

SEARLES

DOE/EIA-0035/10(79)
NTISUB/E/127-010

October 1979

Monthly Energy Review



U.S. Department of Energy
Energy Information Administration

The *Monthly Energy Review* is prepared by the Office of Energy Data, Energy Information Administration, U.S. Department of Energy, under the direct supervision of Sam O. Wood, Jr.

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The cooperation of other government agencies and private establishments which provide data appearing in this publication is gratefully acknowledged.

This periodical is available on a subscription basis from the following beginning October 1, 1979:

U.S. Government Printing Office
Superintendent of Documents
Washington, D.C. 20402

For addresses within the United States the cost is \$23.00 per year (12 issues), or \$33.00 1st class mail. For addresses outside the United States, the cost is \$28.75 per year, or \$41.25 if sent via 1st class carrier. Single copies are available at \$2.50 each in the United States, and \$3.15 each to foreign subscribers.

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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

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September 1976

Crude Oil Entitlements Program—January 1977

Motor Gasoline Supply and Demand—July 1977

Short-Term Petroleum Supply and Demand—
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Three Mile Island — Possible Regulatory Responses and Their Impacts on the Nation's Short-Term Electric Utility Fuel Outlook¹

by Gene Clark, Mark Gielecki, and Barry Roberts
Office of Energy Source Analysis
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Introduction

Nuclear power generation provided approximately 12.5 percent of the Nation's electricity requirements in 1978. Under current law and policy, this percentage is expected to remain constant in 1979 and increase to 14.6 percent in 1980. However, in view of the accident at the Three Mile Island nuclear power station, various legislative and regulatory measures dealing with nuclear power generation are being debated. This article deals with four possible legislative and regulatory nuclear power policy options and analyzes their short-term effects on the level of national nuclear generation, and electric utility system operations and fuel costs in the 1979 to 1980 time period. This article presents, therefore, only the alternative fuel use implications of possible nuclear cutbacks. It does not address the important questions of electric reliability or the potential for insufficient power in periods of peak demand which would have to be considered on a regional basis, in a comprehensive assessment of public policy options.

Nuclear Power Availability Scenarios

This article presents four different levels of nuclear energy availability to the Nation's electrical grid. Each level corresponds to a set of assumptions which represents one of the policy options under investigation. The nuclear generation projections presented in this article are based on the use of a nuclear generation simulation model, the Short-Term Nuclear Annual Power Production Simulator.²

Case A

The highest level of nuclear power availability considered arises from the assumption that no licensing or other moratoria are in effect through the short term, except for a 3-month Nuclear Regulatory Commission (NRC) moratorium on all new licenses. This NRC policy was announced at the end of May to determine an appropriate generic regulatory response to the March 1979 accident at the Three Mile Island (TMI) nuclear power station.³

Case B

This is the case of pressurized water reactor (PWR) retrofits. In addition to the conditions of Case A, the PWR Retrofit Case assumes that all PWR's will be required by NRC to shut down for 4 months sometime prior to the end of 1980 in order to institute instrumentation and control room improvements which may be indicated by the yet-to-be-completed TMI accident investigation. The 4-month period is an assumed duration for the required retrofit time. Such time is also assumed in this analysis to be coincident with a normal 2-month refuelling period. Thus, the assumed retrofit time is simply an increment of about 2 months over a normal refuelling time.

Case C

This is the case of a new operating license moratorium. This case incorporates the same assumptions as Case B, but also assumes that no new operating licenses will be granted by the NRC until the State in which the applicant's plant is located has had its State emergency response plan approved. This assumption is consistent with section 203 of H.R. 2608, as amended by the House Committee on Interior and Insular Affairs.⁴ Table 1 delineates the States potentially affected by this assumption as based on the current NRC schedules for prospective approval of response plans.

¹This article is drawn from "An Evaluation of Potential Short-Term Nuclear Availability Levels and Associated Electric Utility Alternate Fuel Use Responses," (AR/ES/79-36, July 1979).

²The analysis methodology is described briefly in the Energy Information Administration *Annual Report to Congress 1978*, Volume 3, Chapter 12.

³On September 6, 1979, NRC officials announced that the Commission would resume processing new license applications, but that no new licenses would be issued until after the President's Commission on the accident at Three Mile Island releases its final report on October 25.

⁴This Amendment was defeated by the House of Representatives on June 18, after this analysis was begun. This case is included for comparison with the other cases.

Table 1. Status of State Emergency Response Plan Approval

States with NRC-approved plans:

Alabama	Connecticut	Iowa	New York
Arkansas	Delaware	Kansas	South Carolina
California	Florida	New Jersey	Washington

States without NRC-approved plans but anticipated to have approval by April 1, 1980:

Colorado	Minnesota	North Carolina	Virginia
Georgia	Nebraska	Ohio	Wisconsin
Maryland			

States anticipated not to have NRC-approval by April 1, 1980:

Illinois	Michigan	Vermont	Rhode Island*
Maine	Oregon	Missouri*	West Virginia*
Massachusetts	Pennsylvania	New Hampshire*	

*States not having operating reactors, but in close proximity to operating nuclear plants in bordering states. These States will also be required to have emergency response plans.

Source: • Office of State Programs, U.S. Nuclear Regulatory Commission (NRC), June 20, 1979.

Case D

This case, which produces the lowest level of nuclear power considered, is similar to the provisions of the "Hart Amendment" to the NRC Authorization Bill (S. 562). Case D assumes that no new operating licenses would be granted in States without NRC-approved emergency response plans and, further, that after April 1, 1980, operating reactors in States without NRC-approved emergency plans would be shut down.⁵

Projections of nuclear power generation that correspond to each of the four cases detailed here are provided in Table 2. They are presented by Federal Region (See Explanatory Note 19, page 107).

Table 2. Projected Nuclear Power Generation by Federal Region

(Billion kilowatt-hours)

											1979	
											Federal Region	
Case A	I	II	III	IV	V	VI	VII	VIII	IX	X	Total U.S.	
Current Law and Policy	23.7	32.9	42.7	75.5	71.3	10.8	9.4	1.1	10.0	11.8	289.2	
Case B												
Pressurized Water Reactor Retrofits	22.4	31.3	40.1	69.3	66.8	9.4	9.1	1.0	8.8	11.2	269.4	
Case C												
New Operating License Moratorium	22.4	28.9	38.1	67.7	66.4	9.4	9.1	1.0	8.0	11.2	262.2	
Case D												
Conditional Moratorium on the Operation of New and Existing Plants	22.4	28.9	38.1	67.7	66.4	9.4	9.1	1.0	8.0	11.2	262.2	
											1980	
Case A (midrange)												
Current Law and Policy	24.6	39.7	52.0	99.5	79.1	11.3	9.8	1.6	19.0	12.3	348.9	
Case B												
Pressurized Water Reactor Retrofits	23.1	37.5	49.1	91.6	74.8	10.5	9.4	1.4	17.0	12.3	326.7	
Case C												
New Operating License Moratorium	23.1	35.6	47.4	88.5	74.1	10.5	9.4	1.4	15.5	12.3	317.8	
Case D												
Conditional Moratorium on the Operation of New and Existing Plants	9.2	35.6	23.1	75.9	36.7	10.0	4.5	1.4	15.5	6.1	218.0	

⁵A provision similar to this amendment was passed by the Senate on July 17, 1979. The approved Senate amendment to the NRC Authorization Bill stipulates that operational plants in states without at least an interim emergency response plan deemed acceptable by the NRC would be shut down after June 1, 1980.

Projected Electric Utility Fuel-Use Response to Different Levels of Nuclear Power Availability

This section analyzes the effect that different levels of nuclear power availability have on the Nation's total electric utility generation and fuel-use requirements for 1979 and 1980.

Caveats and Uncertainties

Short-term projections are subject to a wide range of unexpected events. The occurrence and impact of unanticipated situations such as the Iranian oil supply disruption, for example, can be included in projections only in an *ex post facto* fashion. Also, an adverse hydroelectric situation, such as that caused by drought conditions in the Northwest in 1977, would affect these projections significantly. Finally, under certain conditions, localized electricity shortages, brownouts or blackouts, may occur. Due to the model structure and assumptions used, however, such shortages cannot be identified in this analysis.

Methods of Analysis

Two models are used in this analysis. First, electricity sales are projected on a Federal Region basis using the Short-Term Electricity Demand Forecasting Model. This is an econometric Model that projects regional utility electricity sales to ultimate consumers as a function of assumed electricity prices, personal income, and weather. The 1979 and 1980 projections for sales follow closely the historical trends. The 1979 projected sales growth rate used in this analysis (4.7 percent above 1978) is slightly less than the observed growth rate (5.2 percent on an annualized basis) for the first several months of 1979. Second, a linear-programming economic dispatch model is a short-term version of the electric utility module of the Midterm Energy Market Model (MEMM), and is also structured on a Federal Region basis. Model estimates of electricity generation by fuel are based on daily and seasonal variations in demand, plant capacity, relative plant operating costs, fuel availability, and regulatory constraints.⁶

General Findings

The analysis of the four assumptions concerning nuclear availability shows that oil is the swing fuel in the short term. In Case B, C, and D, oil contributes approximately 70 percent, and coal 30 percent, of the generation needed to offset the deficit in nuclear generation from Case A. The reasons for these relative substitution shares are due to the economic and technical characteristics of electricity generating plants and the amount and type of unused available capacity.⁷ In general, there is sufficient oil- and coal-fired capacity to offset the effects of a nuclear generation cutback. However, due to limitations imposed by the structure of the economic dispatch model used in this analysis, the adequacy of capacity to meet peak power demands has not been examined.

Detailed Case Results

Table 3 provides a summary of the results that follow for 1979 and 1980. In the case-by-case analysis for a given year, changes in electricity fuel use and generation result from different assumptions concerning nuclear availability as described by the four cases detailed in the first section of this article. Annual changes reflect differences in the projected levels of demand, available generating capacity, and nuclear generation, and in legally allowable natural gas consumption (reflecting the Powerplant and Industrial Fuel Use Act of 1978).

Natural gas and oil are substitutes for each other. Some recent projections indicate a short-term increase in natural gas supplies (the so-called "gas bubble"). A portion of the short-term increase could be made available to utilities if there were a relaxation of the natural gas consumption limits imposed on the electric utilities under the Powerplant and Industrial Fuel Use Act (PIFUA). If more gas were used by electric utilities, their reliance on oil would be less than in this analysis which assumed no waivers of the PIFUA provisions.

⁶For further discussion of the methodology and the assumptions associated with the dispatch model, see "An Evaluation of Potential Short-Term Nuclear Availability Levels and Associated Electric Utility Alternate Fuel Use Responses," (AR/ES/79-36, July 1979), pp 16-19.

⁷*Ibid.*, pp. 20-24.

Table 3. Short-Term Effects of Alternative Nuclear Power Cases on Projected Electric Utility Nuclear Generation, Fossil Fuel Consumption, and Fuel Costs

	Change from Case A			
	Case A	Case B	Case C	Case D
	Current Law and Policy	Pressurized Water Reactor Retrofits	New Operating License Moratorium	Conditional Moratorium on the Operation of New and Existing Plants
			1979	
Nuclear Generation (Billion kWh)*	289.2	-19.8	-27.0	-27.0
Coal Consumption (Million tons)	538.8	2.6	3.9	3.9
Oil Consumption (Million barrels)	582.8	24.8	33.0	33.0
Fuel Cost (Billion 1979 dollars)**	\$31.7	\$0.4	\$0.6	\$0.6
			1980	
Nuclear Generation (Billion kWh)*	348.9	-22.2	-31.1	-130.9
Coal Consumption (Million tons)	564.4	3.0	3.9	21.0
Oil Consumption (Million barrels)	570.0	25.5	37.3	155.6
Fuel Cost (Billion 1980 dollars)**	\$36.6	\$0.4	\$0.7	\$3.0

*Kilowatt-hours.

**The fuels included in the fuel cost calculations are uranium, coal, oil, and natural gas. Prices used in the calculations represent the average price of the fuel delivered at the utility plant. These prices are assumed constant with respect to changes in quantity demanded.

Case A: Current Law and Policy

Table 4 provides projected electric utility fuel-use requirements, associated generation by fuel use, and physical unit consumption of coal and oil, in 1979 and 1980, for Case A.

Table 4. Electric Utility Generation and Fuel Use Under Alternative Nuclear Power Availability Assumptions: Case A Projections for 1979 and 1980

Electric Utility Generation (Billion kWh)

	1978* (Actual)	1979	1980
Fossil Fuels			
Coal	975.7	1,103.4	1,147.2
Oil	364.9	336.3	330.8
Natural Gas	305.0	297.2	281.7
Subtotal	1,645.6	1,736.9	1,759.7
Nuclear	276.4	289.2	348.9
Hydro/Other**	283.4	281.9	285.9
Total Generation	2,205.4	2,308.0	2,394.5

Electric Utility Fuel Use (Quadrillion Btu)

	1978*** (Actual)	1979	1980
Fossil Fuels			
Coal	10.37	11.34	11.83
Oil	3.91	3.57	3.49
Natural Gas	3.33	3.19	3.03
Subtotal	17.61	18.10	18.35
Nuclear	2.98	3.19	3.84
Hydro/Other**	3.18	2.93	2.97
Total Input	23.77	24.22	25.16

Electric Utility Consumption in Physical Units (Millions)

	1978* (Actual)	1979	1980
Coal (Tons per year)	480.1	538.8	564.4
Oil (Barrels per year)	657.0	582.8	570.0

*Energy Information Administration, *Annual Report to Congress 1978*, Volume 2.

**Includes geothermal capacity in Federal Region IX.

***Energy Information Administration, *Monthly Energy Review*, April 1979.

Case B: PWR Retrofits

Table 5 presents the electric utility fuel-use and generation projections for 1979 and 1980 using the Case B assumptions, but with all other factors (electricity supplied, refueling time, etc.) remaining the same as in the projections for Case A. Table 5 shows that, if pressurized water reactors were shut down an additional 2 months for retrofitting, nuclear generation would decrease by 7 percent (from 289.2 billion to 269.4 billion kWh) in 1979, and by 6 percent (from 348.9 billion to 326.7 billion kWh) in 1980.

This deficit in nuclear generation is projected to be offset by a slight increase in coal consumption and, in large part, by increased oil consumption. Specifically, coal consumption increases in physical units by less than 1 percent in 1979 and 1980. Oil consumption increases by approximately 4 percent in 1979 and 1980. Table 3 shows that the Case B assumptions would add about \$400 million to the electric utility bill in 1979 and 1980 above that of Case A.

**Table 5. Electric Utility Generation and Fuel Use
Under Alternative Nuclear Power Availability Assumptions:
Comparison of Projections for 1979 and 1980**

Electric Utility Generation (Billion kWh)

	1979		1980	
	Case A	Case B	Case A	Case B
Fossil Fuels				
Coal	1,103.4	1,109.5	1,147.2	1,154.0
Oil	336.3	350.5	330.8	345.2
Natural Gas	297.2	297.0	281.7	281.6
Subtotal	1,736.2	1,757.0	1,759.7	1,780.8
Nuclear	289.2	269.4	348.9	326.7
Hydro/Other*	281.9	281.7	285.9	287.1
Total Generation	2,308.0	2,308.1	2,394.5	2,394.6

Electric Utility Fuel Use (Quadrillion Btu)

Fossil Fuels				
Coal	11.34	11.40	11.83	11.89
Oil	3.57	3.73	3.49	3.65
Natural Gas	3.19	3.19	3.03	3.03
Subtotal	18.10	18.32	18.35	18.57
Nuclear	3.19	2.97	3.84	3.61
Hydro/Other*	2.93	2.93	2.97	2.99
Total Input	24.22	24.22	25.16	25.17

Electric Utility Consumption in Physical Units (Millions)

Coal (Tons per year)	538.3	541.4	564.4	567.4
Oil (Barrels per year)	582.8	607.6	570.0	595.5

*Includes geothermal capacity in Federal Region IX.

Case C: New Operating License Moratorium

Table 6 presents the electric utility fuel-use and generation projections for 1979 and 1980 for Case C. In addition to the Case B assumptions, Case C assumes that no new nuclear operating licenses will be granted by the NRC until the State in which the applicant's plant is located has had its State emergency response plan approved. Nuclear generation in this case decreases by 9 percent in 1979 and 1980 from the levels projected under the business-as-usual Case A estimates. Coal consumption is projected to increase by not more than 1 percent and oil consumption by about 6 percent in both 1979 and 1980. The latter represents an increase of 33 million barrels of oil consumed by the utilities sector in 1979 and 37.3 million barrels in 1980. The Case C assumptions would add about \$600 million (Table 3) to the electric utility fuel bill in 1979 and about \$700 million in 1980, when compared with Case A.

Table 6. Electric Utility Generation and Fuel Use Under Alternative Nuclear Power Availability Assumptions: Comparison of Projections for 1979 and 1980

Electric Utility Generation (Billion kWh)

	1979		1980	
	Case A	Case B	Case A	Case B
Fossil Fuels				
Coal	1,103.4	1,112.3	1,147.2	1,156.2
Oil	336.3	355.2	330.8	352.2
Natural Gas	297.2	296.6	281.7	281.3
Subtotal	1,736.9	1,764.1	1,759.7	1,789.7
Nuclear	289.2	262.2	348.9	317.8
Hydro/Other*	281.9	281.7	285.9	287.1
Total Generation	2,308.0	2,308.0	2,394.5	2,394.6

Electric Utility Fuel Use (Quadrillion Btu)

Fossil Fuels				
Coal	11.34	11.42	11.83	11.91
Oil	3.57	3.78	3.49	3.72
Natural Gas	3.19	3.19	3.03	3.03
Subtotal	18.10	18.39	18.35	18.66
Nuclear	3.19	2.90	3.84	3.52
Hydro/Other*	2.93	2.93	2.97	2.99
Total Input	24.22	24.22	25.16	25.17

Electric Utility Consumption in Physical Units (Millions)

Coal (Tons per year)	538.8	542.7	564.4	568.3
Oil (Barrels per year)	582.8	615.8	570.0	607.3

*Includes geothermal capacity in Federal Region IX.

The regions that are affected by this added assumption (see Table 2) are New York/New Jersey, the Middle Atlantic, South Atlantic, Midwest, and West (Federal Regions II, III, IV, V, and IX, respectively). Of these, New York/New Jersey and the West are the most heavily dependent on oil and the least on coal. The total response of these two regions to the decrease in nuclear generation, therefore, is projected to be increased oil consumption. The Middle Atlantic and South Atlantic regions have underutilized oil capacity available, which is projected to be used to make up the major share of the deficit caused by the decrease in nuclear generation. In response to the nuclear cutback, the largest increase in projected coal consumption would occur in the Midwest, where there is very little oil-fired capacity available.

Case D: Conditional Moratorium on the Operation of New and Existing Plants

The 1979 projections for this case are identical to the 1979 projections for Case C. Therefore, Table 7 shows only a comparison of Cases A and D for 1980. This is the most restrictive of the cases analyzed because, in addition to the Case C assumptions, operating nuclear plants in States which the NRC estimates will be without approved emergency response plans are assumed to cease operation after April 1, 1980 (see Table 1).

**Table 7. Electric Utility Generation and Fuel Use
Under Alternative Nuclear Power Availability Assumptions:
Comparison of Projections for 1980**

Electric Utility Generation (Billion kWh)

	Case A	1980	Case D
Fossil Fuels			
Coal	1,147.2		1,193.0
Oil	330.8		417.5
Natural Gas	281.7		279.3
Subtotal	1,759.7		1,889.8
Nuclear	348.9		218.0
Hydro/Other*	285.9		286.7
Total Generation	2,394.5		2,394.5

Electric Utility Fuel Use (Quadrillion Btu)

Fossil Fuels		
Coal	11.83	12.26
Oil	3.49	4.45
Natural Gas	3.03	3.03
Subtotal	18.35	19.74
Nuclear	3.84	2.44
Hydro/Other*	2.97	2.98
Total Input	25.16	25.16

Electric Utility Consumption in Physical Units (Millions)

Coal (Tons per year)	564.4	585.4
Oil (Barrels per year)	570.0	725.6

*Includes geothermal capacity in Federal Region IX.

Under Case D assumptions, there is a precipitous drop in nuclear generation in 1980. It is projected to decrease by 38 percent (from 348.9 billion in the Case A projections to 218.0 billion kWh in Case D). This decrease is made up by a projected 4 percent increase in coal consumption and a 27 percent increase in oil consumption. This represents an increase of 21 million tons of coal and 155.6 million barrels of oil consumed by the utilities. The Case D assumptions are projected to increase electric utility fuel costs by approximately \$3.0 billion, or 8 percent.

All regions except New York/New Jersey, North Central, and the West (Federal Regions II, VIII, and IX, respectively) are assumed to experience additional cutbacks in nuclear generation due to the Case D assumptions (see Table 2). Nuclear power constitutes less than 2 percent of the total generation in the Southwest (Federal Region VI), and since nuclear generation is assumed to decrease by only 12.4 percent compared to the assumed current law and policy (Case A) level, no significant, alternate fuel use is projected for this region. The Central and Northwest regions (Federal Regions VII and X), which have very little oil capacity, are projected to make up the decrease in nuclear generation primarily by increasing their coal consumption. The Midwest, South Atlantic, and Middle Atlantic regions (Federal Regions V, IV, and III, respectively) are projected to increase their use of available oil capacity and to shift some coal consumption into higher utilization-rate operations. Increased oil consumption is projected to make up approximately 65 percent of the deficit caused by decreases in nuclear generation in these regions, with increased coal consumption making up the remainder. New England (Federal Region I) has virtually no coal capacity; therefore, the total deficit caused by the assumed decline in nuclear generation in that region is projected to be offset by an increase in oil consumption.

*Includes geothermal capacity in Federal Region IX.

In Case D, nuclear generation in the Central, Northwest, Midwest, and Middle Atlantic regions is projected to be 50 percent less than under the Case C assumptions for 1980. This major decrease in nuclear availability in regions that have virtually no oil capacity (Northwest), or are heavily dependent on coal, is the principal reason for the large increase in coal consumption under the Case D assumptions.

Implications and Conclusions

Estimates of coal production for 1979 and 1980 indicate that the increased demand for coal, projected under even the lowest nuclear availability case (Case D), could be satisfied. The ability of the utilities to use the amount of increased coal projected in this analysis, especially under the Case D assumptions, could be impaired by the noncompliance penalties called for by the amended Clean Air Act. The Environmental Protection Agency may impose fines on utilities that are in violation of Federal or State emission standards established pursuant to the Clean Air Act. The threat from the payment of heavy fines may result in the shut down of some coal-fired plants. The result would be even greater oil consumption than projected in this analysis.

The availability of oil supplies would be particularly critical with the Case D assumptions. The Case D nuclear assumptions could add perhaps 156 million barrels of demand per year, or 426,000 barrels per day. This represents approximately 25 percent of the total electric utility consumption and about 5 percent of the U.S. imports of crude oil and petroleum products at 1979 rates. Most of this increased demand would be constituted by residual fuel oil rather than the lighter distillate oils, and the United States, at least currently, appears to have sufficient supplies of residual oil. Due to constraints on domestic residual oil-refining capacity, some portion of the projected additional residual oil needed by the utilities would have to be imported under these conditions. Excess residual oil-refining capacity does presently exist in European and Caribbean refineries. A shortage of low-sulfur residual oil would have serious consequences, especially in New England, which is heavily dependent on oil-fired and nuclear generation for electricity. Distillate oil is presently in short supply and, while it is a relatively small portion of the total projected oil increase, any greater use by utilities would strain supplies even further, particularly in the winter months.

This article is dedicated to the memory of our late friend and colleague, Dr. Richard J. Clasen. Dr. Clasen conceived and implemented the probabilistic model used in this analysis to project nuclear power generation. We deeply regret his untimely death in the middle of a productive and promising career.

Part 1 Executive Summary

Overview

Domestic energy production in July 1979 was 5.1 quadrillion Btu, 2.6 percent lower than in June and 1.7 percent lower than in July 1978. In July 1979 total domestic energy was produced from the following sources: dry natural gas, 1.6 quadrillion Btu, or 31.5 percent; crude oil, 1.5 quadrillion Btu, or 30.3 percent; coal, 1.3 quadrillion Btu, or 24.7 percent of the total; and 0.7 quadrillion Btu, or 13.4 percent of the total from hydroelectric power, nuclear electric power, natural gas plant liquids, and electricity produced from geothermal power and wood and waste.

While the United States produced a total of 5.1 quadrillion Btu of energy in July 1979, it consumed a total of 6.2 quadrillion Btu of energy. Consumption was 3.1 percent higher than in June and 0.2 percent lower than in July 1978. Petroleum consumption was 3.0 quadrillion Btu, representing 48.4 percent of the total U.S. consumption of energy. Coal consumption was 1.3 quadrillion Btu, or 21.9 percent of the total. Natural gas consumption was 1.3 quadrillion Btu, or 21.7 percent of the total. All remaining fuels provided 0.5 quadrillion Btu, or 8.0 percent of the total consumption.

Energy imports in July 1979 totaled 1.6 quadrillion Btu and supplied 25.2 percent of consumed energy in July. The July 1979 total import figure is 2.1 percent lower than during July 1978. The United States exported 0.3 quadrillion Btu of energy in July and had a domestic net import total of 1.3 quadrillion Btu. Crude oil accounted for 1.1 quadrillion Btu of the total net imports, while petroleum products accounted for 0.3 quadrillion Btu. Natural gas, electricity, and coal coke contributed small amounts to the net import total. Coal exports exceeded coal imports, causing coal to appear as a net export item of 0.2 quadrillion Btu.

Executive Summary

Domestic Energy Summary

		Domestic Energy Production ¹	Domestic Energy Consumption ²	Energy Imports ³	Energy Exports ⁴
		Quadrillion (10 ¹⁵) Btu			
1973	TOTAL	62.431	74.605	14.732	2.073
1974	TOTAL	61.228	72.756	14.417	2.241
1975	TOTAL	60.057	70.706	14.114	2.389
1976	TOTAL	60.091	74.513	16.840	2.213
1977	January	4.798	7.732	1.722	0.103
	February	4.649	6.554	1.749	0.130
	March	5.353	6.453	1.821	0.139
	April	5.035	5.870	1.634	0.200
	May	5.172	5.876	1.660	0.215
	June	5.089	5.967	1.665	0.214
	July	4.853	6.073	1.745	0.199
	August	5.059	6.171	1.654	0.169
	September	5.220	5.960	1.605	0.197
	October	5.288	6.160	1.632	0.191
	November	5.280	6.386	1.537	0.175
	December	4.635	7.334	1.665	0.164
	TOTAL	60.431	76.536	20.091	2.097
1978	January	4.488	7.611	1.587	0.079
	February	4.144	6.932	1.409	0.059
	March	4.863	6.817	1.644	0.067
	April	5.146	6.006	1.441	0.135
	May	5.480	6.165	1.458	0.187
	June	5.309	5.994	1.504	0.224
	July	5.169	6.179	1.587	0.164
	August	5.363	6.315	1.588	0.179
	September	5.025	5.944	1.674	0.187
	October	5.418	6.293	1.610	0.227
	November	5.334	6.557	1.638	0.241
	December	5.284	7.338	1.805	0.213
	TOTAL	61.023	78.151	18.945	1.962
1979	January	R5.284	R7.947	1.752	0.175
	February	R4.877	R7.208	1.512	0.161
	March	R5.468	R6.943	1.716	0.241
	April	R5.249	R6.121	R1.501	R0.236
	May	R5.482	R6.183	1.453	R0.265
	June	5.219	R5.984	R1.531	R0.260
	July	5.081	6.168	1.554	0.270
	TOTAL	36.660	46.554	11.020	1.609
	(Year to date)				

¹See Explanatory Note 1.

²See Explanatory Note 2.

³See Explanatory Note 3.

⁴See Explanatory Note 4.

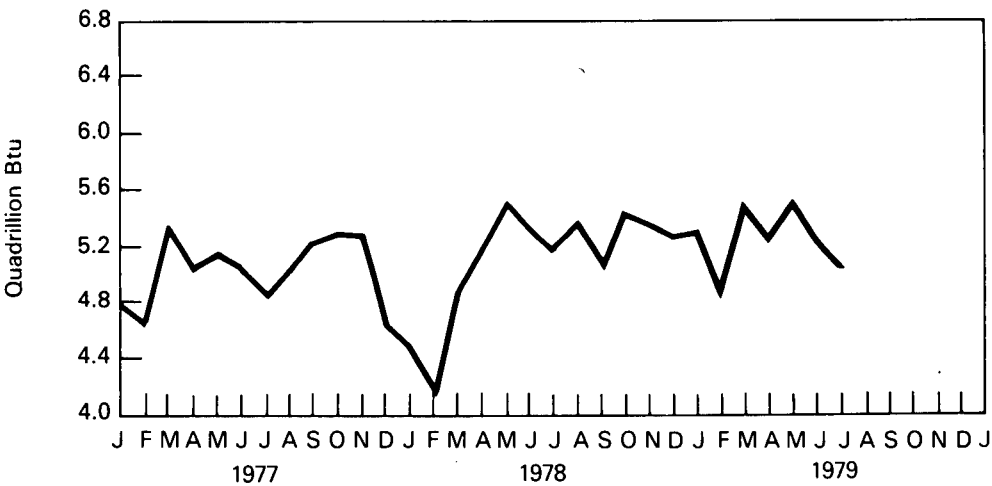
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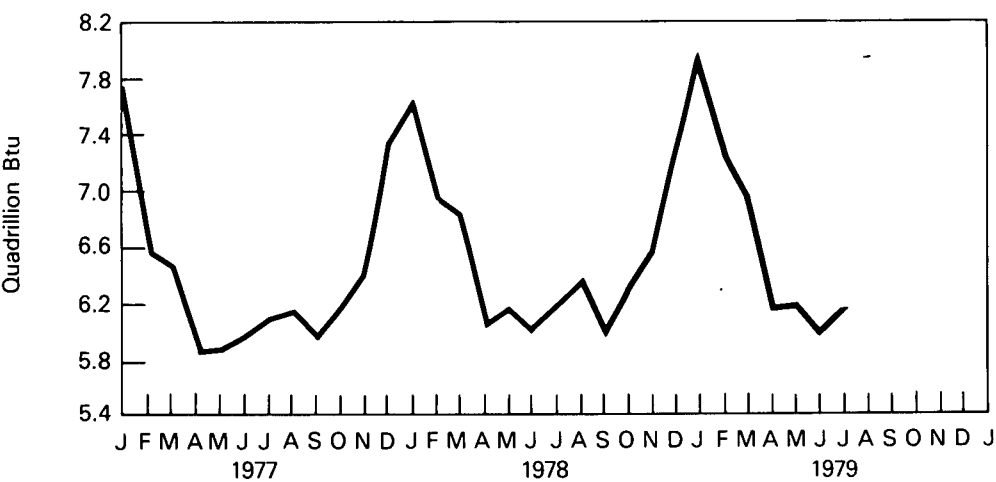
Executive Summary

Domestic Energy Summary

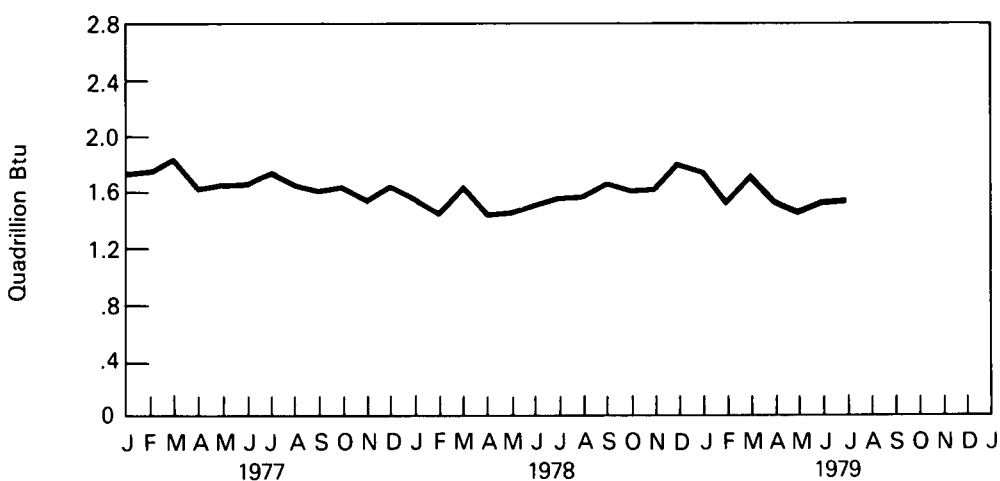
Domestic Production of Energy



Domestic Consumption of Energy



Imports of Energy



Executive Summary

Domestic Energy Production by Primary Type

		Coal ¹	Crude Oil ²	NGPL ³	Natural Gas (dry)	Hydro-electric Power ⁴	Nuclear Electric Power	Other ⁵	Total
		Quadrillion (10 ¹⁵) Btu							
1973	TOTAL	14.366	19.493	2.569	22.187	2.859	0.910	0.046	62.431
1974	TOTAL	14.468	18.575	2.471	21.211	3.175	1.272	0.056	61.228
1975	TOTAL	15.189	17.729	2.374	19.641	3.152	1.900	0.072	60.057
1976	TOTAL	15.853	17.262	2.327	19.480	2.976	2.111	0.081	60.091
1977	January	1.032	1.412	0.189	1.700	0.219	0.239	0.007	4.798
	February	1.137	1.322	0.175	1.636	0.161	0.211	0.006	4.649
	March	1.542	1.455	0.206	1.710	0.210	0.223	0.007	5.353
	April	1.397	1.417	0.197	1.606	0.198	0.214	0.006	5.035
	May	1.443	1.452	0.198	1.653	0.198	0.222	0.007	5.172
	June	1.457	1.410	0.191	1.610	0.183	0.232	0.007	5.089
	July	1.144	1.457	0.197	1.636	0.178	0.235	0.007	4.853
	August	1.335	1.494	0.195	1.607	0.177	0.245	0.006	5.059
	September	1.603	1.475	0.187	1.561	0.174	0.211	0.007	5.220
	October	1.561	1.542	0.199	1.591	0.182	0.205	0.007	5.288
	November	1.592	1.493	0.192	1.569	0.216	0.210	0.007	5.280
	December	0.719	1.526	0.200	1.687	0.241	0.256	0.007	4.635
	TOTAL	15.964	17.454	2.327	19.565	2.337	2.702	0.082	60.431
1978	January	0.539	1.501	0.190	1.707	0.265	0.278	0.007	4.488
	February	0.546	1.360	0.172	1.588	0.237	0.235	0.006	4.144
	March	0.900	1.583	0.194	1.679	0.260	0.242	0.005	4.863
	April	1.375	1.515	0.191	1.604	0.267	0.189	0.004	5.146
	May	1.587	1.582	0.187	1.597	0.303	0.220	0.004	5.480
	June	1.516	1.535	0.187	1.561	0.265	0.239	0.005	5.309
	July	1.241	1.573	0.190	1.633	0.258	0.269	0.005	5.169
	August	1.487	1.580	0.190	1.590	0.234	0.276	0.006	5.363
	September	1.336	1.529	0.183	1.508	0.224	0.239	0.007	5.025
	October	1.614	1.588	0.188	1.569	0.207	0.248	0.005	5.418
	November	1.599	1.519	0.189	1.543	0.211	0.268	0.006	5.334
	December	1.378	1.555	0.191	1.645	0.233	0.274	0.007	5.284
	TOTAL	15.117	18.420	2.255	19.222	2.964	2.977	0.068	61.023
1979	January	1.304	1.521	0.214	R1.675	0.265	0.299	0.007	R5.284
	February	1.236	1.380	0.188	R1.563	0.225	0.279	0.006	R4.877
	March	1.510	1.544	0.211	R1.659	0.274	0.262	0.008	R5.468
	April	1.461	R1.485	R0.202	R1.628	0.268	0.198	0.007	R5.249
	May	1.631	1.546	0.209	R1.620	R0.305	0.162	0.007	R5.482
	June	1.518	1.488	0.207	1.562	0.264	0.173	0.007	5.219
	July	1.257	1.541	0.208	1.603	0.240	0.224	0.007	5.081
	TOTAL (Year to date)	9.917	10.504	1.439	11.312	1.842	1.598	0.049	36.660

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

¹Includes bituminous coal, lignite and anthracite.

²Includes lease condensate.

³Natural gas plant liquids.

⁴Includes industrial and utility production of hydropower.

⁵Includes geothermal power and electricity produced from wood and waste.

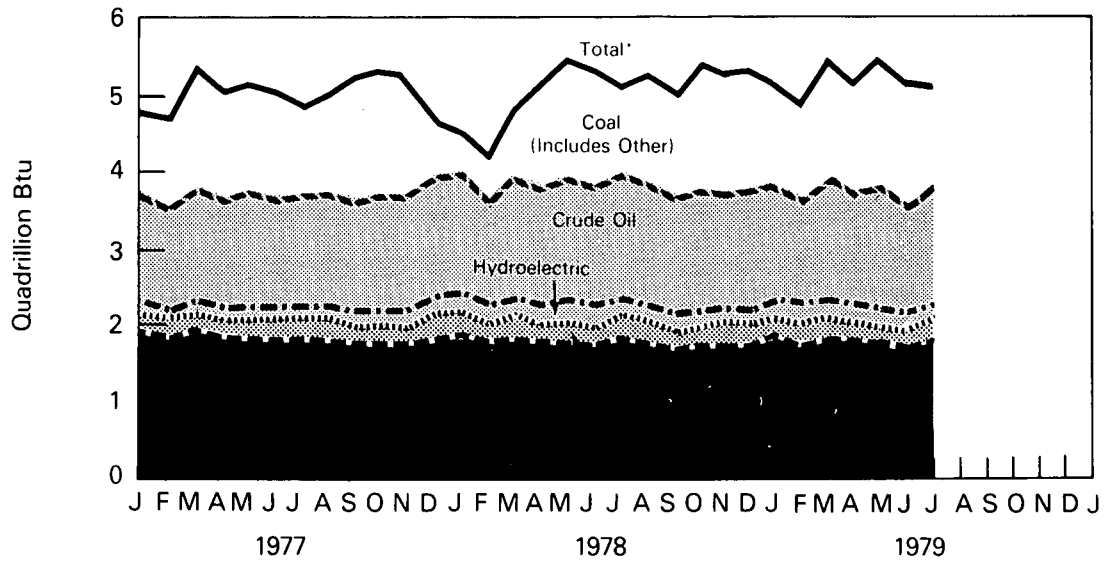
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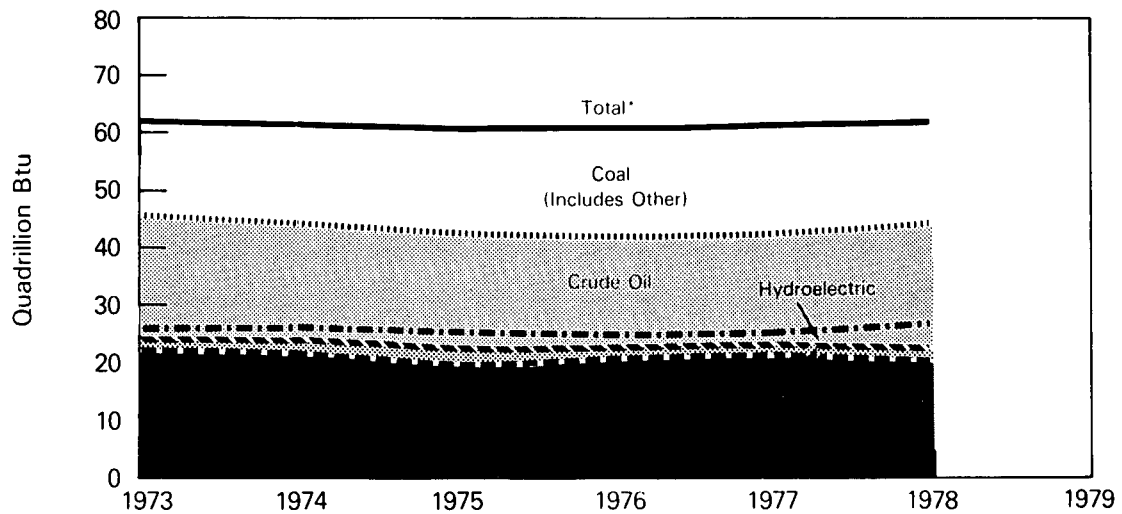
Executive Summary

Energy Production (Primary Energy Type)

Monthly



Yearly



*Btu equivalents for all fuels are cumulated to create total.

Executive Summary

Domestic Energy Consumption by Primary Energy Type

		Coal ¹	Natural Gas (dry)	Petroleum	Hydro-electric Power ²	Nuclear Electric Power	Net Imports of Coal Coke ³	Other ⁴	Total	Yearly Cumulative Total
Quadrillion (10 ¹⁵) Btu										
1973	TOTAL	13.300	22.512	34.837	3.008	0.910	(0.008)	0.046	74.605	
1974	TOTAL	12.876	21.732	33.454	3.307	1.272	0.059	0.056	72.756	
1975	TOTAL	12.823	19.948	32.732	3.217	1.900	0.014	0.072	70.706	
1976	January	1.214	2.337	3.182	0.281	0.178	(0.001)	0.007	7.198	7.198
	February	1.075	1.977	2.795	0.265	0.159	(0.001)	0.007	6.276	13.473
	March	1.115	1.755	2.952	0.286	0.155	(0.002)	0.007	6.269	19.743
	April	1.066	1.538	2.753	0.261	0.121	(0.002)	0.007	5.743	25.486
	May	1.072	1.463	2.726	0.275	0.132	(0.003)	0.006	5.671	31.157
	June	1.111	1.362	2.778	0.276	0.174	(0.002)	0.007	5.705	36.863
	July	1.184	1.399	2.834	0.280	0.196	0.000	0.007	5.900	42.763
	August	1.193	1.343	2.840	0.257	0.203	0.001	0.007	5.845	48.608
	September	1.094	1.328	2.780	0.221	0.191	0.001	0.007	5.621	54.229
	October	1.132	1.653	2.916	0.228	0.192	0.006	0.007	6.134	60.363
	November	1.189	1.912	3.112	0.216	0.178	0.001	0.006	6.615	66.978
	December	1.288	2.277	3.508	0.220	0.233	0.002	0.007	7.535	74.513
	TOTAL	13.733	20.345	35.178	3.065	2.111	0.000	0.081	74.513	
1977	January	1.283	2.458	3.513	0.234	0.239	(0.002)	0.007	7.732	7.732
	February	1.137	1.854	3.169	0.176	0.211	0.000	0.006	6.554	14.285
	March	1.144	1.751	3.105	0.225	0.223	(0.002)	0.007	6.453	20.739
	April	1.055	1.469	2.914	0.213	0.214	(0.002)	0.006	5.870	26.609
	May	1.118	1.408	2.907	0.213	0.222	0.000	0.007	5.876	32.485
	June	1.178	1.361	2.991	0.198	0.232	0.000	0.007	5.967	38.451
	July	1.274	1.353	3.010	0.193	0.235	0.002	0.007	6.073	44.525
	August	1.248	1.393	3.086	0.192	0.245	0.001	0.006	6.171	50.696
	September	1.151	1.457	2.937	0.189	0.211	0.007	0.007	5.960	56.656
	October	1.143	1.550	3.053	0.198	0.205	0.004	0.007	6.160	62.816
	November	1.155	1.725	3.057	0.231	0.210	0.001	0.007	6.386	69.202
	December	1.222	2.152	3.435	0.256	0.256	0.006	0.007	7.334	76.536
	TOTAL	14.110	19.931	37.176	2.519	2.702	0.015	0.082	76.536	
1978	January	1.236	2.435	3.373	0.280	0.278	0.001	0.007	7.611	7.611
	February	1.048	2.160	3.230	0.252	0.235	0.001	0.006	6.932	14.543
	March	0.998	1.929	3.362	0.276	0.242	0.005	0.005	6.817	21.359
	April	1.037	1.545	2.937	0.282	0.189	0.012	0.004	6.006	27.366
	May	1.110	1.381	3.106	0.319	0.220	0.025	0.004	6.165	33.531
	June	1.184	1.248	3.029	0.280	0.239	0.009	0.005	5.994	39.525
	July	1.261	1.335	3.020	0.273	0.269	0.015	0.005	6.179	45.704
	August	1.302	1.280	3.188	0.249	0.276	0.013	0.006	6.315	52.019
	September	1.228	1.248	2.973	0.239	0.239	0.012	0.007	5.944	57.964
	October	1.191	1.459	3.153	0.222	0.248	0.015	0.005	6.293	64.256
	November	1.188	1.678	3.179	0.226	0.268	0.013	0.006	6.557	70.814
	December	1.288	2.099	3.412	0.248	0.274	0.009	0.007	7.338	78.151
	TOTAL	14.070	19.797	37.964	3.145	2.977	0.131	0.068	78.151	
1979	January	1.400	R2.422	3.536	0.280	0.299	0.004	0.007	R7.947	R7.947
	February	1.213	R2.194	3.273	0.240	0.279	0.003	0.006	R7.208	R15.156
	March	1.224	R1.873	3.286	0.289	0.262	0.002	0.008	R6.943	R22.099
	April	1.146	1.611	R2.870	0.283	0.198	0.005	0.007	R6.121	R28.220
	May	R1.203	R1.398	3.081	0.321	0.162	0.011	0.007	R6.183	R34.402
	June	R1.243	1.307	2.965	0.279	0.173	0.010	0.007	R5.984	R40.386
	July	1.348	1.338	2.987	0.256	0.224	0.008	0.007	6.168	46.554
	TOTAL	8.777	12.142	21.997	1.948	1.598	0.044	0.049	46.554	
	(Year to date)									

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

¹Includes bituminous coal, lignite, and anthracite.

²Includes industrial and utility production, and net imports of electricity.

³Parentheses indicate exports are greater than imports.

⁴Includes geothermal power and electricity produced from wood and waste.

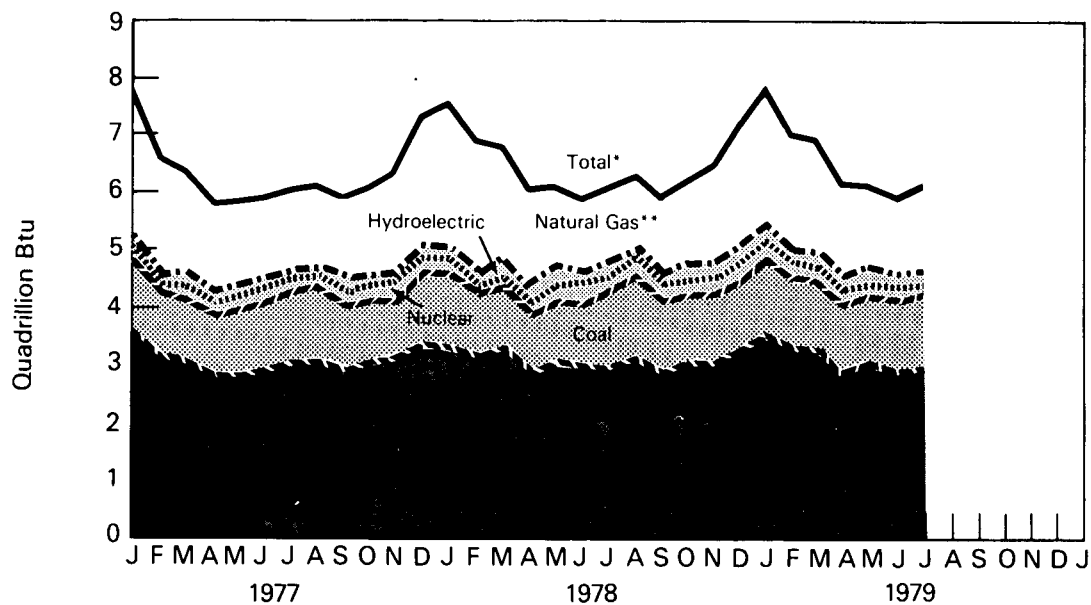
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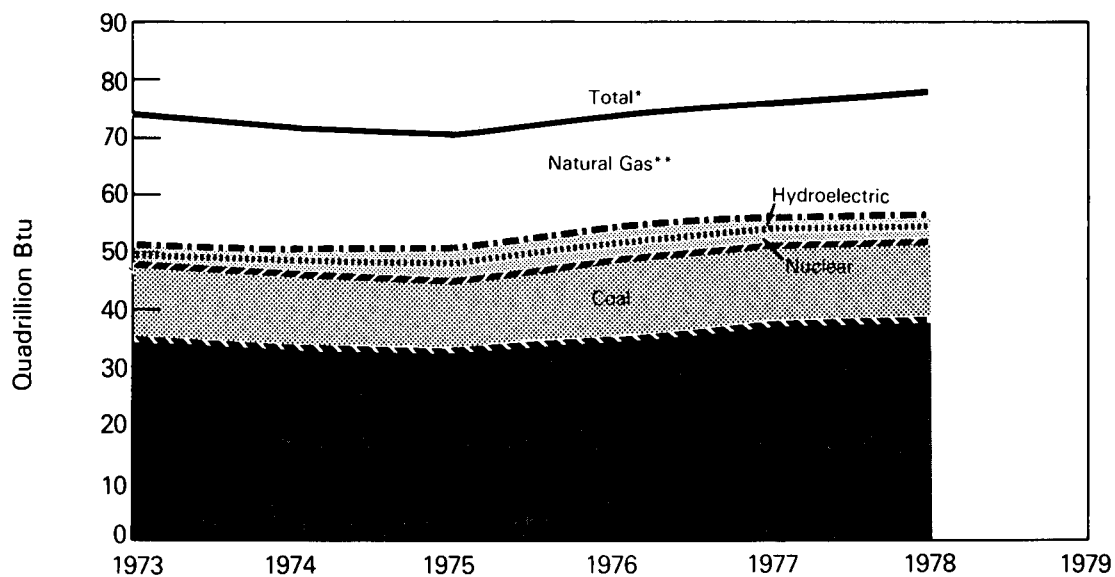
Executive Summary

Energy Consumption (Primary Energy Type)

Monthly



Yearly



*Btu equivalents for all fuels are cumulated to create total.

**Includes net imports of coal coke and other.

Executive Summary

Domestic Energy Consumption by Economic Sector¹

		Residential and Commercial	Industrial	Transportation	Total
		Quadrillion (10 ¹⁵) Btu			
1973	TOTAL	26.534	29.144	18.927	74.605
1974	TOTAL	25.912	28.430	18.414	72.756
1975	TOTAL	25.981	26.207	18.518	70.706
1976	January	3.123	2.429	1.646	7.198
	February	2.690	2.109	1.477	6.276
	March	2.430	2.201	1.639	6.269
	April	2.083	2.070	1.590	5.743
	May	1.913	2.197	1.561	5.671
	June	1.858	2.241	1.607	5.705
	July	1.967	2.290	1.644	5.900
	August	1.972	2.273	1.599	5.845
	September	1.832	2.223	1.567	5.621
	October	1.944	2.581	1.609	6.134
	November	2.367	2.593	1.655	6.615
	December	3.002	2.719	1.814	7.535
	TOTAL	27.180	27.924	19.408	74.513
1977	January	3.349	2.636	1.746	7.732
	February	2.901	2.050	1.603	6.554
	March	2.447	2.336	1.670	6.453
	April	2.052	2.182	1.636	5.870
	May	1.882	2.377	1.617	5.876
	June	1.927	2.381	1.659	5.967
	July	2.077	2.319	1.678	6.073
	August	2.072	2.400	1.699	6.171
	September	1.916	2.421	1.623	5.960
	October	1.959	2.541	1.660	6.160
	November	2.158	2.574	1.654	6.386
	December	2.804	2.706	1.823	7.334
	TOTAL	27.545	28.923	20.068	76.536
1978	January	R3.206	R2.687	1.717	7.611
	February	3.063	2.236	1.633	6.932
	March	R2.789	R2.233	1.795	6.817
	April	2.184	2.194	1.628	6.006
	May	2.054	2.363	1.748	6.165
	June	1.986	2.295	1.714	5.994
	July	R2.115	R2.371	1.692	6.179
	August	2.123	2.412	1.780	6.315
	September	1.983	2.331	1.630	5.944
	October	1.995	2.574	1.723	6.293
	November	2.232	2.597	1.728	6.557
	December	2.807	R2.712	1.819	7.338
	TOTAL	R28.537	R29.008	20.606	78.151
1979	January	R3.433	R2.731	1.784	R7.947
	February	3.207	R2.317	R1.685	R7.208
	March	2.800	R2.394	1.749	R6.943
	April	R2.301	R2.237	R1.584	R6.121
	May	R2.087	R2.442	1.654	R6.183
	June	R1.996	R2.395	1.593	R5.984
	July	2.134	2.447	1.588	6.168
	TOTAL (Year to date)	17.956	16.961	11.637	46.554

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

¹See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, and Transportation sectors. The methodology used for sector calculations is provided in the footnotes on page 22.

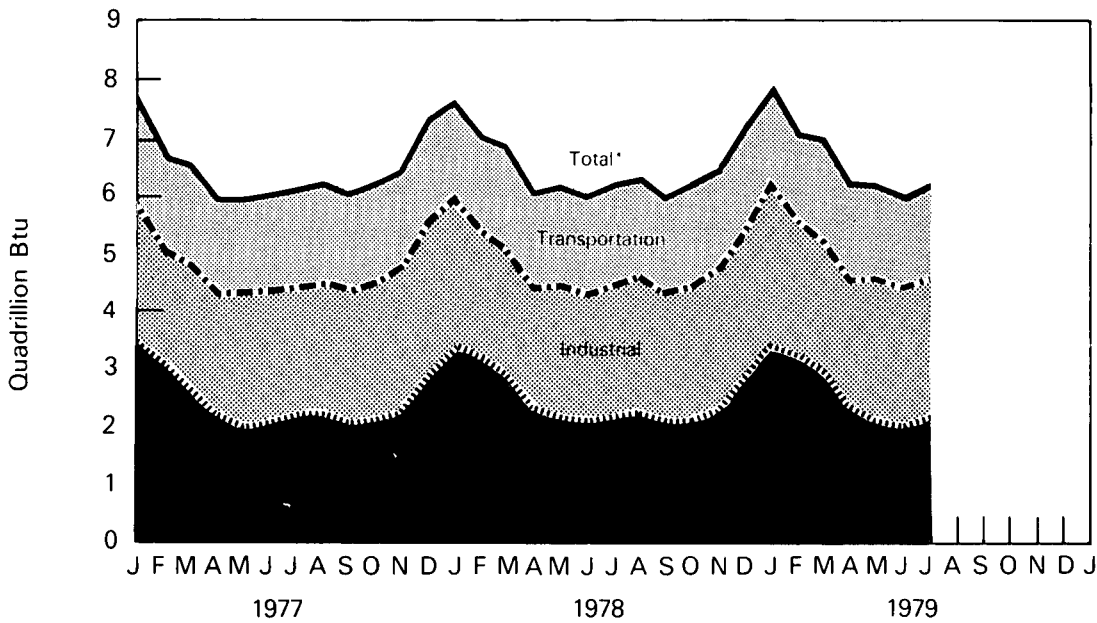
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Source: •See Footnotes on page 22.

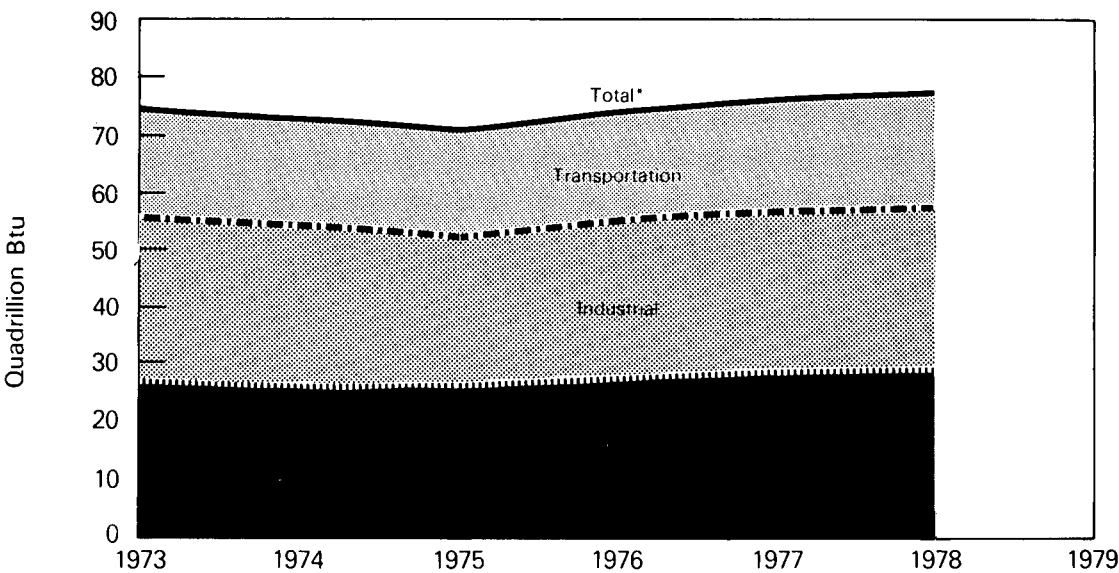
Executive Summary

Energy Consumption (Economic Sector)

Monthly



Yearly



*Btu consumption for all sectors is cumulated to create total.

Executive Summary

Domestic Net Imports of Energy¹

		Coal ²	Crude Oil ³	Refined Petroleum Products ⁴	Natural Gas (Dry)	Electricity ⁵	Coal Coke	Net Imports
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	(1.443)	6.883	6.097	0.981	0.148	(0.008)	12.659
1974	TOTAL	(1.585)	7.389	5.273	0.907	0.133	0.059	12.175
1975	TOTAL	(1.766)	8.709	3.799	0.904	0.064	0.014	11.725
1976	TOTAL	(1.590)	11.222	3.982	0.922	0.089	0.000	14.626
1977	January	(0.056)	1.129	0.448	0.084	0.015	(0.002)	1.619
	February	(0.082)	1.074	0.524	0.090	0.014	0.000	1.619
	March	(0.092)	1.201	0.460	0.100	0.015	(0.002)	1.682
	April	(0.148)	1.186	0.301	0.083	0.015	(0.002)	1.435
	May	(0.153)	1.212	0.285	0.085	0.015	0.000	1.445
	June	(0.161)	1.230	0.294	0.073	0.015	0.000	1.451
	July	(0.138)	1.263	0.335	0.068	0.015	0.002	1.545
	August	(0.114)	1.145	0.364	0.073	0.015	0.001	1.485
	September	(0.134)	1.105	0.343	0.072	0.015	0.007	1.408
	October	(0.126)	1.156	0.311	0.082	0.015	0.004	1.442
	November	(0.119)	1.094	0.288	0.083	0.015	0.001	1.362
	December	(0.100)	1.127	0.366	0.087	0.015	0.006	1.501
	TOTAL	(1.424)	13.921	4.320	0.981	0.182	0.015	17.995
1978	January	(0.021)	1.079	0.350	0.083	0.015	0.001	1.508
	February	(0.012)	0.919	0.354	0.074	0.014	0.001	1.350
	March	(0.004)	1.090	0.388	0.083	0.015	0.005	1.578
	April	(0.060)	0.932	0.330	0.077	0.015	0.012	1.306
	May	(0.113)	0.984	0.289	0.071	0.015	0.025	1.271
	June	(0.139)	1.077	0.252	0.066	0.015	0.009	1.280
	July	(0.089)	1.090	0.322	0.069	0.015	0.015	1.423
	August	(0.092)	1.104	0.298	0.071	0.015	0.013	1.409
	September	(0.088)	1.167	0.312	0.069	0.015	0.012	1.486
	October	(0.127)	1.121	0.280	0.079	0.015	0.015	1.383
	November	(0.160)	1.113	0.327	0.090	0.015	0.013	1.397
	December	(0.118)	1.208	0.372	0.106	0.015	0.009	1.592
	TOTAL	(1.023)	12.883	3.873	0.937	0.182	0.131	16.982
1979	January	(0.093)	1.187	0.366	0.098	0.015	0.004	1.577
	February	(0.067)	0.999	0.310	0.092	0.014	0.003	1.351
	March	(0.122)	1.069	0.395	0.116	0.015	0.002	1.475
	April	(0.138)	R1.020	R0.254	0.109	0.015	0.005	R1.265
	May	(0.165)	R0.981	0.250	0.095	0.015	0.011	R1.188
	June	(0.156)	R1.059	0.245	R0.099	0.015	0.010	R1.272
	July	(0.168)	1.059	0.267	0.102	0.015	0.008	1.283
	TOTAL (Year to date)	(0.909)	7.374	2.086	0.710	0.106	0.044	9.411

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

¹Net imports = imports minus exports. Parentheses indicate exports are greater than imports.

²Includes bituminous coal, lignite, and anthracite.

³Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

⁴Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.

⁵Only yearly totals are available for electricity imports. Figures shown are estimates derived by dividing the yearly total by the number of days in the year and multiplying by the number of days in the month.

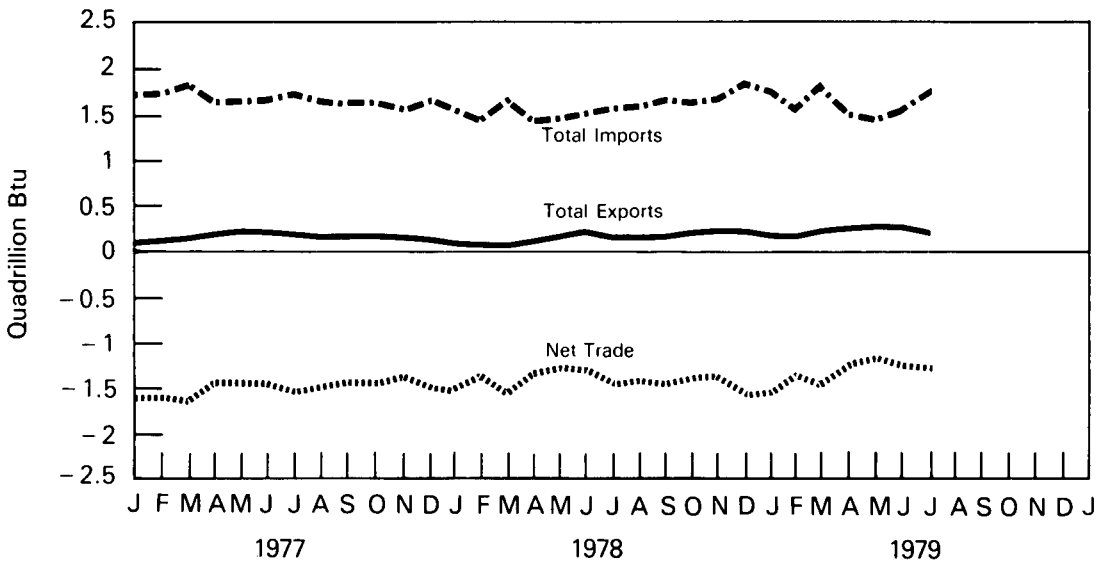
R = Revised data.

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

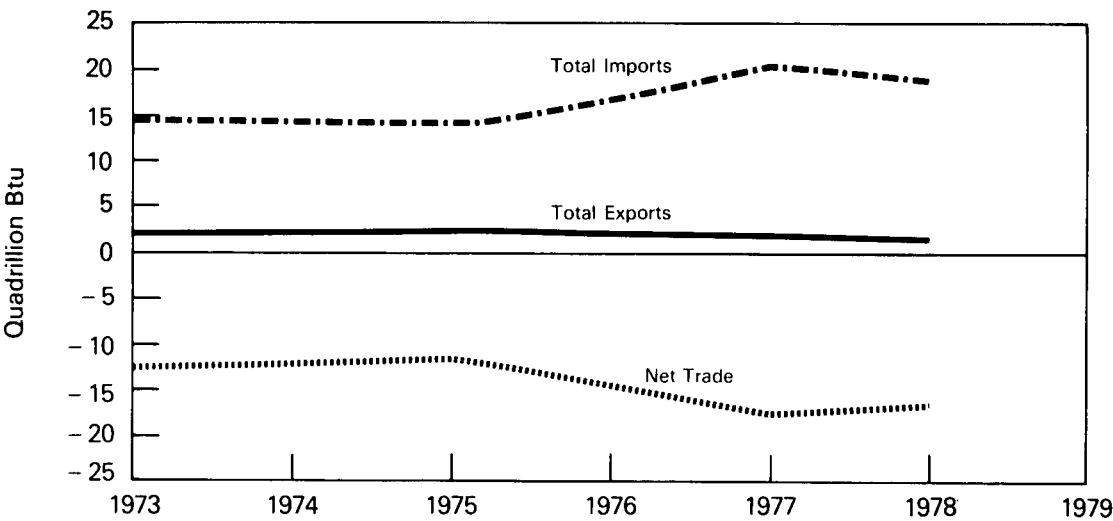
Executive Summary

Energy Imports and Exports

Monthly



Yearly



Executive Summary

Domestic Merchandise Trade Value¹

		Exports				Imports			
		Energy	Manu- factured Products	Agricultural, Chemical, and Other	Total	Energy	Manu- factured Products	Agricultural, Chemical, and Other	Total
Million dollars									
1973	TOTAL	1,671	38,954	29,598	70,223	8,101	42,352	18,668	69,121
1974	TOTAL	3,444	54,704	38,996	97,144	25,454	51,205	23,592	100,251
1975	TOTAL	4,470	62,260	39,372	106,102	26,476	47,384	22,256	96,116
1976	TOTAL	4,226	67,282	41,811	113,319	33,997	60,005	26,676	120,678
1977	January	218	5,191	3,570	8,979	3,521	4,868	2,255	10,644
	February	268	5,330	3,744	9,342	3,857	5,261	2,475	11,593
	March	292	6,491	4,079	10,862	4,775	5,681	2,686	13,142
	April	398	5,998	3,940	10,336	3,512	5,609	2,814	11,935
	May	432	6,249	4,102	10,783	2,793	5,789	2,676	11,258
	June	398	5,935	3,735	10,068	4,306	6,687	3,053	14,046
	July	398	5,337	3,846	9,581	3,911	6,041	2,479	12,431
	August	334	5,105	3,370	8,809	3,651	5,856	2,538	12,045
	September	402	6,021	3,734	10,157	3,721	6,142	2,589	12,452
	October	367	5,571	3,426	9,364	3,635	6,512	2,350	12,497
	November	362	5,583	3,578	9,523	3,703	6,072	2,495	12,270
	December	315	6,488	4,398	11,201	3,153	7,066	3,153	13,372
	TOTAL	4,184	69,299	45,522	119,005	44,538	71,584	31,563	147,685
1978	January	189	5,348	3,680	9,217	3,422	6,604	2,692	12,718
	February	141	5,480	3,721	9,342	3,502	7,062	2,722	13,286
	March	165	7,091	4,580	11,836	3,431	7,896	3,220	14,547
	April	285	6,942	4,633	11,860	3,514	7,908	3,064	14,486
	May	364	7,141	4,745	12,250	3,234	7,840	3,125	14,199
	June	424	7,025	4,823	12,272	3,472	8,085	2,958	14,515
	July	322	6,204	4,254	10,780	3,380	8,309	3,015	14,704
	August	335	6,480	4,614	11,429	3,677	7,554	2,793	14,024
	September	348	7,166	4,992	12,506	3,699	7,799	2,919	14,417
	October	422	7,661	4,843	12,926	3,492	8,466	3,160	15,118
	November	466	7,568	5,400	13,434	3,536	8,412	3,107	15,055
	December	418	7,823	5,063	13,304	3,746	7,990	3,220	14,956
	TOTAL	3,879	81,929	55,348	141,156	42,105	93,925	35,995	172,025
1979	January	350	7,035	4,965	12,350	4,228	8,391	3,227	15,846
	February	292	7,446	4,966	12,704	3,525	7,480	2,771	13,776
	March	436	8,842	6,020	15,298	3,948	8,432	3,385	15,765
	April	467	8,038	5,506	14,011	4,241	8,550	3,381	16,172
	May	471	8,474	5,584	14,529	4,166	8,690	3,655	16,512
	June	500	8,527	6,054	15,081	4,528	9,247	3,661	17,436
	July	534	7,879	6,077	14,490	5,075	8,778	3,262	17,115
	August	496	7,981	6,237	14,714	5,460	8,988	3,482	17,931
	TOTAL (Year to date)	3,546	64,222	45,409	113,177	35,171	68,556	26,824	130,553

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

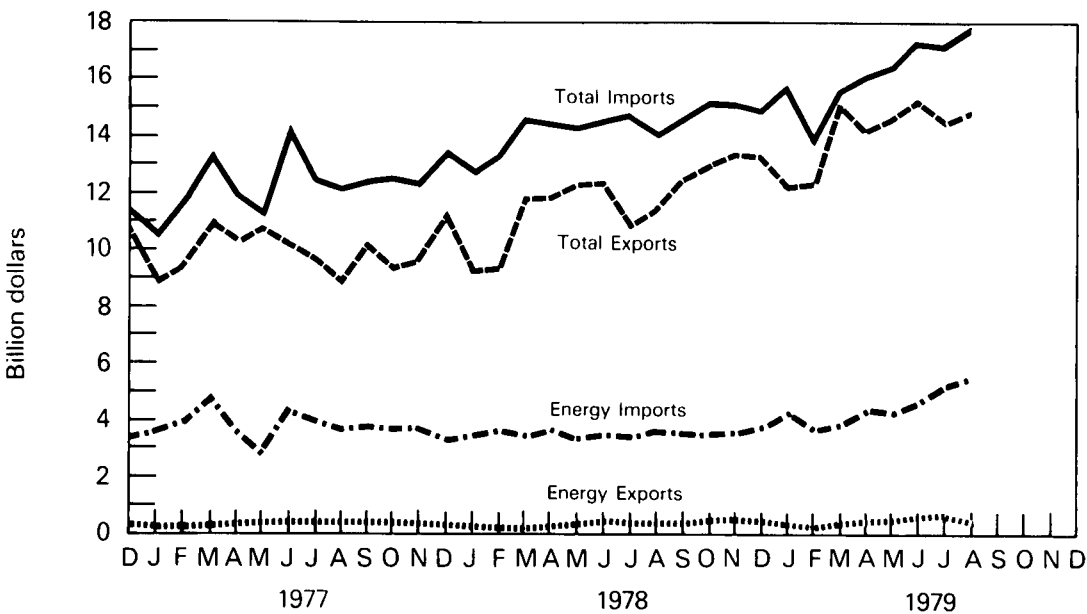
¹Data presented are free alongside ship (f.a.s.) basis and are unadjusted for seasonality and working days. Beginning January 1979, the data excludes U.S. Department of Defense Military Assistance Program Grant-Aid Shipments. Commodity categories shown above include groups of BOC sections as follows: Energy—BOC section 3. (Mineral fuels, lubricants, and related materials). Manufactured products—BOC sections 6. (Manufactured goods classified chiefly by material), 7. (Machinery and transport equipment), and 8. (Miscellaneous manufactured articles, not elsewhere classified). Agricultural, chemical, and other—BOC sections 0. (Food and live animals), 1. (Beverages and tobacco), 2 (Crude material inedible, except fuels), 4. (Animal and vegetable fats and oils), 5. (Chemicals), and 9. (Commodities and transactions not classified according to kind).

Source: • U.S. Department of Commerce, Bureau of the Census (BOC) publication FT 900, *Summary of U.S. Export and Import Merchandise Trade*.

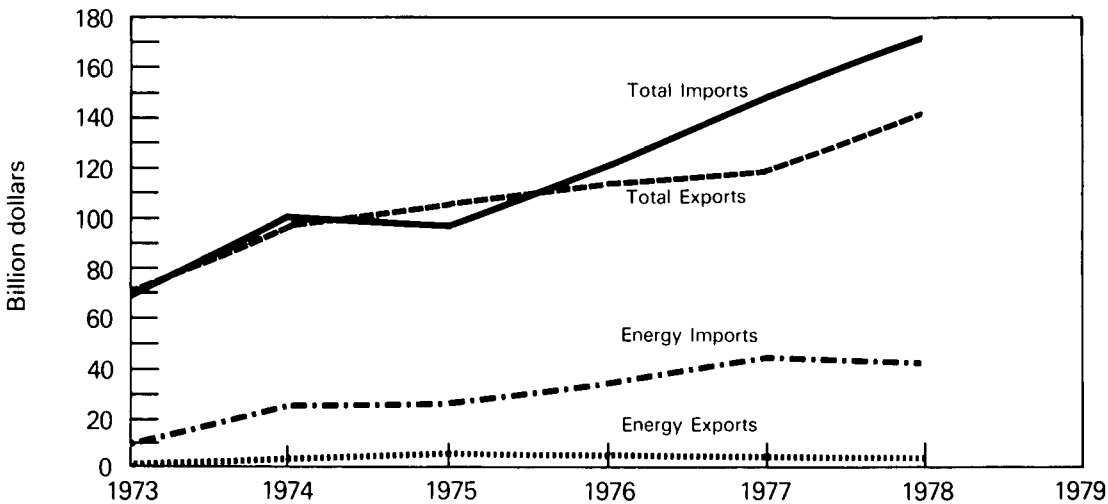
Executive Summary

Merchandise Trade Value

Monthly



Yearly



Executive Summary

Heating Degree-Days¹

Petroleum Administration For Defense (PAD) Districts	Cumulative July 1 through September 30				
	1979	1978 ²		Normal (1941-70) ²	
PAD District I	351.9	395.4	(-11.0)	397.5	(-11.5)
New England	144.4	155.4	(-7.1)	118.8	(21.5)
Conn., Maine, Mass., N.H., R.I., Vt.					
Middle Atlantic	196.1	237.2	(-17.3)	233.9	(-16.1)
Del., Md., N.J., N.Y., Pa.					
Lower Atlantic	677.3	738.8	(-8.3)	766.1	(-11.6)
Fla., Ga., N.C., S.C., Va., W.Va.					
PAD District II	255.4	315.7	(-19.1)	286.9	(-11.0)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.					
PAD District III	777.9	928.0	(-16.2)	887.4	(-12.3)
Ala., Ark., La., Miss., N. Mex., Tex.					
PAD District IV	159.1	149.4	(6.5)	127.8	(24.4)
Colo., Idaho, Mont., Utah, Wyo.					
PAD District V	285.2	286.9	(-0.6)	209.7	(36.0)
Ariz., Calif., Nev., Oreg., Wash.					
U.S. AVERAGE	356.9	386.6	(-13.2)	411.2	(-7.7)

¹See Explanatory Note 6 for explanation of degree-days.

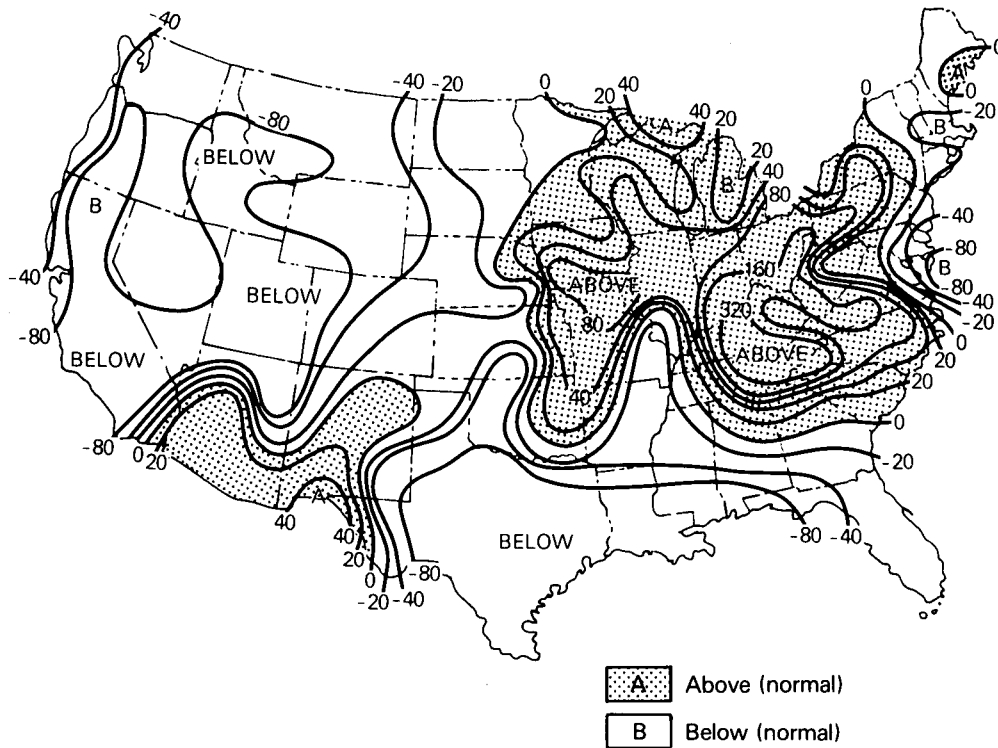
²Percentage change in parentheses.

Executive Summary

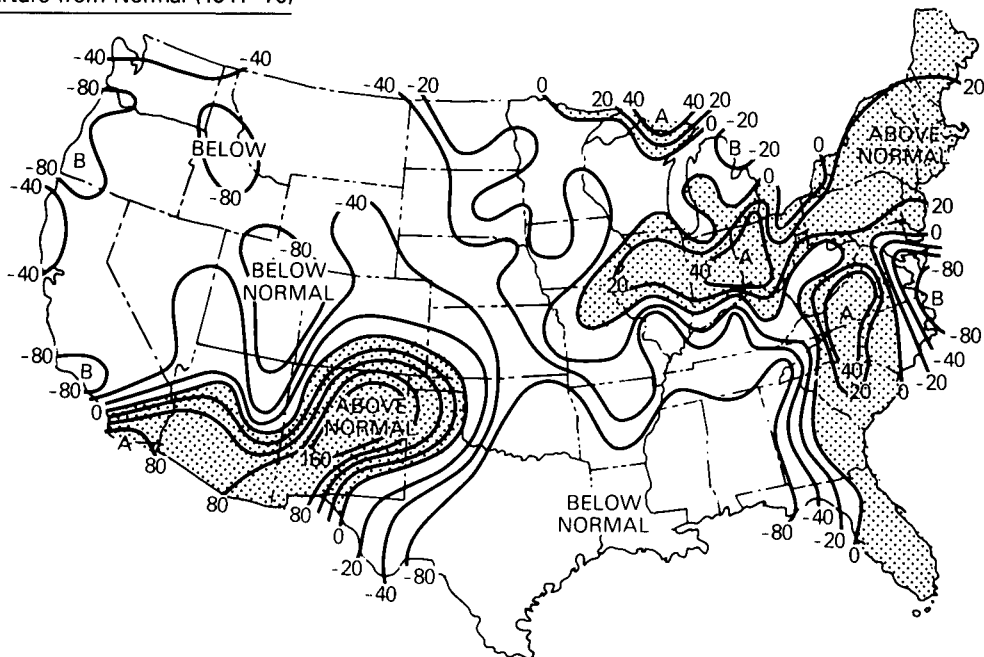
Heating Degree-Days

Heating Degree-Days Accumulated from July 1 through September 30.

Percent Departure from 1978



Percent Departure from Normal (1941-70)



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

Source: • Department of Commerce — NOAA.

Executive Summary

Energy Indicators —

Energy Consumption per GNP Dollar						- U.S. Dependence on Petroleum Imports			
		Energy Consumption per GNP Dollar ¹	Energy Consumption Quadrillion Btu	Gross National Product Trillion dollars		Million barrels per day			Domestic Petroleum Products Supplied
				Current Dollars	1972 Dollars ²	From Arab/OPEC Countries	From OPEC Countries	Total All Countries	
ANNUAL RATE									
1973	AVERAGE	60.4	74.605	1.307	1.235	0.91	2.99	6.26	17.31
1974	AVERAGE	59.9	72.756	1.413	1.214	0.75	3.28	6.11	16.65
1975	AVERAGE	59.3	70.706	1.516	1.192	1.38	3.60	6.06	16.32
1976	AVERAGE	58.6	74.513	1.700	1.271	2.42	5.07	7.31	17.46
1977	1st Qtr	64.4	84.108	1.807	1.307	3.05	6.38	9.41	19.68
	2nd Qtr	53.6	71.047	1.867	1.326	3.40	6.42	8.74	17.53
	3rd Qtr	53.7	72.222	1.917	1.344	3.19	6.20	8.75	17.77
	4th Qtr	58.2	78.872	1.958	1.355	3.09	5.78	8.34	18.77
	AVERAGE	57.4	76.536	1.887	1.333	3.18	6.19	8.81	18.43
1978	1st Qtr	64.0	86.627	1.992	1.354	2.87	5.64	8.20	20.04
	2nd Qtr	52.7	72.860	2.088	1.383	2.71	5.18	7.62	18.04
	3rd Qtr	52.6	73.151	2.136	1.391	2.94	5.70	8.40	18.06
	4th Qtr	56.7	80.094	2.212	1.413	3.16	6.02	8.68	19.17
	AVERAGE	56.4	78.151	2.107	1.385	2.92	5.64	8.23	18.82
1979	1st Qtr	R62.3	R89.620	2.265	1.416	R3.22	R5.81	R8.73	R20.30
	2nd Qtr	51.6	73.353	2.330	1.422	3.05	5.21	7.67	17.73

¹Thousand Btu per 1972 constant dollar.

²Current dollars converted to 1972 constant dollars by the formula:

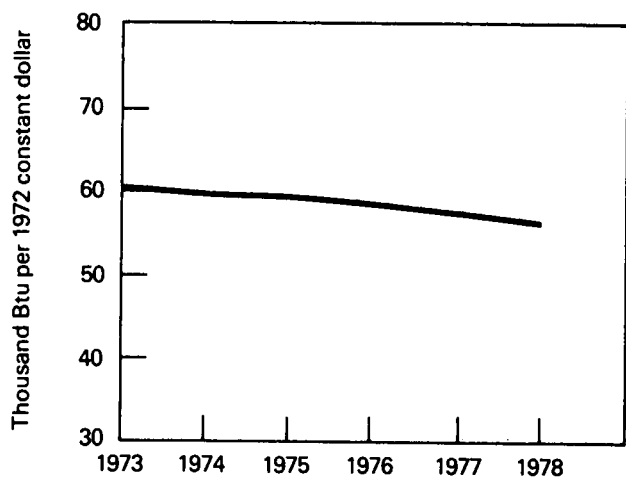
$$\text{Constant 1972 dollars} = \frac{\text{Current dollars in year N}}{\text{Gross National Product implicit price deflator in year N}} \times 100$$

The Gross National Product deflators (1972 = 100) were determined by the Department of Commerce, Bureau of Economic Analysis.

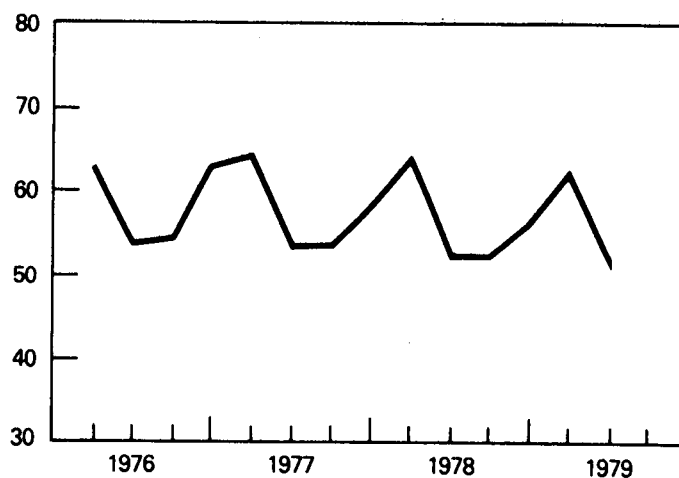
Executive Summary

Energy Consumption per GNP Dollar

Yearly

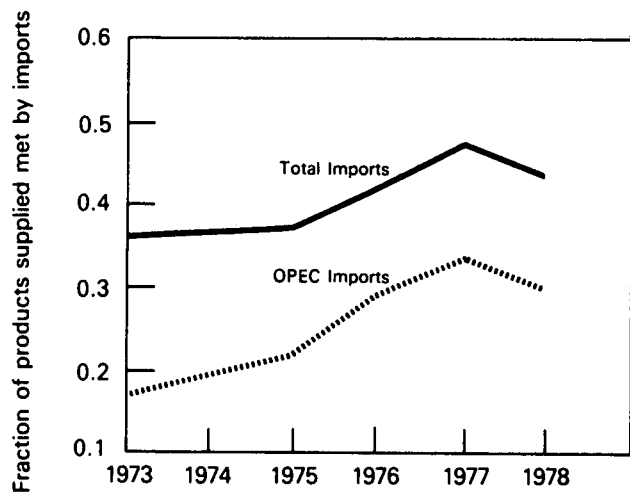


Quarterly

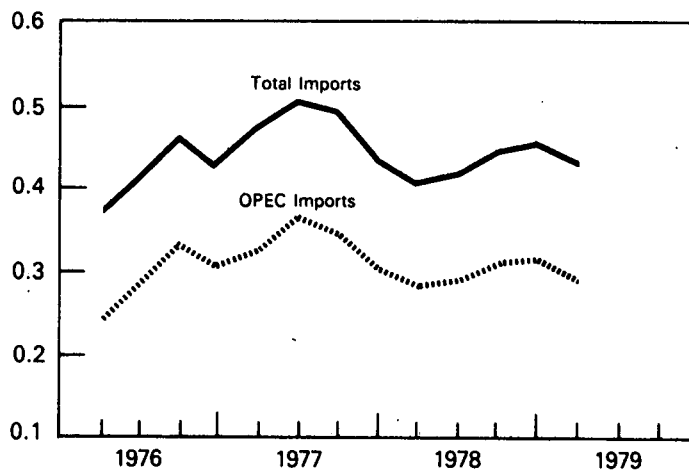


U.S. Dependence on Petroleum Imports

Yearly



Quarterly

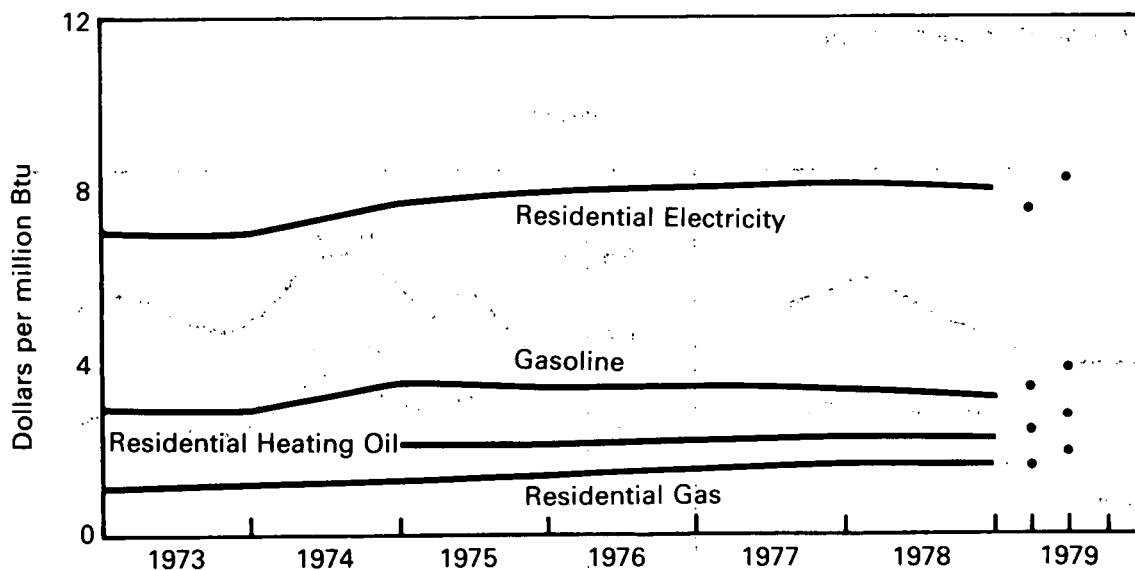


Executive Summary

Energy Indicator — Cost of Fuels to End Users (1972 Dollars)

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	\$/MMBtu	cent/gal	\$/MMBtu	cent/Mcf	\$/MMBtu	cent/kWh	\$/MMBtu
1973	AVERAGE	36.5	2.92	NA	NA	121.2	1.24	2.39	7.00
1974	AVERAGE	44.8	3.59	29.4	2.12	123.4	1.23	2.63	7.71
1975	AVERAGE	43.7	3.50	29.3	2.11	132.8	1.33	2.73	7.99
1976	AVERAGE	43.1	3.46	30.2	2.18	145.4	1.49	2.77	8.11
1977	AVERAGE	43.2	3.46	31.2	2.25	162.2	1.66	2.81	8.23
1978	1st Qtr	41.0	3.28	32.3	2.33	155.0	1.58	2.65	7.76
	2nd Qtr	40.6	3.25	31.4	2.26	169.7	1.73	2.88	8.44
	3rd Qtr	41.3	3.31	30.7	2.21	196.3	2.00	2.85	8.35
	4th Qtr	41.3	3.31	32.1	2.31	164.5	1.68	2.70	7.91
	AVERAGE	41.0	3.28	31.7	2.29	163.5	1.67	2.76	8.10
1979	1st Qtr	42.6	3.41	33.8	2.44	158.0	1.61	2.51	7.34
	2nd Qtr	47.5	3.80	37.2	2.68	171.5	1.75	2.83	8.03

Average Cost of Fuels to End Users (1972 constant dollars)



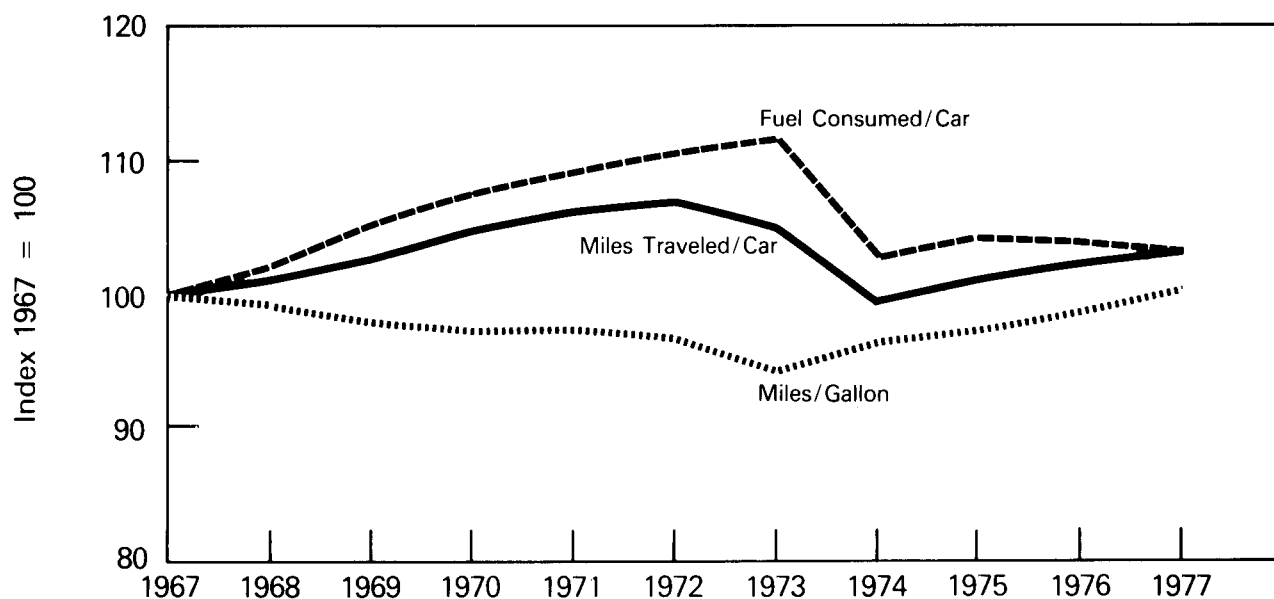
- Sources:
- Motor Gasoline — 1973 through 1977, Lundberg Survey Inc. and 1978, U.S. Department of Energy forms EIA 8 and EIA 79, "Retail Motor Fuels Service Station Survey."
 - Heating Oil — 1974 and 1975, form CLC-92, "No. 2 Heating Oil Monthly Price Adjustment Report," and 1976 forward, FEA form P112 M 1, and EIA 9, "No. 2 Heating Oil Supply/Price Monitoring Report."
 - Natural Gas — 1973 through 1977, Bureau of Mines and Energy Information Administration form 1340 A, "Supply and Disposition of Natural Gas to Non-Producing Distributors;" and Form 1341 A, "Supply and Disposition of Natural Gas to Producers and Pipelines;" and 1978, the American Gas Association, "Quarterly Report of Gas Industry Operations."
 - Electricity — FPC form 5, "Reports of Classes A and B Privately Owned Electric Utilities."
 - Deflator — The Consumer Price Index.

Executive Summary

Energy Indicator—U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1

U.S. Passenger Car Efficiency



Source: • U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics", Table VM-1.

Energy Consumption

Domestic energy consumption in July 1979 was 6.2 quadrillion Btu, 3.1 percent higher than a month ago. This figure is 0.2 percent lower than July 1978 consumption, and 1.6 percent higher than July 1977 consumption.

The residential and commercial sector consumed 2.1 quadrillion Btu in July 1979, 6.9 percent higher than in June and 0.9 percent higher than the level consumed during July 1978. The residential and commercial sector consumed 34.6 percent of the total consumption for July 1979, up from the sector's 34.2 percent share in July 1978 and July 1977.

The industrial sector consumed 2.4 quadrillion Btu in July 1979, up 2.2 percent from June and up 3.2 percent from the consumption level in July 1978. The industrial sector consumed 39.7 percent of the July 1979 total, as compared to the 38.4 percent share of July 1978 and the 38.2 percent share of July 1977.

The transportation sector consumed 1.6 quadrillion Btu in July 1979, down 0.3 percent from June, and down 6.1 percent from the consumption level in July 1978. The transportation sector consumed 25.7 percent of the July 1979 total, as compared to a 27.4 percent share in July 1978 and a 27.6 percent share in July 1977.

The electric utilities consumed an estimated 2.2 quadrillion Btu of energy in July 1979, 9.4 percent higher than in the previous month, and 0.1 percent lower than the energy consumed in July 1978. Coal contributed 47.8 percent of the energy consumed by electric utilities in July 1979, while natural gas contributed 17.4 percent, petroleum 12.5 percent, hydroelectric power 11.5 percent, nuclear power 10.2 percent, and geothermal, wood and waste 0.3 percent. Of the total energy consumed by the electric utilities in July 1979, 60.2 percent was ultimately consumed by the residential and commercial sector (including electricity distributed and losses), 39.7 percent by the industrial sector, and 0.2 percent by the transportation sector.

Consumption

Energy Consumption Summary July 1979 [Quadrillion (10¹⁵) Btu]

Primary Energy Source	Sector ¹				TOTAL
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal ²	0.016	0.286	0.000	1.046	1.348
Natural Gas (dry) ³	0.273	0.651	0.031	0.381	1.338
Petroleum ⁴	0.529	0.631	1.552	0.274	2.987
Hydroelectric ⁵	0.000	0.003	0.000	0.252	0.256
Nuclear ⁶	0.000	0.000	0.000	0.224	0.224
Net Coke Imports ⁷	0.000	0.008	0.000	0.000	0.008
Other ⁸	0.000	0.000	0.000	0.007	0.007
TOTAL PRIMARY ENERGY	0.818	1.580	1.584	2.186	6.168
Electricity Distributed ⁹	0.362	0.239	0.001	(0.602)	
Net Energy Consumption	1.181	1.819	1.585		4.584
Electrical Energy Loss Distributed ¹⁰	0.953	0.628	0.003	(1.584)	1.584
TOTAL ENERGY	2.134	2.447	1.588		6.168

Footnotes

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

¹See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

Footnotes 2 through 10 apply to the table above and provide explanations and sources for the three individual sector tables following in this publication:

²Anthracite, bituminous coal, and lignite. Sources: • Anthracite—1976, U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Coal—Pennsylvania anthracite, Annual," 1977 through 1979, U.S. Department of Energy (DOE), Energy Information Administration, (EIA) *Energy Data Report*, "Weekly Coal Report."

• Bituminous coal and lignite—1973 through 1975, U.S. DOI, BOM, *Minerals Yearbook*, "Bituminous Coal and Lignite, Annual," Federal Power Commission (FPC), Form 4, "Monthly Power Plant Report," 1976 through 1979, DOE, EIA, *Energy Data Report*, "Weekly Coal Report."

• Electric Utility consumption of coal sources: same as footnote 6 below.

³Natural gas consumption by the Transportation Sector is mostly for pipeline use. It is estimated to be the following percentages of non-utility gas consumption: 1973 3.76%, 1974 3.56%, 1975 3.25%, and 1976 through 1979 3.26%. American Gas Association (AGA) data are used to estimate monthly consumption of natural gas by the Residential and Commercial Sector. In completed years, the AGA consumption in each month is taken as a portion of the AGA year's total: that fraction is multiplied by the DOE total for that year to obtain a monthly estimate. For incomplete years, the AGA Residential and Commercial Sector's monthly consumption of natural gas is used directly. In 1973, 36 percent of the AGA's "other" sector is added to the Residential and Commercial Sector; in 1974 this percent is increased to 39 percent; and from 1975 all of the "other" sector is added to the Residential and Commercial Sector. The industrial Sector consumption of natural gas is the difference between the total and the sum of the other sectors.

• Natural gas: 1973 through 1975, DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.

• 1976 through 1979, DOE, *Energy Data Reports*, "Natural Gas Monthly Production and Consumption."

• Electric Utilities natural gas consumption sources: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."

• 1977 through 1979, DOE, EIA, FPC, Form 4, "Monthly Power Plant Report." Residential and Commercial Sector annual data sources are the same as for total natural gas consumption.

⁴Petroleum products are allocated to the Transportation Sector as follows: motor gasoline 100% for all years; naphtha jet fuel 100% for all years; kerosene jet fuel 98.0% 1973, 98.2% 1974, 98.3% 1975, 98.3% 1976, and 97.6% 1977 and 1978; distillate fuel oil 32.8% 1973, 34.1% 1974, 34.1% 1975, ee.7% 1976, and 34.0% 1977 through 1979; residual fuel oil 11.3% 1973, 11.7% 1974, 12.9% 1975, 13.3% 1976, and 13.2% 1977 through 1979; all other petroleum products 4.6% 1973, 4.5% 1974, 4.2% 1975, 4.2% 1976, and 3.9% 1977 through 1979. The remainder is distributed to the Residential and Commercial Sector and the industrial Sector by applying the following percentage shares by year: Residential and Commercial Sector—1973 51.47%, 1974 49.75%, 1975 49.62%, 1976 48.49%, and 1977 through 1979 45.59%; and industrial Sector—1973 48.53%, 1974 50.25%, 1975 50.38%, 1976 51.51%, and 1977 through 1979 48.53%. These percentages are developed on a Btu basis from the sources listed above for the other sectors. Sources: • Petroleum, 1973 through 1975, DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1976 and 1977, DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Annual."

• 1978 and 1979, DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Monthly" and Petroleum Statistics Report."

• Electric Utility consumption of petroleum sources: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."

• 1977 through 1979, DOE, FPC, Form 4, "Monthly Power Plant Report."

• Transportation Sector consumption of petroleum for 1973 through 1975 is derived from DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual" and "Liquefied Petroleum Gas Sales, Annual."

• 1976 through 1979 from DOE, *Energy Data Reports*. "Fuel Oil Sales, Annual" and "Liquefied Petroleum Gas Sales, Annual," and from the sources listed for total petroleum consumption.

⁵Industrial and electric utility generation of hydropower sources: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."

• 1977 through 1979, DOE, EIA, FPC, Form 4, "Monthly Power Plant Report." Imports and exports of electricity sources: FPC, form 12, "Power System Statement."

⁶Sources: 1973 through 1976, FPC, Form 4, "Monthly Power Plant."

• 1977 through 1979, DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

⁷Net coke imports is coke made from coal.

Sources: • 1973 through 1975, DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals, Annual."

• 1976 through 1979, DOE, EIA, *Energy Data Reports*. "Coke and Coal Chemicals, Monthly."

⁸"Other" is electricity porocured from geothermal power and from wood and waste. Sources: same as footnote 6 above.

⁹Electricity was distributed using EIA data on kilowatt-hour sales to ultimate customers. Electrical energy consumed by railroads was distributed to the Transportation Sector.

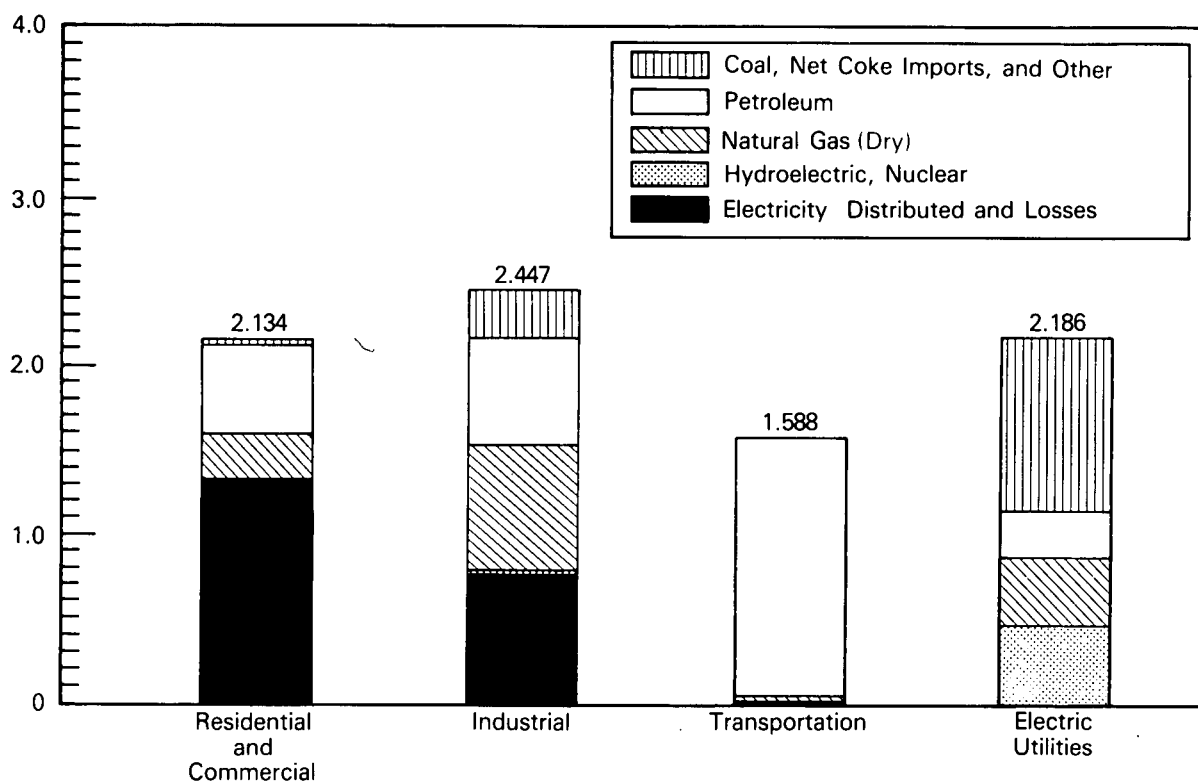
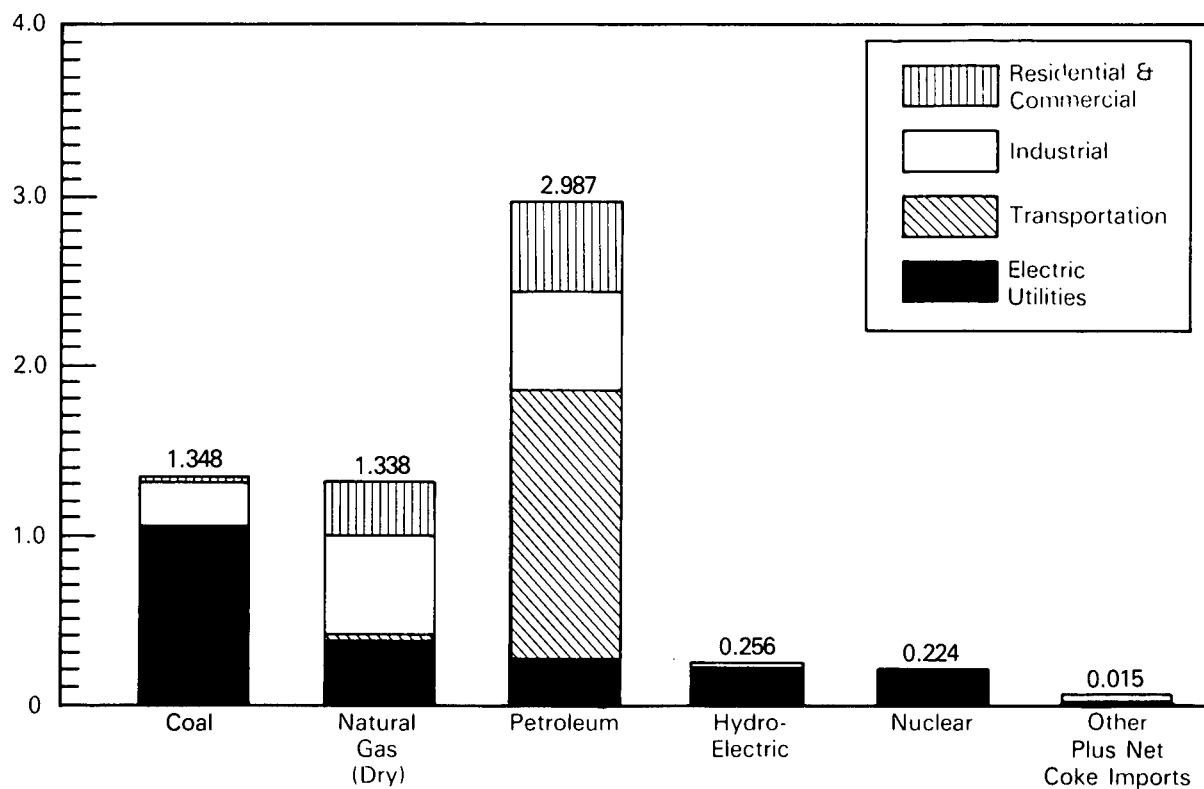
All "Other" sales, largely for use in government buildings, were distributed to the Residential and Commercial Sector. Source: • Sales data—FPC, Form 5, "Monthly Statement of Electric Operating Revenue and income."

¹⁰In generating electricity with nuclear or fossil fuels, approximately 65 percent of the energy is lost in the form of heat. Transmission and 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., utilities energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage.

Consumption

Energy Consumption Summary July 1979

Quadrillion (10^{15}) Btu



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

Consumption

Energy Consumption by the Residential and Commercial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Yearly Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	0.293	7.626	6.831	3.489	8.295	26.534	
1974	TOTAL	0.292	7.518	6.214	3.469	8.419	25.912	
1975	TOTAL	0.248	7.581	5.839	3.584	8.729	25.981	
1976	January	0.030	1.280	0.614	0.345	0.853	3.123	3.123
	February	0.019	1.113	0.541	0.319	0.698	2.690	5.813
	March	0.018	0.874	0.533	0.291	0.715	2.430	8.243
	April	0.020	0.685	0.467	0.274	0.637	2.083	10.326
	May	0.016	0.498	0.473	0.269	0.657	1.913	12.239
	June	0.014	0.340	0.457	0.288	0.759	1.858	14.096
	July	0.011	0.287	0.455	0.337	0.877	1.967	16.063
	August	0.015	0.265	0.473	0.351	0.869	1.972	18.035
	September	0.016	0.278	0.485	0.335	0.718	1.832	19.867
	October	0.021	0.403	0.532	0.290	0.698	1.944	21.811
	November	0.024	0.738	0.580	0.293	0.732	2.367	24.178
	December	0.036	1.105	0.679	0.335	0.847	3.002	27.180
	TOTAL	0.239	7.866	6.290	3.725	9.060	27.180	
1977	January	0.032	1.362	0.630	0.371	0.954	3.349	3.349
	February	0.021	1.203	0.599	0.351	0.727	2.901	6.250
	March	0.019	0.836	0.542	0.310	0.740	2.447	8.698
	April	0.020	0.616	0.479	0.282	0.655	2.052	10.750
	May	0.015	0.401	0.471	0.277	0.718	1.882	12.632
	June	0.016	0.312	0.484	0.312	0.804	1.927	14.559
	July	0.012	0.274	0.450	0.370	0.971	2.077	16.635
	August	0.015	0.253	0.491	0.376	0.937	2.072	18.708
	September	0.014	0.263	0.489	0.355	0.795	1.916	20.624
	October	0.018	0.375	0.544	0.311	0.712	1.959	22.583
	November	0.024	0.584	0.543	0.289	0.718	2.158	24.741
	December	0.028	0.983	0.606	0.329	0.858	2.804	27.545
1978	TOTAL	0.234	7.462	6.327	3.932	9.589	27.545	
	January	0.028	1.232	0.596	R0.375	R0.976	R3.206	R3.206
	February	0.029	1.257	0.571	0.367	0.838	3.063	R6.269
	March	0.023	1.038	0.563	R0.342	0.823	R2.789	R9.058
	April	0.020	0.683	0.497	0.293	0.692	2.184	R11.242
	May	0.018	0.483	0.518	0.283	0.752	2.054	R13.296
	June	0.017	0.313	0.485	0.324	0.846	1.986	R15.281
	July	0.015	0.264	0.478	R0.376	R0.982	R2.115	R17.397
	August	0.016	0.240	0.500	0.385	0.983	2.123	R19.520
	September	0.018	0.249	0.498	0.376	0.842	1.983	R21.503
	October	0.026	0.352	0.548	0.322	0.747	1.995	R23.498
	November	0.027	0.602	0.554	0.301	0.749	2.232	R25.730
	December	0.029	0.966	0.592	0.340	0.880	2.807	R28.537
	TOTAL	0.265	7.678	6.400	R4.083	R10.110	R28.537	
1979	January	0.035	1.308	0.641	R0.397	R1.051	R3.433	R3.433
	February	0.022	1.329	0.596	0.385	0.874	3.207	R6.639
	March	0.017	0.993	0.619	0.349	0.822	2.800	R9.439
	April	0.016	0.748	R0.508	0.309	0.720	R2.301	R11.740
	May	0.015	0.462	0.564	0.297	R0.751	R2.087	R13.827
	June	0.015	0.320	0.524	0.321	R0.816	R1.996	R15.823
	July	0.016	0.273	0.529	0.362	0.953	2.134	17.956
	TOTAL	0.135	5.433	3.981	2.420	5.986	17.956	
	(Year to date)							

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

¹The 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. Notes on the methodology used for sector calculations are provided in the footnotes on page 22.

R = Revised data.

Source: • See footnotes on page 22.

Consumption

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum	Hydroelectric	Net Coke Imports ²	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Yearly Cumulative Total Energy Use
		Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	4.377	10.397	6.441	0.033	(0.008)	2.341	5.564	29.144	
1974	TOTAL	4.047	10.012	6.277	0.031	0.059	2.337	5.668	28.430	
1975	TOTAL	3.786	8.532	5.929	0.030	0.014	2.304	5.613	26.207	
1976	January	0.316	0.777	0.652	0.003	(0.001)	0.196	0.485	2.429	2.429
	February	0.298	0.603	0.575	0.003	(0.001)	0.198	0.433	2.109	4.538
	March	0.316	0.605	0.566	0.003	(0.002)	0.206	0.507	2.201	6.739
	April	0.316	0.578	0.496	0.003	(0.002)	0.205	0.475	2.070	8.809
	May	0.323	0.652	0.502	0.003	(0.003)	0.209	0.511	2.197	11.006
	June	0.308	0.670	0.485	0.003	(0.002)	0.214	0.563	2.241	13.247
	July	0.306	0.731	0.483	0.003	0.000	0.213	0.554	2.290	15.537
	August	0.300	0.707	0.503	0.002	0.001	0.218	0.541	2.273	17.809
	September	0.299	0.715	0.515	0.002	0.001	0.220	0.471	2.223	20.032
	October	0.314	0.948	0.566	0.003	0.006	0.218	0.525	2.581	22.613
	November	0.323	0.896	0.616	0.003	0.001	0.215	0.538	2.593	25.205
	December	0.352	0.885	0.722	0.003	0.002	0.214	0.541	2.719	27.924
	TOTAL	3.773	8.768	6.682	0.033	0.000	2.525	6.144	27.924	
1977	January	0.322	0.812	0.751	0.003	(0.002)	0.210	0.539	2.636	2.636
	February	0.308	0.391	0.715	0.003	0.000	0.206	0.427	2.050	4.686
	March	0.329	0.627	0.647	0.003	(0.002)	0.216	0.515	2.336	7.022
	April	0.309	0.583	0.571	0.003	(0.002)	0.216	0.502	2.182	9.204
	May	0.306	0.703	0.562	0.003	0.000	0.223	0.579	2.377	11.581
	June	0.298	0.696	0.577	0.003	0.000	0.225	0.582	2.381	13.962
	July	0.289	0.690	0.537	0.003	0.002	0.220	0.578	2.319	16.280
	August	0.277	0.744	0.586	0.003	0.001	0.226	0.563	2.400	18.680
	September	0.269	0.824	0.584	0.003	0.007	0.226	0.508	2.421	21.101
	October	0.301	0.840	0.649	0.003	0.004	0.226	0.518	2.541	23.642
	November	0.300	0.851	0.648	0.003	0.001	0.221	0.551	2.574	26.216
	December	0.306	0.880	0.724	0.003	0.006	0.218	0.569	2.706	28.923
	TOTAL	3.612	8.641	7.552	0.037	0.015	2.635	6.431	28.923	
1978	January	0.286	0.896	0.711	0.003	0.001	0.219	R0.571	R2.687	R2.687
	February	0.246	0.622	0.682	0.003	0.001	0.208	0.475	2.236	R4.924
	March	0.243	0.596	0.672	0.003	0.005	0.210	R0.505	R2.233	R7.157
	April	0.274	0.588	0.593	0.003	0.012	0.215	0.509	2.194	R9.351
	May	0.293	0.593	0.618	0.003	0.025	0.227	0.604	2.363	R11.715
	June	0.287	0.573	0.579	0.003	0.009	0.234	0.610	2.295	R14.010
	July	0.291	0.665	0.571	0.003	0.015	R0.229	R0.598	R2.371	R16.381
	August	0.288	0.657	0.597	0.002	0.013	0.240	0.614	2.412	R18.793
	September	0.288	0.660	0.594	0.003	0.012	0.239	0.535	2.331	R21.125
	October	0.309	0.796	0.654	0.003	0.015	0.240	0.557	2.574	R23.699
	November	0.308	0.793	0.661	0.003	0.013	0.235	0.585	2.597	R26.296
	December	0.319	0.845	0.707	0.003	0.009	0.231	R0.598	R2.712	R29.008
	TOTAL	3.433	8.284	7.639	0.036	0.131	R2.727	R6.759	R29.008	
1979	January	0.314	R0.807	0.765	0.003	0.004	R0.230	R0.608	R2.731	R2.731
	February	0.287	R0.567	0.711	0.003	0.003	0.228	0.517	R2.317	R5.047
	March	0.306	R0.557	0.738	0.003	0.002	0.235	0.552	R2.394	R7.441
	April	0.292	0.549	R0.606	0.003	0.005	0.235	0.546	R2.237	R9.678
	May	R0.292	R0.613	0.673	0.003	0.011	0.240	R0.608	R2.442	R12.119
	June	R0.275	R0.623	0.626	0.003	0.010	0.242	0.616	R2.395	R14.514
	July	0.286	0.651	0.631	0.003	0.008	0.239	0.628	2.447	16.961
	TOTAL	2.052	4.369	4.751	0.022	0.044	1.648	4.076	16.961	
	(Year to date)									

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

¹The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. Notes on the methodology used for sector calculations are provided in the footnotes on page 22.

²Net Imports = imports minus exports. Parentheses indicate exports are greater than imports.

R = Revised data.

Source: • See footnotes on page 22.

Consumption

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Yearly Cumulative Total Energy Use
		Quadrillion (10 ¹⁵) Btu						
1973	TOTAL	0.003	0.743	18.132	0.014	0.034	18.927	
1974	TOTAL	0.002	0.685	17.677	0.015	0.035	18.414	
1975	TOTAL	0.001	0.595	17.872	0.015	0.035	18.518	
1976	January	0.000	0.069	1.572	0.001	0.003	1.646	1.646
	February	0.000	0.058	1.415	0.001	0.003	1.477	3.123
	March	0.000	0.050	1.584	0.001	0.003	1.639	4.761
	April	0.000	0.042	1.543	0.001	0.003	1.590	6.351
	May	0.000	0.039	1.518	0.001	0.003	1.561	7.912
	June	0.000	0.034	1.569	0.001	0.003	1.607	9.519
	July	0.000	0.034	1.606	0.001	0.003	1.644	11.163
	August	0.000	0.033	1.563	0.001	0.003	1.599	12.763
	September	0.000	0.033	1.530	0.001	0.002	1.567	14.330
	October	0.000	0.045	1.560	0.001	0.003	1.609	15.939
	November	0.000	0.055	1.596	0.001	0.003	1.655	17.594
	December	0.000	0.067	1.743	0.001	0.003	1.814	19.408
	TOTAL	0.000	0.559	18.799	0.015	0.036	19.408	
1977	January	0.000	0.073	1.668	0.001	0.004	1.746	1.746
	February	0.000	0.054	1.544	0.002	0.003	1.603	3.349
	March	0.000	0.049	1.617	0.001	0.003	1.670	5.019
	April	0.000	0.040	1.592	0.001	0.003	1.636	6.655
	May	0.000	0.037	1.576	0.001	0.003	1.617	8.272
	June	0.000	0.034	1.621	0.001	0.003	1.659	9.931
	July	0.000	0.032	1.642	0.001	0.003	1.678	11.609
	August	0.000	0.034	1.662	0.001	0.003	1.699	13.308
	September	0.000	0.037	1.583	0.001	0.003	1.623	14.931
	October	0.000	0.041	1.615	0.001	0.003	1.660	16.591
	November	0.000	0.048	1.601	0.001	0.003	1.654	18.245
	December	0.000	0.063	1.756	0.001	0.003	1.823	20.068
	TOTAL	0.000	0.543	19.476	0.014	0.035	20.068	
1978	January	0.000	0.072	1.641	0.001	0.004	1.717	1.717
	February	0.000	0.063	1.565	0.001	0.003	1.633	3.350
	March	0.000	0.055	1.735	0.001	0.003	1.795	5.145
	April	0.000	0.043	1.582	0.001	0.003	1.628	6.773
	May	0.000	0.036	1.708	0.001	0.003	1.748	8.521
	June	0.000	0.030	1.679	0.001	0.003	1.714	10.234
	July	0.000	0.031	1.657	0.001	0.003	1.692	11.926
	August	0.000	0.030	1.746	0.001	0.003	1.780	13.706
	September	0.000	0.031	1.596	0.001	0.003	1.630	15.336
	October	0.000	0.039	1.681	0.001	0.003	1.723	17.059
	November	0.000	0.047	1.676	0.001	0.003	1.728	18.787
	December	0.000	0.061	1.753	0.001	0.004	1.819	20.606
	TOTAL	0.000	0.538	20.017	0.015	0.037	20.606	
1979	January	0.000	0.071	1.708	0.001	0.004	1.784	1.784
	February	0.000	R0.064	1.617	0.001	0.003	R1.685	R3.469
	March	0.000	0.052	1.692	0.001	0.003	1.749	R5.218
	April	0.000	0.044	R1.536	0.001	0.003	R1.584	R6.802
	May	0.000	0.036	1.613	0.001	0.003	1.654	R8.456
	June	0.000	0.032	1.557	0.001	0.003	1.593	R10.049
	July	0.000	0.031	1.552	0.001	0.003	1.588	11.637
	TOTAL	0.000	0.330	11.276	0.009	0.022	11.637	
	(Year to date)							

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

¹The transportation sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. Notes on the methodology used for sector calculations are provided in the footnotes on page 22.

R = Revised data.

Source: • See footnotes on page 22.

Consumption

Energy Consumption by Electric Utilities¹

		Coal ¹	Natural Gas (dry)	Petroleum	Hydro-electric Power ²	Nuclear Electric Power	Other ³	Total	Yearly Cumulative Total
		Quadrillion (10 ¹⁵) Btu							
1973	TOTAL	8.627	3.746	3.433	2.975	0.910	0.046	19.738	
1974	TOTAL	8.535	3.518	3.286	3.276	1.272	0.056	19.943	
1975	TOTAL	8.788	3.241	3.092	3.187	1.900	0.072	20.280	
1976	January	0.868	0.210	0.344	0.278	0.178	0.007	1.884	1.884
	February	0.758	0.203	0.264	0.262	0.159	0.007	1.653	3.537
	March	0.781	0.227	0.269	0.283	0.155	0.007	1.723	5.260
	April	0.730	0.233	0.246	0.258	0.121	0.007	1.595	6.855
	May	0.733	0.274	0.232	0.272	0.132	0.006	1.649	8.504
	June	0.789	0.318	0.267	0.273	0.174	0.007	1.827	10.331
	July	0.867	0.347	0.290	0.278	0.196	0.007	1.984	12.316
	August	0.878	0.339	0.301	0.255	0.203	0.007	1.983	14.298
	September	0.779	0.302	0.250	0.219	0.191	0.007	1.748	16.046
	October	0.797	0.256	0.259	0.226	0.192	0.007	1.736	17.782
	November	0.842	0.223	0.320	0.213	0.178	0.006	1.782	19.563
	December	0.900	0.220	0.365	0.217	0.233	0.007	1.941	21.505
	TOTAL	9.720	3.153	3.407	3.032	2.111	0.081	21.505	
1977	January	0.930	0.210	0.463	0.231	0.239	0.007	2.080	2.080
	February	0.807	0.206	0.311	0.173	0.211	0.006	1.716	3.795
	March	0.796	0.239	0.298	0.222	0.223	0.007	1.785	5.580
	April	0.727	0.230	0.272	0.210	0.214	0.006	1.659	7.239
	May	0.797	0.267	0.298	0.210	0.222	0.007	1.800	9.039
	June	0.864	0.319	0.310	0.195	0.232	0.007	1.927	10.966
	July	0.973	0.356	0.381	0.190	0.235	0.007	2.143	13.109
	August	0.957	0.362	0.347	0.190	0.245	0.006	2.107	15.216
	September	0.868	0.334	0.281	0.187	0.211	0.007	1.888	17.104
	October	0.824	0.294	0.246	0.194	0.205	0.007	1.771	18.875
	November	0.832	0.241	0.265	0.228	0.210	0.007	1.783	20.657
	December	0.888	0.226	0.349	0.253	0.256	0.007	1.979	22.636
	TOTAL	10.264	3.285	3.821	2.482	2.702	0.082	22.636	
1978	January	0.922	0.236	0.426	0.277	0.278	0.007	2.146	2.146
	February	0.772	0.218	0.412	0.249	0.235	0.006	1.892	4.037
	March	0.732	0.240	0.393	0.272	0.242	0.005	1.884	5.921
	April	0.743	0.231	0.265	0.279	0.189	0.004	1.712	7.634
	May	0.799	0.270	0.262	0.315	0.220	0.004	1.870	9.504
	June	0.880	0.332	0.286	0.277	0.239	0.005	2.019	11.523
	July	0.954	0.375	0.315	0.270	0.269	0.005	2.188	13.711
	August	0.998	0.353	0.346	0.247	0.276	0.006	2.225	15.937
	September	0.921	0.308	0.286	0.236	0.239	0.007	1.997	17.933
	October	0.856	0.272	0.272	0.218	0.248	0.005	1.871	19.804
	November	0.854	0.236	0.287	0.223	0.268	0.006	1.874	21.677
	December	0.940	0.227	0.360	0.246	0.274	0.007	2.053	23.730
	TOTAL	10.372	3.297	3.908	3.109	2.977	0.068	23.730	
1979	January	1.051	0.236	0.422	0.277	0.299	0.007	2.291	2.291
	February	0.904	0.235	0.348	0.238	0.279	0.006	2.009	4.300
	March	0.900	0.270	0.237	0.286	0.262	0.008	1.962	6.263
	April	0.839	0.270	0.220	0.280	0.198	0.007	1.814	8.077
	May	R0.896	0.286	0.231	R0.317	0.162	0.007	R1.900	R9.977
	June	R0.954	R0.332	0.258	0.276	0.173	0.007	R1.999	R11.975
	July	1.046	0.381	0.274	0.252	0.224	0.007	2.186	14.161
	TOTAL	6.590	2.009	1.989	1.926	1.598	0.049	14.161	
	(Year to date)								

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

¹Includes bituminous coal, lignite, and anthracite.

²Includes net imports of electricity.

³Includes geothermal power and electricity produced from wood and waste.

R = Revised data.

Source: • See footnote on page 22.

Crude Oil and Refined Petroleum Products

Domestic crude oil production averaged 8.6 million barrels per day in August**, 2.5 percent lower than in August 1978 and no change from a month ago. The average for the first 8 months of 1979 was 8.5 million barrels per day.

Total petroleum imports* averaged 8.7 million barrels per day in August 1979, 8.7 percent more than the August 1978 rate and 11.3 percent higher than in July. Imports* averaged 8.1 million barrels per day during the first 8 months of 1979.

In August 1979, 17.6 million barrels per day of petroleum products were supplied for domestic use. Gasoline accounted for 40.9 percent of the total, distillate fuel 15.3 percent, and residual fuel oil 14.9 percent. During the first 8 months of 1979 an average of 18.6 million barrels of petroleum products were supplied each day.

The average for motor gasoline supplied during August 1979 was 7.2 million barrels per day, 8.6 percent lower than the August 1978 supply and 4.7 percent higher than in July 1979. The January through August average was 7.1 million barrels per day.

In August 1979, 2.7 million barrels of distillate fuel oil were supplied per day, 2.9 percent lower than a year ago and 5.1 percent lower than July. The average for the January through August 1979 period was 3.4 million barrels per day. Distillate fuel oil stocks were 197.8 million barrels at the end of August, 1.3 percent below the stock level 1 year ago, and 15.2 percent higher than in July 1979.

Residual fuel oil supplied in August averaged 2.6 million barrels per day, 10.6 percent lower than in August 1978. The average over the January through August period of 1979 was 2.8 million barrels per day. Residual fuel oil stocks measured 85.6 million barrels at the end of August, 16.1 percent above a year ago and 0.9 percent lower than in the previous month.

*Excludes crude petroleum imported for the Strategic Petroleum Reserve.

**August 1979 estimates are based on preliminary data from the American Petroleum Institute and will be revised to conform with data from the EIA Petroleum Reporting System as available. Crude production figures are EIA estimates.

Petroleum

Crude Oil

		Crude Input to Refineries	Total Domestic Production ^{1,2}	Alaskan Production	Crude Oil Imports ^{1,3}	Strategic Petroleum Reserve (SPR) Imports ⁵	Exports	Crude Oil Stocks ^{1,4}	Strategic Petroleum Reserve (SPR) Stocks ⁵
		Thousand barrels per day						Thousand barrels	
1973	AVERAGE	12,431	9,208	198	3,244		2	‡242,478	
1974	AVERAGE	12,133	8,774	193	3,477		3	‡265,020	
1975	AVERAGE	12,442	8,375	191	4,105		6	‡271,354	
1976	AVERAGE	13,416	8,132	173	5,287		8	‡285,471	
1977	January	14,130	7,854	172	6,281		13	294,116	
	February	14,734	8,139	167	6,659		59	291,462	
	March	14,263	8,090	164	6,699		32	299,533	
	April	14,177	8,145	163	6,821		17	318,872	
	May	14,593	8,075	166	6,818		89	328,755	
	June	14,865	8,102	285	7,065		10	333,746	
	July	14,882	8,105	371	7,068		53	335,313	
	August	14,642	8,307	638	6,395		37	338,865	
	September	14,924	8,480	861	6,429		91	334,133	
	October	14,654	8,573	839	6,409	93	85	340,549	2,646
	November	14,636	8,579	860	6,248	73	45	345,197	5,084
	December	14,748	8,487	858	6,248	79	69	339,857	7,826
	AVERAGE	14,602	8,245	464	6,594	621	50		
1978	January	14,139	8,347	867	5,974	114	98	340,082	11,106
	February	13,959	8,373	853	5,551	109	8	335,794	14,276
	March	14,141	8,807	1,246	5,981	132	60	345,333	18,437
	April	13,872	8,708	1,187	5,331	108	92	343,201	21,825
	May	14,982	8,801	1,279	5,452	133	124	329,020	25,629
	June	14,685	8,822	1,304	6,227	146	195	333,247	30,140
	July	14,903	8,747	1,293	6,036	154	138	332,691	35,248
	August	15,178	8,788	1,314	6,118	184	175	316,730	40,968
	September	15,076	8,787	1,320	6,720	225	251	321,213	47,090
	October	15,002	8,830	1,340	6,299	195	272	324,765	53,113
	November	15,336	8,728	1,348	6,413	188	218	322,315	59,312
	December	15,421	8,651	1,345	6,711	245	251	309,915	66,860
	AVERAGE	14,732	8,701	1,227	6,071	161	158		
1979	January	14,658	8,457	1,351	6,562	204	177	302,728	73,142
	February	14,121	8,498	1,267	6,250	178	288	302,981	78,166
	March	14,062	8,585	1,355	6,180	122	370	317,432	82,501
	April	R14,346	R8,533	1,347	R6,047	66	260	R319,759	83,867
	May†	14,451	8,600	1,340	5,610	97	NA	317,044	86,880
	June†	14,799	8,550	1,331	6,272	65	NA	325,247	88,567
	July†	R15,058	R8,570	R1,340	R6,099	41	NA	R312,884	90,101
	August	14,857	8,570	1,340	6,728	NA	NA	322,632	
	AVERAGE	14,549	8,546	1,335	6,219	110	274		

¹See Definitions.

²Includes Alaskan production.

³Excludes SPR imports.

⁴Excludes SPR stocks.

⁵Strategic Petroleum Reserve storage began in October 1977.

⁶This is an annual average. The average for 3 months is 80.

Estimated data in italics. These are likely to be revised next month.

‡Total as of December 31.

†Preliminary data.

R = Revised data.

NA = Not available.

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA "Monthly Petroleum Statistics Report."

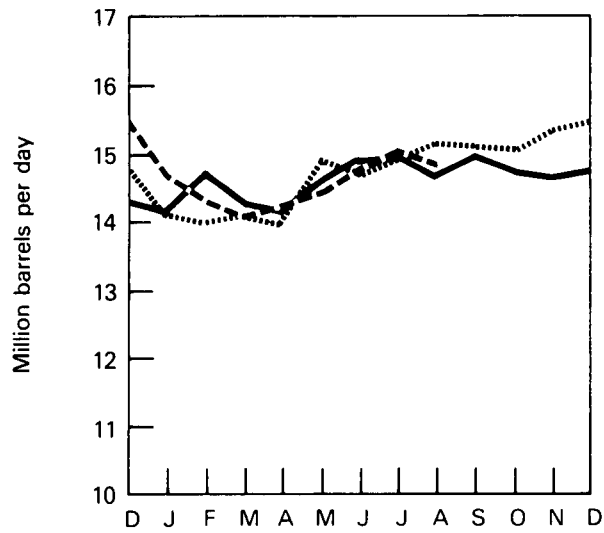
• August 1979 data are EIA estimates based on data from the American Petroleum Institute "Weekly Statistical Bulletin."

• Sources for the *Energy Data Report* and the *Monthly Petroleum Statistics Report* are: EIA form 87, (Refinery Report); EIA form 90, (Crude Stock Report); Economic Regulatory Administration form 60, (Imports); form FEA P124, (First Purchasers — Crude Production); Bureau of Census publication EM 522, (Exports); and State Conservation Agencies.

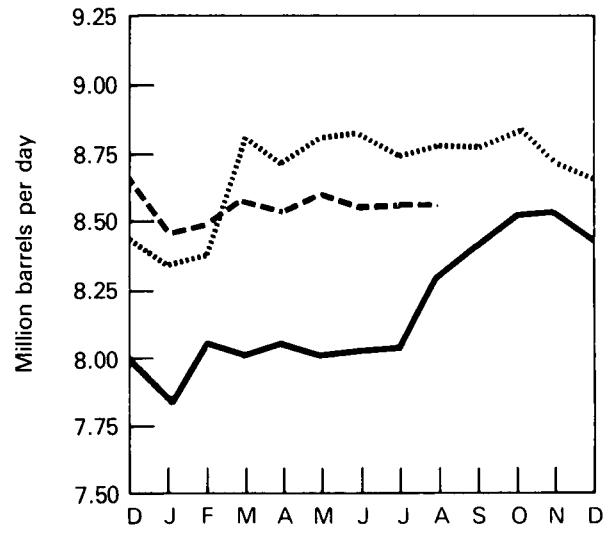
Petroleum

Crude Oil

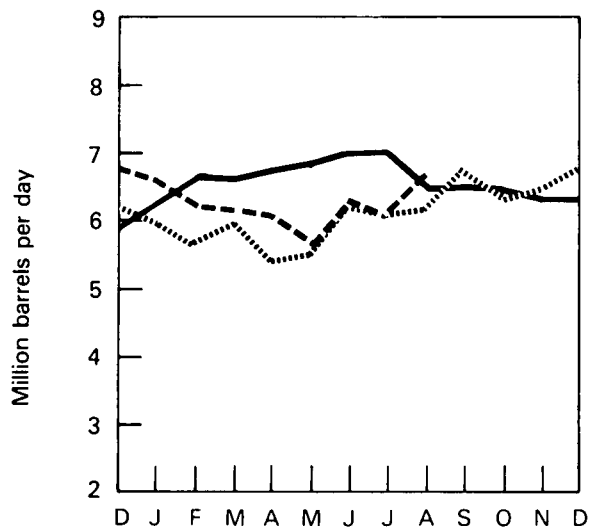
Crude Input to Refineries



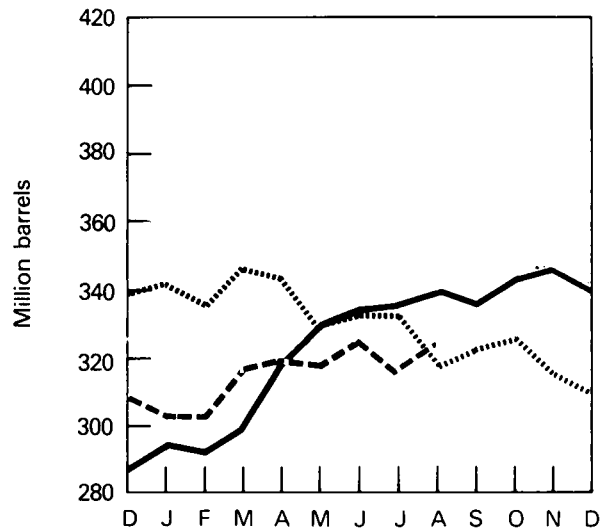
Domestic Production



Imports (Excluding Imports for SPR)



Stocks (Excluding SPR)



— 1977 EIA
 1978 EIA
 --- 1979 EIA, API

Petroleum

Total Refined Petroleum Products¹

Total Petroleum Imports (Crude Oil and Refined Products)

		Products Supplied	Imports	Exports	Total Imports (Excluding SPR)	SPR Imports ²	Total Imports (Including SPR) ²
		Thousand barrels per day			Thousand barrels per day		
1973	AVERAGE	17,308	3,012	229	6,256		
1974	AVERAGE	16,653	2,635	218	6,112		
1975	AVERAGE	16,322	1,951	204	6,056		
1976	AVERAGE	17,461	2,026	215	7,313		
1977	January	20,504	2,622	179	8,903		8,903
	February	20,482	3,338	175	9,997		9,997
	March	18,124	2,684	175	9,383		9,383
	April	17,580	1,902	207	8,723		8,723
	May	16,972	1,753	199	8,571		8,571
	June	18,043	1,872	215	8,937		8,937
	July	17,568	2,027	201	9,095		9,095
	August	18,012	2,179	193	8,574		8,574
	September	17,714	2,137	203	8,567		8,567
	October	17,824	1,862	170	8,271	93	8,364
	November	18,437	1,814	190	8,062	73	8,135
	December	20,052	2,198	206	8,446	79	8,525
	AVERAGE	18,431	2,193	193	8,787	321	8,807
1978	January	19,691	2,065	158	8,040	114	8,154
	February	20,874	2,337	200	7,887	109	7,996
	March	19,627	2,323	209	8,304	132	8,436
	April	17,714	2,100	245	7,431	108	7,539
	May	18,133	1,762	189	7,215	133	7,348
	June	18,271	1,624	204	7,851	146	7,997
	July	17,631	1,948	192	7,984	154	8,138
	August	18,611	1,850	229	7,968	184	8,153
	September	17,933	1,983	226	8,704	225	8,928
	October	18,408	1,724	197	8,021	195	8,217
	November	19,176	2,030	191	8,443	188	8,631
	December	19,920	2,233	205	8,943	245	9,188
	AVERAGE	18,822	1,997	204	8,067	161	8,228
1979	January	20,640	2,205	212	8,767	204	8,970
	February	21,152	2,069	200	8,319	178	8,497
	March	19,180	2,285	234	8,565	122	8,687
	April	R17,311	R1,666	235	R7,713	66	R7,779
	May†	17,986	1,593	NA	7,203	97	7,300
	June†	17,886	1,614	NA	7,885	65	7,950
	July†	R17,436	R1,686	NA	R7,785	41	7,826
	August	17,589	1,936	NA	8,664	NA	NA
	AVERAGE	18,625	1,894	221	8,113	NA	NA

¹See Definitions.

²Strategic Petroleum Reserve storage began in October 1977.

³This is an annual average. The average for 3 months is 80.

Estimated data in italics. These are likely to be revised next month.

R = Revised data.

NA = Not available.

†Preliminary data.

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

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA "Monthly Petroleum Statistics Report."

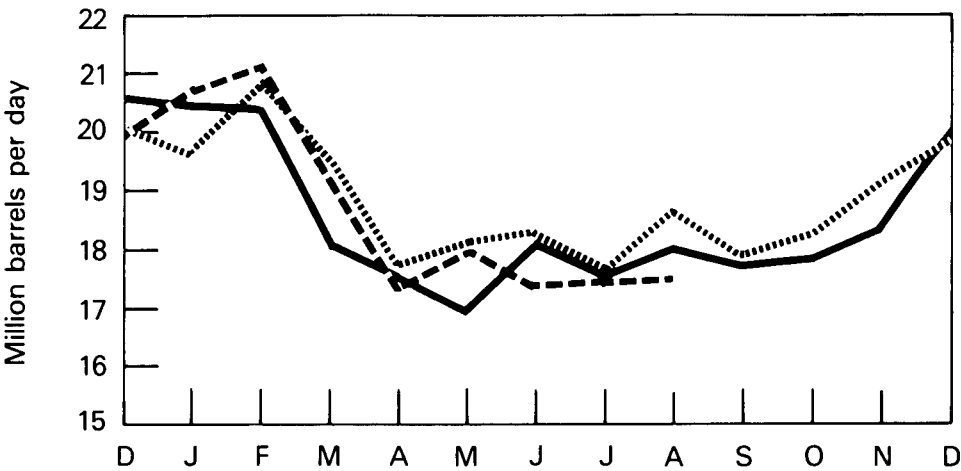
• August 1979 data are EIA estimates based on data from the American Petroleum Institute "Weekly Statistical Bulletin."

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); EIA form 64, (Natural Gas Liquids Operations Report); EIA form 87, (Refinery Report); EIA form 88, (Bulk Terminal); EIA form 89, (Pipeline Report); EIA form 90, (Crude Stock Report); form FEA P124, (First Purchasers — Crude Production); Bureau of Census publications IM 145, (Imports); EM 522, (Exports); and FT 800, (Exports); and State Conservation Agencies.

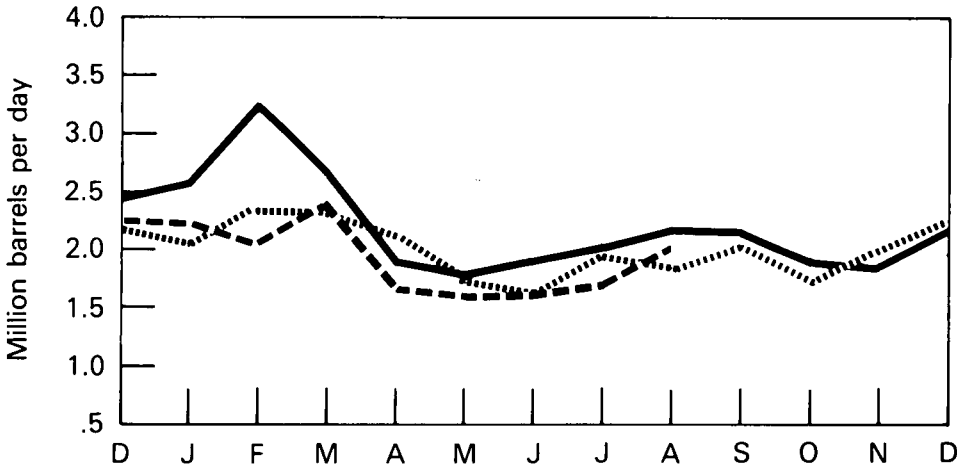
Petroleum

Total Petroleum Products Supplied and Imports

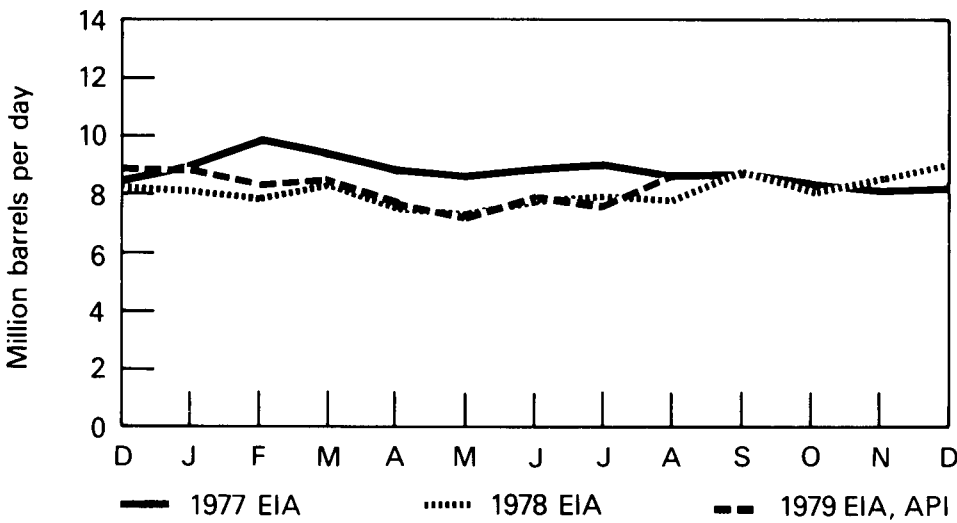
Total Refined Petroleum Products Supplied



Refined Products Imports



Total Petroleum Imports (Excluding Imports for SPR)



Petroleum

Petroleum Imports from OPEC Sources

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC ¹	Total OPEC	Arab Members of OPEC
Thousand barrels per day											
1973											
AVERAGE	136.0	213.3	222.8	164.4	458.8	485.7	70.6	1,134.9	106.4	2,992.9	914.7
1974											
AVERAGE	190.1	300.4	468.8	4.4	713.4	461.3	73.9	979.1	88.4	3,279.8	752.5
1975											
AVERAGE	282.4	389.6	280.4	231.8	761.8	714.6	116.7	702.5	121.5	3,601.3	1,382.6
1976											
AVERAGE	432.2	538.8	298.5	453.3	1,024.7	1,229.8	254.4	700.1	134.0	5,065.8	2,424.1
1977											
January	488.0	637.2	396.8	624.5	1,272.5	1,327.1	319.5	841.8	324.4	6,231.8	2,990.9
February	666.1	581.0	412.4	652.8	1,256.3	1,441.8	316.7	937.5	241.0	6,505.5	3,118.0
March	470.8	574.5	735.0	738.3	1,299.9	1,347.8	369.5	678.9	193.1	6,407.8	3,035.8
April	664.9	523.9	517.2	782.9	1,254.5	1,437.4	323.7	666.0	250.4	6,420.9	3,367.6
May	392.8	509.5	562.9	768.7	1,072.3	1,724.1	252.5	534.4	412.3	6,229.5	3,427.8
June	453.3	671.6	562.8	841.3	1,223.0	1,432.6	438.6	668.7	338.2	6,630.0	3,399.5
July	567.8	538.9	857.3	763.4	1,194.7	1,404.9	274.3	655.6	350.8	6,606.3	3,247.9
August	632.2	552.8	500.1	640.0	975.2	1,401.0	308.6	753.1	276.9	6,039.9	3,121.5
September	550.8	391.0	448.6	679.2	1,084.8	1,487.4	348.4	744.8	201.4	5,936.4	3,215.2
October	663.0	466.8	413.0	679.7	1,159.3	1,342.9	253.3	591.5	272.1	5,841.6	3,142.4
November	590.6	514.6	422.7	846.9	943.0	1,119.2	420.1	521.3	285.0	5,663.4	3,169.3
December	574.0	533.1	573.4	656.4	989.6	1,102.8	402.4	709.5	289.2	5,830.4	2,958.3
AVERAGE	558.6	541.0	535.0	722.6	1,143.0	1,380.4	335.3	690.4	286.7	6,193.1	3,182.2
1978											
January	682.3	462.7	681.5	559.9	822.9	1,198.2	348.7	628.4	227.9	5,612.5	2,925.1
February	635.9	393.5	526.2	575.8	758.4	982.4	485.8	750.5	252.6	5,360.1	2,792.3
March	709.5	579.4	547.3	589.9	944.8	1,125.6	296.2	893.6	240.6	5,926.9	2,884.0
April	597.6	504.7	408.6	601.8	584.3	986.6	435.0	641.9	220.2	4,980.7	2,732.2
May	667.1	508.5	730.4	498.7	790.2	786.3	404.5	527.6	84.5	4,997.8	2,396.7
June	756.6	637.1	508.5	630.3	851.7	1,111.3	342.8	481.1	235.3	5,554.7	3,004.8
July	662.5	617.8	532.5	622.2	945.0	1,028.8	289.4	531.9	286.9	5,517.0	2,784.6
August	464.2	533.4	574.2	781.6	934.5	1,102.5	404.2	505.8	206.5	5,506.9	2,872.2
September	609.9	572.7	586.4	757.5	1,029.6	1,242.6	389.6	648.2	257.0	6,093.5	3,164.1
October	678.8	527.9	608.2	697.6	927.7	1,167.3	397.2	524.1	112.6	5,641.4	2,983.0
November	559.4	506.2	455.5	749.0	1,146.3	1,380.7	415.1	635.1	222.0	6,069.3	3,245.3
December	561.5	603.0	368.8	663.7	1,107.0	1,524.8	344.5	841.6	345.6	6,360.5	3,267.4
AVERAGE	632.1	538.2	544.7	644.1	904.7	1,137.2	378.4	633.5	224.0	5,636.9	2,920.8
1979											
January	663.1	502.8	187.1	734.9	1,115.0	1,557.1	341.4	656.9	229.0	5,987.3	3,393.9
February	723.7	504.8	85.8	609.3	963.1	1,613.4	309.8	754.8	170.7	5,735.4	3,362.0
March	579.0	400.5	22.2	598.3	1,385.5	1,296.7	298.3	843.0	272.5	5,696.0	2,936.6
April	673.5	348.3	34.9	770.8	963.0	1,483.5	285.2	R612.0	129.5	R5,300.7	R3,297.6
May†	625.7	286.3	196.5	637.6	1,063.9	1,233.9	291.9	620.6	147.5	5,104.1	2,841.6
June†	516.0	385.0	318.3	748.4	885.1	1,217.1	270.3	561.6	338.8	5,240.8	3,019.1
July†	591.4	347.2	387.5	632.5	930.0	1,309.2	244.3	597.7	166.6	5,206.5	2,871.3
AVERAGE	623.5	395.2	177.3	676.1	1,045.9	1,384.4	291.5	663.2	208.1	5,465.3	3,099.0

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

¹Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

†Preliminary data.

R = Revised data.

Sources: • 1973 through 1976: Bureau of Mines' *Mineral Industry Surveys*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "PAD Districts Supply/Demand, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "PAD Districts Supply/Demand, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

• Sources for the *Energy Data Reports* and the *Monthly Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); and Bureau of Census publication IM 145, (Imports).

Petroleum

Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other	Total
Thousand barrels per day									
1973									
AVERAGE	174.0	1,314.8	15.7	584.7	99.5	254.8	329.4	480.3	3,263.2
1974									
AVERAGE	163.8	1,069.5	8.5	511.0	90.4	250.8	391.0	347.4	2,832.4
1975									
AVERAGE	152.4	846.4	71.4	331.8	89.7	242.4	406.4	313.9	2,454.4
1976									
AVERAGE	118.5	599.3	87.2	275.4	88.1	274.3	422.3	381.7	2,246.8
1977									
January	170.0	514.5	97.9	304.7	82.6	327.0	619.7	554.8	2,671.2
February	302.7	607.1	168.0	382.4	86.3	413.3	549.0	983.0	3,491.8
March	206.1	564.7	171.5	246.1	97.4	301.5	505.4	882.2	2,974.9
April	141.3	507.0	155.2	110.7	85.3	218.5	409.0	674.7	2,301.7
May	138.5	438.2	173.7	153.7	105.8	308.1	376.2	647.4	2,341.6
June	137.7	494.0	180.7	196.1	89.4	271.1	322.0	616.1	2,307.1
July	177.9	483.2	158.7	239.0	127.2	275.8	477.7	549.4	2,488.9
August	168.8	502.5	215.2	224.5	118.8	281.2	431.2	592.3	2,534.5
September	140.2	528.5	167.6	201.1	156.7	250.9	433.9	751.5	2,630.4
October	122.3	481.8	246.6	196.5	114.1	288.4	451.9	620.9	2,522.5
November	184.4	509.2	230.7	93.3	98.7	237.2	462.8	655.0	2,471.3
December	166.8	580.2	186.6	191.9	97.8	305.5	555.6	610.2	2,694.6
AVERAGE	170.5	516.9	179.4	210.9	105.1	289.3	466.2	675.8	2,614.1
1978									
January	167.5	479.7	236.4	215.2	98.0	295.0	466.0	583.3	2,541.1
February	217.6	507.5	221.9	225.2	99.6	295.8	490.6	577.9	2,636.1
March	211.5	436.9	230.9	238.1	63.6	274.2	492.8	560.8	2,508.8
April	140.9	392.4	231.4	258.3	95.0	302.1	371.9	766.7	2,558.7
May	194.3	396.0	257.6	230.6	73.6	189.0	304.0	704.6	2,349.7
June	144.6	472.6	287.1	213.3	117.6	199.3	324.5	683.6	2,442.6
July	166.0	531.0	319.5	201.6	93.8	281.7	402.2	625.4	2,621.2
August	187.7	422.9	372.9	291.0	82.3	247.6	431.0	610.4	2,645.8
September	116.8	431.6	460.6	217.1	95.2	262.1	431.6	819.7	2,834.7
October	105.9	433.1	392.1	175.5	88.5	203.8	476.3	700.3	2,575.5
November	158.8	469.2	401.8	223.4	71.3	215.1	485.7	536.0	2,561.3
December	92.3	651.0	396.0	271.6	96.3	249.6	448.3	622.6	2,827.7
AVERAGE	158.4	468.6	317.8	230.1	89.4	251.0	426.8	649.4	2,591.5
1979									
January	159.5	564.1	560.3	227.0	109.1	116.0	477.0	770.1	2,983.1
February	103.5	561.7	415.4	254.8	68.2	191.4	421.1	745.4	2,761.5
March	93.7	614.5	397.4	314.1	63.8	214.7	561.6	731.1	2,990.9
April	129.4	R576.9	R301.6	R175.9	64.9	144.1	474.7	R610.6	R2,478.1
May†	118.9	446.2	362.4	171.1	101.7	80.7	382.0	532.9	2,195.9
June†	138.1	447.9	441.8	166.4	101.7	169.5	399.3	840.5	2,709.2
July†	120.8	428.0	355.9	203.9	117.2	169.7	451.2	772.8	2,619.5
AVERAGE	123.6	519.4	405.1	216.1	89.9	154.6	453.0	714.2	2,676.5

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

R = Revised data.

† Preliminary data.

Sources: • 1973 through 1976: Bureau of Mines' *Mineral Industry Surveys*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "PAD Districts Supply/Demand, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "PAD Districts Supply/Demand, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

• Sources for the *Energy Data Reports* and the *Monthly Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); and Bureau of Census publication IM 145, (Imports).

Petroleum

Motor Gasoline

		Product Supplied			Production ¹	Imports	Exports	Stocks ¹
		Total	Unleaded	Unleaded Percent of Total				
		Thousand barrels per day					Thousand barrels	
1973	AVERAGE	6,674	NA	NA	6,527	134	4	‡209,395
1974	AVERAGE	6,537	NA	NA	6,358	204	2	‡218,346
1975	AVERAGE	6,675	NA	NA	6,518	184	2	‡234,925
1976	AVERAGE	6,978	NA	NA	6,838	131	3	‡231,387
1977	January	6,472	1,549	23.9	6,932	231	8	252,608
	February	6,900	1,773	25.7	6,815	188	2	255,519
	March	6,908	1,657	24.0	6,862	257	0	262,118
	April	7,345	1,863	25.4	6,966	269	1	258,835
	May	7,029	1,803	25.7	6,945	202	2	262,504
	June	7,593	2,142	28.2	7,144	246	1	256,446
	July	7,439	2,146	28.8	7,247	248	1	258,185
	August	7,420	2,096	28.2	7,188	190	1	256,904
	September	7,316	2,081	28.4	7,059	222	1	255,859
	October	7,130	2,135	29.9	6,930	179	1	255,194
	November	7,191	2,060	28.6	7,123	179	2	258,537
	December	7,375	2,400	32.5	7,146	197	1	257,578
		AVERAGE	7,177	1,976	27.5	7,031	217	2
1978	January	6,670	2,097	31.4	6,932	211	1	272,287
	February	6,884	2,162	31.4	6,630	210	1	271,077
	March	7,256	2,425	33.4	6,750	142	1	259,801
	April	7,206	2,391	33.2	6,668	180	1	249,079
	May	7,732	2,343	30.3	7,059	174	2	233,612
	June	7,917	2,697	34.1	7,213	238	1	219,660
	July	7,579	2,629	34.7	7,264	212	2	216,488
	August	7,872	2,834	36.0	7,453	183	1	209,194
	September	7,406	2,607	35.2	7,399	257	2	216,682
	October	7,461	2,576	34.5	7,176	188	2	213,665
	November	7,518	2,713	36.1	7,583	161	1	220,516
	December	7,454	2,751	36.7	7,831	182	1	237,885
		AVERAGE	7,416	2,521	33.9	7,167	195	1
1979	January	6,893	2,609	37.8	7,272	179	2	255,664
	February	7,267	2,715	37.4	6,941	160	2	251,346
	March	7,221	2,733	37.8	6,654	168	1	239,162
	April	R7,068	2,786	R39.4	6,765	156	1	R235,192
	May†	7,185	2,751	38.3	6,786	142	NA	227,178
	June†	7,161	2,787	38.9	6,989	253	NA	229,703
	July†	R6,874	R2,789	R40.6	R7,000	R222	NA	R240,450
	August	7,198	2,880	40.0	6,954	146	NA	233,259
		AVERAGE	7,106	2,757	38.8	6,920	178	1

¹See Definitions.

Estimated data in italics. These are likely to be revised next month.

‡Total as of December 31.

R = Revised data.

NA = Not available.

†Preliminary data.

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

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual" (except unleaded gasoline).

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

• August 1979 data are EIA estimates based on data from the American Petroleum Institute, "Weekly Statistical Bulletin."

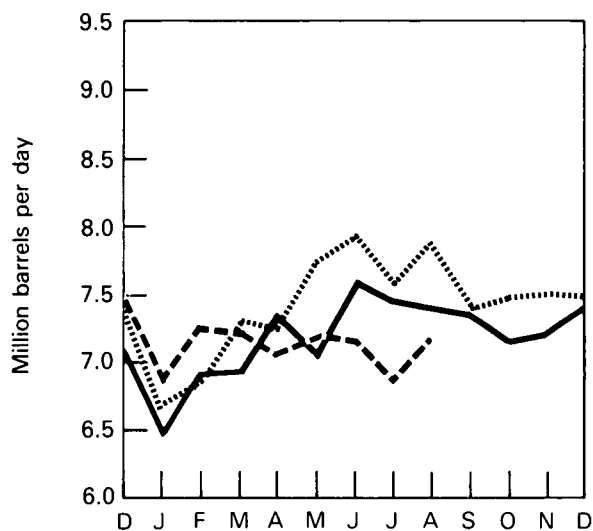
• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); EIA form 64, (Natural Gas Liquids Operation Report); EIA form 87, (Refinery Report); EIA form 88, (Bulk Terminals); EIA form 89, (Pipeline Report); Bureau of Census publications IM 145, (Imports); and FT 800, (Exports).

• Unleaded gasoline — July 1979 and back: EIA "Monthly Petroleum Statistics Report."

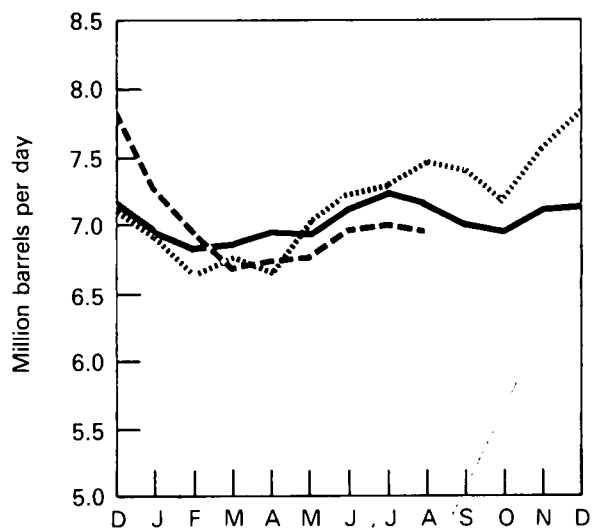
Petroleum

Motor Gasoline

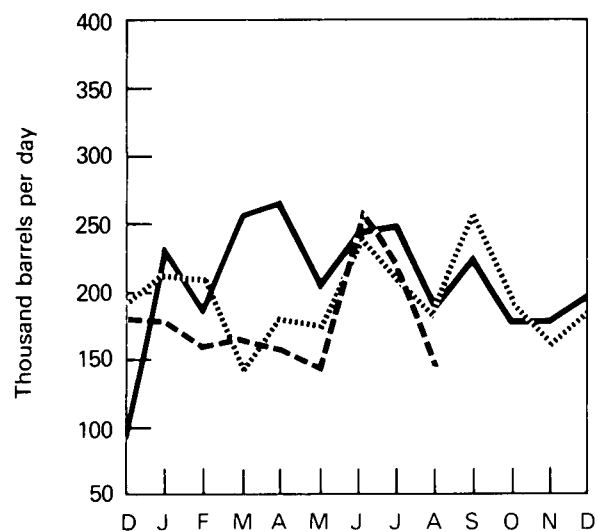
Product Supplied



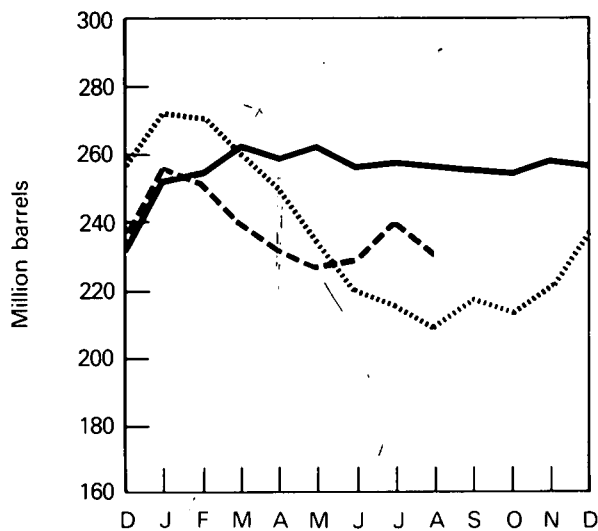
Production



Imports



Stocks



— 1977 EIA
 1978 EIA
 --- 1979 EIA, API

Petroleum

Jet Fuel

		Product Supplied	Production	Imports	Exports	Stocks
			Thousand barrels per day			Thousand barrels
1973	AVERAGE	1,059	859	212	4	‡28,544
1974	AVERAGE	993	836	163	3	‡29,435
1975	AVERAGE	1,001	871	133	2	‡30,380
1976	AVERAGE	987	918	76	2	‡32,085
1977	January	1,054	916	77	2	30,156
	February	1,036	973	74	2	30,406
	March	1,040	953	99	2	30,721
	April	1,017	989	86	4	32,337
	May	991	977	57	2	33,626
	June	988	994	30	1	34,695
	July	1,041	927	85	1	35,015
	August	1,111	1,007	71	1	33,966
	September	1,048	1,002	53	2	34,133
	October	1,016	972	67	2	34,819
	November	1,035	948	107	1	35,386
	December	1,091	976	90	2	34,548
	AVERAGE	1,039	973	75	2	
1978	January	980	922	60	1	34,603
	February	1,107	994	69	2	33,332
	March	1,112	972	98	2	32,003
	April	1,014	983	119	1	34,626
	May	995	1,014	108	2	38,514
	June	1,055	960	59	2	37,408
	July	1,012	928	105	2	38,014
	August	1,129	970	86	1	35,731
	September	1,078	991	75	1	35,324
	October	1,072	937	65	2	33,106
	November	1,112	1,016	89	2	32,838
	December	1,056	994	90	2	33,667
	AVERAGE	1,060	973	85	2	
1979	January	1,100	950	97	1	31,993
	February	1,137	996	88	2	30,449
	March	1,088	1,097	61	1	32,607
	April	R961	R1,040	R43	1	R36,217
	May†	977	976	45	NA	37,540
	June†	1,061	956	43	NA	35,710
	July†	R1,091	R963	R78	NA	R34,144
	August	1,168	1,085	46	NA	35,122
	AVERAGE	1,073	1,008	62	1	

Estimated data in italics. These are likely to be revised next month.

‡Total as of December 31.

R = Revised data.

NA = Not available.

†Preliminary data.

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

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

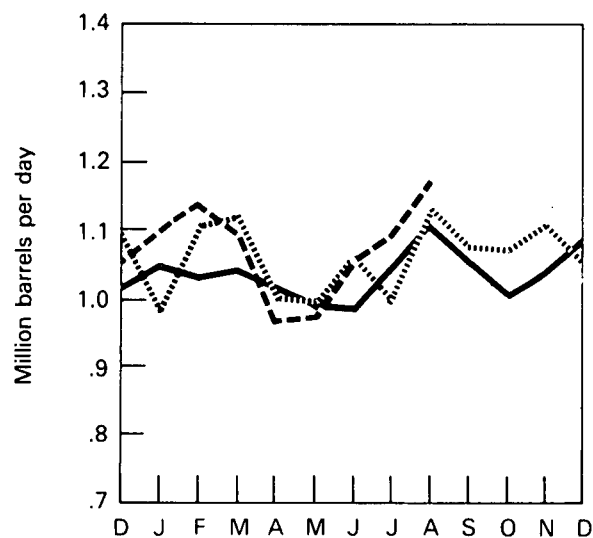
• August 1979 data are EIA estimates based on data from the American Petroleum Institute, "Weekly Statistical Bulletin."

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); form EIA 64, (Natural Gas Liquids Operation Report); form EIA 87, (Refinery Report); form EIA 88, (Bulk Terminals); form EIA 89, (Pipeline Report); Bureau of Census publications IM 145, (Imports); EM 522, (Exports); and FT 800, (Exports).

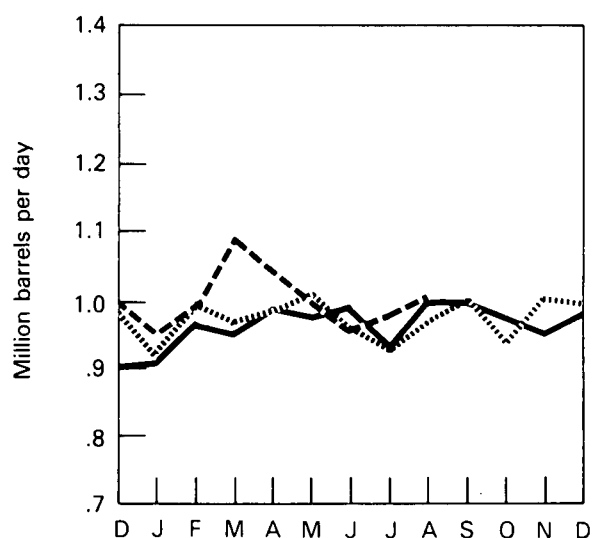
Petroleum

Jet Fuel

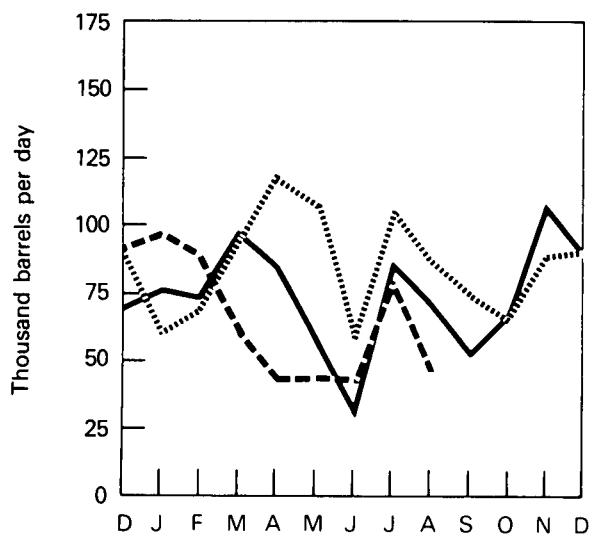
Product Supplied



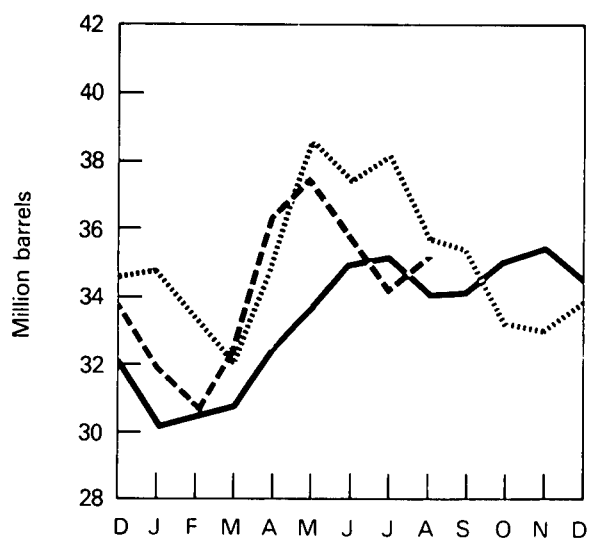
Production



Imports



Stocks



— 1977 EIA
 1978 EIA
 - - - 1979 EIA, API

Petroleum

Distillate Fuel Oil

		Product Supplied	Production ¹	Imports	Exports	Stocks ¹
		Thousand barrels per day				Thousand barrels
1973	AVERAGE	3,092	2,820	392	9	†196,421
1974	AVERAGE	2,948	2,668	289	2	†200,029
1975	AVERAGE	2,851	2,653	155	1	†208,787
1976	AVERAGE	3,133	2,924	146	1	†185,948
1977	January	5,103	3,369	347	1	142,975
	February	4,708	3,695	664	1	133,246
	March	3,442	3,173	547	1	141,876
	April	2,936	2,995	153	3	148,223
	May	2,782	3,130	99	0	162,222
	June	2,770	3,191	135	0	178,835
	July	2,550	3,198	191	0	204,875
	August	2,632	3,272	161	0	229,783
	September	2,714	3,311	169	1	252,783
	October	3,037	3,362	150	5	267,392
	November	3,421	3,339	188	3	270,571
	December	4,205	3,324	227	2	250,260
	AVERAGE	3,352	3,277	250	1	
1978	January	4,439	3,054	194	1	213,411
	February	4,831	2,937	209	16	165,830
	March	4,089	2,999	187	0	137,877
	April	3,092	2,941	100	6	136,240
	May	3,044	3,208	119	1	145,046
	June	2,837	3,105	146	0	157,515
	July	2,514	3,110	149	4	180,513
	August	2,779	3,278	143	4	200,351
	September	2,653	3,172	163	2	220,794
	October	3,068	3,286	178	2	233,066
	November	3,568	3,352	223	3	233,207
	December	4,135	3,337	254	2	216,367
	AVERAGE	3,413	3,150	172	3	
1979	January	4,543	3,005	226	1	175,695
	February	4,792	2,863	196	7	127,034
	March	3,627	2,992	176	5	112,728
	April	R3,006	R2,935	149	4	R114,989
	May†	3,009	3,093	175	NA	122,986
	June†	2,753	3,184	178	NA	141,282
	July†	R2,569	R3,342	R215	NA	R171,783
	August	2,639	3,345	299	NA	197,809
	AVERAGE	3,361	3,098	202	4	

¹See Definitions.

Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

R = Revised data.

NA = Not available.

†Preliminary data.

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

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

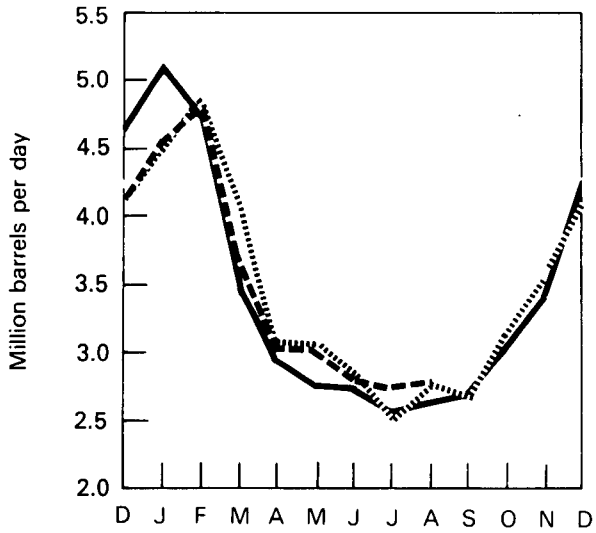
• August 1979 data are EIA estimates based on data from the American Petroleum Institute, "Weekly Statistical Bulletin."

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); form EIA 64, (Natural Gas Liquids Operation Report); form EIA 87, (Refinery Report); form EIA 88, (Bulk Terminals); form EIA 89, (Pipeline Report); Bureau of Census publications IM 145, (Imports); EM 522, (Exports); and FT 800, (Exports).

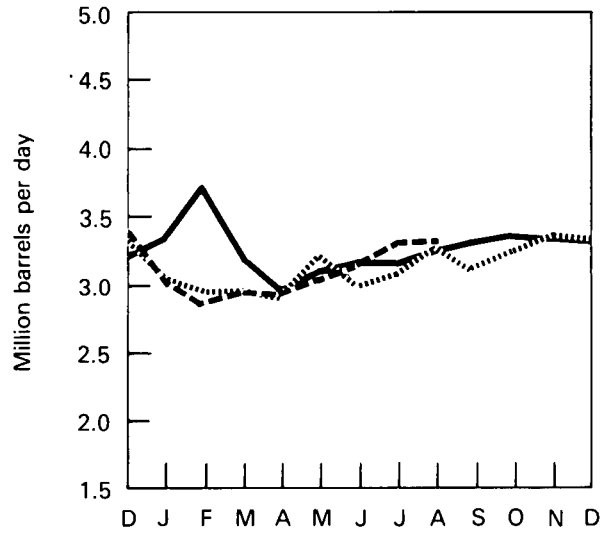
Petroleum

Distillate Fuel Oil

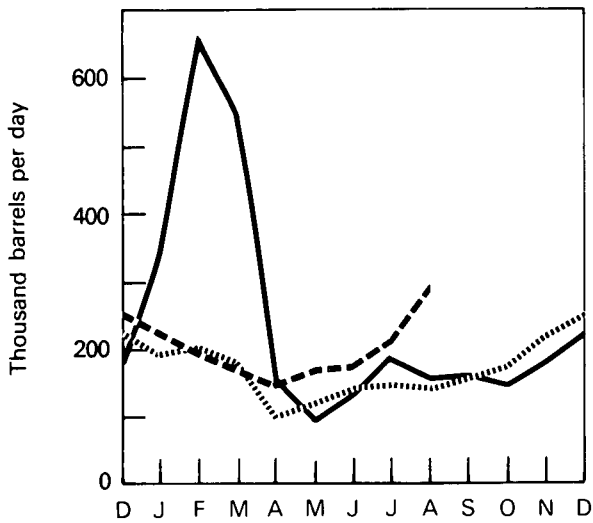
Product Supplied



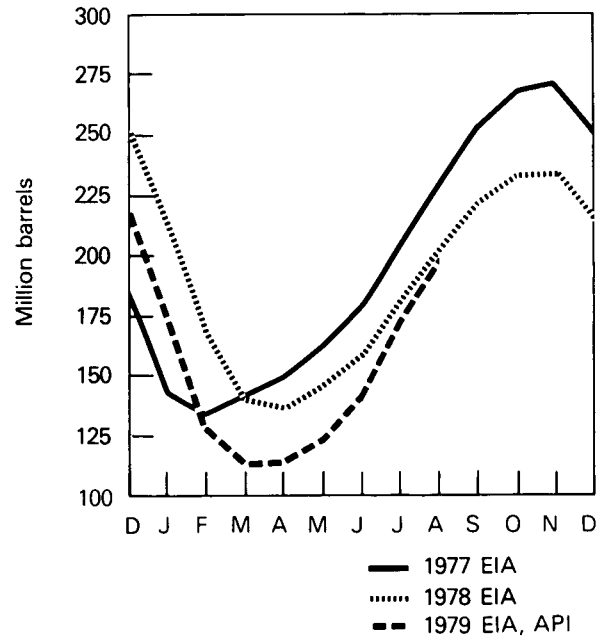
Production



Imports



Stocks



— 1977 EIA
 1978 EIA
 - - - 1979 EIA, API

Petroleum

Residual Fuel Oil

		Product Supplied	Production	Imports	Exports	Stocks
		Thousand barrels per day				Thousand barrels
1973	AVERAGE	2,822	971	1,853	23	\$53,480
1974	AVERAGE	2,639	1,070	1,587	14	\$59,694
1975	AVERAGE	2,462	1,235	1,223	15	\$74,126
1976	AVERAGE	2,801	1,377	1,413	12	\$72,344
1977	January	3,761	1,892	1,615	2	64,760
	February	3,719	1,955	1,996	8	71,429
	March	3,185	1,720	1,448	3	71,192
	April	2,874	1,691	1,140	3	70,186
	May	2,729	1,682	1,145	5	73,420
	June	2,958	1,720	1,181	2	72,036
	July	2,812	1,735	1,271	18	77,840
	August	3,049	1,635	1,441	9	78,798
	September	2,926	1,750	1,458	3	87,522
	October	2,707	1,749	1,218	2	95,896
	November	2,819	1,695	1,094	7	95,155
	December	3,354	1,839	1,348	12	89,993
	AVERAGE	3,071	1,754	1,359	6	
1978	January	3,496	1,872	1,358	13	81,434
	February	3,964	1,801	1,565	10	64,852
	March	3,536	1,758	1,700	22	62,187
	April	2,992	1,554	1,565	7	66,229
	May	2,667	1,646	1,221	16	72,359
	June	2,618	1,582	1,012	4	71,916
	July	2,780	1,593	1,296	10	75,346
	August	2,939	1,636	1,264	25	73,748
	September	2,714	1,647	1,315	12	81,186
	October	2,631	1,575	1,121	8	83,359
	November	2,849	1,672	1,351	6	88,769
	December	3,096	1,756	1,393	19	90,204
	AVERAGE	3,018	1,674	1,345	13	
1979	January	3,533	1,907	1,355	6	81,997
	February	3,596	1,792	1,307	10	68,229
	March	3,238	1,718	1,642	14	71,968
	April	R2,479	R1,643	R1,126	2	R81,002
	May†	2,489	1,602	1,007	NA	84,632
	June†	2,542	1,555	869	NA	80,736
	July†	R2,312	R1,583	R912	NA	R86,384
	August	2,627	1,595	1,131	NA	85,637
	AVERAGE	2,846	1,674	1,168	8	

Estimated data in italics. These are likely to be revised next month.

‡Total as of December 31.

R = Revised data.

NA = Not available.

†Preliminary data.

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

Sources: • 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1977: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Annual."

• January 1978 through April 1979: EIA *Energy Data Reports*, "Petroleum Statement, Monthly."

• May 1979 through July 1979: EIA, "Monthly Petroleum Statistics Report."

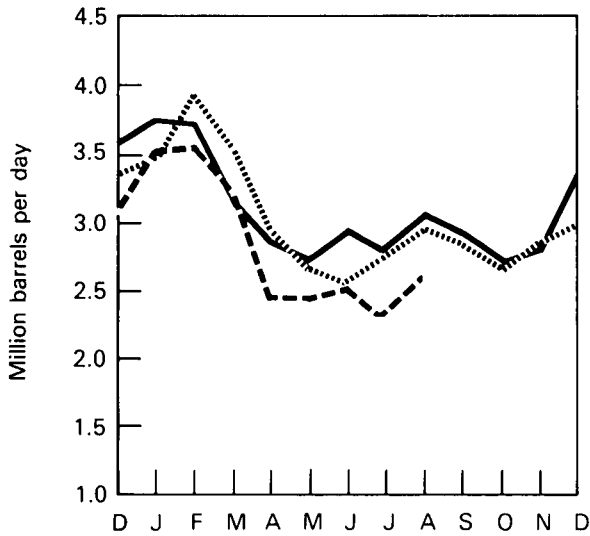
• August 1979 data are EIA estimates based on data from the American Petroleum Institute, "Weekly Statistical Bulletin."

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); form EIA 64, (Natural Gas Liquids Operation Report); form EIA 87, (Refinery Report); form EIA 88, (Bulk Terminals); form EIA 89, (Pipeline Report); Bureau of Census publications IM 145, (Imports); EM 522, (Exports); and FT 800, (Exports).

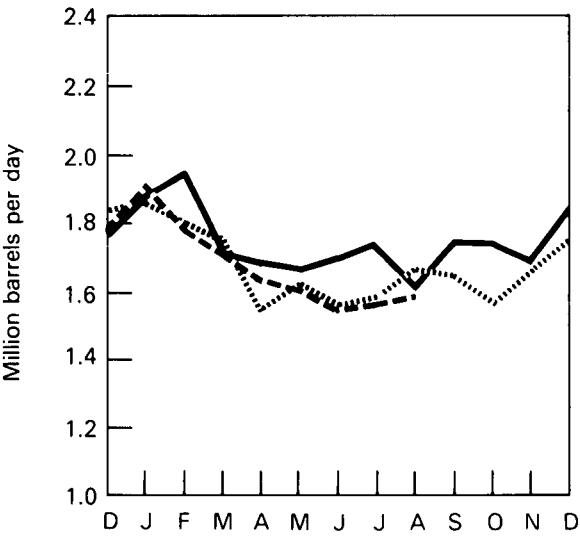
Petroleum

Residual Fuel Oil

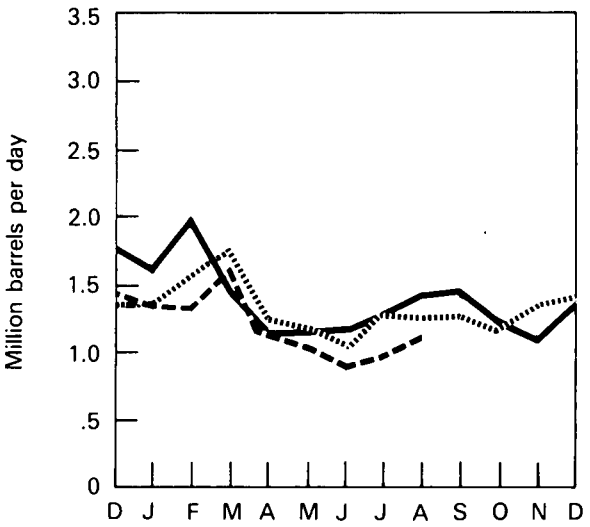
Product Supplied



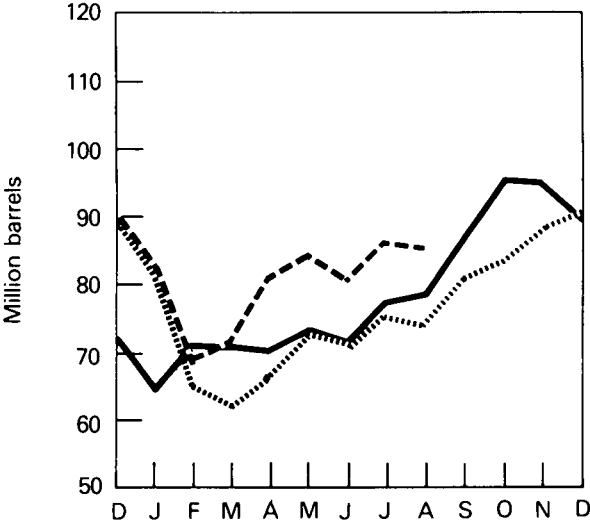
Production



Imports



Stocks



— 1977 EIA
..... 1978 EIA
- - - 1979 EIA, API

Petroleum

Natural Gas Plant Liquids, Including Liquefied Refinery Gases

		Products Supplied ¹	Production ¹		Used at Refineries ¹	Imports	Stocks ¹
			At processing plants	At refineries			Thousand barrels
			Thousand barrels per day				
1973	AVERAGE	1,454	1,738	375	815	239	†106,659
1974	AVERAGE	1,422	1,688	338	746	212	†120,175
1975	AVERAGE	1,352	1,633	311	710	185	†132,653
1976	AVERAGE	1,407	1,603	340	725	196	†124,518
1977	January	1,938	1,549	323	735	244	106,445
	February	1,920	1,589	336	699	270	94,037
	March	1,360	1,687	331	690	241	99,942
	April	1,234	1,664	336	673	199	108,128
	May	1,174	1,620	397	614	165	119,910
	June	1,239	1,616	364	622	203	129,223
	July	1,137	1,609	381	594	157	141,542
	August	1,185	1,593	360	659	204	150,755
	September	1,209	1,585	352	654	148	157,089
	October	1,412	1,633	353	710	168	157,615
	November	1,589	1,627	349	700	187	153,452
	December	1,762	1,637	345	732	254	144,902
	AVERAGE	1,427	1,618	352	673	203	
1978	January	1,867	1,557	327	645	201	130,797
	February	1,802	1,562	338	659	207	120,274
	March	1,429	1,590	362	601	132	121,317
	April	1,161	1,619	349	599	100	130,002
	May	1,170	1,530	363	498	109	139,581
	June	1,126	1,583	368	649	109	147,540
	July	1,125	1,558	348	562	122	157,525
	August	1,076	1,556	337	657	93	164,536
	September	1,320	1,546	379	645	86	165,537
	October	1,477	1,540	352	660	116	161,006
	November	1,588	1,602	357	757	122	152,476
	December	1,829	1,566	363	745	258	² 140,052
	AVERAGE	1,421	1,567	354	639	138	
1979	January	2,222	1,748	337	763	256	124,138
	February	1,998	1,703	325	757	252	110,412
	March	1,654	1,728	333	718	257	107,759
	April	R1,449	R1,708	R354	R679	R160	R110,216
	May	1,249	1,713	364	648	125	131,000
	June	1,287	1,750	370	645	130	140,000
	July	1,353	1,701	368	587	113	147,000
	August	1,456	1,697	352	664	120	148,000
	AVERAGE	1,580	1,719	351	682	176	

¹See Explanatory Note 7, and Definitions.

²EIA natural gas plant coverage was expanded in January 1979 to include approximately 80 more plants. Calculated on the new basis, January 1979 opening stocks of natural gas plant liquids totaled 140,052 thousand barrels.

†Total as of December 31.

R = Revised data.

Sources: 1973 through 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• January 1978 through April 1979: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly."

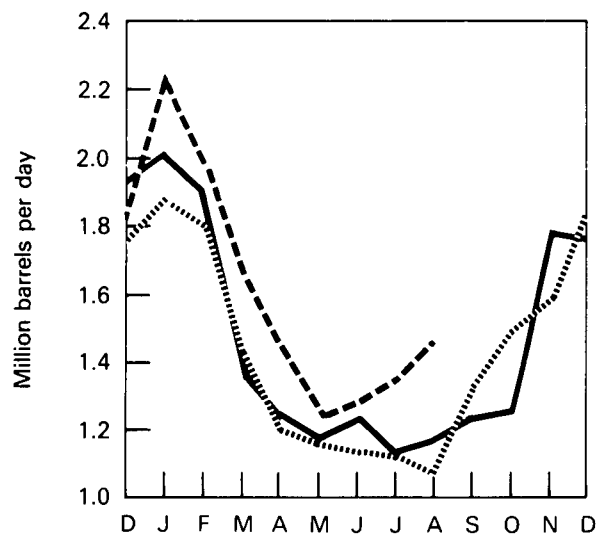
• May through August 1979: EIA estimates based on historical analyses.

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); form FEA P133, (Imports from Puerto Rico); form EIA 64, (Natural Gas Liquids Operation Report); form EIA 87, (Refinery Report); form EIA 88, (Bulk Terminals); form EIA 89, (Pipeline Report); Bureau of Census publications IM 145, (Imports); FM 522, (Exports); and FT 800, (Exports).

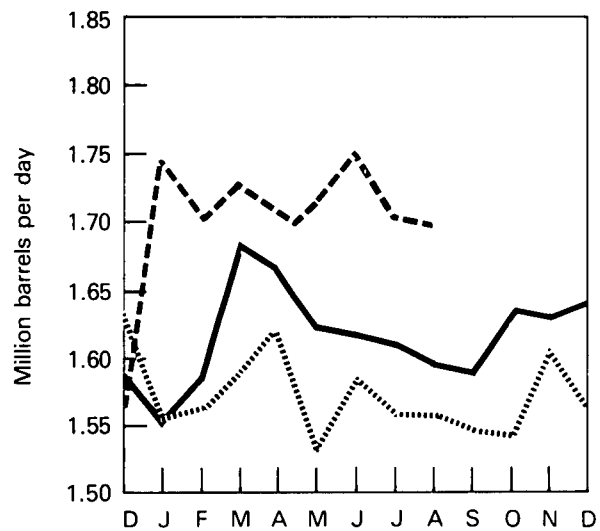
Petroleum

Natural Gas Plant Liquids

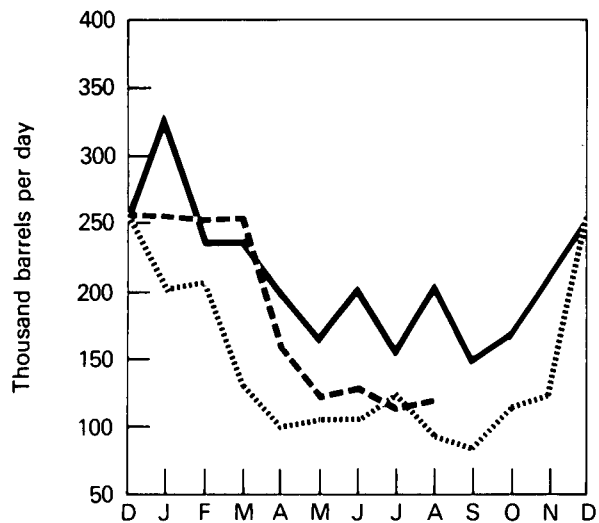
Product Supplied



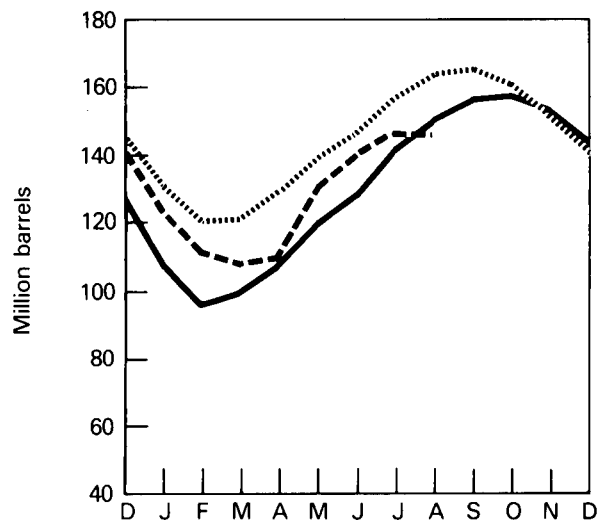
Production at Processing Plants



Imports



Stocks



— 1977 EIA
 1978 EIA
 --- 1979 EIA, API

Petroleum

Petroleum Primary Supply Balance

1978					
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Thousand barrels per day					
Primary Supply					
Crude oil and lease condensate production	8,514	8,777	8,774	8,737	8,701
Natural gas plant liquids production	1,570	1,577	1,554	1,570	1,567
Other hydrocarbon supply	56	48	56	54	53
Crude Oil Imports ¹	5,845	5,628	6,287	6,475	6,071
Refined products imports ²	2,238	1,828	1,927	1,994	1,997
Total new primary supply	18,223	17,898	18,598	18,830	18,389
Processing gain	489	463	466	550	492
Stock change — all oils ³	-1,712	+ 63	+ 662	-54	-254
Total net primary supply	20,424	18,298	18,402	19,434	19,135
Unaccounted for crude oil ⁴	-126	+ 107	+ 63	+ 195	
Disposition					
Crude oil and refined products exports	246	349	389	445	361
Crude oil losses	15	16	16	16	16
Total products supplied ⁵	20,037	18,040	18,060	19,168	18,822
Total disposition	20,298	18,405	18,465	19,629	19,199
1979					
	1st Qtr.	2nd Qtr.†			
Primary Supply					
Crude oil and lease condensate production	8,514	8,590			
Natural gas plant liquids production	1,727	1,743			
Other hydrocarbon supply	32	32			
Crude oil imports ¹	6,333	5,970			
Refined products imports ²	2,225	1,615			
Total new primary supply	18,831	17,950			
Processing gain	458	523			
Stock change — all oils ³	-1,686	+ 776			
Total net primary supply	20,975	17,697			
Unaccounted for crude oil ⁴	-169	+ 234			
Disposition					
Crude oil and refined products exports	494	NA			
Crude oil losses	15	16			
Total products supplied ⁵	20,297	17,915			
Total disposition	20,806	17,931			

¹Excludes oil imported for the Strategic Petroleum Reserve.

²Includes plant condensate and unfinished oils.

³Excludes petroleum stored in the Strategic Petroleum Reserve.

⁴Balancing item resulting from statistical inconsistencies.

⁵Includes international bunkers.

NA = Not available.

R = Revised data.

†Preliminary data.

Sources: • 1st, 2nd, 3rd and 4th Quarters 1978 and 1st Quarter 1979: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly."

• 2nd Quarter 1979: EIA, "Monthly Petroleum Statistics Report."

• Sources for the *Energy Data Reports* and the *Monthly Petroleum Statistics Report* are: Economic Regulatory Administration form 60, (Imports); for FEA P133, (Imports from Puerto Rico); form EIA 64, (Natural Gas Liquids Operation Report); form EIA 87, (Refinery Report); form EIA 89, (Pipeline Report); form EIA 90, (Crude Stock Report); FEA P124, (First Purchasers — Crude Production); Bureau of Census publications IM 145, (Imports); EM 522, (Exports); FT 800, (Exports); and State Conservation Agencies.

Natural Gas

Consumption of natural gas in the United States during August 1979 was an estimated 1,300 billion cubic feet (Bcf). This was 3.7 percent higher than in August 1978 and slightly less than in July 1979. Estimated consumption during the first 8 months of 1979 totaled 13,192 Bcf, 1.2 percent greater than during the period January through August 1978.

Production of dry natural gas in August 1979 was an estimated 1,560 Bcf, approximately the same as in August 1978 and slightly less than in July 1979. Output during the first 8 months of 1979 totaled 12,639 Bcf, slightly less than during the comparable 1978 period.

Imports of natural gas in August 1979 were an estimated 96 Bcf, 29.7 percent greater than in the previous August. During the first 8 months of 1979 imports of natural gas totaled an estimated 817 Bcf, 32.8 percent higher than during the comparable 1978 period. Receipts of foreign natural gas during the period January through August 1979 included Algerian liquefied natural gas (LNG), equivalent to approximately 160 Bcf, shipped to the large-scale LNG receiving terminals at Cove Point, Maryland and Elba Island, Georgia.

Stocks of working gas* in underground natural gas storage reservoirs at the end of August 1979 totaled 2,628 Bcf, 5.1 percent higher than those available a year earlier. Net injections into storage during August were 335 Bcf, 3.5 percent less than in August 1978.

Domestic producer sales to major interstate pipeline companies in June 1979 totaled 812 Bcf, 5.7 percent above sales for the previous June. Sales totaling 5,176 Bcf during the first half of 1979 were 5.6 percent above those for the same period in 1978.

*Gas available for withdrawal.

Natural Gas

		Domestic Consumption	Production		Domestic Producer Sales to Major Interstate Pipelines	Imports	Exports
			Marketed	Dry			
Billion cubic feet							
1973	TOTAL	22,049	22,648	21,731	12,067	1,033	77
1974	TOTAL	21,223	21,601	20,714	11,462	959	77
1975	TOTAL	19,538	20,109	19,237	10,652	953	73
1976	TOTAL	19,946	19,952	19,098	10,140	964	65
1977	January	2,407	1,740	1,665	848	87	5
	February	1,816	1,674	1,602	807	92	4
	March	1,715	1,751	1,675	910	101	4
	April	1,439	1,644	1,573	830	84	3
	May	1,379	1,692	1,619	830	86	3
	June	1,333	1,648	1,577	789	76	5
	July	1,325	1,674	1,602	801	73	7
	August	1,364	1,645	1,574	784	76	5
	September	1,427	1,598	1,529	741	75	5
	October	1,518	1,628	1,558	831	85	5
	November	1,690	1,606	1,537	830	86	5
	December	2,108	1,725	1,652	882	90	5
		TOTAL	19,521	20,025	19,163	9,883	1,011
1978	January	2,385	1,739	1,672	862	86	5
	February	2,116	1,618	1,555	756	77	5
	March	1,889	1,714	1,644	861	86	5
	April	1,513	1,636	1,571	836	78	3
	May	1,353	1,629	1,564	819	74	5
	June	1,222	1,597	1,529	768	68	4
	July	1,308	1,668	1,599	821	72	5
	August	1,254	1,626	1,557	821	74	5
	September	1,222	1,544	1,477	800	73	6
	October	1,429	1,605	1,537	847	80	3
	November	1,643	1,580	1,511	838	91	3
	December	2,056	1,680	1,611	882	107	4
		TOTAL	19,390	19,636	18,827	9,911	966
1979	January	R2,372	1,714	R1,641	890	100	5
	February	R2,149	R1,599	R1,531	819	94	4
	March	R1,834	1,698	R1,625	907	116	3
	April	1,578	1,666	R1,595	871	109	3
	May	R1,369	R1,658	R1,587	877	97	4
	June	1,280	1,600	1,530	812	R101	5
	July	1,310	1,640	1,570	NA	104	5
	August	1,300	1,630	1,560	NA	96	6
		TOTAL (Year to date)	13,192	13,205	12,639	5,176	817

R = Revised data.

N = Not available.

Sources: • Domestic Consumption — 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Yearbook*, "Natural Gas" chapter.

• January 1977 forward: EIA estimates based on a supply/disposition balance calculation.

• Production — State reports to the Interstate Oil Compact Commission and EIA estimates for states that do not report monthly data on a regular or timely basis.

• Domestic Producer Sales — Federal Power Commission (FPC) form 11 "Natural Gas Pipeline Company Monthly Statement."

• Imports — 1973 through 1978: FPC form 14, "Imports and Exports of Natural Gas."

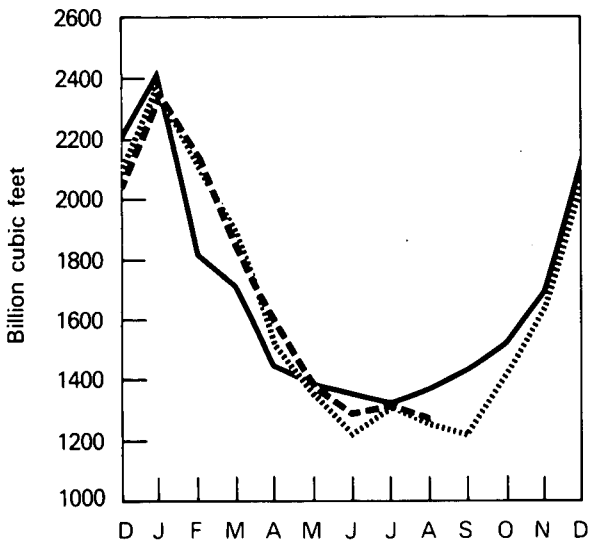
• January 1979 forward: EIA estimates based on import data from FPC form 11.

• Exports — 1973 through 1978: FPC form 14.

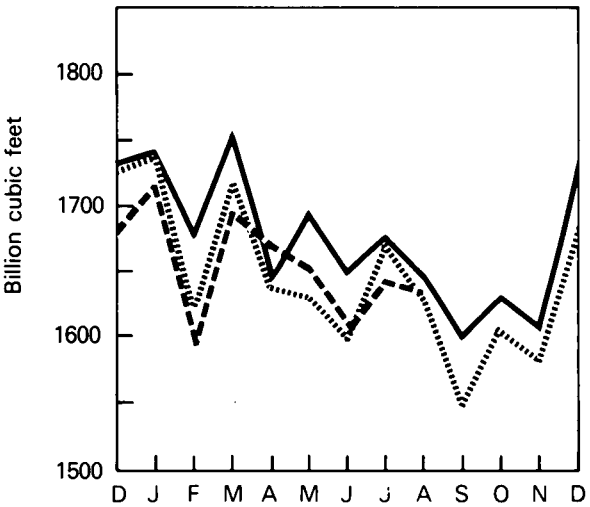
• January 1979 forward: EIA estimates based primarily on historical data reported on FPC form 14.

Natural Gas

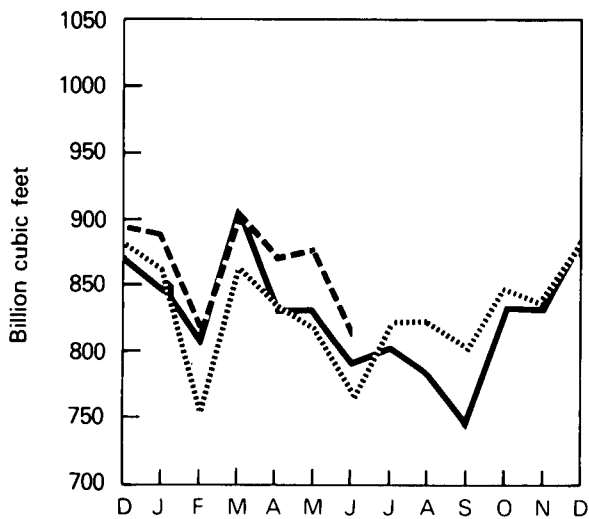
Domestic Consumption



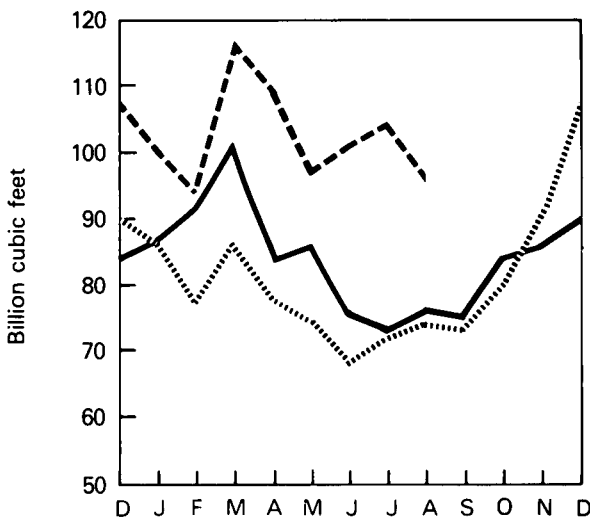
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



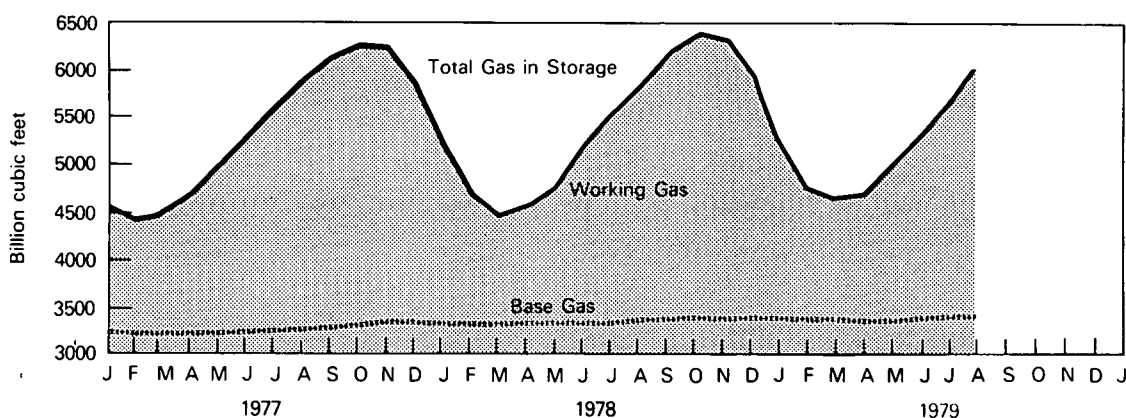
— 1977
..... 1978
- - - 1979

Natural Gas

Natural Gas in Underground Storage¹

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections ²
		Billion cubic feet					
1975		‡5,358	‡3,150	‡2,208	NA	NA	NA
1976		‡5,231	‡3,310	‡1,921	1,952	2,074	(122)
1977	January	4,580	3,293	1,287	18	670	(652)
	February	4,446	3,283	1,163	101	235	(134)
	March	4,501	3,286	1,215	187	132	55
	April	4,713	3,286	1,427	256	43	213
	May	5,024	3,293	1,731	329	17	312
	June	5,330	3,300	2,030	317	12	305
	July	5,665	3,317	2,348	348	15	333
	August	5,945	3,346	2,599	290	21	269
	September	6,188	3,364	2,824	262	2	260
	October	6,302	3,373	2,929	157	44	113
	November	6,224	3,403	2,821	84	160	(76)
	December	5,844	3,377	2,467	41	416	(375)
1978	January	5,193	3,374	1,819	21	668	(647)
	February	4,683	3,373	1,310	21	530	(509)
	March	4,497	3,374	1,123	92	278	(186)
	April	4,608	3,377	1,231	179	68	111
	May	4,870	3,379	1,491	291	30	261
	June	5,217	3,381	1,836	365	18	347
	July	5,550	3,386	2,164	349	16	333
	August	5,904	3,403	2,501	359	12	347
	September	6,224	3,411	2,813	329	9	320
	October	6,402	3,444	2,958	209	28	181
	November	6,352	3,425	2,927	82	135	(53)
	December	5,999	3,459	2,540	33	384	(351)
1979	January	5,348	3,458	1,890	21	673	(652)
	February	4,806	3,457	1,349	23	566	(543)
	March	4,695	3,459	1,236	94	205	(111)
	April	4,762	3,427	1,335	182	73	109
	May	5,057	3,438	1,619	308	13	295
	June	5,399	3,449	1,950	350	8	342
	July	R5,743	R3,459	2,284	R361	R19	R342
	August†	6,095	3,467	2,628	346	11	335

Gas in Storage



¹See Explanatory Note 9.

²Net Storage Injections = storage injection minus storage withdrawal. Parentheses indicate withdrawal greater than injection.

†Preliminary data.

‡Total as of December 31.

NA = Not available.

R = Revised data.

Sources: • Federal Energy Administration System 8/EIA 191, (formerly Federal Energy Administration form G-318-M-0), "Underground Gas Storage Report."

Part 5

Oil and Gas Exploration and Development

The rotary rig count increased to 2,222 in August 1979, up from the 2,094 count of the month before. This represents a 4.4 percent decrease from the August 1978 count of 2,325 rotary rigs.

Wells completed in August 1979 totaled 4,137. This is a 6.3 percent increase from the number drilled during August 1978.

Oil well completions in August 1979 (1,523) were up 0.5 percent from August 1978 (1,516 completions). The number of gas wells completed increased. In August 1979, 1,246 wells were completed, a 14.8 percent increase above the August 1978 level. Dry holes were up 6.0 percent (1,368 as compared to 1,290 the previous August). Total footage drilled rose 6.1 percent (19.6 million feet as compared to 18.4 million feet the year before).

Resource Development

Resource Development

Oil and Gas Exploration and Development

Rotary Rigs in Operation				Exploratory and Development Wells Drilled ^{1,2}				Total Footage of Wells Drilled ¹
Monthly Average				Oil	Gas	Dry	Total	Thousand feet
1973	AVERAGE	1,194	TOTAL	9,902	6,385	10,305	25,592	136,391
1974	AVERAGE	1,475	TOTAL	12,784	7,240	11,674	31,698	150,551
1975	AVERAGE	1,660	TOTAL	16,408	7,580	13,247	37,235	174,434
1976	AVERAGE	1,656	TOTAL	17,059	9,085	13,621	39,765	181,780
1977	January	1,850		1,391	732	1,096	3,219	14,517
	February	1,856		1,321	705	999	3,025	14,443
	March	1,887		1,817	958	1,297	4,072	19,400
	April	1,907		1,405	818	1,059	3,282	15,523
	May	1,982		1,382	877	1,150	3,409	16,702
	June	2,008		1,720	952	1,270	3,942	18,767
	July	2,023		1,304	724	1,022	3,050	14,529
	August	2,066		1,400	961	1,179	3,540	16,838
	September	2,084		1,924	1,105	1,288	4,317	19,333
	October	2,101		1,562	1,024	1,254	3,840	18,000
	November	2,113		1,785	1,091	1,447	4,323	19,537
	December	2,141		1,875	1,387	1,569	4,831	21,365
		AVERAGE	2,001	TOTAL	18,912	11,378	14,692	44,982
1978	January	2,128		1,184	783	1,233	3,200	15,394
	February	2,135		1,486	851	1,239	3,576	16,933
	March	2,158		1,499	1,247	1,420	4,166	20,392
	April	2,198		1,369	971	1,112	3,452	17,559
	May	2,249		1,209	1,004	1,166	3,379	17,189
	June	2,286		1,812	1,071	1,489	4,372	21,115
	July	2,307		1,503	985	1,191	3,679	17,258
	August	2,325		1,516	1,085	1,290	3,891	18,440
	September	2,332		1,619	1,227	1,511	4,357	21,234
	October	2,346		1,395	1,102	1,441	3,938	19,109
	November	2,356		1,294	1,027	1,308	3,629	17,805
	December	2,286		1,861	1,588	1,828	5,277	24,108
		AVERAGE	2,259	TOTAL	17,775	13,064	16,218	47,057
1979	January	2,199		1,372	996	1,278	3,646	17,963
	February	2,064		1,463	1,139	1,076	3,678	18,017
	March	1,970		1,544	1,343	1,372	4,259	21,175
	April	1,943		1,138	1,083	930	3,151	16,069
	May	1,960		1,307	992	1,130	3,429	16,974
	June	1,999		1,681	1,194	1,243	4,188	19,413
	July	2,094		1,526	1,080	1,130	3,736	16,749
	August	2,222		1,523	1,246	1,368	4,137	19,565
		AVERAGE	2,056	TOTAL	11,534	9,095	9,509	30,138

¹Excludes service wells and stratigraphic and core tests.

²Data reported for the first 2 months of each quarter cover 4 weeks of drilling activity, and data for the last month of the quarter cover 5 weeks of drilling activity.

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

Sources: • Rotary Rigs: Hughes Tool Company "Rotary Rigs Running — By State."

• Wells: Data compiled by the American Petroleum Institute (API), from the API "Monthly Drilling Report" and API "Quarterly Review of Drilling Statistics for the United States."

Resource Development

Oil and Gas Exploration and Development

		Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore ¹	Onshore ¹	Total ¹
		Monthly average			Annual average		
1973	AVERAGE	23	227	250	21,579	10,597	32,175
1974	AVERAGE	31	274	305	28,482	13,219	41,701
1975	AVERAGE	30	254	284	25,773	12,558	38,331
1976	AVERAGE	25	237	262	18,859	11,910	30,769
1977	January	26	254	280			
	February	27	259	286			
	March	22	260	282			
	April	26	266	292			
	May	29	272	301			
	June	31	274	305			
	July	30	285	315			
	August	31	295	326			
	September	29	291	320			
	October	28	302	330			
	November	26	309	335			
	December	26	303	329			
	AVERAGE	27	281	308	10,390	10,006	20,396
1978	January	26	302	328			
	February	23	305	328			
	March	20	314	334			
	April	21	315	336			
	May	21	330	351			
	June	26	336	362			
	July	26	341	367			
	August	27	338	365			
	September	21	333	354			
	October	29	342	371			
	November	27	342	369			
	December	30	328	358			
	AVERAGE	25	327	352	14,551	11,325	25,876
1979	January	28	327	355			
	February	29	321	350			
	March	32	332	364			
	April	30	330	360			
	May	28	355	383			
	June	32	372	404			
	July	31	376	407			
	August	31	393	424			
	AVERAGE	30	351	381			

¹Data not yet available for 1979.

NA = Not available.

Sources: • Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletin, *Geophysics*.

Coal

Coal production in August 1979 was 72.7 million tons, 12.0 percent higher than in August 1978 and 32.5 percent higher than in July 1979. Production in the first 8 months of 1979 totaled 505.8 million tons, an increase of 26.0 percent above the amount produced in the first 8 months of 1978.

Domestic consumption of coal in July 1979 totaled 59.8 million tons, an increase of 6.9 percent above consumption in July 1978, and 8.5 percent higher than consumption in June 1979. In the first 7 months of 1979, coal consumption totaled 389.0 million tons, an increase of 40.1 million tons, or 11.5 percent over consumption for the same period of 1978. Electric utility coal consumption* totaled 48.2 million tons in July 1979, 9.3 percent more than in July 1978. During the first 7 months of 1979, electric utilities consumed 305.1 million tons of coal, an increase of 13.3 percent above the 269.3 million tons consumed during the same period in 1978. Coke plants, the second largest coal consuming sector, used 44.7 million tons in the first 7 months of 1979, an increase of 16.0 percent above the amount consumed during the same period of 1978. Coal consumption by general industry totaled 33.9 million tons in the first 7 months of 1979, 3.7 percent below the amount consumed in the same period of 1978. The 5.3 million tons of coal delivered to retail dealers through the first 7 months of 1979 was 9.9 percent lower than in the first 7 months of 1978.

Total stocks of bituminous coal and lignite held by consumers increased by 2.6 million tons during the first 7 months of 1979. Electric utility stockpiles* increased from 126.0 million tons at the end of December 1978 to 128.7 million tons at the end of July 1979. Bituminous coal stocks held by coke plants decreased from 8.2 million tons to 8.1 million tons. General industry and retail dealers stockpiles of bituminous coal and lignite at the end of July remained unchanged from stockpiles levels at the end of 1978, totaling 7.1 million and 0.4 million tons, respectively.

Imports of coal in the first 7 months of 1979 totaled 1.1 million tons, 0.7 million tons below the amount imported during the first 7 months of 1978. Exports of coal through the first 7 months of 1979 totaled 34.7 million tons, almost double the amount of coal exported in the first 7 months of 1978. The extremely low level of exports in the early part of 1978 was due to the coal strike involving most mines in the Appalachian coalfields, where most export tonnage originates.

*Includes bituminous, lignite and anthracite consumption, and excludes petroleum coke consumption.

**Stocks includes bituminous coal and lignite, only.

Coal

Bituminous, Lignite, and Anthracite

		Production	Domestic Consumption	Imports	Exports
		Thousand short tons			
1973	TOTAL	598,568	562,583	127	53,587
1974	TOTAL	610,023	558,402	2,080	60,661
1975	TOTAL	654,641	562,643	940	66,309
1976	TOTAL	684,913	603,790	1,203	60,021
1977	January	45,062	56,871	123	2,180
	February	49,671	50,377	75	3,121
	March	67,343	50,713	31	3,449
	April	61,021	46,767	170	5,655
	May	63,019	49,557	94	5,757
	June	63,638	52,209	92	6,045
	July	49,962	56,461	112	5,222
	August	58,323	55,315	100	4,334
	September	70,030	51,022	175	5,131
	October	68,180	50,654	274	4,931
	November	69,546	51,194	170	4,566
	December	31,410	54,168	231	3,921
	TOTAL	697,205	625,308	1,647	54,312
1978	January	23,545	54,758	139	894
	February	23,860	46,422	159	588
	March	39,290	44,231	231	377
	April	60,050	45,953	417	2,613
	May	69,300	49,184	323	4,473
	June	66,225	52,487	291	5,429
	July	54,195	55,876	313	3,574
	August	64,945	57,705	227	3,634
	September	58,355	54,405	196	3,454
	October	70,480	52,771	371	5,053
	November	69,820	52,665	98	6,030
	December	60,180	57,067	188	4,572
	TOTAL	660,245	623,524	2,953	40,691
1979	January	56,941	62,026	186	3,605
	February	53,988	53,767	252	2,726
	March	65,952	54,232	123	4,642
	April	63,800	50,805	161	5,268
	May	71,250	53,307	112	6,215
	June	66,300	R55,083	209	5,975
	July	54,895	59,750	88	6,297
	August	72,715	NA	NA	NA
	TOTAL	505,841	388,970	1,131	34,728

R = Revised data.

NA = Not available.

Sources: • 1973 through September 1977, Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report".

• October 1977 forward, Energy Information Administration (EIA) *Energy Data Reports*, "Weekly Coal Report".

• Sources for "Weekly Coal Report" are: Production—Bituminous coal and Anthracite: June estimate based on car loadings of coal reported to the Association of American Railroads (CS form 54A). Finalized from form EIA 7, "Bituminous Coal and Lignite Production and Mine Operation." Anthracite finalized from: Bureau of Mines form 6-1385A, "Pennsylvania Anthracite Production;" BOM form 6-1386A, "Pennsylvania Anthracite Production, Mines Without Preparation Plants;" BOM form 6-1387A, "Pennsylvania Anthracite Production, Contractor's Report;" BOM form 6-1388A, "Pennsylvania Anthracite Production, River Coal Report."

• Consumption and Stocks—Federal Power Commission form 4, "Monthly Power Plant Report;" EIA form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks;" EIA form 3, "Monthly Coal Consumption Report, Manufacturing Plants;" EIA form 5, "Monthly Survey of Coke and Coal chemical materials;" Finalized coke data from EIA form 5A.

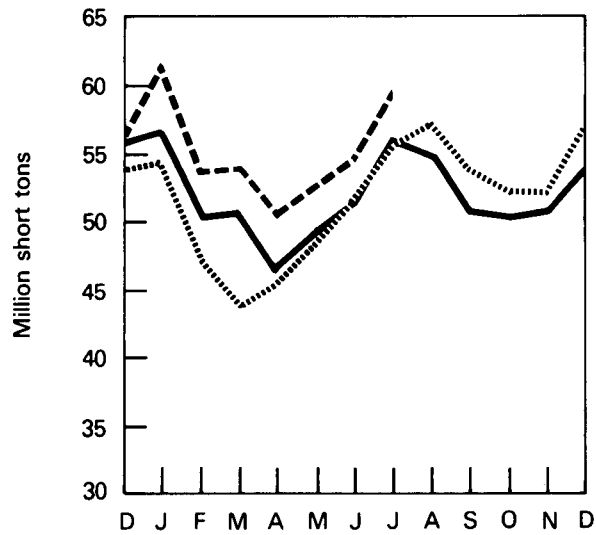
• Imports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213120, 5213180.

• Exports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213110, 5213120; Anthracite: Schedule 5213170.

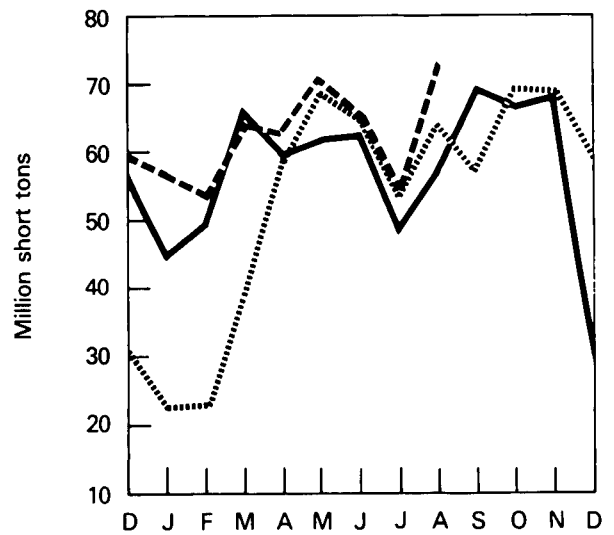
Coal

Bituminous, Lignite, and Anthracite

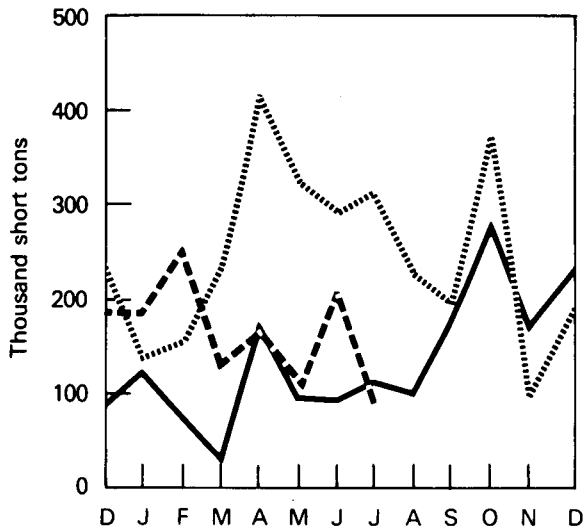
Domestic Consumption



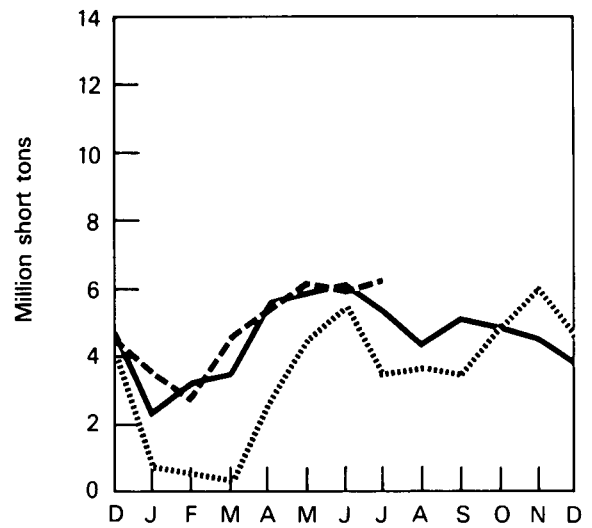
Production



Imports



Exports



— 1977
 1978
 - - - 1979

Coal

Consumption—Bituminous, Lignite and Anthracite

		Industry and Miscellaneous				
		Electric Utilities	Coke Plants	Other Industry and Miscellaneous	Retail Dealers	Total
		Thousand short tons				
1973	TOTAL	389,212	94,101	68,153	11,117	562,583
1974	TOTAL	391,811	90,191	64,983	11,417	558,402
1975	TOTAL	405,962	83,598	63,673	9,410	562,643
1976	TOTAL	448,371	84,704	61,799	8,916	603,790
1977	January	43,250	6,388	5,993	1,240	56,871
	February	37,660	6,245	5,634	838	50,377
	March	37,238	7,043	5,680	752	50,713
	April	34,039	6,796	5,159	773	46,767
	May	37,151	6,997	4,804	605	49,557
	June	40,139	6,807	4,627	636	52,209
	July	44,962	6,675	4,359	465	56,461
	August	44,158	6,151	4,410	596	55,315
	September	40,155	5,859	4,458	550	51,022
	October	38,367	6,313	5,268	706	50,654
	November	38,709	6,030	5,508	947	51,194
	December	41,298	6,065	5,716	1,089	54,168
	TOTAL	477,126	77,369	61,616	9,197	625,308
1978	January	42,708	5,425	5,531	1,094	54,758
	February	35,832	4,182	5,270	1,138	46,422
	March	34,004	4,014	5,303	910	44,231
	April	34,617	5,529	5,032	775	45,953
	May	37,199	6,424	4,866	695	49,184
	June	40,794	6,399	4,619	675	52,487
	July	44,118	6,553	4,605	600	55,876
	August	46,062	6,460	4,561	622	57,705
	September	42,646	6,417	4,642	700	54,405
	October	39,853	6,706	5,211	1,001	52,771
	November	39,751	6,524	5,339	1,051	52,665
	December	43,669	6,760	5,513	1,125	57,067
	TOTAL	481,254	71,393	60,492	10,386	623,524
1979	January	48,646	6,492	5,519	1,368	62,026
	February	41,891	5,850	5,176	850	53,767
	March	41,779	6,723	5,050	680	54,232
	April	38,977	6,461	4,754	613	50,805
	May	41,532	6,582	4,595	598	53,307
	June	R44,010	6,172	R4,317	R584	R55,083
	July	48,222	6,422	4,496	610	59,750
	TOTAL	305,057	44,702	33,908	5,303	388,970

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

R = Revised data.

Sources: • 1973 through September 1977, bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report".

• October 1977 forward, Energy Information Administration (EIA) *Energy Data Reports*, "Weekly Coal Report".

• Sources for "Weekly Coal Report" are: Production—Bituminous coal and Anthracite: June estimate based on car loadings of coal reported to the Association of American Railroads (CS form 54A). Finalized from EIA 7, "Bituminous Coal and Lignite Production and Mine Operation." Anthracite finalized from: Bureau of Mines form 6-1385A, "Pennsylvania Anthracite Production;" BOM form 6-1386A, "Pennsylvania Anthracite Production, Mines Without Preparation Plants;" BOM form 6-1387A, "Pennsylvania anthracite Production, Contractor's Report;" BOM form 6-1388A, "Pennsylvania Anthracite Production, River Coal Report."

• Consumption and Stocks—Federal Power Commission form 4, "Monthly Power Plant Report;" EIA form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks;" EIA form 3, "Monthly Coal Consumption Report, Manufacturing Plants;" EIA form 5, "Monthly Survey of Coke and Coal Chemical Materials;" Finalized coke data from EIA form 5A.

• Imports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213120, 5213180.

• Exports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213110, 5213120; Anthracite: Schedule 5213170.

Coal

Bituminous and Lignite

		Production ¹	Domestic Consumption ¹	Imports	Exports ²	Stocks ³
		Thousand short tons				
1973	TOTAL	591,738	556,912	127	52,870	103,412
1974	TOTAL	603,406	552,954	2,080	59,926	95,477
1975	TOTAL	648,438	557,535	940	65,669	127,150
1976	TOTAL	678,685	598,750	1,203	59,406	133,555
1977	January	44,679	56,561	123	2,143	118,116
	February	49,260	50,044	75	3,079	114,408
	March	66,776	50,241	31	3,390	122,592
	April	60,549	46,349	170	5,637	129,877
	May	62,499	49,157	94	5,673	137,733
	June	63,095	51,728	92	6,019	145,375
	July	49,584	56,183	112	5,158	137,593
	August	57,751	54,834	100	4,279	137,071
	September	69,510	50,632	175	5,037	145,253
	October	67,660	50,230	274	4,871	158,322
	November	68,979	50,738	170	4,491	173,251
	December	31,002	53,808	231	3,910	152,264
	TOTAL	691,344	620,505	1,647	53,687	
1978	January	23,115	54,418	139	870	118,294
	February	23,520	46,022	159	555	93,134
	March	38,765	43,791	231	325	83,786
	April	59,530	45,493	417	2,594	96,589
	May	68,760	48,754	323	4,411	110,895
	June	65,565	51,937	291	5,398	122,624
	July	53,640	55,426	313	3,531	119,803
	August	64,395	57,225	227	3,568	122,656
	September	57,775	53,925	196	3,338	125,704
	October	69,860	52,271	371	4,911	133,579
	November	69,245	52,190	98	5,930	142,701
	December	59,630	56,637	188	4,394	141,616
	TOTAL	653,800	618,089	2,953	39,825	
1979	January	56,486	61,626	186	3,526	132,177
	February	53,628	53,377	252	2,691	125,320
	March	65,492	53,837	123	4,592	130,013
	April	63,325	50,405	161	5,227	138,411
	May	70,720	52,847	112	6,091	147,000
	June	65,835	R54,653	209	5,895	R150,520
	July	54,495	59,335	88	6,249	144,237
	August	72,100	NA	NA	NA	NA
	TOTAL	502,081	386,080	1,131	34,271	

¹See Explanatory Note 10.

²Bituminous coal only.

³Total stocks held by utilities, industrial consumers, and retail dealers at end of year or month.

R = Revised data.

NA = Not available.

Sources: • 1973 through September 1977, bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report".

• October 1977 forward, Energy Information Administration (EIA) *Energy Data Reports*, "Weekly Coal Report".

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• Imports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213120, 5213180.

• Exports—Department of Commerce, bureau of Census: Bituminous coal: Schedules 5213110, 5213120; Anthracite: Schedule 5213170.

Coal

Stocks¹—Bituminous and Lignite

Industry and Miscellaneous					
	Electric Utilities	Coke Plants	General Industry and Miscellaneous	Retail Dealers	Total
Thousand short tons					
1973	85,902	6,875	10,345	290	103,412
1974	82,579	6,037	6,580	280	95,477
1975	109,742	8,671	8,504	233	127,150
1976	116,436	9,804	7,075	240	133,555
1977					
January	103,919	8,107	5,960	130	118,116
February	101,085	7,463	5,719	140	114,408
March	107,382	9,025	6,030	155	122,592
April	113,678	9,898	6,161	140	129,877
May	120,573	10,625	6,375	160	137,733
June	126,505	12,035	6,660	175	145,375
July	121,182	9,816	6,395	200	137,593
August	121,488	9,043	6,350	190	137,071
September	128,023	10,410	6,580	240	145,253
October	137,323	12,599	8,125	275	158,322
November	147,331	15,500	10,060	360	173,251
December	130,898	12,721	8,425	220	152,264
1978					
January	102,965	8,130	7,017	182	118,294
February	82,441	5,067	5,507	119	93,134
March	74,925	3,750	4,997	114	83,786
April	85,899	5,602	4,953	135	96,589
May	98,481	7,129	5,110	175	110,895
June	108,534	8,237	5,543	310	122,624
July	107,455	6,604	5,454	290	119,803
August	110,055	6,276	5,970	355	122,656
September	112,935	6,202	6,205	362	125,704
October	119,374	7,272	6,576	357	133,579
November	127,176	8,520	6,625	380	142,701
December	126,044	8,162	7,050	360	141,616
1979					
January	117,755	7,437	6,620	365	132,177
February	112,258	6,553	6,191	318	125,320
March	116,364	7,352	6,022	275	130,013
April	123,554	8,317	6,265	275	138,411
May	131,446	8,854	6,385	315	147,000
June	R134,152	9,448	6,590	330	R150,520
July	128,652	8,115	7,110	360	144,237

¹Stocks held by utilities, general industry, and retail dealers at end of year or month.

R = Revised data.

Sources: • 1973 through September 1977, bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report".

• October 1977 forward, Energy Information Administration (EIA) *Energy Data Reports*, "Weekly Coal Report".

• Sources for "Weekly Coal Report" are: Production—Bituminous coal and Anthracite: June estimate based on car loadings of coal reported to the Association of American Railroads (CS form 54A). Finalized from form EIA 7, "Bituminous Coal and Lignite Production and Mine Operation." Anthracite finalized from: Bureau of Mines form 6-1385A, "Pennsylvania Anthracite Production;" BOM form 6-1386A, "Pennsylvania Anthracite Production, Mines Without Preparation Plants;" BOM form 6-1387A, "Pennsylvania Anthracite Production, Contractor's Report;" BOM form 6-1388A, "Pennsylvania Anthracite Production, River Coal Report."

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• Exports—Department of Commerce, Bureau of Census: Bituminous coal: Schedules 5213110, 5213120; Anthracite: Schedule 5213170.

Electric Utilities

July 1979 production of electricity by utilities was 202.1 billion kilowatt-hours, 0.3 percent below the July 1978 production level. Coal-fired production totaled 97,759 million kilowatt-hours, and gas-fired production totaled 34,665 million kilowatt-hours, increases of 9.1 and 1.2 percent, respectively, above the July 1978 levels. Oil-fired production totaled 25,751 million kilowatt-hours, a decrease of 11.6 percent below the July 1978 output level. Nuclear production totaled 20,825 million kilowatt-hours, a decrease of 16.7 percent; and hydroelectric production totaled 22,732 million kilowatt-hours, a decrease of 7.0 percent below the July 1978 level.

Sales of electricity to all ultimate consumers in the United States in July 1979 totaled 176.5 billion kilowatt-hours, a decrease of 0.6 percent over July 1978 sales, and 6.8 percent above last month's sales. Sales to residential consumers during July 1979 were 58.1 billion kilowatt-hours, a decrease of 5.3 percent below sales for the corresponding month in 1978. Commercial sales were 42.5 billion kilowatt-hours, 0.7 percent less than the amount for July 1978. Sales to industrial consumers totaled 69.9 billion kilowatt-hours, in July 1979, an increase of 4.3 percent over the July 1978 figure. In July 1979 other sales totaled 6.0 billion kilowatt-hours, 6.0 percent below the July 1978 level.

Electric utility oil consumption during July 1979 was 44.4 million barrels, a 13.2 percent drop from the July 1978 level. Coal consumption for July 1979 was 48.2 million tons, 9.3 percent above the July 1978 rate. During July 1979, consumption of natural gas by electric utilities was 369.2 billion cubic feet, 1.9 percent above the July 1978 consumption level.

On July 31, 1979, coal stocks reached 128.7 million tons of bituminous and lignite and 2.3 million tons of anthracite. Stockpiles of bituminous and lignite were 4.1 percent below the previous month's level and 19.7 percent above the level of a year earlier. Anthracite stocks were 2.6 percent above the level of a month earlier and 2.2 percent above the level of a year earlier.

Petroleum stocks on July 31, 1979, totaled 121.5 million barrels, a decline of 12.6 percent below the level for the same month of 1978.

Electric Utilities

Net Electricity Production By Primary Energy Source

		Coal ¹	Petroleum ²	Gas	Nuclear	Hydro	Other ³	Total
		Million kilowatt-hours						
1973	TOTAL	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974	TOTAL	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975	TOTAL	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976	TOTAL	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977	January	89,829	43,379	19,953	22,152	20,700	359	196,372
	February	78,735	29,446	19,481	19,601	15,150	322	162,734
	March	77,492	28,369	22,467	20,672	19,801	356	169,157
	April	70,866	25,862	21,297	19,867	18,642	319	156,853
	May	77,049	27,964	24,701	20,599	18,677	341	169,332
	June	83,117	28,971	29,621	21,517	17,226	335	180,787
	July	92,373	34,893	32,713	21,825	16,799	328	198,930
	August	90,730	32,326	33,291	22,750	16,712	317	196,126
	September	82,565	26,366	30,938	19,630	16,425	342	176,265
	October	79,382	23,074	27,356	19,041	17,189	360	166,402
	November	79,468	24,863	22,566	19,458	20,398	347	167,099
	December	83,612	32,667	21,123	23,771	22,756	337	184,267
	TOTAL	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978	January	85,003	39,263	22,310	25,833	25,068	357	197,834
	February	70,567	38,212	20,370	21,833	22,369	309	173,659
	March	66,620	36,982	22,269	22,449	24,630	264	173,214
	April	70,326	24,978	21,339	17,580	25,306	208	159,736
	May	76,430	24,368	25,075	20,416	28,757	187	175,234
	June	84,033	26,129	30,618	22,185	25,121	225	188,311
	July	89,606	29,117	34,247	25,007	24,453	250	202,681
	August	93,454	32,301	32,582	25,599	22,185	318	206,441
	September	87,041	26,640	28,205	22,189	21,177	318	185,571
	October	82,082	25,753	25,232	22,997	19,479	257	175,800
	November	81,725	27,310	22,003	24,901	19,953	282	176,172
	December	88,860	34,034	21,130	25,415	22,082	341	191,862
	TOTAL	975,749	365,088	305,380	276,403	280,579	3,316	2,206,515
1979	January	94,975	39,474	R22,091	27,792	25,093	326	209,751
	February	84,745	32,274	21,845	25,911	21,311	285	186,371
	March	85,219	22,075	24,918	24,335	25,942	382	182,871
	April	80,451	20,600	24,760	18,418	25,388	342	169,959
	May	86,155	R21,473	R26,136	15,025	R28,940	350	R178,078
	June	R90,749	24,368	R30,106	16,065	24,991	347	R186,627
	July	97,759	25,751	34,665	20,825	22,732	364	202,096
	TOTAL	620,054	186,015	184,520	148,371	174,398	2,396	1,315,753

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

¹Includes bituminous, lignite, and anthracite.

²Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

³Includes geothermal, wood and waste.

R = Revised data.

Source: • Federal Power Commission form 4, "Monthly Power Plant Report."

Electric Utilities

Electricity Sales¹

		Residential	Commercial	Industrial	Other ²	Total
		Million kilowatt-hours				
1973	TOTAL	579,231	388,266	686,085	59,326	1,712,909
1974	TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975	TOTAL	584,712	401,674	675,271	68,153	1,729,810
1976	TOTAL	602,863	423,640	739,964	69,558	1,836,025
1977	January	65,332	37,598	61,481	6,274	170,685
	February	61,423	36,105	60,439	5,770	163,737
	March	50,859	34,248	63,294	6,158	154,559
	April	44,414	33,180	63,278	5,425	146,297
	May	41,568	34,291	65,418	5,613	146,890
	June	48,419	37,658	66,064	5,601	157,742
	July	60,969	41,863	64,622	5,931	173,385
	August	62,282	42,483	66,300	5,831	176,896
	September	57,248	41,062	66,362	5,948	170,620
	October	48,741	36,655	66,295	5,982	157,673
	November	44,959	34,075	64,833	5,887	149,754
	December	54,919	35,714	63,906	6,068	160,606
	TOTAL	641,133	444,932	772,292	70,488	1,928,844
1978	January	65,455	38,125	64,195	6,581	174,356
	February	64,140	37,465	60,823	6,274	168,703
	March	58,391	36,282	61,506	6,032	162,212
	April	47,118	33,625	63,103	5,355	149,201
	May	43,748	33,995	66,618	5,586	149,947
	June	50,511	39,080	68,563	5,826	163,981
	July	R61,327	R42,839	R67,081	R6,359	R177,607
	August	63,483	43,499	70,419	6,139	183,540
	September	61,585	42,666	70,170	6,432	180,853
	October	50,765	37,944	70,396	6,057	165,162
	November	46,720	35,476	68,815	6,332	157,341
	December	56,391	37,244	67,577	6,268	167,497
	TOTAL	R669,634	R458,240	R799,266	R73,241	R2,000,382
1979	January	69,912	40,200	67,341	6,689	184,142
	February	67,470	39,670	66,847	6,192	180,179
	March	58,806	37,938	68,770	6,002	171,515
	April	49,647	35,731	68,777	5,589	159,744
	May	45,378	36,259	70,421	5,630	157,688
	June	49,109	39,474	70,968	5,705	165,256
	July	58,054	42,528	69,938	5,975	176,495
	TOTAL (Year to date)	398,376	271,800	483,062	41,782	1,195,019

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

¹Electricity sales to all ultimate consumers.

²Includes street lighting and transportation uses.

R = Revised data.

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

Electric Utilities

Primary Energy Resources Consumed to Produce Electricity

		Coal				Petroleum			
		Anthracite	Bituminous	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Coke	Natural Gas
		Thousand short tons					Thousand barrels	Thousand short tons	Million cubic feet
1973	TOTAL	1,443	376,975	10,794	389,212	513,190	47,058	507	3,660,172
1974	TOTAL	1,498	378,643	11,670	391,811	483,146	53,128	625	3,443,428
1975	TOTAL	1,480	388,523	15,960	405,962	467,221	38,907	70	3,157,669
1976	TOTAL	1,350	425,205	21,817	448,371	514,077	41,843	68	3,080,868
1977	January	127	41,205	1,918	43,250	66,379	9,518	5	205,074
	February	114	35,828	1,718	37,660	47,659	3,150	5	200,413
	March	100	35,420	1,718	37,238	46,171	2,494	9	231,826
	April	120	32,117	1,802	34,039	42,218	2,213	12	223,081
	May	127	34,859	2,165	37,151	44,779	3,846	8	259,798
	June	129	37,626	2,384	40,139	46,249	4,300	9	310,669
	July	123	42,592	2,247	44,962	54,664	7,738	12	346,639
	August	125	41,678	2,354	44,158	51,950	4,641	11	350,718
	September	137	37,872	2,146	40,155	43,297	2,517	8	324,549
	October	108	36,160	2,099	38,367	38,071	1,895	6	284,788
	November	109	36,624	1,976	38,709	40,653	2,464	6	234,006
	December	106	39,069	2,123	41,298	52,780	4,061	7	219,639
	TOTAL	1,425	451,051	24,650	477,126	574,869	48,837	98	3,191,200
1978	January	101	40,506	2,101	42,708	61,271	8,256	10	229,187
	February	88	33,556	2,189	35,832	59,636	7,709	55	211,169
	March	100	31,275	2,629	34,004	58,772	5,475	64	232,198
	April	83	32,128	2,406	34,617	40,877	2,151	39	223,186
	May	73	34,902	2,224	37,199	40,244	2,293	28	260,798
	June	91	38,250	2,453	40,794	42,729	3,570	31	321,426
	July	85	40,906	3,127	44,118	47,547	3,569	32	362,192
	August	100	42,665	3,297	46,062	52,637	3,563	31	340,292
	September	86	39,835	2,725	42,646	43,114	3,300	28	296,976
	October	82	37,197	2,574	39,853	42,253	1,823	25	262,878
	November	88	36,982	2,681	39,751	44,516	2,161	27	228,001
	December	87	40,581	3,001	43,669	54,771	3,643	30	220,003
	TOTAL	1,064	448,782	31,407	481,254	588,366	47,511	398	3,188,306
1979	January	89	45,536	3,021	48,646	62,436	6,240	33	228,435
	February	75	39,010	2,806	41,891	51,854	4,954	32	226,854
	March	65	38,863	2,852	41,779	36,537	1,868	22	260,412
	April	66	36,360	2,551	38,977	33,934	1,679	15	260,944
	May	106	38,670	2,757	41,532	35,375	2,057	23	R277,314
	June	103	40,883	3,023	R44,010	39,386	R2,317	25	R321,018
	July	96	44,396	3,730	48,222	41,976	2,407	23	369,157
	TOTAL	601	283,719	20,739	305,058	301,498	21,521	174	1,944,134

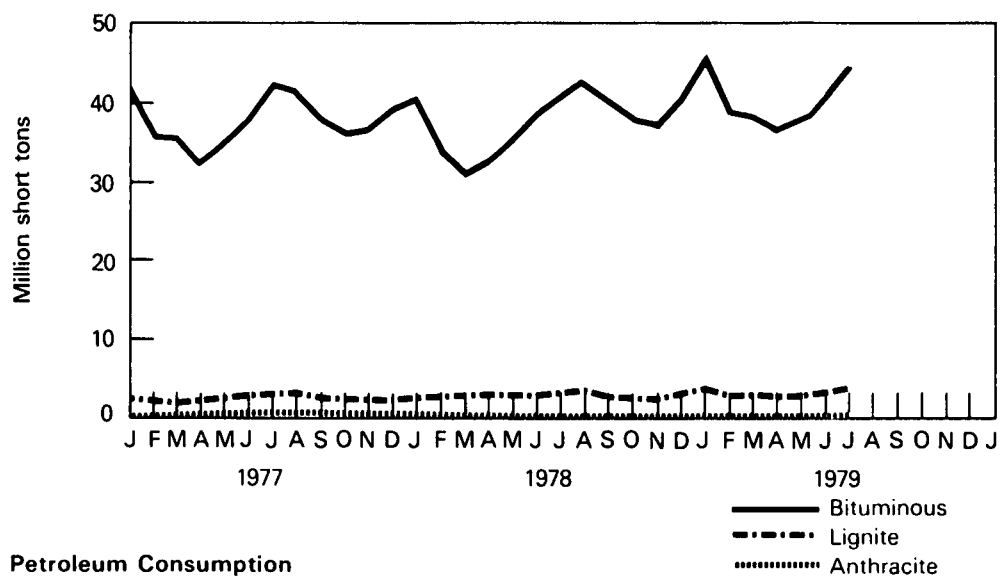
Totals may not equal sum of components due to independent rounding.

R = Revised data.

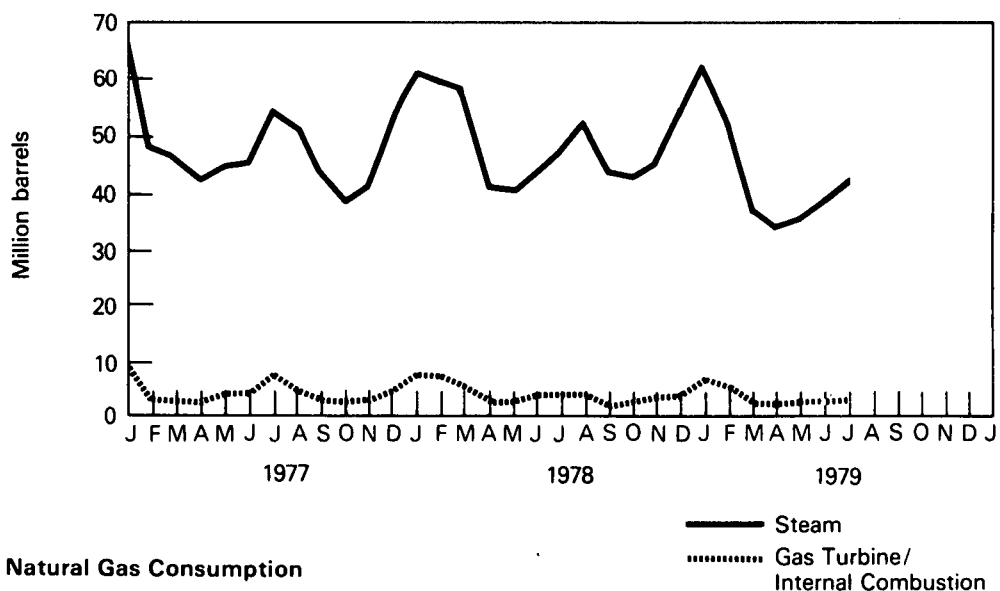
Source: • Federal Power Commission form 4, "Monthly Powerplant Report."

Electric Utilities

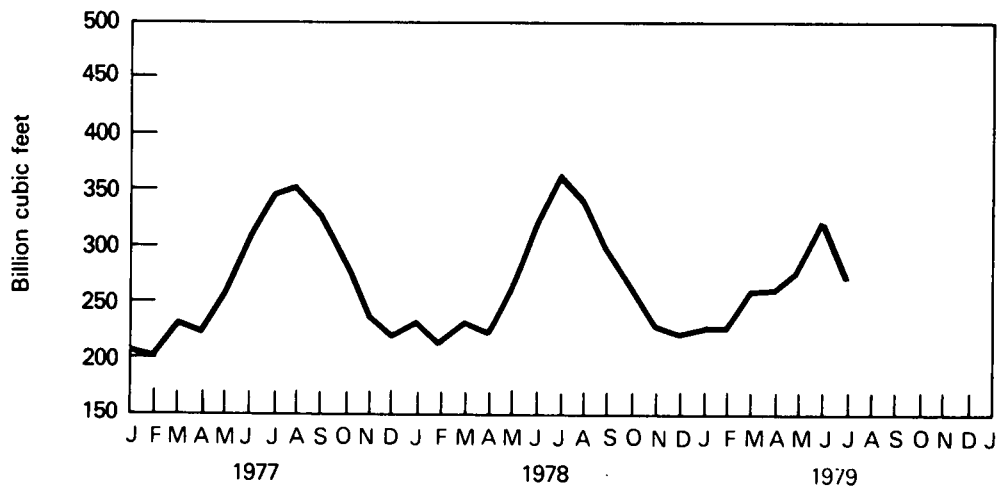
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

End-of-month Coal and Petroleum Stocks

		Coal				Petroleum		
		Anthracite	Bituminous	Lignite	Total	Steam ¹	Gas Turb./ Int. Comb. ²	Coke
		Thousand short tons				Thousand barrels		Thousand short tons
1973	TOTAL	1,066	84,941	961	86,967	79,121	10,095	312
1974	TOTAL	930	81,712	867	83,509	97,718	15,199	35
1975	TOTAL	982	107,927	1,815	110,724	108,825	16,432	31
1976	TOTAL	1,000	114,130	2,306	117,436	106,993	14,703	32
1977	January	2,232	101,730	2,189	106,151	90,104	12,740	32
	February	2,190	98,923	2,162	103,275	95,934	14,098	32
	March	2,207	105,216	2,166	109,589	98,147	15,478	29
	April	2,209	111,326	2,352	115,888	101,631	15,817	25
	May	2,230	118,084	2,489	122,803	103,884	15,826	25
	June	2,258	124,081	2,424	128,763	107,715	15,615	30
	July	2,169	118,763	2,419	123,352	113,033	15,998	37
	August	2,310	119,018	2,470	123,798	119,381	17,062	41
	September	2,290	125,358	2,665	130,313	124,865	17,832	42
	October	2,310	134,422	2,901	139,634	127,957	19,096	44
	November	2,325	144,365	2,966	149,656	129,206	19,079	46
	December	2,321	128,210	2,688	133,219	124,750	19,281	44
1978	January	2,280	100,547	2,418	105,245	114,174	16,260	40
	February	2,112	80,092	2,349	84,553	111,158	17,043	197
	March	2,091	72,369	2,556	77,016	112,347	17,269	182
	April	2,083	83,287	2,612	87,982	116,101	17,386	164
	May	2,145	95,699	2,782	100,626	118,940	16,972	167
	June	2,215	105,611	2,923	110,749	120,186	17,581	167
	July	2,241	104,606	2,849	109,696	121,509	17,580	176
	August	2,208	106,915	3,140	112,263	119,358	17,389	173
	September	2,224	109,748	3,187	115,159	121,115	17,538	181
	October	2,220	115,943	3,431	121,594	117,681	17,355	189
	November	2,199	124,058	3,118	129,376	112,219	17,240	199
	December	2,178	123,017	3,027	128,222	102,401	16,385	198
1979	January	2,154	114,941	2,814	119,909	89,478	15,631	181
	February	2,136	109,532	2,726	114,394	81,996	15,537	166
	March	2,170	113,660	2,704	118,533	95,952	16,346	170
	April	2,220	120,874	2,680	125,774	99,378	16,793	170
	May	2,231	128,846	2,600	133,677	105,890	R16,932	159
	June	2,233	R131,657	2,495	R136,385	104,389	R17,138	150
	July	2,290	126,174	2,478	130,941	104,026	17,515	160

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

¹Primarily residual fuel oil.

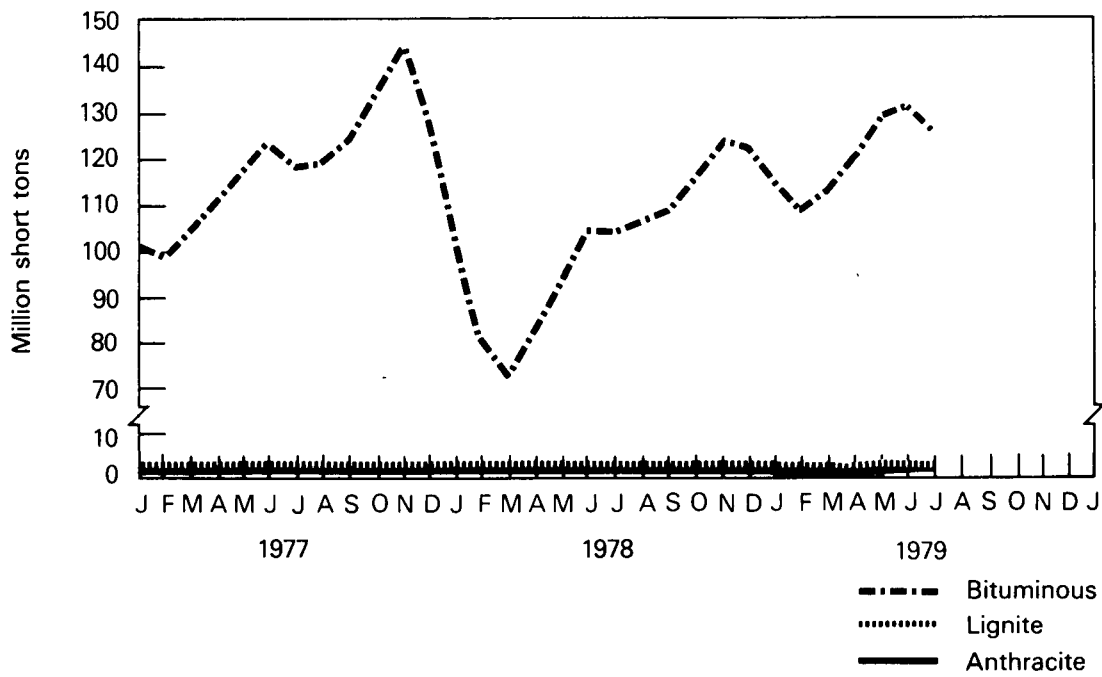
²Primarily middle distillates.

R = Revised data.

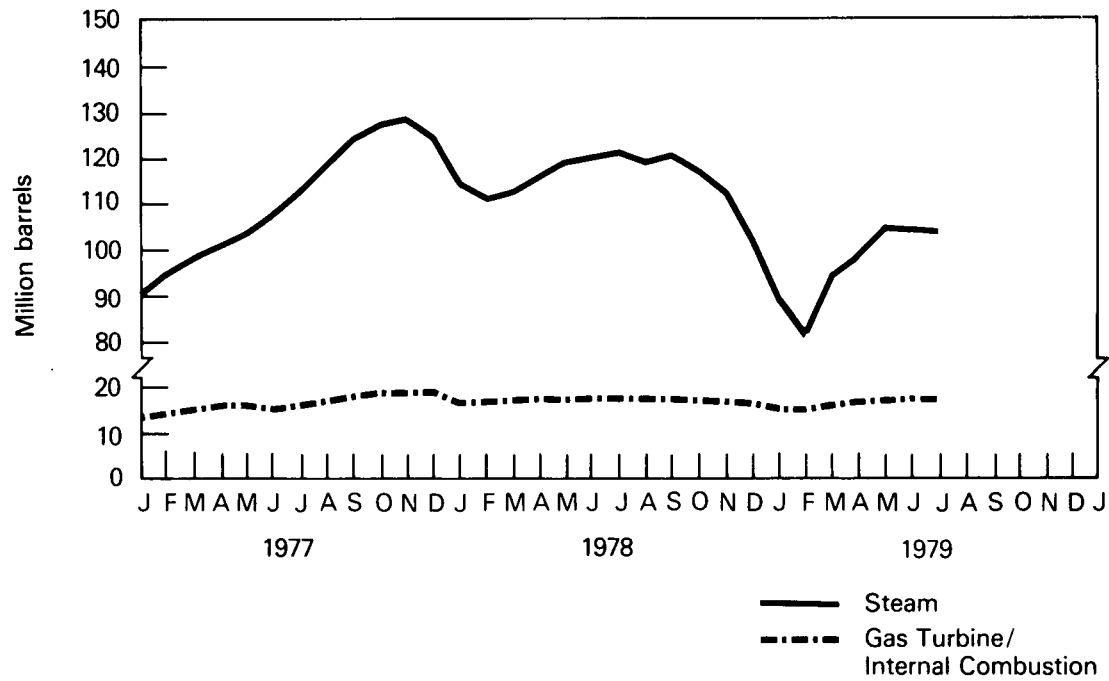
Source: • Federal Power Commission form 4, "Monthly Powerplant Report."

Electric Utilities

Coal Stocks



Petroleum Stocks



Nuclear Power

In August, nuclear powerplants generated 24.8 billion net kilowatt-hours* of electricity, representing an increase of 19.3 percent over July generation, and a decrease of 3.0 percent from August 1978 generation.

At the end of August there were 192 domestic reactors in some phase of operation, construction or planning, having a total capacity of 187 million net kilowatts. There are now 190 operable nuclear reactors in 18 noncommunist countries, an overall capacity of 111.4 million gross kilowatts. In August total power production amounted to 46.8 billion gross kilowatt-hours.

In August, 22.3 percent of the 1,547.4 metric tons of separative work** performed by domestic enrichment plants was for foreign customers.

By the end of August, the Nuclear Regulatory Commission (NRC) had removed shut down orders on four of the five reactors shut down in March due to possible design deficiencies in the auxiliary piping systems. The one remaining unit still under the shut down order, Surry 2, is still undergoing major repairs for steam generator tube replacement, and probably will not restart until November 1 or later.

Also during August, the NRC briefly lifted the 3-month old licensing freeze on new operating licenses and construction permits, but quickly reinstated the freeze following heavy criticism from the Presidential Commission on the Accident at Three Mile Island.

*Preliminary data shown in the first table as average power or 33.4 million net kilowatts for all plants.

**See definitions.

Nuclear Power

Domestic Nuclear Powerplant Operations

		Maximum Dependable Capacity ¹		Average Power ²		Percent of Total Domestic Electricity Generation
		All Plants ³	Fully Operable Plants ⁴	All Plants ³	Fully Operable Plants ⁴	
Thousand net kilowatts						
1973	AVERAGE	13,850	NA	8,760	NA	4.5
1974	AVERAGE	29,921	NA	13,011	NA	6.1
1975	AVERAGE	35,671	NA	19,692	NA	9.0
1976	AVERAGE	40,642	36,170	21,756	21,356	9.4
1977	January	44,316	39,371	29,774	27,858	11.3
	February	44,282	39,320	29,167	27,072	12.0
	March	44,289	42,006	27,785	26,632	12.2
	April	45,131	42,882	27,631	27,062	12.7
	May	45,222	42,818	27,687	27,059	12.2
	June	45,991	43,908	29,885	29,885	11.9
	July	45,984	43,901	29,334	29,334	11.0
	August	45,982	43,898	30,578	30,560	11.6
	September	46,051	43,898	27,264	26,863	11.1
	October	46,088	44,935	25,558	25,298	11.4
	November	46,088	44,793	27,025	26,440	11.6
	December	47,133	45,710	31,950	31,649	12.9
		AVERAGE	45,554	43,054	28,640	27,988
1978	January	47,167	45,727	34,722	34,681	13.1
	February	48,080	45,744	32,489	32,489	12.6
	March	48,062	45,744	30,173	30,166	13.0
	April	48,926	45,746	24,451	24,106	11.0
	May	48,924	45,744	27,441	26,736	11.6
	June	49,714	46,627	30,813	30,164	11.8
	July	49,719	47,714	33,612	33,496	12.3
	August	49,815	47,810	34,408	34,396	12.4
	September	49,815	47,810	30,818	30,757	12.0
	October	50,776	47,864	30,868	30,489	13.2
	November	50,776	47,864	34,584	34,118	14.1
	December	50,774	48,742	34,160	33,676	13.2
		AVERAGE	49,385	46,937	31,553	31,280
1979	January	50,771	48,745	37,355	37,148	13.3
	February	50,720	48,762	38,558	38,400	13.9
	March	50,720	48,762	32,708	32,708	13.3
	April	50,705	48,747	25,616	25,516	10.8
	May	50,705	48,747	20,195	20,195	8.4
	June	50,705	48,747	R22,313	22,079	8.6
	July	50,759	49,131	R27,990	R27,329	10.3
	August†	50,759	49,131	33,396	32,581	NA
	AVERAGE	50,731	48,848	29,706	29,444	NA

¹See definitions.

²Average power: Represents generated electricity on an average hourly basis. Actual generation for a specific period = average power times the number of hours of the period. The result should compare favorably with nuclear generation data in Part 7.

³Includes all units authorized to generate commercial electricity, including 3 units in start-up testing (see definitions) and those owned by the Government.

⁴Units in start-up testing are not included.

†Preliminary data.

R = Revised data.

NA = Not available.

Sources: • Capacity data for units in commercial operation or start-up testing — Nuclear Regulatory Commission.

• Average power data for August 1979 computed from *Nucleonics Week* magazine.

• Remaining data from Federal Power Commission form 4, "Monthly Powerplant Report."

Nuclear Power

Status of Nuclear Powerplants — August 31, 1979

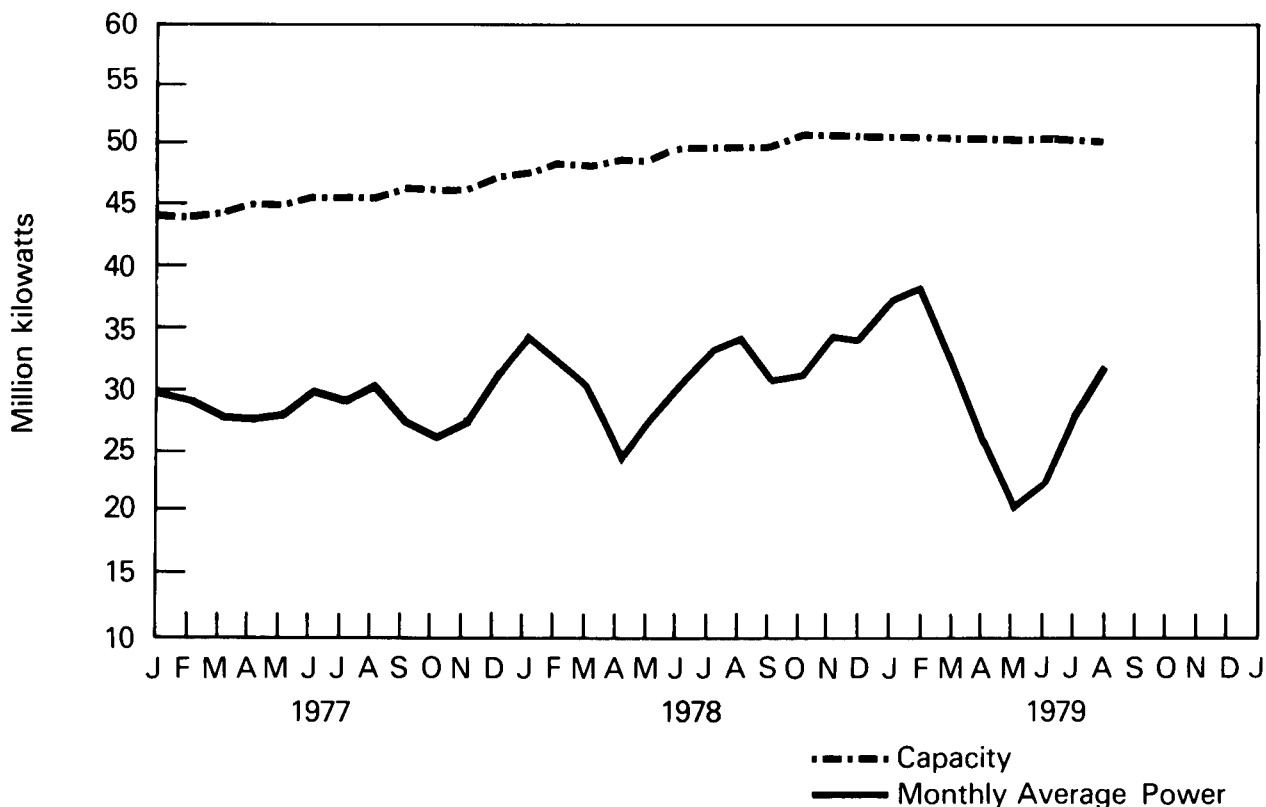
Status	Number of Plants				Total	Design Capacity Thousand net kilowatts
	Boiling Water Reactors	High Temperature Gas Reactors	Pressurized Water Reactors	Other ²		
In operation or startup testing ¹	26	1	42	2	71	52,000
Construction permit granted	28	0	63	0	91	100,000
Construction permit pending	7	0	17	1	25	29,000
Orders placed for plant	2	0	3	0	5	6,000
TOTAL	63	1	125	3	192	187,000

¹Does not include the Indian Point 1 reactor which is in indefinite shutdown status. Includes Humboldt Bay, shut down for seismic modifications. Includes 5 plants which were shut down by the NRC due to design deficiencies in auxiliary piping support structures. Also includes Three Mile Island 2 which was shut down due to an accident in late March.

²Includes two dual-purpose Department of Energy-owned reactors, both operating. Also includes 1 Liquid Metal Fast Breeder Reactor. Does not include 3 units which are publicly announced but not yet ordered.

Source: • Compiled by the Energy Information Administration, Office of Energy Source Analysis from various sources, but primarily from the Nuclear Regulation Commission (NRC) Report NUREG 0380, "Program Summary Report."

U.S. Nuclear Powerplants



Nuclear Power

Domestic Uranium Enrichment

	Separative Work Performed			Cost			Product Quantity			Feed Requirements		
	Metric tons of separative work units			Million dollars			Metric tons of uranium					
	Dom-estic	Foreign Customers	Total	Dom-estic	Foreign Customers	Total	Dom-estic	Foreign Customers	Total	Dom-estic	Foreign Customers	Total
1979												
January	655.047	548.602	1,203.649	55.549	47.706	103.255	138.719	143.481	282.200	813.357	721.309	1,534.666
February	299.404	248.788	548.192	24.910	20.550	45.460	60.214	60.529	120.743	370.606	320.028	690.634
March	989.610	380.652	1,370.262	84.348	32.310	116.658	234.912	85.011	319.923	1,265.799	477.475	1,763.274
April	508.870	100.395	609.265	44.115	8.449	52.564	130.867	26.689	157.556	665.046	132.536	797.582
May	199.210	150.441	349.651	17.660	13.408	31.068	71.692	40.649	112.341	291.130	199.847	490.977
June	1,608.744	623.327	2,232.071	143.209	55.478	198.687	434.332	123.760	558.092	2,126.413	766.576	2,892.989
July	414.619	63.165	477.784	37.480	5.599	43.079	128.509	13.321	141.830	573.690	78.151	651.841
August	1,201.944	345.488	1,547.432	110.856	30.881	141.737	313.017	100.790	413.807	1,689.330	470.168	2,159.498

Source: • U.S. Department of Energy, (Oak Ridge), Report U3341.

Nuclear Power Generation by Noncommunist Countries—August 1979

Country	Number of Reactors ¹	Capacity ¹	Electricity Generation	Percent of Design Capacity Used			
				August		Year ²	
		Thousand gross electrical kilowatts	Million gross kilowatt-hours	1979	1976	1977	1978
Asia							
Japan	20	12,840	6,024	63	64	40	55
India	3	620	266	58	59	51	42
Pakistan	1	140	0	0	41	28	19
South Korea	1	590	384	88	NA	NA	45
Taiwan	2	1,270	646	68	NA	21	49
Europe							
Belgium	3	1,740	558	43	65	78	82
England ³	33	9,010	2,409	39	62	55	51
Finland	2	1,150	391	46	NA	92	81
France	16	8,760	2,341	36	59	52	59
Germany (FR)	10	7,050	2,023	39	57	64	58
Italy	4	1,490	122	11	69	61	51
Netherlands	2	520	254	65	84	81	89
Spain	3	1,120	663	80	77	67	78
Sweden	6	3,850	1,099	38	55	59	70
Switzerland	3	1,060	326	41	85	87	90
North America							
Canada ⁴	9	5,590	2,820	68	80	76	79
United States	71	54,200	26,164	65	55	64	65
South America							
Argentina	1	370	275	101	86	55	91
Total	190	111,360	46,763	57	59	62	63

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

¹Includes fully operational units and those in startup testing which generated electricity during, or prior to, the current month. Capacity and generation figures are shown as gross values, as opposed to net values shown in previous tables of this chapter.

²Averages are computed for those units in operation, including startup units beginning with first month of electricity generation.

³August figures for 22 units are based on a 4-week period; figures for remaining units are for 31 days.

⁴August figures are based on 4-week period.

NA = Not available.

Source: • Compiled from *Nucleonics Week* magazine, published by McGraw-Hill, Inc.

Nuclear Power

Summary of Monthly Fuel Cycle—July 1979

Fuel Cycle Activity	Product	Processed Material ¹	Percent Utilization of Industry Capacity	Energy Content of Processed Material ²	Energy Consumed in Fuel Cycle Activity ³
		MTU except where noted		Billion Btu	
Milling	Yellowcake (U ₃ O ₈) Deliveries	643	49	233,000	354
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	1,382	⁴ 76	471,000	207
Enrichment	Enriched UF ₆ Deliveries	142 (478 MT-SWU)	NA	291,000	1,294
Fabrication	Finished Fuel Assemblies Shipped	180	NA	367,000	50
Powerplant Operation	Electricity Generated	20,825 (million kWh)	55	224,000	1,668 (million kWh)
Spent Fuel	Stored at Reactor Site	NA	NA	NA	NA
	Stored at Non-Reactor Sites	0	0	0	0

¹Units of measure are discussed in Explanatory Notes 11 and 12.

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

³Energy requirements for processing are obtained from U.S. Atomic Energy Commission Report No. WASH 1248.

⁴Figure for conversion utilization represents material shipped.

NA = Not available.

Sources: • U.S. Department of Energy NMMSS Report TJ-21-MOD-5.

• Federal Power Commission form 4, "Monthly Powerplant Report."

Price

Crude Oil

During July 1979, the composite refiner acquisition cost of crude oil was \$18.58 per barrel, an increase of \$1.58 per barrel from the previous month's price. The imported price rose \$2.06 per barrel over the June level, to \$23.09 per barrel. This price was a 59.4 percent increase over the July 1978 level. The domestic average was \$14.61, an increase of \$1.37 per barrel from the June average.

The average price of domestic crude oil purchased at the wellhead was \$11.74 per barrel in June. Prices for each tier increased from the previous month. In terms of percentage change, the greatest increase was the stripper well price at 15.5 percent, followed by the Alaskan north slope well price at 5.9 percent, the lower tier well price at 2.7 percent, the Naval Petroleum Reserve at 1.1 percent, and the upper tier well price at 0.9 percent.

Motor Gasoline

The national average price for all grades and all types of motor gasoline was 92.6 cents per gallon in July. Leaded regular gasoline at full serve stations sold for an average of 91.1 cents per gallon in July, 4.8 cents higher than the revised price for June. The price for unleaded regular gasoline at full serve stations was 95.5 cents per gallon, 4.6 cents higher than the revised price for June. The differential between unleaded regular and leaded regular was 4.4 cents per gallon in July.

Heating Oil

The national average price of heating oil sold to residential customers rose 4.8 cents in July to 73.9 cents per gallon. The resulting figure was 53.3 percent higher than the price during July 1978. The average residential distributor margin in July was 13.2 cents per gallon, 23.4 percent above the margin of July 1978. Refiner's national average selling price to resellers and retailers was 60.4 cents per gallon, 68.2 percent above the July 1978 average.

Residual Fuel Oil

During July 1979, the average price, excluding taxes, for No. 6 residual fuel oil sold to utilities, industry, and other ultimate consumers was \$19.89 per barrel, \$1.92 above the previous month's price, and 62.9 percent over the July 1978 average. The average price, excluding taxes, for No. 6 residual fuel oil sold to resellers, bulk plants, jobbers, and other wholesale accounts was \$19.18 per barrel, a \$1.37 increase from the June average, and 76.6 percent over the July 1978 average.

Aviation Fuel

During July 1979, the average price, excluding taxes, for kerosene-type jet fuel sold to commercial airlines, the Department of Defense, and other ultimate consumers was 57.8 cents per gallon, an increase of 6.9 cents over the previous month's average and a 48.6 percent increase over the July 1978 average.

Diesel Fuel

During July 1979, the average price, excluding taxes, for No. 2 diesel fuel sold at truck stops and other retail outlets was 68.1 cents per gallon, 3.1 cents higher than in the previous month, and 70.3 percent higher than in July 1978. The average price, excluding taxes, for No. 2 diesel fuel sold to resellers, jobbers and other wholesale accounts was 61.4 cents per gallon, 2.7 cents above the previous month's price, and 68.7 percent increase over the July 1978 average.

Liquefied Petroleum Gases

During July 1979, the average wholesale price for propane, excluding taxes, was 29.3 cents per gallon, 1.4 cents above the previous month's level.

In July 1979, the average wholesale price for butane, excluding taxes, was 51.1 cents per gallon, a 4.2 cents increase over the previous month's price, and 131.2 percent higher than the July 1978 average.

Price

Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead¹

		Lower Tier ²		Upper Tier ²		Actual Stripper ³		Actual Domestic Average ⁴	Imputed Domestic Average ⁴				
		Dollars per barrel											
		Price	Percent	Price	Percent	Price	Percent	Price	Price				
1976	AVERAGE	5.13	54.4	11.71	31.5	12.16	14.1	8.19	8.06				
1977	January	5.17	50.6	11.44	36.7	13.27	12.7	8.50	8.28				
	February	5.18	49.5	11.39	37.2	13.32	13.3	8.57	8.33				
	March	5.15	49.2	11.03	37.2	13.31	13.6	8.45	8.19				
	April	5.15	49.5	10.97	36.9	13.28	13.6	8.40	8.14				
	May	5.18	48.4	10.98	37.6	13.26	14.0	8.49	8.23				
	June	5.16	48.8	10.92	37.0	13.28	14.2	8.44	8.17				
		Lower Tier ²		Upper Tier ²		Actual Stripper ³		Actual Domestic Average ⁴	Imputed Domestic Average ⁴	Alaskan North Slope ⁵		Naval Petroleum Reserve ⁶	
		Price	Percent	Price	Percent	Price	Percent	Price	Price	Price	Percent	Price	Percent
1978	July	5.16	46.75	11.00	36.59	13.31	13.30	8.48	8.21	6.84	2.58	12.21	0.75
	August	5.18	43.31	10.93	36.65	13.95	13.32	8.62	8.25	6.91	5.70	12.29	0.91
	September	5.20	42.78	11.20	34.07	14.01	13.14	8.63	8.26	6.98	9.06	12.33	0.91
	October	5.23	42.23	11.42	34.58	14.01	12.92	8.72	8.36	6.66	9.09	12.38	1.15
	November	5.24	41.41	11.63	34.67	13.98	13.00	8.72	8.35	5.73	9.84	12.40	1.05
	December	5.25	40.42	11.76	34.61	13.98	13.00	8.77	8.40	5.73	10.92	12.36	1.03
	AVERAGE	5.19	45.92	11.22	36.11	13.59	13.32	8.57	8.27	6.35	4.14	12.34	0.51
	January	5.28	41.73	11.78	34.19	13.89	12.69	8.68	8.34	5.30	10.17	12.38	1.19
	February	5.29	40.78	11.81	34.35	13.90	13.68	8.84	8.48	5.68	9.94	12.46	1.23
	March	5.34	39.24	11.87	34.06	13.97	13.98	8.80	8.41	5.00	11.76	12.60	0.92
	April	5.35	37.94	11.94	34.04	13.95	13.72	8.82	8.44	5.15	13.26	12.67	1.02
	May	5.38	38.16	11.98	34.03	13.93	13.76	8.81	8.43	4.87	13.05	12.70	0.97
	June	5.46	36.79	12.08	35.01	13.95	13.89	9.05	8.68	5.63	13.45	13.08	0.84
1979	July	5.46	37.61	12.16	34.39	13.95	13.55	8.96	8.62	5.26	13.46	13.07	0.97
	August	5.50	36.49	12.22	34.45	13.93	14.42	9.05	8.67	5.09	13.66	13.04	0.95
	September	5.55	35.92	12.35	34.64	13.96	14.44	9.15	8.78	5.12	13.79	13.17	1.18
	October	5.60	36.27	12.42	34.38	13.97	14.15	9.17	8.81	5.21	13.95	13.08	1.22
	November	5.65	36.22	12.53	34.56	13.94	14.02	9.20	8.85	5.12	14.08	13.00	1.09
	December	5.68	33.65	12.59	34.74	14.08	15.88	9.47	9.07	5.40	14.42	12.92	1.28
	AVERAGE	5.46	37.54	12.15	34.41	13.95	14.03	9.00	8.63	5.22	12.96	12.85	1.08
	January	5.75	35.51	12.66	34.25	14.55	14.14	9.46	9.04	5.79	14.88	13.10	1.20
	February	5.76	35.20	12.78	34.97	14.88	15.08	9.69	9.21	5.87	13.71	13.94	1.01
	March	5.82	34.59	12.84	34.56	14.88	14.95	9.83	9.37	6.66	14.58	13.97	1.29
	April	5.85	33.98	12.94	34.93	16.71	15.27	10.33	9.60	7.45	14.52	14.56	1.28
	May	5.91	33.53	R13.02	R34.78	R17.53	R15.62	R10.71	9.86	R8.47	R14.71	R15.85	1.32
	June†	6.07	29.31	13.14	38.22	20.24	16.01	11.74	10.48	8.97	13.61	16.02	1.34
AVERAGE	5.86	33.69	12.90	35.29	16.47	15.18	10.29	9.59	7.20	14.34	14.57	1.24	

¹See Explanatory Note 14.

²See Definitions.

³Stripper oil was exempt from price controls beginning September 1, 1976. From February through August 1976 stripper oil was subject to upper tier price ceilings. Annual average is for 12 months (January through December 1976).

⁴See Explanatory Note 15.

⁵Alaskan North Slope (ANS) crude oil prices are treated as Upper Tier for determining the applicable wellhead ceiling price. ANS is included in both the Actual Domestic Average and the Imputed Domestic Average price determinations.

⁶The Naval Petroleum Reserves (NPR) are exempt from pricing regulations but have been reported here as Upper Tier prior to July 1977. NPR is included in the Actual Domestic Average price determinations, but not in the Imputed Domestic Average.

† Preliminary data.

R = Revised data.

Sources: • January 1975 through January 1976: Form FEA 90, "Crude Petroleum Production Monthly Report."

• February 1976 through August 1976: FEA form P124-M-0, "Domestic Crude Oil Purchasers Report" for Lower Tier percentages and EIA estimates for Upper Tier percentages.

• September 1976 forward: FEA form P124-M-0, "Domestic Crude Oil Purchasers Report." Data provided by the Economic Regulatory Administration.

Price

FOB Cost of Crude Oil Imports from Selected Countries¹

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
		Dollars per barrel										
1976	AVERAGE	13.05	NA	12.76	11.61	12.55	NA	13.08	11.69	11.94	NA	11.32
1977	January	14.03	NA	13.41	12.03	13.64	13.39	14.11	11.92	12.53	NA	13.39
	February	14.31	NA	13.43	12.36	13.89	13.42	14.24	12.04	12.33	NA	13.30
	March	14.29	NA	13.58	12.79	13.87	13.40	14.32	12.24	12.51	NA	12.98
	April	14.34	NA	13.55	12.79	13.98	13.38	14.51	12.23	12.53	NA	12.62
	May	14.31	NA	13.57	12.78	13.93	13.42	14.56	12.23	12.56	NA	12.60
	June	14.35	NA	13.55	12.68	13.94	13.41	14.55	12.21	12.44	NA	12.53
	July	14.43	NA	13.61	12.78	13.99	13.42	14.52	12.40	12.70	NA	12.48
	August	14.48	NA	13.63	12.80	13.95	13.45	14.54	12.56	13.15	NA	12.37
	September	14.43	NA	13.64	12.73	13.99	13.43	14.56	12.72	13.20	NA	12.55
	October	14.43	NA	13.65	12.79	13.93	13.42	14.48	12.70	13.22	NA	12.72
	November	14.37	NA	13.65	12.75	13.88	13.41	14.53	12.73	13.33	NA	12.71
	December	14.44	NA	13.61	12.71	13.85	13.41	14.45	12.77	13.27	NA	12.56
1978	January	14.29	NA	13.67	12.62	13.77	13.45	14.18	12.70	13.23	NA	12.73
	February	14.21	NA	13.62	12.68	13.91	13.43	14.18	12.78	13.18	NA	12.61
	March	14.19	NA	13.62	12.68	13.75	13.44	14.13	12.80	13.20	13.80	12.86
	April	14.09	NA	13.61	12.68	13.62	13.42	13.91	12.74	13.23	13.65	12.54
	May	13.99	NA	13.51	12.65	13.59	13.42	13.90	12.71	13.05	13.64	12.13
	June	14.06	NA	13.63	12.58	13.59	13.32	13.90	12.67	13.28	13.65	12.32
	July	14.06	NA	13.63	12.70	13.67	13.13	13.89	12.65	13.26	13.72	12.66
	August	14.05	NA	13.63	12.63	13.66	13.17	13.86	12.66	13.27	13.80	12.23
	September	14.05	NA	13.69	12.63	13.66	13.13	13.97	12.76	13.27	13.74	12.38
	October	14.08	NA	13.63	12.64	13.73	13.15	14.08	12.59	13.24	14.14	12.32
	November	14.13	NA	13.79	12.62	13.97	13.17	14.12	12.63	13.29	13.85	12.46
	December	14.16	NA	13.65	12.67	14.07	13.13	14.29	12.77	13.39	14.06	12.42
1979	January	14.87	NA	14.06	12.55	14.60	13.94	14.84	13.26	13.98	15.41	13.69
	February	14.89	NA	14.18	12.56	15.15	14.17	14.98	13.47	14.28	15.33	13.26
	March	15.54	NA	14.42	19.04	16.46	14.14	15.07	13.61	15.72	16.13	13.88
	April	16.80	NA	15.98	17.96	17.40	17.02	18.18	14.77	16.24	17.40	14.58
	May	19.14	NA	16.84	17.27	19.13	18.56	20.02	14.62	17.38	18.39	15.76

¹The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 16.

NA = Not available.

R = Revised data.

Sources: 1976 through January 1979: FEA form 701-M-0, "Transfer Pricing Report."

• February 1979 forward: ERA form 51, "Transfer Pricing Report." Data provided by Economic Regulatory Administration.

Price

Landed Cost of Crude Oil Imports from Selected Countries¹

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
		Dollars per barrel										
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	NA	12.62	12.30	12.87	NA	11.65
1976	AVERAGE	13.81	13.57	13.82	12.82	13.58	NA	13.80	13.04	13.30	NA	11.80
1977	January	14.80	13.92	14.42	13.16	14.64	13.78	14.97	13.22	13.56	NA	13.29
	February	15.18	13.74	14.57	13.56	15.12	13.92	15.12	13.32	13.46	NA	13.76
	March	15.08	14.34	14.64	13.94	14.88	13.77	15.13	13.50	13.80	NA	13.41
	April	15.21	14.02	14.70	13.95	15.12	13.66	15.37	13.41	13.78	NA	13.19
	May	15.20	14.94	14.59	13.94	14.91	13.80	15.40	13.49	13.85	NA	13.10
	June	15.34	14.49	14.63	13.81	14.92	13.81	15.37	13.39	13.72	NA	13.06
	July	15.29	13.91	14.75	13.84	14.88	13.87	15.39	13.64	14.20	NA	13.02
	August	15.24	14.24	14.65	13.99	14.70	13.84	15.25	13.72	14.36	NA	12.82
	September	15.29	14.14	14.62	13.77	14.99	13.72	15.34	14.01	14.41	NA	13.08
	October	15.41	14.00	14.67	13.83	14.81	13.71	15.31	13.85	14.56	NA	13.16
	November	15.05	14.52	14.73	13.88	14.73	13.79	15.23	13.94	14.19	NA	13.11
	December	15.25	14.27	14.58	13.95	14.81	13.69	15.21	13.99	14.48	NA	12.99
	AVERAGE	15.20	14.21	14.63	13.80	14.87	13.75	15.25	13.61	14.04	NA	13.13
1978	January	15.01	14.37	14.60	13.91	14.63	13.83	14.88	13.93	14.40	NA	13.00
	February	14.91	14.31	14.53	13.75	14.85	13.67	14.90	13.96	14.07	NA	12.93
	March	14.74	13.56	14.56	14.06	14.62	13.66	14.89	14.07	14.44	14.75	13.22
	April	14.91	13.87	14.61	13.90	14.43	13.63	14.63	13.85	14.42	14.26	12.89
	May	14.70	14.39	14.50	13.94	14.56	13.65	14.72	13.86	14.20	14.35	12.49
	June	14.80	15.07	14.58	13.92	14.45	13.51	14.61	13.86	14.48	14.19	12.72
	July	14.83	14.64	14.73	13.93	14.65	13.35	14.64	13.81	14.29	13.81	12.41
	August	14.83	14.78	14.66	13.76	14.64	13.52	14.59	13.84	14.49	14.48	12.70
	September	14.74	13.92	14.73	13.83	14.62	13.45	14.78	14.03	14.36	14.53	12.94
	October	14.90	14.73	14.68	13.89	14.81	13.39	15.03	13.89	14.61	14.85	12.78
	November	15.30	14.72	14.85	13.89	15.04	13.61	15.06	14.02	14.38	14.81	13.08
	December	15.27	14.96	14.80	13.80	15.23	13.50	15.30	14.00	14.66	15.00	13.02
	AVERAGE	14.91	14.50	14.64	13.88	14.72	13.54	14.86	13.92	14.39	NA	12.83
1979	January	15.88	16.19	15.29	13.76	15.81	14.51	15.88	14.73	15.53	16.29	14.16
	February	16.18	16.68	15.62	14.25	16.49	14.76	16.13	14.88	16.05	16.07	14.17
	March	16.61	17.18	15.68	19.54	17.56	14.81	16.20	15.28	17.10	15.91	14.61
	April	17.93	17.39	17.31	19.06	18.59	17.40	19.11	16.18	17.70	18.23	15.19
	May	20.22	20.22	17.92	18.56	20.16	18.82	21.06	16.29	18.65	19.26	16.74

¹See Explanatory Note 17.

NA = Not available.

Sources: • 1976 through January 1979: FEA form F701-M-0, "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

• February 1979 forward: ERA 51, "Transfer Pricing Report."

Price

Crude Oil Refiner Acquisition Cost¹

		Domestic	Imported	Composite
		Dollars per barrel		
1976	AVERAGE	8.84	13.48	10.89
1977	January	9.23	14.11	11.64
	February	9.24	14.50	11.80
	March	9.32	14.54	11.88
	April	9.21	14.36	11.75
	May	9.21	14.62	11.87
	June	9.34	14.63	11.98
	July	9.32	14.44	11.90
	August	9.54	14.68	12.01
	September	9.75	14.50	12.01
	October	9.95	14.56	12.12
	November	10.17	14.61	12.18
	December	10.15	14.76	12.27
	AVERAGE	9.55	14.53	11.96
1978	January	10.14	14.52	12.13
	February	10.25	14.41	12.19
	March	10.46	14.57	12.23
	April	10.55	14.40	12.20
	May	10.60	14.51	12.35
	June	10.72	14.54	12.48
	July	10.58	14.49	12.45
	August	10.65	14.46	12.46
	September	10.65	14.53	12.57
	October	10.78	14.63	12.62
	November	10.87	14.74	12.76
	December	11.00	14.94	12.93
	AVERAGE	10.61	14.57	12.46
1979	January	11.02	15.50	13.11
	February	11.34	15.88	13.42
	March	11.45	16.41	13.70
	April	12.06	17.58	14.52
	May	12.41	19.00	15.40
	June	13.24	21.03	17.00
	July	14.61	23.09	18.58
	AVERAGE	12.32	18.45	14.70

¹See Explanatory Note 13.

Note: Crude oil costs and volumes reported on the ERA 49 exclude unfinished oils but include Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the P-110-M-1 include unfinished oils but exclude SPR. Imported averages derived from the Economic Regulatory Administration (ERA) form 49 exclude crude oil purchased as Strategic Petroleum Reserves (SPR), whereas, the composite averages derived from the ERA 49 include SPR.

Sources: • 1974 through January 1976: Form FEO-96, "Monthly Cost Allocation Report."

• February 1976 through June 1978: FEA form P110-M-1, "Refiners' Monthly Cost Allocation Report."

• July 1978 forward: ERA form 49, "Domestic Crude Oil Entitlements Program." Data provided by the Economic Regulatory Administration.

Price

Unrecouped Costs for Refined Products for 29 Largest Refiners¹

		Distillate ²	Motor Gasoline	Aviation Jet Fuel ³	Other Products	Total
Million dollars						
1976	January	336	242	131	515	1,224
	February	279	336	145	456	1,216
	March	263	316	163	456	1,198
	April	237	398	180	524	1,339
	May	264	632	161	446	1,503
	June	NA	628	135	349	1,112
	July	NA	587	129	384	1,100
	August	NA	679	125	352	1,156
	September	NA	619	134	340	1,093
	October	NA	733	151	372	1,256
	November	NA	796	168	368	1,332
	December	NA	723	139	317	1,179
1977	January	NA	901	166	325	1,392
	February	NA	1,038	187	303	1,528
	March	NA	956	180	287	1,423
	April	NA	1,029	194	343	1,566
	May	NA	967	224	351	1,542
	June	NA	957	234	344	1,535
	July	NA	869	210	391	1,470
	August	NA	764	279	455	1,498
	September	NA	784	186	500	1,470
	October	NA	879	248	511	1,638
	November	NA	904	218	538	1,660
	December	NA	818	185	470	1,473
1978	January	NA	1,055	191	420	1,666
	February	NA	1,265	198	435	1,898
	March	NA	1,065	175	378	1,618
	April	NA	1,013	170	400	1,583
	May	NA	849	186	500	1,535
	June	NA	718	180	562	1,460
	July	NA	713	136	449	1,298
	August	NA	353	74	461	888
	September	NA	554	155	491	1,200
	October	NA	627	131	701	1,459
	November	NA	709	102	540	1,351
	December	NA	532	94	791	1,417
1979	January	NA	836	64	799	1,699
	February	NA	1,110	36	842	1,988
	March	NA	1,551	NA	837	2,388
	April	NA	2,067	NA	1,649	3,716
	May	NA	2,245	NA	1,848	4,093
	June	NA	2,737	NA	1,754	4,491
	July†	NA	2,989	NA	2,087	5,076

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

²Includes No. 2 heating oil and No. 2 diesel fuel only. After May 1976, reporting of the distillate bank is no longer required due to decontrol of middle distillates. Aviation jet fuel was decontrolled on February 26, 1979.

³After February 1979, reporting of aviation jet fuel bank is no longer required due to the decontrol of kerosene-base jet fuel and aviation gasoline.

R = Revised data.

NA = Not available.

†Preliminary data.

Sources: • January 1975 through January 1976: Form FEO 96, "Monthly Cost Allocation Report."

• February 1976 forward: FEA form P110-M-1, "Refiners' Monthly Cost Allocation Report."

• July 1978 forward: EIA form 14, "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Price

Crude Oil Entitlements and Supply Ratio

		Entitlement Price ¹ Dollars	National Old Oil (or Domestic Crude Oil) Supply Ratio ¹	Entitlement Benefit ¹ Dollars
1976	January	8.09	0.309	2.50
	February	7.85	0.352	2.76
	March	7.89	0.358	2.82
	April	7.85	0.356	2.79
	May	7.82	0.356	2.78
	June	7.91	0.328	2.59
	July	7.80	0.314	2.45
	August	8.02	0.319	2.56
	September	7.80	0.296	2.31
	October	7.84	0.293	2.30
	November	7.90	0.273	2.16
	December	7.97	0.263	2.10
1977	January	8.30	0.266	2.21
	February	8.53	0.267	2.28
	March	8.71	0.273	2.38
	April	8.69	0.285	2.48
	May	8.77	0.280	2.46
	June	8.65	0.273	2.36
	July	8.68	0.258	2.24
	August	8.75	0.266	2.33
	September	8.75	0.250	2.19
	October	8.78	0.250	2.20
	November	8.61	0.239	2.06
	December	8.65	0.233	2.02
1978	January	8.61	0.240	2.07
	February	8.48	0.230	1.95
	March	8.47	0.225	1.91
	April	8.35	0.218	1.82
	May	8.26	0.197	1.63
	June	8.19	0.191	1.56
	July	8.16	0.184	1.50
	August	8.06	0.165	1.33
	September	8.13	0.174	1.41
	October	8.11	0.178	1.44
	November	8.16	0.166	1.35
	December	8.20	0.155	1.27
1979	January	8.74	0.178	1.56
	February	9.03	0.185	1.67
	March	9.50	0.189	1.80
	April	10.53	0.196	2.06
	May	11.74	0.208	2.44
	June	13.70	0.220	3.01
	July	16.01	0.221	3.54

¹See Definitions.

Source: • FEA P102-M-1, "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Data provided by the Economic Regulatory Administration.

Price

Average Retail Motor Gasoline Selling Prices at Refiner-Owned and -Operated Stations¹

		Leaded Regular	Leaded Premium	Unleaded Regular and Premium	Average for All Grades
		Cents per gallon, including tax			
1976	January	53.5	57.9	55.8	54.6
	February	53.4	57.8	55.9	54.7
	March	52.3	56.6	54.6	53.6
	April	52.7	56.8	55.0	54.1
	May	54.1	58.2	56.3	55.5
	June	55.7	60.1	57.9	57.0
	July	55.9	60.3	58.4	57.2
	August	55.7	60.3	58.5	57.2
	September	55.6	60.1	58.1	57.0
	October	55.4	59.9	58.1	56.9
	November	55.2	59.8	57.9	56.7
	December	55.0	59.6	57.8	56.4
	AVERAGE	54.7	59.1	57.3	56.0
1977	January	54.9	59.5	57.7	56.3
	February	55.5	60.2	58.9	57.0
	March	56.0	61.0	59.5	57.6
	April	57.1	61.9	60.6	57.6
	May	57.7	62.7	61.4	59.4
	June	58.0	62.7	61.8	60.0
	July	58.2	63.2	61.8	60.2
	August	57.9	63.1	61.8	60.0
	September	57.6	62.9	61.5	59.7
	October	57.2	62.7	61.2	59.5
	November	57.0	62.6	61.1	59.2
	December	56.9	62.7	61.0	59.2
	AVERAGE	57.3	62.3	61.0	59.0
1978	January	56.8	62.6	60.9	59.2
	February	56.5	62.4	60.7	58.6
	March	56.5	62.5	60.7	58.6
	April	56.8	62.8	61.0	58.9
	May	57.1	63.6	61.8	59.6
	June	58.3	64.5	62.6	60.5
	July	59.3	65.6	63.8	61.6
	August	60.5	66.7	64.9	62.7
	September	60.7	67.0	65.1	63.0
	October	60.6	67.0	65.1	62.9
	November	61.3	67.8	65.9	63.7
	December	62.5	68.9	66.9	64.8
	AVERAGE	59.0	65.1	63.6	61.3
1979	January	63.0	68.0	67.7	65.3
	February	64.5	70.8	68.0	66.5
	March	67.6	73.6	72.1	69.9
	April	72.3	79.0	76.6	74.5
	May	77.1	83.4	81.1	79.1
	June	81.4	88.2	85.3	87.0
	July	86.0	91.9	90.1	88.0

¹Retail refers to the price at which refiner-owned and -operated retail stations sell gasoline to the consumer.

Note: Taxes are estimated to be 13.1 cents per gallon.

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

Price

National Average Retail Dealer Motor Gasoline Selling Prices

		Leaded Regular		Unleaded Regular		Leaded Premium		Unleaded Premium		Average for All Grades
		Full Serve	Self Serve	Full Serve	Self Serve	Full Serve	Self Serve	Full Serve	Self Serve	
Cents per gallon, including tax										
1976	AVERAGE	58.7	55.4	62.5	NA	63.8	60.7	NA	NA	NA
1977	January	59.9	56.2	64.0	NA	65.2	61.7	68.4	NA	NA
	February	60.7	57.1	65.0	NA	66.1	62.7	67.2	NA	NA
	March	61.3	57.7	65.4	NA	66.8	63.3	70.7	NA	NA
	April	62.2	58.4	66.1	NA	67.6	64.1	71.7	NA	NA
	May	62.9	58.9	66.7	NA	68.4	64.8	71.2	NA	NA
	June	63.4	59.3	67.2	NA	68.9	65.2	71.7	NA	NA
	July	63.4	59.2	67.3	NA	68.9	65.2	71.4	NA	NA
	August	63.4	58.8	67.0	63.7	68.9	65.8	71.4	NA	NA
	September	63.3	58.5	67.0	63.7	68.9	65.8	71.3	NA	NA
	October	63.2	58.2	67.0	63.6	68.9	65.7	71.3	NA	NA
	November	63.1	58.1	67.0	63.4	68.9	65.6	71.3	NA	NA
	December	63.3	58.2	67.2	63.6	69.1	65.8	70.6	NA	NA
	AVERAGE	62.6	58.2	66.4	63.6	68.1	64.7	71.0	NA	NA
1978	January	61.7	57.2	65.8	61.6	67.7	63.5	69.6	66.0	63.1
	February	61.6	57.1	65.7	61.8	67.7	64.0	NA	66.1	63.0
	March	61.7	57.0	65.8	61.8	68.0	63.9	69.7	66.0	63.0
	April	61.9	57.2	66.1	62.0	68.3	64.3	70.4	NA	63.2
	May	62.5	58.2	66.9	62.9	69.0	65.3	NA	NA	64.0
	June	63.4	59.0	67.8	64.0	70.0	66.2	NA	NA	64.8
	July	64.6	60.6	68.8	65.6	71.1	68.2	73.5	70.3	66.1
	August	65.4	61.2	69.8	66.2	72.0	68.8	74.4	71.3	66.8
	September	65.8	61.7	70.2	66.9	72.4	69.2	75.2	71.3	67.2
	October	65.9	61.5	70.2	66.7	72.5	69.3	74.8	71.8	67.2
	November	66.7	62.3	71.1	67.7	73.3	70.1	76.3	73.9	68.2
	December	67.5	63.4	71.7	68.7	73.7	71.0	77.1	74.7	68.9
	AVERAGE	63.9	59.8	68.4	64.9	69.4	67.1	72.8	69.7	65.5
1979	January	68.4	64.0	72.9	69.3	74.8	71.3	78.6	75.1	69.8
	February	69.9	65.4	74.5	70.4	76.2	72.8	80.8	77.0	71.0
	March	72.6	68.7	77.4	73.9	78.9	76.0	83.7	78.8	74.0
	April	76.8	73.7	81.6	78.5	83.5	81.7	86.2	82.5	78.4
	May	81.2	78.6	85.8	83.2	88.0	86.4	89.9	86.3	82.9
	June	R86.3	83.8	R90.9	88.3	R92.9	91.8	R94.5	R91.3	87.9
	July	91.1	88.4	95.5	92.6	97.0	95.3	100.0	97.5	92.6
	AVERAGE	78.0	74.5	83.4	79.6	83.4	80.4	88.0	83.9	79.7

† Preliminary data.

NA = Not available.

R = Revised data.

Note: "Average for all grades" excludes mini-serve for January 1978 through June 1978. Mini-serve is included from July 1978 forward.

Sources: • 1975 through 1977: Lundberg Survey, Inc.

• January 1978 through June 1979: EIA 8, "Retail Motor Fuels Service Station Survey."

• July 1978 forward: EIA 79, "Monthly Motor Gasoline Service Station Survey."

Price

Average Retail Dealer Motor Gasoline Selling Prices for Major¹ and Nonmajor Brands— May, June and July 1979

	Full Serve			Self Serve			Full Serve			Self Serve		
	May	June	July†	May	June	July†	May	June	July†	May	June	July†
	Leaded Regular						Unleaded Regular					
	Cents per gallon, including tax											
Major	81.7	R86.9	91.9	78.7	R84.3	88.9	86.2	R91.4	96.0	83.2	R88.7	92.9
Nonmajor	80.0	R84.9	89.3	78.4	R83.4	87.8	84.4	R89.2	93.2	83.1	R87.8	92.1
	Leaded Premium						Unleaded Premium					
Major	88.3	R93.4	97.5	86.3	R92.0	95.5	89.9	R94.5	100.0	86.3	R91.5	97.8
Nonmajor	86.4	R90.7	94.6	86.5	R91.6	94.9	NA	NA	NA	NA	NA	NA

Average Retail Dealer Motor Gasoline Selling Prices by Department of Energy (DOE) Regions²— May, June and July 1979

DOE Region	Full Serve			Self Serve			Full Serve			Self Serve		
	May	June	July†	May	June	July†	May	June	July†	May	June	July†
	Leaded Regular						Unleaded Regular					
	Cents per gallon, including tax											
1	80.9	R86.0	91.3	79.1	R84.3	88.6	84.7	R89.8	94.7	82.9	R88.1	92.5
2	81.8	R88.3	93.4	80.0	R86.8	92.3	85.9	R92.3	97.5	84.7	R91.2	96.1
3	79.7	R85.2	90.5	78.0	R83.1	87.6	84.1	R89.5	94.3	82.5	R87.4	92.2
4	79.3	R84.7	88.8	76.4	R82.0	86.5	84.2	R89.2	93.5	80.9	86.2	90.3
5	82.3	R86.9	91.6	78.8	R84.0	88.9	87.1	R91.6	96.1	83.7	R88.3	93.0
6	78.1	R83.0	87.8	75.1	R80.6	85.6	82.2	R87.1	91.8	79.1	R84.4	89.3
7	81.0	R86.1	91.8	79.3	R84.8	90.0	85.1	R90.2	95.8	83.8	89.1	94.5
8	81.8	R86.3	91.2	79.3	83.6	87.7	85.9	R90.3	95.5	83.4	R87.9	92.4
9	86.5	91.1	95.0	84.6	R89.3	91.8	90.4	R95.4	98.2	88.8	94.0	95.9
10	83.0	R88.2	92.5	81.5	86.6	91.1	86.8	R92.3	96.4	85.6	R91.5	95.7
	Leaded Premium						Unleaded Premium					
1	86.4	R91.4	96.4	85.4	R90.4	95.0	88.1	R92.6	99.6	86.3	R92.8	96.8
2	88.1	R93.9	99.0	87.1	R92.1	97.9	91.1	R96.7	101.3	NA	R96.0	101.2
3	86.0	91.1	95.3	84.9	R89.4	93.0	88.9	R92.6	99.8	87.7	R91.8	97.3
4	85.3	R90.4	94.9	82.7	88.1	92.3	88.8	R93.7	98.1	85.1	R90.9	97.0
5	88.7	R92.9	95.8	85.2	R90.6	93.8	92.0	R96.6	101.9	88.1	R93.8	99.3
6	83.9	88.7	93.3	80.9	R86.3	91.1	85.5	R90.6	96.0	81.4	R86.6	93.0
7	86.9	R91.6	96.2	86.0	R90.7	95.9	89.9	R93.4	99.7	86.5	R91.5	99.4
8	86.9	R92.2	97.3	84.7	R89.9	94.5	90.1	R94.3	101.5	89.2	R92.5	96.2
9	91.8	96.4	99.2	91.5	96.1	97.8	NA	NA	NA	NA	NA	NA
10	88.6	93.8	98.1	87.3	R93.5	97.6	NA	NA	NA	NA	NA	NA

¹See Explanatory Note 18.

²DOE regions are defined in Explanatory Note 19.

R = Revised data.

†Preliminary data.

NA = Not available.

Source: • EIA 79, "Monthly Motor Gasoline Service Station Survey."

Price

Aviation and Diesel Fuels

		Aviation					Diesel	
		Aviation Gasoline		Naphtha-Type ¹	Kerosene-Type		No. 2 Diesel	
		Wholesale ²	Retail ²	Retail ²	Wholesale ²	Retail ²	Wholesale ³	Retail ³
Cents per gallon, excluding tax								
1976	AVERAGE	42.4	43.1	31.5	32.5	31.2	31.9	34.7
1977	January	43.4	44.1	33.4	34.6	33.2	34.3	36.6
	February	44.7	45.0	34.0	37.1	34.1	35.3	38.2
	March	45.0	45.7	34.5	35.9	34.6	35.9	39.0
	April	46.0	47.2	34.3	35.9	34.9	36.1	39.6
	May	46.6	47.8	34.3	36.3	35.1	36.5	39.6
	June	46.7	47.6	35.1	36.8	35.7	36.3	39.6
	July	47.0	48.7	35.6	37.1	35.8	36.2	39.6
	August	47.9	50.1	35.5	36.6	36.0	36.2	39.5
	September	47.9	49.1	35.6	37.1	37.0	36.2	40.2
	October	48.1	49.0	35.7	37.3	37.3	36.5	40.3
	November	48.3	47.8	35.8	37.9	37.5	36.7	40.1
	December	47.8	48.1	36.2	37.2	37.8	36.6	39.9
	AVERAGE	46.7	47.7	35.0	36.7	35.8	36.1	39.3
1978	January	47.8	49.1	36.9	37.9	38.5	36.6	39.5
	February	48.3	48.4	36.5	38.3	38.2	36.6	39.8
	March	49.1	49.4	36.9	37.8	38.4	36.7	39.7
	April	49.5	51.5	36.8	38.1	38.5	36.5	39.6
	May	50.1	50.0	37.3	38.3	38.6	36.6	39.9
	June	50.4	52.8	37.2	38.9	38.9	36.7	40.1
	July	51.4	52.4	37.6	39.0	38.9	36.4	40.0
	August	52.0	54.0	37.5	38.9	39.3	36.6	40.0
	September	52.6	54.0	37.8	39.2	39.3	37.1	39.8
	October	52.5	56.1	38.5	39.7	39.3	37.7	40.9
	November	53.4	51.4	38.5	40.2	39.4	38.6	41.7
	December	53.2	54.3	38.4	40.6	39.5	39.1	42.0
	AVERAGE	51.0	52.1	37.5	38.9	38.9	37.1	40.2
1979	January	54.1	53.9	38.6	42.2	40.1	39.7	43.0
	February	54.6	55.1	39.1	44.3	40.2	41.8	46.1
	March	56.6	56.8	40.7	54.8	41.3	44.5	47.9
	April	58.2	59.1	43.2	60.1	45.4	47.7	50.6
	May	R60.6	61.2	44.1	R58.1	48.4	R53.4	R56.1
	June	64.8	66.8	49.5	59.9	50.9	58.7	65.0
	July†	70.0	71.8	50.4	65.1	57.8	61.4	68.1
	AVERAGE	60.9	61.5	43.8	55.5	46.2	49.5	54.0

¹Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.

²Wholesale refers to the price of aviation fuel sold to refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.

³Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and -operated retail dealers sell to consumers.

†Preliminary data.

R = Revised data.

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

Price

Residential Heating Oil Prices by Region

		Census Region									
		New England	Mid-Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	
		Cents per gallon									
1976	January	41.5	40.0	39.6	38.3	37.8	38.2	35.0	41.2	41.6	
	February	41.4	40.3	39.4	38.0	37.7	38.3	34.4	41.0	42.1	
	March	41.5	39.8	39.2	37.0	36.7	37.6	34.5	40.4	41.9	
	April	41.2	40.0	38.9	37.1	35.9	37.3	34.6	40.3	40.8	
	May	41.1	39.7	38.2	37.1	35.6	37.3	34.0	40.4	42.1	
	June	40.9	41.1	39.1	37.7	37.2	37.3	34.3	40.3	42.8	
	July	40.7	39.8	39.1	37.9	36.9	37.3	34.4	40.1	45.0	
	August	41.5	40.3	39.5	38.2	37.2	37.7	34.3	39.7	44.7	
	September	41.9	40.8	37.5	38.3	38.0	38.8	34.8	41.1	46.0	
	October	42.3	41.4	40.4	39.0	38.5	38.7	35.1	42.1	46.0	
	November	43.3	42.4	42.1	40.1	39.8	39.5	36.3	42.8	46.5	
	December	44.4	43.6	42.9	41.5	41.0	41.9	36.3	42.7	43.8	
1977	January	45.8	44.9	44.2	43.2	43.1	43.0	36.9	43.4	44.6	
	February	46.6	45.8	45.7	43.9	43.4	44.0	38.8	44.2	45.2	
	March	47.1	46.3	45.5	44.4	43.8	44.6	40.2	44.7	45.9	
	April	47.2	46.5	45.5	44.8	43.3	44.2	40.8	44.8	46.4	
	May	47.0	46.4	45.6	44.7	43.7	43.7	40.7	44.8	46.5	
	June	47.1	46.4	45.7	44.7	44.0	43.3	41.2	45.8	46.8	
	July	47.1	46.4	45.7	44.7	44.2	44.2	41.2	44.2	47.9	
	August	47.4	46.6	45.6	44.7	43.7	44.5	41.0	44.9	48.2	
	September	47.7	46.7	45.8	45.0	44.2	44.9	41.1	44.9	47.2	
	October	48.0	47.3	46.4	45.3	43.9	45.4	41.1	45.4	47.4	
		DOE Region ¹									
		1	2	3	4	5	6	7	8	9	10
	November	48.5	48.1	47.0	46.1	45.7	NA	44.2	45.4	44.9	47.4
	December	48.9	48.6	47.5	46.6	46.1	NA	44.5	45.7	44.5	47.3
1978	January	49.4	49.2	48.1	47.5	46.4	NA	44.5	45.2	44.7	47.4
	February	49.5	49.3	48.4	47.6	46.4	NA	45.2	45.5	45.6	47.5
	March	49.4	49.3	48.4	47.7	46.5	NA	44.4	45.0	47.0	47.8
	April	49.3	49.2	48.2	47.1	46.4	NA	44.6	45.0	45.1	47.6
	May	49.3	49.1	47.7	46.7	46.3	NA	44.7	45.0	44.4	47.4
	June	49.2	49.1	47.8	46.8	46.0	NA	44.8	45.4	43.9	47.7
	July	49.1	49.0	47.6	46.7	46.4	NA	45.0	45.8	43.5	48.1
	August	49.1	49.0	47.6	47.4	46.3	NA	45.1	45.5	44.8	47.3
	September	50.0	49.7	48.5	46.6	46.8	NA	45.6	46.3	45.0	47.7
	October	51.2	51.0	50.0	48.1	47.6	NA	45.9	46.3	45.9	48.3
	November	52.8	52.3	51.3	49.5	49.2	NA	47.6	47.9	45.8	49.1
	December	54.0	53.4	52.3	50.4	50.2	NA	48.2	48.7	46.7	49.9
1979	January	55.1	54.5	53.3	51.6	51.5	NA	49.6	50.4	47.6	50.8
	February	57.7	57.3	55.5	53.2	53.7	NA	51.3	51.4	49.4	52.9
	March	60.6	59.8	57.5	54.3	56.3	NA	54.7	55.3	50.8	55.3
	April	62.8	61.9	60.0	57.3	58.8	NA	58.2	58.4	53.8	57.8
	May	65.9	64.8	63.4	61.2	62.8	NA	62.0	62.7	56.2	60.8
	June	R70.5	69.7	R68.4	R66.2	R68.5	NA	68.9	R67.8	R62.2	R66.4
	July†	76.0	73.9	73.0	71.0	73.3	NA	72.0	71.2	NA	73.2

¹DOE regions are defined in Explanatory Note 19.

R = Revised data.

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

†Preliminary data

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

Source: • FEA form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

Price

National Average Heating Oil Prices¹

		Refiners' Average Selling Price to Resellers and Retailers	Residential Average Selling Price ²	Residential Average Purchase Price ²	Residential Average Distributor Margin ²
Cents per gallon					
1976	AVERAGE	31.4	40.6	32.6	
1977	January	34.7	44.4	35.8	9.3
	February	35.4	45.3	36.7	9.4
	March	35.9	45.8	37.0	9.5
	April	35.8	45.9	37.1	9.6
	May	35.7	45.7	37.1	9.5
	June	35.7	45.7	37.1	9.3
	July	35.8	45.8	37.2	9.3
	August	35.7	46.0	37.3	9.2
	September	35.5	46.2	37.4	9.4
	October	36.0	46.7	37.5	9.8
	November	36.3	47.6	37.3	10.2
	December	36.6	47.9	37.2	10.4
	AVERAGE	35.7	46.0	36.9	
1978	January	36.8	48.5	38.1	10.5
	February	36.4	48.6	37.8	11.0
	March	36.2	48.6	37.6	11.1
	April	36.0	48.6	37.6	11.1
	May	36.2	48.3	37.6	11.0
	June	35.8	48.2	37.7	10.7
	July	35.9	48.2	37.7	10.7
	August	36.1	48.2	37.9	10.5
	September	36.9	49.0	38.6	10.6
	October	38.1	50.2	39.6	10.8
	November	39.4	51.5	40.5	11.2
	December	40.1	52.6	41.3	11.6
	AVERAGE	37.2	49.4	38.7	11.0
1979	January	40.9	53.7	42.1	11.8
	February	43.1	56.3	44.5	12.0
	March	45.8	58.8	47.0	12.0
	April	48.3	61.1	49.3	12.1
	May	53.2	64.2	52.6	12.1
	June	R58.8	69.1	56.9	12.7
	July†	60.4	73.9	NA	13.2
	AVERAGE	47.2	58.3	46.4	12.0

¹See Explanatory Note 20.

²Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.

†Preliminary data.

R = Revised data.

NA = Not available.

Source: • January 1976 forward: FEA form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

Price

Average No. 6 Residual Fuel Oil Prices

		0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Average	
		Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail
Dollars per barrel, excluding taxes									
1976	AVERAGE	12.20	12.54	10.83	11.79	9.98	10.43	10.72	11.49
1977	January	14.06	14.34	12.79	13.68	11.51	12.32	12.45	13.32
	February	14.00	14.60	12.91	14.06	12.04	12.74	12.69	13.71
	March	14.00	14.58	13.47	14.51	11.62	12.70	12.68	13.84
	April	12.88	14.63	13.05	14.10	11.27	12.50	12.04	13.61
	May	13.56	14.48	11.90	13.73	11.05	12.15	11.64	13.42
	June	13.12	14.28	11.88	13.27	11.10	11.93	11.72	13.02
	July	13.31	14.38	11.73	13.12	11.02	12.06	11.62	13.01
	August	13.32	14.15	11.83	13.08	11.89	12.01	12.06	13.00
	September	13.35	14.33	11.79	13.11	11.78	12.19	12.03	12.94
	October	13.38	14.30	11.69	13.15	11.71	12.33	12.10	13.15
	November	12.85	14.24	11.66	12.93	11.44	12.15	11.76	12.96
	December	12.87	13.95	11.38	12.60	10.77	11.95	11.28	12.70
	AVERAGE	13.45	14.36	12.09	13.45	11.31	12.27	11.96	13.23
1978	January	12.72	14.19	11.56	12.70	10.71	12.00	11.33	12.79
	February	12.20	14.05	11.64	12.42	10.58	11.75	11.25	12.53
	March	12.73	13.99	11.94	12.75	10.48	11.70	11.36	12.63
	April	12.72	14.51	12.26	12.95	10.84	11.85	11.57	12.87
	May	12.67	14.21	12.01	12.88	10.79	11.74	11.70	12.79
	June	12.37	13.99	11.83	12.58	10.82	11.60	11.41	12.50
	July	11.26	13.93	11.29	12.01	10.51	11.48	10.86	12.21
	August	11.41	14.09	11.24	11.97	10.46	11.54	10.70	12.34
	September	12.29	14.18	11.46	12.30	10.69	11.39	11.26	12.43
	October	13.43	14.63	12.06	13.00	10.83	11.82	11.76	13.01
	November	14.12	15.55	13.26	13.77	10.87	11.54	12.36	13.34
	December	14.66	15.98	13.19	14.13	11.04	11.82	12.57	13.75
	AVERAGE	12.77	14.47	11.95	12.78	10.73	11.70	11.51	12.75
1979	January	15.16	16.12	13.68	14.79	11.00	11.92	12.78	14.13
	February	16.12	17.28	15.01	15.30	R11.31	12.28	13.72	14.68
	March	16.08	18.05	R13.90	16.94	13.48	14.00	14.82	15.95
	April	17.79	19.09	R16.34	17.44	R13.70	14.59	15.51	16.61
	May	R18.04	19.45	R16.24	17.89	R14.69	15.37	15.71	17.18
	June	20.92	19.79	18.92	18.51	15.95	16.40	17.81	17.97
	July†	21.85	23.07	21.87	20.29	16.51	17.92	19.18	19.89
	AVERAGE	17.24	18.55	16.70	17.08	13.73	14.64	15.40	16.47

†Preliminary data.

R = Revised data.

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

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

Price

Wholesale¹ Propane and Butane

		Propane	Butane
		Cents per gallon, excluding taxes	
1976	AVERAGE	20.6	21.9
1977	January	22.9	23.0
	February	24.0	24.3
	March	23.7	24.9
	April	23.6	24.2
	May	24.5	25.8
	June	24.5	25.6
	July	24.9	26.2
	August	25.5	26.1
	September	25.9	27.4
	October	26.8	26.3
	November	26.5	25.8
	December	26.7	25.8
	AVERAGE	25.0	25.4
1978	January	27.0	25.9
	February	26.5	25.1
	March	25.6	24.9
	April	24.4	23.9
	May	23.7	22.8
	June	23.3	22.9
	July	23.0	22.1
	August	22.7	21.8
	September	22.6	21.8
	October	22.5	20.9
	November	22.1	22.0
	December	22.1	22.7
	AVERAGE	24.0	23.0
1979	January	22.4	24.9
	February	21.8	28.5
	March	21.2	32.5
	April	22.0	35.4
	May	24.2	39.5
	June	27.9	46.9
	July†	29.3	51.1

¹Wholesale refers to the price at which refiners, resellers, retailers, and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.

†Preliminary data.

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

Price

Natural Gas Prices Reported by Major Interstate Pipeline Companies

		Purchases			Sales		
		From Domestic Producers	From Canadian and Foreign Sources	Total Purchases	To Industrial Users ¹	To Resellers ²	Total Sales
Cents per thousand cubic feet							
1976	January	38.3	164.0	48.7	88.2	90.1	90.6
	February	39.7	165.3	50.1	88.2	93.8	94.1
	March	39.4	164.5	49.9	86.8	92.0	92.2
	April	40.5	164.3	51.5	89.0	96.5	96.4
	May	42.2	165.0	52.7	87.4	99.2	98.5
	June	43.7	166.6	54.0	89.8	99.4	98.8
	July	43.8	168.4	53.8	94.6	102.7	102.0
	August	56.4	167.7	65.7	98.2	105.3	104.6
	September	68.6	183.7	77.9	103.9	93.1	94.7
	October	57.6	190.1	69.3	106.7	105.8	106.2
	November	52.6	182.4	63.6	113.5	106.7	107.5
	December	54.0	189.4	65.7	133.1	117.8	118.6
1977	January	59.4	201.8	71.6	143.2	124.3	125.4
	February	63.4	199.7	76.4	130.6	130.4	131.0
	March	69.8	200.4	83.4	129.3	132.1	132.5
	April	65.3	190.7	76.5	128.1	131.0	131.1
	May	69.1	191.3	80.5	128.1	133.9	133.5
	June	69.2	188.6	79.6	125.3	135.1	134.2
	July	72.1	187.7	81.8	134.3	135.9	135.7
	August	71.1	185.5	81.5	133.5	134.0	133.9
	September	71.8	194.7	84.0	131.8	135.7	135.4
	October	74.2	211.9	87.4	133.9	135.6	135.6
	November	74.8	214.2	87.7	134.4	141.6	141.4
	December	73.9	216.5	86.7	138.3	132.1	133.0
1978	January	74.0	211.2	86.4	150.4	138.2	139.2
	February	76.3	211.3	89.2	158.2	141.5	142.8
	March	79.3	212.5	91.1	149.7	144.7	145.5
	April	80.7	222.0	92.9	149.9	147.7	148.2
	May	81.2	218.5	92.5	149.0	149.7	150.0
	June	82.6	220.5	93.5	148.3	153.0	152.7
	July	R83.8	R222.6	R95.0	149.5	155.7	155.0
	August	84.3	222.5	95.6	148.9	154.7	154.0
	September	88.1	216.8	99.6	152.0	155.4	155.0
	October	90.7	225.3	101.7	158.5	157.4	157.8
	November	90.1	219.3	102.3	171.0	161.0	162.1
	December	95.8	215.1	107.6	169.9	159.8	161.0
1979	January	99.5	215.7	110.4	192.1	161.0	163.1
	February	101.7	219.0	114.0	195.4	164.5	166.7
	March	106.1	224.8	118.4	186.8	171.5	173.2
	April	116.7	222.1	127.9	190.7	167.6	170.2
	May	118.3	228.6	129.5	202.5	188.8	190.5
	June	118.3	233.4	130.9	180.5	184.4	184.2
	July	119.2	232.1	131.9	198.8	190.3	191.4

¹Represents direct sales by pipeline companies to industrial users. Does not include sales to industrial users by resellers.

²Includes the cost of gas to the distributing utility at entrance of distribution system or point of receipt.

R = Revised data.

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

Price

Average Intrastate Natural Gas Prices for Selected States by Type of Contract¹

	California		Kansas		Louisiana		Oklahoma		Texas	
	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended
Cents per thousand cubic feet										
1976										
January	—	83.97	103.81	84.54	138.75	131.23	149.87	109.39	181.05	193.31
February	—	40.00	—	109.68	125.00	145.30	133.72	146.71	176.63	191.54
March	—	—	150.36	—	145.66	155.39	162.83	168.57	178.70	176.44
April	195.00	—	150.00	—	142.99	154.05	162.12	148.30	202.60	152.95
May	122.00	60.39	180.39	149.84	125.54	106.05	156.35	164.02	154.00	197.22
June	—	—	114.45	150.82	147.11	137.67	169.56	168.14	178.01	192.98
July	—	117.15	137.57	150.83	127.55	141.71	148.20	95.00	151.19	176.23
August	—	97.38	—	—	138.70	164.23	151.81	171.49	157.98	198.81
September	—	—	—	125.68	164.10	156.39	164.85	172.00	184.07	197.66
October	—	—	—	111.72	144.64	149.91	163.48	161.16	196.58	188.80
November	—	—	150.82	144.21	—	131.91	162.57	90.73	186.80	182.82
December	—	97.47	160.73	—	194.51	152.45	167.55	175.98	198.71	202.54
1977										
January	—	105.58	155.49	—	155.82	137.65	172.35	167.49	193.36	204.06
February	—	107.27	121.66	—	141.33	120.84	147.86	131.27	185.55	203.22
March	119.79	116.28	148.18	—	219.43	208.97	168.57	168.28	197.14	190.83
April	—	—	137.10	156.38	216.41	150.35	165.61	167.89	192.22	205.44
May	—	107.20	119.00	—	197.53	158.97	156.52	171.09	204.06	201.27
June	—	112.21	91.49	—	180.21	169.61	166.69	169.51	194.54	206.41
July	—	139.02	88.57	174.53	174.90	169.64	172.95	168.25	206.96	202.46
August	—	—	131.97	90.49	177.99	166.66	164.33	158.46	188.96	183.57
September	—	—	—	136.66	163.72	162.49	171.78	172.70	167.14	212.44
October	—	—	—	75.63	201.26	142.88	148.44	175.01	202.73	204.08
November	135.00	136.15	150.39	105.80	—	182.97	166.26	174.78	186.94	199.11
December	—	124.40	147.09	166.59	196.42	154.23	160.32	173.49	207.65	203.32
1978										
January	—	173.80	137.50	184.32	194.38	202.88	169.22	180.65	168.54	211.52
February	—	—	—	163.54	180.37	181.40	165.35	178.74	163.94	211.32
March	—	—	—	203.60	198.62	182.35	175.48	177.37	170.64	196.60
April	—	—	185.36	60.19	201.85	237.64	181.08	166.69	202.35	202.59
May	—	—	—	197.49	198.18	197.07	171.98	175.67	213.52	193.90
June	—	—	—	135.13	—	212.50	138.00	174.68	187.68	205.71
July	—	172.04	156.00	186.01	204.13	201.70	163.62	153.54	203.53	209.16
August	—	170.53	—	176.46	199.52	216.90	162.85	173.70	196.45	200.14
September	145.50	—	150.82	191.06	193.75	199.62	146.04	173.71	197.04	216.13
October	170.00	163.00	185.18	201.27	201.01	157.02	187.20	167.67	213.21	188.23
November	—	171.43	210.95	148.01	198.00	194.80	172.92	140.24	197.61	200.74

¹Prices are for Federal Energy Regulatory Commission jurisdictional natural gas companies selling more than 1 billion cubic feet per year in intrastate commerce.

Source: • Federal Power Commission Form 45, "Summary of Intrastate Natural Gas Prices."

Price

Average Wellhead Value of Natural Gas Production¹

		Cents per thousand cubic feet
1973	AVERAGE	21.6
1974	AVERAGE	30.4
1975	AVERAGE	44.5
1976	January	53.9
	February	54.0
	March	54.2
	April	54.5
	May	54.8
	June	57.8
	July	57.5
	August	60.1
	September	60.3
	October	61.7
	November	63.0
	December	64.4
	AVERAGE	58.0
1977	January	67.1
	February	71.0
	March	74.9
	April	77.2
	May	76.7
	June	82.3
	July	83.1
	August	82.3
	September	83.3
	October	84.0
	November	83.2
	December	84.4
	AVERAGE	79.0
1978	January	86.7
	February	87.5
	March	88.7
	April	87.2
	May	90.0
	June	90.0
	July	88.2
	August	90.5
	September	91.3
	October	91.3
	November	91.8
	December	95.4
	AVERAGE	91.9
1979	January	99.0
	February	98.0
	March	102.0

Average Retail Prices for Natural Gas Sold to Residential Customers for Heating Use²

		Cents per thousand cubic feet
1976	January	171.4
	February	175.2
	March	177.0
	April	178.4
	May	180.8
	June	183.2
	July	184.5
	August	185.8
	September	191.2
	October	195.0
	November	198.3
	December	208.3
1977	January	213.8
	February	217.0
	March	219.9
	April	223.7
	May	227.0
	June	227.3
	July	229.9
	August	230.1
	September	230.4
	October	235.1
	November	238.4
	December	237.3
1978	January	241.6
	February	243.0
	March	247.0
	April	248.7
	May	255.2
	June	254.2
	July	NA
	August	NA
	September	NA
	October	NA
	November	285.8
	December	290.1
1979	January	297.7
	February	300.5
	March	305.5

¹Annual data from the appropriate agencies of the individual producing states; monthly data are estimated primarily on the basis of values reported by state agencies in New Mexico, Oklahoma, and Texas.

²Bureau of Labor Statistics.

Price

Average Retail Electricity Prices¹

		Residential	Commercial	Industrial	Other	Total ²
		Cents per kilowatt-hour				
1973	AVERAGE	2.54	2.41	1.25	2.10	1.96
1974	AVERAGE	3.10	3.04	1.69	2.75	2.49
1975	AVERAGE	3.51	3.45	2.07	3.08	2.92
1976	AVERAGE	3.73	3.69	2.21	3.27	3.09
1977	January	3.62	3.78	2.35	3.36	3.20
	February	3.69	3.86	2.40	3.45	3.25
	March	3.95	4.00	2.44	3.40	3.33
	April	4.07	4.04	2.43	3.46	3.34
	May	4.19	4.09	2.45	3.64	3.38
	June	4.17	4.11	2.48	3.59	3.43
	July	4.20	4.12	2.58	3.59	3.56
	August	4.35	4.37	2.64	3.69	3.69
	September	4.26	4.21	2.60	3.59	3.58
	October	4.25	4.27	2.57	3.47	3.53
	November	4.18	4.22	2.55	3.56	3.47
	December	3.97	4.11	2.52	3.34	3.41
	AVERAGE	4.05	4.09	2.50	3.51	3.42
1978	January	3.90	4.11	2.60	3.47	3.46
	February	3.94	4.16	2.73	3.47	3.54
	March	4.14	4.34	2.86	3.68	3.69
	April	4.34	4.41	2.82	3.75	3.70
	May	4.46	4.42	2.77	3.89	3.69
	June	4.53	4.48	2.81	3.76	3.78
	July	4.50	4.40	R2.84	R3.69	3.82
	August	4.51	4.40	2.81	3.72	3.80
	September	4.48	4.41	2.79	3.72	3.78
	October	4.48	4.46	2.78	3.53	3.72
	November	4.39	4.38	2.76	3.53	3.65
	December	4.20	4.31	2.76	3.54	3.63
	AVERAGE	4.31	4.36	2.77	3.62	3.69
1979	January	4.08	4.29	2.82	3.58	3.65
	February	4.09	4.30	2.86	3.69	3.66
	March	4.28	4.44	2.89	3.87	3.75
	April	4.51	4.54	2.90	3.88	3.81
	May	4.68	4.65	2.96	3.98	3.89
	June	4.88	4.73	3.02	4.05	4.02
	July	4.91	4.76	3.11	4.20	4.14
	AVERAGE	4.46	4.53	2.94	3.88	3.84

¹Prices are for Classes A and B privately owned electric utilities.

²Average price for total sales to ultimate consumers.

R = Revised data.

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

Price

Utility Fossil Fuels

Average Delivered Prices of Coal at Utilities

		Contract	Spot
		Dollars per short ton	
1976	AVERAGE	17.90	21.33
1977	January	17.87	21.93
	February	18.28	22.71
	March	18.75	23.27
	April	18.82	22.41
	May	18.97	23.73
	June	19.03	24.62
	July	19.35	25.13
	August	18.95	24.73
	September	19.75	26.14
	October	20.31	26.83
	November	20.51	27.01
	December	20.49	28.01
	AVERAGE	19.25	24.99
1978	January	16.94	30.27
	February	16.50	30.50
	March	18.59	31.52
	April	21.43	30.42
	May	22.23	29.62
	June	22.88	28.95
	July	22.08	28.94
	August	22.12	28.95
	September	22.66	29.06
	October	23.53	28.96
	November	24.03	29.29
	December	23.99	21.41
	AVERAGE	21.41	29.63
1979	January	24.40	27.82
	February	24.08	26.71
	March	24.82	27.64
	April	25.52	28.55
	May	26.40	27.64
	June	25.91	28.42

Source: • Federal Power Commission form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Price

Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants

All Fossil Fuels¹

All Fossil Fuels														
	1978							1979						
Region	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	
	Cents per million Btu													
New England	190.3	191.1	190.4	190.9	194.9	192.9	207.5	206.8	223.3	249.2	244.9	267.4	283.6	
Middle Atlantic	157.4	157.9	155.4	154.9	156.7	159.6	163.5	170.2	180.5	174.4	168.2	176.7	184.3	
East North Central	125.0	130.9	128.6	125.3	130.2	132.5	137.0	142.5	146.9	143.5	140.7	145.1	144.0	
West North Central	97.0	102.0	98.1	98.5	99.5	100.7	105.9	121.6	124.3	106.9	107.3	110.9	114.4	
South Atlantic	146.0	150.5	147.0	148.5	148.0	147.8	154.6	158.9	163.3	168.3	168.2	172.7	185.0	
East South Central	123.8	128.6	124.4	125.1	124.1	125.4	128.3	129.7	128.1	131.7	132.4	137.5	136.9	
West South Central	137.2	135.0	132.8	132.3	127.3	129.4	131.7	144.4	143.6	139.6	141.7	155.7	158.7	
Mountain	74.5	74.9	74.7	75.8	83.3	82.3	82.8	89.3	91.4	92.3	99.7	120.3	101.6	
Pacific	223.7	219.2	225.1	232.2	237.3	245.2	245.8	245.9	243.1	234.3	240.8	242.2	250.9	
NATIONAL AVG.	136.0	138.2	135.9	135.8	138.1	138.8	142.9	150.4	154.3	152.3	151.4	158.0	161.2	

Coal

New England	155.3	143.3	143.9	147.2	147.4	147.0	146.8	147.1	150.3	149.9	150.9	152.7	155.2
Middle Atlantic	125.0	117.9	119.4	121.4	121.1	120.6	120.3	121.2	122.6	123.7	121.9	120.4	122.8
East North Central	117.6	121.1	120.5	119.9	120.9	123.9	123.8	124.3	123.7	126.7	129.0	131.4	130.6
West North Central	91.6	92.2	91.3	92.0	93.6	95.2	95.1	96.0	95.3	95.6	98.5	100.6	106.9
South Atlantic	129.2	129.9	127.5	129.6	132.5	134.1	138.8	136.6	136.4	136.0	137.8	139.0	138.0
East South Central	118.3	119.0	118.4	119.0	119.3	120.8	122.6	122.6	121.3	125.8	129.6	132.7	131.8
West South Central	68.6	68.6	68.0	77.3	74.1	73.4	81.4	88.2	89.3	92.9	94.9	89.9	99.8
Mountain	50.3	50.3	55.1	57.8	61.5	60.2	58.7	62.6	62.9	65.0	74.0	97.8	69.3
Pacific	78.8	77.6	77.9	79.4	79.9	78.2	78.6	84.3	82.9	83.4	82.7	83.0	84.6
NATIONAL AVG.	112.0	110.2	110.0	111.4	114.0	115.6	115.9	115.8	114.6	116.8	120.1	123.4	121.8

Residual Fuel Oil¹

New England	192.3	189.9	191.0	191.9	196.8	195.6	211.3	210.6	227.8	255.8	250.8	272.7	293.2
Middle Atlantic	206.4	202.8	203.4	209.3	214.7	224.2	226.0	232.2	243.4	266.4	273.7	279.9	305.0
East North Central	264.5	274.0	271.5	253.4	247.9	260.6	261.5	282.2	295.9	302.5	307.2	320.0	321.8
West North Central	191.8	184.1	194.0	216.3	217.1	217.6	212.6	233.9	265.4	246.4	277.0	384.5	244.7
South Atlantic	194.1	190.4	192.6	196.5	207.0	211.7	215.3	224.7	233.0	255.7	266.4	270.7	288.1
East South Central	182.8	181.9	178.5	176.8	172.4	168.8	177.4	174.7	198.3	211.6	212.1	231.8	218.9
West South Central	192.1	187.8	178.8	188.3	184.1	189.8	207.0	306.8	227.3	255.1	232.4	242.8	247.1
Mountain	205.2	207.8	209.0	215.2	215.3	252.0	228.2	237.3	233.6	246.4	276.5	284.3	287.8
Pacific	260.9	256.4	258.5	260.5	266.8	270.1	266.4	262.9	267.9	265.2	283.1	277.8	283.3
NATIONAL AVG.	209.9	205.0	205.6	211.2	219.8	225.6	228.7	231.8	245.6	261.4	268.0	277.7	289.3

Natural Gas²

New England	185.8	200.9	185.0	184.6	192.5	187.6	193.7	208.4	219.1	224.0	233.9	250.1	263.1
Middle Atlantic	171.5	169.9	169.5	178.7	223.1	190.8	180.7	179.2	183.0	179.3	190.1	192.5	210.0
East North Central	200.0	200.8	210.8	204.6	211.0	201.6	209.8	217.2	241.7	242.3	244.3	247.1	231.2
West North Central	118.8	121.1	123.6	122.3	125.5	128.1	135.2	143.0	145.5	137.6	143.8	147.1	146.1
South Atlantic	105.2	110.7	113.5	114.1	107.7	109.2	105.1	94.1	103.0	118.5	119.7	123.5	126.5
East South Central	150.5	159.9	157.3	160.3	163.1	164.5	187.3	175.6	177.9	169.1	172.3	195.0	185.6
West South Central	140.1	140.1	138.9	137.1	134.8	134.8	133.9	146.2	147.6	142.5	149.2	169.2	168.5
Mountain	153.7	145.8	146.0	145.3	150.0	160.3	177.0	178.1	174.9	196.9	182.3	193.0	198.3
Pacific	213.4	213.5	218.8	233.4	223.3	222.1	227.7	231.0	224.9	222.0	221.6	225.8	238.7
NATIONAL AVG.	149.3	149.8	149.4	146.6	147.1	141.1	139.4	150.2	159.1	162.8	164.4	177.2	179.5

¹See Explanatory Note 21.

²Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.

Source: • Federal Power Commission form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

International

Crude Oil Production

OPEC crude oil production reached a yearly high of 31.9 million barrels per day in July. This increase was due almost exclusively to a production increase of approximately 1.0 million barrels per day in Saudi Arabia. Although most other OPEC nations approximated their June 1979 production figures, both Iranian and Algerian production declined 0.1 million barrels per day. Total OPEC production of 31.9 million barrels per day in July 1979 was 8.8 percent higher than the 29.3 million barrels per day produced in July 1978.

World crude oil production in July 1979 was 63.9 million barrels per day. This preliminary figure represents a production increase of 7.4 percent over the 59.5 million barrels per day produced in July 1978 and an increase of 1.5 percent over that of June 1979.

Petroleum Consumption

Preliminary data indicate that total petroleum consumption for May 1979 by the member countries of the International Energy Agency (IEA) was 32.6 million barrels per day. This rate of consumption, consistent with that of May 1978, exhibits a decline of 3.3 percent from April 1979. Consumption within the United States was 18.0 million barrels per day in May 1979, a 0.8 percent decrease from May 1978. Consumption in Japan, West Germany, France, and Italy increased 5.7 percent over the consumption rate in May of the previous year.

International

Petroleum Consumption for Major Free World Industrialized Countries

		Total IEA ¹	Japan	West Germany	France ²	United Kingdom	Canada	Italy ³
		Thousand barrels per day						
1973	AVERAGE	33,600	5,000	2,693	2,219	1,958	1,597	1,525
1974	AVERAGE	32,390	4,872	2,408	2,094	1,829	1,630	1,521
1975	AVERAGE	31,235	4,568	2,319	1,925	1,633	1,595	1,468
1976	AVERAGE	33,180	4,786	2,507	2,075	1,601	1,647	1,503
1977	January	37,700	5,433	2,393	2,519	1,830	1,776	1,696
	February	38,600	6,025	2,446	2,386	1,844	1,901	1,823
	March	35,000	5,539	2,523	2,109	1,818	1,651	1,573
	April	32,800	4,714	2,431	2,043	1,671	1,523	1,326
	May	31,300	4,314	2,364	1,846	1,546	1,524	1,268
	June	32,900	4,484	2,475	1,715	1,454	1,593	1,340
	July	31,800	4,716	2,382	1,349	1,300	1,497	1,251
	August	32,700	4,709	2,469	1,390	1,349	1,690	1,140
	September	33,400	4,742	2,567	1,783	1,555	1,527	1,502
	October	33,300	4,664	2,324	1,882	1,545	1,626	1,405
	November	34,300	5,093	2,649	2,181	1,912	1,718	1,605
	December	37,900	5,800	2,719	2,512	1,890	1,925	1,817
	AVERAGE	34,300	5,015	2,478	1,973	1,655	1,661	1,476
1978	January	36,600	5,301	2,461	2,645	1,824	1,777	1,763
	February	39,900	5,981	3,014	2,598	1,899	1,956	1,906
	March	36,900	5,595	2,610	2,236	1,840	1,681	1,589
	April	33,400	4,849	2,577	2,044	1,791	1,561	1,339
	May	32,600	4,437	2,341	2,131	1,618	1,522	1,300
	June	33,300	4,502	2,611	1,687	1,499	1,622	1,354
	July	32,300	4,704	2,693	1,364	1,401	1,549	1,338
	August	33,500	4,857	2,338	1,325	1,447	1,680	1,197
	September	33,700	4,827	2,561	1,665	1,557	1,595	1,566
	October	34,700	4,847	2,633	1,997	1,676	1,749	1,573
	November	36,100	5,423	2,772	2,472	1,802	1,882	1,828
	December	37,800	6,125	2,578	2,800	1,846	1,915	1,889
	AVERAGE	35,000	5,115	2,596	2,077	1,683	1,701	1,551
1979	January	39,400	5,579	2,893	2,753	1,883	1,881	1,950
	February	R40,500	6,006	2,708	2,706	2,067	2,019	1,912
	March	R36,800	5,710	2,592	2,287	1,949	1,722	1,594
	April	R33,700	4,987	2,590	2,131	1,714	1,605	1,435
	May	32,600	4,754	2,641	2,004	NA	NA	1,390
	June	NA	NA	2,556	1,705	NA	NA	NA

¹The 20 signatory nations of the International Energy Agency (IEA) are: Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

²Not a member of IEA.

³Principal product only.

NA = Not available.

R = Revised data.

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

Sources: • Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*,

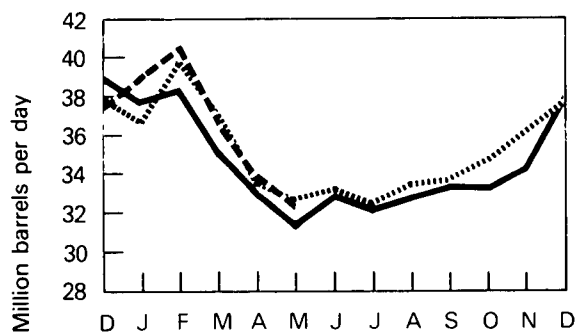
5 September 1979.

• Other statistics are EIA estimates based on multiple sources.

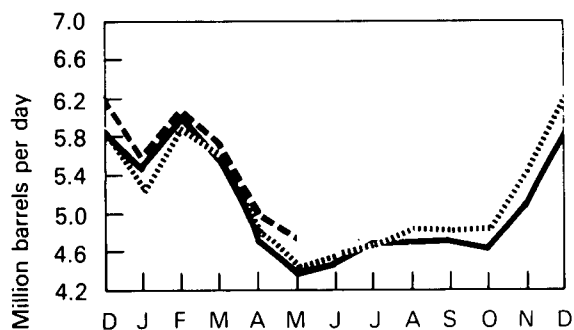
International

Petroleum Consumption

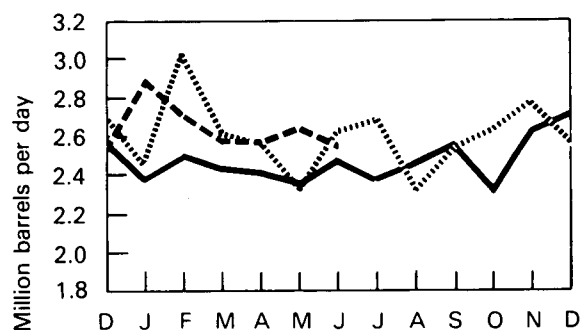
Total IEA



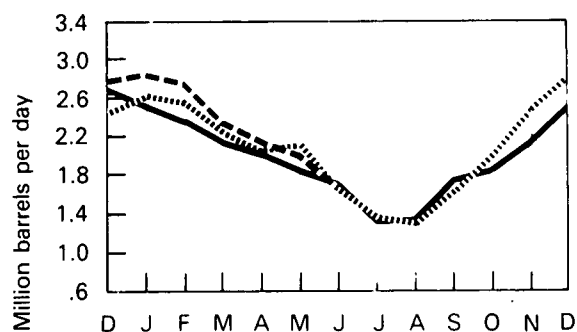
Japan*



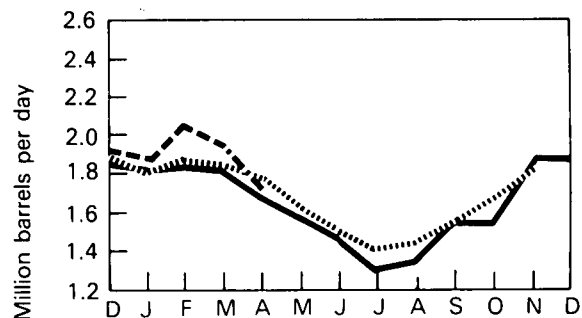
West Germany



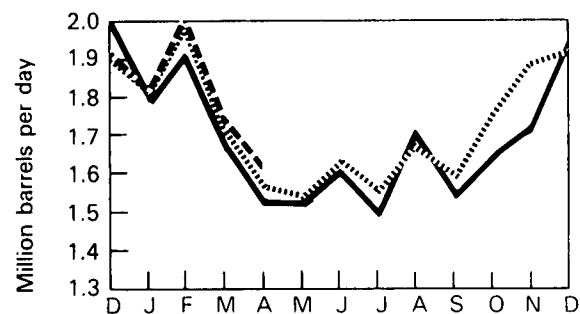
France**



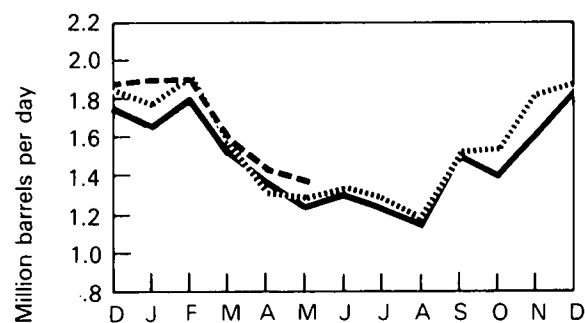
United Kingdom



Canada



Italy***



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

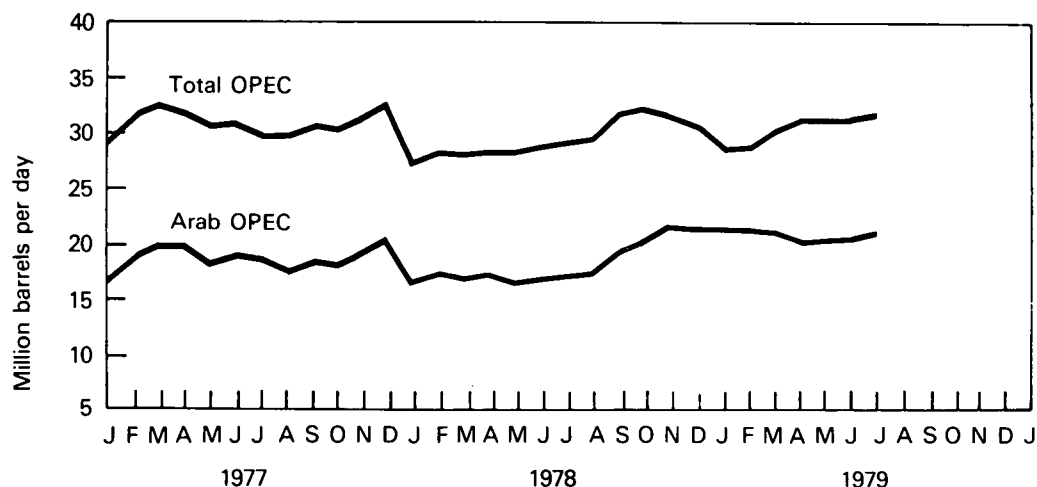
— 1977
 1978
 - - - 1979

International

Crude Oil Production for Major Petroleum Exporting Countries

Country	July 1979 Production Capacity								
	1973 Year	1974 Year	1975 Year	1976 Year	1977 Year	1978 Year	Maximum		
							Production	Sustainable	Unused
Thousand barrels per day									
Algeria	1,070	960	960	990	1,122	1,225	1,125	1,100	(2)
Iraq	2,020	1,970	2,260	2,415	2,493	2,629	3,500	3,000	(2)
Kuwait ¹	3,020	2,545	2,085	2,145	1,969	2,098	2,560	2,800	240
Libya	2,175	1,520	1,480	1,935	2,054	1,993	2,020	2,200	180
Qatar	570	520	440	495	445	484	519	600	81
Saudi Arabia ¹	7,595	8,480	7,075	8,575	9,200	8,299	9,785	9,800	15
United Arab Emirates	1,535	1,680	1,665	1,935	1,999	1,832	1,859	2,360	501
Subtotal: Arab OPEC	17,985	17,675	15,965	18,490	19,292	18,560	21,368	21,860	1,017
Ecuador	210	175	160	185	183	202	180	225	45
Gabon	150	200	225	225	222	225	225	225	0
Indonesia	1,340	1,375	1,305	1,505	1,685	1,637	1,609	1,650	41
Iran	5,860	6,020	5,350	5,885	5,699	5,207	3,800	³ 5,500	1,700
Nigeria	2,055	2,255	1,785	2,070	2,097	1,910	2,350	2,400	50
Venezuela	3,365	2,975	2,345	2,295	2,238	2,166	2,332	2,400	68
Subtotal: Non-Arab OPEC	12,980	13,000	11,170	12,165	12,124	11,347	10,496	12,400	1,904
TOTAL OPEC	30,965	30,675	27,135	30,655	31,416	29,907	31,864	34,260	2,921
Canada	1,800	1,695	1,460	1,300	1,321	1,324	1,507	NA	NA
Mexico	465	580	720	850	981	1,207	1,415	NA	NA
North Sea ⁴	41	44	213	528	1,020	1,448	2,081	NA	NA
TOTAL OPEC, Canada, Mexico, North Sea	R33,271	R32,994	R29,528	R33,333	R34,738	R33,886	36,873	NA	NA
TOTAL WORLD	55,755	55,875	52,990	57,340	60,002	59,563	63,892	NA	NA

OPEC Countries Crude Oil Production



¹Includes about one-half of the former Kuwait-Saudi Arabia Neutral Zone. Production in July 1979 amounted to approximately 569,000 barrels per day.

²Production may exceed maximum sustainable capacity for brief periods.

³The sustainable capacity is uncertain.

⁴The North Sea region includes Denmark, Norway and United Kingdom.

NA = Not available.

R = Revised data.

Sources: • Central Intelligence Agency, National Foreign Assessment Center, "International Energy Statistical Review," 5 September 1979.

• "Petroleum Intelligence Weekly," 10 September 1979, and U.S. Department of Energy.

• Historical revisions based on *Energy Data Reports*, "Petroleum Statement, Monthly."

Definitions

Anthracite

A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal. Includes metaanthracite and semianthracite. Conforms to ASTM Specification D388, for anthracite.

Average Retail Selling Price, Motor Gasoline

The average price of sales of motor gasoline to retail customers at service stations.

Base Production Control Level

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

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

Bituminous Coal

A coal which is high in carbonaceous matter, having a volatility greater than anthracite coal and a calorific value greater than lignite. Often referred to in the United States as soft coal. Includes subbituminous coal and conforms to ASTM Specification D388 for bituminous and subbituminous coal.

Ceiling Price

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

Coke

Bituminous coal from which constituents have been driven off by heat so that the fixed carbon and the ash are fused together. It is primarily used in blast furnaces for smelting ores, especially iron ore.

Crude Oil

A mixture of hydrocarbons that is in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Statistically, crude oil reported at refineries, in pipelines, at pipeline terminals, and on leases may include lease condensate.

Crude Oil Domestic Production

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

Crude Oil Entitlement Value

The average value a refiner receives from the entitlement program for each incremental barrel of imported crude oil. It is calculated by multiplying the entitlement price by the National Old Oil Supply Ratio for November 1974 through January 1976, and by the National Domestic Crude Oil Supply Ratio for February 1976 forward.

Crude Oil Imports

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

Crude Oil Refinery Input

Total crude oil (including lease condensate) input to crude oil distillation units and other units for processing.

Crude Oil Stocks

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

Distillate Fuel Oil

A light fuel oil distilled off during the refining process. Included are products known as No. 1 and No. 2 heating oils, diesel fuels, and No. 4 fuel oil, which conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel), and electric power generation.

Electricity Production

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

Entitlement Position

The monthly entitlement position of a refiner indicates whether he bought or sold entitlements in that month. An entitlement is the right to process "deemed old oil," which is the sum of a refiner's receipts of "old" oil and a fraction of his receipts of "upper tier" crude oil. This fraction is set monthly by the Economic Regulatory Administration (ERA). A refiner must purchase entitlements for the amount of his "deemed old oil" receipts in excess of the national domestic crude oil supply ratio (NDCOSR). The NDCOSR, as calculated by ERA, reflects the differences in costs to refiners of "old" oil, "upper tier" crude oil, and imported crude oil.

Entitlement Price

The price of an entitlement, fixed by ERA, is the exact differential as reported for the month between the

weighted average delivered cost per barrel to refiners of both imported crude oil and stripper crude oil, and the weighted average delivered cost per barrel to refiners of "old oil," less 21 cents.

Exploratory Well

A well drilled to 1.) find and produce oil or gas in an unproved area; 2.) find a new reservoir in a field previously found to be productive of oil or gas in another reservoir; or 3.) extend the limit of a known oil or gas reservoir.

Full Serve

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

Jet Fuel

Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes, such as fuel for gas turbines to produce electricity.

Landed Cost

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

Line Miles of Seismic Exploration

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

Lignite

A brownish-black coal of low rank with high inherent moisture and volatile matter. It is also referred to as brown coal. It conforms to ASTM Specification D388 for lignite and is used almost exclusively for electric power generation.

Lower Tier Crude Oil

The total number of barrels of crude oil produced and sold from a property in a specific month up to the amount of base period production. Base period production equals the lesser of 1972 or 1975 production, with a downward adjustment to take account of depletion of the oil field (see **Base Production Control Level**).

Lower Tier Ceiling Price Determination

The lower tier ceiling price for a particular grade of domestic crude oil in a particular field is the sum of (1) the highest posted price at 6 A.M., local time, May 15, 1973, for transactions in that grade of crude oil in that field; or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; and (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the **Federal Energy Guidelines** (Part 212.77-13847 Appendix).

Major Brand

Lundberg Survey, Inc., defines major brand as an integrated company that produces, refines, transports, and markets in Interstate Commerce under its own brand(s) in 10 or more states.

Motor Gasoline

A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark ignition engines. Included are leaded and unleaded products and all refinery products listed in ASTM Specification D439.

Motor Gasoline Production

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

Motor Gasoline Stocks

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

Motor Gasoline, Regular Grade

Motor Gasoline that has an antiknock designation of 2 for unleaded gasoline and 3 for leaded gasoline.

Motor Gasoline, Premium Grade

Volatile hydrocarbon mixture suitable for operation of an internal combustion engine and customarily marketed as "ethyl," "super," or equivalent classification.

National Domestic Crude Oil Supply Ratio

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

Natural Gas

A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

Natural Gas Liquids

Products obtained from lease separators, field facilities, and natural gas processing plants. Natural gas liquids include natural gas plant liquids and lease condensate.

Natural Gas Plant Liquids

Products obtained from processing natural gas at natural gas processing plants, including natural gasoline plants, cycling plants and fractions. Products obtained include ethane, liquefied petroleum gases (propanes, butanes, and propane-butane mixtures), isopentane, natural gasoline, plant condensate and other minor quantities of

finished products such as motor gasoline, special naphthas, jet fuel, kerosene and distillate fuel oil.

Natural Gas Production (Dry)

Derived by subtracting extraction loss from marketed production. It represents the amount of domestic natural gas production that is available to be marketed and consumed as a gas.

New Crude Oil

(See **Upper Tier Crude Oil**).

Old Crude Oil

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

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

Petroleum

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

Petroleum Coke

A solid residue; the final product of the condensation process in cracking. It consists of aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells and similar productions.

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.

Product Supplied—Specific Refined Petroleum Products

A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies. (See definition for **Products Supplied—Total Refined Petroleum Products**).

Products Supplied—Total Refined Petroleum Products

Total domestic products supplied is calculated as inputs to refineries, plus estimated refinery gain, plus hydrogen

input, plus natural gas plant liquids production, plus direct use of crude as fuel, plus product imports, less product exports, less the net increase in product stocks. (See definition for **Product Supplied—Specific Refined Petroleum Products**).

Property

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

Refined Petroleum Products

Products obtained from the processing of crude oil, unfinished oils, natural gas liquids and other miscellaneous hydrocarbon compounds. Includes aviation gasoline, motor gasoline, naptha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, ethane, liquefied petroleum gases, petrochemical feedstocks, special naphthas, lubricants, paraffin wax, petroleum coke, asphalt, road oil, still gas and other miscellaneous products.

Refiner Acquisition Cost

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

Released Crude Oil

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

Residual Fuel Oil

The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and No. 6 fuel oil that conform to ASTM Specification D396, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Rotary Rig

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

Self Serve

Motor vehicle services are not provided by attendants.

Separative Work Unit (SWU)

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

Strategic Petroleum Reserves

A plan developed to reduce the impact of interruption of imports of petroleum. Congress enacted legislation to establish a strategic Petroleum Reserve in Title I, Part B of the Energy Policy and Conservation Act of 1975, Public Law 94-163.

Startup Test Phase of Nuclear Powerplant

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

Stripper Well Property

A property whose average daily production of crude oil per well (excluding condensate recovered in nonassociated natural gas production) did not exceed 10 barrels per day during any preceding consecutive 12-month period beginning after December 31, 1972.

Synthetic Natural Gas (SNG)

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

Unaccounted for Crude Oil

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

Unrecouped Costs

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

Upper Tier Crude Oil

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the base production control level for that month and less the current cumulative deficiency.
2. February 1, 1976 through August 31, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the property's base production control level for that month and less the current cumulative deficiency since February 1, 1976. Includes new crude oil and crude oil produced from a stripper well property.
3. Since September 1, 1976: upper tier crude oil excludes crude oil produced from a stripper well property.

Upper Tier Ceiling Price Determination

The upper tier ceiling price for a particular grade of domestic crude oil in a particular field is (1) the highest posted price on September 30, 1975, for transactions in that grade of crude oil in that field in September 1975, or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; less (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77 .13847 Appendix).

Well

A hole drilled for the process 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.

Explanatory Notes

1. Domestic production of energy includes production of coal (anthracite, bituminous, and lignite), crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydropower, and electricity generated from nuclear power, geothermal power, and wood and waste. The volumetric data were converted to approximate heat contents (Btu values) of these energy sources using conversion factors listed in the Units of Measure.

2. Domestic consumption of energy includes consumption of coal (anthracite, bituminous, and lignite), natural gas (dry), refined petroleum products supplied, electric utility and industrial production of hydropower, net imports of electricity produced from hydropower, net imports of coke made from coal, and electricity generated from nuclear power, geothermal power, and wood and waste. Approximate heat contents (Btu values) were derived using conversion factors listed in the Units of Measure.

3. U.S. energy imports include imports of bituminous coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal.

4. U.S. energy exports include bituminous coal and anthracite, crude oil, refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal.

5. 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.

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

There are two degree-day data bases maintained by the National Oceanic and Atmospheric Administration. Weekly degree-day information is based on mean daily temperatures recorded at about 200 major weather stations around the country. Monthly data are based on

readings at more than 8,000 weather stations. The temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Petroleum Administration for Defense (PAD) Districts and into the national average, also using a population weighting method.

Weekly weather reports are available much sooner than the monthly reports, and therefore the degree-day information published in the *Monthly Energy Review* is normally derived from the weekly source.

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

8. 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. Dry production of natural gas is the quantity remaining after the natural gas liquids have been extracted.

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

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

10. Bituminous coal and lignite consumption is calculated by Energy Information Administration (EIA) from information provided by the Federal Energy Regulatory 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 calculated value representing total disappearance from primary supplies.

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

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

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

12. The units used to describe power generation at nuclear plants are based on the watt, which is a unit of power. (Power is energy produced per unit of time.) As with fossil-fueled plants, nuclear plants have three design power ratings. The normal 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 (MWh) or kilowatt hours (kWh). Tables in the nuclear section show generated electricity as average electrical power. This enables a more direct comparison to design capacity and to previous months' performances. To obtain the quantity of electricity generated during a given time period (in kilowatt hours), multiply the average power level (in kilowatts) by the number of hours during that period.

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

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

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

15. The actual domestic average price represents the average price at which all domestic crude oil is purchased. The imputed domestic average price is the average price used to establish ceiling prices for domestic crude oil in accordance with the provisions of the Energy Conservation and Production Act. It is calculated as the weighted average of lower tier, upper tier, and an imputed stripper crude oil price. The imputed stripper crude oil price is equal to \$11.63 per barrel plus the difference between the composite price of crude oil in August 1976 (excluding stripper oil) and the composite price of crude oil in the month of measurement (excluding stripper oil).

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

17. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to March 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries 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.

18. The major brand category includes those stations using the primary brand of a major refiner. Primary brands are the brand names or logos that are associated most commonly with the 15 integrated major refiners as defined in the Emergency Petroleum Allocation Act of 1973. These refiners are: Amoco, Atlantic Richfield, Chevron, Cities Service, Continental, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sun, Texaco, and Union Oil of California. The nonmajor brand category includes all the other stations in the survey. Stations using secondary brands of major refiners are included in the nonmajor brand category, as these stations typically price their gasoline to compete with independent refiner and market-brand stations.

Stations owned and operated directly by refiners are not included in this survey.

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

- Region 1 — Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;
- Region 2 — New York, New Jersey, Puerto Rico, Virgin Islands;
- Region 3 — Pennsylvania, Maryland, West Virginia, Virginia, District of Columbia, Delaware;
- Region 4 — Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;
- Region 5 — Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;
- Region 6 — Texas, New Mexico, Oklahoma, Arkansas, Louisiana;
- Region 7 — Kansas, Missouri, Iowa, Nebraska;
- Region 8 — Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;
- Region 9 — California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;
- Region 10 — Washington, Oregon, Idaho, Alaska.

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

21. The weighted average for all fossil fuels includes peaking fuels and distillate fuel oil delivered to utilities for the total United States, whereas the regional and total United States breakdown for residual fuel oil prices represents all heavy fuel oil prices.

Units of Measure

Weight

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

Conversion Factors for Uranium

1 short ton (U ₃ O ₈)	contains	0.769 metric tons of uranium
1 short ton (UF ₆)	contains	0.613 metric tons of uranium
1 metric ton (UF ₆)	contains	0.676 metric tons of uranium

Conversion Factors for Crude Oil (Average Gravity)

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

Approximate Heat Content of Various Fuels

	1973	1974	1975	1976	1977-78-79
Bituminous coal and lignite					
Production	Btu/short ton	24,010,000	23,730,000	23,200,000	23,150,000
Imports	Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000
Exports	Btu/short ton	27,000,000	27,000,000	27,000,000	27,000,000
Consumption, average	Btu/short ton	23,650,000	23,070,000	22,800,000	22,750,000
Electric utility consumption	Btu/short ton	22,180,000	21,800,000	21,660,000	21,690,000
Non-utility consumption	Btu/short ton	27,020,000	26,120,000	25,810,000	25,870,000
Coke	Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000
Anthracite					
Production	Btu/short ton	23,170,000	22,560,000	23,390,000	22,770,000
Imports and Exports	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000
Consumption, average	Btu/short ton	22,710,000	21,950,000	21,740,000	22,150,000
Electric utility consumption	Btu/short ton	17,200,000	17,200,000	17,060,000	17,530,000
Non-utility consumption	Btu/short ton	24,590,000	23,750,000	23,650,000	23,840,000
Crude petroleum*					
Production	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000
Imports	Btu/barrel	5,817,131	5,826,768	5,821,375	5,808,452
Exports	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000
Petroleum products					
Consumption, average	Btu/barrel	5,514,605	5,436,758	5,494,291	5,504,484
Electric Utility Consumption	Btu/barrel	6,128,488	6,128,058	6,109,112	6,129,283
Non-utility Consumption	Btu/barrel	5,454,865	5,443,438	5,437,208	5,444,956
Imports	Btu/barrel	5,983,262	5,959,487	5,934,666	5,980,372
Exports	Btu/barrel	5,752,055	5,773,222	5,746,991	5,743,408
Crude Petroleum and Products					
Imports, average	Btu/barrel	5,897,122	5,883,985	5,857,876	5,856,076
Exports, average	Btu/barrel	5,752,455	5,773,577	5,748,482	5,745,450
Natural gas plant liquid production	Btu/barrel	4,049,369	4,010,663	3,983,763	3,964,050
Natural gas, dry					
Production and consumption	Btu/cubic foot	1,021	1,024	1,021	1,020
Electric Utility Consumption	Btu/cubic foot	1,024	1,022	1,026	1,023
Non-utility consumption	Btu/cubic foot	1,020	1,024	1,020	1,019
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013
Hydropower	Btu/kWh	10,389	10,442	10,406	10,373
Nuclear power	Btu/kWh	10,903	11,161	11,013	11,047
Geothermal power	Btu/kWh	21,674	21,674	21,611	21,611

Refined Petroleum Products:	Btu/barrel		Btu/barrel
Asphalt	6,636,000	Petroleum coke	6,024,000
Aviation gasoline	5,048,000	Plant condensate	5,418,000
Butane	4,326,000	Propane	3,836,000
Butane—propane mixture**	4,130,000	Residual fuel oil	6,287,000
Distillate fuel oil	5,825,000	Road oil	6,636,000
Ethane	3,082,000	Special naphtha	5,248,000
Isobutane	3,974,000	Still gas	6,000,000
Jet fuel—kerosene type	5,670,000	Unfinished oils	5,825,000
Jet fuel—naphtha type	5,355,000	Wax	5,537,000
Kerosene	5,670,000	Miscellaneous	5,796,000
Lubricants	6,065,000		
Motor gasoline	5,253,000		
Natural gasoline	4,620,000		
Petrochemical feedstocks			
Naphtha 400"	5,248,000		
Other oils over 400"	5,825,000		
Still gas	6,000,000		

*Includes lease condensate.

**60 percent butane and 40 percent propane.

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