.7	63.7	67.4	68.1	69.6	71.8	71.1	78.6
Pacific	64.7	65.9	64.0	68.4	83.2	83.6	80.5	90.1	82.4	84.1	89.7	111.1	115.2
NATIONAL AVG.	52.4	53.2	54.0	55.0	58.2	65.2	66.4	68.9	72.6	71.3	74.8	79.1	83.8

NA=Not available.

*See Explanatory Note 17.

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

Source: Federal Power Commission.

Utility Fossil Fuels (Continued)

U.S. Average Delivered Prices of Coal at Utilities

		Contract	Spot
In dollars per short ton			
1973	January	8.09	9.91
	February	8.31	10.01
	March	8.42	10.07
	April	8.43	10.44
	May	8.51	10.24
	June	8.62	10.43
	July	8.44	10.40
	August	8.45	10.44
	September	8.71	10.67
	October	8.86	11.24
	November	9.13	12.05
	December	9.19	13.34
1974	January	9.83	17.02
	February	10.40	20.57
	March	10.63	22.54
	April	11.28	23.70
	May	11.80	24.21
	June	11.87	25.84
	July	12.05	27.99
	August	12.50	28.87
	September	12.89	30.64
	October	13.30	30.67
	November	14.16	31.95
	December	14.20	31.05
1975	January	14.57	28.12
	February	15.71	25.93
	March	15.68	25.02
	April	15.88	24.52
	May	16.45	23.78
	June	16.40	23.36
	July	16.06	22.35
	August	16.65	22.39
	September	16.76	22.46

PETROLEUM CONSUMPTION

November 1975 petroleum consumption figures are available only for three of the nations belonging to the International Energy Agency (United States, France, and Italy). Each of these countries showed a decline in consumption compared with the level for November 1974, reflecting the influences of both conservation efforts and economic recession.

CRUDE OIL PRODUCTION

World crude oil production increased 1.8 million barrels per day in November to 53.3 million barrels per day. However, this amount was still about 2 million barrels per day less than the average for 1973 and 1974, and almost 4 million barrels per day below the pre-crisis level of September 1973. Most of the November increase was due to stepped-up production in the Arab OPEC countries of Saudi Arabia, Kuwait, the United Arab Emirates, and Libya.

Petroleum Consumption

Petroleum Consumption for Major Free World Industrialized Countries

		Total IEA*	Japan**	West Germany	France***	United Kingdom	Canada	Italy†	Other IEA††	
In thousands of barrels per day										
1973	Jan	35,100	4,121	2,868	2,743	2,315	1,667	1,781	3,681	
	Feb	36,800	4,532	2,850	2,687	2,313	1,747	1,866	4,551	
	Mar	33,500	4,450	2,707	2,528	2,271	1,584	1,710	3,585	
	Apr	31,000	4,008	2,809	2,296	2,038	1,431	1,420	3,371	
	May	30,900	3,822	2,546	1,890	1,939	1,486	1,285	3,219	
	June	30,600	3,950	2,674	1,685	1,697	1,474	1,255	3,079	
	July	29,600	3,783	2,196	1,566	1,637	1,490	1,303	2,855	
	Aug	31,600	3,790	2,738	1,495	1,615	1,557	1,255	3,232	
	Sept	31,000	3,813	2,618	1,932	1,727	1,427	1,462	3,333	
	Oct	33,600	4,212	2,969	2,482	2,150	1,680	1,610	3,777	
	Nov	35,200	4,562	2,883	2,593	2,258	1,801	1,551	3,653	
	Dec	33,700	4,716	2,481	2,768	1,906	1,828	1,698	3,533	
		AVG.	32,692	4,144	2,693	2,219	1,974	1,597	1,525	3,482
1974	Jan	33,200	4,273	2,556	2,523	2,045	1,823	1,755	3,478	
	Feb	33,200	4,708	1,969	2,389	2,127	1,863	1,751	3,411	
	Mar	31,200	4,508	2,173	2,249	2,133	1,658	1,621	3,062	
	Apr	30,200	3,804	2,539	1,970	1,899	1,560	1,396	3,083	
	May	29,600	3,718	2,403	1,915	1,704	1,572	1,349	3,134	
	June	29,600	3,710	2,414	2,103	1,545	1,455	1,290	3,010	
	July	29,900	3,573	2,548	1,703	1,531	1,534	1,368	3,045	
	Aug	30,100	3,787	2,476	1,506	1,513	1,463	1,237	3,078	
	Sept	30,600	3,868	2,473	1,996	1,663	1,414	1,487	3,701	
	Oct	32,300	3,843	2,613	2,045	2,049	1,680	1,536	3,554	
	Nov	32,600	4,086	2,432	2,260	2,108	1,713	1,587	3,459	
	Dec	33,700	4,401	2,261	2,492	1,983	1,831	1,707	3,520	
		AVG.	31,341	4,019	2,408	2,094	1,857	-1,630	1,521	3,294
1975	Jan	32,900	3,850	2,183	2,185	1,993	1,691	1,725	3,475	
	Feb	33,000	4,242	2,455	2,238	1,913	1,870	1,737	3,535	
	Mar	30,300	3,978	2,234	1,948	1,773	1,558	1,482	R2,959	
	Apr	30,200	R3,448	2,431	2,202	1,872	1,592	1,403	R3,413	
	May	27,700	R3,296	2,253	1,640	1,488	1,474	1,171	R2,900	
	June	28,200	R3,325	2,106	1,643	1,404	1,550	1,194	R3,010	
	July	28,300	R3,437	2,319	1,483	1,324	1,536	1,135	R2,787	
	Aug	28,600	3,397	2,360	1,294	1,200	1,445	1,021	R3,410	
	Sept	NA	R3,573	2,309	1,776	1,474	1,475	1,341	NA	
	Oct	NA	3,626	2,328	1,895	1,690	1,544	1,613	NA	
	Nov	NA	NA	NA	2,073	NA	NA	1,588	NA	
		AVG.	29,867	3,613	2,296	1,848	1,610	1,569	1,398	R3,182
		(through last avail- able date)								

Note: All recent figures are estimates.

*The 18 signatory nations of the International Energy Agency (IEA) are: Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Except for the United States, inland consumption excludes bunkers, refinery fuel, and losses.

**Excludes liquefied petroleum gases and condensates.

***Not a member of IEA.

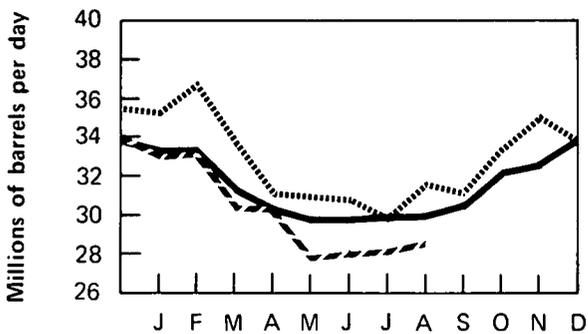
†Principal products only.

††Excludes the United States.

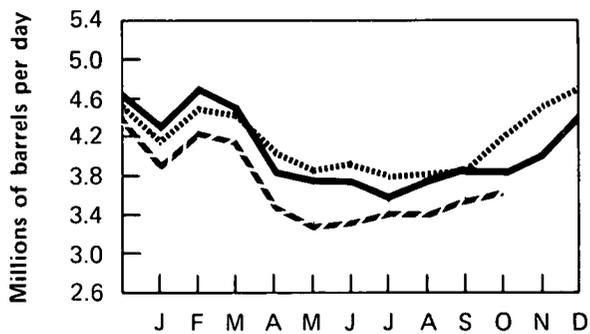
NA=Not available.

Source: Central Intelligence Agency.

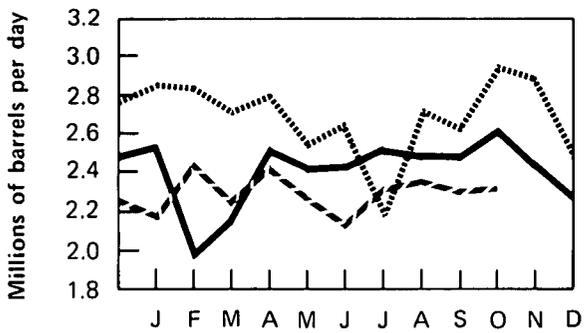
Total IEA



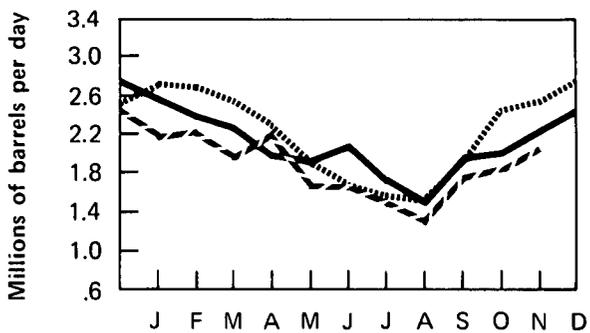
Japan*



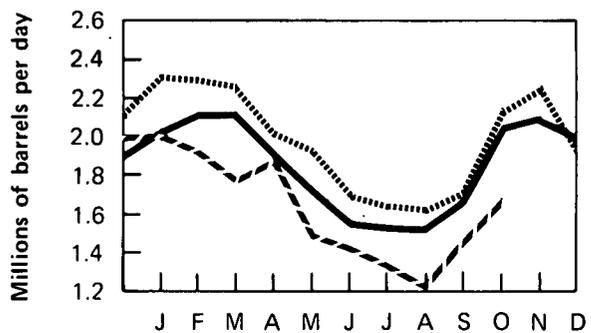
West Germany



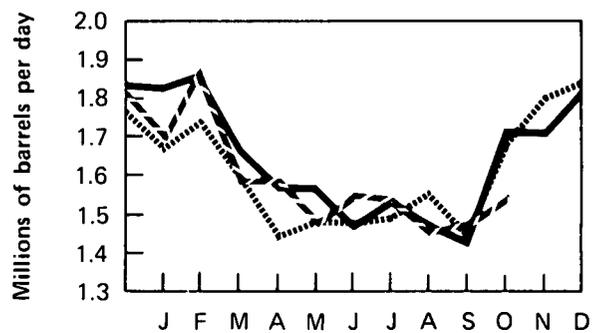
France**



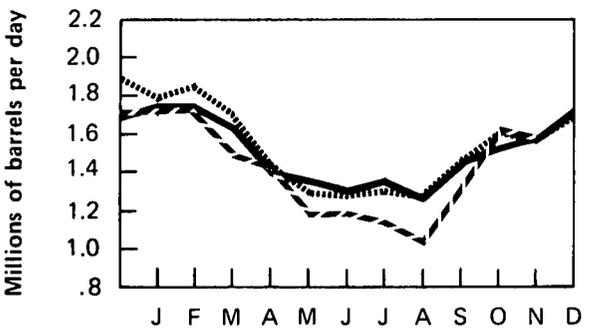
United Kingdom



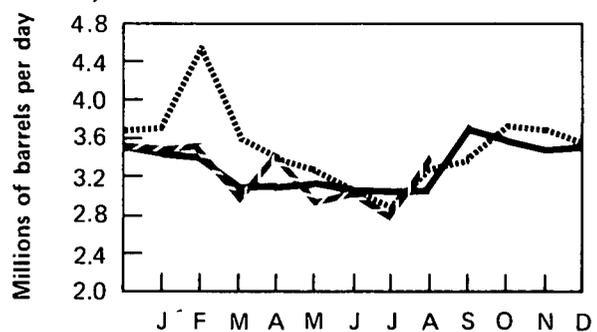
Canada



Italy***



Other IEA†



*Excludes liquefied petroleum gases and condensates.
 **Not a member of IEA.
 ***Principal products only.
 †Excludes the United States.

..... 1973
 ——— 1974
 - - - 1975

Crude Oil Production

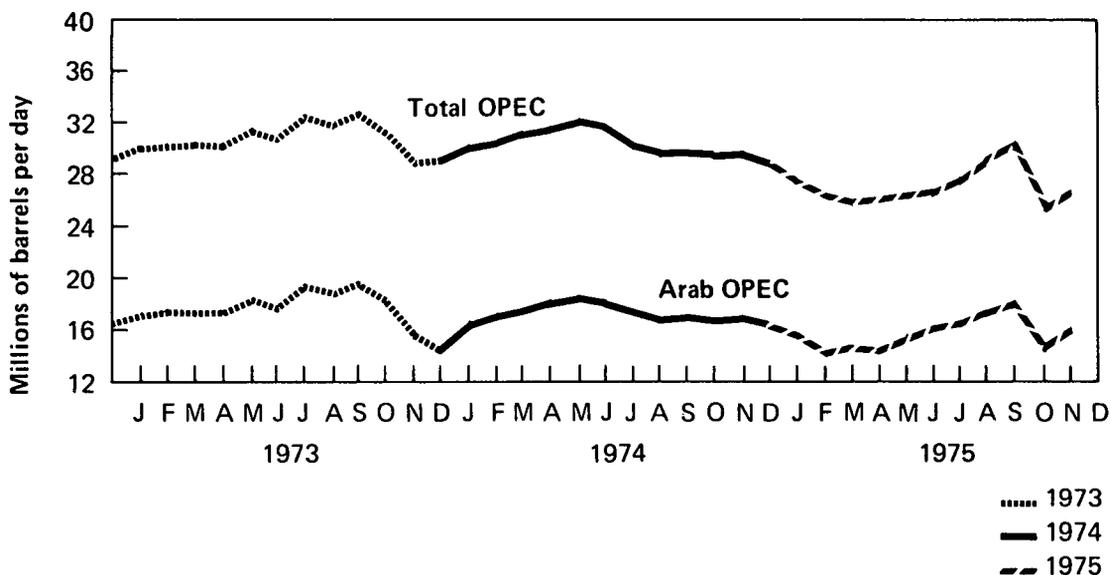
Crude Oil Production for Major Petroleum Exporting Countries – November 1975

Country	Production				Production Capacity	Production Shut in
	1973	1974	1975 (11 months)	November	November	November
	In thousands of barrels per day					In percent
Algeria	1,070	940	921	950	1,000	5.0
Iraq	1,964	1,820	2,270	2,130	3,000	29.0
Kuwait*	3,024	2,550	2,081	1,790	3,500	48.9
Libya	2,187	1,520	1,487	1,840	2,500	26.4
Qatar	570	520	460	560	700	20.0
Saudi Arabia*	7,607	8,480	7,029	6,950	11,500	39.6
United Arab Emirates	1,518	1,680	1,682	2,040	2,340	12.8
Subtotal: Arab OPEC	17,940	17,510	15,930	16,260	24,540	33.7
Ecuador	204	160	163	200	250	20.0
Gabon	147	180	207	200	250	20.0
Indonesia	1,339	1,380	1,288	1,240	1,700	27.1
Iran	5,861	6,040	5,395	5,000	6,800	26.5
Nigeria	2,053	2,260	1,767	1,950	2,500	22.0
Venezuela	3,364	2,970	2,294	2,050	3,000	31.7
Subtotal: Non-Arab OPEC	12,968	12,990	11,114	10,640	14,500	26.6
Total: OPEC	30,908	30,500	27,044	26,900	39,040	31.1
Canada	1,798	1,695	1,450	1,490	2,016	26.1
Mexico	465	580	704	800	840	4.8
Total: OPEC, Canada Mexico	33,171	32,775	29,198	27,190	41,896	35.1
Total World	55,715	55,855	53,107	53,340		

*Includes about one-half of Neutral Zone production which amounted to approximately 510,000 barrels per day in November.

Source: Central Intelligence Agency.

OPEC Countries Crude Oil Production



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.

Branded Independent Marketer

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

Ceiling Price

The maximum permissible selling price 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 Demand for Refined Petroleum Products

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

Domestic Uncontrolled 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.

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 purchase "old" oil. A refiner must purchase entitlements for the amount of "old" oil he processes in excess of the national "old" oil supply ratio, defined as total "old" oil purchases by refiners as a percent of total crude runs to stills.

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.

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.

Major Brand

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

Motor Gasoline Production

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

Motor Gasoline Stocks

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

Natural Gas Liquids (NGL)

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

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.

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 Oil

Same as controlled crude oil.

Power Ascension Nuclear Powerplant

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

Primary Stocks of Refined Petroleum Products

Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary storage

facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

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.

Separative Work Unit (SWU)

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

Stripper Well Lease

A property 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 year.

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.

Total Refined Petroleum Products Imports

Imports of motor gasoline, naphtha-type jet fuel, kerosine-type jet fuel, liquefied petroleum gases, kerosine, distillate fuel oil, residual fuel oil, petro-chemical 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 FEA Office of Oil Imports.

Unrecouped Costs

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

Well

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

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas (wet), and coal (anthracite, bituminous, and lignite), as well as electricity output from hydroelectric and nuclear powerplants and industrial hydroelectric power production.

The volumetric data were converted to approximate heat contents (Btu-values) of the various energy sources using conversion factors listed in the Units of Measure.

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

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 imports of electric power. Approximate heat contents (Btu-values) were derived using conversion factors listed in the Units of Measure. Electricity imports were converted using the Btu-content of hydroelectric power. 1975 electricity imports were estimated on the basis of imports levels during 1974.

4. Graphic presentations of petroleum volumetric data show Bureau of Mines (BOM) figures for 1973 through September 1975 and FEA (or API) figures for October 1975 forward. FEA monthly data for May 1974 through March 1975 were based on the *Weekly Petroleum Statistics Report* which presented 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. In April 1975, the FEA weekly report was replaced by the *Monthly Petroleum Statistics Report* which presents essentially the same data on a monthly basis.

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. Beginning in December 1974, however, BOM data reflect the inclusion of approximately 100 additional bulk terminals in the coverage of primary stocks, bringing the data base for the 2 series into closer agreement.

In the current issue, cumulative 1973 and 1974 petroleum data presented in the text are based on BOM figures. Discussions of cumulative 1975 data are based on BOM figures for January through September and FEA (or API) figures for October forward.

5. 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 (1974 data base).

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

7. 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.

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

Bituminous coal and lignite production is calculated from the number of railroad cars loaded at mines, based

on the assumption that approximately 60 percent of the coal produced is transported by rail. Production data are estimated by the Bureau of Mines from Association of American Railroads reports of carloadings.

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

Following the enrichment stage, the same units are used, but the U-235 content has been enhanced at the expense of loss of material. At the fabrication stage, UF_6 is changed to UO_2 , and the standard unit of measure is the MTU. We have chosen to present all uranium quantities as MTU; conversion factors to other units are given in the section on Units of Measure.

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

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

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

11. 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.

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

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

- (1) Normal weather;
- (2) Real GNP growth rate of 8.4 percent for 1976;
- (3) Implementation of the Energy Policy and Conservation Act. Specifically, the composite price of domestic crude oil is set at \$7.66 per barrel beginning February 1976. This price ceiling is allowed to rise by 10 percent per year to account for inflation and other factors;
- (4) Elimination of the \$2.00-per-barrel crude import fee beginning January 1976; and
- (5) OPEC maintains a constant real crude oil price from April 1976 through the end of the forecast interval.

The short-term projections are periodically revised to incorporate observed weather conditions and actual values for macroeconomic and other explanatory variables as they become available. This "revised forecast" is termed the "backcast." In this issue of the *Monthly Energy Review*, the backcast is solved for January 1975 through August 1975. Over this interval, simulated petroleum prices are used in the model.

13. Monthly mileage estimates for 1974 and 1975 are based on the average number of miles traversed per crew day in 1974.

14. Prior to January 1975, diesel fuel prices were obtained from retail gasoline dealers that also sold diesel fuel. Beginning in January 1975, the diesel fuel survey was expanded to include selected truck stops plus additional retail gasoline dealers that sold diesel fuel. Consequently, diesel fuel prices for January 1975 forward are

not exactly comparable to prior data. Selling price estimates are based on a survey of 31 cities. Margins are based on a survey of 10 cities.

15. The domestic crude petroleum wellhead price represents the first sale price for crude oil and lease condensates. 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.

16. 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.

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.

17. 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 *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

Conversion Factors for Uranium

1 short ton (U₃O₈) *contains* 0.769 metric tons of uranium

1 short ton (UF₆) *contains* 0.613 metric tons of uranium

1 metric ton (UF₆) *contains* 0.676 metric tons of uranium

Approximate Heat Content of Various Fuels

Petroleum

Crude Oil 5.800 million Btu/barrel

Refined products

Imports, average 6.000 million Btu/barrel

Consumption, average 5.517 million Btu/barrel

Gasoline 5.248 million Btu/barrel

Jet Fuel, average 5.592 million Btu/barrel

Naphtha-type 5.355 million Btu/barrel

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 4.031 million Btu/barrel

Natural gas

Wet 1,093 Btu/cubic foot

Dry 1,021 Btu/cubic foot

Coal

Bituminous and lignite

Production 24.01 million Btu/short ton

Consumption 23.65 million Btu/short ton

Anthracite 25.40 million Btu/short ton

Electricity Conversion Heat Rates

Fossil fuel steam-electric

Coal 10,176 Btu/kilowatt hour

Gas 10,733 Btu/kilowatt hour

Oil 10,826 Btu/kilowatt hour

Nuclear steam-electric 10,660 Btu/kilowatt hour

Hydroelectric 10,389 Btu/kilowatt hour

Electricity Consumption 3,412 Btu/kilowatt hour

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