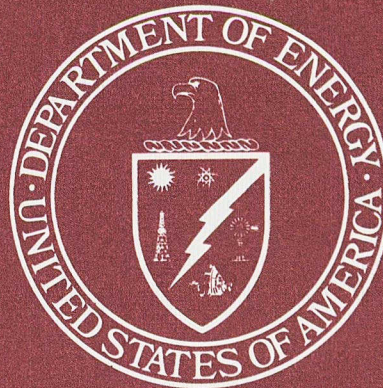


*Fickman*

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# Monthly Energy Review



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# CHANGES IN 1981 PETROLEUM DATA SERIES

by

Beth Campbell and Wendy Kolmar  
Office of Oil and Gas Statistics

## Introduction

New developments in refining and blending practices in the petroleum industry have necessitated changes in the Energy Information Administration's (EIA) petroleum survey forms and data analysis. In this issue of the *Monthly Energy Review* (MER), petroleum data for 1981 reflect changes in the petroleum and natural gas liquids forms and definitions, in the concepts on which the forms are based, and, in one case, in the reporting units. These changes affect motor gasoline data series representing production, estimates of product supplied, and stocks, and production and estimates of product supplied for distillate fuel oil, residual fuel oil, and natural gas plant liquids.

The purpose of these changes is to represent more accurately current refining or processing operations, to track product movements, and to distinguish between finished products and components of these products that require further processing. More specifically, the changes correct the underreporting of motor gasoline, show reported production of distillate and residual fuel oils (unadjusted), and present a more complete picture of current refinery and natural gas plant processing.

Improved information on product movements and on patterns of use by primary suppliers will prevent an overstatement of the total quantity of products supplied. Total product supplied estimates will be consistent with those published for prior years.

As a consequence of these changes, there is a discontinuity between 1980 and 1981 data for some series shown in the MER, as well as in the *Annual Report to Congress, Volume Two*, the *State Energy Data Report*, and the *Quarterly Report to Congress*. The magnitude of the changes in the individual 1981 data series is not expected to exceed 6 percent but will be examined further when more data are available.

## Production and Products Supplied

Beginning in 1981, production statistics for each refined petroleum product shown in the MER and other EIA publications will be the sum of the reported net production (i.e., production of that product minus input of that product) on Form EIA-87, "Refinery Report," and Form EIA-64, "Natural Gas Liquids Reports" (see Figures 1 and 2). Adjustments previously made to distillate fuel oil and residual fuel oil production figures will be discontinued. These changes directly affect the computation of production statistics for finished products. They will also affect estimates of product supplied for domestic use, because production is a large component of the estimates.

Product supplied estimates approximate deliveries of product from a primary supplier to any user or distributor other than a primary supplier. Primary suppliers are defined as refiners, bulk terminal<sup>1</sup> operators, pipeline operators, fractionators, importers of record, and operators of natural gas processing plants and their associated storage facilities. The calculation of products supplied estimates takes into account both new supply (production and imports) and product put into or taken out of storage. In its simplest form, the estimate of the amount of product supplied to the domestic market from the primary supply system is: net production - (ending stocks - beginning stocks) + (imports - exports). Accurate estimation of the quantity of products supplied to the domestic market is complicated by the recycling of products, the renaming of products, and the receipt of products from outside the primary supply system. The recycling of products creates an accounting problem because some products can be blended or further processed, or they can be supplied for consumption. Renaming products is a problem because a producer ships a product to a second producer under one product label (e.g., distillate) but the receiving producer, intending to use it in further processing, can record it as a receipt under another label (e.g., unfinished oils).

---

<sup>1</sup> Terminals that have a capacity greater than 50,000 barrels or that receive product by tanker, barge, or pipeline.

**Figure 1. Section 6 of Form EIA-87, "Refinery Report"**

SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES (Thousands of Barrels of 42 Gallons)								
ITEM DESCRIPTION	PRO- DUCT CODE	STOCKS	RECEIPTS	INPUTS	PRODUCTION	SHIPMENTS	REFINERY	STOCKS
		BEGINNING OF MONTH A	DURING MONTH B	DURING MONTH C	DURING MONTH D	DURING MONTH E	FUEL USE AND LOSSES DURING MONTH F	END OF MONTH G
Crude oil (incl. lease condensate) Total (sum of codes 010 and 020)	050							
Domestic (incl. Alaskan)	010							
Foreign	020							
Alaskan	011							
Products of natural gas proc. plants:								
Ethane	110							
Propane	231							
Ethane-propane mixtures	241							
Isobutane	233							
Normal butane	235							
Other butanes	236							
Butane - propane mixtures	234							
Natural gasoline and isopentane	220							
Plant condensate	210							
Unfractionated stream	227							
Other hydrocarbons and hydrogen	090							
Alcohol	091							
Unfinished oils	812							
Gasoline:								
Finished leaded, motor	132							
Finished unleaded, motor	133							
Blending components, motor	134							
Gasohol	135							
Finished aviation	111							
Blending components, aviation	112							
Special naphthas (solvents)	051							
Jet fuel:								
Naphtha-type	211							
Kerosene-type	213							
Kerosene (incl. range oil)	311							
Distillate fuel oil, Leas No. 4	412							
No. 4 fuel oil	414							
Residual fuel oil	511							
Lubricating oils:								
Bright stock	853							
Neutral	855							
Other	859							
Asphalt	900							
Wax:								
Microcrystalline	061							
Crystalline-fully refined	071							
Crystalline-other	081							
Petroleum coke:								
Marketable	021							
Catalyst	022							
Road oil	031							
Still gas:								
Petrochemical feedstock use	042							
Other use	044							
Ethane and/or ethylene:								
Petrochemical feedstock use	612							
Other use	652							
Propane and/or propylene:								
Petrochemical feedstock use	613							
Other use	653							
Butane and/or butylene:								
Petrochemical feedstock use	614							
Other use	654							
Butane-propane mixtures:								
Petrochemical feedstock use	616							
Other use	656							
Isobutane petrochemical feedstock use	615							
Naphtha - less than 400° and-point Petrochemical feedstock use	822							
Other oils - over 400° and-point Petrochemical feedstock use	824							
Other finished products Non - fuel use	087							
Fuel Use	088							
Overage (Inputs) or shortage (production)	911							
TOTAL	999							

**Figure 2. Sections 1 and 2 of Form EIA-64, "Natural Gas Liquids Operations Report"**

Section 1. Natural Gas Processing Plant and Fractionator Operations (Barrels of 42 Gallons)													
Products	Product Code	Stocks Beginning of Month (a)	Receipts During Month (b)	Inputs During Month (c)	Production During Month (d)	Shipments To:					Plant Fuel Use (k)	Losses (m)	Stocks End of Month (n)
						Fractionating Facility (e)	Storage Facility (f)	Refinery (g)	Chemical Plant (h)	Other (i)			
Ethane	110												
Propane	231												
Ethane-Propane Mix	241												
Isobutane	233												
Normal Butane	235												
Other Butanes	236												
Butane-Propane Mix	234												
Isopentane	240												
Natural Gasoline:													
14# and Less RVP	226												
Over 14# RVP	229												
Plant Condensate	210												
Unfractionated Stream	227												
Gasoline:													
Finished Aviation	111												
Finished Leaded	132												
Finished Unleaded	133												
Gasohol	135												
Special Naphthas	051												
Jet Fuel:													
Naphtha Type	211												
Kerosene Type	213												
Kerosene	311												
Distillate Fuel Oil	412												
Other Products (Specify)													
Overage (Input) or Shortage (Production)	911												

Section 2. Storage Facility Operations (Barrels of 42 Gallons)										
A. Aboveground <input type="checkbox"/>		B. Underground <input type="checkbox"/>		Name _____			Location _____			
Products	Prod. Code	Stocks Beginning of Month (a)	Receipts		Fractionating Facility (d)	Shipments To:			Losses (h)	Stocks End of Month (i)
			Domestic (b)	Foreign (c)		Refinery (e)	Chemical Plant (f)	Other (g)		
Ethane	110									
Propane	231									
Ethane-Propane Mix	241									
Isobutane	233									
Normal Butane	235									
Other Butanes	236									
Butane-Propane Mix	234									
Isopentane	240									
Natural Gasoline:										
14# and Less RVP	226									
Over 14# RVP	229									
Plant Condensate	210									
Unfractionated Stream	227									
Other Products (Specify)										
Total	999									

Care must be taken to ensure that products that are recycled or renamed are not counted twice when quantities supplied for domestic use are estimated. The potential for double counting is expected to diminish with the correct use of the new form, which, unlike the old form, provides for reporting receipts of all products. In the case of gasoline, the new definitions will also help to alleviate these difficulties. Another problem occurs when primary suppliers receive products from outside the system (e.g., from petrochemical plants) for blending into finished products or for storage. No information is collected from these outside sources. Consequently, insufficient information exists to adjust the estimates of product supplied on a product-by-product basis.

**Table 1. Sample Supply and Disposition Balance: January 1981 (Thousand Barrels per Day)**

Crude oil and lease condensate	
Production	8,550
Net imports	4,557
Other sources	127
Crude oil inputs to refineries	<u>13,234</u>
Natural gas plant liquids	
Production	1,596
Imports	12
Stock addition	-35
Total NGPL supply	<u>1,574</u>
Other Liquids	
Unfinished oils and blending components	
Stock withdrawal (+) or addition (-)	15
Net Imports	35
Other hydrocarbons and alcohol	40
Processing gain	657
Crude used directly	<u>22</u>
Total other liquids	<u>769</u>
Total production of refined products	15,577
Net imports of refined products	1,578
Total new supply of products	17,155
Refined product stock withdrawal	977
Total products supplied	18,132
Finished motor gasoline	6,401
Naphtha-type jet fuel	175
Kerosene-type jet fuel	882
Kerosene	226
Distillate fuel oil	4,074
Residual fuel oil	2,836
Liquefied gases and ethane	1,782
Other	2,162
Reclassified	-405
Total products supplied	<u>18,132</u>

Source: EIA, "Monthly Petroleum Statistics Report," January 1981.

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

A single adjustment will be made to total product supplied. This adjustment amount will be called "reclassified" and will represent receipts from outside the primary supply sector and the effects of both renaming and recycling. It will be presented as an item in the supply and disposition balance table in the *Monthly Petroleum Statement* and the *Monthly Petroleum Statistics Report*. A condensed version of this balance is shown in Table 1. The changes to specific product series are described in the following discussion.

### Changes in Motor Gasoline Definitions and Reports

Recently EIA compared the product supplied estimates of motor gasoline with sales data from other sources.<sup>2</sup> These comparisons suggest that gasoline production, as estimated using data reported on Form EIA-87, has been understated. Consequently, in 1980, EIA studied possible methods for remedying this discrepancy. As a result of this effort, EIA has modified the gasoline definitions on its forms and added new respondents.

The motor gasoline production study was conducted from July to December 1980 using two supplemental forms: Form EIA-87S, "Refinery Report Supplement," and Form EIA-87A, "Motor Gasoline Production Report." Form EIA-87S was used to collect monthly information from refiners who regularly reported gasoline production on Form EIA-87. The form used different definitions than those on the EIA-87. Only finished gasoline stocks and production data were requested. The other supplemental form, EIA-87A, was used to collect, also on the basis of the new definitions, finished motor gasoline receipts, shipments, and stocks data from nonrefinery facilities (i.e., blending stations) that had not previously been requested to report.

Comparison of the data collected on the basic Form EIA-87 with the data collected on the two supplemental forms indicated that the two supplemental forms captured between 200 thousand and 385 thousand barrels per day of additional motor gasoline production (see Table 2). These amounts are between 3.1 and 6.3 percent of the refinery production reported on the basic form and account for the differences between motor gasoline product supplied and sales data identified in the earlier EIA study. As a result of these findings, EIA modified the definitions of motor gasoline on its basic forms for use beginning in January 1981 and added 14

<sup>2</sup> Primarily Federal Highway Administration annual sales data based on tax information.



**Table 2. EIA-87 Refinery Motor Gasoline Production And Additional Production From Supplemental Forms (Thousand Barrels per Day)**

	EIA-87 Production	Additional Production
July	6,446	261
August	6,437	205
September	6,368	380
October	6,123	385
November	6,456	200
December	P6,624	P303
<b>Average</b>	<b>6,409</b>	<b>289</b>

P = Preliminary data.

nonrefinery motor gasoline blenders to the respondents. Others will be added as they are identified.

The revised definitions divide motor gasoline into four categories—finished leaded motor gasoline, finished unleaded motor gasoline, gasoline blending components, and gasohol. Previously, two motor gasoline categories were defined: leaded motor gasoline and unleaded motor gasoline; blending components were included with motor gasoline under each category. Total production of motor gasoline is now calculated as the sum of finished leaded gasoline, finished unleaded gasoline, and gasohol production.

These changes will affect the 1981 motor gasoline production and product supplied series. EIA staff anticipates that, in 1981, motor gasoline production statistics will increase as a result of these changes by about the amount of additional production that was identified in 1980. Estimates of the amount of product supplied will also increase, but by amounts different than the increases in production because stock change is also a component of the product supplied calculation. The increase in the estimate of finished motor gasoline supplied will not, however, increase the estimate of the total quantity of product supplied to the domestic market. Some of the additional motor gasoline supplied will be accounted for in the reclassified line item, and some product now included in motor gasoline supplied was previously included in product supplied estimates for such products as natural gasoline, liquefied petroleum gases, and other products.

These changes also affect the 1981 motor gasoline stocks and imports series shown in the MER. For these series, two motor gasoline categories will be shown in Part 3—Petroleum: finished motor gas-

oline and total motor gasoline. Motor gasoline blending components account for the difference between the two categories. The statistics presented in the total motor gasoline column are equivalent to the motor gasoline statistics published for prior years.

#### **Changes to Distillate Fuel Oil and Residual Fuel Oil Series**

Statistics on the production of distillate and residual fuel oil, published for January 1981 and subsequently, will reflect actual reported production even though these fuels can be further processed after initial distillation. When a refiner ships a distillate or residual fuel oil to another refinery or to a bulk storage facility, the receiving facility may intend the oils to be processed further and would therefore report the receipt of this fuel as a receipt of unfinished oils.

To compensate for this problem, production statistics for distillate and residual fuel oils have previously been adjusted on the basis of the difference between total reported receipts and shipments of unfinished oils. Of the difference, two-thirds was allocated to distillate and one-third to residual. This adjustment has been dropped. Instead, the production statistics and products supplied estimates will reflect the data as reported. Total petroleum product supplied will not be affected by the change, however, because of the adjustment for "reclassified" product.

Table 3 presents adjusted and unadjusted production figures for distillate and residual fuel oils by month for 1980. These figures indicate that the adjustment reduced 1980 published series, on the national level between 1.4 and 5.6 percent for distillate fuel oil and between 1.3 and 5.0 percent for residual fuel oil.

#### **Changes to the "Natural Gas Liquids Operations Report"**

The changes in the "Natural Gas Liquids Operations Report" similarly represent attempts to get a more accurate picture of the movement and reclassification of products. Again, several columns and data categories have been added to the forms.

Form EIA-64 is used to collect data from three kinds of facilities: natural gas liquids extraction plants and fractionating facilities—both of which file Section 1 of the form—and natural gas storage facilities

**Table 3. Adjusted and Unadjusted Production of Distillate and Residual Fuel Oils by Month for 1980 (Thousand Barrels per Day)**

Month	Distillate Fuel Oil			Residual Fuel Oil		
	Adjusted	Unadjusted	Difference	Adjusted	Unadjusted	Difference
January	3,023	3,104	81	1,766	1,808	42
February	2,778	2,895	117	1,770	1,830	60
March	2,564	2,701	137	1,581	1,652	71
April	2,462	2,563	101	1,591	1,643	52
May	2,471	2,609	138	1,507	1,579	72
June	2,645	2,720	75	1,575	1,613	38
July	2,688	2,782	93	1,480	1,528	48
August	2,462	2,582	119	1,445	1,506	61
September	2,687	2,725	39	1,497	1,517	20
October	2,589	2,650	61	1,513	1,544	31
November	2,700	2,823	123	1,577	1,641	63
December	P2,881	P3,052	P171	P1,656	P1,744	P88
<b>Average</b>	<b>2,663</b>	<b>2,767</b>	<b>105</b>	<b>1,580</b>	<b>1,634</b>	<b>54</b>

P = Preliminary data.

which file Section 2 of the form. The changes to the form include: in Section 1, addition of an "inputs" column; addition of cells in which these companies can report shortages or overages in fractionating; addition of a "plant fuel use" column; in Section 2, more detailed information is collected about shipping destinations, particularly about shipments of material to refineries for blending.

The addition of the inputs column in Section 1 of the form had three major purposes. First, the inputs and production reported by fractionators will now balance, given the added reporting categories for shortage and overage. Without the inputs column, plants were sometimes reporting a negative production figure in order to make their receipts and inputs balance. Second, accurate reporting of all inputs will now be possible. Formerly, inputs of blending materials, which plants use to produce motor and aviation gasoline, were not indicated on the old form if the blending stock used was produced and blended at the same plant. Third, the inputs column will make it possible to get accurate information about the quantities of product that are reclassified between the shipping facility and the receiving facility. For example, plants ship butane/propane mixture (BP mix) to fractionating facilities where it is separated into propane and butane. The new form will allow the operator of a fractionating facility to indicate the input of BP mix and will allow EIA staff to track this kind of reclassification. The inputs information will make it possible to calculate net production of natural gas liquids.

The purpose of adding the shipments-to-fractionators column to Section 2 was to capture infor-

mation about mixed products, such as ethane/propane and butane/propane mixtures, that were being sent to fractionating facilities for further processing. With the inclusion of a column for shipments to refineries, EIA hopes to resolve an inconsistency in its data. When estimates of the amount of natural gas liquids supplied are compared with the annual sales figures for the same products, there is a discrepancy of about 200 thousand barrels per day; the product supplied figures are higher than the sales figures. Within any given period, some small difference between sales data and estimates of the amount of product supplied would be expected because some quantity of natural gas liquids is shipped to secondary storage facilities and, thus, not included in the sales data for a given period. However, the observed differences between the two sets of estimates are too large to be completely attributable to secondary storage.

A sizeable part of the difference seems to result from shipments of natural gas liquids between primary supply facilities, mainly blending stations, refineries, and processing plants. With the addition of receipts information on the Form EIA-87 and of the column on the Form EIA-64 indicating shipments to refineries, it will be possible to adjust estimates of natural gas liquids supplied to the domestic market by excluding material which is shipped within the primary supply system for use as blendstock or feedstock.

This additional detail on shipments and the addition of blending stations to the universe will also help track natural gasoline, a major blending component for motor gasoline. Most processors assert that

natural gasoline is used primarily for blending and is seldom marketed to end-users as natural gasoline. EIA staff anticipates that more detailed information about receipts and shipments will confirm this assertion.

#### **Other Changes**

Other changes were made to the forms. Information that is no longer collected includes: on the EIA-87, the domestic or foreign origin of crude oil inputs and stocks (origin of receipts is still collected), the

state of origin of crude oil, and the transportation of petroleum products by pipeline; and, on the EIA-64, information on value per unit of the natural gas liquids shipped. Finished aviation gasoline and aviation gasoline blending components are requested separately. A reclassification item will also be shown for aviation gasoline blending components. Information on the specific gravity and sulfur content of crude oil is being collected, as are reports of fuels consumed at refineries. These changes will be shown in EIA petroleum publications.



## OVERVIEW

### Production

Energy production during the first 2 months of 1981 totaled 10.7 quadrillion Btu, a 0.9 percent decrease compared to production during the same period of 1980. This amounted to an 0.8 percent increase when measured as a daily rate (a measure which removes the influence of leap year). Decreases in production occurred for petroleum and natural gas. Petroleum production was down 1.2 percent and natural gas 2.0 percent (all measured as daily rates). Coal production increased by 4.6 percent. All other forms of energy production combined were up by 5.7 percent.

### Consumption

During the first 2 months of 1981, energy consumption totaled 13.8 quadrillion Btu, a 4.6 percent decrease compared to consumption during the same period of 1980, or 3.0 percent lower when average daily

rates are compared. Decreases in the daily consumption rates of petroleum (6.7 percent) and natural gas (4.8 percent) contributed to the overall decline in energy consumption during this period. The average daily rate of coal consumption was up 5.4 percent over the level during the first 2 months of 1980.

### Imports

Net imports of energy during the first 2 months of 1981 totaled 2.0 quadrillion Btu, 26.9 percent below the first 2 months of 1980. This decrease amounted to 25.7 percent when measured as a daily rate. By energy source, the decreases in net imports were electricity and coal coke combined, 11.0 percent; petroleum, 19.0 percent; and natural gas, 28.1 percent (daily rates). Net exports of coal during the first 2 months of 1981 were 54.2 percent higher than the level during the same period of 1980.

## ENERGY SUMMARY (Quadrillion (10<sup>15</sup>) Btu)

	February			Cumulative January through February				
	1981	1980	Percent Change	1981	1981 Daily Rate	1980	1980 Daily Rate	Percent Change*
<b>Total Production</b>	<b>5.228</b>	<b>5.227</b>	<b>0.0</b>	<b>10.696</b>	<b>0.181</b>	<b>10.795</b>	<b>0.180</b>	<b>+0.8</b>
Petroleum <sup>1</sup>	1.580	1.652	-4.3	3.313	0.056	3.409	0.057	-1.2
Natural Gas	1.593	1.672	-4.8	3.327	0.056	3.454	0.058	-2.0
Coal	1.589	1.461	+8.7	3.091	0.052	3.004	0.050	+4.6
Other <sup>2</sup>	0.466	0.441	+5.7	0.965	0.016	0.928	0.015	+5.7
<b>Total Consumption</b>	<b>6.377</b>	<b>7.018</b>	<b>-9.1</b>	<b>13.776</b>	<b>0.233</b>	<b>14.441</b>	<b>0.241</b>	<b>-3.0</b>
Petroleum <sup>3</sup>	2.580	2.998	-13.9	5.668	0.096	6.175	0.103	-6.7
Natural Gas	1.971	2.238	-12.0	4.274	0.072	4.565	0.076	-4.8
Coal	1.346	1.325	+1.6	2.836	0.048	2.735	0.046	+5.4
Other <sup>4</sup>	0.481	0.457	+5.3	0.998	0.017	0.966	0.016	+5.1
<b>Net Imports</b>	<b>0.901</b>	<b>1.256</b>	<b>-28.2</b>	<b>1.961</b>	<b>0.033</b>	<b>2.683</b>	<b>0.045</b>	<b>-25.7</b>
Petroleum <sup>5</sup>	0.987	1.232	-19.8	2.101	0.036	2.637	0.044	-19.0
Natural Gas	0.079	0.112	-29.6	0.163	0.003	0.230	0.004	-28.1
Coal	(0.180)	(0.104)	(+72.9)	(0.336)	(0.006)	(0.221)	(0.004)	(+54.2)
Other <sup>6</sup>	0.015	0.016	-5.7	0.033	0.001	0.038	0.001	-11.0

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

Parentheses indicate exports are greater than imports.

\* Based on daily rates in order to remove the influence of leap year.

<sup>1</sup> Includes crude oil, lease condensate, and natural gas plant liquids.

<sup>2</sup> Includes hydroelectric, nuclear, and geothermal power and electricity produced from wood and waste

<sup>3</sup> Includes refined petroleum products and natural gas plant liquids.

<sup>4</sup> Includes hydroelectric, nuclear, and geothermal power, electricity produced from wood and waste, and net imports of electricity and coal coke.

<sup>5</sup> Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.

<sup>6</sup> Includes net imports of electricity and coal coke.

# Executive Summary

## Energy Summary

		Energy Production <sup>1</sup>	Energy Consumption <sup>2</sup>	Energy Imports <sup>3</sup>	Energy Exports <sup>4</sup>
Quadrillion (10 <sup>15</sup> ) Btu					
1973	TOTAL	62.433	74.609	14.732	2.073
1974	TOTAL	61.229	72.759	14.417	2.241
1975	TOTAL	60.059	70.707	14.113	2.389
1976	TOTAL	60.091	74.510	16.838	2.213
1977	TOTAL	60.293	76.332	20.092	2.097
1978	TOTAL	61.204	78.150	19.262	R1.952
1979	January	5.325	7.934	1.783	0.177
	February	4.930	7.263	1.528	0.162
	March	5.510	6.993	1.722	0.245
	April	5.257	6.143	1.517	0.238
	May	5.466	6.194	1.602	0.254
	June	5.306	5.983	1.595	0.255
	July	5.008	6.117	1.684	0.270
	August	5.498	6.330	1.689	0.263
	September	5.173	5.896	1.536	0.223
	October	5.641	6.390	1.707	0.287
	November	5.413	6.535	1.564	0.265
	December	5.380	7.189	1.695	0.262
	TOTAL	63.907	78.968	19.622	2.900
1980	January	5.569	R7.423	1.653	0.226
	February	5.227	R7.018	1.462	0.206
	March	5.620	R6.906	1.488	0.266
	April	5.412	6.021	1.334	0.298
	May	5.518	5.831	1.277	0.349
	June	5.346	5.709	1.289	0.367
	July	5.183	R5.957	1.177	0.331
	August	5.327	R5.847	1.188	0.321
	September	5.322	R5.798	1.158	0.334
	October	5.519	R6.168	1.235	0.374
	November	R5.214	R6.288	R1.224	0.347
	December	R5.620	R7.235	R1.354	0.342
	TOTAL	R64.876	R76.201	R15.840	3.762
1981	January	R5.468	R7.398	R1.323	R0.263
	February	5.228	6.377	1.181	0.279
	TOTAL (Year-to-date)	10.696	13.776	2.504	0.542

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>See Explanatory Note 1.

<sup>2</sup>See Explanatory Note 2.

<sup>3</sup>See Explanatory Note 3.

<sup>4</sup>See Explanatory Note 4.

R = Revised data.

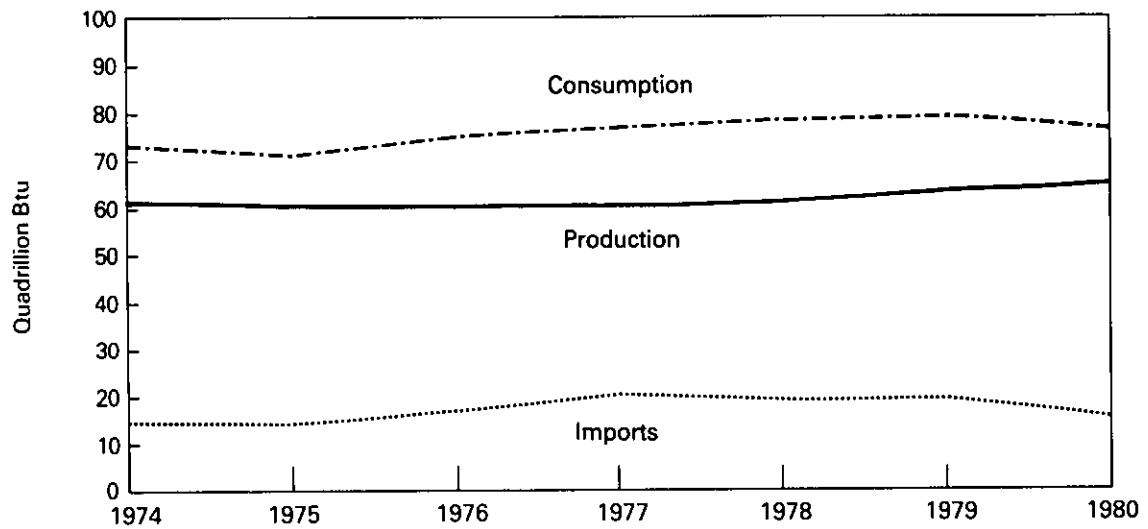
Note: The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.

Source: \*Energy Information Administration calculations based on data appearing elsewhere in this publication.

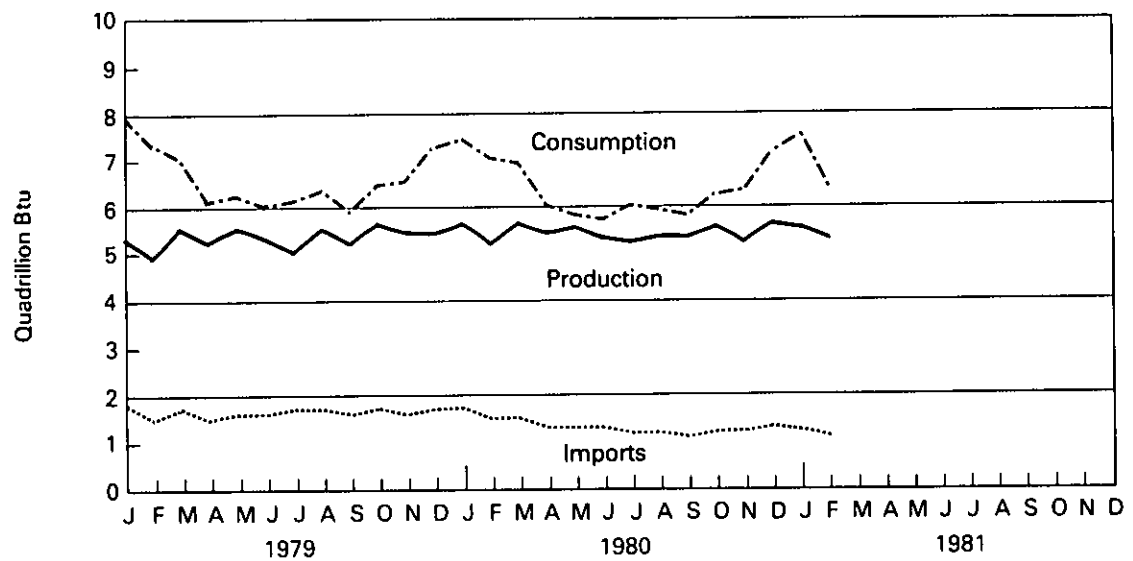
# Executive Summary

## Energy Summary

Yearly



Monthly



# Executive Summary

## Production of Energy by Type

		Coal <sup>1</sup>	Crude Oil <sup>2</sup>	NGPL <sup>3</sup>	Natural Gas (Dry)	Hydro-electric Power <sup>4</sup>	Nuclear Electric Power	Other <sup>5</sup>	Total Energy Produced	Yearly Cumulative Energy Produced
		Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973</b>	<b>TOTAL</b>	<b>14.366</b>	<b>19.493</b>	<b>2.569</b>	<b>22.187</b>	<b>2.861</b>	<b>0.910</b>	<b>0.046</b>	<b>62.433</b>	
<b>1974</b>	<b>TOTAL</b>	<b>14.468</b>	<b>18.575</b>	<b>2.471</b>	<b>21.210</b>	<b>3.177</b>	<b>1.272</b>	<b>0.056</b>	<b>61.229</b>	
<b>1975</b>	<b>TOTAL</b>	<b>15.189</b>	<b>17.729</b>	<b>2.374</b>	<b>19.640</b>	<b>3.155</b>	<b>1.900</b>	<b>0.072</b>	<b>60.059</b>	
<b>1976</b>	<b>TOTAL</b>	<b>15.853</b>	<b>17.262</b>	<b>2.327</b>	<b>19.480</b>	<b>2.976</b>	<b>2.111</b>	<b>0.081</b>	<b>60.091</b>	
<b>1977</b>	<b>TOTAL</b>	<b>15.829</b>	<b>17.454</b>	<b>2.327</b>	<b>19.565</b>	<b>2.333</b>	<b>2.702</b>	<b>0.082</b>	<b>60.293</b>	
<b>1978</b>	<b>TOTAL</b>	<b>15.037</b>	<b>18.434</b>	<b>2.245</b>	<b>19.485</b>	<b>2.958</b>	<b>2.977</b>	<b>0.068</b>	<b>61.204</b>	
<b>1979</b>	January	1.306	1.524	0.188	1.738	0.264	0.299	0.007	5.325	5.325
	February	1.238	1.385	0.173	1.624	0.225	0.279	0.006	4.930	10.255
	March	1.509	1.546	0.190	1.721	0.274	0.262	0.008	5.510	15.765
	April	1.445	1.488	0.191	1.659	0.268	0.198	0.007	5.257	21.021
	May	1.570	1.546	0.192	1.683	0.306	0.162	0.007	5.466	26.487
	June	1.597	1.467	0.186	1.611	0.264	0.173	0.007	5.306	31.793
	July	1.211	1.504	0.192	1.630	0.240	0.224	0.007	5.008	36.802
	August	1.618	1.537	0.193	1.656	0.224	0.261	0.008	5.498	42.299
	September	1.459	1.483	0.186	1.603	0.200	0.235	0.007	5.173	47.473
	October	1.775	1.550	0.197	1.672	0.213	0.225	0.008	5.641	53.114
	November	1.548	1.524	0.199	1.691	0.236	0.207	0.008	5.413	58.527
	December	1.373	1.549	0.199	1.788	0.240	0.222	0.009	5.380	63.907
	<b>TOTAL</b>	<b>17.651</b>	<b>18.104</b>	<b>2.286</b>	<b>20.076</b>	<b>2.954</b>	<b>2.748</b>	<b>0.089</b>	<b>63.907</b>	
<b>1980</b>	January	1.543	1.555	0.202	1.782	0.267	0.213	0.008	5.569	5.569
	February	1.461	1.463	0.189	1.672	0.226	0.208	0.008	5.227	10.795
	March	1.589	1.566	0.192	1.791	0.257	0.216	0.008	5.620	16.415
	April	1.590	1.512	0.193	1.635	0.272	0.202	0.008	5.412	21.827
	May	1.602	1.553	0.191	1.659	0.305	0.198	0.010	5.518	27.345
	June	1.624	1.487	0.185	1.552	0.292	0.197	0.009	5.346	32.691
	July	1.384	1.538	0.186	1.582	0.258	0.226	0.010	5.183	37.875
	August	1.597	1.514	0.186	1.542	0.216	0.262	0.011	5.327	43.201
	September	1.637	1.500	0.179	1.547	0.195	0.254	0.010	5.322	48.523
	October	1.722	1.535	0.184	1.615	0.189	0.264	0.011	5.519	54.042
	November	1.490	1.479	R0.186	1.619	0.203	0.226	0.011	R5.214	R59.256
	December	1.638	R1.548	R0.191	1.759	0.235	0.238	0.011	R5.620	R64.876
	<b>TOTAL</b>	<b>18.877</b>	<b>R18.250</b>	<b>R2.263</b>	<b>19.754</b>	<b>2.913</b>	<b>2.704</b>	<b>0.114</b>	<b>R64.876</b>	
<b>1981</b>	January	1.501	1.537	R0.196	R1.735	0.236	0.252	0.011	R5.468	R5.468
	February	1.589	1.398	0.182	1.593	0.223	0.233	0.010	5.228	10.696
	<b>TOTAL</b> (Year-to-date)	<b>3.091</b>	<b>2.936</b>	<b>0.377</b>	<b>3.327</b>	<b>0.459</b>	<b>0.484</b>	<b>0.021</b>	<b>10.696</b>	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes lease condensate.

<sup>3</sup>Natural gas plant liquids.

<sup>4</sup>Includes industrial and utility production of hydropower.

<sup>5</sup>Includes geothermal power and electricity produced from wood and waste.

R = Revised data.

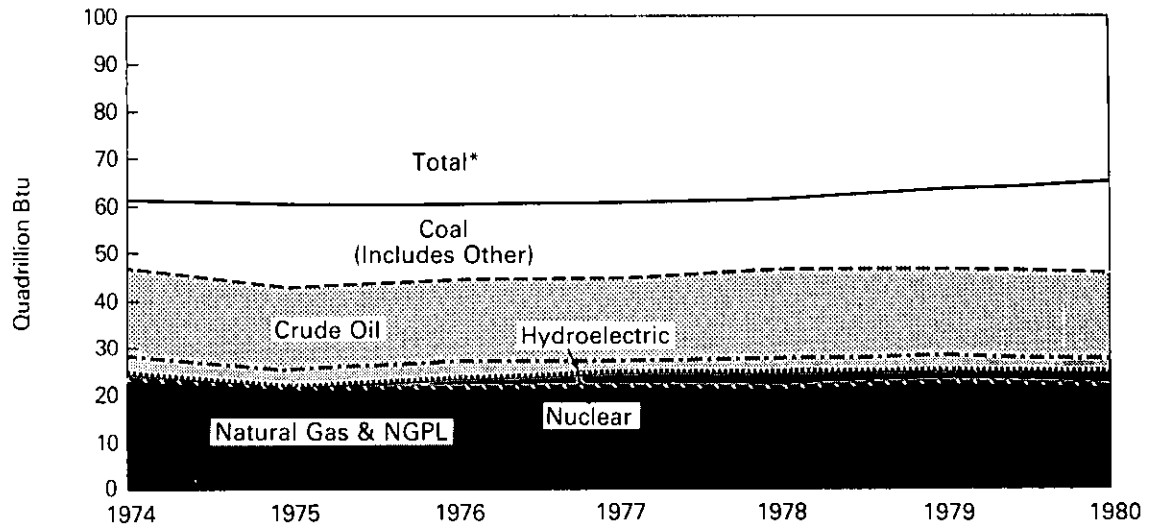
Source: \*Energy Information Administration calculations based on data reported elsewhere in this publication.



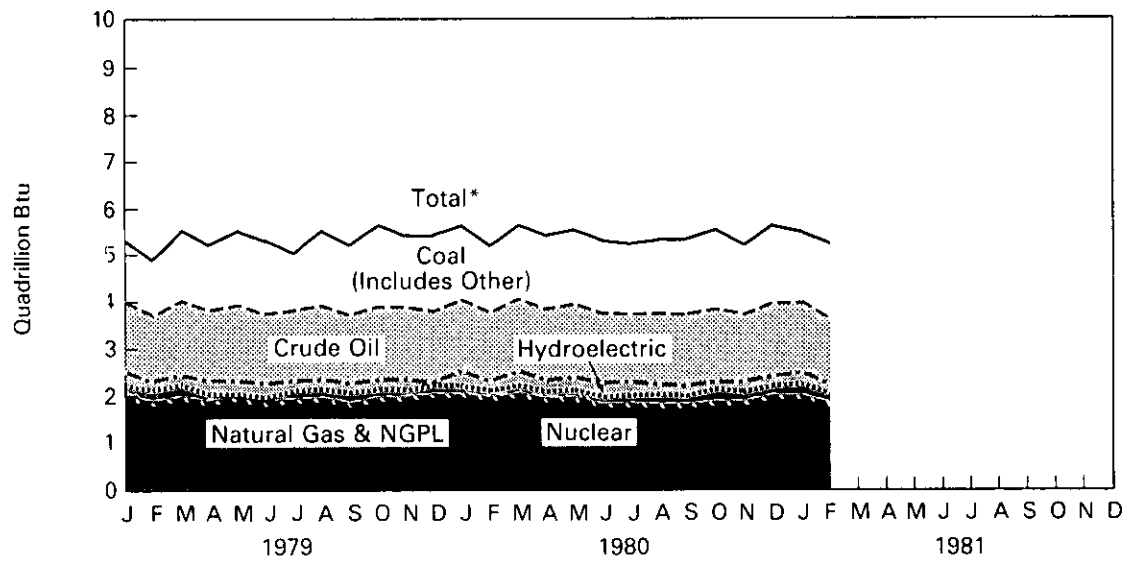
# Executive Summary

## Production of Energy by Type

Yearly



Monthly



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

# Executive Summary

## Consumption of Energy by Type

		Coal <sup>1</sup>	Natural Gas (Dry)	Petroleum	Hydro-electric Power <sup>2</sup>	Nuclear Electric Power	Net Imports of Coal Coke <sup>3</sup>	Other <sup>4</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu										
1973	TOTAL	13.300	22.512	34.840	3.010	0.910	(0.008)	0.046	74.609	
1974	TOTAL	12.876	21.732	33.455	3.309	1.272	0.059	0.056	72.759	
1975	TOTAL	12.823	19.948	32.731	3.219	1.900	0.014	0.072	70.707	
1976	TOTAL	13.733	20.345	35.175	3.066	2.111	0.000	0.081	74.510	
1977	TOTAL	13.965	19.931	37.122	2.515	2.702	0.015	0.082	76.332	
1978	TOTAL	13.846	20.000	37.965	3.164	2.977	0.131	0.068	78.150	
1979	January	1.359	2.477	3.506	0.282	0.299	0.004	0.007	7.934	7.934
	February	1.209	2.250	3.275	0.241	0.279	0.003	0.006	7.263	15.197
	March	1.218	1.921	3.291	0.292	0.262	0.002	0.008	6.993	22.190
	April	1.146	1.627	2.873	0.285	0.198	0.005	0.007	6.143	28.332
	May	1.200	1.459	3.032	0.324	0.162	0.011	0.007	6.194	34.527
	June	1.244	1.336	2.931	0.281	0.173	0.010	0.007	5.983	40.509
	July	1.341	1.358	2.920	0.258	0.224	0.008	0.007	6.117	46.626
	August	1.349	1.370	3.091	0.242	0.261	0.009	0.008	6.330	52.956
	September	1.204	1.357	2.868	0.218	0.235	0.008	0.007	5.896	58.853
	October	1.237	1.590	3.096	0.231	0.225	0.004	0.008	6.390	65.243
	November	1.243	1.805	3.018	0.254	0.207	0.000	0.008	6.535	71.779
	December	1.360	2.116	3.223	0.258	0.222	0.002	0.009	7.189	78.968
	TOTAL	15.109	20.666	37.123	3.166	2.748	0.066	0.089	78.968	
1980	January	R1.410	2.327	3.177	0.285	0.213	0.003	0.008	R7.423	R7.423
	February	R1.325	2.238	2.998	0.242	0.208	(0.001)	0.008	R7.018	R14.441
	March	R1.307	2.143	2.961	0.275	0.216	(0.003)	0.008	R6.906	R21.347
	April	1.169	1.601	2.756	0.289	0.202	(0.005)	0.008	6.021	R27.368
	May	1.173	1.383	2.749	0.323	0.198	(0.006)	0.010	5.831	R33.199
	June	R1.245	1.279	2.672	0.309	0.197	(0.004)	0.009	5.709	R38.908
	July	R1.401	1.328	2.719	0.276	0.226	(0.004)	0.010	R5.957	R44.865
	August	R1.393	1.272	2.679	0.234	0.262	(0.003)	0.011	R5.847	R50.712
	September	R1.272	1.326	2.727	0.213	0.254	(0.004)	0.010	R5.798	R56.510
	October	R1.238	1.574	2.880	0.207	0.264	(0.006)	0.011	R6.168	R62.678
	November	R1.261	1.820	2.752	0.220	0.226	(0.002)	0.011	R6.288	R68.966
	December	R1.407	2.201	R3.126	0.253	0.238	(0.001)	0.011	R7.235	R76.201
	TOTAL	R15.603	20.495	R34.196	3.125	2.704	(0.037)	0.114	R76.201	
1981	January	1.490	R2.303	R3.088	0.254	0.252	0.000	0.011	R7.398	R7.398
	February	1.346	1.971	2.580	0.239	0.233	(0.001)	0.010	6.377	13.776
	TOTAL	2.836	4.274	5.668	0.494	0.484	(0.001)	0.021	13.776	
	(Year-to-date)									

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes industrial and utility production, and net imports of electricity.

<sup>3</sup>Parentheses indicate exports are greater than imports.

<sup>4</sup>Includes geothermal power and electricity produced from wood and waste.

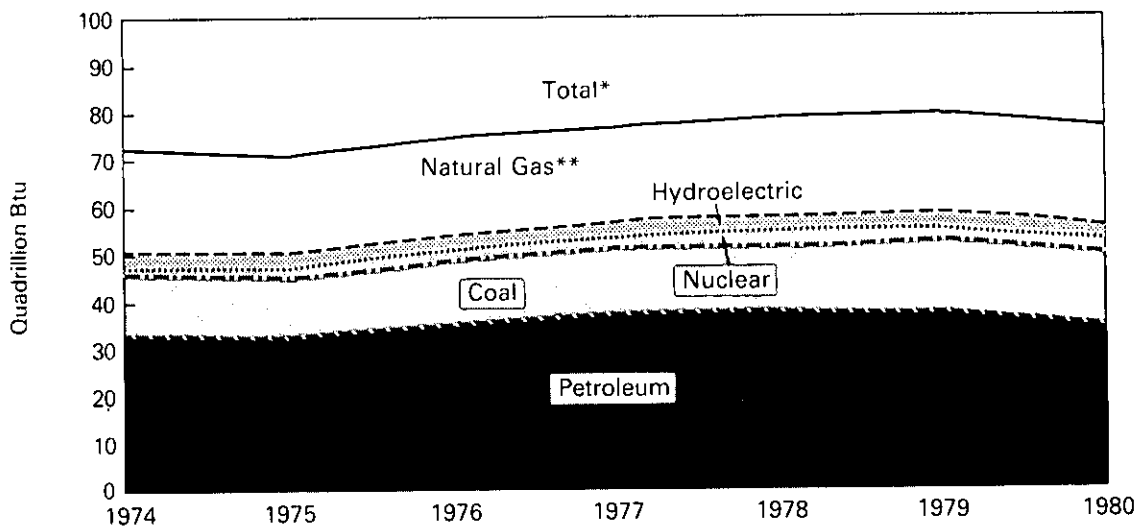
R = Revised data.

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

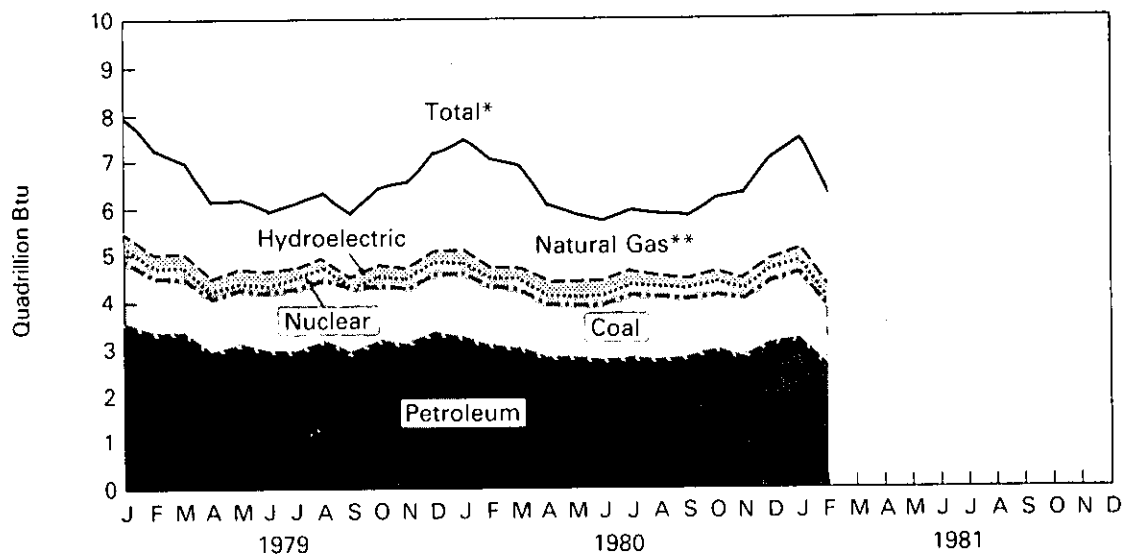
# Executive Summary

## Consumption of Energy by Type

Yearly



Monthly



\*Btu equivalents for all fuels were cumulated to create total.  
 \*\*Includes net imports of coal coke and other.

# Executive Summary

## Net Imports of Energy by Type<sup>1</sup>

		Coal <sup>2</sup>	Crude Oil <sup>3</sup>	Refined Petroleum Products <sup>4</sup>	Natural Gas (Dry)	Electricity <sup>5</sup>	Coal Coke	Net Imports	Yearly Cumulative Net Imports of Energy
Quadrillion (10 <sup>15</sup> ) Btu									
1973	TOTAL	(1.442)	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)	8.708	3.800	0.904	0.064	0.014	11.725	
1976	TOTAL	(1.590)	11.221	3.982	0.922	0.089	0.000	14.625	
1977	TOTAL	(1.424)	13.921	4.321	0.981	0.182	0.015	17.995	
1978	TOTAL	R(1.024)	13.125	3.932	0.941	0.206	0.131	R17.310	
1979	January	(0.093)	1.215	0.361	0.100	0.018	0.004	1.606	1.606
	February	(0.067)	1.014	0.304	0.096	0.016	0.003	1.366	2.972
	March	(0.122)	1.082	0.386	0.112	0.018	0.002	1.478	R4.449
	April	(0.138)	1.037	0.252	0.105	0.017	0.005	1.279	R5.728
	May	(0.165)	1.097	0.283	0.103	0.018	0.011	1.347	R7.075
	June	(0.156)	1.118	0.252	0.100	0.017	0.010	1.340	8.416
	July	(0.168)	1.145	0.308	0.102	0.018	0.008	1.414	R9.829
	August	(0.160)	1.182	0.281	0.097	0.018	0.009	1.426	R11.255
	September	(0.134)	1.090	0.236	0.097	0.017	0.008	1.314	R12.569
	October	(0.197)	1.209	0.279	0.108	0.018	0.004	1.420	13.990
	November	(0.163)	1.040	0.290	0.115	0.017	0.000	1.299	R15.289
	December	(0.166)	1.099	0.370	0.110	0.018	0.002	1.433	R16.722
	TOTAL:	R(1.730)	13.328	3.603	1.243	0.212	0.066	R16.722	
1980	January	(0.117)	1.089	0.316	0.118	0.018	0.003	1.428	1.428
	February	(0.104)	0.948	0.284	0.112	0.017	(0.001)	1.256	2.683
	March	(0.150)	0.984	0.266	0.107	0.018	(0.003)	1.222	3.906
	April	(0.202)	0.931	0.207	0.088	0.017	(0.005)	1.036	4.941
	May	(0.227)	0.858	0.218	0.067	0.018	(0.006)	0.928	5.870
	June	(0.237)	0.892	0.196	0.059	0.017	(0.004)	0.922	6.792
	July	(0.221)	0.794	0.199	0.060	0.018	(0.004)	0.845	7.637
	August	(0.246)	0.837	0.205	0.057	0.018	(0.003)	0.868	8.505
	September	(0.226)	0.765	0.216	0.056	0.017	(0.004)	0.824	9.329
	October	(0.251)	0.791	0.236	0.073	0.018	(0.006)	0.860	10.189
	November	(0.242)	R0.763	R0.256	0.085	0.017	(0.002)	R0.876	R11.066
	December	(0.220)	R0.847	R0.276	0.092	0.018	(0.001)	R1.012	R12.077
	TOTAL	(2.444)	R10.498	R2.873	0.975	0.212	(0.037)	R12.077	
1981	January	(0.155)	R0.821	R0.292	0.084	0.018	0.000	R1.060	R1.060
	February	(0.180)	0.750	0.237	0.079	0.016	(0.001)	0.901	1.961
	TOTAL (Year-to-date)	(0.336)	1.571	0.529	0.163	0.034	(0.001)	1.961	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Net imports = imports minus exports. Parentheses indicate exports are greater than imports.

<sup>2</sup>Includes bituminous coal, lignite, and anthracite.

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

<sup>4</sup>Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.

<sup>5</sup>Only yearly totals are available for electricity imports and exports of data. Figures shown are estimates derived by dividing the yearly net import total by the number of days in the year and multiplying by the number of days in the month. Annual data for 1979 are used in estimating 1980 and 1981 data until actual annual data become available for those years.

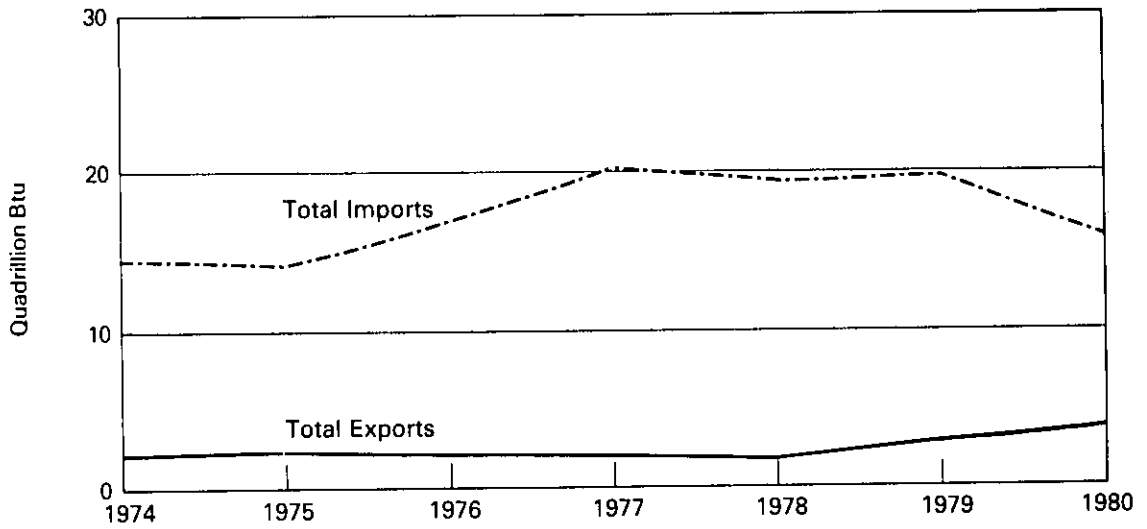
R = Revised data.

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

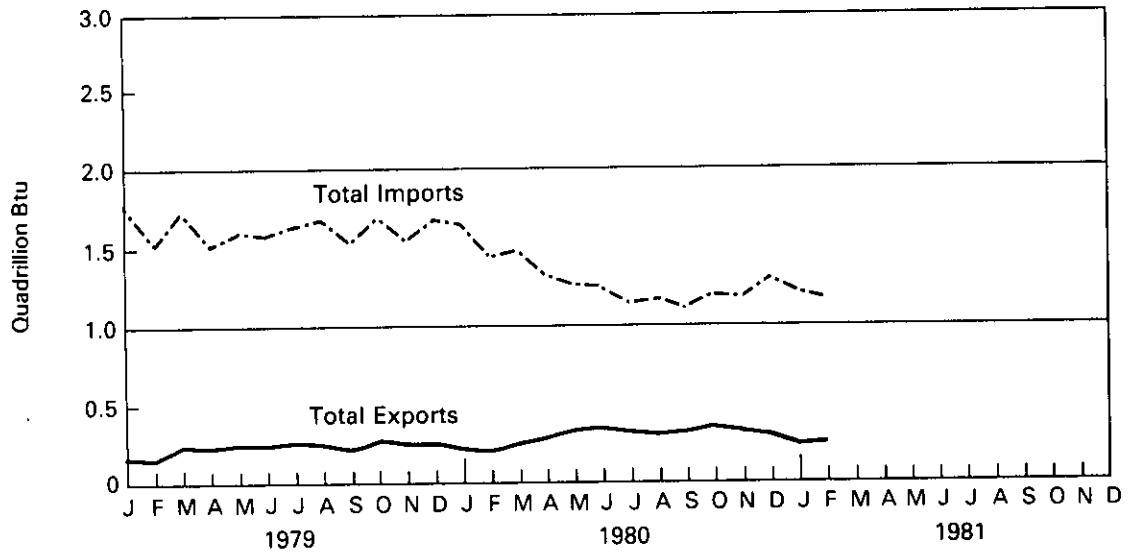
# Executive Summary

## Energy Imports and Exports

Yearly



Monthly



# Executive Summary

## Merchandise Trade Value<sup>1</sup>

		Exports				Imports			
		Energy	Manu- factured Products	Agricultural, Chemical, and Other	Total	Energy	Manu- factured Products	Agricultural, Chemical, and Other	Total
Million dollars									
<b>1973</b>	<b>TOTAL</b>	<b>1,671</b>	<b>38,982</b>	<b>29,643</b>	<b>70,296</b>	<b>8,173</b>	<b>42,537</b>	<b>19,122</b>	<b>69,832</b>
<b>1974</b>	<b>TOTAL</b>	<b>3,444</b>	<b>54,704</b>	<b>39,085</b>	<b>97,233</b>	<b>25,454</b>	<b>51,205</b>	<b>23,989</b>	<b>100,648</b>
<b>1975</b>	<b>TOTAL</b>	<b>4,470</b>	<b>62,260</b>	<b>39,832</b>	<b>106,562</b>	<b>26,476</b>	<b>47,384</b>	<b>22,714</b>	<b>96,574</b>
<b>1976</b>	<b>TOTAL</b>	<b>4,226</b>	<b>67,282</b>	<b>42,159</b>	<b>113,667</b>	<b>33,996</b>	<b>60,004</b>	<b>27,010</b>	<b>121,010</b>
<b>1977</b>	<b>TOTAL</b>	<b>4,184</b>	<b>69,339</b>	<b>45,484</b>	<b>119,007</b>	<b>44,537</b>	<b>71,583</b>	<b>31,550</b>	<b>147,670</b>
<b>1978</b>	<b>TOTAL</b>	<b>3,881</b>	<b>81,850</b>	<b>55,310</b>	<b>141,041</b>	<b>42,096</b>	<b>93,887</b>	<b>35,996</b>	<b>171,979</b>
<b>1979</b>	January	350	7,035	4,964	12,349	4,228	8,392	3,227	15,847
	February	292	7,446	4,966	12,705	3,527	7,480	2,772	13,779
	March	436	8,843	6,020	15,299	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	14,530	4,165	8,690	3,655	16,510
	June	500	8,527	6,056	15,083	4,528	9,247	3,655	17,429
	July	534	7,880	6,078	14,492	5,074	8,778	3,261	17,113
	August	501	7,981	6,236	14,718	5,460	8,988	3,482	17,931
	September	438	8,086	6,144	14,669	6,084	8,539	3,455	18,078
	October	567	9,070	7,353	16,991	6,549	9,253	3,430	19,233
	November	522	8,849	7,578	16,948	5,409	9,363	3,883	18,656
	December	543	9,050	7,039	16,632	6,783	9,037	3,924	19,744
	<b>TOTAL</b>	<b>5,621</b>	<b>99,279</b>	<b>73,527</b>	<b>178,426</b>	<b>59,998</b>	<b>104,748</b>	<b>41,510</b>	<b>206,256</b>
<b>1980</b>	January	481	8,837	6,696	16,015	6,559	9,772	3,801	20,132
	February	436	9,684	6,556	16,675	7,742	9,226	3,671	20,639
	March	567	10,870	7,865	19,302	7,392	9,801	3,848	21,041
	April	631	10,481	7,691	18,803	6,346	9,543	3,737	19,626
	May	737	10,574	7,079	18,390	6,895	9,791	3,818	20,503
	June	730	10,570	7,000	18,300	6,938	9,745	3,837	20,520
	July	707	9,669	6,491	16,867	5,792	9,797	3,736	19,324
	August	703	9,974	6,947	17,623	6,236	9,195	3,428	18,859
	September	710	10,158	6,632	17,500	5,831	9,442	3,806	19,079
	October	755	11,271	7,483	19,509	6,231	10,067	3,970	20,268
	November	785	10,415	7,044	18,244	5,880	9,862	3,792	19,533
	December	741	10,649	7,820	19,210	7,218	10,208	3,886	21,312
	<b>TOTAL</b>	<b>7,982</b>	<b>123,151</b>	<b>85,303</b>	<b>216,436</b>	<b>79,058</b>	<b>116,447</b>	<b>45,330</b>	<b>240,834</b>
<b>1981</b>	January	620	9,431	7,546	17,596	8,014	10,539	4,024	22,577
	February	705	10,498	7,311	18,515	7,943	9,269	3,912	21,124
	March	826	13,051	8,606	22,483	6,476	10,847	4,040	21,363
	<b>TOTAL</b>	<b>2,151</b>	<b>32,980</b>	<b>23,463</b>	<b>58,594</b>	<b>22,433</b>	<b>30,655</b>	<b>11,976</b>	<b>65,064</b>

Note: The U.S. trade statistics include the 50 States, the District of Columbia, and Puerto Rico, except data on shipments between the United States, Puerto Rico, and U.S. possessions, between U.S. possessions and foreign countries, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use and American goods returned to the United States by its Armed Forces, intransit shipments, etc. Beginning with January 1981 statistics, data on the U.S. Virgin Islands' trade with foreign countries are included. Totals may not equal sum of components due to independent rounding.

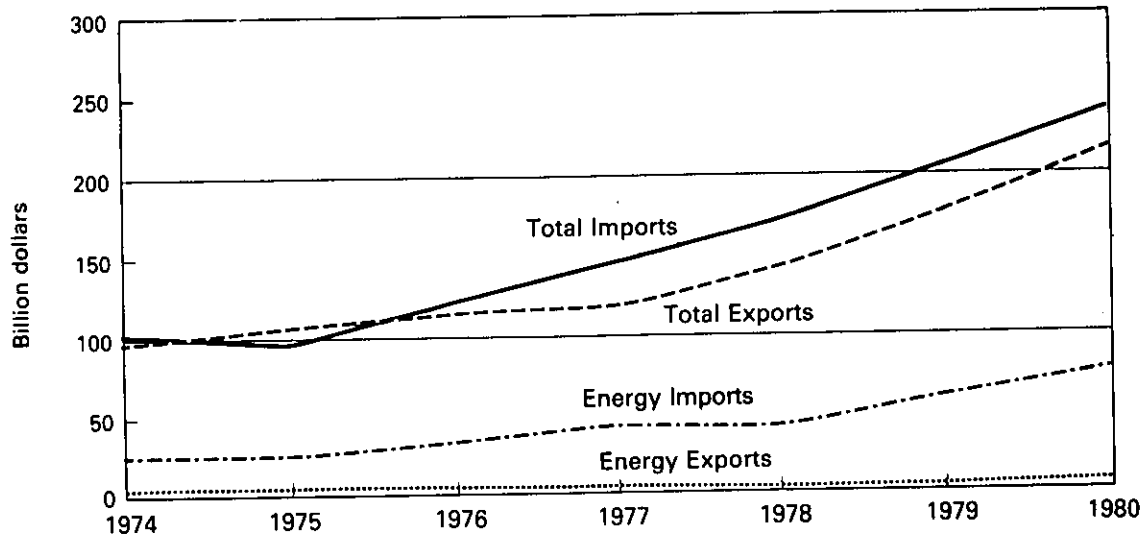
<sup>1</sup>Data presented are free alongside ship (f.a.s.) basis and are unadjusted for seasonality and working days. Beginning January 1979, the data excludes U.S. Department of Defense Military Assistance Program Grant-Aid Shipments. Commodity categories shown above include groups of BOC sections 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*.

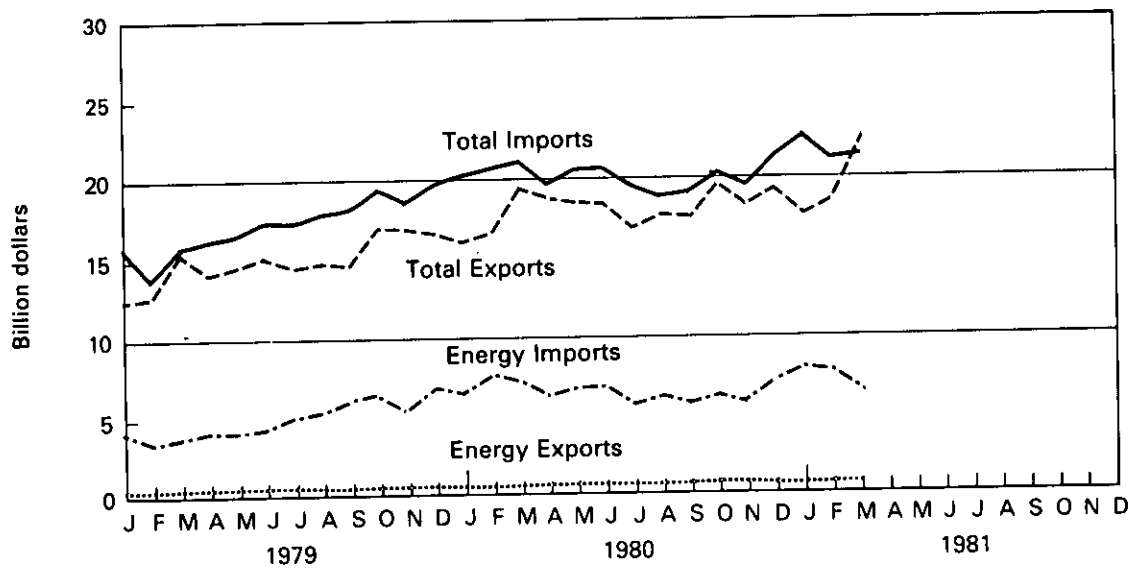
# Executive Summary

## Energy Imports and Exports

Yearly



Monthly



# Executive Summary

## Heating Degree-Days<sup>1</sup>

Petroleum Administration For Defense (PAD) Districts	March 30 through May 3					Cumulative July 1 through May 3				
	1981	1980 <sup>2</sup>		Normal (1941-70) <sup>2</sup>		1980-81	1979-80 <sup>2</sup>		Normal (1941-70) <sup>2</sup>	
PAD District I	312	358	(-13.0)	397	(-21.5)	4,634	4,316	(7.4)	4,427	(4.7)
New England	487	583	(-16.5)	618	(-21.1)	6,104	5,749	(6.2)	5,917	(3.2)
Conn., Maine, Mass., N.H., R.I., Vt.										
Middle Atlantic	402	434	(-7.4)	493	(-18.6)	5,464	5,073	(7.7)	5,234	(4.4)
Del., Md., N.J., N.Y., Pa.										
Lower Atlantic	99	145	(-32.0)	155	(-36.0)	2,739	2,548	(7.5)	2,560	(7.0)
Fla., Ga., N.C., S.C., Va., W. Va.										
PAD District II	366	521	(-29.8)	503	(-27.3)	5,632	5,882	(-4.2)	5,827	(-3.4)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.										
Pad District III	34	125	(-72.9)	95	(-64.4)	2,257	2,305	(-2.1)	2,263	(-0.3)
Ala., Ark., La., Miss., N. Mex., Tex.										
PAD District IV	406	543	(-25.4)	607	(-33.2)	5,020	5,735	(-12.5)	6,041	(-16.9)
Colo., Idaho, Mont., Utah, Wyo.										
PAD District V	243	240	(1.2)	304	(-20.2)	2,038	2,105	(-3.2)	2,665	(-23.5)
Ariz., Calif., Nev., Oreg., Wash.										
<b>U.S. AVERAGE<sup>3</sup></b>	<b>289</b>	<b>372</b>	<b>(-22.2)</b>	<b>388</b>	<b>(-25.5)</b>	<b>4,321</b>	<b>4,311</b>	<b>(0.2)</b>	<b>4,419</b>	<b>(-2.2)</b>

<sup>1</sup>See Explanatory Note 6 for explanation of degree-days.

<sup>2</sup>Percentage change in parentheses.

<sup>3</sup>Excludes Alaska and Hawaii.

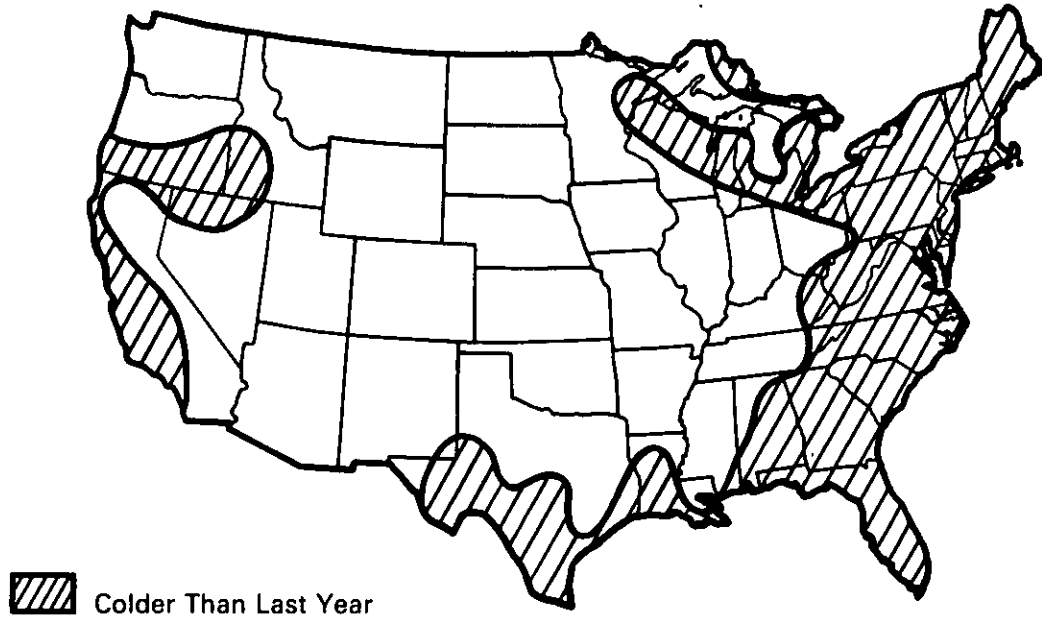


# Executive Summary

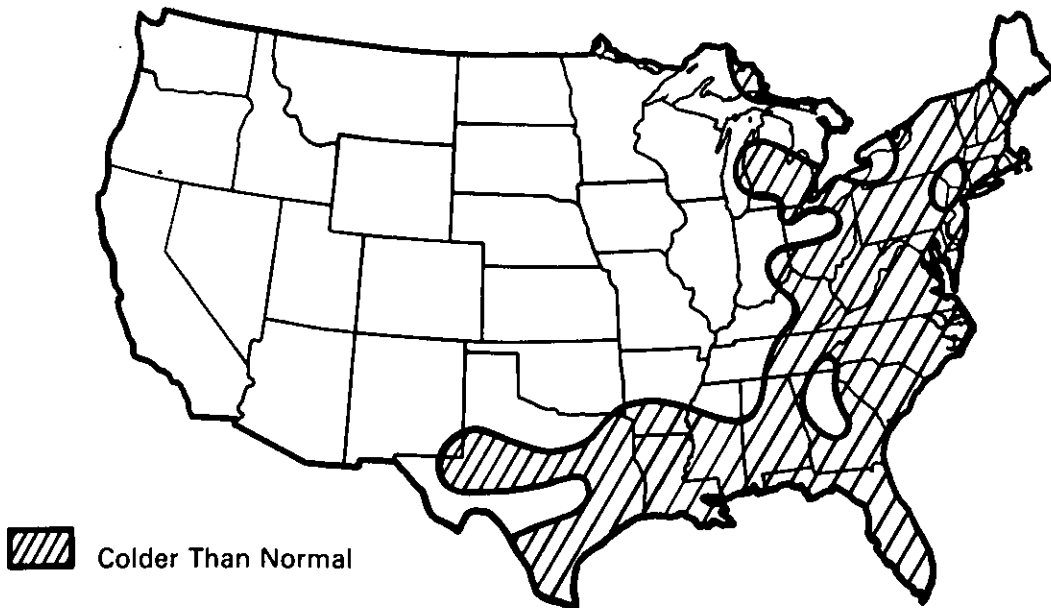
## Heating Degree-Days

Heating Degree-Days Accumulated from July 1 through May 3

### Departure from Last Year



### Departure from Normal



Source: • Department of Commerce – NOAA.

# Executive Summary

## Energy Indicators—

Energy Consumption per GNP Dollar					U.S. Dependence on Petroleum Imports <sup>3</sup>				
		Energy Consumption per GNP Dollar <sup>1</sup>	Yearly Rate of Energy Consumption	Gross National Product (Annual rate)		Direct Imports			Domestic Petroleum Products Supplied
				Current Dollars	1972 Dollars <sup>2</sup>	From Arab/OPEC Countries	From OPEC Countries	Total All Countries	
ANNUAL RATE			Quadrillion Btu	Trillion dollars		Million barrels per day			
1973	AVERAGE	59.4	74.609	1.326	1.255	0.92	2.99	6.26	17.31
1974	AVERAGE	58.3	72.759	1.434	1.248	0.75	3.28	6.11	16.65
1975	AVERAGE	57.3	70.707	1.549	1.234	1.38	3.60	6.06	16.32
1976	AVERAGE	57.3	74.510	1.718	1.300	2.42	5.07	7.31	17.46
1977	AVERAGE	55.6	76.332	1.918	1.372	3.19	6.19	8.81	18.43
1978	AVERAGE	54.4	78.150	2.156	1.437	2.96	5.75	8.36	18.85
1979	1st Qtr	60.8	89.993	2.341	1.480	3.26	5.88	8.84	20.37
	2nd Qtr	49.9	73.477	2.375	1.473	3.17	5.45	8.10	17.68
	3rd Qtr	48.9	72.778	2.444	1.488	2.99	5.74	8.39	17.57
	4th Qtr	53.5	79.804	2.496	1.491	2.81	5.48	8.49	18.47
	AVERAGE	53.2	78.968	2.414	1.483	3.06	5.64	8.46	18.51
1980	1st Qtr	57.2	85.877	2.572	1.502	3.00	4.97	7.90	18.27
	2nd Qtr	48.3	70.630	2.565	1.463	2.59	4.28	6.81	16.36
	3rd Qtr	47.6	70.053	2.637	1.472	2.26	3.74	6.11	16.07
	4th Qtr	52.7	78.547	2.741	1.490	2.25	3.95	6.36	17.43
	AVERAGE	51.5	76.267	2.629	1.482	2.52	4.23	6.79	17.03

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Thousand Btu per 1972 constant dollar.

<sup>2</sup>Current 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. GNP rates are from the Business Conditions Digest published by the Bureau of Economic Analysis.

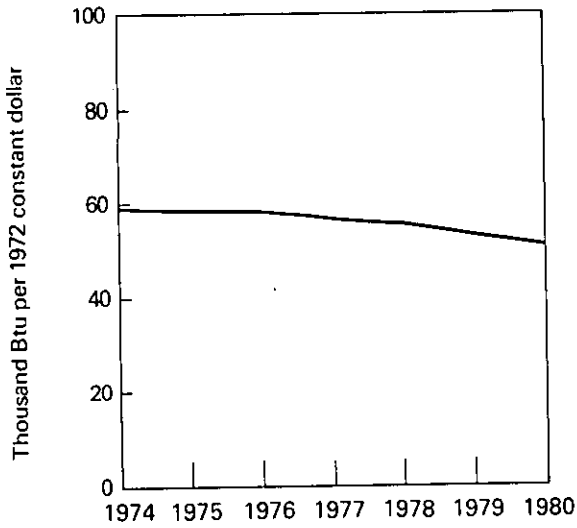
<sup>3</sup>Beginning in October 1977 Strategic Petroleum Reserve imports are included.

Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.

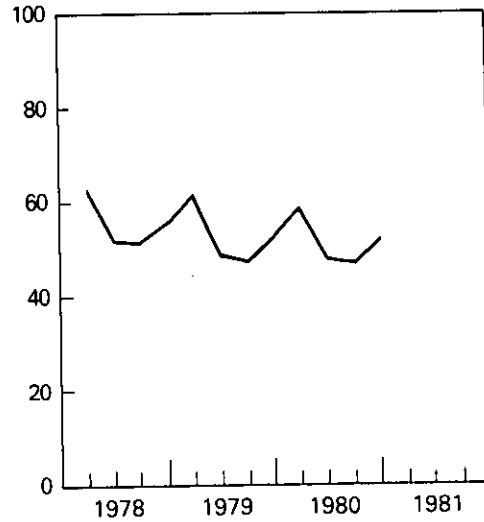
# Executive Summary

## Energy Consumption per GNP Dollar

Yearly

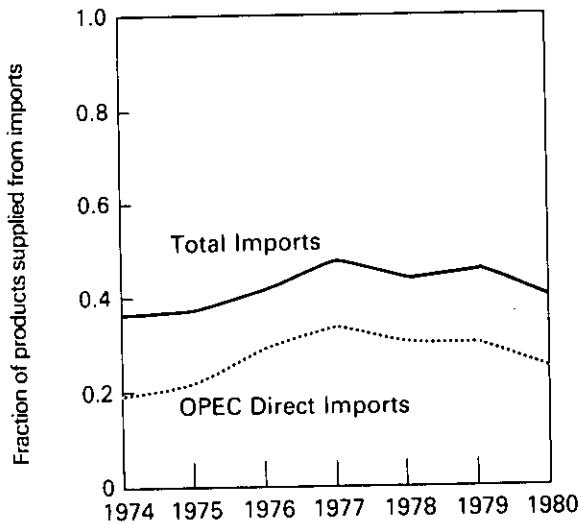


Quarterly

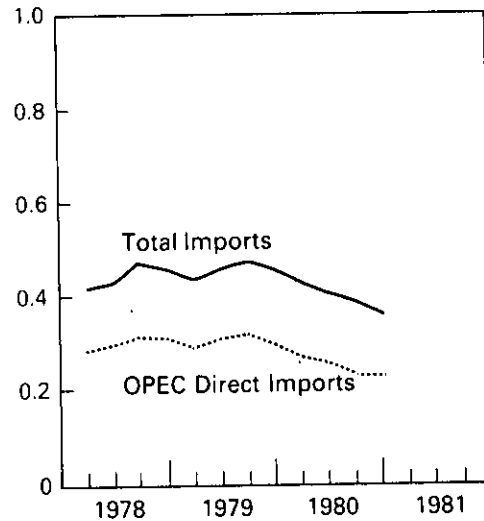


## U.S. Dependence on Petroleum Imports

Yearly



Quarterly

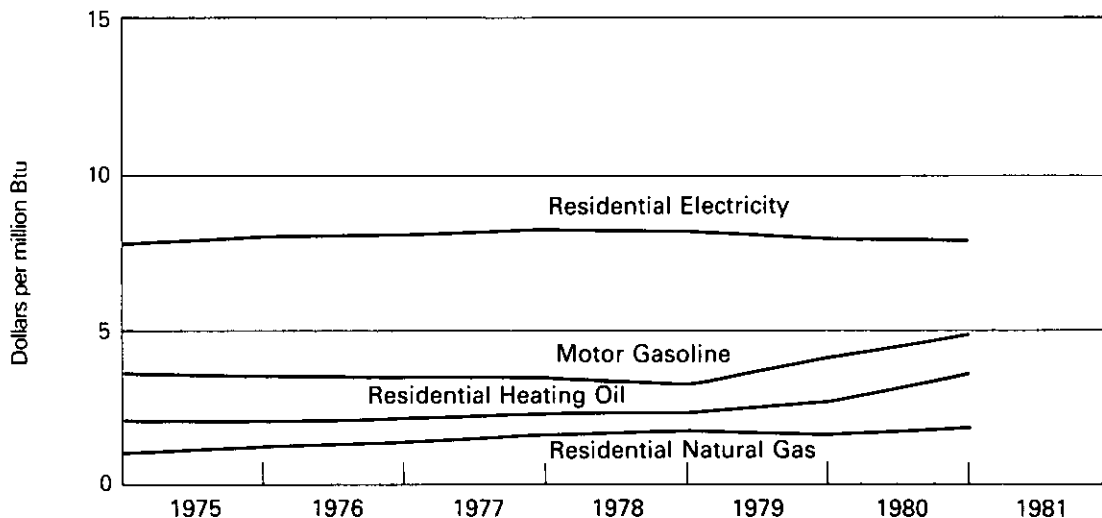


# Executive Summary

## 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	NA	NA	NA	NA	121.2	1.19	2.39	7.00
1974	AVERAGE	45.1	3.61	29.4	2.12	121.4	1.19	2.63	7.71
1975	AVERAGE	44.1	3.53	29.3	2.11	132.8	1.30	2.73	8.00
1976	AVERAGE	43.4	3.47	29.8	2.15	145.4	1.43	2.74	8.03
1977	AVERAGE	42.9	3.43	31.8	2.29	162.2	1.59	2.80	8.21
1978	AVERAGE	40.1	3.21	31.7	2.29	164.4	1.62	2.76	8.09
1979	AVERAGE	49.4	3.95	37.8	2.73	171.5	1.68	2.67	7.83
1980	1st Qtr	60.9	4.87	49.8	3.59	190.9	1.88	2.53	7.42
	2nd Qtr	62.1	4.97	49.8	3.59	197.2	1.94	2.75	8.06
	3rd Qtr	60.6	4.85	49.2	3.55	207.6	2.04	2.86	8.38
	4th Qtr	58.2	4.65	50.5	3.64	198.9	1.95	2.73	8.00
	AVERAGE	60.5	4.84	49.6	3.58	198.8	1.95	2.72	7.97

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



Geographic coverage: the 50 United States and District of Columbia.

NA = Not available.

Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.

Sources: • Motor Gasoline—Bureau of Labor Statistics.

• 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 1979 annual numbers, 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;" 1980 quarterly and annual numbers, Bureau of Labor Statistics.

• Electricity—1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."

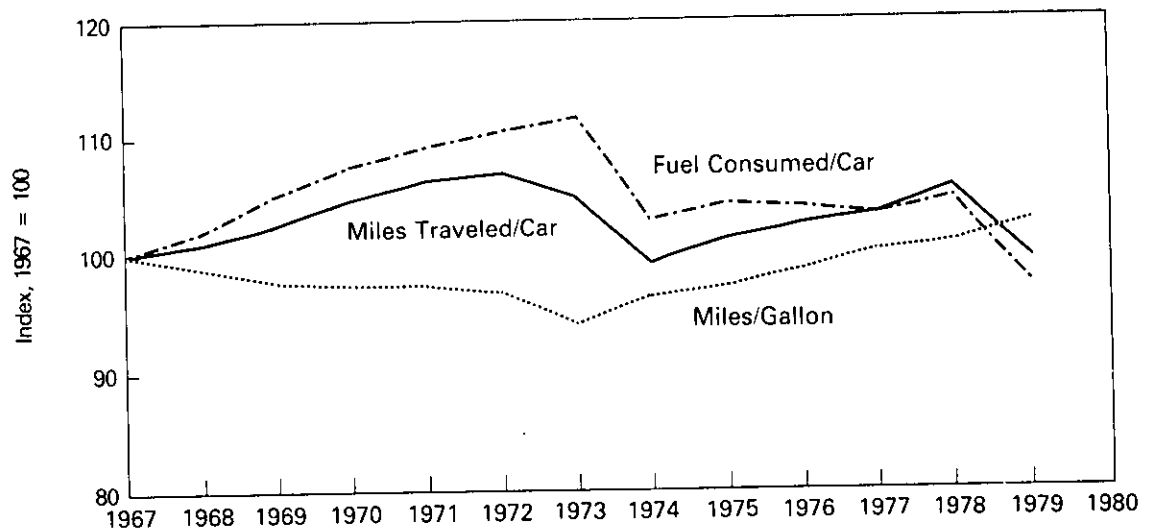
• Deflator—The Consumer Price Index.

# 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
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6

U.S. Passenger Car Efficiency Index



Geographic coverage: the 50 United States and District of Columbia.

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



## Energy Consumption

Total U.S. energy consumption in February 1981 dropped to 6.4 quadrillion Btu, 9.1 percent below February 1980 and a 13.8 percent decrease from the January 1981 consumption level.

The Residential and Commercial Sector consumption was 2.7 quadrillion Btu in February 1981, 14.0 percent lower than January 1981 and 4.9 percent lower than the amount consumed during February 1980. The Residential and Commercial Sector consumed 42.4 percent of the total consumption for February 1981, up from the sector's 40.5 percent share in February 1980.

The Industrial Sector consumption was 2.2 quadrillion Btu in February 1981, down 13.5 percent from January 1981 and down 13.8 percent from the consumption level in February 1980. The Industrial Sector consumed 35.2 percent of the February 1981

total, as compared to the 37.1 percent share in February 1980.

The Transportation Sector consumption was 1.4 quadrillion Btu in February 1981, down 13.9 percent from January 1981 and down 9.2 percent from the consumption level in February 1980. This sector consumed 22.3 percent of the February 1981 total, as compared to the 22.4 percent share in February 1980.

The Electric Utilities consumption was an estimated 2.0 quadrillion Btu of energy in February 1981, 10.7 percent lower than in the previous month, and 3.7 percent lower than the energy consumed in February 1980. Coal contributed 51.9 percent of the energy consumed by Electric Utilities in February 1981, while petroleum contributed 12.2 percent, hydroelectric power 12.1 percent, nuclear power 11.9 percent, natural gas 11.4 percent, and geothermal, wood, and waste 0.5 percent.

## Consumption

### Energy Consumption Summary for February 1981 Quadrillion (10<sup>15</sup>) Btu

Primary Energy Source	Sector				TOTAL
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.022	0.308	0.000	1.016	1.346
Natural Gas (dry)	1.139	0.549	0.058	0.224	1.971
Petroleum	0.330	0.647	1.364	0.239	2.580
Hydroelectric	0.000	0.003	0.000	0.237	0.239
Nuclear	0.000	0.000	0.000	0.233	0.233
Net Coke Imports	0.000	(0.001)	0.000	0.000	(0.001)
Other	0.000	0.000	0.000	0.010	0.010
<b>TOTAL PRIMARY ENERGY</b>	<b>1.491</b>	<b>1.506</b>	<b>1.422</b>	<b>1.958</b>	<b>6.377</b>
Electricity Sales	0.379	0.230	0.001	(0.609)	
Net Energy Consumption	1.870	1.736	1.423		5.029
Electrical Energy Losses	0.838	0.509	0.002	(1.349)	1.349
<b>TOTAL ENERGY CONSUMED</b>	<b>2.707</b>	<b>2.245</b>	<b>1.425</b>		<b>6.377</b>

Totals may not equal sum of components due to independent rounding.  
Notes and sources for this table and all other tables in this section are provided on the last page of this section.

# Consumption

## Consumption of Energy by the End-Use Sector<sup>1</sup>

		Residential and Commercial	Industrial	Transportation	Total Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu					
1973	<b>TOTAL</b>	<b>26.613</b>	<b>29.474</b>	<b>18.519</b>	<b>74.609</b>
1974	<b>TOTAL</b>	<b>25.974</b>	<b>28.755</b>	<b>18.026</b>	<b>72.759</b>
1975	<b>TOTAL</b>	<b>26.014</b>	<b>26.512</b>	<b>18.177</b>	<b>70.707</b>
1976	<b>TOTAL</b>	<b>27.213</b>	<b>28.230</b>	<b>19.063</b>	<b>74.510</b>
1977	<b>TOTAL</b>	<b>27.569</b>	<b>29.024</b>	<b>19.735</b>	<b>76.332</b>
1978	<b>TOTAL</b>	<b>28.159</b>	<b>29.373</b>	<b>20.612</b>	<b>78.150</b>
1979	January	3.212	2.930	1.791	7.934
	February	3.064	2.495	1.703	7.263
	March	2.678	2.542	1.772	6.993
	April	2.150	2.395	1.598	6.143
	May	1.934	2.589	1.672	6.194
	June	1.866	2.509	1.608	5.983
	July	1.953	2.560	1.604	6.117
	August	2.043	2.598	1.689	6.330
	September	1.848	2.489	1.559	5.896
	October	1.949	2.777	1.663	6.390
	November	2.138	2.796	1.601	6.535
	December	2.627	2.872	1.690	7.189
	<b>TOTAL</b>	<b>27.462</b>	<b>31.551</b>	<b>19.950</b>	<b>78.968</b>
1980	January	R2.887	R2.902	1.633	R7.423
	February	R2.845	R2.604	1.569	R7.018
	March	R2.661	R2.647	1.597	R6.906
	April	2.124	2.348	1.548	6.021
	May	1.880	2.409	1.542	5.831
	June	1.906	2.317	1.486	5.709
	July	R2.109	R2.302	1.546	R5.957
	August	2.096	R2.238	1.513	R5.847
	September	R1.959	R2.355	1.483	R5.798
	October	R1.952	R2.636	1.580	R6.168
	November	R2.122	R2.694	R1.471	R6.288
	December	R2.732	R2.841	R1.661	R7.235
	<b>TOTAL</b>	<b>R27.273</b>	<b>R30.294</b>	<b>R18.628</b>	<b>R76.201</b>
1981	January	R3.148	R2.594	R1.656	R7.398
	February	2.707	2.245	1.425	6.377
	<b>TOTAL</b> (Year-to-date)	<b>5.855</b>	<b>4.838</b>	<b>3.082</b>	<b>13.776</b>

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculations is provided in the Notes and Sources on the last page of this section.

R=Revised data.

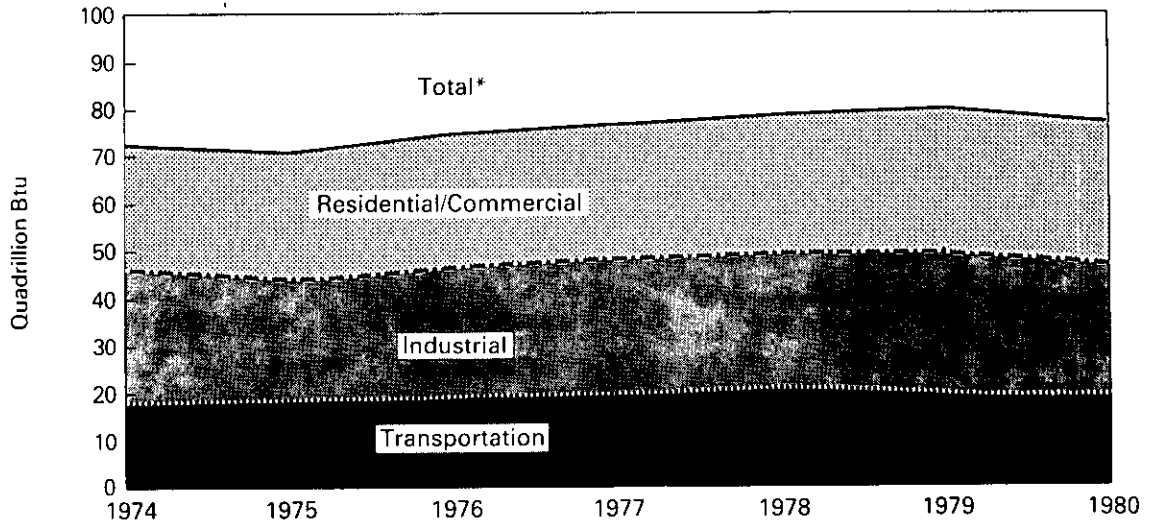
Source: \*See Notes and Sources on the last page of this section.



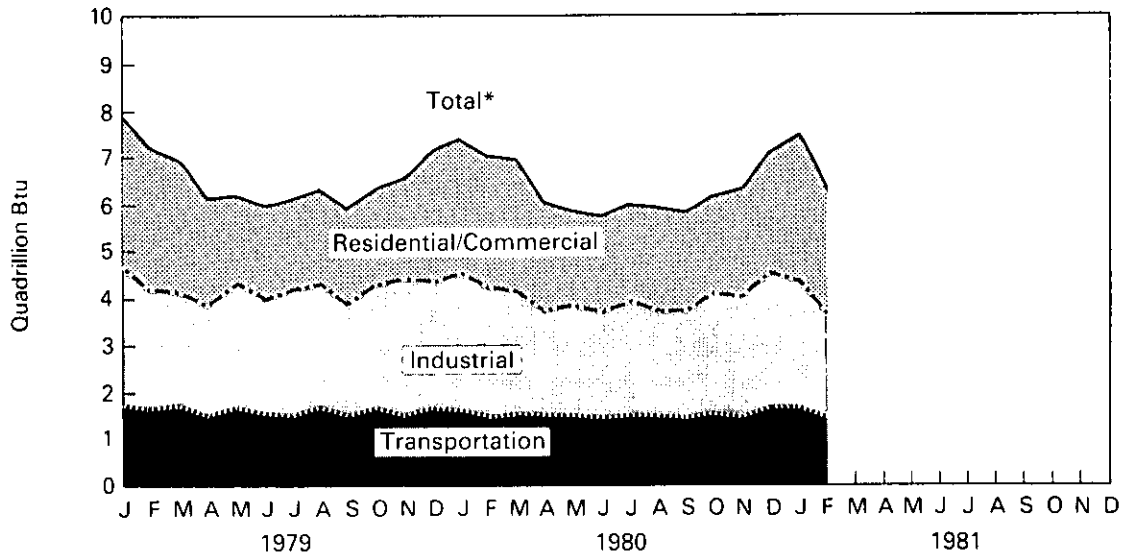
# Consumption

## Consumption of Energy by End-Use Sector

Yearly



Monthly



\*Btu consumption for all sectors were cumulated to create total.

# Consumption

## Consumption of Energy by the Residential and Commercial Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses <sup>2</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973</b>	<b>TOTAL</b>	<b>0.291</b>	<b>7.626</b>	<b>6.741</b>	<b>3.495</b>	<b>8.460</b>	<b>26.613</b>	
<b>1974</b>	<b>TOTAL</b>	<b>0.293</b>	<b>7.518</b>	<b>6.141</b>	<b>3.475</b>	<b>8.548</b>	<b>25.974</b>	
<b>1975</b>	<b>TOTAL</b>	<b>0.239</b>	<b>7.581</b>	<b>5.792</b>	<b>3.588</b>	<b>8.814</b>	<b>26.014</b>	
<b>1976</b>	<b>TOTAL</b>	<b>0.227</b>	<b>7.866</b>	<b>6.302</b>	<b>3.729</b>	<b>9.089</b>	<b>27.213</b>	
<b>1977</b>	<b>TOTAL</b>	<b>0.225</b>	<b>7.461</b>	<b>6.245</b>	<b>3.936</b>	<b>9.702</b>	<b>27.569</b>	
<b>1978</b>	<b>TOTAL</b>	<b>0.250</b>	<b>7.624</b>	<b>6.268</b>	<b>4.100</b>	<b>9.918</b>	<b>28.159</b>	
<b>1979</b>	January	0.032	1.308	0.490	0.398	0.985	3.212	3.212
	February	0.020	1.347	0.455	0.388	0.855	3.064	6.276
	March	0.015	1.027	0.411	0.352	0.873	2.678	8.955
	April	0.013	0.737	0.356	0.312	0.731	2.150	11.104
	May	0.012	0.466	0.401	0.299	0.756	1.934	13.038
	June	0.013	0.326	0.400	0.323	0.804	1.866	14.904
	July	0.012	0.263	0.402	0.365	0.911	1.953	16.857
	August	0.011	0.246	0.438	0.393	0.956	2.043	18.900
	September	0.014	0.252	0.398	0.370	0.815	1.848	20.748
	October	0.020	0.367	0.443	0.321	0.798	1.949	22.697
	November	0.023	0.613	0.406	0.315	0.781	2.138	24.836
	December	0.025	0.940	0.428	0.348	0.885	2.627	27.462
	<b>TOTAL</b>	<b>0.210</b>	<b>7.891</b>	<b>5.027</b>	<b>4.184</b>	<b>10.150</b>	<b>27.462</b>	
<b>1980</b>	January	R0.022	1.113	0.410	0.381	0.960	R2.887	R2.887
	February	R0.019	1.191	0.384	0.375	R0.875	R2.845	R5.732
	March	R0.014	1.053	0.359	0.358	0.877	R2.661	R8.394
	April	0.014	0.716	0.312	0.319	0.763	2.124	R10.518
	May	0.009	0.450	0.331	0.298	0.793	1.880	R12.398
	June	0.007	0.329	0.343	0.334	0.893	1.906	R14.304
	July	R0.010	0.259	0.355	0.410	1.075	R2.109	R16.412
	August	R0.009	0.240	0.350	0.439	1.059	2.096	R18.509
	September	0.011	0.252	0.370	0.410	0.915	R1.959	R20.467
	October	R0.015	0.370	0.396	0.343	0.829	R1.952	R22.419
	November	R0.016	0.639	R0.347	0.322	0.798	R2.122	R24.542
	December	R0.021	1.025	R0.406	0.364	R0.915	R2.732	R27.273
	<b>TOTAL</b>	<b>R0.166</b>	<b>7.637</b>	<b>R4.365</b>	<b>4.354</b>	<b>R10.752</b>	<b>R27.273</b>	
<b>1981</b>	January	0.030	1.291	R0.420	0.413	R0.994	R3.148	R3.148
	February	0.022	1.139	0.330	0.379	0.838	2.707	5.855
	<b>TOTAL</b>	<b>0.052</b>	<b>2.430</b>	<b>0.750</b>	<b>0.791</b>	<b>1.832</b>	<b>5.855</b>	
	(Year-to-date)							

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>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. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.

<sup>2</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

R=Revised data.

Source: • See Notes and Sources on the last page of this section.

# Consumption

## Consumption of Energy by the Industrial Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petroleum	Hydro-electric	Net Coke Imports <sup>2</sup>	Electricity Sales	Electrical Energy Losses <sup>3</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu										
<b>1973</b>	<b>TOTAL</b>	<b>4.350</b>	<b>10.397</b>	<b>6.683</b>	<b>0.035</b>	<b>(0.008)</b>	<b>2.341</b>	<b>5.676</b>	<b>29.474</b>	
<b>1974</b>	<b>TOTAL</b>	<b>4.057</b>	<b>10.012</b>	<b>6.506</b>	<b>0.033</b>	<b>0.059</b>	<b>2.337</b>	<b>5.751</b>	<b>28.755</b>	
<b>1975</b>	<b>TOTAL</b>	<b>3.801</b>	<b>8.531</b>	<b>6.160</b>	<b>0.032</b>	<b>0.014</b>	<b>2.304</b>	<b>5.669</b>	<b>26.512</b>	
<b>1976</b>	<b>TOTAL</b>	<b>3.792</b>	<b>8.768</b>	<b>6.951</b>	<b>0.033</b>	<b>0.000</b>	<b>2.525</b>	<b>6.162</b>	<b>28.230</b>	
<b>1977</b>	<b>TOTAL</b>	<b>3.494</b>	<b>8.642</b>	<b>7.692</b>	<b>0.033</b>	<b>0.015</b>	<b>2.635</b>	<b>6.513</b>	<b>29.024</b>	
<b>1978</b>	<b>TOTAL</b>	<b>3.462</b>	<b>8.540</b>	<b>7.840</b>	<b>0.032</b>	<b>0.131</b>	<b>2.732</b>	<b>6.637</b>	<b>29.373</b>	
<b>1979</b>	January	0.319	0.860	0.935	0.003	0.004	0.233	0.576	2.930	2.930
	February	0.298	0.602	0.850	0.003	0.003	0.231	0.509	2.495	5.425
	March	0.303	0.567	0.838	0.003	0.002	0.238	0.590	2.542	7.967
	April	0.292	0.573	0.723	0.003	0.005	0.239	0.560	2.395	10.362
	May	0.293	0.664	0.751	0.004	0.011	0.245	0.621	2.589	12.950
	June	0.285	0.641	0.714	0.003	0.010	0.245	0.611	2.509	15.459
	July	0.322	0.674	0.708	0.003	0.008	0.242	0.604	2.560	18.019
	August	0.301	0.694	0.748	0.003	0.009	0.246	0.598	2.598	20.617
	September	0.289	0.714	0.699	0.002	0.008	0.242	0.534	2.489	23.106
	October	0.300	0.841	0.780	0.002	0.004	0.244	0.605	2.777	25.883
	November	0.304	0.869	0.792	0.003	0.000	0.238	0.591	2.796	28.679
	December	0.334	0.856	0.863	0.003	0.002	0.230	0.584	2.872	31.551
	<b>TOTAL</b>	<b>3.641</b>	<b>8.554</b>	<b>9.401</b>	<b>0.034</b>	<b>0.066</b>	<b>2.873</b>	<b>6.983</b>	<b>31.551</b>	
<b>1980</b>	January	R0.316	0.858	0.911	0.003	0.003	0.230	0.580	R2.902	R2.902
	February	0.295	0.708	0.819	0.003	(0.001)	R0.234	R0.546	R2.604	R5.506
	March	R0.301	0.733	0.802	0.003	(0.003)	0.236	0.576	R2.647	R8.153
	April	0.281	0.573	0.709	0.003	(0.005)	0.232	0.556	2.348	R10.502
	May	0.275	0.602	0.695	0.003	(0.006)	0.229	0.610	2.409	R12.910
	June	0.259	0.564	0.658	0.003	(0.004)	0.228	0.608	2.317	R15.227
	July	R0.268	0.595	0.629	0.003	(0.004)	0.224	0.587	R2.302	17.529
	August	R0.252	0.574	0.627	0.002	(0.003)	0.230	0.555	R2.238	R19.767
	September	R0.240	0.666	0.685	0.002	(0.004)	0.237	0.529	R2.355	R22.122
	October	R0.258	0.846	0.727	0.002	(0.006)	0.237	0.573	R2.636	R24.758
	November	R0.271	0.872	R0.749	0.002	(0.002)	0.231	0.572	R2.694	R27.453
	December	R0.305	0.869	R0.845	0.002	(0.001)	0.234	R0.587	R2.841	R30.294
	<b>TOTAL</b>	<b>R3.320</b>	<b>8.460</b>	<b>R8.857</b>	<b>0.033</b>	<b>(0.037)</b>	<b>2.781</b>	<b>R6.879</b>	<b>R30.294</b>	
<b>1981</b>	January	R0.308	R0.713	R0.790	0.003	0.000	0.229	R0.552	R2.594	R2.594
	February	0.308	0.549	0.647	0.003	(0.001)	0.230	0.509	2.245	4.838
	<b>TOTAL</b> (Year-to-date)	<b>0.616</b>	<b>1.262</b>	<b>1.437</b>	<b>0.006</b>	<b>(0.001)</b>	<b>0.459</b>	<b>1.061</b>	<b>4.838</b>	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.

<sup>2</sup>Net Imports= imports minus exports. Parentheses indicate exports are greater than imports.

<sup>3</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

R= Revised data.

Source: \*See Notes and Sources on the last page of this section.

# Consumption

## Consumption of Energy by the Transportation Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses <sup>2</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu								
1973	<b>TOTAL</b>	0.003	0.743	17.745	0.009	0.020	18.519	
1974	<b>TOTAL</b>	0.002	0.685	17.309	0.009	0.021	18.026	
1975	<b>TOTAL</b>	0.001	0.595	17.547	0.010	0.024	18.177	
1976	<b>TOTAL</b>	( <sup>3</sup> )	0.559	18.469	0.010	0.025	19.063	
1977	<b>TOTAL</b>	( <sup>3</sup> )	0.543	19.157	0.010	0.024	19.735	
1978	<b>TOTAL</b>	( <sup>3</sup> )	0.539	20.044	0.009	0.020	20.612	
1979	January	( <sup>3</sup> )	0.073	1.715	0.001	0.002	1.791	1.791
	February	( <sup>3</sup> )	0.067	1.634	0.001	0.002	1.703	3.494
	March	( <sup>3</sup> )	0.057	1.712	0.001	0.002	1.772	5.267
	April	( <sup>3</sup> )	0.048	1.547	0.001	0.002	1.598	6.864
	May	( <sup>3</sup> )	0.043	1.626	0.001	0.002	1.672	8.536
	June	( <sup>3</sup> )	0.040	1.566	0.001	0.002	1.608	10.144
	July	( <sup>3</sup> )	0.040	1.561	0.001	0.002	1.604	11.748
	August	( <sup>3</sup> )	0.041	1.645	0.001	0.002	1.689	13.437
	September	( <sup>3</sup> )	0.040	1.516	0.001	0.002	1.559	14.996
	October	( <sup>3</sup> )	0.047	1.613	0.001	0.002	1.663	16.659
	November	( <sup>3</sup> )	0.053	1.544	0.001	0.002	1.601	18.260
	December	( <sup>3</sup> )	0.063	1.624	0.001	0.002	1.690	19.950
	<b>TOTAL</b>	( <sup>3</sup> )	0.612	19.303	0.010	0.024	19.950	
1980	January	( <sup>3</sup> )	0.069	1.561	0.001	0.002	1.633	1.633
	February	( <sup>3</sup> )	0.066	1.500	0.001	0.002	1.569	3.202
	March	( <sup>3</sup> )	0.063	1.531	0.001	0.002	1.597	4.799
	April	( <sup>3</sup> )	0.047	1.498	0.001	0.002	1.548	6.347
	May	( <sup>3</sup> )	0.041	1.498	0.001	0.002	1.542	7.889
	June	( <sup>3</sup> )	0.038	1.445	0.001	0.002	1.486	9.375
	July	( <sup>3</sup> )	0.039	1.503	0.001	0.002	1.546	10.921
	August	( <sup>3</sup> )	0.038	1.472	0.001	0.002	1.513	12.434
	September	( <sup>3</sup> )	0.039	1.441	0.001	0.002	1.483	13.917
	October	( <sup>3</sup> )	0.047	1.530	0.001	0.002	1.580	15.497
	November	( <sup>3</sup> )	0.054	R1.414	0.001	0.002	R1.471	R16.967
	December	( <sup>3</sup> )	0.065	R1.593	0.001	0.002	R1.661	R18.628
	<b>TOTAL</b>	( <sup>3</sup> )	0.606	R17.987	0.011	0.025	R18.628	
1981	January	( <sup>3</sup> )	R0.068	R1.585	0.001	0.002	R1.656	R1.656
	February	( <sup>3</sup> )	0.058	1.364	0.001	0.002	1.425	3.082
	<b>TOTAL</b> (Year-to-date)	( <sup>3</sup> )	0.126	2.949	0.002	0.004	3.082	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>The 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 Notes and Sources on the last page of this section.

<sup>2</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

<sup>3</sup>Since 1976 the amount of coal consumed by the Transportation Sector has been negligible.

R = Revised data.

Source: \*See Notes and Sources on the last page of this section.

# Consumption

## Consumption of Energy by the Electric Utilities

	Coal <sup>1</sup>	Natural Gas (Dry)	Petroleum	Hydroelectric power <sup>2</sup>	Nuclear Electric Power	Other <sup>3</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973 TOTAL</b>	<b>8.655</b>	<b>3.746</b>	<b>3.671</b>	<b>2.975</b>	<b>0.910</b>	<b>0.046</b>	<b>20.004</b>	
<b>1974 TOTAL</b>	<b>8.524</b>	<b>3.518</b>	<b>3.499</b>	<b>3.276</b>	<b>1.272</b>	<b>0.056</b>	<b>20.144</b>	
<b>1975 TOTAL</b>	<b>8.783</b>	<b>3.241</b>	<b>3.231</b>	<b>3.187</b>	<b>1.900</b>	<b>0.072</b>	<b>20.414</b>	
<b>1976 TOTAL</b>	<b>9.714</b>	<b>3.153</b>	<b>3.454</b>	<b>3.032</b>	<b>2.111</b>	<b>0.081</b>	<b>21.544</b>	
<b>1977 TOTAL</b>	<b>10.245</b>	<b>3.285</b>	<b>4.028</b>	<b>2.482</b>	<b>2.702</b>	<b>0.082</b>	<b>22.825</b>	
<b>1978 TOTAL</b>	<b>10.134</b>	<b>3.297</b>	<b>3.813</b>	<b>3.132</b>	<b>2.977</b>	<b>0.068</b>	<b>23.421</b>	
<b>1979</b>								
January	1.009	0.236	0.367	0.279	0.299	0.007	2.196	2.196
February	0.892	0.235	0.336	0.238	0.279	0.006	1.985	4.181
March	0.900	0.270	0.329	0.289	0.262	0.008	2.057	6.239
April	0.840	0.270	0.247	0.282	0.198	0.007	1.844	8.083
May	0.894	0.286	0.255	0.320	0.162	0.007	1.924	10.006
June	0.946	0.331	0.253	0.278	0.173	0.007	1.987	11.994
July	1.007	0.382	0.249	0.256	0.224	0.007	2.125	14.119
August	1.037	0.390	0.259	0.240	0.261	0.008	2.195	16.314
September	0.901	0.350	0.255	0.215	0.235	0.007	1.964	18.278
October	0.917	0.334	0.259	0.228	0.225	0.008	1.972	20.250
November	0.916	0.270	0.276	0.251	0.207	0.008	1.928	22.178
December	1.000	0.257	0.307	0.255	0.222	0.009	2.051	24.229
<b>TOTAL</b>	<b>11.258</b>	<b>3.610</b>	<b>3.392</b>	<b>3.132</b>	<b>2.748</b>	<b>0.089</b>	<b>24.229</b>	
<b>1980</b>								
January	1.073	0.286	0.295	0.282	0.213	0.008	2.156	2.156
February	1.010	0.272	0.295	0.240	0.208	0.008	2.033	4.189
March	0.992	0.293	0.269	0.272	0.216	0.008	2.050	6.239
April	0.874	0.265	0.237	0.286	0.202	0.008	1.873	8.112
May	0.890	0.291	0.225	0.319	0.198	0.010	1.933	10.045
June	0.979	0.349	0.226	0.306	0.197	0.009	2.066	12.112
July	1.124	0.435	0.230	0.273	0.226	0.010	2.299	14.410
August	1.133	0.420	0.229	0.231	0.262	0.011	2.286	16.696
September	1.021	0.369	0.231	0.210	0.254	0.010	2.095	18.791
October	0.966	0.312	0.228	0.204	0.264	0.011	1.985	20.776
November	0.975	0.256	R0.241	0.218	0.226	0.011	1.926	R22.703
December	1.081	0.242	R0.282	0.251	0.238	0.011	R2.104	R24.807
<b>TOTAL</b>	<b>12.117</b>	<b>3.791</b>	<b>R2.988</b>	<b>3.092</b>	<b>2.704</b>	<b>0.114</b>	<b>R24.807</b>	
<b>1981</b>								
January	R1.152	0.232	R0.294	0.251	0.252	0.011	R2.192	R2.192
February	1.016	0.224	0.239	0.237	0.233	0.010	1.958	4.150
<b>TOTAL</b>	<b>2.168</b>	<b>0.456</b>	<b>0.533</b>	<b>0.488</b>	<b>0.484</b>	<b>0.021</b>	<b>4.150</b>	
(Year-to-date)								

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes net imports of electricity.

<sup>3</sup>Includes geothermal power and electricity produced from wood and waste.

R = Revised data.

Source: \*See Notes and Sources on the last page of this section.

# Notes and Sources for the Consumption Section

1. See Explanatory Note 5 in the Explanatory Notes Section located at the end of this publication for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

2. **Coal:** Coal is anthracite, bituminous coal, and lignite.

- Sources:
- Anthracite—1973 through 1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Coal—Pennsylvania Anthracite, Annual," 1977 forward: U.S. Department of Energy (DOE), Energy Information Administration, (EIA) *Energy Data Reports*, "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 forward: DOE, EIA, *Energy Data Reports*, "Weekly Coal Report."
  - Electric Utility consumption of coal sources: same as Note 6 below.

3. **Natural Gas:** Total natural gas consumption is estimated monthly based on a supply/disposition balance calculation. Residential and Commercial Sector monthly consumption is estimated by allocating the EIA annual Residential and Commercial Sector consumption to the months in proportion to the American Gas Association (AGA) monthly sales to the Residential and Commercial Sectors. For incomplete years, the AGA monthly sales data are used temporarily. Monthly Transportation Sector consumption (which is natural gas for pipeline use) for complete years is estimated by allocating the EIA annual Transportation total to the months based on each month's total natural gas consumption as a share of the annual total natural gas consumption. For incomplete years, each month's Transportation total is estimated by applying the percentage of total natural gas accounted for by the Transportation Sector in the same month a year ago to the current month's total natural gas consumption. The Electric Utility consumption of natural gas is available monthly from Form 4, "Monthly Power Plant Report." Each month's Industrial Sector consumption is estimated by subtracting the Residential and Commercial, Transportation, and Electric Utilities Sectors consumption from the total natural gas consumption.

- Sources:
- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.
  - 1976 forward: DOE, *Energy Data Reports*, "Natural Gas Monthly Production and Consumption."
  - Electric Utilities consumption: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report." 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."
  - American Gas Association, "Monthly Gas Utility Statistical Report."

4. **Petroleum:** Petroleum consumption by end-use is the sum of all individual petroleum products consumed in each end-use. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review* uses the series called "products supplied" in the Petroleum Section.

Sources for petroleum products supplied by individual products are:

- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976 through 1979: DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1980 forward: DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Monthly," DOE, EIA, "Monthly Petroleum Statistics Report," and DOE, EIA, estimates for current months where above sources are not yet available.

Each product's total is allocated to end-use sectors as follows:

- Aviation gasoline—All to the Transportation Sector.
- Asphalt and road oil—All to the Commercial Sector for use by government in road maintenance.
- Distillate fuel—Allocated to the major end-use sectors in proportion to the sales of distillate fuel sold to each sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual." In summary, the sectors' proportions are created from sales groupings as follows:
  - Residential and Commercial is sales for heating;
  - Industrial is sales for industrial use, oil company use, and for miscellaneous use except for that part of the miscellaneous use which is diesel used on the highway and is part of the Transportation Sector;
  - Transportation is sales for vessel bunkering, military, railroads, and diesel used on the highway (from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, since 1979); and
  - Electric Utility is the sales to the electric utilities (except since 1979 when it is deliveries to the electric utilities from the FPC Form 423). The 1979 shares are used as estimates for succeeding periods until sales after 1979 are developed.
- Jet fuel—small amounts in 1975 through 1977 are used in industrial and small amounts in all months are consumed by the electric utilities. All remaining jet fuel is allocated to the Transportation Sector.
- Kerosene—Allocated to the major end-use sectors in proportion to the sales of kerosene sold to the Residential and Commercial Sector and the Industrial Sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual":
  - Residential and Commercial is sales for heating in the "Fuel Oil Sales, Annual."
  - Industrial is sales for "All Other Uses" in the "Fuel Oil Sales, Annual."The 1979 shares are used as estimates for succeeding periods until sales after 1979 are developed.
- Liquefied petroleum gases (LPG)—Allocated to the major end-use sectors in proportion to the sales of LPG sold to each sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual." In summary, the sectors' proportions are created from sales groupings as follows:
  - Residential and Commercial is sales for residential and commercial use;
  - Industrial is sales for industrial use, for miscellaneous uses, to utility gas companies, to chemical plants, and 84 percent of LPG sold for use as internal combustion engine fuel use; and
  - Transportation is the remaining 16 percent of LPG sold for use as internal combustion fuel use. The 1979 shares are used as estimates for the succeeding periods until sales after 1979 are developed.
- Lubricants—Allocated to the Industrial Sector and Transportation Sector for all months according to proportions of sales to those sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied from 1977 forward.
- Motor gasoline—the DOE motor gasoline consumption data are allocated to end-use according to shares derived from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24 and MF-25. In summary, the sectors' proportions are created from sales groupings as follows:
  - Residential and Commercial is sales for construction use, for miscellaneous use, for public non-highway use, and for unclassified use;
  - Industrial is sales for agriculture and industrial and commercial use as classified in the *Highway Statistics*; and
  - Transportation is sales for highway use (minus the sales of special fuels which is primarily diesel fuel and is accounted for in the Transportation Sector of distillate fuel) and sales for marine use.
- Petroleum coke consumed by the Electric Utilities—FPC, Form 4, "Monthly Power Plant Report." All other petroleum coke is allocated to the Industrial Sector.
- Residual fuel—Allocated to the major end-use sectors in proportion to the sales of residual fuel sold to each sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual." In summary, the sectors' proportions are created from sales groupings as follows:
  - No allocation for Residential Sector;
  - Sales for heating is assigned to the Commercial Sector;
  - Industrial Sector sales is the sum of sales for industrial use, oil company use, and miscellaneous uses;
  - Transportation Sector sales is the sum of sales for vessel bunkering, military, and railroads; and
  - Electric Utility is the sales to the electric utilities (except since 1979 when it is deliveries to the electric utilities from the FPC Form 423). The 1979 shares are used as estimates for succeeding periods until sales after 1979 are developed.
- All other products are allocated to the Industrial Sector.

## Notes and Sources for the Consumption Section (continued)

5. **Hydroelectric:** Includes electricity generated by hydropower at electric utilities, small amounts in the Industrial Sector, and net imports of electricity, which are assumed to be generated by hydropower and are included in the hydroelectricity in the Electric Utility Sector.

*Sources for Electric Utility Sector:*

- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
- 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

*Sources for Industrial Sector:*

- 1973 through 1978: FPC Forms 4 and 12-C.
- 1979: FPC Form 4 and EIA estimates.
- 1980 forward: EIA estimates.

Note: For 1977 forward, monthly data are not available from above sources and were estimated by seasonalizing the annual numbers in proportion to each month's hydroelectricity generation in the Electric Utility Sector.

*Sources for Imports and Exports of Electricity:* Annual Data from DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico." Monthly estimates are derived from annual data by dividing by the number of days in the year and multiplying by the number of days in the month. 1979 estimates are used for succeeding periods until later estimates are developed.

6. **Nuclear:** *Sources:* ● 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."

- 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

7. **Net Coke Imports:** Net coke imports is coke made from coal.

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

- 1976 forward: DOE, EIA, *Energy Data Reports*, "Coke and Coal Chemicals, Monthly."

8. **Other Energy:** "Other" is electricity produced from geothermal power and from wood and waste. *Sources:* same as Note 6 above, for Nuclear.

9. **Electricity Sales:** The total energy consumed by electric utilities to generate and transmit electricity to the end-users, including all losses, is allocated to the major end-users in proportion to the sales of electricity to the end-use sectors. "Other" sales, largely for use in government buildings, is allocated to the Residential and Commercial Sector, and about 4.2 percent of "Other" is for railroad usage and is counted in the Transportation Sector.

*Source of sales data:* 1973 through February 1980: FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income."

March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."

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





## Crude Oil and Refined Petroleum Products\*

In this issue of the *Monthly Energy Review*, changes have been made to the reporting of 1981 petroleum data. The feature article in the front of this report describes those changes.

Domestic crude oil production during March 1981 averaged 8.6 million barrels per day. This production rate was 1.6 percent below the rate in March 1980 and 0.4 percent lower than in February 1981.

Total petroleum imports averaged 5.8 million barrels per day in March 1981, 22.1 percent less than the March 1980 rate and 10.6 percent lower than in February 1981.

In March 1981, 15.9 million barrels per day of petroleum products were supplied for domestic use. Motor gasoline accounted for 40.3 percent of the total, distillate fuel

oil 17.9 percent, and residual fuel oil 13.6 percent.

The average for motor gasoline supplied during March 1981 averaged 6.4 million barrels per day, 0.3 percent higher than the amount supplied in March 1980 and 2.0 percent higher than in February 1981.

In March 1981, 2.9 million barrels of distillate fuel oil were supplied per day, 10.0 percent lower than the amount supplied in March a year ago and 16.8 percent lower than in February 1981. Distillate fuel oil stocks were 163.2 million barrels at the end of March 1981, 8.2 percent below the stock level 1 year ago and 5.1 percent lower than the previous month's level.

Residual fuel oil supplied in March 1981 averaged 2.2 million barrels per day, 18.4 percent lower than in March 1980. Residual fuel oil stocks measured 75.4 million barrels at the end of March 1981, 14.6 percent below the level a year ago and 3.6 percent lower than the previous month's level.

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\*Estimates for the most recent month are based on EIA weekly data (except crude production) and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent months, crude production is an EIA estimate. The above import data excludes imports into the Strategic Petroleum Reserve.

# Petroleum

## Crude Oil

		Crude Input to Refineries	Total Domestic Production <sup>1</sup> *	Alaskan Production	Crude Oil Imports <sup>2</sup>	Strategic Petroleum Reserve (SPR) Imports	Crude Oil Exports	Primary Crude Oil Stocks <sup>1</sup> **	Strategic Petroleum Reserve (SPR) Stocks
					Thousand barrels per day		Thousand barrels		
1973	<b>AVERAGE</b>	12,431	9,208	198	3,244		2	‡242,478	
1974	<b>AVERAGE</b>	12,133	8,774	193	3,477		3	‡265,020	
1975	<b>AVERAGE</b>	12,442	8,375	191	4,105		6	‡271,354	
1976	<b>AVERAGE</b>	13,416	8,132	173	5,287		8	‡285,471	
1977	<b>AVERAGE</b>	14,602	8,245	464	6,594	20	50	‡339,857	‡7,540
1978	<b>AVERAGE</b>	14,739	8,707	1,229	6,195	162	158	‡309,421	‡66,860
1979	January	14,840	8,475	1,351	6,721	204	177	302,059	73,142
	February	14,314	8,525	1,266	6,344	179	288	302,374	78,166
	March	14,260	8,601	1,355	6,252	122	370	316,690	82,501
	April	14,571	8,553	1,346	6,145	66	260	319,075	83,867
	May	14,450	8,601	1,349	6,163	97	171	316,322	86,880
	June	14,806	8,432	1,246	6,582	65	235	325,860	88,567
	July	15,098	8,364	1,405	6,561	41	244	312,946	90,101
	August	14,967	8,548	1,433	6,774	35	245	320,965	91,189
	September	14,594	8,523	1,436	6,426	0	175	323,939	91,189
	October	14,423	8,621	1,480	6,890	0	179	344,854	*91,191
	November	14,537	8,761	1,613	6,228	0	264	347,415	91,191
	December	14,877	8,615	1,519	6,318	0	215	339,074	91,191
		<b>AVERAGE</b>	14,648	8,552	1,401	6,452	67	235	
1980	January	14,298	8,648	1,634	6,359	0	311	353,611	91,191
	February	14,189	8,696	1,630	5,936	0	310	361,648	91,191
	March	13,709	8,712	1,647	5,785	0	323	361,742	91,191
	April	13,484	8,688	1,649	5,555	0	216	379,352	91,191
	May	13,326	8,640	1,628	5,071	0	308	383,902	91,191
	June	13,705	8,547	1,626	5,480	0	365	382,035	91,191
	July	13,251	8,555	1,612	4,645	0	238	379,280	91,191
	August	13,011	8,422	1,612	4,723	0	78	387,605	91,191
	September	13,312	8,619	1,610	4,653	54	322	375,989	92,824
	October	12,777	8,536	1,588	4,570	131	309	378,488	96,645
	November	R13,119	R8,499	R1,561	R4,524	142	289	R372,811	102,320
	December	R13,648	R8,609	R1,602	R4,848	198	343	R357,702	107,800
		<b>AVERAGE</b>	<b>R13,483</b>	<b>R8,597</b>	<b>R1,617</b>	<b>R5,177</b>	<b>44</b>	<b>284</b>	
1981	January†	R13,234	8,550	1,611	R4,790	106	339	R374,825	112,490
	February†	R12,851	R8,611	R1,628	R4,731	80	198	R385,098	116,057
	March†	<i>12,836</i>	<i>8,576</i>	<i>1,628</i>	<i>4,542</i>	NA	NA	<i>384,315</i>	NA
	<b>AVERAGE</b>	<b>12,978</b>	<b>8,578</b>	<b>1,622</b>	<b>4,686</b>	<b>NA</b>	<b>NA</b>		

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Includes lease condensate.

<sup>2</sup>Includes Alaskan production.

\*Excludes SPR. Strategic Petroleum Reserve storage began in October 1977.

†Beginning in January 1981, Alaskan crude oil in transit to the United States are included in Primary Crude Oil Stocks.

‡Indicates an adjustment in reported barrels in storage.

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

†Total as of December 31.

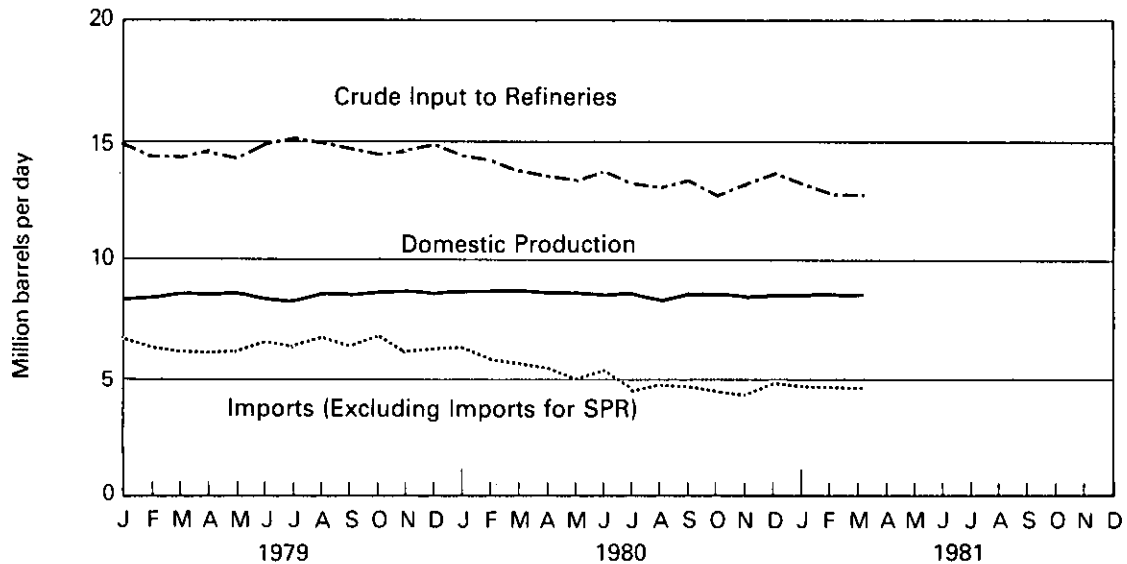
†Preliminary data. R=Revised data. NA=Not available.

Sources: \*See Sources on the last page of this section.

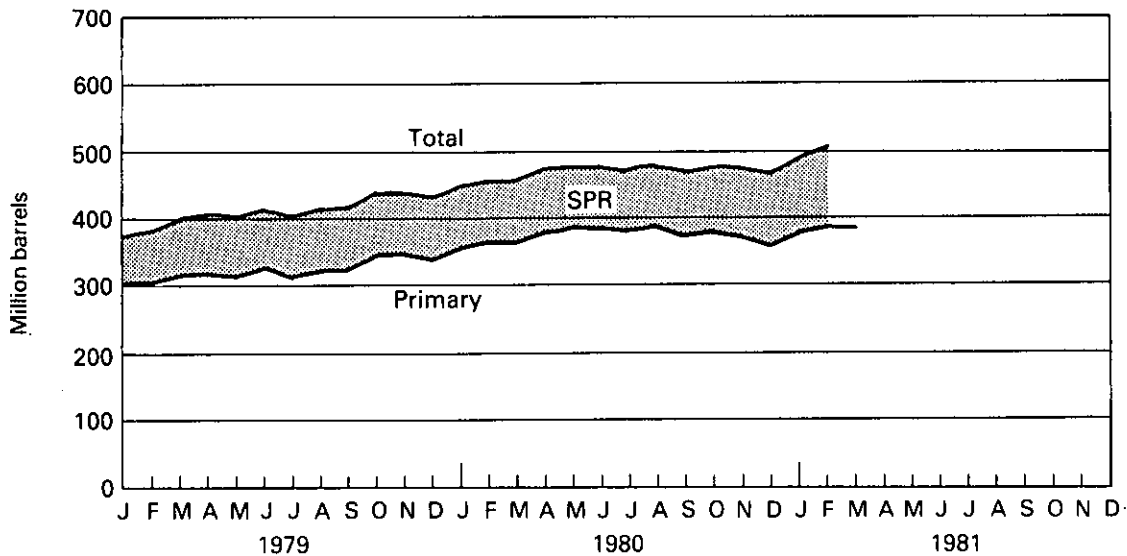
# Petroleum

## Crude Oil

Production, Refinery Input and Imports



Stocks



# Petroleum

Total Petroleum Products <sup>1</sup>				Total Crude Oil and Petroleum Products Trade				
	Products Supplied <sup>1, 2</sup>	Product Imports <sup>2, 3</sup>	Product Exports	Total Imports (Excluding SPR)	SPR Imports <sup>4</sup>	Total Imports (Including SPR) <sup>4</sup>	Total Exports	Net Imports
Thousand barrels per day				Thousand barrels per day				
<b>1973 AVERAGE</b>	<b>17,308</b>	<b>3,012</b>	<b>229</b>	<b>6,256</b>			<b>231</b>	<b>6,025</b>
<b>1974 AVERAGE</b>	<b>16,653</b>	<b>2,635</b>	<b>218</b>	<b>6,112</b>			<b>221</b>	<b>5,892</b>
<b>1975 AVERAGE</b>	<b>16,322</b>	<b>1,951</b>	<b>204</b>	<b>6,056</b>			<b>209</b>	<b>5,846</b>
<b>1976 AVERAGE</b>	<b>17,461</b>	<b>2,026</b>	<b>215</b>	<b>7,313</b>			<b>223</b>	<b>7,090</b>
<b>1977 AVERAGE</b>	<b>18,431</b>	<b>2,193</b>	<b>193</b>	<b>8,787</b>	<b>20</b>	<b>8,807</b>	<b>243</b>	<b>8,565</b>
<b>1978 AVERAGE</b>	<b>18,847</b>	<b>2,008</b>	<b>204</b>	<b>8,202</b>	<b>162</b>	<b>8,363</b>	<b>362</b>	<b>8,002</b>
<b>1979</b>								
January	20,586	2,223	215	8,944	204	9,148	392	8,756
February	21,288	2,069	198	8,413	179	8,591	486	8,105
March	19,322	2,386	241	8,638	122	8,760	611	8,150
April	17,434	1,682	234	7,828	66	7,893	493	7,400
May	17,801	1,830	257	7,993	97	8,091	429	7,662
June	17,786	1,680	233	8,262	65	8,327	468	7,859
July	17,144	1,956	242	8,517	41	8,559	486	8,072
August	18,149	1,781	221	8,555	35	8,590	466	8,124
September	17,400	1,597	239	8,023	0	8,023	414	7,609
October	18,176	1,798	246	8,688	0	8,688	425	8,263
November	18,313	1,913	246	8,141	0	8,141	510	7,631
December	18,922	2,310	256	8,628	0	8,628	471	8,157
<b>AVERAGE</b>	<b>18,513</b>	<b>1,937</b>	<b>236</b>	<b>8,389</b>	<b>67</b>	<b>8,456</b>	<b>471</b>	<b>7,985</b>
<b>1980</b>								
January	18,656	1,983	228	8,342	0	8,342	539	7,803
February	18,815	1,911	227	7,847	0	7,847	536	7,311
March	17,385	1,724	243	7,509	0	7,509	566	6,943
April	16,724	1,430	241	6,985	0	6,985	457	6,528
May	16,143	1,478	266	6,549	0	6,549	573	5,975
June	16,214	1,413	288	6,893	0	6,893	654	6,239
July	15,962	1,401	292	6,046	0	6,046	530	5,516
August	15,727	1,379	241	6,102	0	6,102	319	5,784
September	16,548	1,475	235	6,129	54	6,183	557	5,626
October	16,911	1,603	288	6,173	131	6,303	598	5,706
November	R16,694	R1,729	260	R6,252	142	R6,395	549	R5,846
December	R18,354	R1,812	279	R6,660	198	R6,858	622	R6,236
<b>AVERAGE</b>	<b>R17,006</b>	<b>R1,611</b>	<b>258</b>	<b>R6,787</b>	<b>44</b>	<b>R6,831</b>	<b>542</b>	<b>R6,290</b>
<b>1981</b>								
January†	R18,132	R1,827	202	R6,617	106	6,723	540	6,183
February†	R16,773	R1,814	354	R6,540	89	6,620	552	6,068
March†	<i>15,916</i>	<i>1,304</i>	NA	<i>5,846</i>	NA	NA	NA	NA
<b>AVERAGE</b>	<b>16,946</b>	<b>1,643</b>	<b>NA</b>	<b>6,324</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Geographic coverage: the 50 United States and the District of Columbia.

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

<sup>1</sup>See Definitions.

<sup>2</sup>Beginning in January 1981, EIA modified the definitions and designs of its monthly petroleum surveys. See Feature Article for further explanation.

<sup>3</sup>Includes plant condensate, natural gasoline and unfinished oils.

<sup>4</sup>Strategic Petroleum Reserve storage began in October 1977.

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

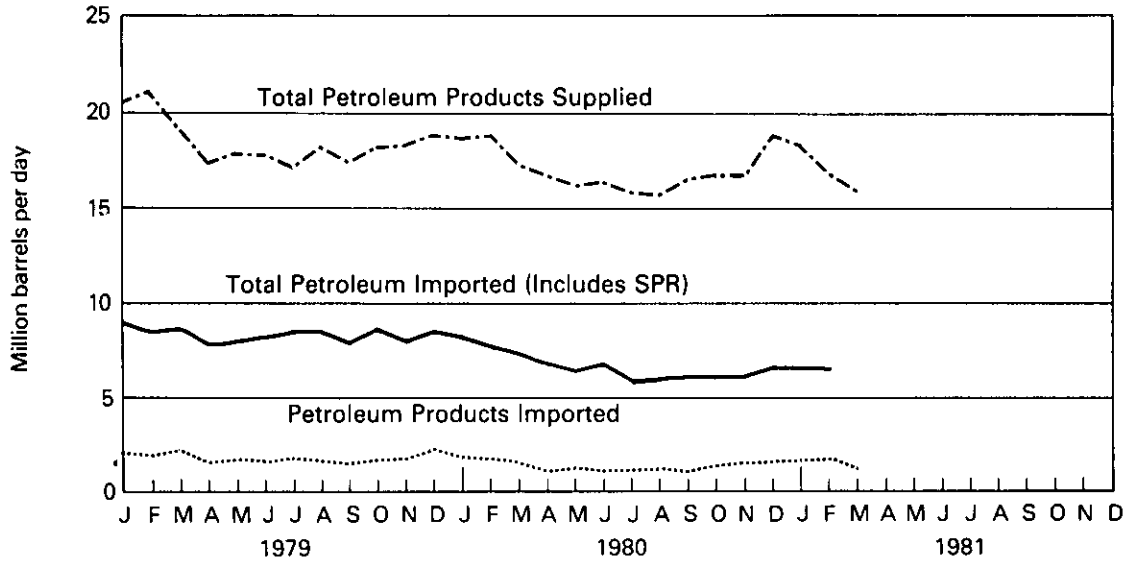
†Preliminary data. R=Revised data. NA=Not available.

Sources: \*See Sources on the last page of this section.

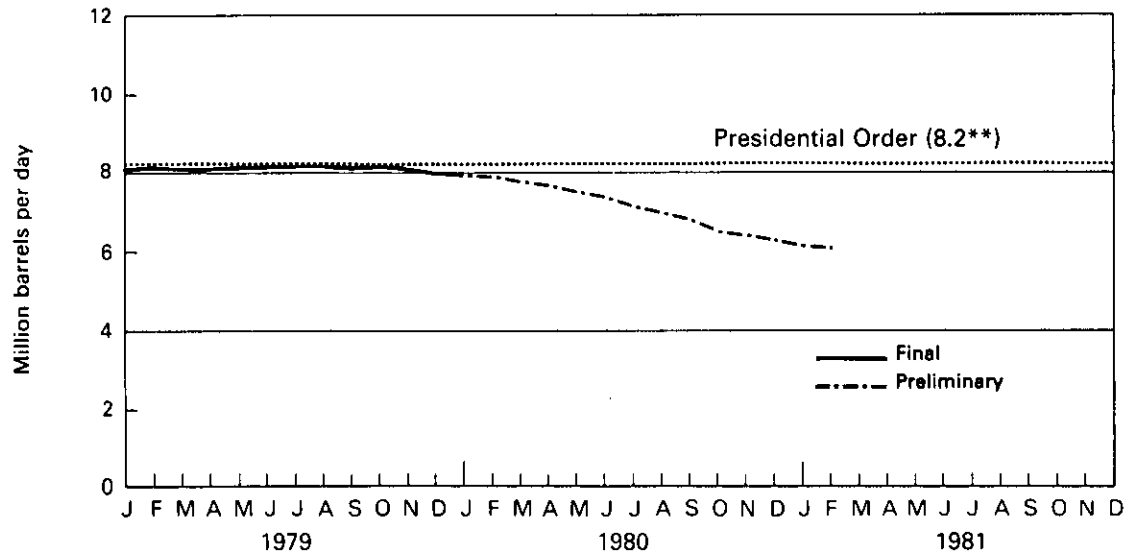
# Petroleum

## Products Supplied and Imports

### Products Supplied and Imports



### Net Imports\* of Crude Oil and Refined Products (Average for the Latest 12 Months)



\* Includes SPR.

\*\* In his January 1980 State of the Union address, President Carter announced his revised net import ceiling of 8.2 million barrels per day for 1980. The figure was previously 8.5 million barrels per day.

# Petroleum

## Petroleum Imports from OPEC Sources

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Arab Members of OPEC <sup>2</sup>
Thousand barrels per day											
<b>1973</b>											
<b>AVERAGE</b>	136	213	223	164	459	486	71	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	300	469	4	713	461	74	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	390	280	232	762	715	117	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	539	298	453	1,025	1,230	254	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	541	535	723	1,143	1,380	335	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	573	555	654	919	1,144	385	645	226	5,751	2,963
<b>1979</b>											
January	669	503	187	754	1,159	1,563	341	661	229	6,066	3,425
February	746	521	86	614	984	1,628	310	749	171	5,810	3,404
March	579	419	22	598	1,403	1,310	298	851	272	5,754	2,950
April	687	376	52	771	989	1,484	285	619	130	5,392	3,311
May	755	343	197	651	1,118	1,273	292	671	147	5,447	3,024
June	587	391	318	765	932	1,258	282	609	364	5,507	3,185
July	591	427	425	666	1,000	1,443	272	674	183	5,682	3,083
August	669	499	516	657	1,183	1,332	247	731	261	6,097	3,052
September	510	359	373	621	1,103	1,281	270	726	200	5,443	2,843
October	615	452	496	762	988	1,271	234	617	304	5,738	3,086
November	621	351	549	476	1,007	1,163	307	693	146	5,312	2,589
December	603	403	414	559	1,080	1,279	242	680	130	5,390	2,743
<b>AVERAGE</b>	<b>636</b>	<b>420</b>	<b>304</b>	<b>658</b>	<b>1,080</b>	<b>1,356</b>	<b>281</b>	<b>690</b>	<b>212</b>	<b>5,637</b>	<b>3,056</b>
<b>1980</b>											
January	484	433	80	617	1,054	1,562	202	583	179	5,195	3,001
February	639	317	9	603	1,013	1,399	304	543	140	4,967	3,016
March	472	405	0	654	924	1,390	370	352	175	4,742	2,979
April	556	374	0	683	722	1,294	150	339	228	4,346	2,866
May	441	360	0	468	955	1,149	172	405	132	4,083	2,314
June	497	331	0	561	998	1,327	178	409	105	4,408	2,598
July	537	308	0	492	721	1,179	158	411	55	3,861	2,378
August	432	289	0	431	770	1,136	142	397	98	3,695	2,205
September	375	299	0	505	735	1,112	107	425	111	3,670	2,185
October	463	348	0	476	716	1,043	182	482	52	3,762	2,178
November	R493	R348	0	R500	R599	R1,201	105	R595	R78	R3,920	R2,339
December	417	R280	0	R641	R958	R1,300	83	R610	101	R4,391	R2,460
<b>AVERAGE</b>	<b>R483</b>	<b>R341</b>	<b>8</b>	<b>R552</b>	<b>R847</b>	<b>R1,257</b>	<b>179</b>	<b>R463</b>	<b>121</b>	<b>R4,251</b>	<b>R2,541</b>
<b>1981</b>											
January†	324	407	0	485	908	1,285	93	550	27	4,079	2,187
February†	381	396	0	462	867	1,116	93	460	96	3,871	2,057
<b>AVERAGE</b>	<b>351</b>	<b>402</b>	<b>0</b>	<b>474</b>	<b>889</b>	<b>1,205</b>	<b>93</b>	<b>507</b>	<b>60</b>	<b>3,981</b>	<b>2,125</b>

Geographic coverage: the 50 United States and District of Columbia.

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

Beginning in October 1977 Strategic Petroleum Reserve imports are included.

<sup>1</sup>Includes Ecuador, Gabon, Iraq, Kuwait and Qatar.

<sup>2</sup>Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait and Qatar.

†Preliminary data. R=Revised data.

Sources: • See Sources on the last page of this section.

# Petroleum

## Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other <sup>1</sup>	Total
Thousand barrels per day									
<b>1973</b>									
<b>AVERAGE</b>	174	1,325	16	585	99	255	329	480	3,263
<b>1974</b>									
<b>AVERAGE</b>	164	1,070	8	511	90	251	391	347	2,832
<b>1975</b>									
<b>AVERAGE</b>	152	846	71	332	90	242	406	314	2,454
<b>1976</b>									
<b>AVERAGE</b>	118	599	87	275	88	274	422	382	2,247
<b>1977</b>									
<b>AVERAGE</b>	171	517	179	211	105	289	466	676	2,614
<b>1978</b>									
<b>AVERAGE</b>	160	467	318	229	94	253	429	663	2,613
<b>1979</b>									
January	159	565	595	238	109	151	477	787	3,082
February	106	561	415	255	68	191	421	764	2,782
March	94	616	397	314	64	215	562	746	3,007
April	129	578	302	179	65	156	475	619	2,502
May	135	558	403	191	102	216	382	658	2,644
June	138	469	458	172	106	169	414	895	2,820
July	193	490	407	209	117	168	451	840	2,877
August	157	464	439	246	92	238	357	499	2,493
September	149	464	431	276	86	166	286	722	2,580
October	151	486	531	242	60	200	403	876	2,950
November	169	583	429	196	110	161	438	743	2,829
December	178	619	454	257	120	240	508	862	3,238
<b>AVERAGE</b>	147	538	439	231	92	190	431	751	2,819
<b>1980</b>									
January	175	569	545	289	56	239	467	806	3,147
February	111	540	463	205	95	192	522	752	2,880
March	124	460	460	184	81	189	443	827	2,767
April	56	411	546	231	63	143	418	771	2,639
May	77	419	576	184	88	221	303	597	2,466
June	77	408	627	196	91	160	315	611	2,485
July	43	378	434	242	90	180	365	454	2,185
August	62	319	646	255	85	159	254	627	2,407
September	58	403	549	213	52	205	343	690	2,513
October	70	473	604	238	107	114	359	577	2,542
November	22	R470	R458	R267	R108	R157	391	R602	R2,475
December	54	R502	R445	212	109	149	R423	R573	R2,467
<b>AVERAGE</b>	78	R446	R530	226	85	176	383	R656	R2,580
<b>1981</b>									
January†	39	516	388	197	89	150	494	770	2,644
February†	84	488	420	227	46	163	481	840	2,749
<b>AVERAGE</b>	60	503	403	212	68	157	488	803	2,693

Geographic coverage: the 50 United States and District of Columbia.

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

Beginning in October 1977 Strategic Petroleum Reserve imports are included.

<sup>1</sup>Includes Non-OPEC Arab, Western Europe, Angola, U.S.S.R., Rumania, other Western Hemisphere and other Eastern Hemisphere.

†Preliminary data. R=Revised data.

Sources: \*See Sources on the last page of this section.

# Petroleum

## Motor Gasoline

		Product Supplied <sup>1</sup>			Imports <sup>1,2</sup>			Stocks <sup>1,2,3</sup>		
		Total	Unleaded	Unleaded	Refinery	Total	Finished	Total	Finished	
		Unleaded	Percent	Percent	Production <sup>1,3</sup>	Motor	Motor	Motor	Motor	
			of Total	of Total		Gasoline	Gasoline	Gasoline	Gasoline	
							Exports			
		Thousand barrels per day							Thousand barrels	
<b>1973</b>	<b>AVERAGE</b>	<b>6,674</b>	<b>NA</b>	<b>NA</b>	<b>6,527</b>	<b>134</b>	<b>4</b>	<b>‡209,395</b>		
<b>1974</b>	<b>AVERAGE</b>	<b>6,537</b>	<b>NA</b>	<b>NA</b>	<b>6,358</b>	<b>204</b>	<b>2</b>	<b>‡218,346</b>		
<b>1975</b>	<b>AVERAGE</b>	<b>6,675</b>	<b>NA</b>	<b>NA</b>	<b>6,518</b>	<b>184</b>	<b>2</b>	<b>‡234,925</b>		
<b>1976</b>	<b>AVERAGE</b>	<b>6,978</b>	<b>NA</b>	<b>NA</b>	<b>6,838</b>	<b>131</b>	<b>3</b>	<b>‡231,387</b>		
<b>1977</b>	<b>AVERAGE</b>	<b>7,177</b>	<b>1,976</b>	<b>27.5</b>	<b>7,031</b>	<b>217</b>	<b>2</b>	<b>‡257,578</b>		
<b>1978</b>	<b>AVERAGE</b>	<b>7,412</b>	<b>2,521</b>	<b>34.0</b>	<b>7,167</b>	<b>190</b>	<b>1</b>	<b>‡237,956</b>		
<b>1979</b>	January	6,830	2,609	38.2	7,246	179	1	256,894		
	February	7,254	2,715	37.4	6,924	160	1	252,478		
	March	7,229	2,733	37.8	6,654	168	(s)	240,007		
	April	7,055	2,786	39.5	6,770	156	1	236,600		
	May	7,213	2,751	38.1	6,792	145	(s)	228,515		
	June	7,191	2,787	38.8	7,001	261	(s)	231,014		
	July	6,902	2,789	40.4	7,002	222	(s)	241,469		
	August	7,330	2,970	40.5	6,882	148	1	232,734		
	September	6,881	2,815	40.9	6,626	135	(s)	229,542		
	October	7,020	2,802	39.9	6,483	150	(s)	218,065		
	November	6,791	2,928	43.1	6,673	182	1	220,472		
	December	6,730	2,890	42.9	6,988	263	(s)	237,082		
	<b>AVERAGE</b>	<b>7,034</b>	<b>2,798</b>	<b>39.8</b>	<b>6,837</b>	<b>181</b>	<b>(s)</b>			
<b>1980</b>	January	6,335	2,718	42.9	6,977	141	1	262,134		
	February	6,594	2,969	45.0	6,851	153	(s)	274,422		
	March	6,411	3,032	47.3	6,512	154	(s)	282,688		
	April	6,799	3,021	44.5	6,268	152	1	271,729		
	May	6,726	2,980	44.3	6,294	132	1	262,938		
	June	6,661	3,099	46.5	6,522	148	1	264,583		
	July	6,735	3,131	46.5	6,446	149	3	260,711		
	August	6,646	3,135	47.2	6,437	141	1	259,013		
	September	6,511	3,054	46.9	6,369	106	7	258,135		
	October	6,662	3,110	46.7	6,124	152	1	246,422		
	November	R6,237	3,123	R50.1	R6,456	126	(s)	R257,059		
	December	R6,628	3,421	R51.6	R6,632	121	1	R261,327		
	<b>AVERAGE</b>	<b>R6,579</b>	<b>3,067</b>	<b>46.6</b>	<b>6,492</b>	<b>140</b>	<b>1</b>			
<b>1981</b>	January†	R6,401	3,102	48.5	R6,672	R148	137	(s)	R277,724	227,297
	February†	R6,306	3,115	49.4	R6,244	R117	111	1	R284,182	228,672
	March†	6,430	NA	NA	6,308	67	NA	NA	282,637	NA
	<b>AVERAGE</b>	<b>6,381</b>	<b>NA</b>	<b>NA</b>	<b>6,413</b>	<b>110</b>	<b>NA</b>	<b>NA</b>		<b>NA</b>

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Beginning in January 1981, EIA modified the definitions and designs of its monthly petroleum surveys. Motor gasoline statistics were affected by the inclusion of gasohol in motor gasoline totals, the redefinition of motor gasoline reporting categories, and the addition of a small number of non-refinery blenders. Revised definitions break total motor gasoline into 4 categories; finished leaded, finished unleaded, gasohol, and blending components. Total motor gasoline production and product supplied are now calculated as the sum of finished leaded, finished unleaded and gasohol. For a further breakout refer to source publications. See Feature Article for further explanation.

<sup>2</sup>Total motor gasoline includes finished motor gasoline and blending components.

<sup>3</sup>See Definitions.

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. (s) = less than 500 barrels per day.

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.

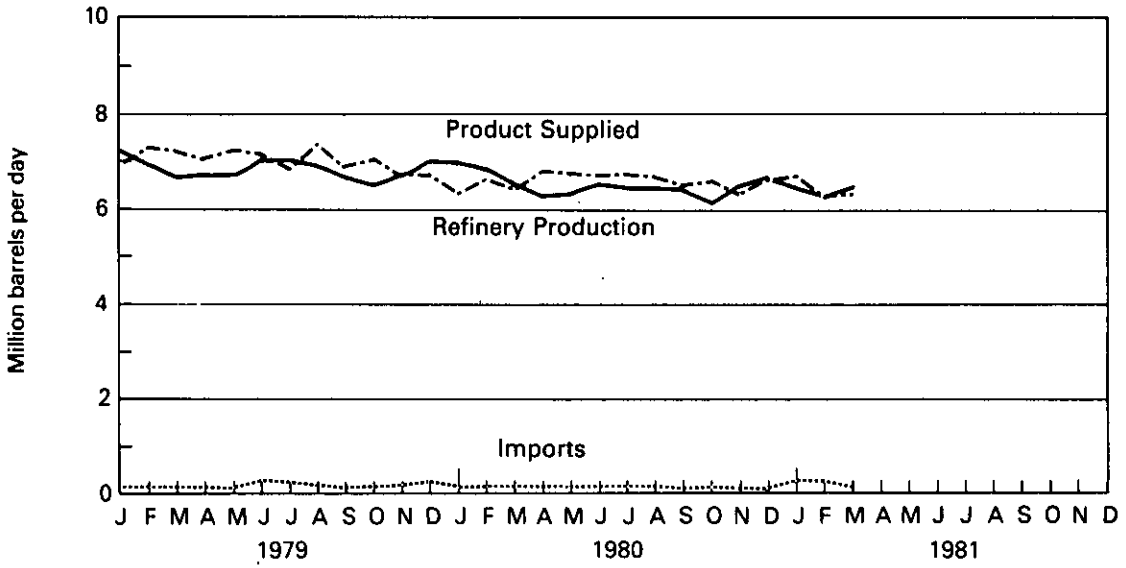
Sources: • See Sources on the last page of this section.



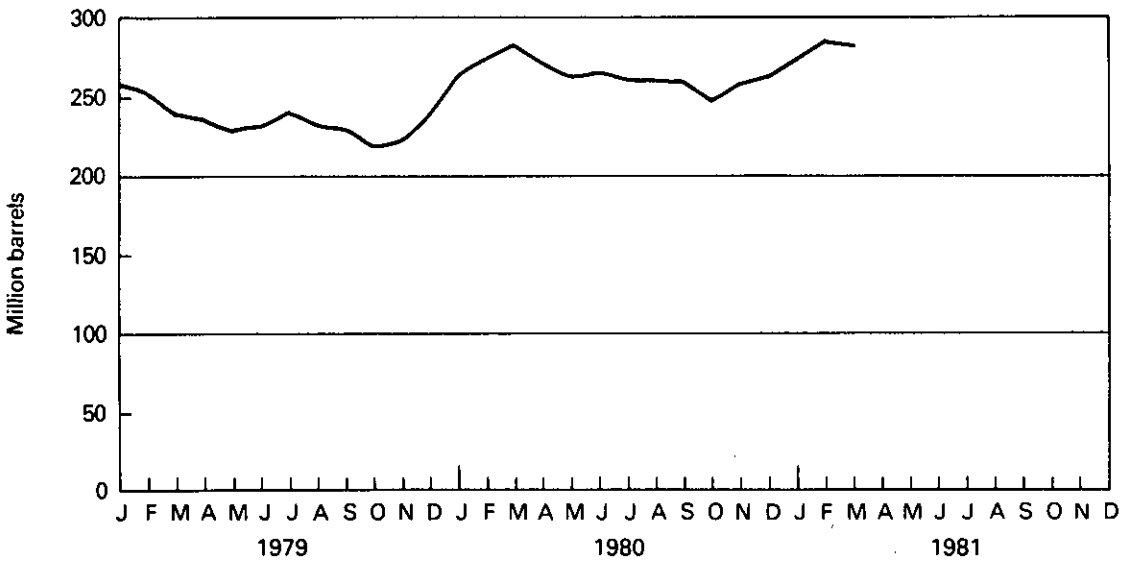
# Petroleum

## Motor Gasoline

Product Supplied, Refinery Production and Imports



Stocks



# Petroleum

## Jet Fuel

		Product Supplied	Refinery Production	Imports	Exports	Stocks
		Thousand barrels per day				Thousand barrels
<b>1973</b>	<b>AVERAGE</b>	<b>1,059</b>	<b>859</b>	<b>212</b>	<b>4</b>	<b>‡28,544</b>
<b>1974</b>	<b>AVERAGE</b>	<b>993</b>	<b>836</b>	<b>163</b>	<b>3</b>	<b>‡29,435</b>
<b>1975</b>	<b>AVERAGE</b>	<b>1,001</b>	<b>871</b>	<b>133</b>	<b>2</b>	<b>‡30,380</b>
<b>1976</b>	<b>AVERAGE</b>	<b>987</b>	<b>918</b>	<b>76</b>	<b>2</b>	<b>‡32,085</b>
<b>1977</b>	<b>AVERAGE</b>	<b>1,039</b>	<b>973</b>	<b>75</b>	<b>2</b>	<b>‡34,548</b>
<b>1978</b>	<b>AVERAGE</b>	<b>1,057</b>	<b>970</b>	<b>86</b>	<b>1</b>	<b>‡33,665</b>
<b>1979</b>	January	1,096	950	97	1	32,114
	February	1,149	998	94	1	30,475
	March	1,101	1,098	61	1	32,267
	April	980	1,043	49	1	35,581
	May	989	980	78	1	37,698
	June	1,095	958	57	1	35,301
	July	1,094	965	90	1	34,063
	August	1,085	1,040	49	1	34,136
	September	1,099	958	84	1	32,420
	October	1,055	1,046	90	(s)	34,920
	November	1,070	1,029	83	1	36,161
	December	1,103	1,072	108	1	38,520
	<b>AVERAGE</b>	<b>1,076</b>	<b>1,012</b>	<b>78</b>	<b>1</b>	
<b>1980</b>	January	1,101	1,004	95	1	38,412
	February	1,072	1,026	43	2	38,258
	March	1,116	1,031	99	2	38,661
	April	1,105	1,023	107	3	39,339
	May	1,015	1,001	79	2	41,310
	June	1,057	1,004	86	1	42,283
	July	1,110	974	93	2	40,902
	August	1,043	959	67	1	40,331
	September	1,056	1,041	77	1	42,159
	October	1,037	977	93	1	43,177
	November	R1,029	R988	R66	1	R43,921
	December	R1,083	R962	R60	1	R42,031
	<b>AVERAGE</b>	<b>R1,069</b>	<b>999</b>	<b>R81</b>	<b>1</b>	
<b>1981</b>	January†	R1,058	R949	R12	1	R39,199
	February†	R1,014	R943	R38	1	R38,247
	March†	<i>1,038</i>	<i>1,027</i>	<i>59</i>	NA	<i>39,194</i>
	<b>AVERAGE</b>	<b>1,037</b>	<b>974</b>	<b>36</b>	<b>NA</b>	

Geographic coverage: the 50 United States and District of Columbia.

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

‡Total as of December 31.

†Preliminary data. R=Revised data. NA=Not available.

(s)=Less than 500 barrels per day.

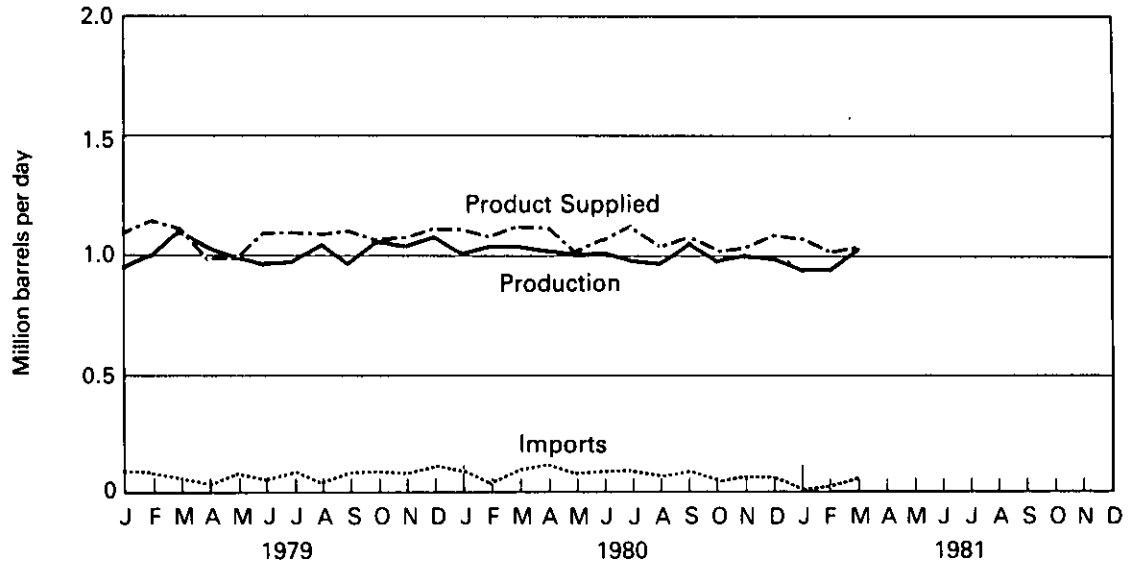
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

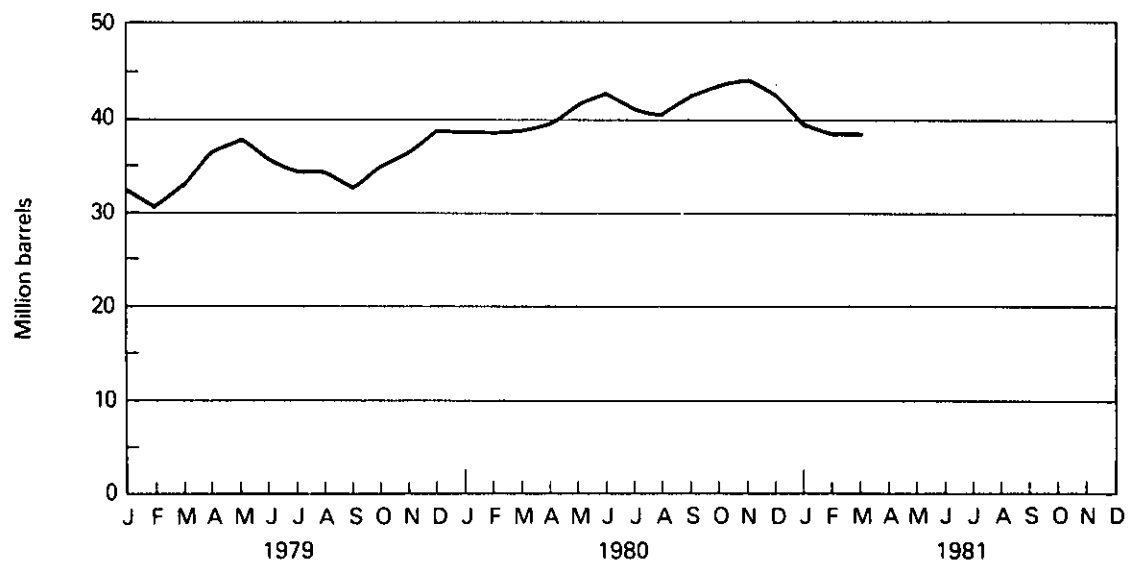
# Petroleum

## Jet Fuel

Product Supplied, Refinery Production and Imports



Stocks



# Petroleum

## Distillate Fuel Oil

		Product Supplied <sup>1</sup>	Refinery Production <sup>12</sup>	Imports	Exports	Stocks <sup>2</sup>
						Thousand barrels
						Thousand barrels per day
1973	<b>AVERAGE</b>	3,092	2,820	392	9	‡196,421
1974	<b>AVERAGE</b>	2,948	2,668	289	2	‡200,029
1975	<b>AVERAGE</b>	2,851	2,653	155	1	‡208,787
1976	<b>AVERAGE</b>	3,133	2,924	146	1	‡185,948
1977	<b>AVERAGE</b>	3,352	3,277	250	1	‡250,260
1978	<b>AVERAGE</b>	3,432	3,167	173	3	‡216,439
1979	January	4,581	3,043	226	1	175,823
	February	4,812	2,888	196	7	127,275
	March	3,664	3,019	176	1	112,275
	April	3,016	2,945	150	2	115,124
	May	2,998	3,066	185	(s)	123,042
	June	2,708	3,153	180	15	141,367
	July	2,563	3,305	225	7	171,203
	August	2,761	3,321	218	(s)	195,365
	September	2,647	3,354	126	2	220,377
	October	3,119	3,251	211	1	231,056
	November	3,247	3,239	193	(s)	236,641
	December	3,708	3,221	229	(s)	228,712
		<b>AVERAGE</b>	<b>3,311</b>	<b>3,152</b>	<b>193</b>	<b>3</b>
1980	January	3,732	3,023	179	7	212,126
	February	3,706	2,778	221	8	191,464
	March	3,171	2,564	179	19	177,659
	April	2,630	2,462	147	2	177,006
	May	2,402	2,471	126	1	183,072
	June	2,331	2,645	108	(s)	195,790
	July	2,225	2,688	117	3	213,756
	August	2,136	2,462	77	(s)	226,305
	September	2,590	2,687	101	(s)	232,310
	October	2,918	R2,589	115	(s)	225,711
	November	R2,916	R2,699	R133	(s)	R223,261
	December	R3,646	R2,892	R166	(s)	R205,113
		<b>AVERAGE</b>	<b>R2,865</b>	<b>R2,663</b>	<b>R139</b>	<b>3</b>
1981	January†	R4,074	R2,997	R227	(s)	R180,237
	February†	R3,431	R2,813	R325	17	R171,878
	March†	<i>2,854</i>	<i>2,501</i>	<i>133</i>	NA	<i>163,159</i>
	<b>AVERAGE</b>	<b>3,454</b>	<b>2,796</b>	<b>240</b>	<b>NA</b>	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Beginning in January 1981, EIA modified the definitions and designs of its monthly petroleum surveys. Distillate fuel oil production and product supplied were affected by the redesign of surveys to collect net production data (production minus input). See Feature Article for further explanation.

<sup>2</sup>See Definitions.

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

†Total as of December 31.

†Preliminary data. R=Revised data. NA=Not available.

(s)=Less than 500 barrels per day.

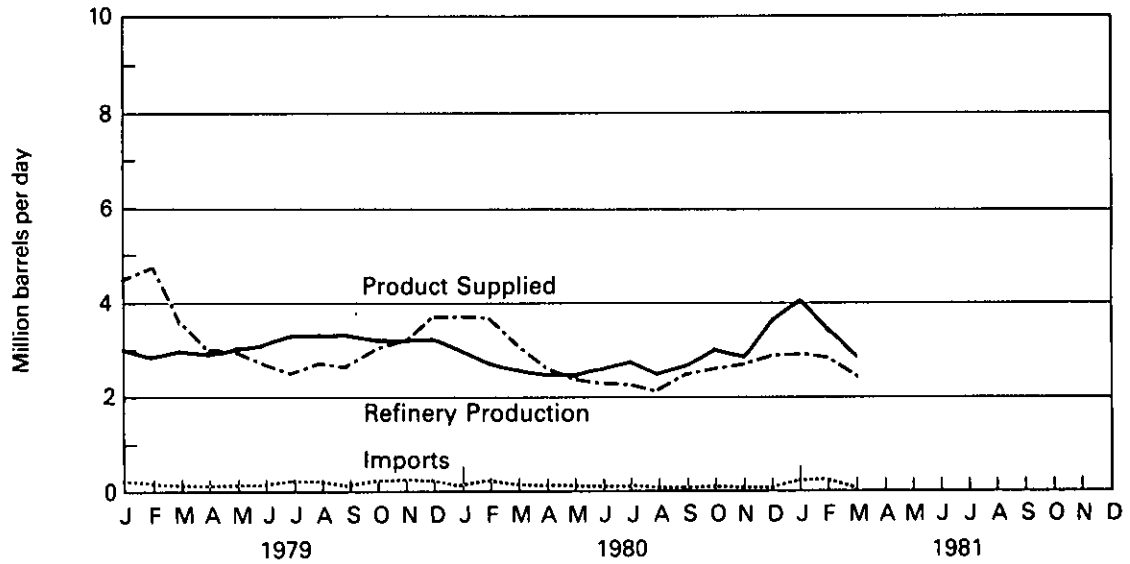
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

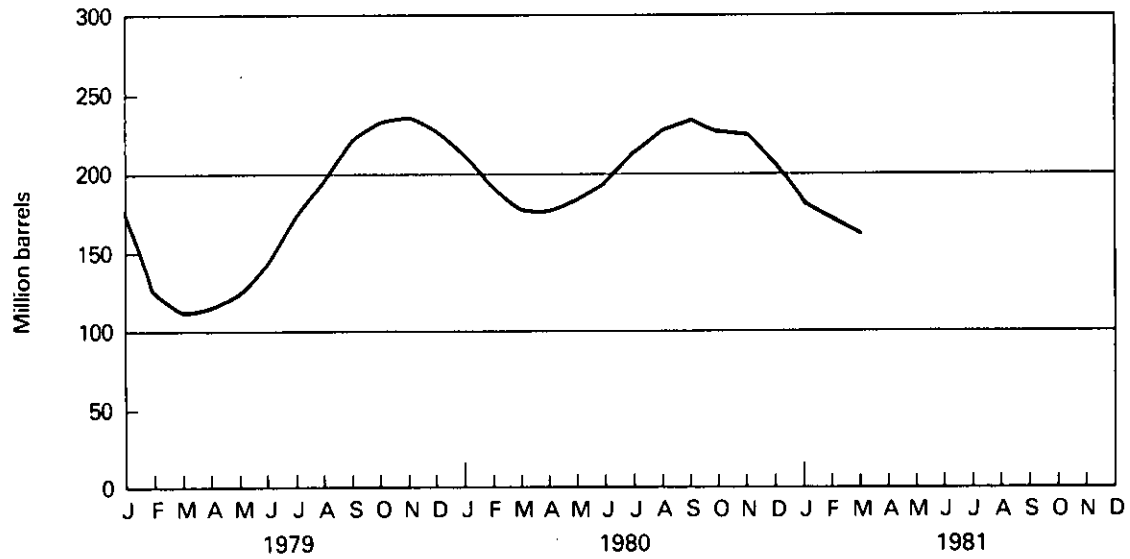
# Petroleum

## Distillate Fuel Oil

Product Supplied, Refinery Production and Imports



Stocks



# Petroleum

## Residual Fuel Oil

		Product Supplied <sup>1</sup>	Refinery Production <sup>1</sup>	Imports	Exports	Stocks
						Thousand barrels
						Thousand barrels per day
1973	<b>AVERAGE</b>	<b>2,822</b>	<b>971</b>	<b>1,853</b>	<b>23</b>	<b>‡53,480</b>
1974	<b>AVERAGE</b>	<b>2,639</b>	<b>1,070</b>	<b>1,587</b>	<b>14</b>	<b>‡59,694</b>
1975	<b>AVERAGE</b>	<b>2,462</b>	<b>1,235</b>	<b>1,223</b>	<b>15</b>	<b>‡74,126</b>
1976	<b>AVERAGE</b>	<b>2,801</b>	<b>1,377</b>	<b>1,413</b>	<b>12</b>	<b>‡72,344</b>
1977	<b>AVERAGE</b>	<b>3,071</b>	<b>1,754</b>	<b>1,359</b>	<b>6</b>	<b>‡89,993</b>
1978	<b>AVERAGE</b>	<b>3,023</b>	<b>1,667</b>	<b>1,355</b>	<b>13</b>	<b>‡90,194</b>
1979	January	3,560	1,912	1,371	6	81,853
	February	3,595	1,792	1,300	10	67,899
	March	3,239	1,719	1,642	14	71,652
	April	2,507	1,639	1,134	2	79,959
	May	2,503	1,586	1,051	8	84,261
	June	2,583	1,548	880	8	79,816
	July	2,451	1,575	1,065	5	85,907
	August	2,550	1,584	1,023	14	87,622
	September	2,609	1,627	979	2	87,789
	October	2,540	1,629	1,042	18	91,611
	November	2,815	1,736	1,046	5	90,799
	December	3,013	1,894	1,278	14	95,598
	<b>AVERAGE</b>	<b>2,826</b>	<b>1,687</b>	<b>1,151</b>	<b>9</b>	
1980	January	2,865	1,766	1,132	5	97,153
	February	3,099	1,770	1,119	17	90,959
	March	2,650	1,581	971	2	88,269
	April	2,434	1,591	769	140	85,219
	May	2,234	1,507	812	20	87,639
	June	2,324	1,575	749	14	87,657
	July	2,287	1,480	787	60	85,605
	August	2,287	1,444	875	2	86,949
	September	2,360	1,497	906	21	87,876
	October	2,224	1,513	871	70	90,989
	November	R2,430	R1,577	R1,024	88	R93,814
	December	R2,747	R1,661	R1,025	62	R90,344
	<b>AVERAGE</b>	<b>R2,493</b>	<b>R1,577</b>	<b>R920</b>	<b>33</b>	
1981	January†	R2,836	R1,609	R1,015	65	R82,863
	February†	R2,578	R1,562	R956	125	R78,214
	March†	<i>2,156</i>	<i>1,510</i>	<i>769</i>	NA	75,365
	<b>AVERAGE</b>	<b>2,524</b>	<b>1,560</b>	<b>912</b>	<b>NA</b>	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Beginning in January 1981, EIA modified the definitions and designs of its monthly petroleum surveys. Residual fuel oil production and product supplied were affected by the redesign of surveys to collect net production data (Production minus Input). See Feature Article for further explanation.

<sup>2</sup>Beginning in April 1980, residual fuel oil exports increased due to shipments of high sulfur fuel to the Caribbean to be desulfurized and returned to the United States. In July 1980, additional exports of high sulfur fuel oil began to be shipped to Asia.

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

†Total as of December 31.

‡Preliminary data. R=Revised data. NA=Not available.

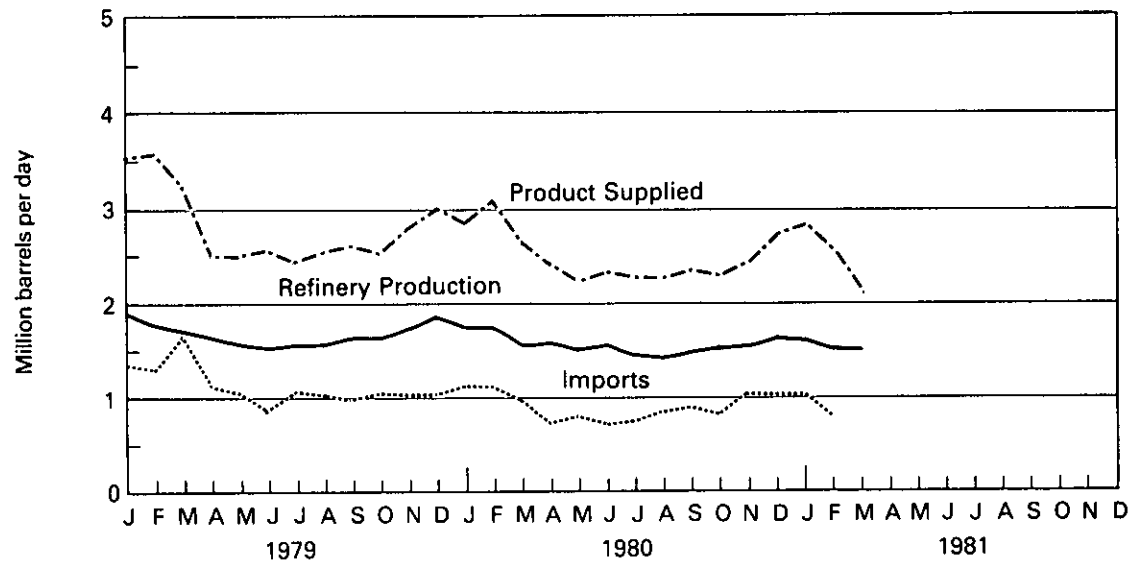
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

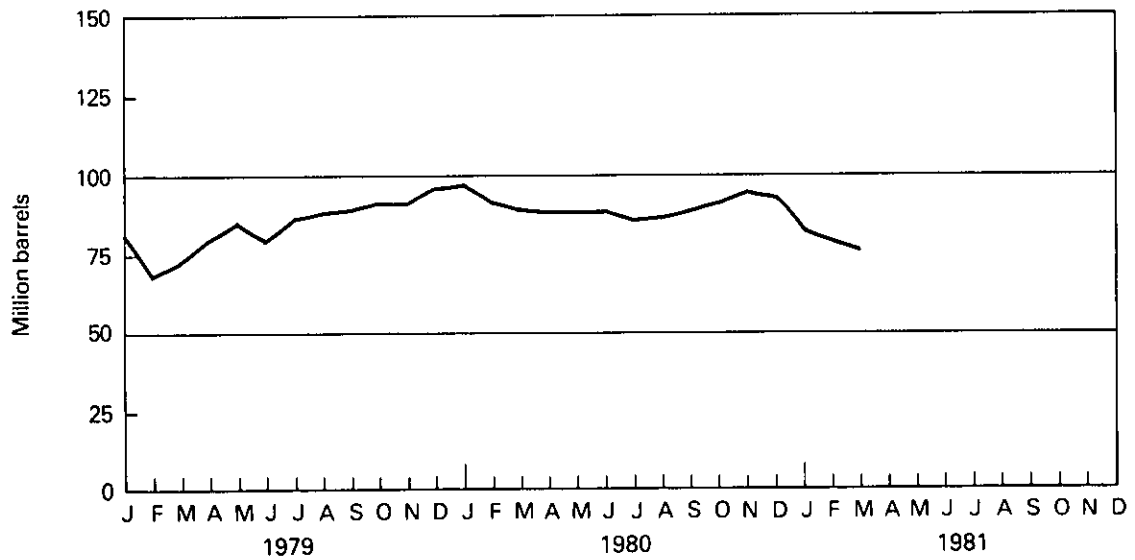
# Petroleum

## Residual Fuel Oil

Product Supplied, Refinery Production and Imports



Stocks



# Petroleum

## Natural Gas Plant Liquids, Including Liquefied Refinery Gases

	Products Supplied <sup>1,2</sup>	Production <sup>1,3</sup>		Used at Refineries <sup>1</sup>	Imports	Stocks <sup>1</sup>
		At processing plants	At refineries			
		Thousand barrels per day				
<b>1973 AVERAGE</b>	1,454	1,738	375	815	239	‡106,659
<b>1974 AVERAGE</b>	1,422	1,688	338	746	212	‡120,175
<b>1975 AVERAGE</b>	1,352	1,633	311	710	185	‡132,653
<b>1976 AVERAGE</b>	1,407	1,603	340	725	196	‡124,518
<b>1977 AVERAGE</b>	1,427	1,618	352	673	203	‡144,902
<b>1978 AVERAGE</b>	1,416	1,567	355	639	139	*‡140,052
<b>1979</b>						
January	2,158	1,530	335	597	256	127,514
February	2,101	1,561	316	572	252	111,824
March	1,788	1,548	322	538	257	106,826
April	1,522	1,611	341	469	160	110,066
May	1,471	1,570	373	476	255	117,515
June	1,379	1,571	356	455	175	125,231
July	1,408	1,564	361	444	240	134,639
August	1,501	1,575	363	461	236	140,825
September	1,529	1,565	323	450	194	143,623
October	1,701	1,607	321	506	193	140,533
November	1,880	1,676	323	586	268	134,040
December	1,930	1,626	343	572	273	125,289
<b>AVERAGE</b>	<b>1,695</b>	<b>1,584</b>	<b>340</b>	<b>504</b>	<b>230</b>	
<b>1980</b>						
January	2,021	1,647	338	698	282	110,378
February	1,843	1,651	354	572	265	105,389
March	1,573	1,569	342	518	224	106,070
April	1,212	1,626	328	507	149	117,006
May	1,376	1,555	325	428	187	124,615
June	1,385	1,559	335	386	93	133,516
July	1,218	1,513	325	455	178	143,618
August	1,244	1,514	323	417	166	153,716
September	1,463	1,510	314	463	168	155,181
October	1,612	1,498	300	501	262	152,763
November	R1,697	R1,568	R324	528	R240	R149,277
December	R1,863	R1,558	R346	R545	R299	R142,251
<b>AVERAGE</b>	<b>R1,542</b>	<b>R1,564</b>	<b>R329</b>	<b>R502</b>	<b>R218</b>	
<b>1981</b>						
January†	1,809	1,596	332	620	200	132,285
February†	1,580	1,641	384	556	205	134,358
<b>AVERAGE</b>	<b>1,700</b>	<b>1,618</b>	<b>357</b>	<b>590</b>	<b>203</b>	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 7 and Definitions.

<sup>2</sup>EIA natural gas plant coverage was expanded in January 1979 to include approximately 80 more plants. Calculated on the new basis, December 1978 closing stocks totaled 147,548 thousand barrels.

<sup>3</sup>Beginning in January 1981, EIA modified definitions and designs of its monthly petroleum surveys. See Feature Article for further explanation.

†Total as of December 31.

‡Preliminary data. R= Revised data.

Sources: • 1973 through December 1980 are shown on last page of this section.

• January 1981 through February 1981: EIA "Monthly Petroleum Statistics Report."

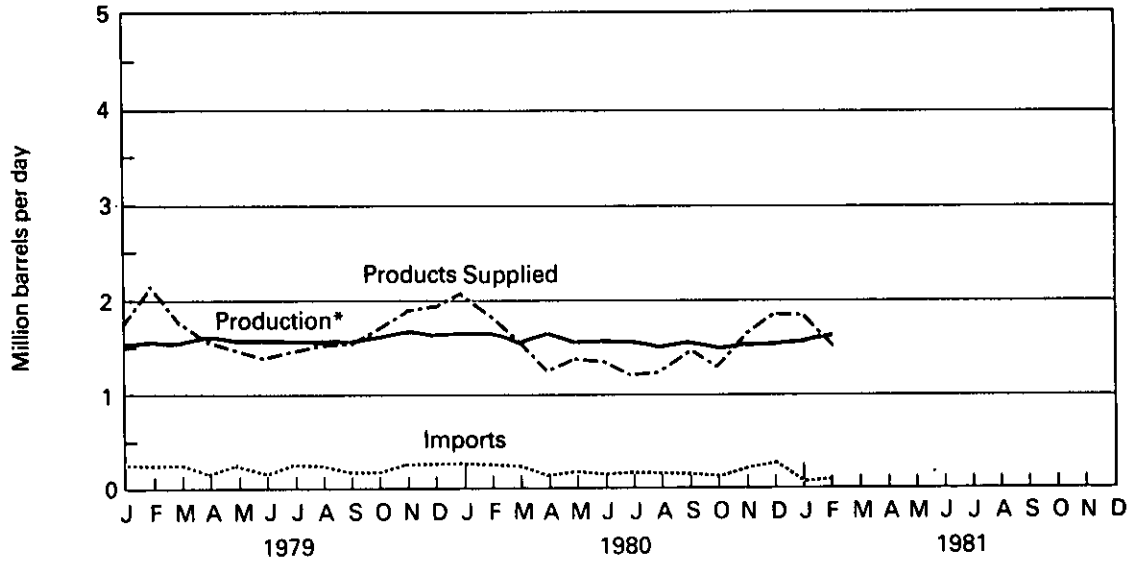
• Sources for the *Energy Data Reports* are shown on the last page of this section.



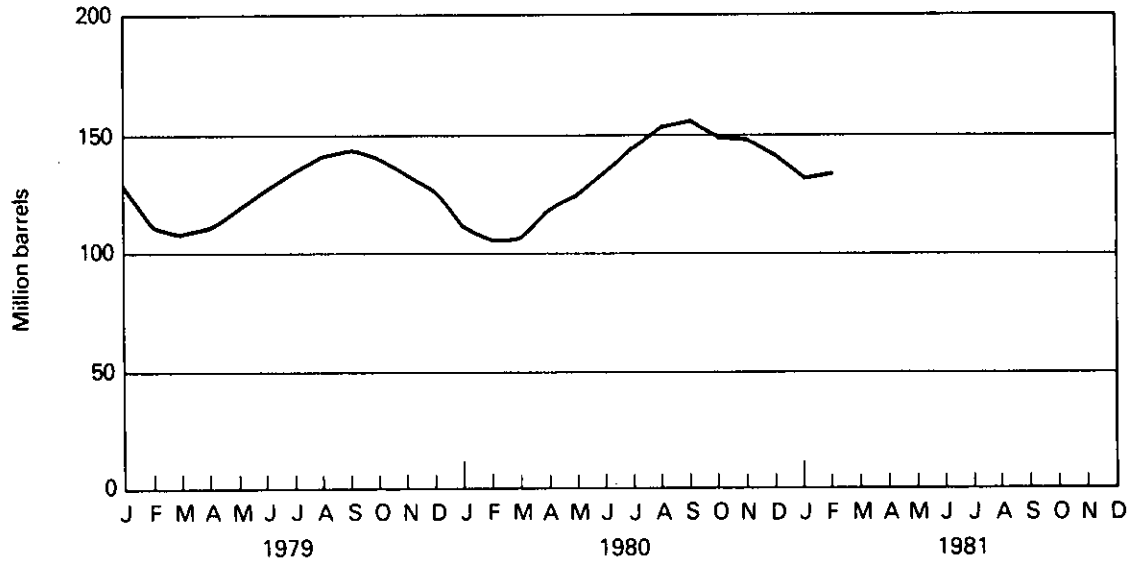
# Petroleum

## Natural Gas Plant Liquids

### Products Supplied, Production and Imports



### Stocks



\*At processing plants.

# Petroleum

## Petroleum Primary Supply Balance

	1979				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
	Thousand barrels per day				
<b>Primary Supply</b>					
Crude oil and lease condensate production	8,534	8,529	8,478	8,664	8,552
Natural gas plant liquids production	1,546	1,584	1,568	1,636	1,584
Other hydrocarbon supply	33	39	48	56	44
Crude oil imported <sup>1</sup>	6,610	6,372	6,614	6,481	6,519
Petroleum products imported <sup>2</sup>	<u>2,231</u>	<u>1,732</u>	<u>1,780</u>	<u>2,008</u>	<u>1,937</u>
Total new primary supply	18,955	18,256	18,489	18,846	18,635
Processing gain	444	513	569	581	527
Stock change—all oils <sup>3</sup>	<u>-1,586</u>	<u>+740</u>	<u>+1,077</u>	<u>+348</u>	<u>+153</u>
Total net primary supply	20,985	18,029	17,981	19,078	19,010
Unaccounted for crude oil <sup>4</sup>	-104	+125	+57	-122	-11
<b>Disposition</b>					
Crude oil and petroleum products exported	497	463	456	468	471
Crude oil losses	15	16	16	16	16
Total products supplied <sup>5</sup>	<u>20,369</u>	<u>17,675</u>	<u>17,566</u>	<u>18,472</u>	<u>18,513</u>
Total disposition	20,881	18,153	18,038	18,956	18,999
	1980				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.†	Year†
<b>Primary Supply</b>					
Crude oil and lease condensate production	8,685	8,625	8,531	8,541	8,595
Natural gas plant liquids production	1,622	1,580	1,513	1,550	1,566
Other hydrocarbon supply	56	49	44	42	48
Crude oil imported <sup>1</sup>	6,029	5,366	4,692	4,726	5,200
Petroleum products imported <sup>2</sup>	<u>1,872</u>	<u>1,440</u>	<u>1,418</u>	<u>1,629</u>	<u>1,589</u>
Total new primary supply	18,263	17,059	16,197	16,488	16,998
Processing gain	629	567	593	590	595
Stock change—all oils <sup>3</sup>	<u>-1</u>	<u>+753</u>	<u>+393</u>	<u>-764</u>	<u>+94</u>
Total net primary supply	18,893	16,873	16,398	17,843	17,500
Unaccounted for crude oil <sup>4</sup>	-57	+61	+158	+192	+89
<b>Disposition</b>					
Crude oil and petroleum products exported	547	562	468	590	542
Crude oil losses	15	14	14	14	14
Total products supplied <sup>5</sup>	<u>18,274</u>	<u>16,358</u>	<u>16,074</u>	<u>17,430</u>	<u>17,032</u>
Total disposition	18,836	16,934	16,556	18,034	17,588

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes crude oil imported for the Strategic Petroleum Reserve.

<sup>2</sup>Includes plant condensate, natural gasoline and unfinished oils.

<sup>3</sup>Includes petroleum stored in the Strategic Petroleum Reserve.

<sup>4</sup>Balancing item resulting from statistical inconsistencies.

<sup>5</sup>Includes international bunkers.

†Preliminary data. R=Revised data.

Sources: • 1979: Energy Information Administration (EIA) *Energy Data Report*, "Petroleum Statement, Annual".

• January 1980 through September 1980: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly."

• October 1980 through December 1980: EIA, "Monthly Petroleum Statistics Report" (except exports).

• Exports for October 1980 are preliminary data based on the EIA-87 and the Bureau of the Census tapes EM 522 and EM 594.

• Sources for the *Energy Data Reports* and the "Monthly Petroleum Statistics Report" are shown on the last page of this section.

## Sources for the Petroleum Section

- 1973 through 1976: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Annual" (except unleaded gasoline) and "PAD Districts Supply/Demand, Annual."
- Unleaded gasoline: — Energy Information Administration (EIA) "Monthly Petroleum Statistics Report."
- 1977 through 1979: EIA *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual".
- 1980: EIA *Energy Data Reports*, "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly."
- January 1981 through February 1981: EIA "Monthly Petroleum Statistics Report".
- Data for the most recent month are estimates based on EIA weekly data (except domestic production).
- Domestic production for the most recent month is an EIA estimate based on historical data from State Conservation Agencies and the U.S. Geological Survey.
- Sources for the *Energy Data Reports* and the "Monthly Petroleum Statistics Report" are: EIA Forms EIA-64 (Natural Gas Liquids Operations Report), EIA-87 (Refinery Report), EIA-88 (Bulk Terminals Report), EIA-89 (Pipeline Report) and EIA-90 (Crude Oil Stock Report); Economic Regulatory Administration (ERA) Forms ERA-60 (Imports) and FEA P133 (Imports from Puerto Rico); Bureau of the Census IM 145 (Imports), EM 522 (Exports), and EM 594 (Exports); U.S. Geological Survey (Crude Production) and State Conservation Agencies(Crude Production).



## Natural Gas

Consumption of natural gas in the United States during March 1981 was an estimated 1.9 trillion cubic feet (Tcf). This was 0.8 percent lower than in February 1981 and 8.8 percent less than in March 1980. Estimated consumption during the first 3 months of 1981 totaled 6.1 Tcf, 7.1 percent less than during the first quarter of 1980.

Production of dry natural gas in March 1981 was an estimated 1.7 Tcf, 7.7 percent higher than in February 1981 and 4.2 percent lower than in March 1980. Output during the first quarter of 1981 totaled 4.9 Tcf, 3.9 percent lower than during the comparable 1980 period.

Imports of natural gas in March 1981 were an estimated 78 billion cubic feet (Bcf), 27.8 percent less than in the previous March. During the first 3 months of 1981, imports of natural gas totaled an estimated 243 Bcf, 28.1 percent lower than during the comparable 1980 period. Receipts of foreign gas during the first quarter of 1981 included Algerian liquefied natural gas (LNG) equivalent to approximately 6 Bcf.

Domestic producer sales to major interstate pipelines in February 1981 totaled 873 Bcf, 2.8 percent below sales for the previous February.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of March 1981 totaled 1.6 Tcf, 1.8 percent above stocks available a year earlier. Net withdrawals from storage during March 1981 were 193 Bcf, 27.4 percent lower than during the previous March.

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\*Gas available for withdrawal.

# Natural Gas

		Production			Domestic Producer Sales to Major Interstate Pipelines	Imports	Exports
		Domestic Consumption	Marketed	Dry			
Billion cubic feet							
1973	<b>TOTAL</b>	22,049	22,648	21,731	12,067	1,033	77
1974	<b>TOTAL</b>	21,223	21,601	20,714	11,462	959	77
1975	<b>TOTAL</b>	19,538	20,109	19,237	10,652	953	73
1976	<b>TOTAL</b>	19,946	19,952	19,098	10,140	964	65
1977	<b>TOTAL</b>	19,521	20,025	19,163	9,883	1,011	56
1978	<b>TOTAL</b>	19,627	19,974	19,122	9,911	966	53
1979	January	2,426	1,771	1,702	890	102	6
	February	2,204	1,656	1,591	819	97	5
	March	1,881	1,755	1,686	907	113	5
	April	1,594	1,692	1,625	871	106	5
	May	1,429	1,716	1,648	877	104	5
	June	1,309	1,643	1,578	812	101	5
	July	1,330	1,662	1,596	851	104	6
	August	1,342	1,689	1,622	880	97	4
	September	1,329	1,635	1,570	820	98	5
	October	1,557	1,705	1,638	888	107	3
	November	1,768	1,724	1,656	921	114	3
	December	2,072	1,823	1,751	960	110	4
	<b>TOTAL</b>	<b>20,241</b>	<b>20,471</b>	<b>19,663</b>	<b>10,496</b>	<b>1,253</b>	<b>56</b>
1980	January	2,279	1,817	1,745	981	119	5
	February	2,192	1,705	1,638	898	111	3
	March	2,099	1,827	1,754	960	108	5
	April	1,568	1,667	1,601	897	91	6
	May	1,355	1,692	1,625	859	70	6
	June	1,253	1,583	1,520	794	62	5
	July	1,301	1,613	1,549	825	64	6
	August	1,246	1,572	1,510	828	60	5
	September	1,299	1,577	1,515	800	58	4
	October	1,542	1,647	1,582	894	73	3
	November	1,783	1,651	1,586	906	85	3
	December	2,156	1,794	1,723	963	93	4
	<b>TOTAL</b>	<b>20,073</b>	<b>20,145</b>	<b>19,348</b>	<b>10,605</b>	<b>994</b>	<b>55</b>
1981	January	R2,256	R1,769	R1,699	965	86	5
	February	R1,930	R1,630	R1,560	873	R79	3
	March	1,915	1,750	1,680	NA	78	4
	<b>TOTAL</b>	<b>6,101</b>	<b>5,149</b>	<b>4,939</b>	<b>NA</b>	<b>243</b>	<b>12</b>

Geographic coverage: the 50 United States and District of Columbia.

R = Revised data. NA = Not available.

Sources: • Domestic Consumption—1973 through 1975: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Natural Gas" chapter; 1976 through 1979: Energy Information Administration (EIA) *Energy Data Report*, "Natural Gas Production and Consumption"; January 1980 forward: EIA estimates based on a supply/disposition balance calculation.

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

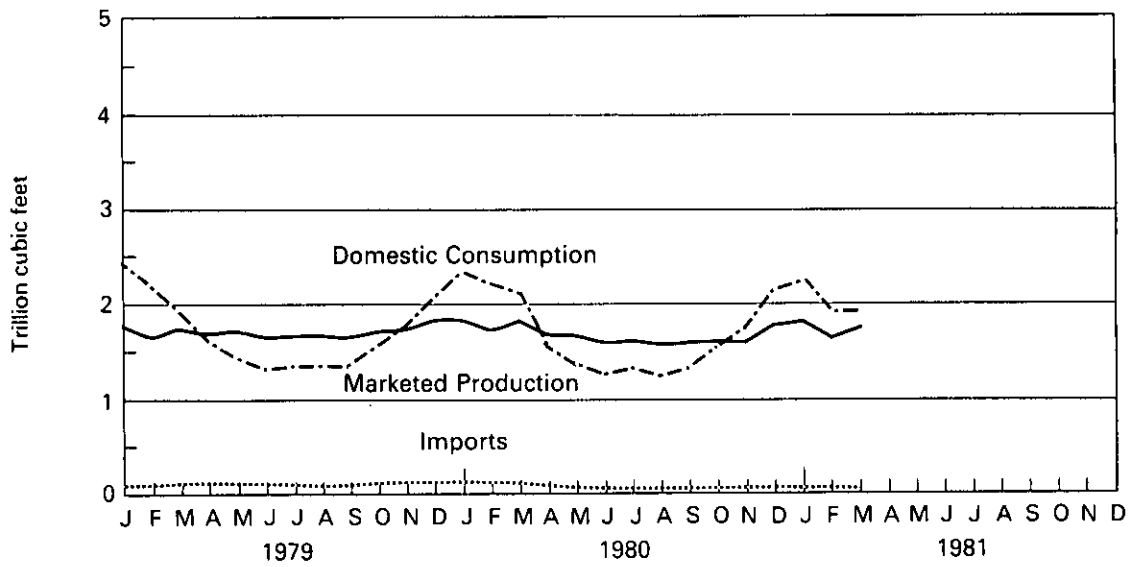
• Domestic Producer Sales—Federal Power Commission (FPC) Form 11, "Natural Gas Pipeline Company Monthly Statement."

• Imports—1973 through 1979: FPC Form 14, "Imports and Exports of Natural Gas"; January 1980 forward: EIA estimates based on import data from FPC Form 11.

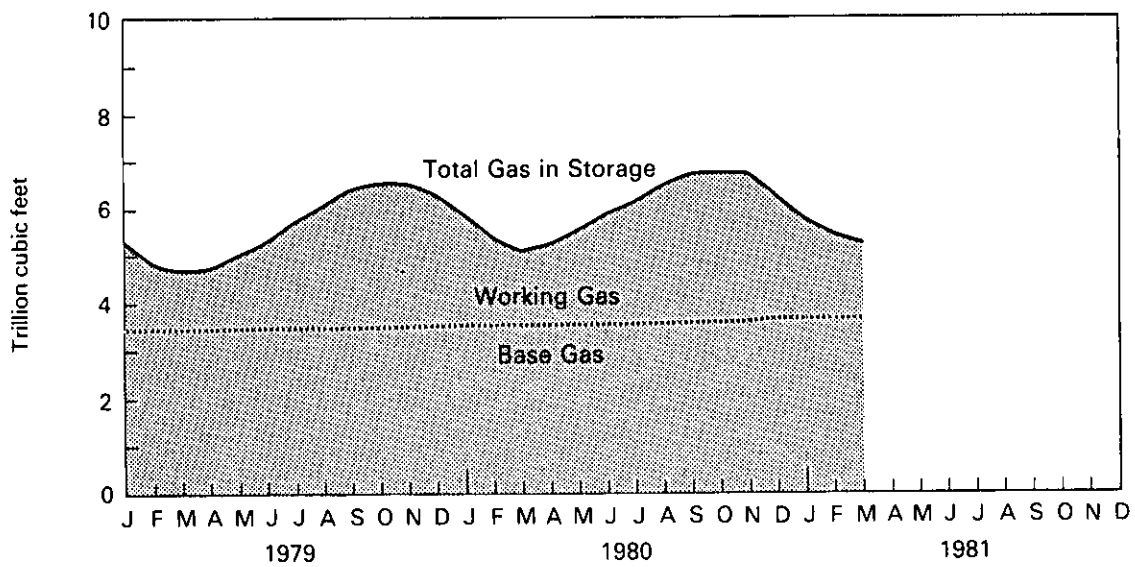
• Exports—1973 through 1979: FPC Form 14; January 1980 forward: EIA estimates based primarily on historical data reported on FPC Form 14.

# Natural Gas

Domestic Consumption, Marketed Production and Imports



Gas in Storage



# Natural Gas

## Natural Gas in Underground Storage<sup>1</sup>

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections <sup>2</sup>
Billion cubic feet							
1975	TOTAL	‡5,358	‡3,150	‡2,208	NA	NA	NA
1976	TOTAL	‡5,231	‡3,310	‡1,922	1,952	2,074	(122)
1977	TOTAL	‡5,844	‡3,377	‡2,466	2,390	1,767	623
1978	TOTAL	‡5,999	‡3,459	‡2,540	2,330	2,176	154
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	5,743	3,459	2,284	361	19	342
	August	6,095	3,467	2,628	362	12	350
	September	6,401	3,481	2,920	326	14	312
	October	6,563	3,484	3,079	196	34	162
	November	6,541	3,496	3,045	108	132	(24)
	December	6,297	3,537	2,761	53	292	(239)
1980	January	5,865	3,535	2,330	21	465	(444)
	February	5,397	3,536	1,861	24	493	(469)
	March	5,131	3,542	1,589	41	307	(266)
	April	5,227	3,547	1,680	174	78	96
	May	5,538	3,553	1,985	319	8	311
	June	5,841	3,560	2,281	316	13	303
	July	6,127	3,564	2,563	302	18	284
	August	6,444	3,594	2,850	328	30	298
	September	6,692	3,596	3,096	260	11	249
	October	6,782	3,598	3,184	141	53	88
	November	6,639	3,620	3,019	66	203	(137)
	December	6,272	3,628	2,643	34	402	(368)
1981	January	5,763	3,629	2,134	28	537	(509)
	February	5,440	3,628	1,812	62	385	(323)
	March	5,248	3,630	1,618	50	243	(193)

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 9.

<sup>2</sup>Net Storage Injections = storage injection minus storage withdrawal. Parentheses indicate withdrawal greater than injection.

‡Total as of December 31.

NA = Not available.

Source: • Energy Information Administration Form 191 and Federal Power Commission Form 8, "Underground Gas Storage Report."



# Part 5 Oil and Gas Resource Development

## Oil and Gas Resource Development

The March rotary rig count of 3,595 was the highest in U.S. drilling history. The count surpassed the previous record of 3,502 rigs the month before. This was a 35.3 percent increase over the March 1980 count of 2,658 rotary rigs.

Well completions reported in March 1981 totaled 6,404. This is a 11.1 percent increase from the number reported during March 1980.

Oil well completions reported in March 1981 (3,102 reported) were up 29.8 percent from March 1980 (2,390 reported). In March 1981, 1,424 gas well completions were reported, 22.4 percent below the March 1980 level. Dry hole completions reported increased 21.8 percent (1,878 as compared to 1,542 during the previous March). Total reported footage drilled increased 8.9 percent (30.1 million feet as compared to 27.7 million feet the year before).

There were 40 crews engaged in seismic exploratory work offshore in March 1981. This was a 37.9 percent increase from the March 1980 level. March 1981 onshore seismic activity attained a new high of 570 crews, 27.2 percent higher than activity during March 1980.

# Oil and Gas Resource Development

		Rotary Rigs In Operation	Exploratory and Development Wells Completed <sup>1</sup> <sup>2</sup>				Total Footage of Wells Completed <sup>1</sup>	
			Monthly average	Oil	Gas	Dry		Total
1973	<b>AVERAGE</b>	<b>1,194</b>	<b>TOTAL</b>	<b>9,902</b>	<b>6,385</b>	<b>10,305</b>	<b>26,592</b>	<b>136,391</b>
1974	<b>AVERAGE</b>	<b>1,475</b>	<b>TOTAL</b>	<b>12,784</b>	<b>7,240</b>	<b>11,674</b>	<b>31,698</b>	<b>150,551</b>
1975	<b>AVERAGE</b>	<b>1,660</b>	<b>TOTAL</b>	<b>16,408</b>	<b>7,580</b>	<b>13,247</b>	<b>37,235</b>	<b>174,434</b>
1976	<b>AVERAGE</b>	<b>1,656</b>	<b>TOTAL</b>	<b>17,059</b>	<b>9,085</b>	<b>13,621</b>	<b>39,765</b>	<b>181,780</b>
1977	<b>AVERAGE</b>	<b>2,001</b>	<b>TOTAL</b>	<b>18,912</b>	<b>11,378</b>	<b>14,692</b>	<b>44,982</b>	<b>210,848</b>
1978	<b>AVERAGE</b>	<b>2,259</b>	<b>TOTAL</b>	<b>17,775</b>	<b>13,064</b>	<b>16,218</b>	<b>47,057</b>	<b>227,110</b>
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	1,971		1,544	1,343	1,372	4,259	21,175
	April	1,943		1,135	1,085	926	3,146	16,019
	May	1,960		1,335	1,024	1,166	3,525	17,451
	June	1,999		1,696	1,199	1,252	4,147	19,520
	July	2,094		1,535	1,090	1,131	3,756	16,910
	August	2,222		1,529	1,245	1,366	4,140	19,555
	September	2,284		1,831	1,382	1,423	4,636	22,676
	October	2,380		1,647	1,138	1,313	4,098	19,216
	November	2,460		1,869	1,270	1,505	4,644	21,843
	December	2,552		2,390	1,736	1,891	6,017	27,098
		<b>AVERAGE</b>	<b>2,177</b>	<b>TOTAL</b>	<b>19,383</b>	<b>14,681</b>	<b>15,752</b>	<b>49,816</b>
1980	January	2,571		1,436	782	1,240	3,458	16,475
	February	2,613		1,635	1,000	1,297	3,932	18,891
	March	2,658		R2,390	R1,834	R1,542	R5,766	R27,691
	April	2,682		1,836	1,120	1,168	4,124	18,884
	May	2,797		2,061	1,080	1,202	4,343	20,034
	June	2,850		2,232	1,296	1,463	4,991	24,640
	July	2,953		2,068	1,037	1,333	4,438	21,649
	August	3,045		2,340	1,270	1,537	5,147	24,037
	September	3,099		2,636	1,721	1,761	6,118	28,168
	October	3,148		2,409	1,191	1,692	5,292	24,554
	November	3,220		2,239	1,498	1,598	5,335	25,273
	December	3,286		3,675	1,903	2,237	7,815	33,806
		<b>AVERAGE</b>	<b>2,910</b>	<b>TOTAL</b>	<b>R27,026</b>	<b>R15,730</b>	<b>R18,089</b>	<b>R60,845</b>
1981	January	3,386		1,789	971	1,360	4,120	20,195
	February	3,502		2,462	1,045	1,609	5,116	22,763
	March	3,595		3,102	1,424	1,878	6,404	30,144
	<b>AVERAGE</b>	<b>3,494</b>	<b>TOTAL</b>	<b>7,353</b>	<b>3,440</b>	<b>4,847</b>	<b>15,640</b>	<b>73,102</b>

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>These data are for well completions reported to the American Petroleum Institute during the reporting period. Excludes service wells and stratigraphic and core tests.

<sup>2</sup>Data 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.

R = Revised data.

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: American Petroleum Institute (API), "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

# Oil and Gas Resource Development

		Crews Engaged in Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore <sup>1</sup>	Onshore <sup>1</sup>	Total <sup>1</sup>
		Monthly average			Annual total		
1973	<b>AVERAGE</b>	23	227	250	258,944	127,160	386,104
1974	<b>AVERAGE</b>	31	274	305	341,784	158,629	500,413
1975	<b>AVERAGE</b>	30	254	284	309,283	150,694	459,977
1976	<b>AVERAGE</b>	25	237	262	226,303	142,926	369,229
1977	<b>AVERAGE</b>	27	281	308	124,676	120,072	244,748
1978	<b>AVERAGE</b>	25	327	352	174,607	135,899	310,506
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			
	September	30	403	433			
	October	29	407	436			
	November	31	408	439			
	December	31	419	450			
		<b>AVERAGE</b>	30	370	400	193,212	163,929
1980	January	29	439	468			
	February	29	440	469			
	March	29	448	477			
	April	31	465	496			
	May	34	468	502			
	June	39	496	535			
	July	42	514	556			
	August	44	521	565			
	September	44	523	567			
	October	41	530	571			
	November	41	531	572			
	December	40	540	580			
		<b>AVERAGE</b>	37	493	530		
1981	January	38	553	591			
	February	41	561	602			
	March	40	570	610			
	<b>AVERAGE</b>	40	561	601			

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Monthly data not available.

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



## Coal

Coal production in February 1981 was 70.3 million tons, 8.7 percent more than the 64.7 millions tons provided in February 1980.

Imports of coal in February 1981 totaled 104 thousand tons. Exports of coal in February 1981 totaled 6.8 million tons, 2.7 million tons more than the amount exported during February 1980. Coal exports were principally to Japan (15.1 percent), Italy (14.9 percent), and France (12.1 percent).

Electric utility coal consumption in February 1981 totaled 47.9 million tons, 0.8 percent more than consumption in February 1980.

Electric utility coal stocks increased from 157.1 million tons at the end of February 1980 to 175.7 million tons at the end of February 1981.

Part 6

Coal

# Coal

## Bituminous Coal, Lignite, and Anthracite

		Production	Domestic Consumption	Imports <sup>1</sup>	Exports <sup>2</sup> <sup>3</sup>	Stocks <sup>4</sup>
Thousand short tons						
1973	TOTAL	598,568	562,584	127	53,587	104,335
1974	TOTAL	610,023	558,402	2,080	60,661	96,323
1975	TOTAL	654,641	562,641	940	66,309	128,050
1976	TOTAL	684,913	603,790	1,203	60,021	134,438
1977	TOTAL	697,205	625,291	1,647	54,312	157,098
1978	TOTAL	670,164	625,225	2,953	R40,714	145,551
1979	January	57,794	61,199	186	R3,607	136,425
	February	54,810	54,463	252	R2,728	129,042
	March	66,775	54,864	123	R4,644	134,044
	April	63,937	51,601	161	R5,271	142,328
	May	69,488	54,026	112	R6,217	151,269
	June	70,698	56,025	209	R5,978	155,406
	July	53,595	60,397	88	R6,300	148,265
	August	71,616	60,750	320	R6,249	152,787
	September	64,590	54,219	180	R5,148	158,016
	October	78,563	55,719	152	R7,447	169,633
	November	68,506	55,997	130	R6,173	177,722
	December	60,762	61,263	146	R6,280	181,646
	TOTAL	781,134	680,524	2,059	R66,042	
1980	January	68,276	R63,521	121	4,460	R179,450
	February	64,678	R59,678	193	4,041	R176,808
	March	70,326	58,851	93	5,633	R176,685
	April	70,381	52,635	63	7,563	R185,367
	May	70,899	52,834	207	8,597	R193,920
	June	71,850	56,098	104	8,899	199,299
	July	61,225	R63,122	32	8,247	R185,913
	August	70,665	62,752	166	9,270	190,689
	September	72,460	57,306	2	8,364	194,467
	October	76,210	R57,774	139	9,454	201,975
	November	65,930	56,800	3	8,987	R204,436
	December	72,500	63,362	70	8,228	R204,028
	TOTAL	835,400	R702,733	1,194	91,742	
1981	January	66,447 <sup>5</sup>	NA	35	5,795	NA
	February	70,328	NA	104	6,771	NA

Geographic coverage: the 50 United States and District of Columbia.

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

See Explanatory Note 10 for methodology used to calculate domestic consumption from 1978 forward.

<sup>1</sup>Bituminous coal is the only type of coal imported during the years shown above.

<sup>2</sup>Includes exports of lignite beginning in 1978. Lignite prior to 1978 was combined with lignite briquets. Exports of lignite totaled 22,821 short tons in 1978; 26,389 short tons in 1979; and 65,064 short tons in 1980.

<sup>3</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (340,000 tons in 1980).

<sup>4</sup>Stocks held by electric utilities, coke plants, and the other Industrial Sector at the end of period. Excludes stocks at retail dealers (which are consumed by the Residential and Commercial Sectors).

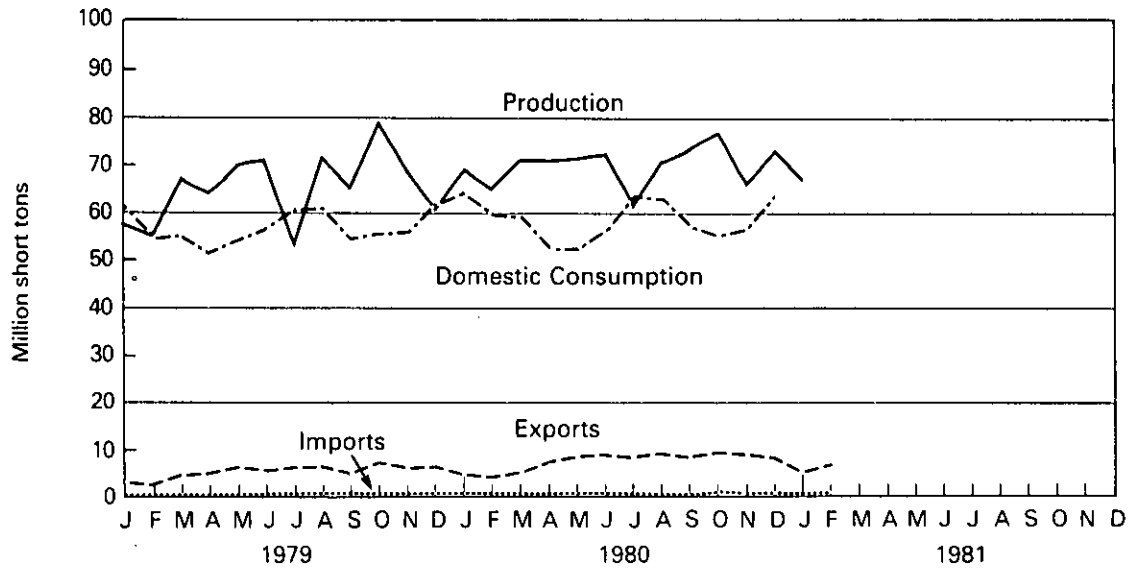
NA = Not available. R = Revised data.

Sources: • See Sources on the last page of this section.

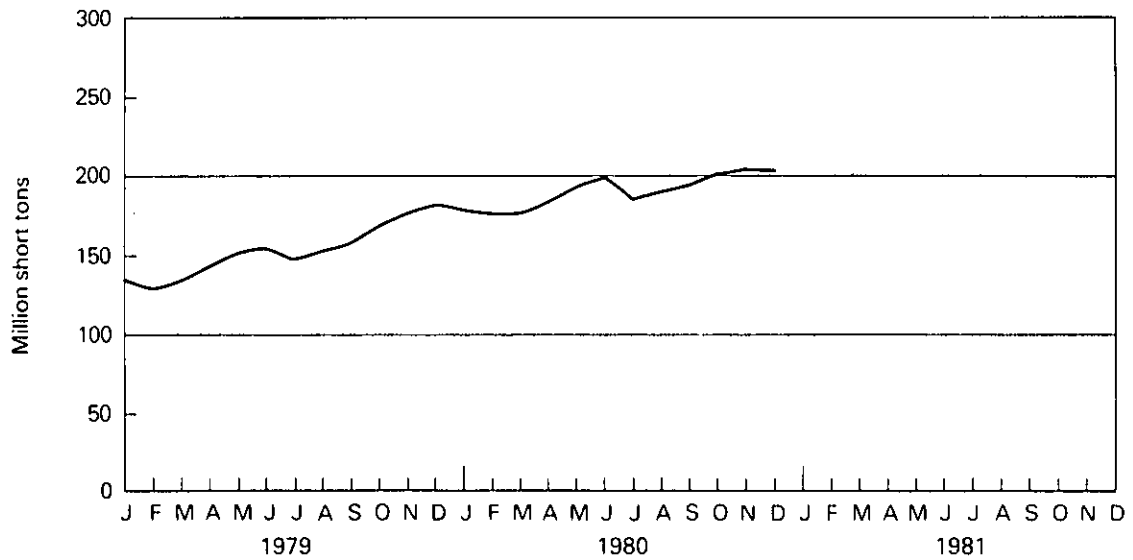
# Coal

## Bituminous Coal, Lignite, and Anthracite

### Production, Consumption, Imports, and Exports



### Stocks



# Coal

## Consumption—Bituminous Coal, Lignite, and Anthracite

		Industrial				
		Electric Utilities	Coke Plants <sup>1</sup>	Other Industrial <sup>2</sup> Including Transportation	Residential and Commercial	Total
		Thousand short tons				
1973	TOTAL	389,212	94,101	68,154	11,117	562,584
1974	TOTAL	391,811	90,191	64,983	11,417	558,402
1975	TOTAL	405,962	83,598	63,670	9,410	562,641
1976	TOTAL	448,371	84,704	61,799	8,916	603,790
1977	TOTAL	477,126	77,739	61,472	8,954	625,291
1978	TOTAL	481,235	71,394	63,085	9,511	625,225
1979	January	46,902	6,578	6,428	1,291	61,199
	February	41,891	5,954	5,836	782	54,463
	March	41,781	6,850	5,617	616	54,864
	April	38,979	6,558	5,511	553	51,601
	May	41,532	6,725	5,269	500	54,026
	June	44,008	6,470	5,034	513	56,025
	July	48,216	6,513	5,223	445	60,397
	August	48,549	6,417	5,363	421	60,750
	September	42,167	6,334	5,159	559	54,219
	October	42,970	6,404	5,565	780	55,719
	November	42,980	6,138	5,946	933	55,997
	December	47,075	6,427	6,766	995	61,263
	TOTAL	527,051	77,368	67,717	8,388	680,524
1980	January	50,371	6,342	R5,944	R864	R63,521
	February	47,512	6,010	R5,400	R756	R59,678
	March	46,685	6,428	R5,199	R539	R58,851
	April	40,692	6,247	R5,118	R578	R52,635
	May	41,464	6,127	R4,894	R349	R52,834
	June	45,821	5,326	R4,675	R276	R56,098
	July	53,655	4,903	R4,222	R342	R63,122
	August	53,214	4,878	R4,337	R323	R62,752
	September	47,913	4,794	R4,170	R429	R57,306
	October	45,092	5,107	R4,990	R585	R55,774
	November	45,698	5,152	R5,331	R619	R56,800
	December	51,157	5,346	R6,067	R792	R63,362
	TOTAL	R569,274	66,660	R60,347	R6,452	R702,733
1981	January	54,357	NA	NA	NA	NA
	February	47,914	NA	NA	NA	NA

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Bituminous coal and anthracite only. Lignite is not used at coke plants.

<sup>2</sup>See Explanatory Note 10.

R = Revised data. NA = Not available.

Sources: • See Sources on the last page of this section.



# Coal

## Stocks<sup>1</sup>—Bituminous Coal, Lignite, and Anthracite

	Electric Utilities	Industrial		Total <sup>3</sup>
		Coke Plants <sup>2</sup>	Other Industrial	
Thousand short tons				
1973	86,967	6,998	10,370	104,335
1974	83,509	6,209	6,605	96,323
1975	110,724	8,797	8,529	128,050
1976	117,436	9,902	7,100	134,438
1977	133,219	12,816	11,063	157,098
1978	128,225	8,278	9,048	145,551
1979				
January	119,948	7,647	8,830	136,425
February	114,394	6,763	7,885	129,042
March	118,542	7,561	7,941	134,044
April	125,776	8,482	8,070	142,328
May	133,793	9,228	8,248	151,269
June	136,627	10,051	8,728	155,406
July	131,095	8,306	8,864	148,265
August	134,257	9,021	9,509	152,787
September	139,129	9,036	9,851	158,016
October	149,949	9,724	9,960	169,633
November	157,737	9,983	10,002	177,722
December	159,714	10,155	11,777	181,646
1980				
January	158,717	9,634	R11,099	R179,450
February	157,124	9,263	R10,421	R176,808
March	157,625	9,317	R9,743	R176,685
April	165,817	9,579	R9,971	R185,367
May	174,029	9,692	R10,199	R193,920
June	178,959	9,913	R10,427	R199,299
July	166,806	8,427	R10,680	R185,913
August	171,891	7,866	R10,932	R190,689
September	175,067	8,213	R11,187	R194,467
October	182,045	8,488	R11,442	R201,975
November	184,133	8,606	R11,697	R204,436
December	183,010	9,067	R11,951	R204,028
1981				
January	176,975	NA	NA	NA
February	175,715	NA	NA	NA

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Stocks held by utilities, coke plants, and general industry at end of period.

<sup>2</sup>Bituminous coal and anthracite only. Lignite is not used at coke plants.

<sup>3</sup>Total excludes stocks at retail dealers (which are consumed by the Residential and Commercial Sectors).

R = Revised data. NA = Not available.

Sources: • See Sources on the last page of this section.

## Sources for the Coal Section

- 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*.
- October 1977 forward: Association of American Railroads, Statement CS54A; Commonwealth of Pennsylvania, Department of Environmental Resources, "Anthracite Mines—Monthly Tonnage, Manhour and Accident Report" and "Annual Report on Mining, Oil and Gas, and Land Reclamation and Conservation Activities"; Energy Information Administration (EIA) "Weekly Coal Report," "Bituminous Coal and Lignite Quarterly Distribution Report" (Form EIA-6), "Bituminous Coal and Lignite, Production and Mine Operation—Annual Report" (Form EIA-7), and Bureau of Mines Form 6-1385A, "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"; and Various States, Annual Coal Mining Reports.
- October 1977 forward: Domestic Consumption and Stocks: EIA, "Monthly Power Plant Report" (FPC Form 4), "Monthly Fuel Consumption Report—Manufacturing Plants" (Form EIA-3), "Coke and Coal Chemicals—Monthly/Annual" (Form EIA-5/5A), "Bituminous Coal and Lignite—Quarterly Distribution Report" (Form EIA-6) and "Monthly Coal Report, Retail Dealers and Upper Lakes Docks" (Form EIA-2).
- October 1977 forward: Imports/Exports: Bureau of the Census, Monthly Reports IM 145 (Imports) and EM 552 (Exports).

## Electric Utilities

February 1981 production of electricity by utilities was 179.6 billion kilowatt-hours, 4.8 percent below the February 1980 production level. Nuclear production totaled 21.6 billion kilowatt-hours, 12.0 percent above the February 1980 level. Coal-fired production totaled 97.7 billion kilowatt-hours, petroleum-fired production totaled 17.4 billion kilowatt-hours, natural gas-fired production totaled 21.3 billion kilowatt-hours, and hydroelectric production totaled 21.1 billion kilowatt-hours. These figures reflect decreases of 0.5, 29.6, 13.8, and 1.1 percent, respectively, below the February 1980 output levels.

Sales of electricity to all ultimate consumers in the United States in February 1981 totaled 178.6 billion kilowatt-hours, a decrease of 5.1 percent from sales of the month before and 0.1 percent below February 1980 sales. Sales to residential consumers during February 1981 were 65.6 billion kilowatt-hours, 1.7 percent above sales for the corresponding month in 1980. Commercial sales were 40.2 billion kilowatt-hours, 1.8 percent more than the

amount for February 1980. Sales to industrial consumers totaled 67.4 billion kilowatt-hours in February 1981, about 1.6 percent less than the February 1980 figure. In February 1981 other sales totaled 6.4 billion kilowatt-hours, 3.5 percent above the February 1980 level.

Electric utility petroleum consumption during February 1981 was 30.0 million barrels, a 28.8 percent decrease from the February 1980 level. Coal consumption for February 1981 was 47.9 million tons, 0.8 percent above the February 1980 rate. During February 1981, consumption of natural gas by electric utilities was 224.0 billion cubic feet, 15.1 percent below the February 1980 consumption level.

On February 28, 1981, utility stocks of anthracite, bituminous coal, and lignite totaled 175.7 million tons. Stockpiles were 11.8 percent above the levels of February 1980.

Petroleum stocks (excluding petroleum coke) on February 28, 1981, totaled 129.8 million barrels, 0.4 percent below the levels a year earlier.

# Electric Utilities

## Net Electricity Production by Primary Energy Source

		Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Nuclear	Hydro	Other <sup>3</sup>	Total
Million kilowatt-hours								
1975	<b>TOTAL</b>	<b>852,786</b>	<b>289,095</b>	<b>299,778</b>	<b>172,505</b>	<b>300,047</b>	<b>3,437</b>	<b>1,917,649</b>
1976	<b>TOTAL</b>	<b>944,391</b>	<b>319,988</b>	<b>294,624</b>	<b>191,104</b>	<b>283,707</b>	<b>3,883</b>	<b>2,037,696</b>
1977	<b>TOTAL</b>	<b>985,219</b>	<b>358,179</b>	<b>305,505</b>	<b>250,883</b>	<b>220,475</b>	<b>4,063</b>	<b>2,124,323</b>
1978	<b>TOTAL</b>	<b>975,742</b>	<b>365,060</b>	<b>305,391</b>	<b>276,403</b>	<b>280,419</b>	<b>3,315</b>	<b>2,206,331</b>
1979	January	94,986	39,474	22,093	27,792	25,021	326	209,692
	February	84,748	32,274	21,844	25,911	21,275	285	186,337
	March	85,220	22,076	24,916	24,335	25,921	382	182,849
	April	80,450	20,599	24,763	18,418	25,389	342	169,962
	May	86,149	21,470	26,135	15,025	28,939	350	178,069
	June	90,817	24,367	30,107	16,065	24,979	347	186,682
	July	97,879	25,750	34,676	20,825	22,761	364	202,255
	August	97,910	26,123	34,949	24,204	21,260	405	204,850
	September	85,664	22,509	31,442	21,804	18,978	354	180,751
	October	87,528	20,279	30,419	20,934	20,167	389	179,716
	November	87,456	23,380	24,661	19,255	22,367	387	177,506
	December	96,230	25,223	23,481	20,586	22,727	456	188,703
		<b>TOTAL</b>	<b>1,075,037</b>	<b>303,525</b>	<b>329,485</b>	<b>255,155</b>	<b>279,783</b>	<b>4,387</b>
1980	January	103,258	24,986	26,349	19,746	25,278	388	200,005
	February	98,151	24,781	24,755	19,277	21,378	373	188,715
	March	95,386	20,415	26,891	20,039	24,332	401	187,464
	April	83,562	16,025	24,181	18,794	25,748	410	168,720
	May	84,884	16,545	26,587	18,385	28,865	468	175,734
	June	93,692	18,020	31,295	18,322	27,656	445	189,430
	July	108,457	23,289	39,063	21,024	24,469	475	216,776
	August	107,580	24,885	37,647	24,333	20,431	517	215,393
	September	97,557	17,815	33,580	23,572	18,491	469	191,485
	October	91,196	15,858	28,592	24,510	17,866	533	178,555
	November	93,501	19,989	24,338	20,984	19,217	520	178,550
	December	104,339	23,386	22,961	22,130	22,290	506	195,613
		<b>TOTAL</b>	<b>1,161,562</b>	<b>245,994</b>	<b>346,240</b>	<b>251,116</b>	<b>276,021</b>	<b>5,506</b>
1981	January	111,148	25,724	22,081	23,368	22,355	540	205,217
	February	97,653	17,444	21,339	21,595	21,134	483	179,648
	<b>TOTAL</b>	<b>208,801</b>	<b>43,168</b>	<b>43,420</b>	<b>44,963</b>	<b>43,489</b>	<b>1,023</b>	<b>384,865</b>

Geographic coverage: the 50 United States and District of Columbia.  
Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

<sup>3</sup>Includes geothermal, wood and waste.

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

# Electric Utilities

## Electricity Sales<sup>1</sup>

		Residential	Commercial	Industrial	Other <sup>2</sup>	Total
Million kilowatt-hours						
<b>1973</b>	<b>TOTAL</b>	<b>579,231</b>	<b>386,266</b>	<b>686,085</b>	<b>59,326</b>	<b>1,712,909</b>
<b>1974</b>	<b>TOTAL</b>	<b>578,184</b>	<b>384,826</b>	<b>684,875</b>	<b>58,039</b>	<b>1,705,924</b>
<b>1975</b>	<b>TOTAL</b>	<b>584,712</b>	<b>401,674</b>	<b>675,271</b>	<b>68,153</b>	<b>1,729,810</b>
<b>1976</b>	<b>TOTAL</b>	<b>602,863</b>	<b>423,639</b>	<b>739,965</b>	<b>69,557</b>	<b>1,836,024</b>
<b>1977</b>	<b>TOTAL</b>	<b>641,134</b>	<b>444,931</b>	<b>772,291</b>	<b>70,487</b>	<b>1,928,845</b>
<b>1978</b>	<b>TOTAL</b>	<b>671,094</b>	<b>459,908</b>	<b>800,656</b>	<b>73,152</b>	<b>2,004,814</b>
<b>1979</b>	January	69,939	40,362	68,324	6,762	185,387
	February	67,842	39,865	67,632	6,176	181,515
	March	59,314	38,123	69,783	6,029	173,249
	April	50,079	35,930	69,944	5,604	161,557
	May	45,730	36,398	71,798	5,625	159,551
	June	49,556	39,689	71,919	5,696	166,860
	July	58,606	42,773	70,984	5,976	178,339
	August	64,808	44,199	71,956	6,346	187,310
	September	59,703	42,498	71,014	6,425	179,641
	October	49,505	38,820	71,472	6,151	165,948
	November	49,617	36,711	69,780	6,163	162,271
	December	58,120	37,939	67,297	6,117	169,473
	<b>TOTAL</b>	<b>682,819</b>	<b>473,307</b>	<b>841,903</b>	<b>73,070</b>	<b>2,071,101</b>
<b>1980</b>	January	65,841	39,578	67,532	6,634	179,585
	February	R64,514	R39,528	R68,508	6,171	R178,720
	March	60,497	38,784	69,058	6,028	174,368
	April	51,749	36,436	68,007	5,510	161,703
	May	45,699	36,110	67,235	5,807	154,851
	June	52,267	40,129	66,739	5,737	164,872
	July	68,611	45,525	65,531	6,215	185,882
	August	74,893	47,679	67,377	6,255	196,205
	September	67,969	46,028	69,570	6,572	190,139
	October	54,012	40,478	69,414	6,174	170,078
	November	50,539	37,954	67,613	6,068	162,174
	December	60,775	39,846	68,517	6,469	175,607
	<b>TOTAL</b>	<b>R717,366</b>	<b>R488,078</b>	<b>R815,101</b>	<b>73,640</b>	<b>R2,094,185</b>
<b>1981</b>	January	72,240	42,120	67,087	6,830	188,277
	February	65,588	40,244	67,394	6,387	178,613

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Electricity sales to all ultimate consumers.

<sup>2</sup>Includes street lighting and transportation uses.

R = Revised data.

Source: \*1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulatory Commission Form 5, "Electric Utility Company Monthly Statement."

# Electric Utilities

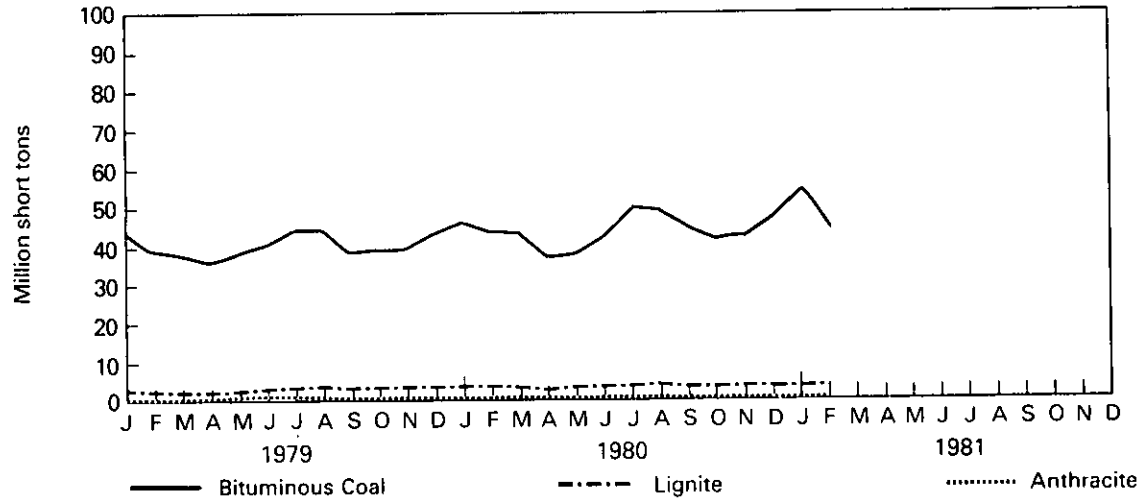
## Primary Energy Consumed to Produce Electricity

		Coal				Petroleum				Natural Gas
		Anthracite	Bituminous Coal	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Total	Coke	
		Thousand short tons				Thousand barrels			Thousand short tons	Million cubic feet
<b>1973</b>	<b>TOTAL</b>	<b>1,443</b>	<b>376,975</b>	<b>10,794</b>	<b>389,212</b>	<b>513,190</b>	<b>47,058</b>	<b>560,248</b>	<b>507</b>	<b>3,660,172</b>
<b>1974</b>	<b>TOTAL</b>	<b>1,498</b>	<b>378,643</b>	<b>11,670</b>	<b>391,811</b>	<b>483,146</b>	<b>53,128</b>	<b>536,274</b>	<b>625</b>	<b>3,443,428</b>
<b>1975</b>	<b>TOTAL</b>	<b>1,480</b>	<b>388,523</b>	<b>15,960</b>	<b>405,962</b>	<b>467,221</b>	<b>38,907</b>	<b>506,128</b>	<b>70</b>	<b>3,157,669</b>
<b>1976</b>	<b>TOTAL</b>	<b>1,350</b>	<b>425,205</b>	<b>21,817</b>	<b>448,371</b>	<b>514,077</b>	<b>41,843</b>	<b>555,920</b>	<b>68</b>	<b>3,080,868</b>
<b>1977</b>	<b>TOTAL</b>	<b>1,425</b>	<b>451,051</b>	<b>24,650</b>	<b>477,126</b>	<b>574,869</b>	<b>48,837</b>	<b>623,706</b>	<b>98</b>	<b>3,191,200</b>
<b>1978</b>	<b>TOTAL</b>	<b>1,064</b>	<b>448,763</b>	<b>31,407</b>	<b>481,235</b>	<b>588,319</b>	<b>47,520</b>	<b>635,839</b>	<b>398</b>	<b>3,188,363</b>
<b>1979</b>	January	89	43,791	3,021	46,902	62,226	6,244	68,470	33	228,479
	February	75	39,010	2,806	41,891	51,655	4,959	56,614	32	226,896
	March	65	38,865	2,852	41,781	36,371	1,872	38,243	22	260,351
	April	66	36,362	2,551	38,979	33,800	1,682	35,482	15	260,974
	May	106	38,669	2,757	41,532	35,285	2,053	37,338	23	277,318
	June	103	40,882	3,023	44,008	39,258	2,314	41,572	25	320,196
	July	96	44,391	3,730	48,216	41,895	2,413	44,308	23	369,318
	August	97	44,553	3,899	48,549	42,478	2,416	44,894	23	375,370
	September	86	38,920	3,162	42,167	36,768	1,747	38,515	17	338,308
	October	75	39,634	3,261	42,970	33,445	1,132	34,577	16	323,082
	November	92	39,571	3,317	42,980	37,822	1,954	39,776	18	260,982
	December	96	43,480	3,499	47,075	41,601	1,906	43,507	20	249,249
	<b>TOTAL</b>	<b>1,046</b>	<b>488,129</b>	<b>37,876</b>	<b>527,051</b>	<b>492,606</b>	<b>30,691</b>	<b>523,297</b>	<b>268</b>	<b>3,490,523</b>
<b>1980</b>	January	74	46,518	3,779	50,371	40,695	2,197	42,892	54	276,743
	February	72	43,969	3,471	47,513	40,231	1,919	42,150	21	263,771
	March	83	43,244	3,357	46,685	33,406	1,379	34,785	13	283,945
	April	71	37,971	2,651	40,692	26,867	673	27,540	7	256,606
	May	86	38,116	3,262	41,464	26,991	840	27,831	11	281,886
	June	89	42,073	3,658	45,821	29,551	1,138	30,689	11	336,894
	July	93	49,815	3,746	53,655	37,297	2,791	40,088	11	420,339
	August	80	49,077	4,057	53,214	40,019	2,833	42,852	15	405,343
	September	84	44,487	3,342	47,913	29,367	1,286	30,653	11	357,286
	October	73	41,819	3,200	45,092	26,269	689	26,958	8	301,266
	November	56	42,379	3,263	45,698	32,782	1,320	34,102	7	255,559
	December	89	47,212	3,856	51,157	38,387	1,285	39,672	9	241,957
	<b>TOTAL</b>	<b>951</b>	<b>526,680</b>	<b>41,642</b>	<b>569,274</b>	<b>401,863</b>	<b>18,351</b>	<b>420,214</b>	<b>179</b>	<b>3,681,595</b>
<b>1981</b>	January	81	55,304	3,972	54,357	41,556	2,027	43,583	10	231,606
	February	58	44,583	3,272	47,914	28,948	1,049	29,997	9	224,003
	<b>TOTAL</b>	<b>139</b>	<b>94,887</b>	<b>7,244</b>	<b>102,271</b>	<b>70,504</b>	<b>3,076</b>	<b>73,580</b>	<b>19</b>	<b>455,609</b>

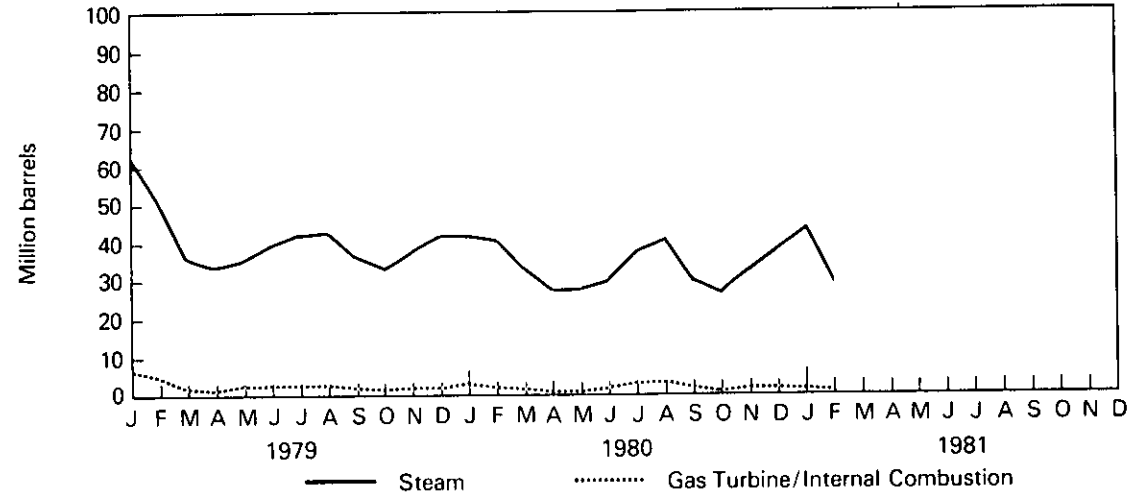
Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.  
 Source: • Federal Power Commission Form 4, "Monthly Power Plant Report."

# Electric Utilities

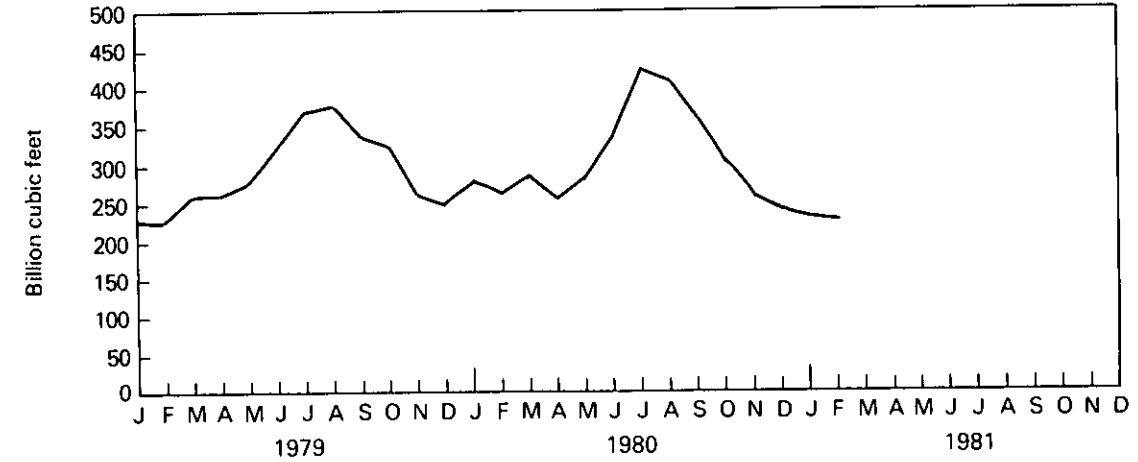
## Coal Consumption



## Petroleum Consumption



## Natural Gas Consumption



# Electric Utilities

## End-of-Month Coal and Petroleum Stocks

		Coal				Petroleum			
		Anthracite	Bituminous Coal	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Total	Coke
		Thousand short tons				Thousand barrels			Thousand short tons
<b>1973</b>		\$1,066	\$84,941	\$961	\$86,967	\$79,121	\$10,095	\$89,216	\$312
<b>1974</b>		\$930	\$81,712	\$867	\$83,509	\$97,718	\$15,199	\$112,917	\$35
<b>1975</b>		\$982	\$107,927	\$1,815	\$110,724	\$108,825	\$16,432	\$125,257	\$31
<b>1976</b>		\$1,000	\$114,130	\$2,306	\$117,436	\$106,993	\$14,703	\$121,696	\$32
<b>1977</b>		\$2,321	\$128,210	\$2,688	\$133,219	\$124,750	\$19,281	\$144,031	\$44
<b>1978</b>		\$2,178	\$123,020	\$3,027	\$128,225	\$102,402	\$16,386	\$118,788	\$198
<b>1979</b>	January	2,154	114,980	2,814	119,948	89,583	15,635	105,218	181
	February	2,136	109,532	2,726	114,394	82,078	15,541	97,619	166
	March	2,170	113,669	2,704	118,542	96,033	16,386	112,419	170
	April	2,220	120,876	2,680	125,776	99,500	16,835	116,335	170
	May	2,231	128,962	2,600	133,793	106,017	16,974	122,991	159
	June	2,233	131,898	2,495	136,627	104,513	17,180	121,693	150
	July	2,290	126,328	2,478	131,095	104,170	17,578	121,748	160
	August	2,328	128,760	3,170	134,257	103,965	17,910	121,875	163
	September	2,385	133,605	3,139	139,129	104,857	18,733	123,590	164
	October	2,452	144,035	3,462	149,949	109,590	19,410	129,000	170
	November	2,496	151,848	3,393	157,737	111,072	19,714	130,786	170
	December	3,274	152,981	3,459	159,714	111,121	20,301	131,422	183
<b>1980</b>	January	3,371	151,891	3,455	158,717	114,313	19,597	133,909	175
	February	3,451	150,151	3,522	157,124	111,353	19,055	130,409	168
	March	3,488	151,022	3,116	157,625	116,246	18,933	135,180	154
	April	3,533	158,441	3,843	165,817	118,824	19,201	138,025	103
	May	3,725	166,325	3,980	174,029	123,043	19,485	142,529	69
	June	3,838	171,042	4,079	178,959	124,177	19,273	143,450	65
	July	3,955	161,159	3,691	168,806	121,596	18,680	140,276	65
	August	4,098	163,756	4,036	171,891	118,514	18,150	136,664	63
	September	4,291	166,515	4,262	175,067	122,240	18,064	140,304	61
	October	4,481	173,411	4,153	182,045	124,046	18,398	142,445	60
	November	4,661	175,489	3,983	184,133	119,863	18,051	137,915	53
	December	4,741	174,154	4,115	183,010	117,227	18,147	135,374	52
<b>1981</b>	January	4,824	167,884	4,267	176,975	109,915	18,280	128,195	51
	February	4,859	166,552	4,304	175,715	112,439	17,397	129,836	52

Geographic coverage: the 50 United States and District of Columbia.

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

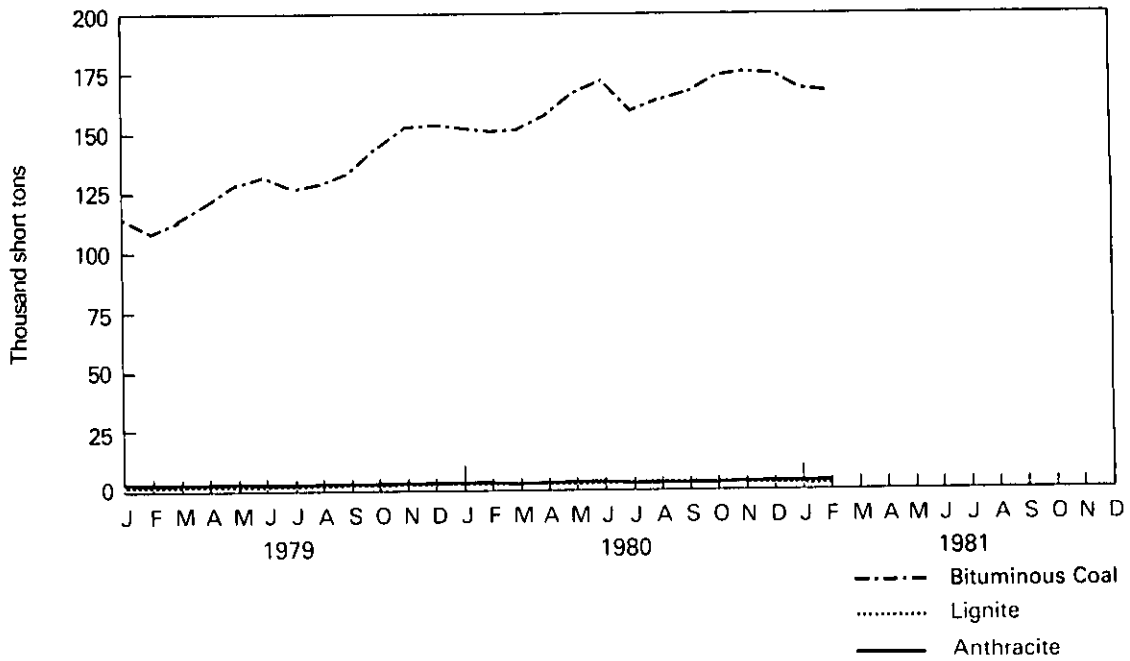
†Total as of December 31.

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

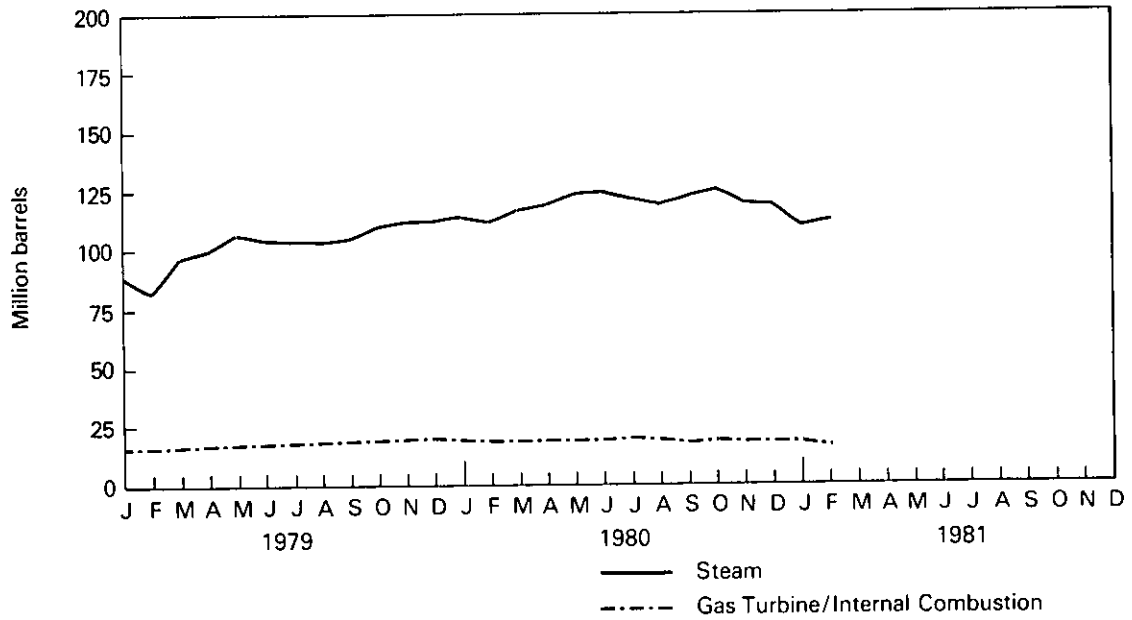


# Electric Utilities

## Coal Stocks (Bituminous Coal, Lignite, and Anthracite)



## Petroleum Stocks





## Nuclear

During February 1981, operating domestic power reactors generated a total of 21.6 billion net kilowatt-hours of electricity, 7.6 percent below the January 1981 output. However on an average-output-per-day basis, generation during February actually exceeded that during January by about 2.3 percent. February 1981 output also exceeded the comparable daily average output for February 1980 by 16.0 percent.

Nuclear power accounted for 12.0 percent of U.S. electricity, generation, up from 10.2 percent in February 1980. For comparison, the fraction of electricity generation currently met by nuclear power in Finland, France and Sweden (three western European nations with strong nuclear-energy programs) ranges from 30 to 35 percent.

No major reactor status changes occurred during February 1981 (see "Status of Nuclear Reactor Units" table). In 1981 Oconee (3 units) surpassed Dresden (3 units) as the domestic nuclear facility with the highest lifetime electricity-generation total.

Two units (Three Mile Island-2 and Dresden-1) remain in indefinite suspension. Fifteen other units (Arkansas-1, Calvert Cliffs-2, Davis-Besse, Dresden-1 and -2, Farley-1, Hanford-1, Hatch-2, Indian Point-2 and -3, Millstone-1, Rancho Seco, Surry-1, Three Mile Island-1 and Zion-1) generated no electricity or operated substantially below capacity in February. Three units, Farley-2, McGuire-1 and Salem-2, were in fuel-loading or low-power testing in February, while Sequoyah-1 remained in power ascension.

# Nuclear

## Nuclear Powerplant Operations

		Reactors Licensed For Commercial Operation <sup>1</sup>	Nuclear-Based Electricity Generation <sup>2</sup>	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity <sup>3</sup>	Capacity Factor <sup>4</sup>
			Million net kilowatt-hours	Percent	Million net kilowatts	Percent
<b>1973</b>	<b>AVERAGE</b>	<b>40</b>	<b>83,479</b>	<b>4.5</b>	<b>13.850</b>	<b>63.2</b>
<b>1974</b>	<b>AVERAGE</b>	<b>53</b>	<b>113,976</b>	<b>6.1</b>	<b>29.921</b>	<b>43.5</b>
<b>1975</b>	<b>AVERAGE</b>	<b>56</b>	<b>172,505</b>	<b>9.0</b>	<b>35.671</b>	<b>55.2</b>
<b>1976</b>	<b>AVERAGE</b>	<b>62</b>	<b>191,104</b>	<b>9.4</b>	<b>40.642</b>	<b>53.5</b>
<b>1977</b>	<b>AVERAGE</b>	<b>67</b>	<b>250,883</b>	<b>11.8</b>	<b>45.554</b>	<b>62.9</b>
<b>1978</b>	<b>AVERAGE</b>	<b>71</b>	<b>276,403</b>	<b>12.5</b>	<b>49.385</b>	<b>63.9</b>
<b>1979</b>	January	71	27,792	13.3	50.771	73.6
	February	71	25,911	13.9	50.720	76.0
	March	71	24,335	13.3	50.720	64.5
	April	71	18,418	10.8	50.705	50.5
	May	71	15,025	8.4	50.705	39.8
	June	71	16,065	8.6	50.705	44.0
	July	71	20,825	10.3	50.759	55.1
	August	71	24,204	11.8	50.732	64.1
	September	71	21,804	12.1	50.781	59.6
	October	71	20,934	11.6	50.814	55.7
	November	71	19,255	10.8	49.917	53.6
	December	71	20,586	11.0	49.937	55.4
	<b>AVERAGE</b>	<b>71</b>	<b>255,155</b>	<b>11.4</b>	<b>50.604</b>	<b>57.6</b>
<b>1980</b>	January	71	19,746	9.9	49.945	53.1
	February	72	19,277	10.2	51.055	54.3
	March	72	20,039	10.7	51.031	52.8
	April	74	18,794	11.1	53.040	49.3
	May	74	18,385	10.5	53.040	46.6
	June	74	18,322	9.7	53.040	48.0
	July	74	21,024	9.7	54.064	52.3
	August	74	24,333	11.3	53.957	60.6
	September	74	23,572	12.3	53.855	60.8
	October	75	24,510	13.7	54.724	60.1
	November	75	20,984	11.8	54.737	53.2
	December	75	22,130	11.3	54.749	54.3
	<b>AVERAGE</b>	<b>74</b>	<b>251,116</b>	<b>11.0</b>	<b>53.103</b>	<b>53.8</b>
<b>1981</b>	January	75	23,368	11.4	55.853	56.2
	February	75	21,595	12.0	55.830	57.6
	<b>AVERAGE</b>	<b>75</b>	<b>44,963</b>	<b>11.7</b>	<b>55.842</b>	<b>56.9</b>

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See next table (Reactor Status Table) for explanation and sources.

<sup>2</sup>Electricity generation entries represent yearly or monthly totals rather than averages.

<sup>3</sup>See Explanatory Note 11.

<sup>4</sup>Average percentage of Maximum Dependable Capacity utilized yearly or monthly.

Sources: • Capacity data for units in commercial operation or start-up testing—Nuclear Regulatory Commission Report NUREG 0020,

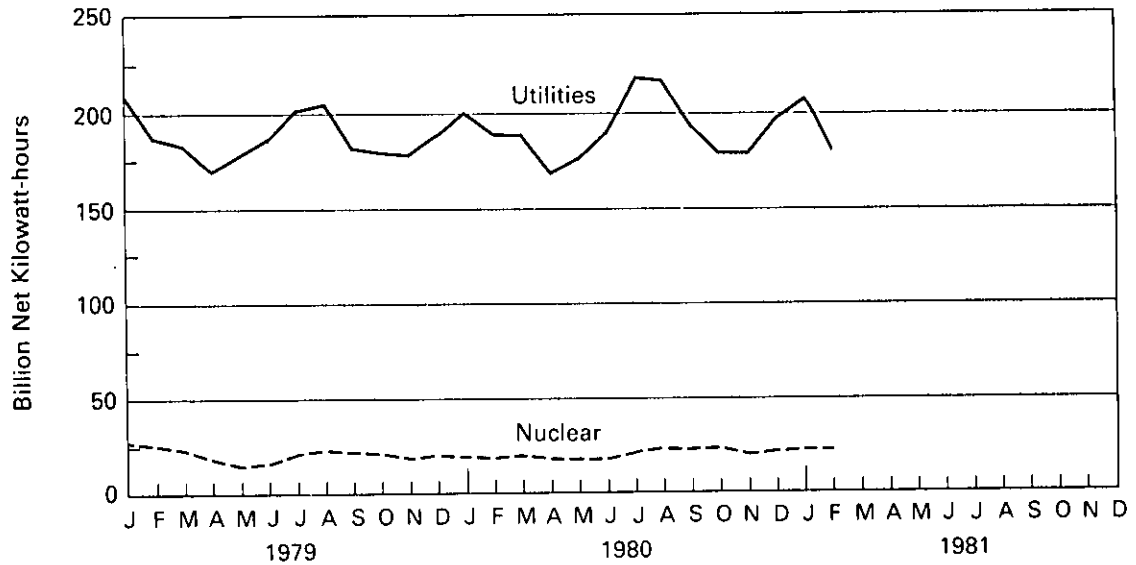
"Operating Units Status Report."

• Generation data—Federal Power Commission Form 4, "Monthly Power Plant Report."

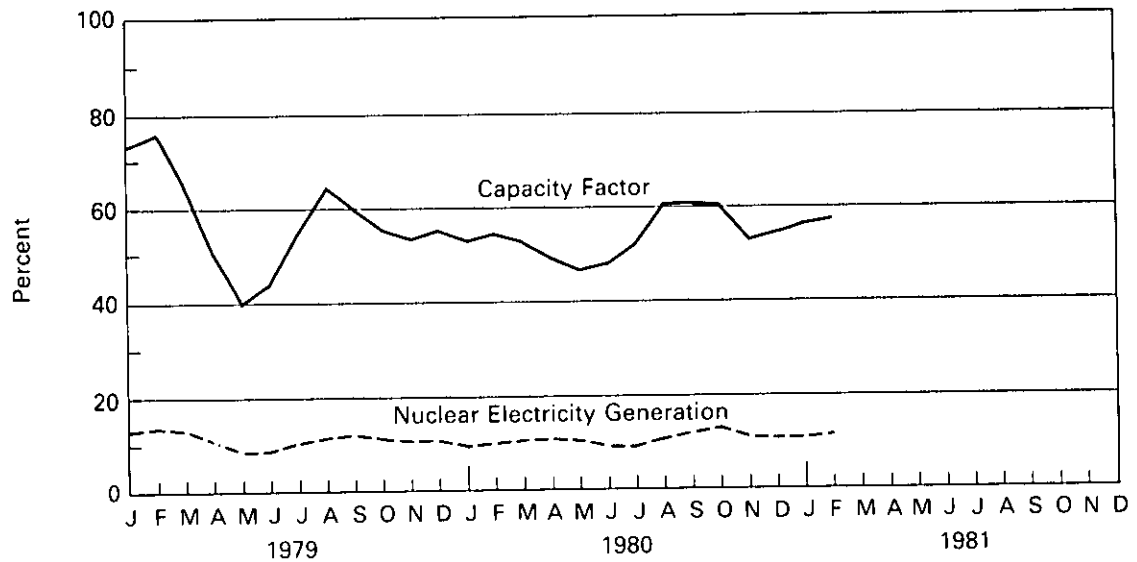
# Nuclear

## Nuclear Powerplant Operations

### Electricity Generated by Utilities and by Nuclear Powerplants



### Nuclear Portion of Electricity Generation and Capacity Factor\*



\* Percentage of Maximum Dependable Capacity utilized.

# Nuclear Power

## Status of Nuclear Reactor Units<sup>1</sup>

		Reactors Licensed For Commercial Operations <sup>2</sup>	Construction Permits Granted	Construction Permits Pending <sup>3</sup>	Reactor Units on Order	Reactor Units Announced	Total Reactor Units	Total Design Capacity (Million Net <sup>4</sup> Kilowatts)
1973		40	51	58	48	20	217	212
1974		53	58	80	28	16	235	234
1975		56	69	73	19	19	236	236
1976		62	72	66	16	19	235	236
1977		67	80	52	13	9	221	220
1978		71	90	32	9	4	206	204
1979	January	71	92	30	5	1	199	195
	February	71	92	28	5	1	197	193
	March	71	92	28	5	1	197	193
	April	71	92	27	5	0	195	190
	May	71	92	27	5	0	195	190
	June	71	92	27	5	0	195	190
	July	71	91	25	5	0	192	187
	August	71	91	25	5	0	192	187
	September	71	91	25	3	0	190	185
	October	71	91	25	3	0	190	185
	November	71	91	23	3	0	188	182
	December	71	91	21	3	0	186	180
1980	January	71	90	17	3	0	181	174
	February	72	89	16	3	0	180	173
	March	72	87	14	3	0	176	169
	April	74	85	14	3	0	176	169
	May	74	85	14	3	0	176	169
	June	74	85	14	3	0	176	169
	July	74	85	14	3	0	176	169
	August	74	85	14	3	0	176	169
	September	74	85	14	3	0	176	169
	October	75	84	14	3	0	176	169
	November	75	82	14	3	0	174	167
	December	75	82	12	3	0	172	164
1981	January	75	81	12	3	0	171	164
	February	75	81	12	3	0	171	164

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.

<sup>2</sup>These figures include reactors in fuel-loading, power-testing, and power-ascension phases as well as reactors that have been licensed but which are shut down for indefinite periods, including: Dresden-1, which is undergoing major modifications and Three Mile Island-2, shut down due to an accident in March 1979. Also includes two Department of Energy, dual-purpose reactors (Shippingport and Hanford) which are licensed to generate electricity on a commercial basis.

<sup>3</sup>Although New Haven-1, -2 and Jamesport-1, -2 still remain on the NRC docket as reactor units for which construction permits are pending, these 4 units were dropped from the above-table (in November 1979 and March 1980, respectively) because applications for their construction were rejected by New York State. Although Duke Power Co. has announced an "indefinite delay" of two Cherokee units (now carried as reactors for which "Construction Permits (are) Granted," these units will be retained, as is, in the above table until such time as a firm change in their status occurs.

<sup>4</sup>See Explanatory Note 11.

Sources: • Compiled by the Energy Information Administration from various sources, but primarily from the Nuclear Regulatory Commission (NRC), Report NUREG 0380, "Program Summary Report."

## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$34.14 per barrel in February 1981. This was 18.4 percent above the previous month's level, and 81.5 percent above the level in February 1980. Due to the January 1981 decontrol order, prices will no longer be applicable by regulatory price category.

During January 1981, the composite refiner acquisition cost of crude oil was \$33.40 per barrel, \$2.01 per barrel (6.4 percent) above the previous month's price. The imported price increased \$1.96 per barrel from the December 1980 level to \$37.59 per barrel in January. This price was 5.5 percent above the previous month's level and 22.2 percent above the January 1980 level. The domestic price was \$30.87, an increase of \$2.32 per barrel (8.1 percent) above the December average.

### Residual Fuel Oil

The average price, excluding taxes, for No. 6 residual fuel oil sold to utilities, industry, and other ultimate consumers in January 1981 was \$33.73 per barrel, \$1.40 above the previous month's price (4.3 percent) and 28.7 percent over the January 1980 average. The average price, excluding taxes, for No. 6 residual fuel oil sold to resellers, bulk plants, jobbers, and other wholesale accounts was \$30.96 per barrel, \$1.20 above (4.0 percent) the December 1980 average and a 26.8 percent increase over the January 1980 average.

### Heating Oil

The national average price of heating oil sold to residential customers increased 8.9 cents in February 1981 to 123.3 cents per gallon. This was a 7.8 percent increase

above the selling price in January 1981 and a 29.4 percent increase over the February 1980 price. The average residential distributor margin in February was 15.9 cents per gallon, 4.8 percent below the margin of February 1980. Refiners' national average selling price to resellers and retailers was 102.7 cents per gallon, 32.0 percent above the February 1980 average.

### Aviation Fuel

The average price, excluding taxes, for kerosene-type jet fuel sold to commercial airlines, Department of Defense, and other ultimate consumers in January 1981 was 95.7 cents per gallon, or 4.1 cents (4.5 percent) above the previous month's average and a 24.3 percent increase over the January 1981 average.

### Motor Gasoline

The national average retail price for all grades and all types of motor gasoline was 138.8 cents per gallon in March 1981. Leaded regular gasoline at all types of stations sold for an average of 135.2 cents per gallon in March, 3.1 cents higher (2.3 percent) than the price in February. The price for unleaded regular gasoline at all types of stations was 141.7 cents per gallon in March, 3.5 cents higher (2.5 percent) than the price in February.

### Liquefied Petroleum Gases

The average wholesale price for propane during January 1981, excluding taxes, was 46.5 cents per gallon, unchanged from previous month's level, and 11.2 percent above the January 1980 level.

In January 1981, the average wholesale price for butane, excluding taxes, was 65.9 cents per gallon, 9.4 percent below the previous month's revised price and 10.1 percent below the January 1981 average.

# Price

## Petroleum Price Summary

	Actual Domestic Average Wellhead Price <sup>1</sup>	Refiner Acquisition Cost of Crude Oil <sup>2</sup>			No. 6 Residual Oil Price Average <sup>3</sup>	
		Domestic	Imported	Composite	Wholesale <sup>4</sup>	Retail <sup>4</sup>
Dollars per barrel						
<b>1976 AVERAGE</b>	<b>8.19</b>	<b>8.84</b>	<b>13.48</b>	<b>10.89</b>	<b>10.72</b>	<b>11.49</b>
<b>1977 AVERAGE</b>	<b>8.57</b>	<b>9.55</b>	<b>14.53</b>	<b>11.96</b>	<b>11.96</b>	<b>13.23</b>
<b>1978 AVERAGE</b>	<b>9.00</b>	<b>10.61</b>	<b>14.57</b>	<b>12.46</b>	<b>11.51</b>	<b>12.75</b>
<b>1979</b>						
January	9.46	11.02	15.50	13.11	12.78	14.13
February	9.69	11.34	15.88	13.42	13.72	14.68
March	9.83	11.45	16.41	13.70	14.82	15.95
April	10.33	12.06	17.58	14.52	15.51	16.61
May	10.71	12.41	19.00	15.40	15.71	17.18
June	11.70	13.24	21.03	17.00	17.81	17.97
July	13.39	14.61	23.09	18.58	19.18	19.89
August	14.00	15.73	23.98	19.75	19.00	20.33
September	14.57	16.05	25.06	20.14	19.62	20.90
October	15.11	16.93	25.05	20.68	20.88	21.59
November	15.52	17.65	27.02	22.04	22.00	22.84
December	17.03	18.84	28.91	23.63	23.55	24.44
<b>AVERAGE</b>	<b>12.64</b>	<b>14.27</b>	<b>21.67</b>	<b>17.72</b>	<b>17.66</b>	<b>18.67</b>
<b>1980</b>						
January	17.86	19.78	30.75	24.81	24.41	26.21
February	18.81	21.22	32.40	26.11	23.34	26.48
March	19.34	22.07	33.42	26.88	21.11	25.33
April	20.29	22.89	33.54	27.09	19.09	22.87
May	21.01	23.63	34.33	27.85	20.22	23.75
June	21.53	24.48	34.48	28.80	20.44	24.09
July	22.26	25.05	34.51	28.73	21.28	23.86
August	22.63	24.98	34.44	28.70	22.25	25.00
September	22.59	25.37	34.46	28.96	22.47	25.31
October	23.23	26.21	34.63	29.56	R24.06	26.68
November	23.92	26.51	35.09	29.79	R28.12	R30.10
December	25.80	28.55	35.63	31.39	R29.76	R32.33
<b>AVERAGE</b>	<b>21.19</b>	<b>24.23</b>	<b>33.89</b>	<b>28.07</b>	<b>R23.14</b>	<b>26.09</b>
<b>1981</b>						
January	R28.85	30.87	37.59	33.40	†30.96	†33.73
February†	34.14	NA	NA	NA	NA	NA
<b>AVERAGE</b>	<b>31.36</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Geographic coverage: Actual domestic average wellhead prices and No. 6 residual oil prices— the 50 United States and District of Columbia. Refiner acquisition cost of crude oil— the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Explanatory Note 13. Crude oil costs and volumes reported on the Economic Regulatory Administration (ERA) Form 49 exclude unfinished oils but include Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the FEA Form P110-M-1 include unfinished oils but exclude SPR. Imported averages derived from ERA Form 49 exclude crude oil purchased for Strategic Petroleum Reserve (SPR), whereas, the composite averages derived from the ERA Form 49 include SPR.

<sup>3</sup>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.

<sup>4</sup>Excludes tax.

†Preliminary data. R = Revised data. NA = Not available.

Sources: •Actual domestic average, January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report." February 1976 forward: ERA Form 182, "Domestic Crude Oil First Purchase Report."

•Refiner acquisition cost, 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 Refiners Monthly Report."

•No.6 residual oil price, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."



# Price

## Petroleum Price Summary (continued)

	No. 2 Diesel Price Average <sup>1</sup>		No. 2 Heating Oil Price Average		Gasoline Price Average All Grades <sup>2</sup>	Propane Price Average <sup>3</sup>	Butane Price Average <sup>3</sup>	
	Wholesale <sup>4</sup>	Retail <sup>4</sup>	Wholesale	Retail	Retail	Wholesale <sup>4</sup>	Wholesale <sup>4</sup>	
Cents per gallon								
<b>1976 AVERAGE</b>	<b>31.9</b>	<b>34.7</b>	<b>32.6</b>	<b>40.6</b>	<b>NA</b>	<b>20.6</b>	<b>21.9</b>	
<b>1977 AVERAGE</b>	<b>36.1</b>	<b>39.3</b>	<b>36.9</b>	<b>46.0</b>	<b>NA</b>	<b>25.0</b>	<b>25.4</b>	
<b>1978 AVERAGE</b>	<b>37.1</b>	<b>40.2</b>	<b>38.7</b>	<b>49.4</b>	<b>65.2</b>	<b>24.0</b>	<b>23.0</b>	
<b>1979</b>								
January	39.7	43.0	42.1	53.7	69.5	22.4	24.9	
February	41.8	46.1	44.5	56.3	70.7	21.8	28.5	
March	44.5	47.9	47.0	58.8	73.3	21.2	32.5	
April	47.7	50.6	49.3	61.1	78.0	22.0	35.4	
May	53.4	56.1	52.6	64.2	82.3	24.2	39.5	
June	58.7	65.0	56.9	69.1	88.0	27.9	46.9	
July	62.4	68.9	61.1	73.8	93.0	29.3	51.1	
August	66.0	72.3	64.6	78.4	96.7	30.8	48.0	
September	69.0	71.8	67.8	81.0	99.8	33.3	51.9	
October	71.1	74.8	68.1	82.3	100.6	35.2	56.1	
November	70.3	72.1	69.0	83.7	101.9	37.6	57.0	
December	73.0	80.7	70.8	85.8	104.2	40.4	65.8	
<b>AVERAGE</b>	<b>58.2</b>	<b>62.4</b>	<b>53.0</b>	<b>65.6</b>	<b>88.2</b>	<b>29.5</b>	<b>45.8</b>	
<b>1980</b>								
January	76.0	82.2	75.2	90.8	111.0	41.8	73.3	
February	78.3	85.0	79.0	95.3	118.6	42.7	70.1	
March	79.8	87.8	80.4	97.1	123.0	41.0	66.8	
April	80.4	88.0	81.0	97.4	124.2	41.2	63.1	
May	80.5	87.8	81.4	97.2	124.4	41.7	63.7	
June	81.7	88.6	82.5	97.9	124.6	41.2	58.2	
July	81.9	87.6	83.0	97.9	124.7	40.8	53.8	
August	81.6	86.9	82.9	97.9	124.3	40.6	53.1	
September	80.3	86.6	83.0	98.1	123.1	41.4	51.2	
October	81.5	85.9	83.7	98.7	122.3	43.2	54.3	
November	83.6	88.9	86.1	101.1	122.2	45.1	65.5	
December	87.5	R92.4	91.3	106.5	123.1	R46.5	R72.7	
<b>AVERAGE</b>	<b>81.2</b>	<b>R87.3</b>	<b>82.2</b>	<b>97.8</b>	<b>122.1</b>	<b>R42.4</b>	<b>R62.9</b>	
<b>1981</b>								
January	†92.5	†100.9	R98.6	R114.4	126.9	46.5	65.9	
February	NA	NA	†106.0	†123.3	135.3	NA	NA	
March	NA	NA	NA	NA	138.8	NA	NA	
<b>AVERAGE</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	

Geographic coverage: the 50 United States and District of Columbia.

Note: The average year-to-date gasoline price for the current year is not yet available from the Bureau of Labor Statistics.

<sup>1</sup>Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and operated retail dealers sell to customers.

<sup>2</sup>See Explanatory Note 16.

<sup>3</sup>Wholesale refers to the price at which refiners, resellers, retailers and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.

<sup>4</sup>Excludes tax.

†Preliminary data. R=Revised data. NA=Not available.

Sources: •No. 2 diesel price, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

•No. 2 heating oil price, FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" for 1976 through October 1980. EIA-9A "No. 2 Distillate Price Monitoring Report" for November 1980 forward.

•Gasoline price average, Bureau of Labor Statistics.

•Propane and Butane prices, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

# Price

## Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead<sup>1</sup>

	Incremental Tertiary <sup>2</sup>		Newly Discovered <sup>2</sup>		Marginal Property <sup>2</sup>		Heavy Crude <sup>2</sup>		Other Decontrolled Oil <sup>2</sup>		Tertiary Incentive <sup>2</sup>													
	Dollars per barrel																							
	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent												
<b>1976 AVERAGE</b>	Not Applicable																							
<b>1977 AVERAGE</b>																								
<b>1978 AVERAGE</b>																								
<b>1979</b>																								
January	Not Applicable																							
February																								
March																								
April																								
May	Not Applicable																							
June													11.98	0.05	22.97	0.61	13.16	0.81	Not Applicable					
July													15.09	0.02	26.60	1.12	13.28	1.13						
August													16.14	0.15	26.63	1.66	13.37	1.33						
September	17.89	0.06	30.38	2.38	13.67	3.08	16.77	2.82	12.54	NA	24.89	NA												
October	14.21	(0.01)	31.92	3.04	13.55	3.39	17.12	3.46	13.08	NA	21.07	NA												
November	26.17	NA	33.86	3.24	13.70	3.11	18.61	3.28	11.33	NA	NA	NA												
December	15.80	(0.03)	37.59	3.61	13.83	3.05	23.62	4.04	10.05	NA	NA	NA												
<b>1980</b>	January	31.14	0.01	39.04	3.86	14.01	3.16	26.43	4.24	33.37	2.15	28.18	NA											
	February	26.33	0.01	38.68	4.33	13.90	2.71	25.70	5.13	33.11	4.79	36.47	0.01											
	March	29.82	0.01	38.97	4.76	14.07	2.52	25.55	5.15	32.91	7.42	39.00	0.04											
	April	34.94	0.04	38.67	5.20	14.12	2.99	25.57	4.96	33.03	9.89	37.52	0.12											
	May	34.46	0.03	39.07	5.53	14.21	2.79	25.42	5.38	32.97	12.52	34.60	0.43											
	June	33.72	0.02	38.93	5.96	14.37	2.75	25.87	5.34	32.39	14.58	30.29	0.53											
	July	21.87	0.00	38.72	6.33	14.37	2.91	25.63	5.88	32.81	16.94	30.34	0.68											
	August	33.39	0.03	37.82	6.73	14.65	2.53	25.49	5.77	30.80	20.10	33.48	0.78											
	September	27.75	0.15	35.95	6.79	14.83	2.18	25.45	5.58	30.57	22.24	31.53	0.90											
	October	29.79	0.04	35.77	7.56	14.77	2.00	25.30	5.80	30.22	24.76	30.68	1.24											
	November	32.74	0.09	35.77	8.54	14.87	1.88	25.05	5.86	30.13	27.82	30.51	1.38											
	December	30.78	0.05	36.61	8.55	15.05	1.68	26.06	6.05	31.85	30.72	33.03	3.09											
	<b>AVERAGE</b>	<b>30.87</b>	<b>0.04</b>	<b>37.59</b>	<b>6.16</b>	<b>14.37</b>	<b>2.51</b>	<b>25.61</b>	<b>5.42</b>	<b>31.45</b>	<b>16.07</b>	<b>32.06</b>	<b>0.76</b>											
<b>1981</b>	January	R32.24	0.09	R37.50	9.23	R15.67	R1.34	26.84	R6.36	R32.66	R37.38	R34.89	R6.74											
	February	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Definitions.

†Preliminary data. NA=Not available. R=Revised data.

Note: Parentheses indicate negative adjustment to recertify production as heavy oil.

Source: • Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

# Price

## Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead<sup>1</sup> (continued)

		Lower Tier <sup>2</sup>		Upper Tier <sup>2</sup>		Actual Stripper <sup>3</sup>		Alaskan North Slope <sup>4</sup>		Naval Petroleum Reserve <sup>5</sup>		Actual Domestic Average	
		Dollars per barrel											
		Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	
<b>1976</b>	<b>AVERAGE</b>	<b>5.13</b>	<b>54.40</b>	<b>11.71</b>	<b>31.50</b>	<b>12.16</b>	<b>14.10</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>8.19</b>	
<b>1977</b>	<b>AVERAGE</b>	<b>5.19</b>	<b>45.92</b>	<b>11.22</b>	<b>36.11</b>	<b>13.59</b>	<b>13.32</b>	<b>6.35</b>	<b>4.14</b>	<b>12.34</b>	<b>0.51</b>	<b>8.57</b>	
<b>1978</b>	<b>AVERAGE</b>	<b>5.46</b>	<b>37.54</b>	<b>12.15</b>	<b>34.41</b>	<b>13.95</b>	<b>14.03</b>	<b>5.22</b>	<b>12.96</b>	<b>12.85</b>	<b>1.08</b>	<b>9.00</b>	
<b>1979</b>	January	5.75	35.51	12.66	34.25	14.55	14.14	5.79	14.88	13.10	1.20	9.46	
	February	5.76	35.20	12.78	34.97	14.88	15.08	5.87	13.71	13.94	1.01	9.69	
	March	5.82	34.59	12.84	34.56	14.88	14.95	6.66	14.58	13.97	1.29	9.83	
	April	5.85	33.98	12.94	34.93	16.71	15.27	7.45	14.52	14.56	1.28	10.33	
	May	5.91	33.55	13.02	34.77	17.53	15.62	8.47	14.71	15.85	1.32	10.71	
	June	5.95	29.32	13.14	38.22	20.24	15.97	8.97	13.64	16.02	1.34	11.70	
	July	5.98	26.96	13.25	37.49	24.76	16.01	13.35	15.86	20.13	1.38	13.39	
	August	6.09	26.03	13.33	36.72	25.71	16.93	14.14	15.82	20.77	1.33	14.00	
	September	6.09	23.52	13.53	33.89	27.09	16.55	13.09	16.08	20.85	1.57	14.57	
	October	6.12	23.46	13.56	32.58	29.42	16.20	13.12	16.27	21.01	1.57	15.11	
	November	6.09	23.11	13.68	32.76	30.64	15.35	13.48	17.49	26.48	1.61	15.52	
	December	6.21	22.31	13.76	32.52	34.99	16.34	13.60	16.51	29.04	1.60	17.03	
		<b>AVERAGE</b>	<b>5.95</b>	<b>28.91</b>	<b>13.20</b>	<b>34.79</b>	<b>22.93</b>	<b>15.71</b>	<b>10.57</b>	<b>15.36</b>	<b>19.40</b>	<b>1.38</b>	<b>12.64</b>
<b>1980</b>	January	6.24	21.19	13.86	31.12	36.02	15.61	13.77	17.06	28.94	1.54	17.86	
	February	6.37	20.52	14.03	29.45	36.14	15.82	13.77	15.73	34.96	1.44	18.81	
	March	6.35	19.83	13.99	28.22	36.26	15.18	13.77	15.30	34.67	1.55	19.34	
	April	6.37	18.71	14.18	25.87	36.54	15.80	14.07	14.75	33.81	1.61	20.29	
	May	6.47	17.62	14.29	25.21	36.11	15.43	14.36	13.48	34.16	1.56	21.01	
	June	6.51	16.99	14.42	23.19	35.53	16.14	14.14	12.94	34.00	1.49	21.53	
	July	6.55	16.39	14.57	21.88	36.26	16.02	14.26	11.35	33.27	1.58	22.26	
	August	6.60	14.79	14.60	20.50	35.71	15.83	14.38	11.28	32.96	1.61	22.63	
	September	6.66	14.76	14.79	19.57	33.94	15.89	14.51	10.37	32.45	1.50	22.59	
	October	6.78	14.12	14.91	17.41	33.93	16.04	14.64	9.44	32.68	1.53	23.23	
	November	6.79	13.25	14.92	15.68	34.42	15.70	14.53	8.52	31.40	1.21	23.92	
	December	6.84	10.02	15.10	13.63	34.88	16.36	15.02	7.81	29.93	1.10	25.80	
		<b>AVERAGE</b>	<b>6.51</b>	<b>16.62</b>	<b>14.37</b>	<b>22.70</b>	<b>35.48</b>	<b>15.82</b>	<b>14.18</b>	<b>12.36</b>	<b>32.85</b>	<b>1.48</b>	<b>21.19</b>
<b>1981</b>	January	R8.46	7.84	R16.08	R8.76	R35.11	R16.07	R15.15	R4.59	R29.27	R1.60	R28.85	
	February*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	†34.14	
	<b>AVERAGE</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>31.36</b>	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Definitions.

<sup>3</sup>Stripper 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).

<sup>4</sup>Alaskan North Slope (ANS) crude oil prices are treated as Upper Tier for determining the applicable wellhead ceiling prices. ANS is included in the Actual Domestic Average price determination.

<sup>5</sup>The 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 determination.

<sup>6</sup>Due to the decontrol order of January 28, 1981, reporting requirements have been reduced. Respondents to ERA Form 182 "Domestic Crude Oil First Purchase Report" are no longer required to report by category.

†Preliminary data. NA=Not available. R=Revised data.

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

• February 1976 forward: Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

# Price

## FOB Cost of Crude Oil Imports from Selected Countries<sup>1</sup>

		Algeria	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
		Dollars per barrel									
<b>1976</b>	<b>AVERAGE</b>	<b>13.05</b>	<b>12.76</b>	<b>11.61</b>	<b>12.55</b>	<b>NA</b>	<b>13.08</b>	<b>11.69</b>	<b>11.94</b>	<b>NA</b>	<b>11.32</b>
<b>1977</b>	<b>AVERAGE</b>	<b>14.36</b>	<b>13.57</b>	<b>12.67</b>	<b>13.90</b>	<b>13.42</b>	<b>14.44</b>	<b>12.37</b>	<b>12.83</b>	<b>NA</b>	<b>12.68</b>
<b>1978</b>	<b>AVERAGE</b>	<b>14.10</b>	<b>13.64</b>	<b>12.65</b>	<b>13.75</b>	<b>13.24</b>	<b>14.04</b>	<b>12.70</b>	<b>13.24</b>	<b>13.82</b>	<b>12.45</b>
<b>1979</b>	January	14.87	14.06	12.55	14.60	13.94	14.84	13.26	13.98	15.41	13.69
	February	14.89	14.18	12.56	15.15	14.17	14.98	13.47	14.28	15.33	13.26
	March	15.54	14.42	19.04	16.46	14.14	15.07	13.61	15.72	16.13	13.88
	April	16.80	15.98	17.96	17.40	17.02	18.18	14.77	16.24	17.40	14.58
	May	19.14	16.84	17.27	19.13	18.56	20.02	14.62	17.38	18.39	15.76
	June	21.04	18.59	19.95	20.87	17.43	22.11	17.98	18.91	20.88	16.01
	July	22.42	20.95	21.99	23.88	22.29	24.46	18.54	21.33	23.14	18.22
	August	23.44	21.65	21.40	24.93	22.56	25.43	18.32	21.45	23.88	18.66
	September	23.60	22.11	27.27	25.17	22.32	25.77	18.72	22.93	22.93	18.14
	October	24.40	24.39	31.80	27.39	24.43	26.33	21.44	21.85	25.09	22.36
	November	26.38	23.72	28.81	29.60	24.50	28.17	23.72	24.15	27.57	19.27
	December	28.67	25.29	35.13	31.86	24.50	29.82	22.99	27.90	25.89	20.62
	<b>AVERAGE</b>	<b>20.65</b>	<b>19.35</b>	<b>23.71</b>	<b>22.43</b>	<b>20.29</b>	<b>21.80</b>	<b>17.63</b>	<b>19.58</b>	<b>21.20</b>	<b>17.37</b>
<b>1980</b>	January	33.67	29.67	29.28	35.72	29.43	31.57	26.25	29.85	30.77	25.34
	February	34.03	31.11	NA	35.71	31.77	33.39	26.62	30.95	32.66	24.82
	March	36.74	31.54	NA	35.88	30.56	35.59	26.85	29.34	34.34	24.03
	April	36.93	32.22	NA	35.30	30.24	36.11	27.78	30.38	34.15	23.85
	May	37.10	32.40	NA	36.13	30.68	36.50	28.50	32.67	34.10	24.82
	June	37.61	32.90	NA	36.83	30.76	36.99	28.95	33.34	36.28	25.56
	July	38.40	33.19	NA	37.26	31.84	37.17	28.47	NA <sup>2</sup>	36.26	24.34
	August	37.53	33.01	NA	37.01	31.87	36.69	29.74	NA <sup>2</sup>	34.83	25.30
	September	37.21	33.13	NA	36.94	31.21	36.38	30.34	NA <sup>2</sup>	35.18	24.21
	October	37.60	32.31	NA	37.15	31.27	36.82	30.19	NA <sup>2</sup>	35.66	22.71
	November	37.05	32.94	NA	36.90	31.59	36.87	31.43	NA <sup>2</sup>	35.47	26.83
	December	37.37	33.21	NA	37.58	32.33	36.79	32.01	NA <sup>2</sup>	35.00	26.66
	<b>AVERAGE</b>	<b>36.57</b>	<b>32.37</b>	<b>NA</b>	<b>36.41</b>	<b>31.11</b>	<b>35.82</b>	<b>28.53</b>	<b>NA</b>	<b>34.58</b>	<b>24.78</b>
<b>1981</b>	January	R39.37	R36.54	NA	R40.52	R35.88	R40.11	R32.39	NA	R38.34	R32.87
	February†	40.04	36.45	NA	40.64	36.83	39.78	32.61	NA	39.45	30.56

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 the prices are for the month of reporting.

<sup>1</sup>The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 14.

<sup>2</sup>FOB cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.

NA = Not available.

†Preliminary data. R = Revised data.

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

● February 1979 forward: Economic Regulatory Administration Form 51, "Transfer Pricing Report."

# Price

## Landed Cost of Crude Oil Imports from Selected Countries<sup>1</sup>

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
Dollars per barrel												
<b>1975</b>	<b>AVERAGE</b>	<b>12.72</b>	<b>12.72</b>	<b>13.79</b>	<b>12.21</b>	<b>12.35</b>	<b>NA</b>	<b>12.62</b>	<b>12.30</b>	<b>12.87</b>	<b>NA</b>	<b>11.65</b>
<b>1976</b>	<b>AVERAGE</b>	<b>13.81</b>	<b>13.57</b>	<b>13.82</b>	<b>12.82</b>	<b>13.58</b>	<b>NA</b>	<b>13.80</b>	<b>13.04</b>	<b>13.30</b>	<b>NA</b>	<b>11.80</b>
<b>1977</b>	<b>AVERAGE</b>	<b>15.20</b>	<b>14.21</b>	<b>14.63</b>	<b>13.80</b>	<b>14.87</b>	<b>13.75</b>	<b>15.25</b>	<b>13.61</b>	<b>14.04</b>	<b>NA</b>	<b>13.13</b>
<b>1978</b>	<b>AVERAGE</b>	<b>14.91</b>	<b>14.50</b>	<b>14.64</b>	<b>13.88</b>	<b>14.72</b>	<b>13.54</b>	<b>14.86</b>	<b>13.92</b>	<b>14.39</b>	<b>NA</b>	<b>12.83</b>
<b>1979</b>	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
	June	22.52	19.12	20.11	21.27	22.21	17.85	23.23	19.49	20.42	21.64	16.80
	July	23.54	20.22	22.50	23.35	25.48	22.74	25.79	20.06	22.84	23.96	18.95
	August	24.85	22.67	23.10	22.64	26.27	23.12	26.72	19.85	23.12	25.05	19.42
	September	25.09	25.64	23.72	28.36	26.54	23.23	27.03	20.36	24.59	24.18	18.99
	October	25.59	23.54	26.36	33.17	28.56	24.98	27.41	22.99	23.98	26.39	23.05
	November	27.95	26.01	25.37	30.44	30.38	25.12	29.41	25.19	25.95	29.10	20.13
	December	29.99	26.32	26.84	36.64	33.29	25.31	31.21	24.48	29.93	27.07	21.72
	<b>AVERAGE</b>	<b>21.90</b>	<b>20.43</b>	<b>20.69</b>	<b>25.02</b>	<b>23.68</b>	<b>20.86</b>	<b>22.96</b>	<b>19.15</b>	<b>21.90</b>	<b>22.16</b>	<b>18.18</b>
<b>1980</b>	January	35.32	27.73	31.03	30.37	37.10	30.18	33.03	27.85	32.35	32.14	26.25
	February	35.28	28.60	32.95	NA	36.98	32.38	35.25	28.15	32.71	34.07	25.91
	March	38.54	30.75	33.04	NA	37.18	31.17	36.93	28.26	30.96	35.73	24.97
	April	38.52	30.31	33.81	NA	36.57	30.77	37.41	29.14	32.29	35.34	25.10
	May	38.54	31.16	33.73	NA	37.36	31.22	37.53	30.30	34.06	35.82	25.93
	June	38.71	31.26	34.51	NA	38.09	31.43	38.15	30.16	34.96	37.41	26.42
	July	39.60	31.31	34.81	NA	38.39	32.60	38.23	30.04	NA <sup>2</sup>	37.25	25.47
	August	38.60	31.44	34.81	NA	38.38	32.62	37.77	31.24	NA <sup>2</sup>	36.20	26.37
	September	38.28	30.97	34.64	NA	38.30	31.93	37.60	31.86	NA <sup>2</sup>	36.35	25.47
	October	38.77	29.22	33.65	NA	38.53	31.96	37.75	31.73	NA <sup>2</sup>	36.82	23.92
	November	38.41	28.81	34.55	NA	38.22	32.42	37.97	32.86	NA <sup>2</sup>	36.62	27.75
	December	38.63	32.72	34.64	NA	39.04	33.76	38.11	33.40	NA <sup>2</sup>	36.31	27.66
	<b>AVERAGE</b>	<b>37.90</b>	<b>30.47</b>	<b>33.92</b>	<b>NA</b>	<b>37.72</b>	<b>31.80</b>	<b>37.05</b>	<b>30.02</b>	<b>NA</b>	<b>35.88</b>	<b>25.86</b>
<b>1981</b>	January	R41.25	R34.26	R38.08	NA	R41.81	R36.81	R41.55	R34.06	NA	R39.90	R33.80
	February†	41.60	33.73	37.85	NA	42.05	37.55	41.19	34.38	NA	40.71	31.64

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 prices are for the month of reporting.

<sup>1</sup>See Explanatory Note 15.

<sup>2</sup>Landed cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.

NA = Not available. †Preliminary data. R = Revised data.

Sources: • 1975 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 Entitlements and Supply Ratio				Unrecouped Costs for Refined Products for 29 Largest Refiners			
		Entitlement Benefit <sup>1</sup>	Entitlement Price <sup>1</sup>	National Old Oil (or Domestic Crude Oil) Supply Ratio <sup>1</sup>	Motor Gasoline	Other Products <sup>2</sup>	Total
		Dollars per barrel			Million Dollars		
<b>1979</b>	January	1.56	8.74	0.178	836	863	1,699
	February	1.67	9.03	0.185	1,110	878	1,988
	March	1.80	9.50	0.189	1,551	837	2,388
	April	2.06	10.53	0.196	2,067	1,649	3,716
	May	2.44	11.74	0.208	2,245	1,848	4,093
	June	3.01	13.70	0.220	2,507	1,973	4,480
	July	3.54	16.01	0.221	2,990	2,089	5,079
	August	3.78	17.26	0.218	2,856	2,347	5,203
	September	3.92	17.97	0.218	3,151	2,376	5,527
	October	4.00	18.27	0.219	3,094	2,295	5,389
	November	4.39	20.12	0.218	3,492	2,302	5,794
	December	4.71	21.91	0.215	3,724	1,171	4,895
<b>1980</b>	January	5.28	23.53	0.224	4,115	1,189	5,304
	February	5.14	24.70	0.208	5,362	1,167	6,529
	March	5.05	25.26	0.200	6,236	1,213	7,445
	April	5.10	25.74	0.198	6,202	1,391	7,593
	May	6.22	27.39	0.227	NA	NA	NA
	June	5.44	27.32	0.199	NA	NA	NA
	July	5.04	27.26	0.185	NA	NA	NA
	August	4.75	26.86	0.177	NA	NA	NA
	September	3.52	26.07	0.135	NA	NA	NA
	October	3.13	26.08	0.120	NA	NA	NA
	November	2.60	26.55	0.098	NA	NA	NA
	December	1.52	27.06	0.056	NA	NA	NA
<b>1981</b>	January	NA	NA	NA	NA	NA	NA
	February	NA	NA	NA	NA	NA	NA

Geographic coverage: the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

<sup>1</sup>See Definitions.

<sup>2</sup>Other includes propane, butane, natural gasoline, some natural gas liquids, and aviation jet fuel in January and February 1979 when aviation jet fuel was decontrolled. From March 1979 to December 1979, it includes butane, natural gasoline, propane and some natural gas liquids. Since January 1980, when butane and natural gasoline were decontrolled, only propane and some natural gas liquids are included in this category.

NA = Not available.

Sources: • Crude oil entitlements, Economic Regulatory Administration Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."

• Unrecouped costs: EIA Form 14, "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

# Price

## U.S. City Average Retail Prices for Motor Gasoline<sup>1</sup>

		Leaded Regular	Unleaded Regular	Leaded Premium	Average for All Grades
Cents per gallon, including tax					
1974	<b>AVERAGE</b>	53.2	NA	56.9	NA
1975	<b>AVERAGE</b>	56.7	NA	60.9	NA
1976	<b>AVERAGE</b>	59.0	61.4	63.6	NA
1977	<b>AVERAGE</b>	62.2	65.6	67.4	NA
1978	<b>AVERAGE</b>	62.6	67.0	69.4	65.2
1979	January	66.8	71.6	73.7	69.5
	February	68.1	73.0	75.0	70.7
	March	70.6	75.5	77.4	73.3
	April	75.3	80.2	82.4	78.0
	May	79.7	84.4	86.7	82.3
	June	85.6	90.1	92.0	88.0
	July	90.8	94.9	96.5	93.0
	August	94.3	98.8	100.4	96.7
	September	97.3	102.0	103.6	99.8
	October	98.2	102.8	104.6	100.6
	November	99.4	104.1	105.6	101.9
	December	101.8	106.5	108.0	104.2
		<b>AVERAGE</b>	<b>85.7</b>	<b>90.3</b>	<b>92.2</b>
1980	January	108.6	113.1	114.9	111.0
	February	115.9	120.7	123.3	118.6
	March	120.2	125.2	127.7	123.0
	April	121.2	126.4	129.2	124.2
	May	121.5	126.6	129.5	124.4
	June	121.7	126.9	130.0	124.6
	July	121.6	127.1	130.7	124.7
	August	121.0	126.7	131.0	124.3
	September	119.7	125.7	130.4	123.1
	October	118.8	125.0	130.1	122.3
	November	118.8	125.0	129.9	122.2
	December	119.7	125.8	131.0	123.1
		<b>AVERAGE</b>	<b>119.1</b>	<b>124.5</b>	<b>128.1</b>
1981	January	123.8	129.8	133.8	126.9
	February	132.1	138.2	141.0	135.3
	March	135.2	141.7	144.9	138.8

Geographic coverage: 1974 through 1977—56 suburban areas; 1978 forward—85 urban areas.

<sup>1</sup>See Explanatory Note 16.

Source: Bureau of Labor Statistics.

# Price

## Aviation Fuel

		Aviation Gasoline		Naphtha-Type <sup>1</sup>	Kerosene-Type	
		Wholesale <sup>2</sup>	Retail <sup>2</sup>	Retail <sup>2</sup>	Wholesale <sup>2</sup>	Retail <sup>2</sup>
Cents per gallon, excluding tax						
<b>1976</b>	<b>AVERAGE</b>	<b>42.4</b>	<b>43.1</b>	<b>31.5</b>	<b>32.5</b>	<b>31.2</b>
<b>1977</b>	<b>AVERAGE</b>	<b>46.7</b>	<b>47.7</b>	<b>35.0</b>	<b>36.7</b>	<b>35.8</b>
<b>1978</b>	<b>AVERAGE</b>	<b>51.0</b>	<b>52.1</b>	<b>37.5</b>	<b>38.9</b>	<b>38.9</b>
<b>1979</b>	January	54.1	53.9	38.6	42.2	40.1
	February	54.6	55.1	39.1	44.3	40.2
	March	56.6	56.8	40.7	54.8	41.3
	April	58.2	59.1	43.2	60.1	45.4
	May	60.6	61.2	44.1	58.1	48.4
	June	64.8	66.8	49.5	59.9	50.9
	July	70.0	71.8	50.4	67.1	58.2
	August	74.2	75.6	55.0	71.4	60.8
	September	78.2	79.0	60.2	73.1	65.9
	October	79.8	80.4	64.6	80.6	68.4
	November	81.3	80.6	66.4	83.4	69.7
	December	84.1	83.4	73.3	83.2	72.3
	<b>AVERAGE</b>	<b>68.5</b>	<b>69.5</b>	<b>52.3</b>	<b>66.5</b>	<b>55.1</b>
<b>1980</b>	January	90.6	90.0	76.0	83.4	77.0
	February	98.5	97.8	80.1	86.2	83.0
	March	102.9	107.0	84.1	86.6	86.3
	April	104.8	109.6	83.2	88.4	87.4
	May	106.2	109.7	89.1	89.0	87.6
	June	107.7	111.4	90.0	86.1	88.6
	July	109.3	113.4	91.4	88.3	89.7
	August	110.2	112.9	90.6	86.2	90.7
	September	110.8	113.3	92.9	86.4	88.8
	October	110.8	113.0	91.1	87.6	88.7
	November	112.4	113.0	92.5	89.9	91.0
	December	115.1	R117.2	R94.1	R91.4	R91.6
	<b>AVERAGE</b>	<b>107.2</b>	<b>109.4</b>	<b>88.2</b>	<b>R87.5</b>	<b>87.4</b>
<b>1981</b>	January†	118.9	121.6	96.0	97.2	95.7

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>2</sup>Wholesale refers to the price of aviation fuel sold to other 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.

†Preliminary data. R = Revised data.

Source: • FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."



# Price

## National Average Heating Oil Prices<sup>1</sup>

		Refiners' Average Selling Price to Resellers and Retailers	Average Purchase Price Paid by Distributors for Heating Oil <sup>2</sup>	Average Distributor Margin on Residential Heating Oil <sup>2</sup>	Average Selling Price to Residential Customers <sup>2</sup>
Cents per gallon					
1976	<b>AVERAGE</b>	31.4	32.6	NA	40.6
1977	<b>AVERAGE</b>	35.7	36.9	NA	46.0
1978	<b>AVERAGE</b>	37.2	38.7	11.0	49.4
1979	January	40.9	42.1	11.8	53.7
	February	43.1	44.5	12.0	56.3
	March	45.8	47.0	12.0	58.8
	April	48.3	49.3	12.1	61.1
	May	53.2	52.6	12.1	64.2
	June	58.8	56.9	12.7	69.1
	July	62.5	61.1	13.0	73.8
	August	65.7	64.6	13.0	78.4
	September	69.0	67.8	13.7	81.0
	October	68.6	68.1	14.8	82.3
	November	70.0	69.0	15.1	83.7
	December	71.7	70.8	15.5	85.8
	<b>AVERAGE</b>	<b>55.9</b>	<b>53.0</b>	<b>12.8</b>	<b>65.6</b>
1980	January	75.0	75.2	16.2	90.8
	February	77.8	79.0	16.7	95.3
	March	78.8	80.4	17.1	97.1
	April	78.8	81.0	17.0	97.4
	May	79.3	81.4	16.3	97.2
	June	80.2	82.5	15.8	97.9
	July	79.2	83.0	15.3	97.9
	August	79.3	82.9	15.2	97.9
	September	79.3	83.0	15.4	98.1
	October	80.7	83.7	15.3	98.7
	November	84.0	86.1	13.8	101.1
	December	88.6	91.3	14.1	106.5
	<b>AVERAGE</b>	<b>80.0</b>	<b>82.2</b>	<b>15.8</b>	<b>97.8</b>
1981	January	R94.9	R98.6	R15.1	R114.4
	February†	102.7	106.0	15.9	123.3

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 17.

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

†Preliminary data. R=Revised data. NA=Not available.

Source: • FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" for 1976 through October 1980. EIA-9A, "No. 2 Distillate Price Monitoring Report, for 1976 through October 1980." EIA-9A, "No. 2 Distillate Price Monitoring Report" for November 1980 forward.

# Price

## Residential Heating Oil Prices by Region

		DOE Region <sup>1</sup>									
		Cents per gallon									
		1	2	3	4	5	6	7	8	9	10
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	70.5	69.7	68.4	66.2	68.5	NA	68.9	67.8	62.2	66.4
	July	75.9	73.9	72.9	70.9	73.2	NA	72.0	72.5	68.4	72.3
	August	80.1	78.6	77.7	74.8	78.5	NA	76.4	77.1	71.7	77.2
	September	83.3	81.4	80.0	79.4	81.5	NA	79.5	80.1	76.8	81.4
	October	84.1	82.5	81.7	79.1	82.6	NA	80.2	81.3	81.2	82.6
	November	85.1	83.7	82.4	80.5	83.9	NA	82.2	84.0	80.4	82.3
	December	87.2	85.7	85.1	82.9	86.1	NA	85.3	86.3	82.6	84.6
1980	January	91.8	91.0	90.2	88.6	90.4	NA	90.0	90.2	89.6	91.0
	February	96.7	95.3	94.7	93.0	93.5	NA	93.6	93.5	95.8	95.7
	March	98.7	97.2	96.5	94.8	94.3	NA	95.1	95.9	93.9	97.6
	April	99.2	97.3	96.6	94.1	94.5	NA	95.3	99.5	94.7	99.0
	May	98.7	97.3	96.4	94.2	95.8	NA	95.2	97.7	95.5	98.6
	June	99.8	97.9	96.8	95.1	95.8	NA	95.3	98.4	96.0	99.8
	July	100.3	98.1	96.6	94.2	96.2	NA	93.1	97.0	96.7	100.2
	August	100.2	97.9	96.8	94.8	95.7	NA	95.4	92.1	99.7	100.4
	September	100.5	98.2	97.0	94.7	95.7	NA	93.7	93.0	97.2	100.6
	October	101.1	98.8	97.4	95.6	95.9	NA	94.7	94.1	98.6	100.4
	November	102.5	103.0	99.9	101.5	98.8	NA	95.2	98.5	101.0	103.1
	December	108.2	108.5	105.3	106.6	103.4	NA	99.6	101.8	NA	105.6
1981	January	R116.2	R117.1	R113.2	R114.0	R110.4	NA	R106.3	R108.6	NA	R107.5
	February†	125.7	126.7	122.8	124.6	117.9	NA	114.1	113.0	NA	113.3

<sup>1</sup>DOE Regions are defined in Explanatory Note 18.

†Preliminary data. R = Revised data.

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

Source: • FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" for 1979 through October 1980. EIA-9A, "No. 2 Distillate Price Monitoring Report" for November 1980 forward.

# 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									
<b>1976</b>	<b>AVERAGE</b>	<b>12.20</b>	<b>12.54</b>	<b>10.83</b>	<b>11.79</b>	<b>9.98</b>	<b>10.43</b>	<b>10.72</b>	<b>11.49</b>
<b>1977</b>	<b>AVERAGE</b>	<b>13.45</b>	<b>14.36</b>	<b>12.09</b>	<b>13.45</b>	<b>11.31</b>	<b>12.27</b>	<b>11.96</b>	<b>13.23</b>
<b>1978</b>	<b>AVERAGE</b>	<b>12.77</b>	<b>14.47</b>	<b>11.95</b>	<b>12.78</b>	<b>10.73</b>	<b>11.70</b>	<b>11.51</b>	<b>12.75</b>
<b>1979</b>	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	11.31	12.28	13.72	14.68
	March	16.08	18.05	15.90	16.94	13.48	14.00	14.82	15.95
	April	17.79	19.09	16.34	17.44	13.70	14.59	15.51	16.61
	May	18.04	19.45	15.74	17.89	14.69	15.37	15.71	17.18
	June	20.92	19.79	18.08	18.51	15.95	16.40	17.81	17.97
	July	21.85	23.07	21.25	20.47	16.51	17.86	19.18	19.89
	August	21.05	22.63	19.49	21.28	17.51	18.32	19.00	20.33
	September	21.81	22.92	21.01	21.66	17.54	18.94	19.62	20.90
	October	23.80	23.29	22.99	22.33	18.31	19.53	20.88	21.59
	November	26.68	25.54	24.07	24.31	19.31	19.51	22.00	22.84
	December	27.09	27.78	25.83	25.01	20.67	21.05	23.55	24.44
	<b>AVERAGE</b>	<b>19.87</b>	<b>21.21</b>	<b>18.33</b>	<b>19.33</b>	<b>15.89</b>	<b>16.44</b>	<b>17.66</b>	<b>18.67</b>
<b>1980</b>	January	29.11	30.35	26.15	28.12	21.56	21.98	24.41	26.21
	February	27.07	30.32	25.82	28.15	20.21	22.22	23.34	26.48
	March	26.88	30.20	23.73	27.29	17.81	20.34	21.11	25.33
	April	25.16	28.69	20.38	24.78	16.41	18.36	19.09	22.87
	May	25.48	31.73	22.72	25.77	17.72	18.04	20.22	23.75
	June	23.14	31.37	22.35	25.44	17.72	19.27	20.44	24.09
	July	24.89	28.51	23.44	25.55	19.20	20.58	21.28	23.86
	August	23.20	30.93	24.98	26.11	20.42	21.45	22.25	25.00
	September	24.27	33.12	23.46	26.31	20.62	21.71	22.47	25.31
	October	R25.72	31.88	25.86	28.00	22.30	23.29	R24.06	R26.68
	November	R29.52	33.70	29.40	30.89	27.08	27.50	R28.12	R30.10
	December	R31.69	R35.76	R31.29	R32.61	28.39	R30.03	R29.76	R32.33
	<b>AVERAGE</b>	<b>R26.41</b>	<b>31.13</b>	<b>R24.91</b>	<b>R27.59</b>	<b>20.77</b>	<b>R22.11</b>	<b>R23.14</b>	<b>26.09</b>
<b>1981</b>	January†	34.02	37.28	32.00	34.08	29.28	31.28	30.96	33.73

Geographic coverage: the 50 United States and District of Columbia.

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.

† Preliminary data. R = Revised data.

Source: • FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

# Price

## Natural Gas

		Average Wellhead Value	Delivered to Electric Plant <sup>1</sup>	Average Residential Heating
Cents per thousand cubic feet				
1973	<b>AVERAGE</b>	21.6	35.0	108.2
1974	<b>AVERAGE</b>	30.4	49.0	125.3
1975	<b>AVERAGE</b>	44.5	76.9	154.2
1976	<b>AVERAGE</b>	58.0	105.9	184.6
1977	<b>AVERAGE</b>	79.0	133.4	226.4
1978	<b>AVERAGE</b>	90.5	147.9	262.6
1979	January	102.0	154.7	292.9
	February	104.9	164.8	295.6
	March	109.5	168.6	300.6
	April	110.6	169.6	299.6
	May	115.0	182.2	314.9
	June	116.6	183.9	320.0
	July	119.6	184.0	328.4
	August	123.6	187.0	330.8
	September	123.5	189.4	341.4
	October	128.1	195.7	352.8
	November	128.7	186.9	347.6
	December	131.0	190.0	351.9
		<b>AVERAGE</b>	<b>117.8</b>	<b>180.3</b>
1980	January	134.4	201.1	354.9
	February	139.5	210.5	357.9
	March	141.3	214.7	368.1
	April	143.4	210.4	367.8
	May	145.2	218.1	393.9
	June	145.8	216.4	394.8
	July	152.8	237.3	410.6
	August	R152.8	245.6	413.1
	September	R157.4	245.6	417.0
	October	R159.4	253.4	420.6
	November	R163.3	238.4	396.1
	December	R162.2	232.7	403.3
		<b>AVERAGE</b>	<b>R149.6</b>	<b>212.8</b>
1981	January	167.6	258.8	406.9
	February	NA	NA	409.3

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Includes all electric utility generating plants with a combined capacity for 25 megawatts or greater. Small quantities of coke oven gas, refinery gas and blast furnace gas are included.

NA = Not available.

Sources: • Annual data for wellhead values are from the appropriate agencies of the individual producing states and the U.S. Geological Survey; monthly data are estimated primarily on the basis of values reported by state agencies in New Mexico, Oklahoma, and Texas.

• Electric Plant data are from Federal Power Commission Form 423, "Monthly Report of Cost and Quantity of Fuels for Electric Plants."

• Average residential heating prices, Bureau of Labor Statistics.

# Price

## Electricity

		Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants				Average Retail Electricity Prices <sup>1</sup>				
		Coal	Residual Oil <sup>2</sup>	Natural Gas <sup>3</sup>	All Fossil Fuels <sup>2</sup>	Residential	Commercial	Industrial	Other	Total <sup>4</sup>
		Cents per million Btu				Cents per kilowatt-hour				
<b>1973</b>	<b>AVERAGE</b>	40.5	78.8	33.8	47.5	2.54	2.41	1.25	2.10	1.96
<b>1974</b>	<b>AVERAGE</b>	71.0	191.0	48.1	90.9	3.10	3.04	1.69	2.75	2.49
<b>1975</b>	<b>AVERAGE</b>	81.4	201.4	75.4	103.0	3.51	3.45	2.07	3.08	2.92
<b>1976</b>	<b>AVERAGE</b>	84.8	195.9	103.4	110.4	3.73	3.69	2.21	3.27	3.09
<b>1977</b>	<b>AVERAGE</b>	94.7	220.4	130.0	127.7	4.05	4.09	2.50	3.51	3.42
<b>1978</b>	<b>AVERAGE</b>	111.6	212.3	143.8	139.3	4.31	4.36	2.79	3.62	3.69
<b>1979</b>	January	115.8	228.1	150.2	150.4	4.07	4.28	2.81	3.55	3.64
	February	114.6	240.6	159.1	154.3	4.09	4.30	2.85	3.73	3.66
	March	116.8	258.8	163.0	152.3	4.28	4.44	2.91	3.87	3.76
	April	120.1	264.6	164.7	151.4	4.51	4.54	2.92	3.87	3.82
	May	121.1	274.1	177.5	158.0	4.69	4.65	2.98	3.98	3.91
	June	121.8	289.3	179.5	161.2	4.88	4.73	3.04	4.05	4.03
	July	122.2	311.8	178.9	168.7	4.92	4.77	3.13	4.22	4.15
	August	122.5	323.5	180.9	167.1	4.94	4.79	3.13	3.88	4.18
	September	125.3	333.5	183.5	167.9	4.96	4.84	3.15	4.07	4.19
	October	127.4	346.1	189.1	167.3	5.01	4.94	3.19	4.07	4.19
	November	127.7	363.1	180.3	171.5	4.84	4.92	3.19	4.14	4.14
	December	129.2	394.8	183.3	183.8	4.72	4.90	3.27	4.19	4.18
	<b>AVERAGE</b>	<b>122.4</b>	<b>299.7</b>	<b>175.4</b>	<b>162.1</b>	<b>4.64</b>	<b>4.68</b>	<b>3.05</b>	<b>3.96</b>	<b>3.99</b>
<b>1980</b>	January	128.7	423.5	194.8	187.3	4.69	4.90	3.32	4.19	4.21
	February	129.9	429.7	203.9	189.8	4.74	R4.97	R3.32	R4.63	R4.25
	March	130.1	411.0	207.9	184.8	4.92	5.17	3.45	4.69	4.40
	April	133.8	394.9	204.0	178.2	5.14	5.28	3.49	4.71	4.48
	May	133.3	403.1	212.0	180.3	5.41	5.44	3.59	4.97	4.63
	June	135.1	392.7	209.3	178.8	5.60	5.61	3.79	4.58	4.85
	July	137.4	394.5	228.5	199.0	5.66	5.65	3.93	4.93	5.03
	August	139.5	404.9	237.2	196.2	5.72	5.64	3.94	4.81	5.07
	September	138.9	411.3	238.7	193.5	5.71	5.73	3.88	4.95	5.03
	October	138.1	452.2	245.7	192.2	5.68	5.84	3.84	4.88	4.95
	November	139.3	496.0	231.3	200.0	5.61	5.71	3.85	5.06	4.89
	December	137.8	521.9	226.3	206.6	5.49	5.69	3.88	4.82	4.90
	<b>AVERAGE</b>	<b>135.2</b>	<b>427.9</b>	<b>212.9</b>	<b>189.3</b>	<b>5.36</b>	<b>5.48</b>	<b>3.69</b>	<b>4.76</b>	<b>4.73</b>
<b>1981</b>	January	142.3	540.2	254.1	221.3	5.44	5.73	3.94	4.92	4.96
	February	NA	NA	NA	NA	5.52	5.83	3.95	5.01	4.99

Geographic coverage: Fossil Fuels — the lower 48 States and the District of Columbia. Electricity — the 50 United States and the District of Columbia.

<sup>1</sup>Prices are for selected Classes A and B privately owned electric utilities.

<sup>2</sup>See Explanatory Note 19.

<sup>3</sup>Includes small quantities of coke oven gas, refinery gas and blast furnace gas.

<sup>4</sup>Average price for total sales to ultimate consumers.

R = Revised data. NA = Not available.

Sources: • Cost of Fossil Fuels, Federal Power Commission, Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Retail Price, January 1973 thru February 1980: Federal Power Commission, Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulatory Commission, Form 5, "Electric Utility Company Monthly Statement."



## International

### Crude Oil Production

World crude oil production during January 1981 was 58.1 million barrels per day, maintaining the December 1980 level.

OPEC output during January also remained at about the same level as December 1980, averaging 25.1 million barrels per day. Average production from Arab members of OPEC also was virtually unchanged from the previous month at 17.4 million barrels per day. In January, both Iran and Iraq continued to expand their average production levels. Iran, at 1.6 million barrels per day, was up 0.2 million barrels per day from December 1980 and matched their pre-war output figure for August 1980. Iraq's output was up nearly 0.2 million barrels per day also, but at only 0.6 million barrels per day it is only producing at one-fifth of its pre-war average. Libya, United Arab Emirates, and Venezuela all showed decreases of 0.1 million barrels per day in January, offsetting the increases by Iran and Iraq. Other OPEC nations maintained production in January at about the same as the previous month's level.

Production by non-OPEC nations as a group remained constant at 33.0 million barrels per day in January. Mexico showed an increase of 0.2 million barrels per day. Many others had small decreases which together matched Mexico's increase.

### Petroleum Consumption

Petroleum consumption by International Energy Agency (IEA) member nations was 35.5 million barrels per day during December 1980. This preliminary figure was an

increase of 3.5 million barrels per day from the consumption rate during November 1980, and a 1.8 million barrels per day decrease from the December 1979 rate of 37.3 million barrels per day.

Preliminary consumption data for February 1981 were available for France, Italy, and the United States. Both France and the United States had lower consumption levels with Italy showing an increase from the previous month. For 1980 the data indicate a significant decline in the consumption rates for the group of IEA nations of 2.9 million barrels per day from 1979.

### Nuclear Electricity Production

In February 1981, the non-Communist world generated 58.6 billion gross kilowatt-hours of nuclear-based electricity; a decrease of 10.2 percent with respect to January output, but 12.3 percent over February 1980 production. U.S. nuclear electricity generation during February 1981 was 22.6 billion gross kilowatt-hours, about 39 percent of the total "free world" generation for that month.

As of February 28, 1981, 18 non-Communist nations operated a total of 213 power reactor units which were authorized to generate electricity commercially. One reactor unit—Tricastin-3, came on line in February. Thus, in the 3 months spanning December 1980 through February 1981, five French reactors became operational. In contrast, only two U.S. power reactors (North Anna-2 and Sequoyah-1) have obtained operating licenses in the last 2 years. The combined generating capacity of the 213 "free world" units was 135.7 million gross kilowatts, of which 59.8 million gross kilowatts, or 44 percent, was attributed to utilities in the United States.

# International

## Crude Oil Production for Major Petroleum Exporting Countries

		Algeria	Iraq	Kuwait <sup>1</sup>	Libya	Qatar	Saudi Arabia <sup>1</sup>	United Arab Emirates	Arab Members of OPEC <sup>2</sup>	Indonesia	Iran
		Thousand barrels per day									
1973	<b>AVERAGE</b>	1,070	2,018	3,020	2,175	570	7,596	1,533	17,982	1,339	5,860
1974	<b>AVERAGE</b>	960	1,971	2,546	1,521	518	8,480	1,679	17,675	1,375	6,022
1975	<b>AVERAGE</b>	960	2,262	2,084	1,480	438	7,075	1,664	15,963	1,307	5,350
1976	<b>AVERAGE</b>	1,020	2,415	2,145	1,933	497	8,577	1,936	18,523	1,504	5,863
1977	<b>AVERAGE</b>	1,100	2,350	1,980	2,065	445	9,210	2,000	19,150	1,685	5,665
1978	<b>AVERAGE</b>	1,160	2,560	2,135	1,985	485	8,300	1,830	18,455	1,635	5,240
1979	January	1,235	3,535	2,605	2,165	550	9,790	1,840	21,720	1,600	410
	February	1,235	3,535	2,695	2,150	555	9,780	1,835	21,785	1,615	760
	March	1,235	3,535	2,580	2,070	370	9,780	1,830	21,400	1,625	2,190
	April	1,235	3,535	2,535	2,060	550	8,790	1,755	20,460	1,605	3,800
	May	1,235	3,535	2,575	2,040	540	8,780	1,860	20,565	1,565	4,100
	June	1,235	3,535	2,575	2,015	455	8,780	1,870	20,465	1,610	3,950
	July	1,035	3,335	2,540	2,070	520	9,780	1,835	21,115	1,600	3,750
	August	1,035	3,335	2,515	2,080	535	9,770	1,835	21,105	1,595	3,600
	September	1,035	3,335	2,365	2,020	455	9,780	1,840	20,830	1,575	3,600
	October	1,035	3,335	2,365	2,030	490	9,725	1,785	20,765	1,570	3,930
	November	1,035	3,335	2,435	2,085	525	9,795	1,870	21,080	1,570	3,170
	December	1,035	3,335	2,240	2,090	545	9,775	1,875	20,895	1,565	3,000
	<b>AVERAGE</b>	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168
1980	January	1,150	3,400	2,140	2,100	495	9,785	1,740	20,810	1,565	2,295
	February	1,150	3,400	2,335	2,100	460	9,780	1,740	20,965	1,550	2,500
	March	1,150	3,400	2,090	2,000	500	9,790	1,695	20,625	1,575	2,350
	April	1,000	3,300	1,570	1,750	500	9,765	1,705	19,590	1,580	2,200
	May	1,000	3,300	1,525	1,750	480	9,775	1,765	19,595	1,550	1,700
	June	1,000	3,300	1,575	1,700	440	9,775	1,750	19,540	1,545	1,500
	July	1,000	3,100	1,365	1,680	460	9,765	1,710	19,080	1,565	1,700
	August	1,000	3,100	1,465	1,690	465	9,765	1,665	19,150	1,565	1,600
	September	1,000	3,000	1,290	1,680	460	9,740	1,670	18,840	1,565	1,400
	October	1,000	150	1,385	1,665	440	10,255	1,675	16,540	1,585	600
	November	1,000	350	1,505	1,680	475	10,265	1,695	16,930	1,630	800
	December	1,000	450	1,779	1,680	483	10,260	1,706	17,360	1,617	1,360
	<b>AVERAGE</b>	<b>R1,012</b>	<b>2,514</b>	<b>R1,656</b>	<b>1,787</b>	<b>472</b>	<b>R9,900</b>	<b>1,709</b>	<b>R19,050</b>	<b>1,577</b>	<b>1,662</b>
1981	January	1,000	600	1,765	1,600	505	10,265	1,620	17,355	1,635	1,600

Note: Data for 1980 and 1981 are preliminary.

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In January 1981 total production in this region amounted to approximately 528,000 barrels per day.

<sup>2</sup>Arab members of OPEC include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

R = Revised data.

Additional footnotes on following page.



# International

## Crude Oil Production for Major Petroleum Exporting Countries (continued)

		Nigeria	Vene- zuela	Total OPEC <sup>a</sup>	Canada	Mexico	United Kingdom	United States	China	USSR	Other <sup>d</sup>	World
		Thousand barrels per day										
1973	AVERAGE	2,054	3,366	30,961	1,800	450	8	9,208	1,140	8,420	3,843	55,830
1974	AVERAGE	2,255	2,976	30,683	1,695	580	9	8,774	1,310	9,020	3,805	55,875
1975	AVERAGE	1,783	2,346	27,134	1,420	720	20	8,375	1,490	9,630	4,201	52,990
1976	AVERAGE	2,067	2,294	30,711	1,300	800	245	8,132	1,735	10,170	4,302	57,395
1977	AVERAGE	2,085	2,240	31,230	1,320	980	770	8,245	1,875	10,700	4,490	59,610
1978	AVERAGE	1,895	2,165	29,800	1,315	1,215	1,080	8,707	2,080	11,215	4,698	60,190
1979	January	2,440	2,265	28,880	1,450	1,395	1,465	8,475	2,120	11,370	4,725	59,880
	February	2,430	2,345	29,380	1,575	1,400	1,505	8,525	2,120	11,370	4,595	60,470
	March	2,440	2,425	30,515	1,405	1,310	1,335	8,601	2,120	11,370	5,214	61,870
	April	2,420	2,385	31,095	1,510	1,400	1,460	8,553	2,120	11,510	4,862	62,510
	May	2,400	2,385	31,445	1,465	1,405	1,645	8,601	2,120	11,110	4,679	62,470
	June	2,420	2,245	31,115	1,465	1,440	1,745	8,432	2,120	11,460	4,743	62,520
	July	2,380	2,325	31,515	1,520	1,440	1,710	8,364	2,120	11,400	5,621	63,690
	August	2,185	2,325	31,230	1,450	1,460	1,640	8,548	2,120	11,560	5,322	63,330
	September	2,115	2,365	30,895	1,490	1,475	1,675	8,523	2,120	11,460	5,072	62,710
	October	2,135	2,370	31,180	1,545	1,515	1,615	8,621	2,120	11,630	5,099	63,325
	November	2,150	2,390	30,770	1,525	1,620	1,520	8,761	2,120	11,700	5,124	63,140
	December	2,150	2,410	30,430	1,545	1,660	1,545	8,615	2,120	11,700	5,005	62,620
	<b>AVERAGE</b>	<b>2,302</b>	<b>2,356</b>	<b>30,928</b>	<b>1,495</b>	<b>1,460</b>	<b>1,570</b>	<b>8,552</b>	<b>2,120</b>	<b>11,470</b>	<b>4,824</b>	<b>62,400</b>
1980	January	2,155	2,280	29,535	1,515	1,720	1,600	8,648	2,115	11,560	5,042	61,735
	February	2,160	2,200	29,805	1,475	1,725	1,660	8,696	2,115	11,550	5,189	62,215
	March	2,155	1,995	29,100	1,475	1,830	1,670	8,712	2,115	11,640	5,203	61,745
	April	2,100	2,045	27,965	1,390	1,885	1,510	8,688	2,120	11,630	5,352	60,540
	May	2,200	2,150	27,645	1,470	1,910	1,600	8,640	2,120	11,700	5,175	60,260
	June	2,110	2,050	27,175	1,535	1,905	1,625	8,547	2,120	11,630	5,203	59,740
	July	2,095	2,170	27,030	1,520	2,015	1,585	8,555	2,125	11,800	4,945	59,575
	August	2,050	2,210	27,010	1,440	2,000	1,535	8,422	2,130	11,800	5,158	59,495
	September	1,600	2,190	25,955	1,420	2,125	1,540	8,619	2,110	11,800	5,056	58,625
	October	1,879	2,225	R23,255	1,311	2,182	1,572	8,536	2,076	11,800	R5,228	55,960
	November	2,062	2,230	R24,065	1,365	1,901	1,731	R8,499	2,088	11,824	R5,197	R56,670
	December	2,026	2,330	R25,050	1,300	2,027	1,759	R8,609	2,083	11,893	R5,339	R58,060
	<b>AVERAGE</b>	<b>2,055</b>	<b>2,167</b>	<b>R26,890</b>	<b>R1,424</b>	<b>1,937</b>	<b>R1,622</b>	<b>R8,597</b>	<b>2,114</b>	<b>11,720</b>	<b>R5,151</b>	<b>R59,455</b>
1981	January	1,900	2,220	25,080	1,260	2,220	1,765	8,550	2,025	11,900	5,250	58,050

United States geographic coverage: the 50 United States and District of Columbia.

<sup>a</sup>OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.

<sup>d</sup>Other is a calculated total derived from the difference between world production and the nations represented above.

R = Revised data.

Note: Monthly data may not average to annual data due to independent rounding and/or unpublished monthly revisions by the data source. Data for 1980 are preliminary.

Sources: • 1973-1978 annual data (except U.S.): Central Intelligence Agency, *International Energy Statistical Review*.

• 1979 annual data (except U.S. and OPEC nations): Central Intelligence Agency, *International Energy Statistical Review*.

• 1979 annual data for OPEC nations: *OPEC Annual Statistical Bulletin 1979*.

• 1979 monthly data (except U.S.) are EIA estimates based on CIA revisions to annual data.

• 1973-1980 United States data: See sources on the last page of the Petroleum Section.

• 1980 and 1981 monthly and 1980 annual data (except U.S. and World total): Central Intelligence Agency, *International Energy Statistical Review*.

# International

## Petroleum Consumption for Major Free World Industrialized Countries<sup>1</sup>

		Canada	France <sup>2</sup>	Italy	Japan	United Kingdom	United States	West Germany	Other IEA <sup>3</sup>	Total IEA <sup>4</sup>
Thousand barrels per day										
1973	AVERAGE	1,597	2,219	1,525	5,000	1,958	17,308	2,693	4,069	34,150
1974	AVERAGE	1,630	2,094	1,521	4,872	1,829	16,653	2,408	4,047	32,960
1975	AVERAGE	1,595	1,925	1,468	4,568	1,633	16,322	2,319	3,905	31,810
1976	AVERAGE	1,647	2,075	1,503	4,786	1,601	17,461	2,507	4,265	33,770
1977	AVERAGE	1,661	1,973	1,476	5,015	1,655	18,431	2,478	4,214	34,930
1978	AVERAGE	1,701	2,077	1,551	5,115	1,683	18,847	2,596	4,387	35,880
1979	January	1,881	2,786	1,950	5,579	1,883	20,586	2,893	5,228	40,000
	February	2,019	2,731	1,912	6,009	2,067	21,288	2,708	5,097	41,100
	March	1,654	2,315	1,601	5,708	1,949	19,322	2,592	4,574	37,400
	April	1,605	2,150	1,447	5,009	1,703	17,434	2,590	4,212	34,000
	May	1,650	2,039	1,402	4,757	1,648	17,801	2,641	4,301	34,200
	June	1,737	1,663	1,312	4,709	1,517	17,786	2,613	4,026	33,700
	July	1,700	1,604	1,314	4,689	1,435	17,144	2,626	4,192	33,100
	August	1,775	1,553	1,311	4,894	1,488	18,149	2,617	4,566	34,800
	September	1,619	1,721	1,617	4,809	1,520	17,400	2,597	4,338	33,900
	October	1,852	2,007	1,807	4,771	1,652	18,176	2,846	4,396	35,500
	November	1,840	2,481	1,890	5,359	1,858	18,313	2,763	4,377	36,400
	December	1,877	2,278	1,744	5,800	1,606	18,922	2,489	4,862	37,300
		AVERAGE	1,766	2,107	1,607	5,173	1,690	18,513	2,664	4,487
1980	January	R1,820	2,465	1,778	5,255	1,769	18,656	2,665	R4,557	36,500
	February	R1,930	2,444	1,864	5,722	1,621	18,815	2,385	R4,763	37,100
	March	R1,720	1,982	1,657	5,433	1,585	17,385	2,405	R4,415	34,600
	April	R1,600	2,110	1,541	4,626	1,472	16,724	2,656	R4,281	32,900
	May	R1,590	1,853	1,448	4,376	1,348	16,143	2,203	R3,992	31,100
	June	R1,660	1,848	1,511	4,224	1,286	16,214	2,192	R4,007	31,100
	July	R1,680	1,450	1,537	4,250	1,217	15,962	2,404	R4,050	31,100
	August	R1,650	1,220	1,310	3,910	1,120	15,727	2,130	R3,853	29,700
	September	R1,710	1,740	1,650	4,120	1,270	16,548	2,520	R4,182	32,000
	October	R1,770	2,050	1,670	4,250	1,430	16,911	2,210	R3,959	32,200
	November	1,720	2,040	1,530	R4,550	1,440	R16,694	2,080	3,986	32,000
	December	1,940	2,410	1,740	5,350	1,480	R18,354	2,170	4,466	35,500
		AVERAGE	1,730	1,965	1,602	4,680	1,420	R17,006	2,335	4,427
1981	January	NA	R2,310	1,690	5,010	1,400	R18,132	2,225	NA	NA
	February	NA	2,170	1,970	NA	NA	16,773	NA	NA	NA

United States geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.

<sup>2</sup>Not a member of the International Energy Agency (IEA).

<sup>3</sup>Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.

<sup>4</sup>The 21 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. Australia and Portugal joined the IEA as new members in 1979 and 1980, respectively. In an effort to maintain comparability within this time series, consumption data for these two countries have been incorporated into the IEA total for all years. Data for 1979 and 1980 are rounded to nearest hundred thousand.

NA = Not Available. R = Revised data.

Note: Data for 1980 and 1981 are preliminary.

Sources: • Central Intelligence Agency, "International Energy Statistical Review," 28 April 1981 (except United States).

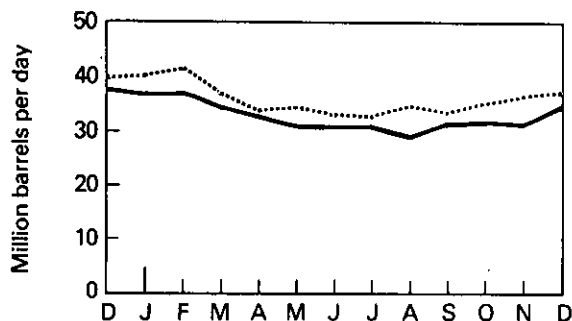
• 1973-1981 United States data: See sources on last page of the Petroleum Section.

• IEA totals for latest months are EIA estimates.

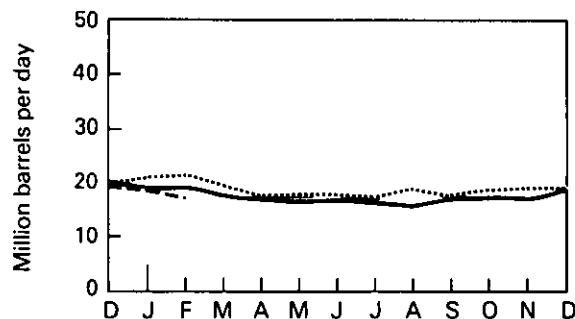
# International

## Petroleum Consumption

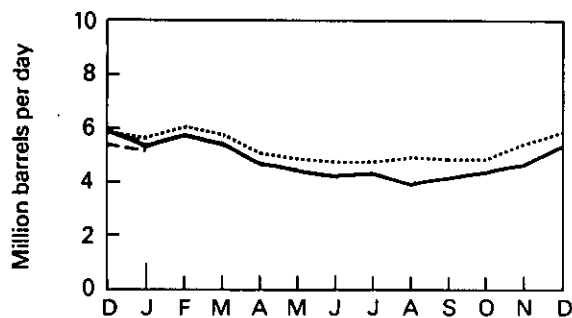
Total IEA



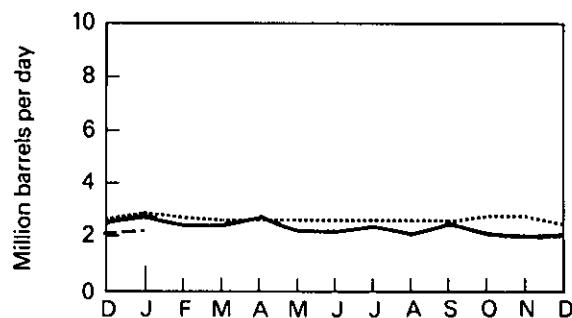
United States



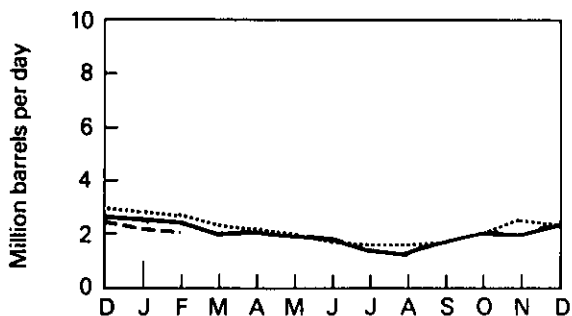
Japan\*



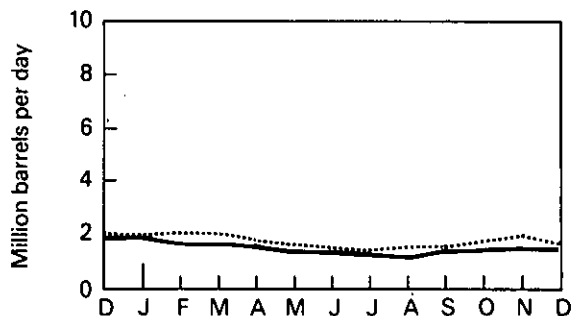
West Germany



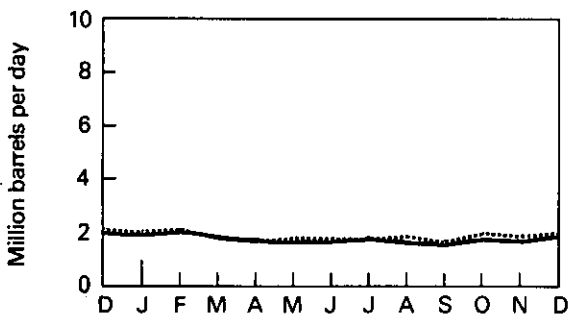
France\*\*



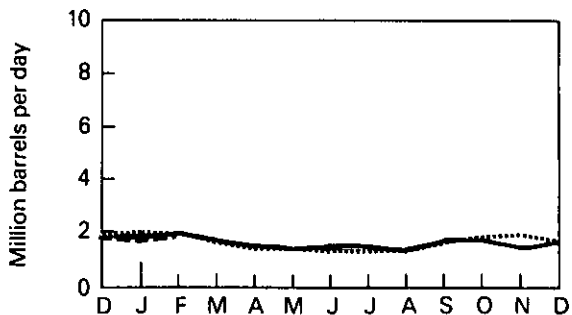
United Kingdom



Canada



Italy\*\*\*



\*Excludes liquefied petroleum gases and condensates.  
\*\*Not a member of IEA.

\*\*\*Principal products only.

..... 1979  
—— 1980  
- - - 1981

# International

## Nuclear Electricity Generation by Non-Communist Countries<sup>1</sup>

		Argentina	Belgium	Canada	Finland	France	India	Italy	Japan	Nether-lands	Pakistan
Billion gross kilowatt-hours											
<b>1973</b>	<b>TOTAL</b>	0	0	18.3	0	11.6	1.9	3.1	9.4	1.1	0.5
<b>1974</b>	<b>TOTAL</b>	1.0	0.1	15.4	0	14.7	2.4	3.4	18.1	3.3	0.6
<b>1975</b>	<b>TOTAL</b>	2.5	6.8	13.2	0	18.3	2.5	3.8	22.2	3.3	0.5
<b>1976</b>	<b>TOTAL</b>	2.6	10.0	18.0	0	15.8	3.2	3.8	36.8	3.9	0.5
<b>1977</b>	<b>TOTAL</b>	1.6	11.9	26.8	2.7	17.9	2.8	3.4	28.1	3.7	0.3
<b>1978</b>	<b>TOTAL</b>	2.9	12.5	32.9	3.3	30.5	2.3	4.4	53.2	4.1	0.2
<b>1979</b>	January	0.3	0.8	3.8	0.5	3.8	0.4	0.4	5.7	0.4	( <sup>2</sup> )
	February	0.2	0.6	2.9	0.5	3.5	0.2	0.3	4.8	0.3	( <sup>2</sup> )
	March	0.2	0.8	2.9	0.5	3.2	0.2	0.2	4.3	0.4	( <sup>2</sup> )
	April	0.3	1.0	3.1	0.6	3.2	0.2	0.3	3.9	0.2	( <sup>2</sup> )
	May	0.3	1.3	2.7	0.5	3.3	0.2	0.2	3.6	0.3	( <sup>2</sup> )
	June	0.2	1.2	3.2	0.4	3.0	0.3	0.1	4.5	0.4	( <sup>2</sup> )
	July	0.2	1.0	3.8	0.5	2.6	0.3	0	5.9	0.4	( <sup>2</sup> )
	August	0.3	0.6	2.8	0.4	2.3	0.3	0.1	6.7	0.3	( <sup>2</sup> )
	September	0.1	0.8	3.0	0.7	3.1	0.2	0.2	5.3	0.4	( <sup>2</sup> )
	October	0.2	1.1	3.3	0.8	3.8	0.3	0.2	6.2	0.3	( <sup>2</sup> )
	November	0.3	1.0	2.9	0.6	3.6	0.3	0.2	5.4	0.3	( <sup>2</sup> )
	December	0.2	1.3	3.8	0.7	4.6	0.2	0.4	5.9	0.1	( <sup>2</sup> )
	<b>TOTAL</b>	<b>2.7</b>	<b>11.4</b>	<b>38.4</b>	<b>6.7</b>	<b>39.9</b>	<b>3.2</b>	<b>2.6</b>	<b>62.0</b>	<b>3.5</b>	<b>(<sup>2</sup>)</b>
<b>1980</b>	January	0.3	1.2	3.6	0.8	5.5	0.2	0.2	8.0	0.4	( <sup>2</sup> )
	February	0.1	1.0	3.5	0.8	5.3	0.1	0.4	7.4	0.4	( <sup>2</sup> )
	March	0	1.0	3.7	0.8	5.1	0.2	0.5	8.0	0.4	( <sup>2</sup> )
	April	0.1	0.5	3.2	0.8	5.0	0.3	0.4	5.6	0.3	( <sup>2</sup> )
	May	0.2	0.7	2.5	0.3	4.2	0.3	0.3	6.0	0.3	( <sup>2</sup> )
	June	0.3	1.1	3.1	0	4.1	0.2	0.1	6.6	0.3	( <sup>2</sup> )
	July	0.2	1.3	3.6	0.4	4.8	0.2	0.1	7.6	0.4	( <sup>2</sup> )
	August	0.3	1.3	3.9	0.4	3.2	0.3	0.1	8.3	0.4	( <sup>2</sup> )
	September	0.3	1.1	3.1	0.4	4.5	0.3	0.1	6.7	0.4	( <sup>2</sup> )
	October	0.3	0.9	3.3	0.5	5.1	0.2	0	5.7	0.3	( <sup>2</sup> )
	November	0.3	1.2	3.4	0.6	5.8	0.3	0	5.1	0.3	( <sup>2</sup> )
	December	0.3	1.2	3.5	1.2	8.5	0.2	0	6.0	0.3	( <sup>2</sup> )
	<b>TOTAL</b>	<b>2.3</b>	<b>12.5</b>	<b>40.4</b>	<b>7.0</b>	<b>61.2</b>	<b>2.9</b>	<b>2.2</b>	<b>81.0</b>	<b>4.2</b>	<b>RO.1</b>
<b>1981</b>	January	0.3	1.2	3.2	1.3	9.3	0.2	0.2	8.1	0.1	( <sup>2</sup> )
	February	0.2	1.0	3.5	0.9	8.6	0.2	0.3	6.9	0.0	( <sup>2</sup> )
	<b>TOTAL</b>	<b>0.4</b>	<b>2.2</b>	<b>6.7</b>	<b>2.2</b>	<b>17.9</b>	<b>0.3</b>	<b>0.5</b>	<b>15.0</b>	<b>0.1</b>	<b>(<sup>2</sup>)</b>

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

<sup>1</sup>Figures are for gross electrical generation as opposed to net electrical generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

<sup>2</sup>Less than 0.05 billion gross kilowatt-hours.

Source: • *Nucleonics Week*.

# International

## Nuclear Electricity Generation by Non-Communist Countries<sup>1</sup> (continued)

		South Korea	Spain	Sweden	Switzer- land	Taiwan	United Kingdom <sup>2</sup>	West Germany	Non- Communist World Excluding U.S.	United States	Total Non- Communist World
Billion gross kilowatt-hours											
<b>1973</b>	<b>TOTAL</b>	0	6.5	2.1	6.2	0	28.0	11.9	100.7	88.0	188.7
<b>1974</b>	<b>TOTAL</b>	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
<b>1975</b>	<b>TOTAL</b>	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.8	334.5
<b>1976</b>	<b>TOTAL</b>	0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.6	388.9
<b>1977</b>	<b>TOTAL</b>	0.1	6.5	19.9	8.1	0.1	38.1	35.8	207.8	263.2	470.9
<b>1978</b>	<b>TOTAL</b>	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
<b>1979</b>	January	0.3	0.5	2.3	0.8	0.4	3.8	4.2	28.5	29.2	57.7
	February	0.4	0.6	2.0	0.7	0.3	3.8	3.4	24.5	27.3	51.7
	March	0.3	0.7	2.7	0.8	0.5	4.0	3.8	25.4	25.5	50.9
	April	0.3	0.6	1.4	0.8	0.6	3.2	3.8	23.5	19.3	42.8
	May	0.3	0.1	1.3	0.9	0.5	2.3	3.5	21.2	15.8	37.0
	June	0.3	0.3	1.0	0.7	0.6	3.1	3.3	22.6	17.1	39.7
	July	0.3	0.3	1.0	0.8	0.7	2.6	3.3	23.8	22.5	46.3
	August	0.4	0.7	1.1	0.7	0.6	2.4	2.9	22.6	26.2	48.7
	September	0.4	0.7	1.4	1.2	0.6	3.1	2.6	23.9	23.2	47.1
	October	0.3	0.7	2.0	1.4	0.5	2.8	3.7	27.6	22.3	49.9
	November	0	0.7	2.3	1.4	0.3	3.3	3.8	26.0	20.3	46.3
	December	0	0.7	2.5	1.5	0.6	4.1	4.1	30.6	21.9	52.5
	<b>TOTAL</b>	<b>3.2</b>	<b>6.7</b>	<b>21.0</b>	<b>11.8</b>	<b>6.3</b>	<b>38.5</b>	<b>42.2</b>	<b>300.1</b>	<b>270.7</b>	<b>570.8</b>
<b>1980</b>	January	0.1	0.7	2.5	1.5	0.9	3.7	4.7	34.2	21.1	55.3
	February	(*)	0.3	2.4	1.2	0.7	3.4	4.2	31.3	21.0	52.2
	March	0.4	0.4	2.3	1.3	0.8	4.2	3.4	32.4	21.0	53.4
	April	0.4	0.4	1.9	1.4	0.7	2.7	3.6	27.3	19.8	47.1
	May	0.4	0.4	1.6	1.4	0.4	2.6	3.5	25.1	19.6	44.7
	June	0.1	0.3	1.6	0.6	0.5	2.8	2.9	24.6	19.4	44.0
	July	0.4	0.3	1.3	0.6	0.8	2.0	3.0	27.0	22.4	49.4
	August	0.3	0.4	1.3	0.7	0.8	2.6	2.7	26.9	25.7	52.6
	September	0.4	0.4	2.1	1.3	0.8	3.1	3.2	28.1	24.8	52.9
	October	0.4	0.4	2.7	1.4	0.8	2.7	3.1	27.9	25.7	53.6
	November	0.4	0.5	3.4	1.4	0.6	3.2	4.1	30.5	22.0	52.5
	December	0.3	0.7	3.6	1.5	0.5	4.2	5.3	37.2	22.9	60.2
	<b>TOTAL</b>	<b>3.5</b>	<b>5.2</b>	<b>26.7</b>	<b>14.3</b>	<b>8.2</b>	<b>37.2</b>	<b>43.7</b>	<b>352.6</b>	<b>265.3</b>	<b>618.0</b>
<b>1981</b>	January	0.3	0.8	3.5	1.5	0.8	3.8	5.0	39.6	25.7	65.3
	February	0.0	0.6	3.6	1.4	0.7	3.4	4.6	36.0	22.6	58.6
	<b>TOTAL</b>	<b>0.3</b>	<b>1.4</b>	<b>7.1</b>	<b>2.9</b>	<b>1.6</b>	<b>7.3</b>	<b>9.6</b>	<b>75.6</b>	<b>48.3</b>	<b>123.9</b>

United States geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Figures are for gross electricity generation, as opposed to net electricity generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

<sup>2</sup>Less than 0.05 billion gross kilowatt-hours.

<sup>3</sup>The United Kingdom assesses generation at 4- or 5week intervals, rather than by calendar month.

Source: \* *Nucleonics Week*.

# 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

(See Crude Oil)

## 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 (Coal)

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.

Base Production Control Level (BPCL): Prior to February 1, 1976, BPCL means the monthly total number of barrels of crude oil produced and sold from a property in 1972 or the average monthly production as defined in Section 212.72 of the Federal Energy Guidelines. After January 31, 1976, BPCL means either the daily average number of barrels produced and sold in 1975 multiplied by the number of days in the month (in 1972) or the daily number of barrels of crude oil produced and sold from the property in 1972 (leap year) multiplied by the number of days of the month (in 1972). A detailed explanation of BPCL and adjustments thereto may be found in Section 212.72 of the Federal Energy Guidelines.

A. Lower Tier (Old) Crude Oil: (1) Prior to February 1, 1976, the total number of barrels of domestic 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 domestic 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.

B. Upper Tier (New) Crude Oil: With respect to a specific property, (1) prior to February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specified month, less (a) the base production control level for that month, and less (b) the current cumulative deficiency; (2) effective February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specific month less (a) the property's base production control level for that month and less (b) the current cumulative deficiency since February 1, 1976; and (3) that the total number of barrels of domestic crude oil shall not in either period include any number of barrels not certified as new crude oil pursuant to the provisions of 10 CFR 212.131(a)(2) within the consecutive 2-month period immediately succeeding the month in which the crude oil is produced and sold except where such recertification is explicitly required or permitted by DOE order, interpretation, or ruling.

C. Decontrolled Oil: Crude oil (exclusive of Stripper oil, Naval Petroleum Reserves oil, Newly Discovered, and Incremental Tertiary oil) which has been explicitly exempted by rule or the exception process from Federal crude oil price controls.

1. Heavy Crude Oil: Crude oil produced and sold from a property whose production of crude oil in June 1979 (or if there was no such production sold in that month, the last preceding month in which there was such production sold) had a weighted average gravity of 16° API or less corrected to 60° F based on the average gravity reported on the run tickets. Effective December 29, 1979, regulations redefined heavy crude oil as 20° API gravity, or less.

2. Incremental Tertiary Oil: Oil which is produced under a qualified tertiary enhanced recovery project certified by the Economic Regulatory Administration, DOE, and which is certified as "incremental tertiary" crude oil in accordance with 10 CFR 212.78.

3. Marginal Property Oil: Oil which is produced from a property which has qualified as a "marginal" property under the average well-completion depth and daily production qualification thresholds of 10 CFR 212.72 and which has been released for sale at upper tier prices.

4. Newly Discovered Crude Oil: Crude oil sold after May 31, 1979, which was produced from: (1) an area in the Outer Continental Shelf for which the

lease was entered into on or after January 1, 1979, and from which there was no production in calendar year 1978; or (2) an onshore property from which no crude oil was produced in calendar year 1978.

5. Stripper Oil: Crude oil which is produced from property whose average daily production 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. Stripper oil was exempt from price controls beginning September 1, 1976.

6. Tertiary Incentive Oil: Price-controlled crude oil which has been released for sale at the market-clearing prices to provide front-end money to initiate or expand qualified tertiary enhanced recovery projects and which has been certified as "tertiary incentive" oil in accordance with 10 CFR 212.78.

#### **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 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.

#### **Distillate Fuel Oil Production**

Total production of distillate fuel by refineries, measured at the refinery outlet. Relatively small

quantities of distillate fuel are produced at natural gas processing plants, but these quantities are not included.

#### **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".

#### **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.

#### **Imports**

Receipts into the 50 States and the District of Columbia of foreign goods (including receipts of goods from U.S. territories and U.S. Foreign Trade Zones) which are classified by customs officials as "imports for consumption" or "withdrawals from bonded warehouse for consumption," including withdrawals from bonded warehouse for military offshore use and for bunkering of vessels or aircraft engaged in international commerce. Included are imports for the Strategic Petroleum Reserve. Excluded are receipts into bonded warehouse and into U.S. territories and U.S. Foreign Trade Zones.

#### **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 turbines to produce electricity.

#### **Landed Cost**

Includes the purchase price at the foreign port (or U.S. land border), transportation and insurance costs, wharfage and demurrage, brokerage fees, import fees and duties, license (ticket) fees, and transportation costs to the refinery. Averages computed based on major importers which account for an estimated 90 to 95 percent of total crude oil imports. Coverage includes United States and its territories.

#### **Lease Condensate**

A natural gas liquid recovered from gas well gas (including gas produced from crude oil reservoirs) in lease separators and, in some instances, field facilities. It consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

#### **Line Miles of Seismic Exploration**

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

#### **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**

(See Crude Oil, Part A.)

#### **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.

#### **Maximum Dependable Capacity, Net**

Represents the dependable main-unit net capacity of domestic reactors and generally varies throughout the year because the unit efficiency varies with seasonal cooling water temperature variations. Usually maximum dependable capacity is the highest net dependable output of the turbine generator during the most restrictive seasonal conditions (usually summer).

#### **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, 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**

Those portions of reservoir gas which are liquefied at the surface in lease separators, field facilities, or natural gas processing plants. Natural gas liquids include natural gas plant liquids and lease condensate.

#### **Natural Gas Plant Liquids**

Those portions of natural gas that are liquefied at natural gas processing plants, including natural gasoline plants, fractionating, and cycling plants, and, in some instances, field facilities. Products obtained include ethane, liquefied petroleum gases (propane, butanes, propane-butane mixtures, ethane-propane mixtures), isopentane, natural gasoline, unfractionated streams, 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 Crude Oil, Part B.)



## **Old Crude Oil**

(See Crude Oil, Part A.)

## **Petroleum**

A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, 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.

## **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, naphtha-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.

## **Property**

Prior to August 26, 1976, a property was defined as the right to produce domestic crude oil, which arises from a lease or from a fee interest. This definition was interpreted to apply only to a surface lease. In August 1976 the definition of a property was changed so that a producer may treat as a separate property each separate and distinct producing reservoir subject to the same right to produce crude oil, provided that such reservoir is recognized by the appropriate governmental regulatory authority as a producing formation that is separate and distinct from, and not in communication with any other producing formation. Although this new definition was not implemented until August 25, 1976, it was made effective retroactively to February 1, 1976. (F.R. 36171, August 26, 1976.)

## **Refined Petroleum Product Supplied**

Total refined petroleum product supplied is the sum of each refined petroleum product supplied. For each product the amount supplied is derived by summing production, imports, and net withdrawals from primary stocks and subtracting exports.

## **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.

## **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 Fuel Oil, Bunker C fuel 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.

## **Strategic Petroleum Reserve**

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.

## **Stocks (Refined Petroleum Product)**

Stocks held at refineries, bulk terminals, and pipelines (including pipeline fill) where the storage capacity exceeds 50,000 barrels. Stocks held at natural gas processing plants are not included as well as stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

## **Synthetic Natural Gas (SNG)**

A product resulting from the manufacture, conversion, or reforming of 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 input, exports of crude oil, crude oil burned as fuel, and crude oil losses.

**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**

(See Crude Oil, Part B.)

**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 Thermal Conversion Factors.

2. Domestic consumption of energy includes consumption of coal (anthracite, bituminous coal, 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 Thermal Conversion Factors.

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 are relative measurements of 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) 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). LRG 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.

Preliminary monthly estimates for 1980 production, stocks, and products supplied are obtained by multiplying the reported data for the most recent month available by an appropriate ratio derived from data for the prior 3 years. For example, if an estimate were required for June 1980 and the most recent monthly data available were for April, the preliminary estimate would be obtained by multiplying the April 1980 data by the average of the June to April ratios for the years 1977 through 1979.

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 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.

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.

The data sources used to compute the monthly coal consumption estimates from 1978 forward for the "Other Industrial" (i.e. Industrial except coke plants) sector are:

- (a) Form EIA-3, "Monthly Fuel Consumption Report—Manufacturing Plants."
- (b) Form EIA-6, "Bituminous Coal and Lignite Distribution Report."

The basic assumption used in deriving a quarterly estimate for coal consumption is that consumption is equal to beginning stocks plus receipts minus ending stocks. In terms of an equation, consumption can be expressed as

$$C = S_b + R - S_e \quad (1)$$

where

- $S_b$  = beginning stocks
- $R$  = receipts
- $S_e$  = ending stocks.

The change in stocks ( $S_b - S_e$ ) can be denoted by  $\Delta S$ . From equation (1), consumption is

$$C = \Delta S + R \quad (2)$$

The Form EIA-6 provides complete coverage of the "Other Industrial" sector. The quarterly receipts are obtained from this form.

The Form EIA-3 does not provide total coverage of the "Other Industrial" sector, however it does contain stock change information. The impact of the stock change in the portion of the sector that is not covered by the Form EIA-3 is not substantial.

Given the estimated quarterly consumption for the "Other Industrial" sector ( $C$ ), the monthly consumption for the sector ( $C_M$ ) can be estimated for each month in the quarter as

$$C_M = (C_{M3}/C_3) \bullet C \quad (3)$$

where

- $C_{M3}$  = the monthly consumption in the "Other Industrial" sector as reported on Form EIA-3.
- $C_3$  = the quarterly consumption in the "Other Industrial" sector as reported on Form EIA-3.

Equation (3) insures that a) the monthly consumption estimates ( $C_M$ ) sum to  $C$  over the quarter and b) the estimated seasonality for the  $C_M$ 's is the same as that for the  $C_{M3}$ 's.

11. The units used to describe power generation at nuclear plants are based on the watt, a unit of power. (Power is energy produced per unit of time.) Nuclear power plants may have more than one type of power rating, including:

- (a). Design Capacity or Design Electrical Rating (DER)—The nominal net, electrical output of the unit specified by the utility and used for the purpose of plant design.
- (b). Maximum Dependable Capacity (MDC), GROSS—The gross electrical output as measured at the output terminals of the turbine generator during the most restrictive seasonal conditions (usually summer).
- (c). Maximum Dependable Capacity, NET—The gross maximum dependable capacity less the nominal station service load. (The nominal station service load for a nuclear plant is about 5 percent of its gross generation.)
- (d). Thermal Capacity—The rate of heat production by the reactor core. The Nuclear Regulatory Commission authorizes a maximum thermal power rating for U.S. reactors.

12. The actual domestic average price represents the average price at which all domestic crude oil is purchased. 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 leases, and were not derived from a statistically valid sample of old oil leases.

13. The refiner acquisition cost of domestic crude oil is the price paid by refiners for domestic crude oil and

natural gas plant 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. 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.

15. 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.

16. The motor gasoline prices are calculated monthly by the BLS in conjunction with the construction of the Consumer Price Index (CPI). For the period 1974 through 1978 prices were collected in 56 urban areas. For the period 1978 forward, prices are collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers — about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

17. 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.

18. 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.

19. Residual fuel oil prices include fuel oil No. 4, No. 5, No. 6, crude oil and topped crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (fuel oil No. 2, kerosene, and jet fuel) prices.

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NAME AND ADDRESS

NAME - FIRST, LAST

\_\_\_\_\_

COMPANY NAME OR ADDITIONAL ADDRESS LINE

\_\_\_\_\_

STREET ADDRESS

\_\_\_\_\_

CITY

\_\_\_\_\_

STATE

ZIP CODE

\_\_\_\_\_

\_\_\_\_\_

(OR COUNTRY)

\_\_\_\_\_

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

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FOR OFFICE USE ONLY

QUANTITY	CHARGES
..... ENCLOSED .....	.....
..... TO BE MAILED .....	.....
..... SUBSCRIPTIONS .....	.....
POSTAGE .....	.....
FOREIGN HANDLING .....	.....
MMOB .....	.....
OPNR .....	.....
..... UPNS .....	.....
..... DISCOUNT .....	.....
..... REFUND .....	.....

# Conversion Factors

## Thermal Conversion Factors

Approximate Heat Content of Various Fuels		1973	1974	1975	1976	1977	1978	1979	1980-81
<b>Anthracite</b>									
Production	Btu/short ton	23,170,000	22,560,000	23,390,000	22,770,000	23,180,000	23,520,000	23,590,000	23,590,000
Imports and Exports	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	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	22,710,000	22,970,000	22,700,000	22,700,000
Electric utility consumption	Btu/short ton	17,920,000	17,200,000	17,060,000	17,530,000	17,240,000	17,100,000	17,450,000	17,380,000
Non-utility consumption	Btu/short ton	24,340,000	23,750,000	23,650,000	23,840,000	24,990,000	25,170,000	25,200,000	24,690,000
<b>Bituminous coal and lignite</b>									
Production	Btu/short ton	24,010,000	23,730,000	23,200,000	23,150,000	22,700,000	22,430,000	22,590,000	22,590,000
Imports	Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000	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	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	22,330,000	22,140,000	22,200,000	22,200,000
Electric utility consumption	Btu/short ton	22,260,000	21,800,000	21,660,000	21,690,000	21,480,000	21,280,000	21,380,000	21,310,000
Non-utility consumption	Btu/short ton	26,840,000	26,120,000	25,810,000	25,870,000	25,130,000	25,070,000	25,060,000	25,970,000
<b>Coal Coke</b>	Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
<b>Crude petroleum<sup>1</sup></b>									
Production	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Imports	Btu/barrel	5,817,000	5,827,000	5,821,000	5,808,000	5,810,000	5,802,000	5,810,000	5,810,000
Exports	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
<b>Crude petroleum and products</b>									
Imports, average	Btu/barrel	5,897,000	5,884,000	5,858,000	5,856,000	5,834,000	5,839,000	5,810,000	5,810,000
Exports, average	Btu/barrel	5,752,000	5,774,000	5,748,000	5,745,000	5,797,000	5,808,000	5,832,000	5,832,000
<b>Petroleum products</b>									
Consumption, average	Btu/barrel	5,515,000	5,504,000	5,494,000	5,504,000	5,518,000	5,519,000	5,494,000	5,494,000
Residential and Commercial	Btu/barrel	5,686,000	5,681,000	5,655,000	5,661,000	5,664,000	5,682,000	5,661,000	5,633,000
Industrial	Btu/barrel	5,325,000	5,304,000	5,304,000	5,336,000	5,368,000	5,369,000	5,338,000	5,380,000
Transportation	Btu/barrel	5,398,000	5,396,000	5,395,000	5,400,000	5,404,000	5,412,000	5,415,000	5,409,000
Electric Utility	Btu/barrel	6,223,000	6,215,000	6,229,000	6,235,000	6,231,000	6,227,000	6,245,000	6,246,000
Imports	Btu/barrel	5,983,000	5,959,000	5,935,000	5,980,000	5,908,000	5,955,000	5,811,000	5,811,000
Exports	Btu/barrel	5,752,000	5,773,000	5,747,000	5,743,000	5,796,000	5,814,000	5,864,000	5,864,000
<b>LPG Consumption Average<sup>2</sup></b>	Btu/barrel	3,746,000	3,730,000	3,715,000	3,711,000	3,677,000	3,669,000	3,680,000	3,680,000
<b>Natural gas plant liquid production</b>	Btu/barrel	4,049,000	4,011,000	3,984,000	3,964,000	3,941,000	3,925,000	3,955,000	3,955,000
<b>Natural gas, dry</b>									
Production and consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021	1,021
Electric utility consumption	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,034	1,030
Non-utility consumption	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018	1,019
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037	1,037
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013	1,013
<b>Natural gas, wet</b>									
Production	Btu cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092	1,092
<b>Hydropower<sup>3</sup></b>	Btu/kWh	10,389	10,442	10,406	10,373	10,435	10,435	10,435	10,435
<b>Nuclear power<sup>3</sup></b>	Btu/kWh	10,903	11,161	11,013	11,047	10,769	10,769	10,769	10,769
<b>Geothermal power<sup>3</sup></b>	Btu/kWh	21,674	21,674	21,611	21,611	21,611	21,611	21,611	21,611
<b>Electricity consumption</b>	Btu/kWh	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412

### Refined Petroleum Products:

	Btu/barrel
Asphalt	6,636,000
Aviation gasoline	5,048,000
Butane	4,326,000
Butane-propane mixture <sup>4</sup>	4,130,000
Distillate fuel oil	5,825,000
Ethane	3,082,000
Ethane-propane mixture <sup>5</sup>	3,308,000
Isobutane	3,974,000
Jet fuel—kerosene type	5,670,000
Jet fuel—naphtha type	5,355,000
Kerosene	5,670,000
Lubricants	6,065,000
Motor gasoline	5,253,000
Natural gasoline	4,620,000
<b>Petrochemical feedstocks</b>	
Naphtha 400 <sup>6</sup>	5,248,000
Other oils over 400 <sup>6</sup>	5,825,000
Still gas	6,000,000
Petroleum coke	6,024,000
Plant condensate	5,418,000
Propane	3,836,000
Residual fuel oil	6,287,000
Road oil	6,636,000
Special naphtha	5,248,000
Still gas	6,000,000
Unfinished oils	5,825,000
Wax	5,537,000
Miscellaneous	5,796,000

## 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 Crude Oil (Average Gravity)

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

### Conversion Factors for Uranium

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

<sup>1</sup> Includes lease condensate

<sup>2</sup> LPG Consumption Average is the annual weighted average of the LPG product supplied components: ethane, ethylene, propane, propylene, butane, butylene, butane-propane mixture, ethane-propane mixture, and isobutane.

<sup>3</sup> There is no generally accepted practice for measuring hydropower thermal conversion rates. The hydropower factors on this page are the prevailing heat rate factors at fossil fuel steam electric powerplants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydropower production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydropower is the principal means for producing electricity. Similarly, the nuclear power and geothermal power conversion factors represent the thermal conversion equivalent of the uranium and geothermal steam consumed at powerplants. The heat content of a kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatt-hour. It is not possible to determine the hydroelectric powerplant efficiency by using these factors. The efficiency factor for hydroelectric powerplants is derived by multiplying generation efficiency by turbine efficiency. The average hydroelectric powerplant efficiency in the United States is 86 percent while average generation efficiency is 97 percent and average turbine efficiency is 89 percent.

<sup>4</sup> 60 percent butane and 40 percent propane.

<sup>5</sup> 70 percent ethane and 30 percent propane.

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