

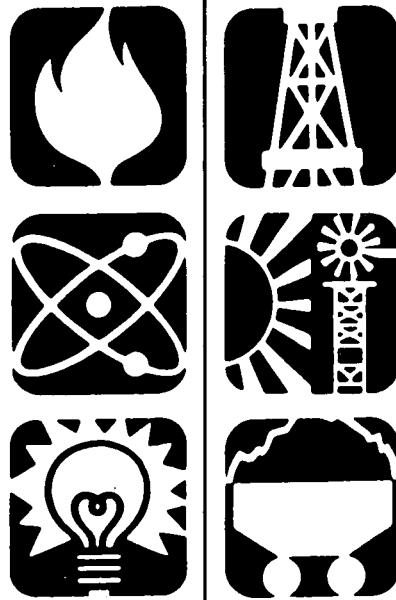
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DOE/EIA-0035(83/07)

# Monthly Energy Review

**July 1983**

**Energy Information Administration**  
Washington, D.C.



Petroleum Supply Information  
**Symposium**  
Details Inside



The *Monthly Energy Review* presents current data on production, consumption, stocks, imports, exports, and prices of the principal energy commodities in the United States. Also included are data on international production of crude oil, consumption of petroleum products, petroleum stocks, and production of electricity from nuclear powered facilities.

Publication of this report is in keeping with responsibilities given the Energy Information Administration in Public Law 95-91 (Section 205(a)(2)) that states:

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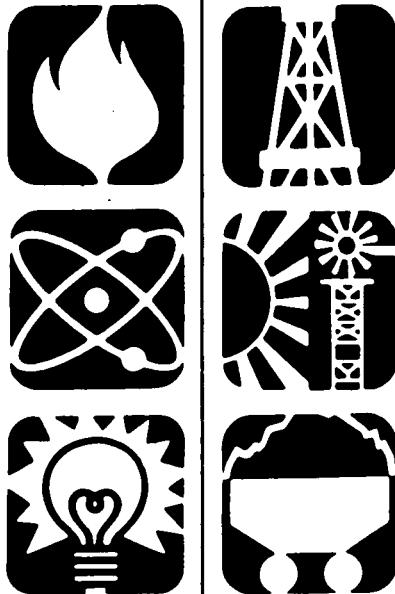
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# Monthly Energy Review

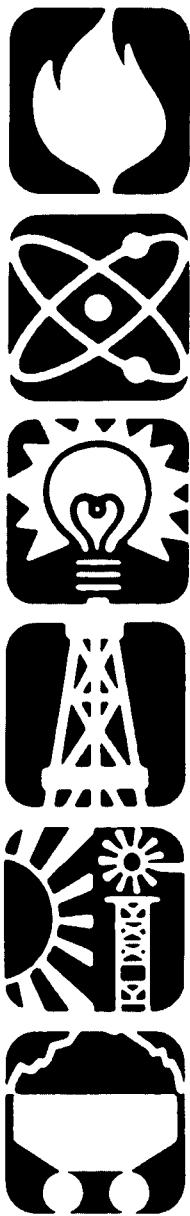
July 1983

**Energy Information Administration**  
Office of Energy Markets  
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U.S. Department of Energy  
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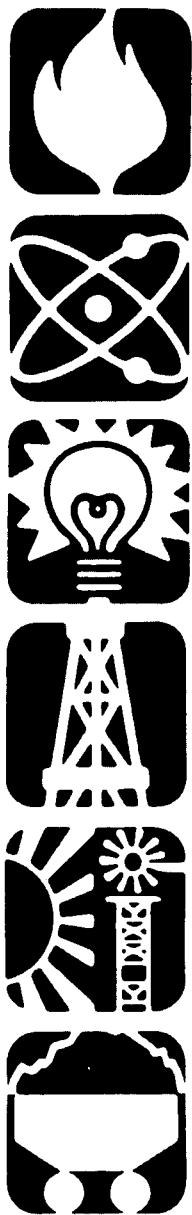
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| Nuclear Electricity Generation.....   | S. Kim Blackmon<br>(202) 252-6196                                     |

## Contents

|  | Page              |
|--|-------------------|
| <b>Highlights: Energy Price and Expenditure Data Report, 1970-1980.....</b>      | i                 |
| <b>Feature Article: Data Series on Petroleum Use at Electric Utilities .....</b> | iii               |
| <b>Part 1. Executive Summary.....</b>  | 1                 |
| Energy Summary.....  | 2                 |
| Production of Energy by Source .....   | 4                 |
| Consumption of Energy by Source .....  | 6                 |
| Net Imports of Energy by Source.....   | 8                 |
| Merchandise Trade Value.....   | 10                |
| Energy Indicators .....  | 12                |
| <b>Part 2. Energy Consumption .....</b>  | 17                |
| Consumption of Energy by End-Use Sector .....                                    | 18                |
| Consumption of Energy by the Residential and Commercial Sector .....             | 20                |
| Consumption of Energy by the Industrial Sector.....                              | 21                |
| Consumption of Energy by the Transportation Sector .....                         | 22                |
| Energy Input at Electric Utilities .....   | 23                |
| <b>Part 3. Petroleum .....</b>   | 29                |
| Crude Oil and Petroleum Products Overview .....                                  | 30                |
| Crude Oil Supply and Disposition.....  | 32                |
| Total Petroleum Imports.....   | 36                |
| Finished Motor Gasoline.....   | 38                |
| Distillate Fuel Oil .....  | 40                |
| Residual Fuel Oil.....   | 42                |
| Liquefied Petroleum Gases.....   | 44                |
| Other Petroleum Products .....   | 46                |
| <b>Part 4. Natural Gas.....</b>  | 49                |
| <b>Part 5. Oil and Gas Resource Development .....</b>                            | 55                |
| <b>Part 6. Coal.....</b>   | 59                |
| <b>Part 7. Electric Utilities .....</b>  | 65                |
| <b>Part 8. Nuclear .....</b>   | 73                |
| <b>Part 9. Price.....</b>  | 79                |
| Petroleum Price Summary .....  | 80                |
| Crude Oil Imports.....   | 82                |
| Motor Gasoline.....  | 84                |
| Aviation Fuel.....   | 85                |
| Heating Oil .....  | 86                |
| Residual Fuel Oil.....   | 88                |
| Natural Gas .....  | 89                |
| Electricity .....  | 90                |
| <b>Part 10. International.....</b>   | 93                |
| Crude Oil Production .....   | 94                |
| Petroleum Consumption.....   | 96                |
| Petroleum Stocks.....  | 98                |
| Nuclear Electricity Generation.....  | 100               |
| <b>Definitions.....</b>  | 103               |
| <b>Conversion Factors.....</b>   | Inside Back Cover |





## Articles

Feature articles on energy-related subjects and highlights from recently published Energy Information Administration reports are often included in this publication. The following articles and highlights have appeared in previous issues:

|  |                |
|--|----------------|
| Energy Consumption .....   | March 1975     |
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| Curtailments of Natural Gas Service.....   | January 1976   |
| Home Heating Conservation Alternatives and<br>the Solar Collector Industry.....  | March 1976     |
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| Crude Oil Entitlements Program.....  | January 1977   |
| Motor Gasoline Supply and Demand.....  | July 1977      |
| Short-Term Petroleum Supply and Demand .....   | May 1978       |
| The Energy Requirements of U.S. Agriculture .....  | July 1979      |
| Three Mile Island—Possible Regulatory Responses and Their Impacts<br>on the Nation's Short-Term Electric Utility Fuel Outlook.....                   | October 1979   |
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| The Energy Information Administration's Oil and Gas<br>Reserves Program—The First Year's Report .....  | June 1980      |
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| EIA Weekly Petroleum Data: Data Collection and<br>Methods of Estimation.....   | November 1980  |
| The Department of Energy Disclosure Policy for<br>Individually Identifiable Information<br>Maintained by the Energy Information Administration ..... | December 1980  |
| Changes in 1981 Petroleum Data Series .....  | May 1981       |
| Information Services of the Energy Information Administration .....  | September 1981 |
| An Overview of Natural Gas Markets .....   | December 1981  |
| The Interstate and Intrastate Natural Gas Markets.....   | January 1982   |
| Natural Gas Drilling and Production Under the Natural Gas Policy Act.....  | February 1982  |
| Highlights: <i>U.S. Crude Oil, Natural Gas, and<br/>Natural Gas Liquids Reserves, 1981 Annual Report</i> .....                                       | September 1982 |
| Impacts of Financial Constraints on the Electric Utility Industry.....   | October 1982   |
| Highlights: <i>Energy Company Development Patterns<br/>in the Postembargo Era, Volume One</i> .....  | November 1982  |
| Highlights: <i>Residential Energy Consumption Survey:<br/>Consumption and Expenditures</i> .....   | January 1983   |
| Highlights: <i>Residential Energy Consumption Survey:<br/>Housing Characteristics</i> .....  | February 1983  |
| The Effect of Weather on Energy Use .....  | April 1983     |
| Trends in U.S. Energy Since 1973 .....   | May 1983       |

## HIGHLIGHTS:

### *Energy Price and Expenditure Data Report, 1970-1980*

In 1980, the United States spent \$390.5 billion on energy, equivalent to 15 percent of the gross national product (GNP). This compared to energy expenditures amounting to only 9 percent of the GNP in 1970. This information is part of the *Energy Price and Expenditure Data Report, 1970-1980*, a new report recently released by the Energy Information Administration (EIA).

Another important finding of the report was that U.S. energy expenditures<sup>1</sup> rose much more sharply in the 1970-80 period than end-use energy consumption<sup>2</sup> (Figure 1). Two factors determine expenditures: consumption and price. In 1970-80, growth in energy consumption slowed markedly and, on a per capita basis, actually declined after 1978. Dramatic increases in the price of energy

were responsible for the leveling off of energy use. In 1980, end-use energy consumption was only 6 percent above the 1970 level, but expenditures had increased 137 percent<sup>3</sup> (362 percent in current dollars).

The five highest consuming States (Texas, California, Ohio, New York, and Illinois) accounted for 36 percent of end-use energy consumption in the United States in 1980. In those States, increases in energy expenditures and consumption followed the national trend. End-use energy consumption rose 4 percent in the five States from 1970 to 1980; expenditures increased 147 percent (383 percent in current dollars).

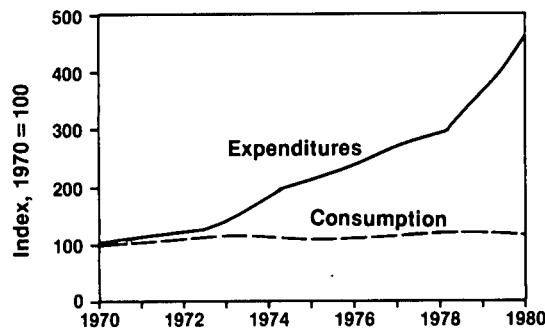
The increase in U.S. energy expenditures varied by energy source (Figure 2). Petroleum costs rose the most from 1970 to 1980, followed by more moderate increases in expenditures for natural gas and electricity. Coal expenditures increased the least during the 10-year period.

<sup>1</sup> Including electricity sales.

<sup>2</sup> End-use energy consumption includes energy use in the residential, commercial, industrial, and transportation sectors. It does not include electrical energy losses. The source for consumption data is *Energy Information Administration State Energy Data Report 1960 through 1980*, DOE/EIA-0214(80) (Washington, D.C., July 1982).

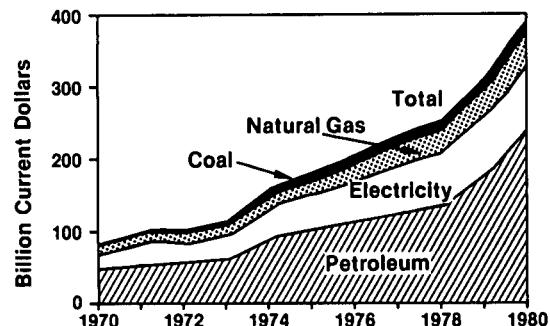
<sup>3</sup> Expenditures are adjusted to account for inflation; percent increases are based on 1980 constant dollars unless otherwise noted.

**Figure 1. U.S. Energy Expenditures and Consumption Index,\* 1970-80**



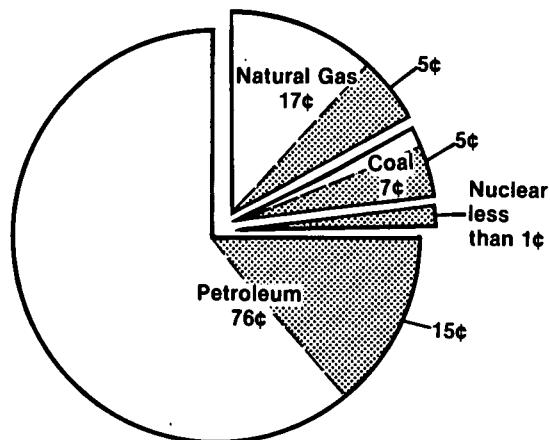
\*Index values are calculated using expenditures expressed in current dollars and consumption expressed in quadrillion Btu.

**Figure 2. U.S. Expenditures by Energy Source, 1970-80**



In 1980, 76 cents of every U.S. energy dollar was spent on petroleum (Figure 3). Of the 76 cents, 15 cents was spent by electric utilities to purchase petroleum for electricity generation. The remaining 61 cents was spent by the four end-use sectors (residential, commercial, industrial, and transportation). In comparison, end-use petroleum consumption by the four sectors was 54 percent of the U.S. total.

**Figure 3. Allocation of the U.S. Energy Dollar by Primary Fuel, 1980**



Note: Shaded portions represent purchases by electric utilities.

Spending on natural gas accounted for 17 cents of each U.S. energy dollar in 1980: 5 cents in spending by electric utilities and 12 cents in spending by the four end-use sectors. Natural gas was a relatively cheap source of energy. End-use expenditures for natural gas were only 12 percent of total U.S. expenditures, although end-use consumption of natural gas was 28 percent of the U.S. total.

Expenditures for coal were 7 cents of each dollar spent on energy in the United States in 1980. Most of this amount (5 cents) came from purchases of coal by electric utilities. The remaining 2 cents came from coal purchases by the four end-use sectors. In comparison, end-use consumption of coal was 6 percent of total U.S. consumption.

Total expenditures by electric utilities for fuel purchases in 1980 amounted to 25 cents of the U.S. energy dollar: 15 cents for petroleum and 5 cents each for natural gas and coal. Electric utilities' purchases of nuclear fuel came to less than half of 1 cent.

The five States that spent the most on energy (Texas, California, New York, Illinois, and Pennsylvania) accounted for 37 percent of total U.S. end-use expenditures. All devoted over 50 percent of their end-use energy expenditures to petroleum (Figure 4).

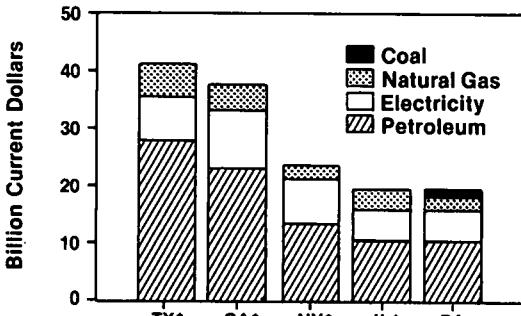
In New York, expenditures for electricity reached 31 percent of the total amount spent on energy, significantly higher than the U.S. figure of 25 percent. Pennsylvania, California, and Illinois, at 27, 26, and 26 percent, respectively, were closer to the national average. In Texas, expenditures for electricity were 18 percent of the total amount spent on energy.

In four of the five highest spending States, end-use payments for natural gas were approximately equal to the national figure of 12 percent: Texas, 14 percent; Pennsylvania, 13 percent; and California and New York, 12 percent each. In Illinois, end-use spending for natural gas accounted for 18 percent of the total.

In terms of percent of total end-use expenditures, spending by the individual States varied more for coal than for any other principal energy source. Among the five top spending States, Texas and California spent less than 1 percent of their end-use energy expenditures on coal, while Pennsylvania spent 6 percent.

The *Energy Price and Expenditure Data Report, 1970-1980*, DOE/EIA-0376, was published by EIA in July 1983. It contains an extensive appendix detailing the methods used for calculating expenditures based on State consumption and price data. The new report is available from the Superintendent of Documents, U.S. Government Printing Office (stock number 061-003-00303-6).

**Figure 4. State Expenditures by Energy Source, 1980**



\*Coal expenditures less than 2 percent of total State expenditures.

# Data Series on Petroleum Use at Electric Utilities

by

Howard Walton and Fred Mayes, Jr.  
Energy Information Administration

## Introduction

Prior to 1980, data on petroleum consumption and stocks at electric utilities were disaggregated by prime mover.<sup>1</sup> Following a modification to the Energy Information Administration (EIA) survey Form EIA-759 in 1980, those data have been disaggregated by type of fuel (heavy and light oil).<sup>2</sup> These type-of-fuel data are now published in the *Electric Power Monthly* and in the *Monthly Energy Review* (MER).

Generally, gas turbine/internal combustion units burn light oil, and steam generators burn heavy oil. Showing the data by type of generating unit, therefore, provides a reliable indication of the fuel type. This was the original intent of disaggregating petroleum consumption and stocks data by prime mover, since there is an interest in knowing the amount of light oil used by utilities that might be available for other purposes during emergencies. This article examines the correlation between the prime mover data series and the more recently developed type-of-fuel data series.

## Comparison of Type-of-Fuel and Prime Mover Series

In 1982, petroleum accounted for about 7 percent of generation at electric utilities, down from a 17-percent share in 1978, when petroleum-based generation peaked.<sup>3</sup> Of the petroleum products consumed, heavy oil is the predominant fuel; steam electric generating plants rely mainly on that fuel as an energy source. On the average, heavy oil contains far more sulfur (by weight) than

light oil—2.3 percent for No. 6 fuel oil versus about 0.6 percent for No. 2. The control of sulfur emissions adds to the cost of using heavy oil; however, it remains the most economical petroleum product for electric utilities to burn. Steam plants use light oil, which is generally 40 to 50 percent more expensive than heavy oil, primarily for starting up boilers and stabilizing the burning process.

Unlike steam plants, gas turbine/internal combustion plants burn an ash-free fuel, such as natural gas or light oil, to prevent corrosion of the turbine blades. Heavy oil has an ash content varying from 0.03 to 0.12 percent (by weight) for No. 4 and No. 6 fuel oils, respectively. The relatively small amount of heavy oil burned at gas turbine plants is usually No. 4 fuel oil.

EIA data on petroleum consumption at electric utilities show that steam plants use heavy oil almost exclusively, while gas turbine/internal combustion plants use mostly light oil (Table 1). During 1980-82, steam plant petroleum consumption was

**Table 1. Petroleum Consumption by Type of Unit and Type of Petroleum, 1980-1982  
(Thousand Barrels)**

|                    | Heavy Oil      | Light Oil     | Total          |
|--------------------|----------------|---------------|----------------|
| <b>1980</b>        |                |               |                |
| GT/IC <sup>1</sup> | 708            | 17,643        | 18,351         |
| Steam              | 390,455        | 11,408        | 401,863        |
| <b>TOTAL</b>       | <b>391,163</b> | <b>29,051</b> | <b>420,214</b> |
| <b>1981</b>        |                |               |                |
| GT/IC              | 756            | 10,674        | 11,431         |
| Steam              | 329,042        | 10,638        | 339,680        |
| <b>TOTAL</b>       | <b>329,798</b> | <b>21,313</b> | <b>351,111</b> |
| <b>1982</b>        |                |               |                |
| GT/IC              | 618            | 5,616         | 6,234          |
| Steam              | 233,816        | 9,720         | 243,537        |
| <b>TOTAL</b>       | <b>234,434</b> | <b>15,337</b> | <b>249,771</b> |

<sup>1</sup> A prime mover is the engine, turbine, waterwheel, or similar machine that drives an electric generator. Of the prime movers used at electric utilities, only steam engines and gas turbine/internal combustion engines consume significant amounts of petroleum.

<sup>2</sup> Heavy oil includes petroleum products known as American Society for Testing and Materials (ASTM) Grades No. 4, 5, and 6, along with residual fuel oils. Light oil includes ASTM Grade No. 2 heating oil, kerosene, and jet fuel.

<sup>3</sup> In 1982, the remaining electricity generation was attributed to coal (53 percent), hydroelectric power (14 percent), natural gas (14 percent), and nuclear power (13 percent).

<sup>1</sup> "GT/IC" refers to gas turbine and internal combustion engines.  
Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration Form EIA-759, "Monthly Power Plant Report" (and its predecessor forms).

**Table 2. Petroleum Consumption at Electric Utilities, 1973-1982 (Thousand Barrels)**

|      |              | Type of Unit   |                    | Type of Petroleum |                  | Total          |
|------|--------------|----------------|--------------------|-------------------|------------------|----------------|
|      |              | Steam          | GT/IC <sup>1</sup> | Heavy             | Light            |                |
| 1973 | <b>TOTAL</b> | <b>513,190</b> | <b>47,058</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>560,248</b> |
| 1974 | <b>TOTAL</b> | <b>483,146</b> | <b>53,128</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>536,274</b> |
| 1975 | <b>TOTAL</b> | <b>467,221</b> | <b>38,907</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>506,128</b> |
| 1976 | <b>TOTAL</b> | <b>514,077</b> | <b>41,843</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>555,920</b> |
| 1977 | <b>TOTAL</b> | <b>574,869</b> | <b>48,837</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>623,705</b> |
| 1978 | <b>TOTAL</b> | <b>588,319</b> | <b>47,520</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>635,839</b> |
| 1979 | <b>TOTAL</b> | <b>492,606</b> | <b>30,691</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>523,297</b> |
| 1980 | January      | 40,695         | 2,197              | 39,689            | 3,203            | 42,892         |
|      | February     | 40,231         | 1,919              | 39,382            | 2,768            | 42,150         |
|      | March        | 33,406         | 1,379              | 32,589            | 2,196            | 34,785         |
|      | April        | 26,867         | 673                | 26,178            | 1,362            | 27,540         |
|      | May          | 26,991         | 840                | 26,307            | 1,524            | 27,831         |
|      | June         | 29,551         | 1,138              | 28,739            | 1,951            | 30,689         |
|      | July         | 37,297         | 2,791              | 36,260            | 3,828            | 40,088         |
|      | August       | 40,019         | 2,833              | 38,836            | 4,016            | 42,852         |
|      | September    | 29,367         | 1,286              | 28,505            | 2,149            | 30,653         |
|      | October      | 26,269         | 689                | 25,530            | 1,428            | 26,958         |
|      | November     | 32,782         | 1,320              | 31,792            | 2,310            | 34,102         |
|      | December     | 38,387         | 1,285              | 37,357            | 2,316            | 39,672         |
|      | <b>TOTAL</b> | <b>401,863</b> | <b>18,351</b>      | <b>391,163</b>    | <b>29,051</b>    | <b>420,214</b> |
| 1981 | January      | 41,904         | 2,027              | 40,885            | 3,047            | 43,931         |
|      | February     | 28,948         | 1,049              | 27,755            | 2,242            | 29,997         |
|      | March        | 28,492         | 775                | 27,862            | 1,405            | 29,267         |
|      | April        | 25,028         | 557                | 24,229            | 1,356            | 25,585         |
|      | May          | 23,958         | 967                | 23,130            | 1,795            | 24,925         |
|      | June         | 30,673         | 1,731              | 29,699            | 2,705            | 32,404         |
|      | July         | 32,577         | 1,666              | 31,628            | 2,615            | 34,243         |
|      | August       | 26,598         | 584                | 25,760            | 1,422            | 27,182         |
|      | September    | 25,762         | 520                | 25,137            | 1,145            | 26,282         |
|      | October      | 26,646         | 556                | 26,078            | 1,123            | 27,201         |
|      | November     | 22,749         | 432                | 22,042            | 1,139            | 23,181         |
|      | December     | 26,345         | 567                | 25,593            | 1,319            | 26,912         |
|      | <b>TOTAL</b> | <b>339,680</b> | <b>11,431</b>      | <b>329,798</b>    | <b>21,313</b>    | <b>351,111</b> |
| 1982 | January      | 33,832         | 1,567              | 32,269            | 3,131            | 35,399         |
|      | February     | 25,249         | 524                | 24,351            | 1,421            | 25,772         |
|      | March        | 22,371         | 550                | 21,617            | 1,304            | 22,921         |
|      | April        | 18,553         | 492                | 17,913            | 1,132            | 19,045         |
|      | May          | 16,614         | 316                | 15,939            | 991              | 16,930         |
|      | June         | 17,241         | 351                | 16,539            | 1,053            | 17,592         |
|      | July         | 22,192         | 718                | 21,550            | 1,360            | 22,910         |
|      | August       | 19,508         | 418                | 18,873            | 1,053            | 19,926         |
|      | September    | 17,146         | 318                | 16,544            | 921              | 17,464         |
|      | October      | 16,547         | 313                | 15,990            | 870              | 16,860         |
|      | November     | 15,591         | 325                | 14,908            | 1,007            | 15,916         |
|      | December     | 18,694         | 341                | 17,940            | 1,094            | 19,035         |
|      | <b>TOTAL</b> | <b>243,537</b> | <b>6,234</b>       | <b>234,434</b>    | <b>15,337</b>    | <b>249,771</b> |

<sup>1</sup> "GT/IC" refers to gas turbine and internal combustion engines.

<sup>2</sup> Prior to 1980, petroleum consumption data were not disaggregated by type of fuel.

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

Source: Energy Information Administration Form EIA-759, "Monthly Power Plant Report" (and its predecessor forms).

**Table 3. Petroleum Stocks at Electric Utilities at End of Period, 1973-1982  
(Thousand Barrels)**

|             | Type of Unit   |                    | Type of Petroleum |                  | Total          |         |
|-------------|----------------|--------------------|-------------------|------------------|----------------|---------|
|             | Steam          | GT/IC <sup>1</sup> | Heavy             | Light            |                |         |
| <b>1973</b> | <b>79,121</b>  | <b>10,095</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>89,216</b>  |         |
| <b>1974</b> | <b>97,718</b>  | <b>15,199</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>112,917</b> |         |
| <b>1975</b> | <b>108,825</b> | <b>16,432</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>125,257</b> |         |
| <b>1976</b> | <b>106,993</b> | <b>14,703</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>121,696</b> |         |
| <b>1977</b> | <b>124,750</b> | <b>19,281</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>144,031</b> |         |
| <b>1978</b> | <b>102,402</b> | <b>16,386</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>118,788</b> |         |
| <b>1979</b> | <b>111,121</b> | <b>20,301</b>      | ( <sup>2</sup> )  | ( <sup>2</sup> ) | <b>131,422</b> |         |
| <b>1980</b> | January        | 114,313            | 19,597            | 101,872          | 32,038         | 133,909 |
|             | February       | 111,353            | 19,055            | 99,267           | 31,142         | 130,409 |
|             | March          | 116,246            | 18,934            | 104,096          | 31,084         | 135,180 |
|             | April          | 118,824            | 19,201            | 106,399          | 31,626         | 138,025 |
|             | May            | 123,043            | 19,485            | 111,201          | 31,328         | 142,529 |
|             | June           | 124,177            | 19,273            | 112,527          | 30,923         | 143,450 |
|             | July           | 121,596            | 18,680            | 109,844          | 30,432         | 140,276 |
|             | August         | 118,514            | 18,150            | 106,468          | 30,196         | 136,664 |
|             | September      | 122,240            | 18,064            | 110,140          | 30,164         | 140,304 |
|             | October        | 124,046            | 18,398            | 112,311          | 30,133         | 142,445 |
|             | November       | 119,863            | 18,051            | 108,137          | 29,778         | 137,915 |
|             | December       | 117,227            | 18,147            | 105,351          | 30,023         | 135,374 |
| <b>1981</b> | January        | 110,533            | 18,199            | 99,196           | 29,535         | 128,732 |
|             | February       | 112,879            | 17,315            | 101,867          | 28,328         | 130,195 |
|             | March          | 111,490            | 17,421            | 100,178          | 28,732         | 128,911 |
|             | April          | 109,455            | 17,197            | 97,629           | 29,024         | 126,652 |
|             | May            | 112,172            | 17,073            | 101,574          | 27,671         | 129,245 |
|             | June           | 109,988            | 17,957            | 99,398           | 28,547         | 127,945 |
|             | July           | 110,476            | 16,856            | 99,603           | 27,729         | 127,332 |
|             | August         | 114,016            | 16,801            | 103,104          | 27,714         | 130,817 |
|             | September      | 112,992            | 16,515            | 102,104          | 27,403         | 129,506 |
|             | October        | 110,900            | 16,164            | 100,008          | 27,055         | 127,063 |
|             | November       | 110,939            | 16,077            | 100,301          | 26,715         | 127,016 |
|             | December       | 112,380            | 15,756            | 102,042          | 26,094         | 128,136 |
| <b>1982</b> | January        | 105,475            | 15,296            | 94,609           | 26,162         | 120,771 |
|             | February       | 102,883            | 15,157            | 92,622           | 25,418         | 118,040 |
|             | March          | 108,142            | 14,699            | 97,706           | 25,136         | 122,842 |
|             | April          | 106,143            | 14,477            | 95,984           | 24,636         | 120,620 |
|             | May            | 106,701            | 14,702            | 96,607           | 24,796         | 121,403 |
|             | June           | 108,189            | 14,417            | 97,959           | 24,647         | 122,606 |
|             | July           | 106,170            | 14,923            | 96,085           | 25,008         | 121,093 |
|             | August         | 106,438            | 14,100            | 96,345           | 24,193         | 120,538 |
|             | September      | 108,177            | 14,208            | 98,160           | 24,225         | 122,385 |
|             | October        | 106,701            | 13,813            | 96,920           | 23,595         | 120,515 |
|             | November       | 106,361            | 13,809            | 96,618           | 23,553         | 120,171 |
|             | December       | 105,287            | 13,597            | 95,515           | 23,369         | 118,884 |

<sup>1</sup> "GT/IC" refers to gas turbine and internal combustion engines.

<sup>2</sup> Prior to 1980, petroleum stock data were not disaggregated by type of fuel.

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

Source: Energy Information Administration Form EIA-759, "Monthly Power Plant Report" (and its predecessor forms).

about 97 percent heavy oil and about 3 percent light. In the same period, gas turbine/internal combustion engine plants consumed from 4 to 10 percent heavy oil and the remainder was light oil. A comparison of type-of-fuel data series and prime mover data series from January 1980 through December 1982 shows a strong relationship between the monthly movements in consumption in the two data series (Table 2).

In addition to the relationship between data series for petroleum consumption, there is also a strong relationship between data series for petroleum stocks (Table 3). End-of-year heavy oil stocks were typically about 90 percent of total petroleum stocks at steam plants, while light oil comprised over 95 percent of total petroleum stocks at gas turbine/internal combustion plants (Table 4). Almost all of the heavy oil stocks and approximately 40 percent of the light oil stocks are at steam plants.

### Estimates of Heavy and Light Oil Prior to 1980

Estimates of heavy and light fuel oil consumption and stocks for 1979 (Table 5) were made by developing a relationship<sup>4</sup> between the prime mover and type-of-fuel data series during 1980-82 and apply-

<sup>4</sup>Information on the specifications of this relationship is available from Fred Mayes, Jr. (202-252-2059), Office of Coal, Nuclear, Electric and Alternative Fuels, EIA.

**Table 4. Year-End Petroleum Stocks<sup>1</sup> by Type of Unit and Type of Petroleum, 1980-1982 (Thousand Barrels)**

|                    | Heavy Oil      | Light Oil     | Total          |
|--------------------|----------------|---------------|----------------|
| <b>1980</b>        |                |               |                |
| GT/IC <sup>2</sup> | 490            | 17,657        | 18,147         |
| Steam              | 104,861        | 12,367        | 117,227        |
| <b>TOTAL</b>       | <b>105,351</b> | <b>30,023</b> | <b>135,374</b> |
| <b>1981</b>        |                |               |                |
| GT/IC              | 481            | 15,275        | 15,756         |
| Steam              | 101,560        | 10,819        | 112,380        |
| <b>TOTAL</b>       | <b>102,042</b> | <b>26,094</b> | <b>128,136</b> |
| <b>1982</b>        |                |               |                |
| GT/IC              | 428            | 13,169        | 13,597         |
| Steam              | 95,087         | 10,200        | 105,287        |
| <b>TOTAL</b>       | <b>95,515</b>  | <b>23,369</b> | <b>118,884</b> |

<sup>1</sup> Total as of December 31.

<sup>2</sup> "GT/IC" refers to gas turbine and internal combustion engines.

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

Source: Energy Information Administration Form EIA-759, "Monthly Power Plant Report" (and its predecessor forms).

ing the relationship to the prime mover series for 1979. EIA's purpose in providing estimates for 1979 is to extend the time period for which data in the type-of-fuel series are available.

### Conclusion

Starting with this issue, the MER contains two separate breakdowns for the data series on petroleum consumption and stocks at electric utilities. The table entitled "Primary Energy Consumed to Produce Electricity" in the electric utilities section contains the new breakdown by heavy and light oil; the table entitled "Petroleum Consumption and Stocks by Prime Mover Type" contains a continuation of the original breakdown by prime mover. The MER will continue to show both breakdowns so that readers are provided with fuller information on the use of petroleum at electric utilities.

**Table 5. Estimates of Electric Utility Consumption and Stocks of Petroleum by Type, 1979 (Thousand Barrels)**

|                               | Heavy Oil      | Light Oil     | Total <sup>1</sup> |
|-------------------------------|----------------|---------------|--------------------|
| <b>Consumption</b>            |                |               |                    |
| January                       | 61,856         | 6,614         | 68,470             |
| February                      | 51,230         | 5,384         | 56,614             |
| March                         | 35,727         | 2,516         | 38,243             |
| April                         | 33,172         | 2,310         | 35,482             |
| May                           | 34,642         | 2,696         | 37,338             |
| June                          | 38,521         | 3,051         | 41,572             |
| July                          | 41,069         | 3,239         | 44,308             |
| August                        | 41,603         | 3,291         | 44,894             |
| September                     | 35,961         | 2,554         | 38,515             |
| October                       | 32,696         | 1,881         | 34,577             |
| November                      | 36,948         | 2,828         | 39,776             |
| December                      | 40,414         | 3,093         | 43,507             |
| <b>TOTAL</b>                  | <b>483,840</b> | <b>39,457</b> | <b>523,297</b>     |
| <b>Stocks at End of Month</b> |                |               |                    |
| January                       | 80,092         | 25,126        | 105,218            |
| February                      | 72,998         | 24,621        | 97,619             |
| March                         | 85,950         | 26,469        | 112,419            |
| April                         | 89,141         | 27,194        | 116,335            |
| May                           | 95,263         | 27,728        | 122,991            |
| June                          | 93,757         | 27,936        | 121,693            |
| July                          | 93,289         | 28,459        | 121,748            |
| August                        | 93,023         | 28,852        | 121,875            |
| September                     | 93,581         | 30,009        | 123,590            |
| October                       | 97,847         | 31,153        | 129,000            |
| November                      | 99,633         | 31,153        | 130,786            |
| December                      | 99,046         | 32,376        | 131,422            |

<sup>1</sup> Actual totals as reported on Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report."

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

Sources: Data by type of petroleum—Energy Information Administration estimates based on 1980-82 data.

# Part I

## Executive Summary

### Overview

#### Year-to-Date Summary

The United States produced 7.4 percent less energy during the first 4 months of 1983 than during the same period in 1982, and U.S. energy consumption through April 1983 was down 6.7 percent compared to the previous year. Net imports of all energy was 0.8 percent lower, and net imports of petroleum to date were down 17.3 percent.

#### Production

Energy production during April 1983 totaled 5.0 quadrillion Btu, an 8.1-percent\* decrease from the level of production during April 1982. Coal production fell 17.8 percent and natural gas production was down 11.9 percent. Petroleum production increased 0.7 percent. Production of all other forms of energy combined increased 5.5 percent.

\*All percentage increases/decreases are calculated using a daily rate prior to rounding.

#### Energy Summary (Quadrillion (10<sup>15</sup>) Btu)

|                          | April        |              |                | Cumulative January through April |              |                 |                             |
|--------------------------|--------------|--------------|----------------|----------------------------------|--------------|-----------------|-----------------------------|
|                          | 1983         | 1982         | Percent Change | 1983                             | 1982         | 1982 Daily Rate | Percent Change <sup>1</sup> |
| <b>Total Production</b>  | <b>4.961</b> | <b>5.396</b> | <b>-8.1</b>    | <b>20,290</b>                    | <b>0.169</b> | <b>21,905</b>   | <b>0.183</b>                |
| Petroleum <sup>2</sup>   | 1,689        | 1,677        | +0.7           | 6,773                            | 0.056        | 6,734           | 0.056                       |
| Natural Gas              | 1,354        | 1,538        | -11.9          | 5,599                            | 0.047        | 6,397           | 0.053                       |
| Coal                     | 1,351        | 1,644        | -17.8          | 5,628                            | 0.047        | 6,589           | 0.055                       |
| Other <sup>3</sup>       | 0.567        | 0.538        | +5.5           | 2,291                            | 0.019        | 2,185           | 0.018                       |
| <b>Total Consumption</b> | <b>5.658</b> | <b>5.855</b> | <b>-3.4</b>    | <b>24,023</b>                    | <b>0.200</b> | <b>25,742</b>   | <b>0.215</b>                |
| Petroleum <sup>4</sup>   | 2,415        | 2,623        | -7.9           | 9,777                            | 0.081        | 10,415          | 0.087                       |
| Natural Gas              | 1,491        | 1,508        | -1.1           | 6,921                            | 0.058        | 7,808           | 0.065                       |
| Coal                     | 1,160        | 1,161        | -0.2           | 4,932                            | 0.041        | 5,231           | 0.044                       |
| Other <sup>5</sup>       | 0.592        | 0.564        | +4.9           | 2,392                            | 0.020        | 2,288           | 0.019                       |
| <b>Net Imports</b>       | <b>0.620</b> | <b>0.433</b> | <b>+43.0</b>   | <b>2,171</b>                     | <b>0.018</b> | <b>2,188</b>    | <b>0.018</b>                |
| Petroleum <sup>6</sup>   | 0.679        | 0.619        | +9.6           | 2,241                            | 0.019        | 2,709           | 0.023                       |
| Natural Gas              | 0.073        | 0.071        | +2.9           | 0.375                            | 0.003        | 0.327           | 0.003                       |
| Coal <sup>7</sup>        | (0.156)      | (0.283)      | (-44.8)        | (0.546)                          | (0.005)      | (0.949)         | (0.008)                     |
| Other <sup>8</sup>       | 0.024        | 0.026        | -6.7           | 0.101                            | 0.001        | 0.102           | 0.001                       |

<sup>1</sup> Based on daily rates prior to rounding.

<sup>2</sup> Includes crude oil, lease condensate, and natural gas plant liquids.

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

<sup>4</sup> Includes refined petroleum products and natural gas plant liquids.

<sup>5</sup> Includes hydroelectric, nuclear, and geothermal power, electricity produced from wood and waste, and net imports of electricity and coal coke.

<sup>6</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>7</sup> Parentheses indicate exports are greater than imports.

<sup>8</sup> Includes net imports of electricity and coal coke.

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

#### Consumption

Energy consumption during April 1983 totaled 5.7 quadrillion Btu, 3.4 percent below the level of consumption during April 1982. Decreases occurred in the consumption of petroleum (7.9 percent), natural gas (1.1 percent), and coal (0.2 percent), accounting for the overall decline in energy consumption compared to April 1982. Consumption of all other forms of energy combined increased 4.9 percent.

#### Net Imports

Net imports of energy during April 1983 totaled 0.6 quadrillion Btu, 43.0 percent above the level of imports during April 1982. Net imports of petroleum increased 9.6 percent, and net imports of natural gas increased 2.9 percent. Net exports of coal decreased 44.8 percent.

# Executive Summary

## Energy Summary<sup>1</sup>

|                                     |              | Energy Production <sup>2</sup> | Energy Consumption <sup>2</sup> | Energy Imports <sup>2</sup> | Energy Exports |
|-------------------------------------|--------------|--------------------------------|---------------------------------|-----------------------------|----------------|
| Quadrillion (10 <sup>12</sup> ) Btu |              |                                |                                 |                             |                |
| 1973                                | <b>TOTAL</b> | <b>62.433</b>                  | <b>74.609</b>                   | <b>14.732</b>               | <b>2.073</b>   |
| 1974                                | <b>TOTAL</b> | <b>61.229</b>                  | <b>72.759</b>                   | <b>14.417</b>               | <b>2.241</b>   |
| 1975                                | <b>TOTAL</b> | <b>60.059</b>                  | <b>70.707</b>                   | <b>14.113</b>               | <b>2.389</b>   |
| 1976                                | <b>TOTAL</b> | <b>60.091</b>                  | <b>74.510</b>                   | <b>16.838</b>               | <b>2.213</b>   |
| 1977                                | <b>TOTAL</b> | <b>60.293</b>                  | <b>76.332</b>                   | <b>20.092</b>               | <b>2.097</b>   |
| 1978                                | <b>TOTAL</b> | <b>61.231</b>                  | <b>78.175</b>                   | <b>19.261</b>               | <b>1.952</b>   |
| 1979                                | <b>TOTAL</b> | <b>63.851</b>                  | <b>78.910</b>                   | <b>19.620</b>               | <b>2.900</b>   |
| 1980                                | <b>TOTAL</b> | <b>64.812</b>                  | <b>75.988</b>                   | <b>15.972</b>               | <b>3.726</b>   |
| 1981                                | January      | 5.448                          | 7.459                           | 1.346                       | 0.261          |
|                                     | February     | 5.187                          | 6.330                           | 1.210                       | 0.278          |
|                                     | March        | 5.678                          | 6.440                           | 1.193                       | 0.370          |
|                                     | April        | 4.595                          | 5.709                           | 1.084                       | 0.325          |
|                                     | May          | 4.729                          | 5.764                           | 1.131                       | 0.274          |
|                                     | June         | 5.199                          | 5.816                           | 1.041                       | 0.246          |
|                                     | July         | 5.544                          | 6.023                           | 1.140                       | 0.393          |
|                                     | August       | 5.718                          | 5.924                           | 1.132                       | 0.420          |
|                                     | September    | 5.538                          | 5.650                           | 1.201                       | 0.412          |
|                                     | October      | 5.688                          | 5.971                           | 1.179                       | 0.466          |
|                                     | November     | 5.420                          | 5.975                           | 1.109                       | 0.440          |
|                                     | December     | 5.687                          | 6.922                           | 1.172                       | 0.431          |
|                                     | <b>TOTAL</b> | <b>64.432</b>                  | <b>73.984</b>                   | <b>13.939</b>               | <b>4.318</b>   |
| 1982                                | January      | R5.472                         | R7.246                          | R1.086                      | R0.318         |
|                                     | February     | R5.221                         | R6.285                          | R0.890                      | 0.376          |
|                                     | March        | R5.815                         | R6.356                          | R0.915                      | 0.442          |
|                                     | April        | R5.396                         | R5.855                          | R0.859                      | R0.426         |
|                                     | May          | R5.384                         | R5.432                          | R0.960                      | R0.419         |
|                                     | June         | R5.313                         | R5.402                          | R1.014                      | R0.415         |
|                                     | July         | R5.147                         | R5.666                          | R1.154                      | 0.385          |
|                                     | August       | R5.346                         | R5.629                          | R1.034                      | R0.358         |
|                                     | September    | R5.092                         | R5.381                          | R1.034                      | 0.376          |
|                                     | October      | R5.217                         | R5.542                          | R1.059                      | 0.438          |
|                                     | November     | R5.064                         | R5.804                          | R1.117                      | R0.351         |
|                                     | December     | R5.179                         | R6.281                          | R0.966                      | R0.322         |
|                                     | <b>TOTAL</b> | <b>R63.647</b>                 | <b>R70.879</b>                  | <b>R12.089</b>              | <b>4.626</b>   |
| 1983                                | January      | R5.225                         | R6.502                          | 0.935                       | 0.302          |
|                                     | February     | R4.822                         | R5.740                          | 0.727                       | 0.264          |
|                                     | March        | R5.283                         | R6.123                          | 0.773                       | 0.318          |
|                                     | April        | 4.961                          | 5.658                           | 0.930                       | 0.311          |

<sup>1</sup>For definitions, see Notes on the last page of this section.

<sup>2</sup>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.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

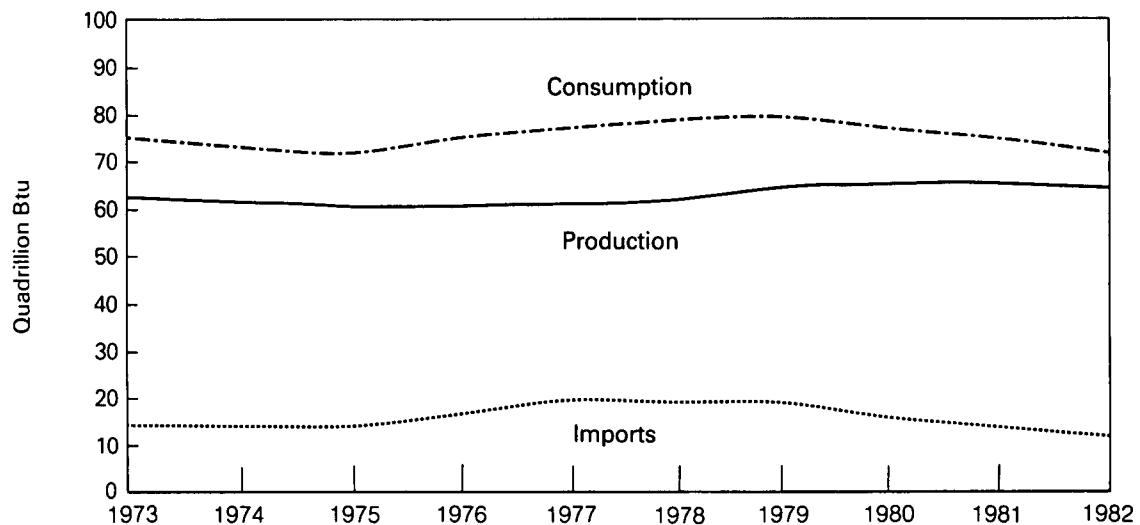
• Totals may not equal sum of components due to independent rounding.

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

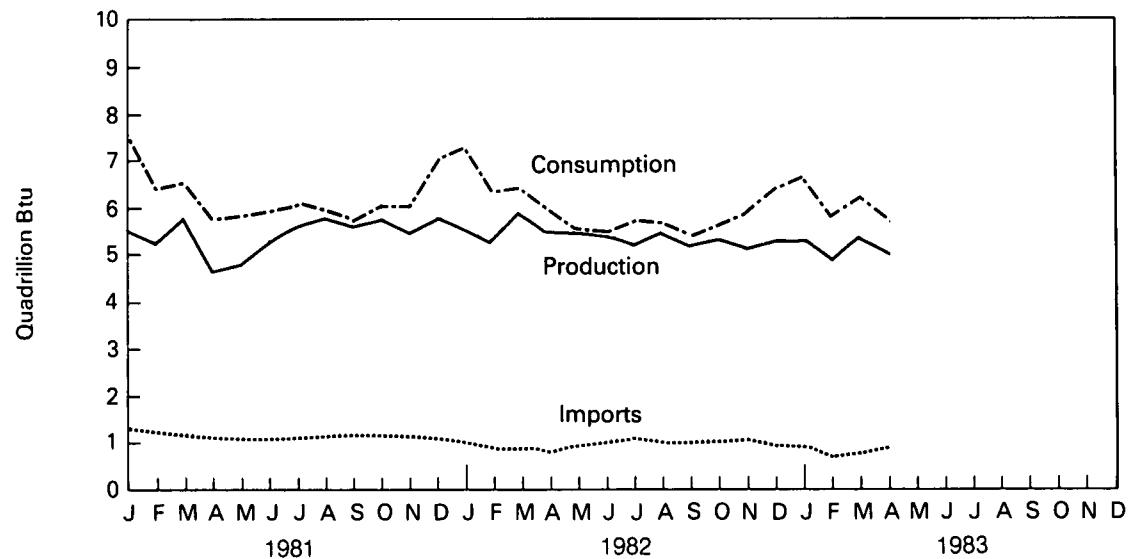
# Executive Summary

## Energy Summary

### Yearly



### Monthly



# Executive Summary

## Production of Energy by Source

|                                     |           | 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 |           |                   |                        |                   |                   |                                   |                        |                    |                       |                                   |
| 1973                                | TOTAL     | 14.366            | 19.493                 | 2.569             | 22.187            | 2.861                             | 0.910                  | 0.046              | 62.433                |                                   |
| 1974                                | TOTAL     | 14.468            | 18.575                 | 2.471             | 21.210            | 3.177                             | 1.272                  | 0.056              | 61.229                |                                   |
| 1975                                | TOTAL     | 15.189            | 17.729                 | 2.374             | 19.640            | 3.155                             | 1.900                  | 0.072              | 60.059                |                                   |
| 1976                                | TOTAL     | 15.853            | 17.262                 | 2.327             | 19.480            | 2.976                             | 2.111                  | 0.081              | 60.091                |                                   |
| 1977                                | TOTAL     | 15.829            | 17.454                 | 2.327             | 19.565            | 2.333                             | 2.702                  | 0.082              | 60.293                |                                   |
| 1978                                | TOTAL     | 15.037            | 18.434                 | 2.245             | 19.485            | 2.937                             | 3.024                  | 0.068              | 61.231                |                                   |
| 1979                                | TOTAL     | 17.651            | 18.104                 | 2.286             | 20.076            | 2.931                             | 2.715                  | 0.089              | 63.851                |                                   |
| 1980                                | TOTAL     | 18.640            | 18.249                 | 2.254             | 19.916            | 2.900                             | 2.739                  | 0.114              | 64.812                |                                   |
| 1981                                | January   | 1.476             | 1.535                  | 0.201             | 1.730             | 0.235                             | 0.259                  | 0.011              | 5.448                 | 5.448                             |
|                                     | February  | 1.588             | 1.397                  | 0.182             | 1.553             | 0.222                             | 0.236                  | 0.010              | 5.187                 | 10.635                            |
|                                     | March     | 1.752             | 1.549                  | 0.198             | 1.711             | 0.217                             | 0.240                  | 0.011              | 5.678                 | 16.313                            |
|                                     | April     | 0.812             | 1.489                  | 0.188             | 1.651             | 0.218                             | 0.225                  | 0.010              | 4.595                 | 20.908                            |
|                                     | May       | 0.853             | 1.529                  | 0.194             | 1.675             | 0.254                             | 0.215                  | 0.010              | 4.729                 | 25.637                            |
|                                     | June      | 1.378             | 1.501                  | 0.188             | 1.614             | 0.277                             | 0.231                  | 0.010              | 5.199                 | 30.837                            |
|                                     | July      | 1.659             | 1.528                  | 0.189             | 1.642             | 0.264                             | 0.252                  | 0.011              | 5.544                 | 36.381                            |
|                                     | August    | 1.764             | 1.543                  | 0.197             | 1.683             | 0.227                             | 0.294                  | 0.011              | 5.718                 | 42.100                            |
|                                     | September | 1.829             | 1.497                  | 0.190             | 1.557             | 0.187                             | 0.266                  | 0.011              | 5.538                 | 47.638                            |
|                                     | October   | 1.908             | 1.540                  | 0.195             | 1.620             | 0.190                             | 0.224                  | 0.011              | 5.688                 | 53.326                            |
|                                     | November  | 1.715             | 1.494                  | 0.192             | 1.562             | 0.199                             | 0.249                  | 0.010              | 5.420                 | 58.746                            |
|                                     | December  | 1.709             | 1.544                  | 0.194             | 1.696             | 0.251                             | 0.284                  | 0.010              | 5.687                 | 64.432                            |
|                                     | TOTAL     | 18.443            | 18.146                 | 2.307             | 19.694            | 2.741                             | 2.974                  | 0.127              | 64.432                |                                   |
| 1982                                | January   | 1.495             | R1.530                 | R0.192            | 1.684             | 0.282                             | 0.280                  | 0.009              | R5.472                | R5.472                            |
|                                     | February  | 1.583             | R1.413                 | R0.172            | 1.545             | 0.280                             | 0.220                  | 0.008              | R5.221                | R10.694                           |
|                                     | March     | 1.867             | R1.558                 | 0.191             | 1.630             | 0.313                             | 0.248                  | 0.007              | R5.815                | R16.509                           |
|                                     | April     | 1.644             | R1.495                 | R0.182            | 1.538             | 0.293                             | 0.238                  | 0.007              | R5.396                | R21.905                           |
|                                     | May       | 1.589             | R1.561                 | 0.185             | 1.510             | 0.294                             | 0.236                  | 0.008              | R5.384                | R27.288                           |
|                                     | June      | 1.602             | R1.504                 | R0.178            | 1.464             | 0.294                             | 0.262                  | 0.010              | R5.313                | R32.602                           |
|                                     | July      | 1.347             | R1.557                 | R0.184            | 1.484             | 0.286                             | 0.278                  | 0.010              | R5.147                | R37.748                           |
|                                     | August    | 1.622             | R1.552                 | R0.186            | 1.452             | 0.251                             | 0.273                  | 0.010              | R5.346                | R43.094                           |
|                                     | September | 1.512             | R1.514                 | R0.179            | 1.392             | 0.209                             | 0.277                  | 0.010              | R5.092                | R48.187                           |
|                                     | October   | 1.577             | R1.565                 | R0.186            | 1.418             | 0.207                             | 0.254                  | 0.011              | R5.217                | R53.404                           |
|                                     | November  | 1.419             | R1.513                 | R0.190            | 1.433             | 0.244                             | 0.253                  | 0.011              | R5.064                | R58.468                           |
|                                     | December  | 1.400             | R1.546                 | R0.198            | 1.470             | 0.291                             | 0.266                  | 0.009              | R5.179                | R63.647                           |
|                                     | TOTAL     | 18.657            | R18.309                | R2.224            | 18.019            | 3.245                             | 3.084                  | 0.108              | R63.647               |                                   |
| 1983                                | January   | R1.390            | 1.552                  | 0.203             | 1.487             | 0.308                             | 0.274                  | 0.011              | R5.225                | R5.225                            |
|                                     | February  | R1.354            | 1.406                  | 0.174             | R1.344            | 0.293                             | 0.242                  | 0.008              | R4.822                | R10.047                           |
|                                     | March     | R1.533            | 1.560                  | 0.188             | R1.414            | 0.318                             | 0.261                  | 0.010              | R5.283                | 15.329                            |
|                                     | April     | 1.351             | 1.511                  | 0.177             | 1.354             | 0.315                             | 0.244                  | 0.009              | 4.961                 | 20.290                            |

<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.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

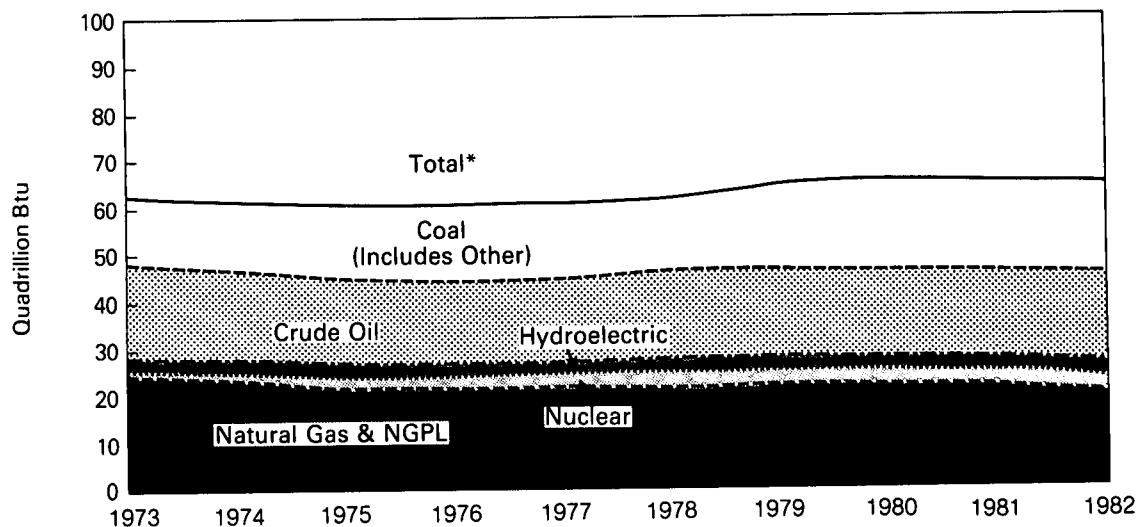
• Totals may not equal sum of components due to independent rounding.

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

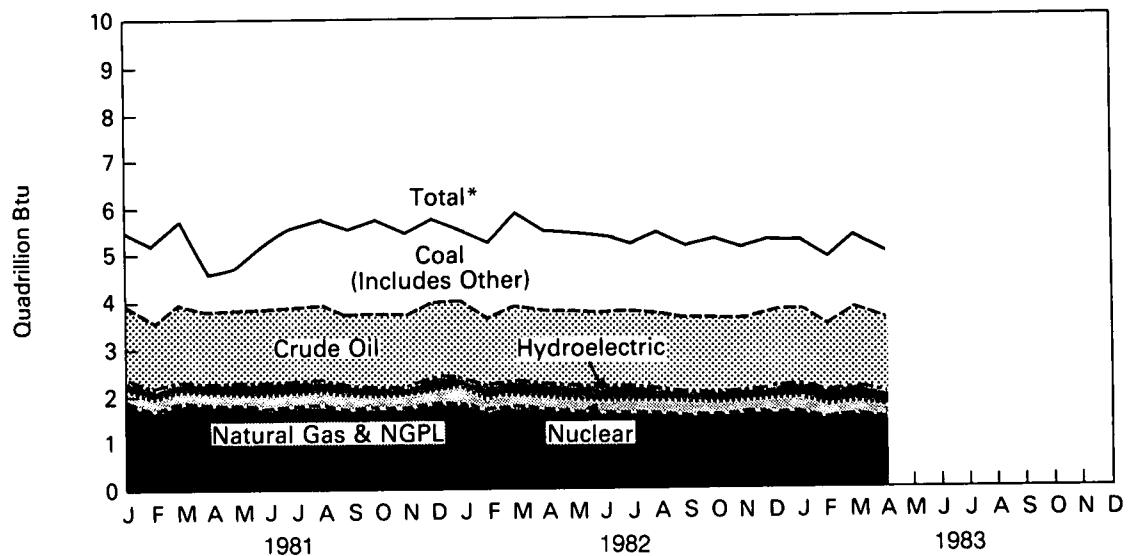
# Executive Summary

## Production of Energy by Source

Yearly



Monthly



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

# Executive Summary

## Consumption of Energy by Source

|                                     |           | Coal <sup>1</sup> | Natural Gas (Dry) | Petro-leum | 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     | 13.964            | 19.931            | 37.122     | 2.515                             | 2.702                  | 0.015                                 | 0.082              | 76.332                |                                   |
| 1978                                | TOTAL     | 13.846            | 20.000            | 37.965     | 3.141                             | 3.024                  | 0.131                                 | 0.068              | 78.175                |                                   |
| 1979                                | TOTAL     | 15.109            | 20.666            | 37.123     | 3.141                             | 2.715                  | 0.066                                 | 0.089              | 78.910                |                                   |
| 1980                                | TOTAL     | 15.461            | 20.391            | 34.202     | 3.118                             | 2.739                  | (0.037)                               | 0.114              | 75.988                |                                   |
| 1981                                | January   | 1.473             | 2.341             | 3.113      | 0.263                             | 0.259                  | 0.000                                 | 0.011              | 7.459                 | 7.459                             |
|                                     | February  | 1.302             | 1.945             | 2.592      | 0.247                             | 0.236                  | (0.001)                               | 0.010              | 6.330                 | 13.790                            |
|                                     | March     | 1.310             | 1.951             | 2.686      | 0.244                             | 0.240                  | (0.003)                               | 0.011              | 6.440                 | 20.230                            |
|                                     | April     | 1.191             | 1.529             | 2.509      | 0.245                             | 0.225                  | (0.001)                               | 0.010              | 5.709                 | 25.939                            |
|                                     | May       | 1.200             | 1.465             | 2.593      | 0.281                             | 0.215                  | 0.000                                 | 0.010              | 5.764                 | 31.702                            |
|                                     | June      | 1.301             | 1.344             | 2.631      | 0.304                             | 0.231                  | (0.004)                               | 0.010              | 5.816                 | 37.519                            |
|                                     | July      | 1.469             | 1.351             | 2.649      | 0.292                             | 0.252                  | 0.000                                 | 0.011              | 6.023                 | 43.542                            |
|                                     | August    | 1.437             | 1.349             | 2.578      | 0.255                             | 0.294                  | 0.000                                 | 0.011              | 5.924                 | 49.465                            |
|                                     | September | 1.302             | 1.300             | 2.559      | 0.214                             | 0.266                  | (0.002)                               | 0.011              | 5.650                 | 55.116                            |
|                                     | October   | 1.290             | 1.559             | 2.672      | 0.218                             | 0.224                  | (0.003)                               | 0.011              | 5.971                 | 61.087                            |
|                                     | November  | 1.280             | 1.663             | 2.548      | 0.226                             | 0.249                  | 0.000                                 | 0.010              | 5.975                 | 67.062                            |
|                                     | December  | 1.418             | 2.133             | 2.803      | 0.278                             | 0.284                  | (0.003)                               | 0.010              | 6.922                 | 73.984                            |
|                                     | TOTAL     | 15.973            | 19.930            | 31.931     | 3.066                             | 2.974                  | (0.017)                               | 0.127              | 73.984                |                                   |
| 1982                                | January   | 1.498             | R2.427            | R2.723     | 0.310                             | 0.280                  | 0.000                                 | 0.009              | R7.246                | R7.246                            |
|                                     | February  | 1.303             | R2.010            | R2.441     | 0.305                             | 0.220                  | (0.001)                               | 0.008              | R6.285                | R13.531                           |
|                                     | March     | 1.270             | R1.864            | 2.628      | 0.341                             | 0.248                  | (0.002)                               | 0.007              | R6.356                | R19.886                           |
|                                     | April     | 1.161             | R1.508            | 2.623      | 0.320                             | 0.238                  | (0.001)                               | 0.007              | R5.855                | R25.742                           |
|                                     | May       | 1.196             | R1.166            | 2.507      | 0.322                             | 0.236                  | (0.003)                               | 0.008              | R5.432                | R31.174                           |
|                                     | June      | 1.220             | R1.143            | R2.451     | 0.320                             | 0.262                  | (0.004)                               | 0.010              | R5.402                | R36.576                           |
|                                     | July      | 1.392             | R1.173            | R2.503     | 0.314                             | 0.278                  | (0.003)                               | 0.010              | R5.666                | R42.242                           |
|                                     | August    | R1.385            | R1.178            | 2.506      | 0.278                             | 0.273                  | (0.001)                               | 0.010              | R5.629                | R47.871                           |
|                                     | September | R1.237            | R1.170            | R2.455     | 0.236                             | 0.277                  | (0.003)                               | 0.010              | R5.381                | R53.252                           |
|                                     | October   | 1.200             | R1.335            | R2.509     | 0.235                             | 0.254                  | (0.001)                               | 0.011              | R5.542                | R58.794                           |
|                                     | November  | 1.239             | R1.578            | R2.453     | 0.271                             | 0.253                  | (0.002)                               | 0.011              | R5.804                | R64.598                           |
|                                     | December  | 1.313             | 1.760             | R2.616     | 0.319                             | 0.266                  | (0.001)                               | 0.009              | R6.281                | R70.879                           |
|                                     | TOTAL     | R15.412           | R18.311           | R30.416    | 3.571                             | 3.084                  | (0.023)                               | 0.108              | R70.879               |                                   |
| 1983                                | January   | R1.376            | R2.014            | 2.494      | 0.335                             | 0.274                  | (0.001)                               | 0.011              | R6.502                | R6.502                            |
|                                     | February  | R1.190            | R1.729            | 2.253      | 0.318                             | 0.242                  | (0.001)                               | 0.008              | R5.740                | R12.242                           |
|                                     | March     | R1.207            | R1.686            | 2.615      | 0.345                             | 0.261                  | (0.001)                               | 0.010              | R6.123                | R18.365                           |
|                                     | April     | 1.160             | 1.491             | 2.415      | 0.341                             | 0.244                  | (0.002)                               | 0.009              | 5.658                 | 24.023                            |

<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.

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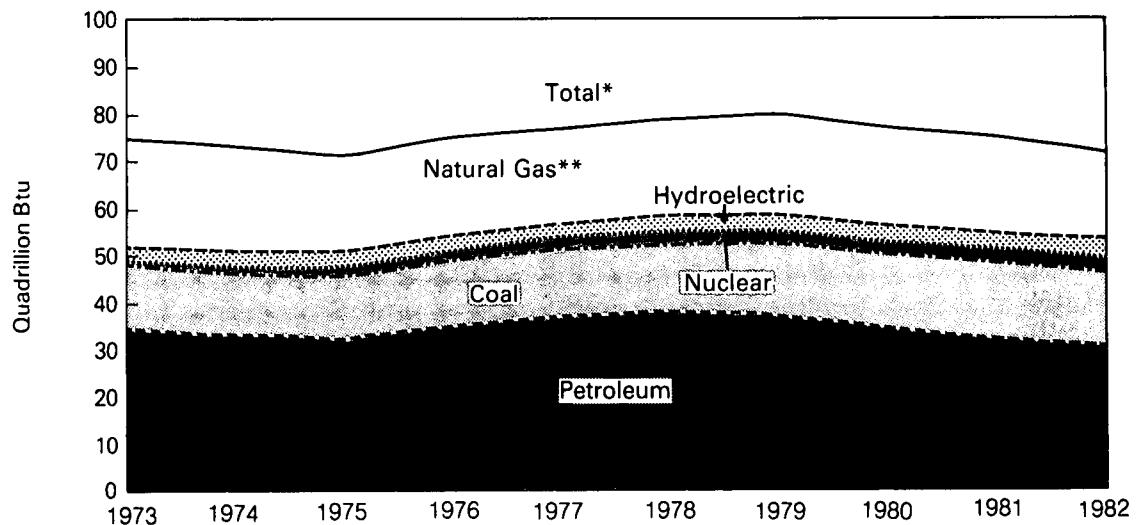
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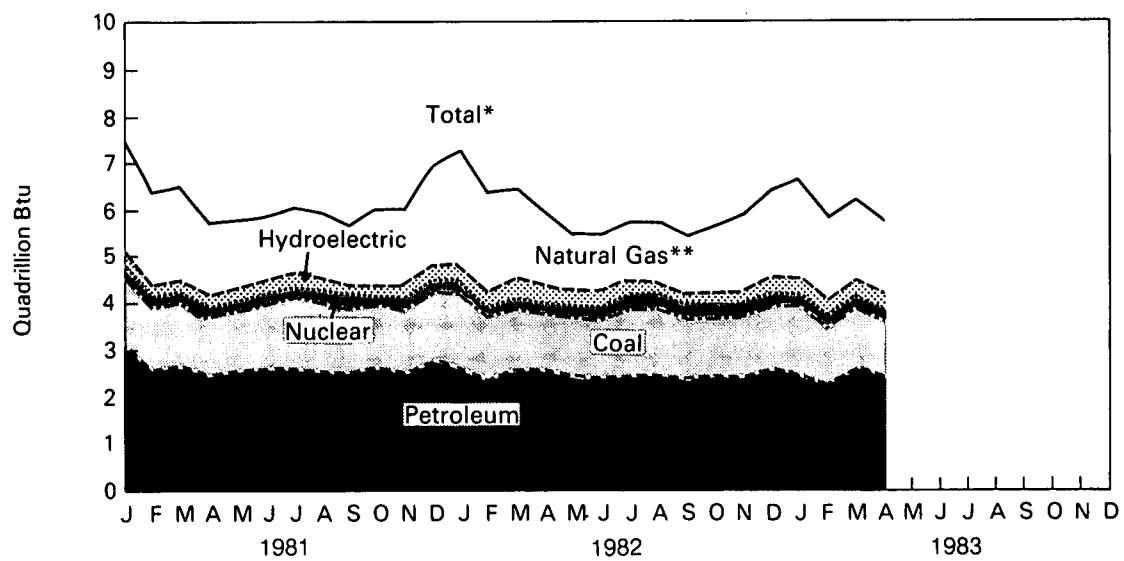
# Executive Summary

## Consumption of Energy by Source

### Yearly



### Monthly



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

\*\*Includes net imports of coal coke and other.

# Executive Summary

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

|                                     |              | Coal <sup>2</sup> | Crude Oil <sup>3</sup> | Refined Petroleum Products <sup>4</sup> | Natural Gas (Dry) | Electricity  | Coal Coke      | Total Net Imports | Yearly Cumulative Net Imports of Energy |
|-------------------------------------|--------------|-------------------|------------------------|---|-------------------|--------------|----------------|-------------------|---|
| Quadrillion (10 <sup>12</sup> ) Btu |              |                   |                        |   |                   |              |                |                   |   |
| 1973                                | <b>TOTAL</b> | (1.443)           | <b>6.883</b>           | <b>6.097</b>                            | <b>0.981</b>      | <b>0.148</b> | (0.008)        | <b>12.659</b>     |   |
| 1974                                | <b>TOTAL</b> | (1.585)           | <b>7.389</b>           | <b>5.273</b>                            | <b>0.907</b>      | <b>0.133</b> | <b>0.059</b>   | <b>12.175</b>     |   |
| 1975                                | <b>TOTAL</b> | (1.766)           | <b>8.708</b>           | <b>3.800</b>                            | <b>0.904</b>      | <b>0.064</b> | <b>0.014</b>   | <b>11.725</b>     |   |
| 1976                                | <b>TOTAL</b> | (1.590)           | <b>11.221</b>          | <b>3.982</b>                            | <b>0.922</b>      | <b>0.089</b> | 0.000          | <b>14.625</b>     |   |
| 1977                                | <b>TOTAL</b> | (1.424)           | <b>13.921</b>          | <b>4.321</b>                            | <b>0.981</b>      | <b>0.182</b> | <b>0.015</b>   | <b>17.995</b>     |   |
| 1978                                | <b>TOTAL</b> | (1.024)           | <b>13.125</b>          | <b>3.932</b>                            | <b>0.941</b>      | <b>0.204</b> | <b>0.131</b>   | <b>17.309</b>     |   |
| 1979                                | <b>TOTAL</b> | (1.730)           | <b>13.328</b>          | <b>3.603</b>                            | <b>1.243</b>      | <b>0.211</b> | <b>0.066</b>   | <b>16.720</b>     |   |
| 1980                                | <b>TOTAL</b> | (2.390)           | <b>10.586</b>          | <b>2.912</b>                            | <b>0.957</b>      | <b>0.217</b> | (0.037)        | <b>12.246</b>     |   |
| 1981                                | January      | (0.151)           | 0.829                  | 0.293                                   | 0.087             | 0.028        | 0.000          | 1.085             | 1.085                                   |
|                                     | February     | (0.175)           | 0.762                  | 0.240                                   | 0.081             | 0.025        | (0.001)        | 0.932             | 2.018                                   |
|                                     | March        | (0.252)           | 0.778                  | 0.196                                   | 0.076             | 0.028        | (0.003)        | 0.823             | 2.840                                   |
|                                     | April        | (0.215)           | 0.723                  | 0.161                                   | 0.065             | 0.027        | (0.001)        | 0.759             | 3.599                                   |
|                                     | May          | (0.157)           | 0.717                  | 0.210                                   | 0.059             | 0.028        | 0.000          | 0.857             | 4.456                                   |
|                                     | June         | (0.158)           | 0.687                  | 0.181                                   | 0.061             | 0.027        | (0.004)        | 0.794             | 5.250                                   |
|                                     | July         | (0.281)           | 0.728                  | 0.210                                   | 0.062             | 0.028        | 0.000          | 0.747             | 5.997                                   |
|                                     | August       | (0.292)           | 0.717                  | 0.199                                   | 0.060             | 0.028        | 0.000          | 0.712             | 6.709                                   |
|                                     | September    | (0.310)           | 0.794                  | 0.219                                   | 0.062             | 0.027        | (0.002)        | 0.790             | 7.498                                   |
|                                     | October      | (0.321)           | 0.749                  | 0.184                                   | 0.075             | 0.028        | (0.003)        | 0.713             | 8.211                                   |
|                                     | November     | (0.308)           | 0.658                  | 0.214                                   | 0.078             | 0.027        | 0.000          | 0.668             | 8.879                                   |
|                                     | December     | (0.299)           | 0.712                  | 0.215                                   | 0.089             | 0.028        | (0.003)        | 0.741             | 9.621                                   |
|                                     | <b>TOTAL</b> | <b>(2.918)</b>    | <b>8.854</b>           | <b>2.522</b>                            | <b>0.855</b>      | <b>0.325</b> | <b>(0.017)</b> | <b>9.621</b>      |   |
| 1982                                | January      | (0.160)           | R0.623                 | R0.181                                  | R0.096            | 0.028        | 0.000          | R0.768            | R0.768                                  |
|                                     | February     | (0.234)           | R0.438                 | R0.206                                  | R0.081            | 0.025        | (0.001)        | R0.515            | R1.282                                  |
|                                     | March        | (0.273)           | R0.461                 | R0.181                                  | R0.078            | 0.028        | (0.002)        | R0.473            | R1.755                                  |
|                                     | April        | (0.283)           | R0.467                 | R0.153                                  | R0.071            | 0.027        | (0.001)        | R0.433            | R2.188                                  |
|                                     | May          | (0.262)           | R0.550                 | R0.166                                  | R0.063            | 0.028        | (0.003)        | R0.541            | R2.730                                  |
|                                     | June         | (0.279)           | R0.653                 | R0.146                                  | R0.056            | 0.027        | (0.004)        | R0.599            | R3.329                                  |
|                                     | July         | (0.239)           | R0.725                 | R0.195                                  | 0.063             | 0.028        | (0.003)        | R0.769            | R4.098                                  |
|                                     | August       | (0.190)           | R0.640                 | R0.144                                  | R0.056            | 0.028        | (0.001)        | R0.676            | R4.774                                  |
|                                     | September    | (0.225)           | R0.603                 | R0.196                                  | R0.062            | 0.027        | (0.003)        | R0.658            | R5.432                                  |
|                                     | October      | (0.259)           | R0.613                 | R0.167                                  | R0.073            | 0.028        | (0.001)        | R0.621            | R6.053                                  |
|                                     | November     | (0.202)           | 0.629                  | R0.228                                  | R0.087            | 0.027        | (0.002)        | R0.767            | R6.819                                  |
|                                     | December     | (0.157)           | R0.506                 | 0.161                                   | 0.106             | 0.028        | (0.001)        | R0.644            | R7.463                                  |
|                                     | <b>TOTAL</b> | <b>(2.763)</b>    | <b>R6.907</b>          | <b>R2.124</b>                           | <b>R0.892</b>     | <b>0.326</b> | <b>(0.023)</b> | <b>R7.463</b>     |   |
| 1983                                | January      | (0.115)           | 0.509                  | 0.097                                   | 0.117             | 0.028        | (0.001)        | 0.633             | 0.633                                   |
|                                     | February     | (0.113)           | 0.327                  | 0.127                                   | 0.098             | 0.025        | (0.001)        | 0.463             | 1.096                                   |
|                                     | March        | (0.162)           | 0.371                  | 0.132                                   | 0.087             | 0.028        | (0.001)        | 0.455             | 1.552                                   |
|                                     | April        | (0.156)           | 0.535                  | 0.144                                   | 0.073             | 0.027        | (0.002)        | 0.620             | 2.171                                   |

<sup>1</sup>Net imports equals 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.

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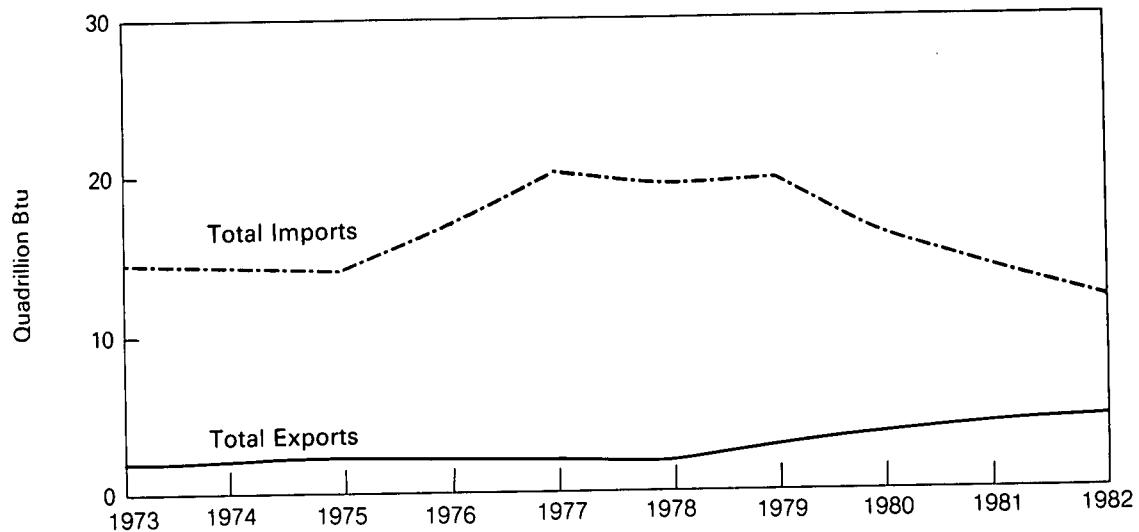
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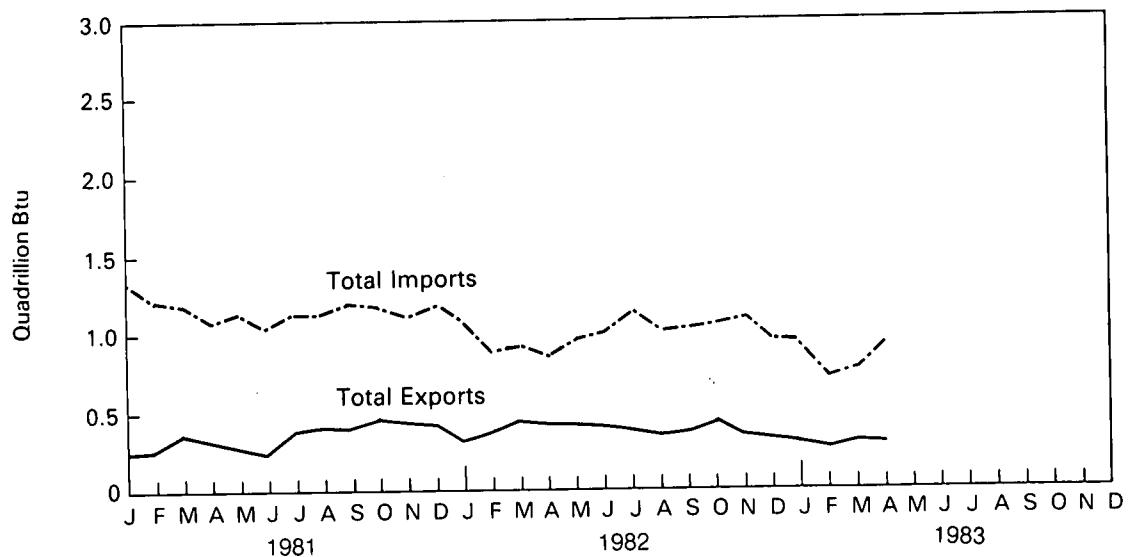
# Executive Summary

## Energy Imports and Exports

Yearly



Monthly



# Executive Summary

## Merchandise Trade Value

|                 | Exports   |            |           |         | Imports |           |         | Trade Balance |           |         |
|-----------------|-----------|------------|-----------|---------|---------|-----------|---------|---------------|-----------|---------|
|                 |           | All Energy | All Other | Total   | Energy  | All Other | Total   | Energy        | All Other | Total   |
| Million dollars |           |            |           |         |         |           |         |               |           |         |
| 1974            | TOTAL     | NA         | NA        | 98,092  | NA      | NA        | 102,559 | NA            | NA        | -4,467  |
| 1975            | TOTAL     | 4,470      | 103,182   | 107,652 | 28,325  | 70,178    | 98,503  | -23,855       | +33,004   | +9,149  |
| 1976            | TOTAL     | 4,226      | 110,997   | 115,223 | 36,384  | 87,093    | 123,477 | -32,158       | +23,904   | -8,254  |
| 1977            | TOTAL     | 4,184      | 117,048   | 121,232 | 47,153  | 103,237   | 150,390 | -42,969       | +13,811   | -29,158 |
| 1978            | TOTAL     | 3,882      | 139,799   | 143,681 | 44,763  | 129,994   | 174,757 | -40,881       | +9,805    | -31,076 |
| 1979            | TOTAL     | 5,675      | 176,185   | 181,860 | 63,077  | 146,381   | 209,458 | -57,402       | +29,804   | -27,599 |
| 1980            | TOTAL     | 7,982      | 212,644   | 220,626 | 82,924  | 161,947   | 244,871 | -74,942       | +50,697   | -24,244 |
| 1981            | January   | 756        | 18,146    | 18,902  | 8,007   | 14,609    | 22,616  | -7,251        | +3,537    | -3,714  |
|                 | February  | 999        | 18,789    | 19,788  | 7,939   | 13,977    | 21,916  | -6,940        | +4,812    | -2,127  |
|                 | March     | 939        | 20,339    | 21,278  | 6,471   | 14,558    | 21,029  | -5,532        | +5,781    | +249    |
|                 | April     | 738        | 19,048    | 19,786  | 7,831   | 14,418    | 22,249  | -7,093        | +4,630    | -2,463  |
|                 | May       | 593        | 18,306    | 18,899  | 6,075   | 15,157    | 21,232  | -5,482        | +3,149    | -2,333  |
|                 | June      | 565        | 19,185    | 19,750  | 7,252   | 14,753    | 22,005  | -6,687        | +4,432    | -2,255  |
|                 | July      | 847        | 18,442    | 19,289  | 5,687   | 14,427    | 20,114  | -4,840        | +4,015    | -825    |
|                 | August    | 884        | 18,147    | 19,031  | 6,876   | 16,366    | 23,242  | -5,992        | +1,781    | -4,212  |
|                 | September | 939        | 18,612    | 19,551  | 6,555   | 14,719    | 21,274  | -5,616        | +3,893    | -1,724  |
|                 | October   | 991        | 18,172    | 19,163  | 6,638   | 16,439    | 23,077  | -5,648        | +1,733    | -3,914  |
|                 | November  | 997        | 18,156    | 19,153  | 6,608   | 15,900    | 22,508  | -5,611        | +2,256    | -3,356  |
|                 | December  | 1,067      | 17,818    | 18,885  | 5,422   | 14,324    | 19,746  | -4,355        | +3,494    | -861    |
|                 | TOTAL     | 10,279     | 223,398   | 233,677 | 81,360  | 179,622   | 260,982 | -71,081       | +43,776   | -27,305 |
| 1982            | January   | 1,205      | 17,379    | 18,584  | 7,439   | 15,134    | 22,573  | -6,234        | +2,245    | -3,989  |
|                 | February  | 1,361      | 17,253    | 18,614  | 5,107   | 14,463    | 19,570  | -3,746        | +2,790    | -956    |
|                 | March     | 1,256      | 17,206    | 18,462  | 5,009   | 15,010    | 20,019  | -3,753        | +2,196    | -1,557  |
|                 | April     | 1,201      | 16,804    | 18,005  | 4,312   | 13,402    | 17,714  | -3,111        | +3,402    | +291    |
|                 | May       | 1,065      | 17,059    | 18,124  | 4,167   | 16,310    | 20,477  | -3,102        | +749      | -2,353  |
|                 | June      | 1,035      | 17,788    | 18,823  | 5,427   | 15,760    | 21,187  | -4,392        | +2,028    | -2,364  |
|                 | July      | 974        | 17,086    | 18,060  | 5,943   | 13,906    | 19,849  | -4,969        | +3,180    | -1,790  |
|                 | August    | 961        | 16,502    | 17,463  | 6,353   | 16,577    | 22,930  | -5,392        | -75       | -5,467  |
|                 | September | 998        | 16,322    | 17,320  | 5,201   | 15,380    | 20,581  | -4,203        | +942      | -3,261  |
|                 | October   | 1,072      | 15,599    | 16,671  | 5,947   | 15,059    | 21,006  | -4,875        | +540      | -4,335  |
|                 | November  | 847        | 15,005    | 15,852  | 5,037   | 13,855    | 18,892  | -4,190        | +1,150    | -3,041  |
|                 | December  | 855        | 15,492    | 16,347  | 5,468   | 13,686    | 19,154  | -4,613        | +1,806    | -2,808  |
|                 | TOTAL     | 12,729     | 199,464   | 212,193 | 65,409  | 178,543   | 243,952 | -52,680       | +20,921   | -31,759 |
| 1983            | January   | 1,132      | 16,261    | 17,393  | 5,142   | 14,879    | 20,021  | -4,010        | +1,382    | -2,628  |
|                 | February  | 878        | 15,448    | 16,326  | 3,704   | 15,311    | 19,015  | -2,826        | +137      | -2,689  |
|                 | March     | 850        | 15,902    | 16,752  | 3,865   | 15,660    | 19,525  | -3,015        | +241      | -2,774  |
|                 | April     | 892        | 15,182    | 16,074  | 3,763   | 16,008    | 19,771  | -2,871        | -826      | -3,697  |
|                 | May       | 724        | 14,842    | 15,566  | 5,033   | 16,481    | 21,514  | -4,309        | -1,639    | -5,948  |

NA=Not available.

Notes: • Annual totals are unadjusted and may not equal the sum of monthly totals, which are adjusted for seasonal and working-day variation, if present and identifiable.

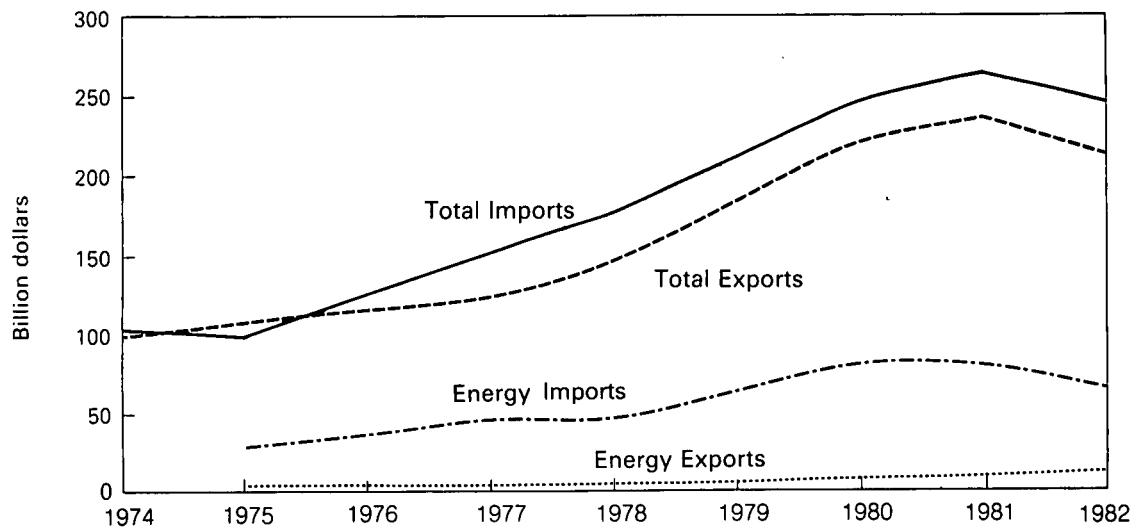
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.

Additional Notes and Sources: See the last page of this section.

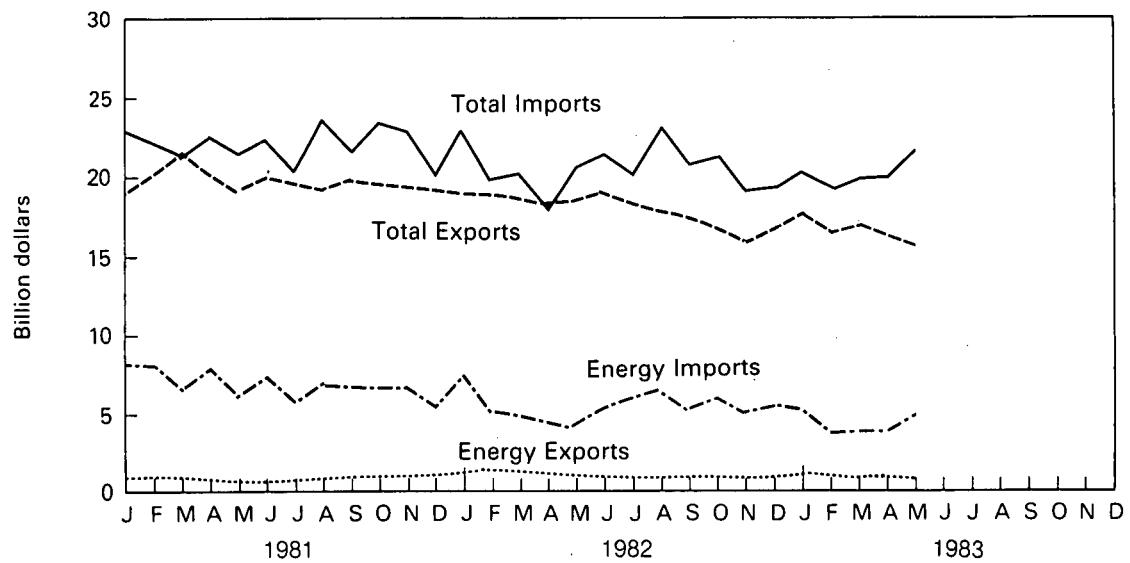
# Executive Summary

## Merchandise Trade Value

### Yearly



### Monthly

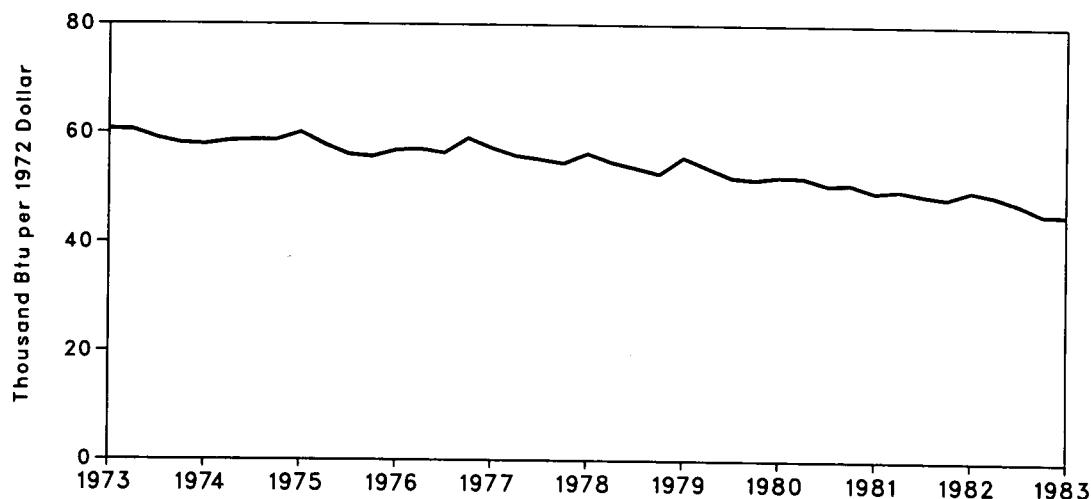


## Executive Summary

### Energy Indicator—Energy Consumption per GNP Dollar (Seasonally Adjusted)

|      | Annual Rate<br>of Energy<br>Consumption | Gross National Product |                              | Energy Consumption<br>per GNP Dollar |
|------|---|------------------------|------------------------------|--------------------------------------|
|      |   | Current<br>Dollars     | 1972<br>Dollars <sup>1</sup> |                                      |
|      | Quadrillion Btu                         | Trillion Dollars       |                              | Thousand Btu<br>per 1972 Dollar      |
| 1973 | 74.609                                  | 1.326                  | 1.254                        | 59.5                                 |
| 1974 | 72.759                                  | 1.434                  | 1.246                        | 58.4                                 |
| 1975 | 70.707                                  | 1.549                  | 1.232                        | 57.4                                 |
| 1976 | 74.510                                  | 1.718                  | 1.298                        | 57.4                                 |
| 1977 | 76.332                                  | 1.918                  | 1.370                        | 55.7                                 |
| 1978 | 78.175                                  | 2.164                  | 1.439                        | 54.3                                 |
| 1979 | 78.910                                  | 2.418                  | 1.479                        | 53.4                                 |
| 1980 | 75.988                                  | 2.633                  | 1.474                        | 51.6                                 |
| 1981 | 1st Qtr <sup>2</sup>                    | 74.594                 | 2.865                        | 49.5                                 |
|      | 2nd Qtr <sup>2</sup>                    | 74.977                 | 2.902                        | 49.9                                 |
|      | 3rd Qtr <sup>2</sup>                    | 74.313                 | 2.981                        | 49.1                                 |
|      | 4th Qtr <sup>2</sup>                    | 72.171                 | 3.003                        | 48.5                                 |
|      | YEAR                                    | 73.984                 | 2.938                        | 49.2                                 |
| 1982 | 1st Qtr <sup>2</sup>                    | R73.381                | 2.996                        | 49.9                                 |
|      | 2nd Qtr <sup>2</sup>                    | R72.378                | 3.045                        | 49.0                                 |
|      | 3rd Qtr <sup>2</sup>                    | R70.453                | 3.088                        | 47.6                                 |
|      | 4th Qtr <sup>2</sup>                    | R67.493                | 3.108                        | 45.7                                 |
|      | YEAR                                    | R70.879                | 3.059                        | 48.0                                 |
| 1983 | 1st Qtr <sup>2</sup>                    | R67.862                | 3.171                        | 45.6                                 |

### Energy Consumption per GNP Dollar (Seasonally Adjusted)



<sup>1</sup>Current dollars are converted to 1972 dollars by the Department of Commerce, Bureau of Economic Analysis.

<sup>2</sup>Quarterly data are seasonally adjusted and shown at annual rates.

R=Revised data.

Notes • Geographic coverage is the 50 States and the District of Columbia.

• Yearly data may not equal sum of quarters due to seasonality adjustments and independent rounding.

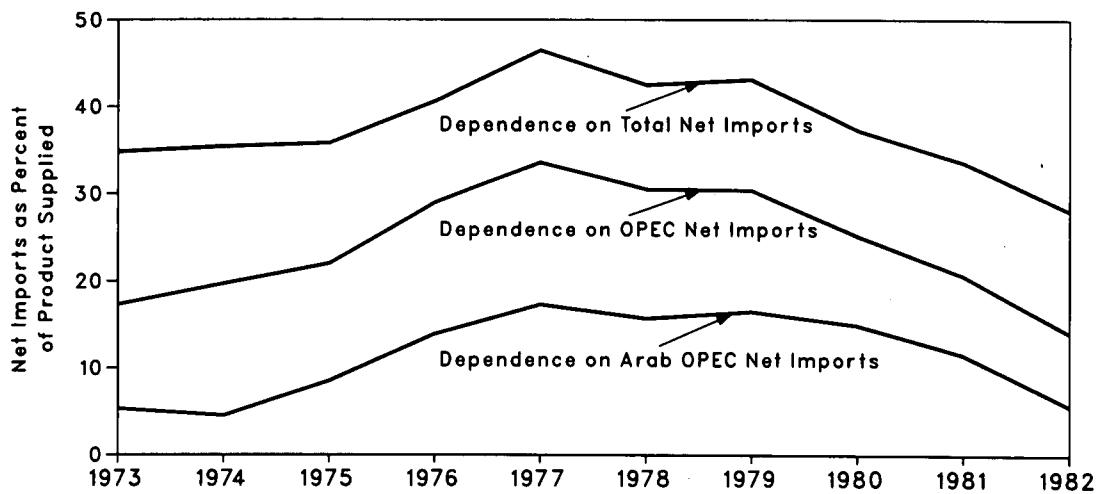
Sources: • See the last page of this section.

## Executive Summary

### Energy Indicator—U.S. Dependence on Petroleum Net Imports<sup>1</sup>

|                    |         | Net Imports <sup>2</sup>              |                                      |                    | Domestic Petroleum Products Supplied | Net Imports as Percent of U.S. Petroleum Products Supplied |                                      |                    |
|--------------------|---------|---------------------------------------|--------------------------------------|--------------------|--------------------------------------|--|--------------------------------------|--------------------|
|                    |         | from Arab OPEC <sup>3</sup> Countries | from All OPEC <sup>4</sup> Countries | from All Countries |                                      | from Arab OPEC <sup>3</sup> Countries                      | from All OPEC <sup>4</sup> Countries | from All Countries |
| <b>ANNUAL RATE</b> |         | Thousand Barrels per Day              |                                      |                    |                                      |  |                                      | Percent            |
| 1973               | AVERAGE | 915                                   | 2,991                                | 6,025              | 17,308                               | 5.3  | 17.3                                 | 34.8               |
| 1974               | AVERAGE | 751                                   | 3,277                                | 5,891              | 16,653                               | 4.5  | 19.7                                 | 35.4               |
| 1975               | AVERAGE | 1,382                                 | 3,598                                | 5,847              | 16,322                               | 8.5  | 22.0                                 | 35.8               |
| 1976               | AVERAGE | 2,423                                 | 5,063                                | 7,090              | 17,461                               | 13.9   | 29.0                                 | 40.6               |
| 1977               | AVERAGE | 3,184                                 | 6,190                                | 8,564              | 18,431                               | 17.3   | 33.6                                 | 46.5               |
| 1978               | AVERAGE | 2,962                                 | 5,747                                | 8,001              | 18,847                               | 15.7   | 30.5                                 | 42.5               |
| 1979               | AVERAGE | 3,054                                 | 5,632                                | 7,985              | 18,513                               | 16.5   | 30.4                                 | 43.1               |
| 1980               | AVERAGE | 2,549                                 | 4,293                                | 6,365              | 17,056                               | 14.9   | 25.2                                 | 37.3               |
| 1981               | 1st Qtr | 2,060                                 | 3,804                                | 5,964              | 17,113                               | 12.0   | 22.2                                 | 34.9               |
|                    | 2nd Qtr | 1,786                                 | 3,117                                | 5,099              | 15,597                               | 11.5   | 20.0                                 | 32.7               |
|                    | 3rd Qtr | 1,857                                 | 3,181                                | 5,400              | 15,532                               | 12.0   | 20.5                                 | 34.8               |
|                    | 4th Qtr | 1,679                                 | 3,167                                | 5,151              | 16,008                               | 10.5   | 19.8                                 | 32.2               |
|                    | AVERAGE | 1,845                                 | 3,315                                | 5,401              | 16,058                               | 11.5   | 20.6                                 | 33.6               |
| 1982               | 1st Qtr | R1,105                                | R2,391                               | R4,038             | R15,891                              | R7.0   | R15.1                                | R25.4              |
|                    | 2nd Qtr | R817                                  | R1,925                               | R4,074             | R15,292                              | R5.3   | R12.6                                | R26.6              |
|                    | 3rd Qtr | R820                                  | R2,239                               | R4,720             | R14,893                              | R5.5   | R15.0                                | R31.7              |
|                    | 4th Qtr | R672                                  | R1,990                               | R4,353             | R15,120                              | 4.4  | R13.2                                | R28.8              |
|                    | AVERAGE | R851                                  | R2,136                               | R4,298             | R15,296                              | R5.6   | R14.0                                | R28.1              |
| 1983               | 1st Qtr | 346                                   | 1,139                                | 3,024              | 15,015                               | 2.3  | 7.6                                  | 20.1               |

### U.S. Dependence on Petroleum Net Imports



<sup>1</sup>Beginning in October 1977, Strategic Petroleum Reserves are included.

<sup>2</sup>Net imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are refined products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.

<sup>3</sup>Includes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>4</sup>Includes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.

R=Revised data.

Note: • Geographic coverage is the 50 States and the District of Columbia.

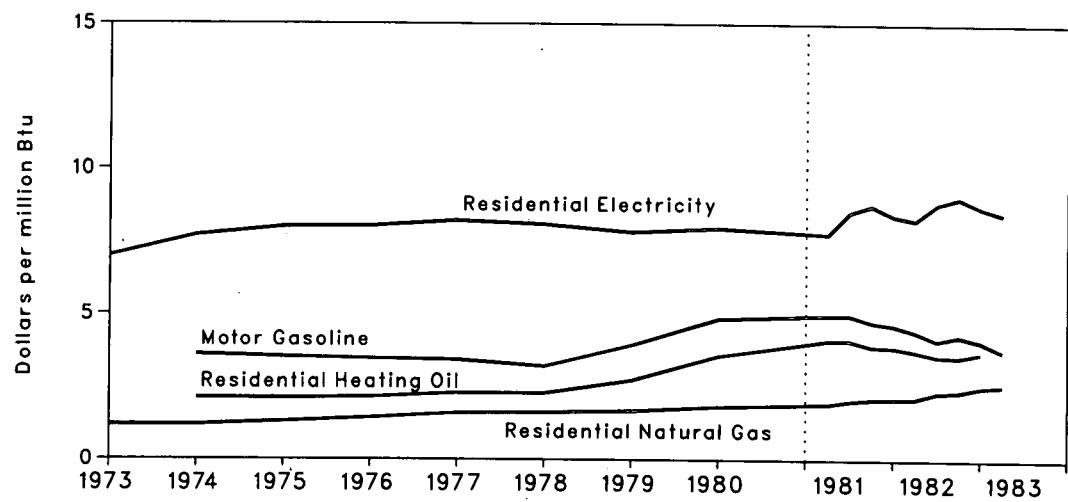
Sources: • See the last page of this section.

## Executive Summary

### Energy Indicator—Cost of Fuels to End Users in Constant (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 | AVERAGE | 60.5                          | 4.84     | 49.7                    | 3.58     | 186.9                   | 1.83     | 2.72                    | 7.97     |
| 1981 | 1st Qtr | 62.1                          | 4.97     | 57.0                    | 4.11     | 197.5                   | 1.93     | 2.65                    | 7.77     |
|      | 2nd Qtr | 62.1                          | 4.97     | 57.2                    | 4.12     | 209.1                   | 2.04     | 2.91                    | 8.53     |
|      | 3rd Qtr | 59.3                          | 4.74     | 54.4                    | 3.92     | 215.0                   | 2.10     | 2.99                    | 8.76     |
|      | 4th Qtr | 57.9                          | 4.63     | 54.0                    | 3.89     | 216.3                   | 2.11     | 2.87                    | 8.41     |
|      | AVERAGE | 60.4                          | 4.83     | 55.7                    | 4.01     | 209.7                   | 2.05     | 2.85                    | 8.35     |
| 1982 | 1st Qtr | 55.3                          | 4.42     | 52.2                    | 3.76     | 218.3                   | 2.13     | 2.82                    | 8.26     |
|      | 2nd Qtr | 51.7                          | 4.13     | 49.8                    | 3.59     | 239.0                   | 2.33     | 3.01                    | 8.82     |
|      | 3rd Qtr | 53.5                          | 4.28     | 49.4                    | 3.56     | 242.2                   | 2.37     | 3.08                    | 9.03     |
|      | 4th Qtr | 51.3                          | 4.10     | 51.3                    | 3.70     | R257.9                  | 2.52     | 2.97                    | 8.70     |
|      | AVERAGE | 53.0                          | 4.24     | 51.4                    | 3.71     | 239.7                   | 2.34     | 2.97                    | 8.70     |
| 1983 | 1st Qtr | 47.1                          | 3.77     | NA                      | NA       | 263.3                   | 2.57     | 2.89                    | 8.47     |

### Average Cost of Fuels to End Users in Constant (1972) Dollars



R=Revised data. NA=Not available.

Note: • Geographic coverage is the 50 States and the District of Columbia.

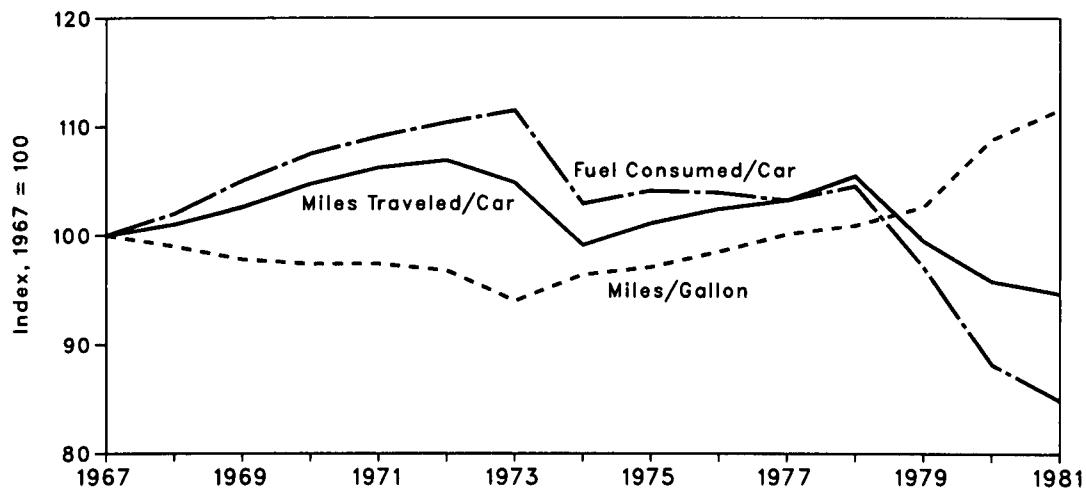
Sources: • See the last page of this section.

## 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 |
| 1980 | 603                           | 88.2  | 9,135                          | 95.8  | 15.15  | 108.8 |
| 1981 | 581                           | 84.9  | 9,026                          | 94.7  | 15.54  | 111.6 |

### U.S. Passenger Car Efficiency Index



Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last page of this section.

## Notes and Sources for the Executive Summary Section

### Notes

**1. Domestic Production:** Domestic production of energy includes production of coal (anthracite, bituminous coal, 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 on the inside back cover of this publication.

**2. Domestic Consumption:** 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 on the inside back cover of this publication.

**3. U.S. Energy Imports:** 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:** U.S. energy exports include bituminous coal, crude oil, refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal.

**5. Merchandise Trade Value:** The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (which includes the 50 United States, the District of Columbia, and Puerto Rico) and the Virgin Islands. The statistics exclude imports into Guam, American Samoa, and other U.S. possessions, as well as shipments between the United States and Puerto Rico and the Virgin Islands, between the United States and other U.S. possessions, and between any of these outlying areas. From January 1981 forward, import data presented are on a customs value basis. All other values are on a free alongside ship (f.a.s.) basis. Monthly data are adjusted for seasonal and working-day variation, if present and identifiable; annual data are unadjusted, and annual totals may not equal sum of monthly totals. Statistics include nonmonetary gold. Statistics exclude Department of Defense Military Program Grant-Aid shipments. "All Other" and "Total" columns include foreign exports (i.e., reexports). The "Energy" columns include mineral fuels, lubricants, and related material. "Imports" represent general imports (i.e., entries for immediate consumption, entries into Customs bonded warehouses, and entries for the Strategic Petroleum Reserve). "Trade Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. The "All Other" columns are calculated by subtracting "Energy" from "Total."

**6. Degree-Days:** 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. The population weights reflect resident state population data estimated as of July 1, 1981, by the U.S. Department of Commerce, Bureau of the Census.

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.

### Sources

**Merchandise Trade Value:** • 1974 through 1980: U.S. Department of Commerce, Bureau of the Census, "Highlights of U.S. Export and Import Trade," FT990 (January 1982), Appendix for total imports and exports. Energy imports and exports from U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," December issues, plus Bureau of the Census reports EA691 "Exports from the Virgin Islands to Foreign Countries," and IA245V "U.S. Imports for Consumption and General Imports into the Virgin Islands."

• 1981 forward: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," most recent monthly issue.

**Gross National Product:** • U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.

**U.S. Dependence on Petroleum Net Imports:** • Imports and products supplied—Part 3 of this publication.

• Exports—1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*; 1977 through 1981: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual;" 1982 forward: EIA, *Petroleum Statement, Monthly*.

**Cost of Fuels to End Users in Constant (1972) Dollars:** • Motor gasoline—Bureau of Labor Statistics.

• Heating oil—Energy Information Administration (EIA), 1974 and 1975: Form CLC-92, "No. 2 Heating Oil Monthly Price Adjustment Report"; 1976 forward: FEA Form P112-M-1 and EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

• Natural gas—1973 through 1979: Bureau of Mines Form 6-1340-A, "Supply and Disposition of Natural Gas (non-producing distributors report)" and Form 6-1341-A, "Supply and Disposition of Natural Gas." 1980: Energy Information Administration Form EIA-176, "Supply and Disposition of Natural Gas." 1981 forward: Bureau of Labor Statistics (BLS).

• Electricity—Federal Energy Regulatory Commission (FERC), 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)—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.

**U.S. Passenger Car Efficiency:** • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

# Part 2

# Consumption

## Energy Consumption

Total U.S. energy consumption in April 1983 was 5.7 quadrillion Btu, 3.4 percent below the April 1982 level.

Residential and commercial sector consumption was 2.0 quadrillion Btu in April 1983, down 1.7 percent from the April 1982 level. The residential and commercial sector accounted for 35.6 percent of the April 1983 total consumption, up from the sector's 35.0-percent share in April 1982.

Industrial sector consumption was 2.1 quadrillion Btu in April 1983, down 1.6 percent from the April 1982 level. This sector consumed 36.3 percent of the April 1983 total, up from the sector's 35.7-percent share in April 1982.

Transportation sector consumption was 1.6 quadrillion Btu in April 1983, down 7.5 percent from the April 1982 level. This sector consumed 28.1 percent of the April 1983 total, compared to the sector's 29.3-percent share in April 1982.

The electric utilities consumption was an estimated 1.8 quadrillion Btu of energy in April 1983, 1.2 percent lower than in April 1982. Coal contributed 50.2 percent of the energy consumed by electric utilities in April 1983, while hydroelectric power contributed 18.5 percent; nuclear power, 13.3 percent; natural gas, 11.5 percent; petroleum, 6.0 percent; and geothermal and wood and waste, 0.5 percent.

## Energy Consumption Summary for April 1983

(Quadrillion ( $10^{15}$ ) Btu)

| Primary Energy Source        | Sector                     |              |                |                    |              |
|------------------------------|----------------------------|--------------|----------------|--------------------|--------------|
|                              | Residential and Commercial | Industrial   | Transportation | Electric Utilities | TOTAL        |
| Coal                         | 0.014                      | 0.226        | 0.000          | 0.919              | 1.160        |
| Natural Gas (dry)            | 0.697                      | 0.534        | 0.049          | 0.210              | 1.491        |
| Petroleum                    | 0.151                      | 0.619        | 1.536          | 0.110              | 2.415        |
| Hydroelectric                | 0.000                      | 0.003        | 0.000          | 0.338              | 0.341        |
| Nuclear                      | 0.000                      | 0.000        | 0.000          | 0.244              | 0.244        |
| Net Coke Imports             | 0.000                      | (0.002)      | 0.000          | 0.000              | (0.002)      |
| Other                        | 0.000                      | 0.000        | 0.000          | 0.009              | 0.009        |
| <b>TOTAL PRIMARY ENERGY</b>  | <b>0.862</b>               | <b>1.379</b> | <b>1.585</b>   | <b>1.830</b>       | <b>5.658</b> |
| Electricity Sales            | 0.352                      | 0.207        | 0.001          | (0.559)            |              |
| Net Energy Consumption       | 1.214                      | 1.586        | 1.586          |                    | 4.387        |
| Electrical Energy Losses     | 0.799                      | 0.470        | 0.002          | (1.271)            | 1.271        |
| <b>TOTAL ENERGY CONSUMED</b> | <b>2.013</b>               | <b>2.056</b> | <b>1.588</b>   |                    | <b>5.658</b> |

Notes: • Totals may not equal sum of components due to independent rounding and, in the case of coal, the use of preliminary conversion factors.

• Additional notes and sources for this table and all other tables in this section are provided on the last four pages of this section.

# Consumption

## Consumption of Energy by End-Use Sector

|                                     |              | Residential and Commercial | Industrial     | Transportation | Total Energy Consumed |
|-------------------------------------|--------------|----------------------------|----------------|----------------|-----------------------|
| Quadrillion (10 <sup>18</sup> ) Btu |              |                            |                |                |                       |
| 1973                                | <b>TOTAL</b> | <b>24.179</b>              | <b>31.846</b>  | <b>18.577</b>  | <b>74.609</b>         |
| 1974                                | <b>TOTAL</b> | <b>23.761</b>              | <b>30.900</b>  | <b>18.091</b>  | <b>72.759</b>         |
| 1975                                | <b>TOTAL</b> | <b>23.928</b>              | <b>28.569</b>  | <b>18.209</b>  | <b>70.707</b>         |
| 1976                                | <b>TOTAL</b> | <b>25.041</b>              | <b>30.393</b>  | <b>19.068</b>  | <b>74.510</b>         |
| 1977                                | <b>TOTAL</b> | <b>25.392</b>              | <b>31.149</b>  | <b>19.785</b>  | <b>76.332</b>         |
| 1978                                | <b>TOTAL</b> | <b>26.108</b>              | <b>31.493</b>  | <b>20.574</b>  | <b>78.175</b>         |
| 1979                                | <b>TOTAL</b> | <b>25.796</b>              | <b>32.652</b>  | <b>20.457</b>  | <b>78.910</b>         |
| 1980                                | <b>TOTAL</b> | <b>25.666</b>              | <b>30.638</b>  | <b>19.683</b>  | <b>75.988</b>         |
| 1981                                | January      | 3.154                      | 2.647          | 1.657          | 7.459                 |
|                                     | February     | 2.640                      | 2.221          | 1.471          | 6.330                 |
|                                     | March        | 2.316                      | 2.511          | 1.614          | 6.440                 |
|                                     | April        | 1.833                      | 2.279          | 1.599          | 5.709                 |
|                                     | May          | 1.705                      | 2.425          | 1.633          | 5.764                 |
|                                     | June         | 1.758                      | 2.392          | 1.662          | 5.816                 |
|                                     | July         | 1.900                      | 2.419          | 1.700          | 6.023                 |
|                                     | August       | 1.845                      | 2.422          | 1.654          | 5.924                 |
|                                     | September    | 1.656                      | 2.393          | 1.603          | 5.650                 |
|                                     | October      | 1.809                      | 2.523          | 1.640          | 5.971                 |
|                                     | November     | 1.988                      | 2.418          | 1.571          | 5.975                 |
|                                     | December     | 2.608                      | 2.634          | 1.677          | 6.922                 |
|                                     | <b>TOTAL</b> | <b>25.213</b>              | <b>29.285</b>  | <b>19.481</b>  | <b>73.984</b>         |
| 1982                                | January      | R2.266                     | R2.462         | R1.512         | R7.246                |
|                                     | February     | R2.803                     | R2.043         | R1.436         | R6.285                |
|                                     | March        | R2.431                     | R2.300         | R1.622         | R6.356                |
|                                     | April        | R2.048                     | R2.090         | R1.716         | R5.855                |
|                                     | May          | R1.705                     | R2.077         | R1.647         | R5.432                |
|                                     | June         | 1.684                      | R2.101         | R1.611         | R5.402                |
|                                     | July         | R1.891                     | 2.132          | R1.631         | R5.666                |
|                                     | August       | R1.870                     | R2.138         | R1.610         | R5.629                |
|                                     | September    | R1.710                     | R2.095         | R1.568         | R5.381                |
|                                     | October      | 1.760                      | R2.199         | R1.577         | R5.542                |
|                                     | November     | R2.023                     | R2.203         | R1.571         | R5.804                |
|                                     | December     | R2.484                     | R2.191         | 1.597          | R6.281                |
|                                     | <b>TOTAL</b> | <b>R25.675</b>             | <b>R26.030</b> | <b>R19.100</b> | <b>R70.879</b>        |
| 1983                                | January      | R2.829                     | R2.204         | R1.459         | R6.502                |
|                                     | February     | R2.518                     | R1.868         | R1.347         | R5.740                |
|                                     | March        | R2.274                     | R2.182         | R1.658         | R6.123                |
|                                     | April        | 2.013                      | 2.056          | 1.588          | 5.658                 |

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

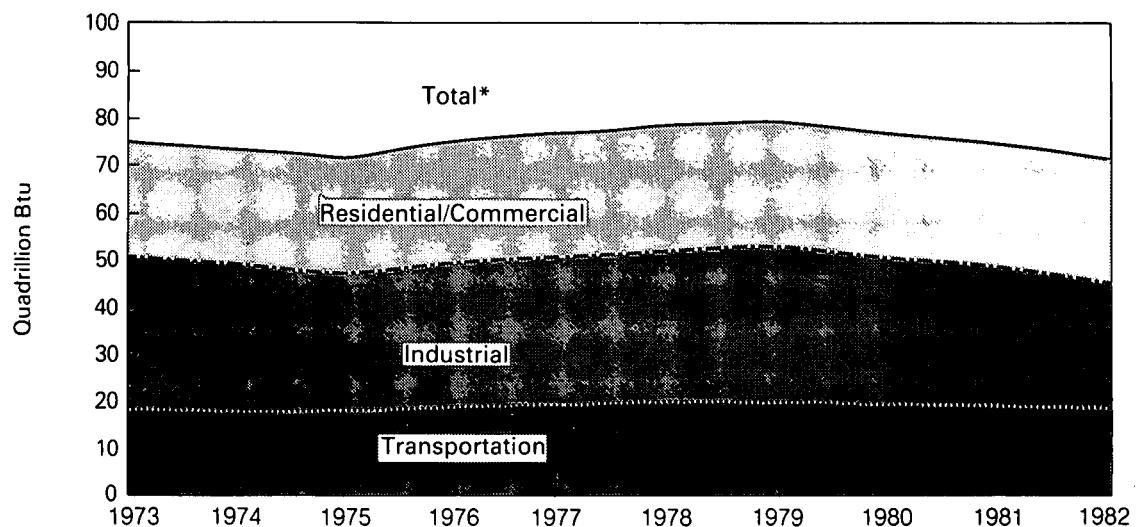
• Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors after 1981.

Additional Notes and Sources: • See the last four pages of this section.

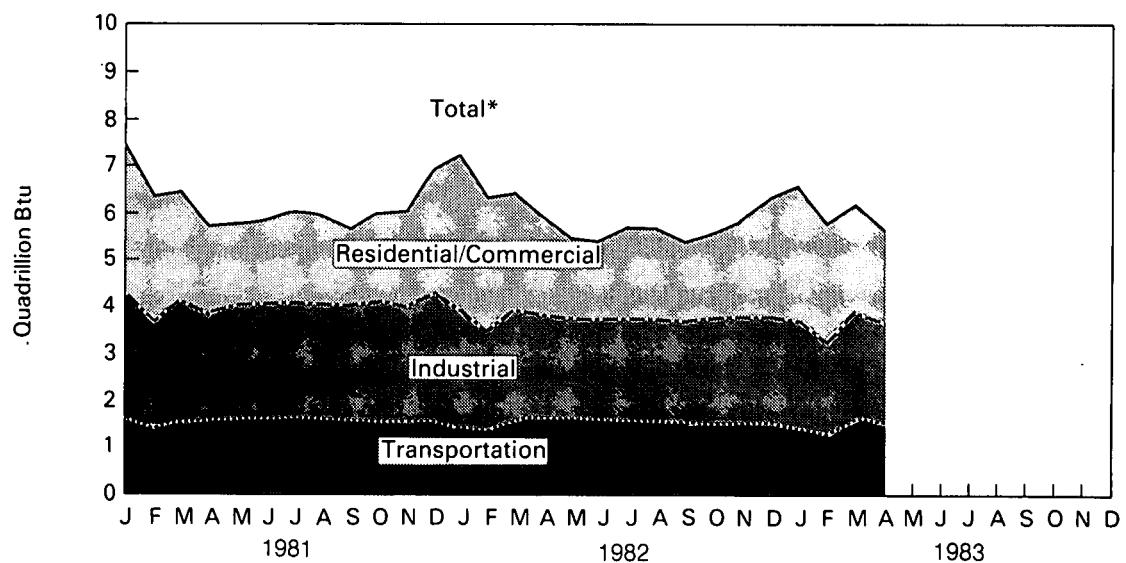
# Consumption

## 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

|                                     |              | Coal          | Natural Gas (Dry) | Petroleum     | Electricity Sales | Electrical Energy Losses | Total Energy Consumed | Yearly Cumulative Energy Consumed |
|-------------------------------------|--------------|---------------|-------------------|---------------|-------------------|--------------------------|-----------------------|-----------------------------------|
| Quadrillion (10 <sup>12</sup> ) Btu |              |               |                   |               |                   |                          |                       |                                   |
| 1973                                | TOTAL        | 0.291         | 7.626             | 4.391         | 3.495             | 8.377                    | 24.179                |                                   |
| 1974                                | TOTAL        | 0.292         | 7.518             | 3.996         | 3.475             | 8.480                    | 23.761                |                                   |
| 1975                                | TOTAL        | 0.238         | 7.581             | 3.805         | 3.604             | 8.700                    | 23.928                |                                   |
| 1976                                | TOTAL        | 0.227         | 7.866             | 4.181         | 3.747             | 9.020                    | 25.041                |                                   |
| 1977                                | TOTAL        | 0.225         | 7.461             | 4.206         | 3.955             | 9.545                    | 25.392                |                                   |
| 1978                                | TOTAL        | 0.239         | 7.624             | 4.070         | 4.116             | 10.060                   | 26.108                |                                   |
| 1979                                | TOTAL        | 0.210         | 7.891             | 3.448         | 4.184             | 10.064                   | 25.796                |                                   |
| 1980                                | TOTAL        | 0.160         | 7.539             | 3.035         | 4.355             | 10.578                   | 25.666                |                                   |
| 1981                                | January      | 0.022         | 1.268             | 0.437         | 0.425             | 1.002                    | 3.154                 | 3.154                             |
|                                     | February     | 0.018         | 1.122             | 0.293         | 0.391             | 0.816                    | 2.640                 | 5.794                             |
|                                     | March        | 0.012         | 0.911             | 0.202         | 0.355             | 0.836                    | 2.316                 | 8.110                             |
|                                     | April        | 0.014         | 0.590             | 0.148         | 0.325             | 0.756                    | 1.833                 | 9.943                             |
|                                     | May          | 0.012         | 0.421             | 0.155         | 0.321             | 0.796                    | 1.705                 | 11.648                            |
|                                     | June         | 0.008         | 0.291             | 0.148         | 0.365             | 0.947                    | 1.758                 | 13.406                            |
|                                     | July         | 0.011         | 0.241             | 0.138         | 0.429             | 1.081                    | 1.900                 | 15.306                            |
|                                     | August       | 0.011         | 0.236             | 0.149         | 0.431             | 1.019                    | 1.845                 | 17.152                            |
|                                     | September    | 0.015         | 0.246             | 0.153         | 0.392             | 0.850                    | 1.656                 | 18.808                            |
|                                     | October      | 0.016         | 0.390             | 0.249         | 0.348             | 0.807                    | 1.809                 | 20.617                            |
|                                     | November     | 0.021         | 0.583             | 0.257         | 0.336             | 0.790                    | 1.988                 | 22.605                            |
|                                     | December     | 0.026         | 0.942             | 0.306         | 0.380             | 0.954                    | 2.608                 | 25.213                            |
|                                     | <b>TOTAL</b> | <b>0.186</b>  | <b>7.242</b>      | <b>2.635</b>  | <b>4.497</b>      | <b>10.653</b>            | <b>25.213</b>         |                                   |
| 1982                                | January      | R0.025        | 1.358             | R0.367        | 0.439             | 1.077                    | R3.266                | R3.266                            |
|                                     | February     | 0.017         | 1.235             | R0.273        | 0.408             | 0.869                    | R2.803                | R6.069                            |
|                                     | March        | 0.014         | 0.955             | R0.206        | 0.372             | 0.884                    | R2.431                | R8.500                            |
|                                     | April        | R0.018        | 0.715             | R0.173        | 0.346             | 0.797                    | R2.048                | R10.548                           |
|                                     | May          | R0.012        | 0.385             | 0.161         | 0.327             | 0.819                    | R1.705                | R12.253                           |
|                                     | June         | 0.009         | 0.284             | R0.146        | 0.358             | 0.888                    | 1.684                 | R13.937                           |
|                                     | July         | 0.016         | 0.250             | R0.131        | 0.412             | 1.082                    | R1.891                | R15.828                           |
|                                     | August       | 0.017         | 0.239             | R0.142        | 0.431             | 1.042                    | R1.870                | R17.698                           |
|                                     | September    | 0.016         | 0.248             | R0.153        | 0.403             | 0.891                    | R1.710                | R19.408                           |
|                                     | October      | 0.016         | 0.345             | 0.232         | 0.349             | 0.817                    | 1.760                 | R21.168                           |
|                                     | November     | 0.021         | 0.607             | R0.232        | 0.340             | 0.824                    | R2.023                | 23.191                            |
|                                     | December     | 0.025         | 0.875             | R0.270        | 0.381             | 0.933                    | R2.484                | R25.675                           |
|                                     | <b>TOTAL</b> | <b>R0.206</b> | <b>7.498</b>      | <b>R2.486</b> | <b>4.564</b>      | <b>10.922</b>            | <b>R25.675</b>        |                                   |
| 1983                                | January      | R0.025        | 1.080             | 0.310         | 0.413             | 1.001                    | R2.829                | R2.829                            |
|                                     | February     | R0.016        | 1.048             | 0.238         | 0.390             | 0.826                    | R2.518                | 5.348                             |
|                                     | March        | 0.014         | 0.820             | 0.192         | 0.366             | 0.882                    | R2.274                | 7.621                             |
|                                     | April        | 0.014         | 0.697             | 0.151         | 0.352             | 0.799                    | 2.013                 | 9.634                             |

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Additional Notes and Sources: • See the last four pages of this section.

# Consumption

## Consumption of Energy by the Industrial Sector

|                                     |           | Coal   | Natural Gas (Dry) | Petro-leum | Hydro-electric | Net Coke Imports | Electricity Sales | Electrical Energy Losses | Total Energy Consumed | Yearly Cumulative Energy Consumed |
|-------------------------------------|-----------|--------|-------------------|------------|----------------|------------------|-------------------|--------------------------|-----------------------|-----------------------------------|
| Quadrillion (10 <sup>12</sup> ) Btu |           |        |                   |            |                |                  |                   |                          |                       |                                   |
| 1973                                | TOTAL     | 4.349  | 10.388            | 9.132      | 0.035          | (0.008)          | 2.341             | 5.610                    | 31.846                |                                   |
| 1974                                | TOTAL     | 4.048  | 10.003            | 8.720      | 0.033          | 0.059            | 2.337             | 5.700                    | 30.900                |                                   |
| 1975                                | TOTAL     | 3.797  | 8.532             | 8.182      | 0.032          | 0.014            | 2.346             | 5.665                    | 28.569                |                                   |
| 1976                                | TOTAL     | 3.786  | 8.761             | 9.043      | 0.033          | 0.000            | 2.573             | 6.197                    | 30.393                |                                   |
| 1977                                | TOTAL     | 3.498  | 8.636             | 9.809      | 0.033          | 0.015            | 2.682             | 6.476                    | 31.149                |                                   |
| 1978                                | TOTAL     | 3.372  | 8.539             | 9.905      | 0.032          | 0.131            | 2.761             | 6.755                    | 31.493                |                                   |
| 1979                                | TOTAL     | 3.636  | 8.549             | 10.582     | 0.034          | 0.066            | 2.873             | 6.912                    | 32.652                |                                   |
| 1980                                | TOTAL     | 3.181  | 8.394             | 9.535      | 0.033          | (0.037)          | 2.781             | 6.751                    | 30.638                |                                   |
| 1981                                | January   | 0.299  | 0.754             | 0.823      | 0.003          | 0.000            | 0.229             | 0.539                    | 2.647                 | 2.647                             |
|                                     | February  | 0.277  | 0.525             | 0.707      | 0.003          | (0.001)          | 0.230             | 0.480                    | 2.221                 | 4.868                             |
|                                     | March     | 0.279  | 0.691             | 0.754      | 0.003          | (0.003)          | 0.234             | 0.552                    | 2.511                 | 7.379                             |
|                                     | April     | 0.260  | 0.589             | 0.654      | 0.003          | (0.001)          | 0.232             | 0.542                    | 2.279                 | 9.659                             |
|                                     | May       | 0.239  | 0.668             | 0.700      | 0.003          | 0.000            | 0.234             | 0.580                    | 2.425                 | 12.084                            |
|                                     | June      | 0.232  | 0.616             | 0.665      | 0.003          | (0.004)          | 0.244             | 0.635                    | 2.392                 | 14.476                            |
|                                     | July      | 0.270  | 0.641             | 0.644      | 0.003          | 0.000            | 0.245             | 0.616                    | 2.419                 | 16.894                            |
|                                     | August    | 0.273  | 0.668             | 0.651      | 0.002          | 0.000            | 0.246             | 0.581                    | 2.422                 | 19.316                            |
|                                     | September | 0.266  | 0.676             | 0.684      | 0.002          | (0.002)          | 0.242             | 0.525                    | 2.393                 | 21.709                            |
|                                     | October   | 0.268  | 0.806             | 0.666      | 0.002          | (0.003)          | 0.236             | 0.548                    | 2.523                 | 24.232                            |
|                                     | November  | 0.270  | 0.756             | 0.634      | 0.002          | 0.000            | 0.226             | 0.530                    | 2.418                 | 26.650                            |
|                                     | December  | 0.271  | 0.871             | 0.725      | 0.002          | (0.003)          | 0.219             | 0.549                    | 2.634                 | 29.285                            |
|                                     | TOTAL     | 3.205  | 8.260             | 8.308      | 0.033          | (0.017)          | 2.817             | 6.677                    | 29.285                |                                   |
| 1982                                | January   | R0.271 | R0.740            | R0.706     | 0.003          | 0.000            | 0.215             | 0.527                    | R2.462                | R2.462                            |
|                                     | February  | R0.254 | R0.479            | R0.639     | 0.003          | (0.001)          | 0.214             | 0.456                    | R2.043                | R4.505                            |
|                                     | March     | R0.244 | R0.591            | R0.721     | 0.003          | (0.002)          | 0.220             | 0.523                    | R2.300                | R6.804                            |
|                                     | April     | 0.227  | R0.487            | R0.668     | 0.003          | (0.001)          | 0.214             | R0.493                   | R2.090                | R8.894                            |
|                                     | May       | 0.219  | R0.475            | R0.635     | 0.003          | (0.003)          | 0.213             | 0.534                    | R2.077                | R10.971                           |
|                                     | June      | 0.204  | R0.516            | R0.625     | 0.003          | (0.004)          | 0.217             | 0.539                    | R2.101                | R13.072                           |
|                                     | July      | R0.198 | R0.520            | R0.639     | 0.003          | (0.003)          | 0.214             | 0.562                    | 2.132                 | R15.204                           |
|                                     | August    | R0.200 | R0.528            | R0.671     | 0.002          | (0.001)          | 0.216             | 0.523                    | R2.138                | R17.342                           |
|                                     | September | R0.192 | R0.580            | R0.667     | 0.002          | (0.003)          | 0.205             | 0.453                    | R2.095                | R19.437                           |
|                                     | October   | 0.201  | R0.663            | R0.642     | 0.002          | (0.001)          | 0.208             | 0.486                    | R2.199                | R21.637                           |
|                                     | November  | 0.204  | R0.684            | R0.605     | 0.002          | (0.002)          | 0.207             | 0.502                    | R2.203                | R23.840                           |
|                                     | December  | 0.207  | 0.603             | R0.690     | 0.002          | (0.001)          | 0.199             | 0.489                    | R2.191                | R26.030                           |
|                                     | TOTAL     | R2.621 | R6.865            | R7.907     | 0.033          | (0.023)          | 2.542             | R6.086                   | R26.030               |                                   |
| 1983                                | January   | R0.219 | R0.650            | R0.656     | 0.003          | (0.001)          | 0.198             | 0.480                    | R2.204                | R2.204                            |
|                                     | February  | R0.203 | R0.440            | 0.594      | 0.003          | (0.001)          | 0.202             | 0.427                    | R1.868                | R4.071                            |
|                                     | March     | R0.194 | R0.593            | 0.691      | 0.003          | (0.001)          | 0.206             | 0.496                    | R2.182                | R6.254                            |
|                                     | April     | 0.226  | 0.534             | 0.619      | 0.003          | (0.002)          | 0.207             | 0.470                    | 2.056                 | 8.309                             |

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Additional Notes and Sources: • See the last four pages of this section.

# Consumption

## Consumption of Energy by the Transportation Sector

|                                     |           | Coal             | Natural Gas (Dry) | Petroleum | Electricity Sales | Electrical Energy Losses | Total Energy Consumed | Yearly Cumulative Energy Consumed |
|-------------------------------------|-----------|------------------|-------------------|-----------|-------------------|--------------------------|-----------------------|-----------------------------------|
| Quadrillion (10 <sup>15</sup> ) Btu |           |                  |                   |           |                   |                          |                       |                                   |
| 1973                                | TOTAL     | 0.003            | 0.743             | 17.803    | 0.009             | 0.020                    | 18.577                |                                   |
| 1974                                | TOTAL     | 0.002            | 0.685             | 17.374    | 0.009             | 0.022                    | 18.091                |                                   |
| 1975                                | TOTAL     | 0.001            | 0.595             | 17.579    | 0.010             | 0.025                    | 18.209                |                                   |
| 1976                                | TOTAL     | ( <sup>1</sup> ) | 0.559             | 18.473    | 0.010             | 0.025                    | 19.068                |                                   |
| 1977                                | TOTAL     | ( <sup>1</sup> ) | 0.543             | 19.207    | 0.010             | 0.025                    | 19.785                |                                   |
| 1978                                | TOTAL     | ( <sup>1</sup> ) | 0.539             | 20.004    | 0.009             | 0.022                    | 20.574                |                                   |
| 1979                                | TOTAL     | ( <sup>1</sup> ) | 0.612             | 19.810    | 0.010             | 0.025                    | 20.457                |                                   |
| 1980                                | TOTAL     | ( <sup>1</sup> ) | 0.648             | 18.999    | 0.011             | 0.026                    | 19.683                |                                   |
| 1981                                | January   | ( <sup>1</sup> ) | 0.077             | 1.577     | 0.001             | 0.002                    | 1.657                 | 1.657                             |
|                                     | February  | ( <sup>1</sup> ) | 0.065             | 1.403     | 0.001             | 0.002                    | 1.471                 | 3.128                             |
|                                     | March     | ( <sup>1</sup> ) | 0.065             | 1.547     | 0.001             | 0.002                    | 1.614                 | 4.742                             |
|                                     | April     | ( <sup>1</sup> ) | 0.050             | 1.546     | 0.001             | 0.002                    | 1.599                 | 6.342                             |
|                                     | May       | ( <sup>1</sup> ) | 0.048             | 1.582     | 0.001             | 0.002                    | 1.633                 | 7.974                             |
|                                     | June      | ( <sup>1</sup> ) | 0.044             | 1.614     | 0.001             | 0.002                    | 1.662                 | 9.636                             |
|                                     | July      | ( <sup>1</sup> ) | 0.045             | 1.652     | 0.001             | 0.002                    | 1.700                 | 11.337                            |
|                                     | August    | ( <sup>1</sup> ) | 0.044             | 1.607     | 0.001             | 0.002                    | 1.654                 | 12.991                            |
|                                     | September | ( <sup>1</sup> ) | 0.043             | 1.557     | 0.001             | 0.002                    | 1.603                 | 14.593                            |
|                                     | October   | ( <sup>1</sup> ) | 0.051             | 1.586     | 0.001             | 0.002                    | 1.640                 | 16.233                            |
|                                     | November  | ( <sup>1</sup> ) | 0.055             | 1.512     | 0.001             | 0.002                    | 1.571                 | 17.804                            |
|                                     | December  | ( <sup>1</sup> ) | 0.071             | 1.603     | 0.001             | 0.002                    | 1.677                 | 19.481                            |
|                                     | TOTAL     | ( <sup>1</sup> ) | 0.658             | 18.786    | 0.011             | 0.026                    | 19.481                |                                   |
| 1982                                | January   | ( <sup>1</sup> ) | 0.080             | R1.428    | 0.001             | 0.003                    | R1.512                | R1.512                            |
|                                     | February  | ( <sup>1</sup> ) | 0.067             | R1.367    | 0.001             | 0.002                    | R1.436                | R2.948                            |
|                                     | March     | ( <sup>1</sup> ) | 0.062             | R1.558    | 0.001             | 0.002                    | R1.622                | R4.571                            |
|                                     | April     | ( <sup>1</sup> ) | 0.050             | R1.663    | 0.001             | 0.002                    | R1.716                | R6.287                            |
|                                     | May       | ( <sup>1</sup> ) | 0.039             | R1.605    | 0.001             | 0.002                    | R1.647                | R7.934                            |
|                                     | June      | ( <sup>1</sup> ) | 0.038             | R1.570    | 0.001             | 0.002                    | R1.611                | R9.545                            |
|                                     | July      | ( <sup>1</sup> ) | 0.039             | R1.589    | 0.001             | 0.002                    | R1.631                | R11.176                           |
|                                     | August    | ( <sup>1</sup> ) | 0.039             | R1.568    | 0.001             | 0.002                    | R1.610                | R12.786                           |
|                                     | September | ( <sup>1</sup> ) | 0.039             | R1.526    | 0.001             | 0.002                    | R1.568                | R14.354                           |
|                                     | October   | ( <sup>1</sup> ) | 0.044             | R1.530    | 0.001             | 0.002                    | R1.577                | R15.931                           |
|                                     | November  | ( <sup>1</sup> ) | 0.052             | R1.516    | 0.001             | 0.002                    | R1.571                | R17.502                           |
|                                     | December  | ( <sup>1</sup> ) | 0.058             | R1.536    | 0.001             | 0.002                    | 1.597                 | R19.100                           |
|                                     | TOTAL     | ( <sup>1</sup> ) | 0.607             | R18.455   | 0.011             | 0.027                    | R19.100               |                                   |
| 1983                                | January   | ( <sup>1</sup> ) | 0.067             | R1.390    | 0.001             | 0.002                    | R1.459                | R1.459                            |
|                                     | February  | ( <sup>1</sup> ) | R0.057            | 1.287     | 0.001             | 0.002                    | R1.347                | R2.807                            |
|                                     | March     | ( <sup>1</sup> ) | R0.056            | 1.599     | 0.001             | 0.002                    | R1.658                | R4.465                            |
|                                     | April     | ( <sup>1</sup> ) | 0.049             | 1.536     | 0.001             | 0.002                    | 1.588                 | 6.052                             |

<sup>1</sup>Since 1976, the amount of coal consumed by the transportation sector has been negligible.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Additional Notes and Sources: • See the last four pages of this section.

# Consumption

## Energy Input at Electric Utilities

|                                     | Coal          | Natural Gas (Dry) | Petro-<br>leum <sup>1</sup> | Hydro-<br>electric<br>power <sup>2</sup> | Nuclear<br>Electric<br>Power | Other <sup>3</sup> | Total<br>Energy<br>Input | Yearly<br>Cumulative<br>Energy<br>Input |
|-------------------------------------|---------------|-------------------|-----------------------------|--|------------------------------|--------------------|--------------------------|---|
| Quadrillion (10 <sup>12</sup> ) Btu |               |                   |                             |  |                              |                    |                          |   |
| <b>1973 TOTAL</b>                   | <b>8.658</b>  | <b>3.748</b>      | <b>3.515</b>                | <b>2.975</b>                             | <b>0.910</b>                 | <b>0.046</b>       | <b>19.852</b>            |   |
| <b>1974 TOTAL</b>                   | <b>8.535</b>  | <b>3.519</b>      | <b>3.365</b>                | <b>3.276</b>                             | <b>1.272</b>                 | <b>0.056</b>       | <b>20.023</b>            |   |
| <b>1975 TOTAL</b>                   | <b>8.786</b>  | <b>3.240</b>      | <b>3.166</b>                | <b>3.187</b>                             | <b>1.900</b>                 | <b>0.072</b>       | <b>20.350</b>            |   |
| <b>1976 TOTAL</b>                   | <b>9.720</b>  | <b>3.152</b>      | <b>3.477</b>                | <b>3.032</b>                             | <b>2.111</b>                 | <b>0.081</b>       | <b>21.573</b>            |   |
| <b>1977 TOTAL</b>                   | <b>10.243</b> | <b>3.284</b>      | <b>3.901</b>                | <b>2.482</b>                             | <b>2.702</b>                 | <b>0.082</b>       | <b>22.694</b>            |   |
| <b>1978 TOTAL</b>                   | <b>10.236</b> | <b>3.297</b>      | <b>3.987</b>                | <b>3.110</b>                             | <b>3.024</b>                 | <b>0.068</b>       | <b>23.722</b>            |   |
| <b>1979 TOTAL</b>                   | <b>11.264</b> | <b>3.609</b>      | <b>3.283</b>                | <b>3.107</b>                             | <b>2.715</b>                 | <b>0.089</b>       | <b>24.068</b>            |   |
| <b>1980 TOTAL</b>                   | <b>12.122</b> | <b>3.807</b>      | <b>2.634</b>                | <b>3.085</b>                             | <b>2.739</b>                 | <b>0.114</b>       | <b>24.501</b>            |   |
| <b>1981</b>                         |               |                   |                             |  |                              |                    |                          |   |
| January                             | 1.153         | 0.239             | 0.275                       | 0.260                                    | 0.259                        | 0.011              | 2.198                    | 2.198                                   |
| February                            | 1.010         | 0.232             | 0.188                       | 0.244                                    | 0.236                        | 0.010              | 1.919                    | 4.117                                   |
| March                               | 1.020         | 0.283             | 0.184                       | 0.241                                    | 0.240                        | 0.011              | 1.979                    | 6.097                                   |
| April                               | 0.921         | 0.299             | 0.160                       | 0.242                                    | 0.225                        | 0.010              | 1.858                    | 7.955                                   |
| May                                 | 0.949         | 0.327             | 0.156                       | 0.278                                    | 0.215                        | 0.010              | 1.935                    | 9.890                                   |
| June                                | 1.056         | 0.394             | 0.203                       | 0.301                                    | 0.231                        | 0.010              | 2.194                    | 12.084                                  |
| July                                | 1.184         | 0.425             | 0.214                       | 0.289                                    | 0.252                        | 0.011              | 2.374                    | 14.458                                  |
| August                              | 1.149         | 0.403             | 0.171                       | 0.252                                    | 0.294                        | 0.011              | 2.279                    | 16.737                                  |
| September                           | 1.022         | 0.336             | 0.165                       | 0.212                                    | 0.266                        | 0.011              | 2.012                    | 18.750                                  |
| October                             | 1.008         | 0.312             | 0.171                       | 0.216                                    | 0.224                        | 0.011              | 1.941                    | 20.691                                  |
| November                            | 0.991         | 0.268             | 0.146                       | 0.224                                    | 0.249                        | 0.010              | 1.886                    | 22.577                                  |
| December                            | 1.120         | 0.248             | 0.169                       | 0.276                                    | 0.284                        | 0.010              | 2.105                    | 24.682                                  |
| <b>TOTAL</b>                        | <b>12.583</b> | <b>3.764</b>      | <b>2.202</b>                | <b>3.033</b>                             | <b>2.974</b>                 | <b>0.127</b>       | <b>24.682</b>            |   |
| <b>1982</b>                         |               |                   |                             |  |                              |                    |                          |   |
| January                             | 1.198         | 0.246             | 0.221                       | 0.307                                    | 0.280                        | 0.009              | 2.261                    | 2.261                                   |
| February                            | 1.031         | 0.228             | 0.162                       | 0.302                                    | 0.220                        | 0.008              | 1.950                    | 4.211                                   |
| March                               | 1.010         | 0.255             | 0.144                       | 0.338                                    | 0.248                        | 0.007              | 2.001                    | 6.213                                   |
| April                               | 0.917         | 0.255             | 0.120                       | 0.317                                    | 0.238                        | 0.007              | 1.853                    | 8.065                                   |
| May                                 | 0.962         | 0.267             | 0.106                       | 0.318                                    | 0.236                        | 0.008              | 1.897                    | 9.962                                   |
| June                                | 1.000         | 0.306             | 0.111                       | 0.317                                    | 0.262                        | 0.010              | 2.005                    | 11.967                                  |
| July                                | 1.165         | 0.365             | 0.144                       | 0.311                                    | 0.278                        | 0.010              | 2.273                    | 14.240                                  |
| August                              | 1.156         | 0.374             | 0.125                       | 0.276                                    | 0.273                        | 0.010              | 2.214                    | 16.453                                  |
| September                           | 1.021         | 0.303             | 0.110                       | 0.233                                    | 0.277                        | 0.010              | 1.954                    | 18.407                                  |
| October                             | 0.977         | 0.282             | 0.106                       | 0.233                                    | 0.254                        | 0.011              | 1.862                    | 20.270                                  |
| November                            | 1.008         | 0.234             | 0.100                       | 0.269                                    | 0.253                        | 0.011              | 1.875                    | 22.145                                  |
| December                            | 1.073         | 0.222             | 0.120                       | 0.316                                    | 0.266                        | 0.009              | 2.006                    | 24.151                                  |
| <b>TOTAL</b>                        | <b>12.517</b> | <b>3.335</b>      | <b>1.568</b>                | <b>3.538</b>                             | <b>3.084</b>                 | <b>0.108</b>       | <b>24.151</b>            |   |
| <b>1983</b>                         |               |                   |                             |  |                              |                    |                          |   |
| January                             | 1.125         | 0.215             | 0.137                       | 0.332                                    | 0.274                        | 0.011              | 2.094                    | 2.094                                   |
| February                            | 0.965         | 0.183             | 0.134                       | 0.315                                    | 0.242                        | 0.008              | 1.848                    | 3.942                                   |
| March                               | 0.992         | 0.215             | 0.133                       | 0.342                                    | 0.261                        | 0.010              | 1.952                    | 5.895                                   |
| April                               | 0.919         | 0.210             | 0.110                       | 0.338                                    | 0.244                        | 0.009              | 1.830                    | 7.725                                   |

<sup>1</sup>Includes petroleum products reported as "oil consumed in steam plants" through 1979 and "heavy oil" from 1980 forward, which are assumed to be residual fuel oil; petroleum products reported as "oil consumed in gas turbine and internal combustion engine plants" through 1979 and "light oil" from 1980 forward, which are assumed to be distillate fuel oil and kerosene; and petroleum coke.

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

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Additional Notes and Sources: • See the last four pages of this section.

## Notes and Sources for the Consumption Section

**1. End-Use Sectors:** Energy use is assigned to the major end-use sectors according to the following guidelines as closely as possible:

- Residential and commercial sector—Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, and clothes drying; by non-manufacturing business establishments, including motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; by health, social, and educational institutions; and by Federal, State, and local governments.
- Industrial sector—Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- Transportation sector—Energy consumed to move people and commodities in both the public and private sectors, including military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.
- Electric utility sector—Energy consumed by privately- and publicly-owned establishments that generate electricity primarily for resale.

**2. Conversion Factors:** See the inside back cover of this publication for factors applied in converting physical unit data into British thermal units (Btu).

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

- Sources:*
- 1973 through September 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook and Minerals Industry Surveys*.
  - Electric Utilities—October 1977 forward: Energy Information Administration (EIA), EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
  - Other Industrial—October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report - Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly Fuel Consumption Report - Manufacturing Plants" and EIA Form 6, "Coal Distribution Report."
  - Coke Plants—October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Quarterly/Annual."
  - Residential and Commercial—October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."

**4. 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 sector. For current incomplete years, the AGA monthly sales data are used temporarily. Monthly transportation 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 the current incomplete year, 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. Electric utilities consumption of natural gas is available monthly from EIA Form 759 (formerly FPC 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 through 1978: EIA, *Energy Data Reports*, "Natural Gas, Annual."
  - 1979: EIA, *Natural Gas Production and Consumption 1979*.
  - 1980 and 1981: EIA, *Natural Gas Annual*.
  - 1982 forward: EIA, *Natural Gas Monthly*.
  - Electric utilities consumption—1973 through 1976: FPC Form 4, "Monthly Power Plant Report."
  - 1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report."
  - 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
  - American Gas Association, "Monthly Gas Utility Statistical Report."

**5. Petroleum:** Petroleum consumption by end-use is the sum of all individual petroleum products estimated to be consumed in each end-use sector. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review* is the series called "petroleum products supplied" in the Part 3. Petroleum section.

*Sources for petroleum products supplied by individual products are:*

- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981: EIA, *Petroleum Supply Annual*.
- 1982 forward: EIA, *Petroleum Supply Monthly*.

Specific petroleum products' end-use allocation procedures follow:

- **Aviation Gasoline**—All product supplied is assigned to the transportation sector.

- **Asphalt**—All product supplied is assigned to the industrial sector.

- **Distillate Fuel**

— *Electric Utility Sector, All Periods.*

Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus kerosene deliveries) consumed at utilities. Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."

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

### — **Nonutility Sectors, Annual Estimates.**

The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of distillate fuel delivered to end-users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:

- Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1981 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Deliveries for 1981 are used as estimates for 1982. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and
- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years. Deliveries for 1981 are used as estimates for 1982.

### — **Nonutility Sectors, Monthly Estimates Through 1981.**

- Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980 and the American Petroleum Institute since January 1981.
- The transportation sector highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.
- Industrial sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

### — **Nonutility Sectors, 1982 Forward.**

Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1981.

- **Jet Fuel**—Small amounts in 1975 through 1977 are used by the industrial sector, and small amounts in all periods are consumed by the electric utility sector. All remaining jet fuel is consumed by the transportation sector.
- **Kerosene**—Total product supplied monthly is allocated to the major end-use sectors in proportion to annual deliveries grouped into end-use sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
  - Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;
  - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
  - Industrial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.
- **Liquefied Petroleum Gases (LPG)**
  - 1973 through 1981: the annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:
    - Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to equal the annual consumption of LPG by the sector;
    - Sixteen percent of LPG sales for internal combustion engine use is estimated to be for transportation end-use; this estimated portion is converted from thousand gallons per year to thousand barrels per year and assumed to equal the annual consumption of LPG by the transportation sector; and
    - LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector.The source of the sales data is EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
  - 1982 forward: The 1981 annual end-use shares are applied for succeeding periods to estimate the amount of the total LPG supplied that is consumed by each major end-use sector.
- **Lubricants**—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those two 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 to 1977 forward.

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

- **Motor Gasoline**—Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories formed from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:
  - Commercial sales are the sum of sales for public non-highway use, miscellaneous use, and unclassified use;
  - Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*; and
  - Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.
- **Petroleum Coke**—The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining portion is assigned to the industrial sector.
- **Residual Fuel**
  - **Electric Utility Sector, All Periods.** Monthly and annual consumption 1973 through 1979 is assumed to be the amount of oil reported as consumed in steam electric plants. From January 1980, electric utility consumption of residual fuel is assumed to be the petroleum products reported as "heavy oil" consumed at utilities. Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."
  - **Nonutility Sectors, Annual Estimates.** The aggregate nonutility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel delivered to end-users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
    - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1981. Deliveries for 1981 are used as estimates for 1982. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1981 are the sum of deliveries for industrial, oil company, and all other uses. Deliveries for 1981 are used as estimates for 1982. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years. Deliveries for 1981 are used as estimates for 1982.
  - **Nonutility Sectors, Monthly Estimates Through 1981.**
    - Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute since January 1981.
    - Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
    - Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.
  - **Nonutility Sectors, 1982 Forward.** Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1981.
- **Road Oil**—All product supplied is assigned to the industrial sector.
- **All Other Petroleum Products**—The product supplied of all remaining petroleum products is assigned to the industrial sector.

**6. 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 utilities sector.

### Sources for electric utilities sector:

- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
- 1977 through 1981: FERC, FPC Form 4, "Monthly Power Plant Report."
- 1982 forward: EIA, EIA Form 759, "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:

- 1973 through 1980 annual: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
- 1981 annual: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1981 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.
- 1982 forward: EIA estimates.

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

### 7. Nuclear:

- Sources:*
- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
  - 1977 through 1981: FERC, FPC Form 4, "Monthly Power Plant Report."
  - 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."

**8. Net Coke Imports:** This is coke made from coal. Net imports means imports minus exports, and the parentheses indicate that exports are greater than imports.

- Sources:*
- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals," chapter.
  - 1976 through 1980: EIA, *Energy Data Report*, "Coke and Coal Chemicals," annual.
  - 1981 forward: EIA, *Energy Data Report*, "Coke Plant Report," quarterly/annual.

**9. Other Energy:** "Other" is electricity produced from geothermal power and from wood and waste.

*Sources:* same as Note 7 above, for Nuclear.

**10. Electricity Sales:** From the sources cited below the following sales categories are available: residential, commercial, industrial, and other. For the end-use estimates in this section, the "other" category (which is primarily sales for use in government buildings) is added to the commercial sector except for approximately 4 percent, which represents the transportation sector use of electricity. Sales of electricity are converted into Btu at the rate of 3,412 Btu per kilowatt-hour.

*Sources of sales data:*

- 1973 through 1976: FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- 1977 through February 1980: EIA, FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- March 1980 through December 1982: EIA, FERC Form 5, "Electric Utility Company Monthly Statement."
- January 1983 forward: EIA, EIA Form 826, "Electric Utility Company Monthly Statement."

**11. Electrical Energy Losses:** Total electrical energy losses (i.e., incurred in the generation and transmission of electricity plus plant use and unaccounted for) are estimated as the difference between total energy input at utilities and electricity sold to the end-users. Total losses are disaggregated to the end-use sectors in proportion to each sector's share of total electricity sales. In general, about 65 percent of total energy input at utilities is lost in the form of heat, and an additional 3 percent is lost in the transmission and distribution of the electricity to the end-user.

# Part 3

## Petroleum

### Crude Oil and Refined Petroleum Products\*

Domestic crude oil production during May 1983 was estimated to be 8.7 million barrels per day, the same rate as in April 1983 and in May 1982.

Total petroleum imports averaged 5.0 million barrels per day in May 1983, 5.5 percent more than the April 1983 rate and 4.0 percent more than the May 1982 rate.

In May 1983, 14.7 million barrels per day of petroleum products were supplied for domestic use, 0.3 percent below the level in April 1983 and 0.7 percent below the level of the previous May. Motor gasoline accounted for 45.6 percent of the total; distillate fuel oil, 15.9 percent; and residual fuel oil, 9.1 percent.

Motor gasoline supplied during May 1983 averaged 6.7 million barrels per day, 3.4 percent above the rate in April 1983 and 1.0

percent above the level of the previous May. Stocks of motor gasoline totaled 220 million barrels at the end of May 1983, 1 million barrels below the inventories reported at the end of April 1983.

In May 1983, 2.3 million barrels of distillate fuel oil were supplied per day, 13.8 percent lower than the April 1983 rate and 4.3 percent lower than the May 1982 level. Distillate fuel oil stocks were 107 million barrels at the end of May 1983, 4 million barrels above the level at the end of the previous month.

Residual fuel oil supplied in May 1983 averaged 1.3 million barrels per day, 2.2 percent lower than in April 1983 and 14.5 percent lower than the May 1982 rate. Residual fuel oil stocks measured 49 million barrels at the end of May 1983, 2 million barrels above the stock level at the end of April 1983.

\*Estimates for the most current month are based on Energy Information Administration (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 month, crude production is an EIA estimate based on historical and provisional data through February 1983. The total import data above include imports into the Strategic Petroleum Reserve.

# Petroleum

## Crude Oil<sup>1</sup> and Petroleum Products Overview

|                          |           | Field Production            |           |                              | Stock Withdrawal <sup>2</sup> |                    | Petroleum Products Supplied | Crude Oil <sup>3</sup> and Petroleum Products | Ending Stocks <sup>4</sup><br>Million barrels |
|--------------------------|-----------|-----------------------------|-----------|------------------------------|-------------------------------|--------------------|-----------------------------|---|---|
|                          |           | Total Domestic <sup>5</sup> | Crude Oil | Natural Gas Plant Production | Crude Oil <sup>6</sup>        | Petroleum Products |                             |   |   |
| Thousand barrels per day |           |                             |           |                              |                               |                    |                             |   |   |
| 1973                     | AVERAGE   | 10,975                      | 9,208     | 1,738                        | 11                            | -146               | 17,308                      | 1,008   |   |
| 1974                     | AVERAGE   | 10,498                      | 8,774     | 1,688                        | -62                           | -117               | 16,653                      | 1,074   |   |
| 1975                     | AVERAGE   | 10,045                      | 8,375     | 1,633                        | -17                           | -145               | 16,322                      | 1,133   |   |
| 1976                     | AVERAGE   | 9,774                       | 8,132     | 1,603                        | -39                           | 96                 | 17,461                      | 1,112   |   |
| 1977                     | AVERAGE   | 9,913                       | 8,245     | 1,618                        | -170                          | -378               | 18,431                      | 1,312   |   |
| 1978                     | AVERAGE   | 10,328                      | 8,707     | 1,567                        | -78                           | 172                | 18,847                      | 1,278   |   |
| 1979                     | AVERAGE   | 10,179                      | 8,552     | 1,584                        | -148                          | -25                | 18,513                      | 1,341   |   |
| 1980                     | AVERAGE   | 10,214                      | 8,597     | 1,573                        | -98                           | -42                | 17,056                      | 1,392   |   |
| 1981                     | January   | 10,231                      | 8,540     | 1,652                        | 50                            | 1,159              | 18,430                      | 1,388   |   |
|                          | February  | 10,294                      | 8,604     | 1,653                        | -278                          | 250                | 16,989                      | 1,389   |   |
|                          | March     | 10,272                      | 8,613     | 1,624                        | -632                          | 224                | 15,907                      | 1,401   |   |
|                          | April     | 10,195                      | 8,557     | 1,599                        | -595                          | 148                | 15,350                      | 1,415   |   |
|                          | May       | 10,160                      | 8,501     | 1,593                        | -391                          | -374               | 15,353                      | 1,438   |   |
|                          | June      | 10,287                      | 8,629     | 1,594                        | -135                          | 406                | 16,095                      | 1,430   |   |
|                          | July      | 10,098                      | 8,500     | 1,548                        | -360                          | 91                 | 15,682                      | 1,439   |   |
|                          | August    | 10,243                      | 8,583     | 1,614                        | 397                           | -999               | 15,263                      | 1,457   |   |
|                          | September | 10,281                      | 8,604     | 1,612                        | -285                          | -341               | 15,655                      | 1,476   |   |
|                          | October   | 10,225                      | 8,563     | 1,598                        | -760                          | 477                | 15,822                      | 1,485   |   |
|                          | November  | 10,269                      | 8,586     | 1,630                        | -325                          | -233               | 15,593                      | 1,501   |   |
|                          | December  | 10,220                      | 8,585     | 1,590                        | -170                          | 745                | 16,596                      | 1,484   |   |
|                          | AVERAGE   | 10,230                      | 8,572     | 1,609                        | -290                          | 130                | 16,058                      |   |   |
| 1982                     | January   | R10,128                     | R8,509    | R1,578                       | R-401                         | R1,298             | R16,124                     | R1,456  |   |
|                          | February  | R10,312                     | R8,702    | R1,563                       | R-242                         | R1,230             | R16,001                     | R1,428  |   |
|                          | March     | R10,284                     | R8,667    | R1,572                       | R121                          | R1,047             | 15,560                      | R1,392  |   |
|                          | April     | R10,188                     | R8,591    | R1,542                       | R-37                          | R1,583             | R16,046                     | R1,346  |   |
|                          | May       | R10,244                     | R8,683    | R1,518                       | R29                           | R-66               | R14,847                     | R1,347  |   |
|                          | June      | R10,212                     | R8,646    | R1,511                       | R40                           | R-489              | R14,998                     | R1,360  |   |
|                          | July      | R10,229                     | R8,658    | R1,513                       | R-147                         | R-926              | R14,821                     | R1,393  |   |
|                          | August    | R10,215                     | R8,634    | R1,524                       | -440                          | R-44               | R14,839                     | R1,408  |   |
|                          | September | R10,279                     | R8,701    | R1,518                       | R263                          | R-447              | R15,022                     | R1,414  |   |
|                          | October   | R10,299                     | R8,701    | R1,530                       | R-548                         | R-47               | R14,859                     | R1,432  |   |
|                          | November  | R10,359                     | R8,697    | R1,609                       | R-398                         | R-361              | R15,009                     | 1,455   |   |
|                          | December  | R10,276                     | R8,598    | R1,628                       | R128                          | R688               | R15,487                     | R1,430  |   |
|                          | AVERAGE   | R10,252                     | R8,649    | R1,550                       | R-136                         | R283               | R15,296                     |   |   |
| 1983                     | January   | 10,356                      | 8,634     | 1,668                        | -567                          | 865                | 14,765                      | 1,453   |   |
|                          | February  | 10,298                      | 8,660     | 1,585                        | -382                          | 1,128              | 14,772                      | 1,432   |   |
|                          | March     | 10,259                      | 8,677     | 1,544                        | 56                            | R1,670             | 15,484                      | 1,375   |   |
|                          | April     | 10,229                      | R8,686    | 1,502                        | R-438                         | R431               | R14,779                     | R1,376  |   |
|                          | May†      | NA                          | 8,682     | NA                           | -81                           | -309               | 14,738                      | 1,388   |   |
|                          | AVERAGE   | NA                          | 8,668     | NA                           | -279                          | 771                | 14,911                      |   |   |

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

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup>Stocks are totals as of end of period.

<sup>4</sup>Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

<sup>5</sup>Includes stocks located in the Strategic Petroleum Reserve.

<sup>6</sup>Italics denote preliminary data. R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—1,121; 1980—1,420; and 1982—1,462. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

# Petroleum

## Crude Oil<sup>1</sup> and Petroleum Products Overview (continued)

|                          |           | Imports |                        |                    | Exports |           |                    | Net Imports <sup>3</sup> |
|--------------------------|-----------|---------|------------------------|--------------------|---------|-----------|--------------------|--------------------------|
|                          |           | Total   | Crude Oil <sup>2</sup> | Petroleum Products | Total   | Crude Oil | Petroleum Products |                          |
| Thousand barrels per day |           |         |                        |                    |         |           |                    |                          |
| 1973                     | AVERAGE   | 6,256   | 3,244                  | 3,012              | 231     | 2         | 229                | 6,025                    |
| 1974                     | AVERAGE   | 6,112   | 3,477                  | 2,635              | 221     | 3         | 218                | 5,892                    |
| 1975                     | AVERAGE   | 6,056   | 4,105                  | 1,951              | 209     | 6         | 204                | 5,846                    |
| 1976                     | AVERAGE   | 7,313   | 5,287                  | 2,026              | 223     | 8         | 215                | 7,090                    |
| 1977                     | AVERAGE   | 8,807   | 6,615                  | 2,193              | 243     | 50        | 193                | 8,565                    |
| 1978                     | AVERAGE   | 8,363   | 6,356                  | 2,008              | 362     | 158       | 204                | 8,002                    |
| 1979                     | AVERAGE   | 8,456   | 6,519                  | 1,937              | 471     | 235       | 236                | 7,985                    |
| 1980                     | AVERAGE   | 6,909   | 5,263                  | 1,646              | 544     | 287       | 258                | 6,365                    |
| 1981                     | January   | 6,827   | 4,932                  | 1,895              | 558     | 339       | 219                | 6,270                    |
|                          | February  | 6,772   | 4,873                  | 1,899              | 569     | 198       | 371                | 6,203                    |
|                          | March     | 6,028   | 4,521                  | 1,507              | 586     | 210       | 376                | 5,442                    |
|                          | April     | 5,668   | 4,338                  | 1,330              | 570     | 198       | 372                | 5,098                    |
|                          | May       | 5,775   | 4,287                  | 1,489              | 595     | 312       | 283                | 5,180                    |
|                          | June      | 5,435   | 4,061                  | 1,375              | 420     | 123       | 297                | 5,015                    |
|                          | July      | 5,816   | 4,296                  | 1,521              | 571     | 257       | 314                | 5,245                    |
|                          | August    | 5,767   | 4,179                  | 1,588              | 644     | 204       | 440                | 5,123                    |
|                          | September | 6,365   | 4,740                  | 1,624              | 519     | 194       | 325                | 5,845                    |
|                          | October   | 5,959   | 4,380                  | 1,579              | 738     | 226       | 512                | 5,221                    |
|                          | November  | 5,741   | 4,046                  | 1,695              | 701     | 278       | 423                | 5,041                    |
|                          | December  | 5,843   | 4,137                  | 1,706              | 656     | 189       | 467                | 5,187                    |
|                          | AVERAGE   | 5,996   | 4,396                  | 1,599              | 595     | 228       | 367                | 5,401                    |
| 1982                     | January   | R5,332  | R3,693                 | R1,639             | 829     | 238       | 591                | R4,503                   |
|                          | February  | R4,807  | R2,990                 | R1,817             | 804     | 304       | 499                | R4,003                   |
|                          | March     | R4,484  | R2,874                 | R1,610             | 882     | 321       | 561                | R3,602                   |
|                          | April     | R4,378  | R2,849                 | R1,529             | 786     | 174       | 611                | R3,593                   |
|                          | May       | R4,811  | R3,309                 | R1,503             | 803     | 262       | 542                | R4,008                   |
|                          | June      | R5,327  | R3,836                 | R1,491             | 703     | 94        | 609                | R4,624                   |
|                          | July      | R5,890  | R4,248                 | R1,642             | 741     | 229       | 512                | R5,149                   |
|                          | August    | R5,244  | R3,851                 | R1,392             | 858     | 304       | 554                | R4,386                   |
|                          | September | R5,414  | R3,636                 | R1,778             | 791     | 184       | 606                | R4,624                   |
|                          | October   | R5,306  | R3,670                 | R1,636             | 932     | 270       | 662                | R4,374                   |
|                          | November  | R5,744  | R3,862                 | R1,882             | 786     | 262       | 524                | R4,958                   |
|                          | December  | R4,606  | R3,000                 | R1,605             | 860     | 193       | 667                | R3,746                   |
|                          | AVERAGE   | R5,113  | R3,488                 | R1,625             | 815     | 236       | 579                | R4,298                   |
| 1983                     | January   | 4,372   | 2,938                  | 1,434              | 973     | 117       | 856                | 3,399                    |
|                          | February  | 3,691   | 2,268                  | 1,423              | 865     | 262       | 603                | 2,825                    |
|                          | March     | 3,629   | 2,232                  | 1,398              | 801     | 174       | 627                | 2,829                    |
|                          | April     | R4,744  | R3,154                 | R1,590             | 809     | 88        | 721                | 3,935                    |
|                          | May†      | 5,004   | 3,450                  | 1,554              | NA      | NA        | NA                 | NA                       |
|                          | AVERAGE   | 4,297   | 2,817                  | 1,480              | NA      | NA        | NA                 | NA                       |

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

<sup>2</sup>Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>3</sup>Net Imports equals Imports minus Exports.

†Italics denote preliminary data. R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • See the last page of this section.

# Petroleum

## Crude Oil<sup>1</sup> Supply and Disposition

| Supply                   |                   |         |         |                  |                               |                  |                                 |       |
|--------------------------|-------------------|---------|---------|------------------|-------------------------------|------------------|---------------------------------|-------|
|                          | Field Production  |         | Imports |                  | Stock Withdrawal <sup>2</sup> |                  | Unaccounted<br>for Crude<br>Oil |       |
|                          | Total<br>Domestic | Alaskan | Total   | SPR <sup>3</sup> | Other                         | SPR <sup>3</sup> |                                 |       |
| Thousand barrels per day |                   |         |         |                  |                               |                  |                                 |       |
| 1973                     | AVERAGE           | 9,208   | 198     | 3,244            | 3,244                         |                  | 11                              | 3     |
| 1974                     | AVERAGE           | 8,774   | 193     | 3,477            | 3,477                         |                  | -62                             | -25   |
| 1975                     | AVERAGE           | 8,375   | 191     | 4,105            | 4,105                         |                  | -17                             | 17    |
| 1976                     | AVERAGE           | 8,132   | 173     | 5,287            | 5,287                         |                  | -39                             | 77    |
| 1977                     | AVERAGE           | 8,245   | 464     | 6,615            | 21                            | 6,594            | -20                             | -150  |
| 1978                     | AVERAGE           | 8,707   | 1,229   | 6,356            | 162                           | 6,195            | -163                            | 84    |
| 1979                     | AVERAGE           | 8,552   | 1,401   | 6,519            | 67                            | 6,452            | -67                             | -81   |
| 1980                     | AVERAGE           | 8,597   | 1,617   | 5,263            | 44                            | 5,219            | -45                             | -52   |
| 1981                     | January           | 8,540   | 1,606   | 4,932            | 106                           | 4,826            | -151                            | 201   |
|                          | February          | 8,604   | 1,619   | 4,873            | 80                            | 4,793            | -127                            | -150  |
|                          | March             | 8,613   | 1,618   | 4,521            | 140                           | 4,382            | -155                            | -477  |
|                          | April             | 8,557   | 1,608   | 4,338            | 272                           | 4,066            | -444                            | -151  |
|                          | May               | 8,501   | 1,580   | 4,287            | 386                           | 3,901            | -513                            | 122   |
|                          | June              | 8,629   | 1,632   | 4,061            | 318                           | 3,743            | -434                            | 299   |
|                          | July              | 8,500   | 1,605   | 4,296            | 175                           | 4,121            | -324                            | -36   |
|                          | August            | 8,583   | 1,602   | 4,179            | 257                           | 3,922            | -372                            | 769   |
|                          | September         | 8,604   | 1,607   | 4,740            | 435                           | 4,305            | -486                            | 201   |
|                          | October           | 8,563   | 1,596   | 4,380            | 453                           | 3,927            | -501                            | -259  |
|                          | November          | 8,586   | 1,614   | 4,046            | 271                           | 3,774            | -259                            | 166   |
|                          | December          | 8,585   | 1,623   | 4,137            | 165                           | 3,971            | -252                            | 279   |
|                          | AVERAGE           | 8,572   | 1,609   | 4,396            | 256                           | 4,141            | -336                            | 83    |
| 1982                     | January           | R8,509  | R1,705  | R3,693           | 170                           | R3,523           | -159                            | R-242 |
|                          | February          | R8,702  | R1,707  | R2,990           | 159                           | R2,830           | -213                            | R-29  |
|                          | March             | R8,667  | R1,696  | R2,874           | 185                           | R2,689           | -235                            | R357  |
|                          | April             | R8,591  | R1,691  | R2,849           | 190                           | R2,659           | -233                            | R196  |
|                          | May               | R8,683  | R1,707  | R3,309           | 204                           | R3,105           | -176                            | R205  |
|                          | June              | R8,646  | R1,665  | R3,836           | 105                           | R3,732           | -105                            | R144  |
|                          | July              | R8,658  | R1,710  | R4,248           | 97                            | R4,150           | -97                             | R-50  |
|                          | August            | R8,634  | R1,697  | R3,851           | 208                           | R3,643           | -208                            | R-232 |
|                          | September         | R8,701  | R1,705  | R3,636           | 139                           | R3,497           | -143                            | R406  |
|                          | October           | R8,701  | R1,706  | R3,670           | 216                           | R3,454           | -216                            | R-332 |
|                          | November          | R8,697  | R1,676  | R3,862           | 180                           | 3,683            | -179                            | R-219 |
|                          | December          | R8,598  | R1,682  | R3,000           | 124                           | R2,877           | -125                            | R252  |
|                          | AVERAGE           | R8,649  | R1,696  | R3,488           | 165                           | R3,323           | -174                            | R38   |
| 1983                     | January           | 8,634   | 1,698   | 2,938            | 219                           | 2,720            | -219                            | -348  |
|                          | February          | 8,660   | 1,725   | 2,268            | 197                           | 2,071            | -197                            | -185  |
|                          | March             | 8,677   | 1,726   | 2,232            | 201                           | 2,031            | -184                            | 240   |
|                          | April             | R8,686  | 1,710   | R3,154           | R205                          | R2,949           | R-197                           | R-241 |
|                          | May†              | 8,682   | 1,710   | 3,450            | 277                           | 3,173            | -276                            | 195   |
|                          | AVERAGE           | 8,668   | 1,714   | 2,817            | 220                           | 2,597            | -215                            | NA    |
|                          |                   |         |         |                  |                               |                  |                                 | NA    |

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

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup>Strategic Petroleum Reserve.

†Italics denote preliminary data. R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

# Petroleum

## Crude Oil<sup>1</sup> Supply and Disposition (continued)

|                          | Supply                           |              | Disposition     |         |                               | Ending Stocks <sup>2</sup> |                  |               |
|--------------------------|----------------------------------|--------------|-----------------|---------|-------------------------------|----------------------------|------------------|---------------|
|                          | Crude Used Directly <sup>3</sup> | Crude Losses | Refinery Inputs | Exports | Product Supplied <sup>2</sup> | Total                      | SPR <sup>4</sup> | Other Primary |
| Thousand barrels per day |                                  |              |                 |         |                               |                            |                  |               |
| 1973 AVERAGE             | -19                              | 13           | 12,431          | 2       | NA                            | 242                        |                  | 242           |
| 1974 AVERAGE             | -15                              | 13           | 12,133          | 3       | NA                            | 265                        |                  | 265           |
| 1975 AVERAGE             | -17                              | 13           | 12,442          | 6       | NA                            | 271                        |                  | 271           |
| 1976 AVERAGE             | -18                              | 15           | 13,416          | 8       | NA                            | 285                        |                  | 285           |
| 1977 AVERAGE             | -14                              | 16           | 14,602          | 50      | NA                            | 348                        | 7                | 340           |
| 1978 AVERAGE             | -14                              | 16           | 14,739          | 158     | NA                            | 376                        | 67               | 309           |
| 1979 AVERAGE             | -13                              | 16           | 14,648          | 235     | NA                            | 430                        | 91               | 339           |
| 1980 AVERAGE             | -13                              | 15           | 13,481          | 287     | NA                            | 466                        | 108              | 358           |
| 1981 January             | -43                              | 6            | 13,247          | 339     | NA                            | 486                        | 112              | 374           |
| February                 | -55                              | 3            | 12,902          | 198     | NA                            | 494                        | 116              | 378           |
| March                    | -57                              | 6            | 12,383          | 210     | NA                            | 514                        | 121              | 393           |
| April                    | -59                              | 3            | 12,091          | 198     | NA                            | 532                        | 134              | 397           |
| May                      | -59                              | 3            | 12,309          | 312     | NA                            | 544                        | 150              | 394           |
| June                     | -58                              | 7            | 12,415          | 123     | NA                            | 548                        | 163              | 385           |
| July                     | -58                              | 7            | 12,261          | 257     | NA                            | 559                        | 173              | 386           |
| August                   | -58                              | 5            | 12,908          | 204     | NA                            | 547                        | 185              | 362           |
| September                | -61                              | 4            | 12,505          | 194     | NA                            | 555                        | 199              | 356           |
| October                  | -63                              | 3            | 12,057          | 226     | NA                            | 579                        | 215              | 364           |
| November                 | -64                              | 4            | 12,240          | 278     | NA                            | 589                        | 223              | 366           |
| December                 | -63                              | 4            | 12,349          | 189     | NA                            | 594                        | 230              | 363           |
| AVERAGE                  | -58                              | 5            | 12,470          | 228     | NA                            |                            |                  |               |
| 1982 January             | -63                              | 3            | R11,599         | 238     | NA                            | 606                        | 235              | 371           |
| February                 | -64                              | 2            | R11,236         | 304     | NA                            | R613                       | 241              | R372          |
| March                    | -63                              | 5            | R11,276         | 321     | NA                            | R609                       | 249              | R361          |
| April                    | -65                              | 3            | R11,392         | 174     | NA                            | R610                       | 256              | 355           |
| May                      | -62                              | 3            | R11,806         | 262     | NA                            | 609                        | 261              | 348           |
| June                     | -60                              | 7            | R12,494         | 94      | NA                            | R608                       | 264              | R344          |
| July                     | -60                              | 3            | R12,446         | 229     | NA                            | R613                       | 267              | R346          |
| August                   | -57                              | 2            | R11,871         | 304     | NA                            | R626                       | 274              | R353          |
| September                | -56                              | R4           | R12,146         | 184     | NA                            | R619                       | 278              | R341          |
| October                  | -51                              | 2            | R11,749         | 270     | NA                            | R636                       | 285              | 351           |
| November                 | -51                              | 1            | R11,724         | 262     | NA                            | R648                       | 290              | R358          |
| December                 | -53                              | 1            | 11,514          | 193     | NA                            | R644                       | 294              | R350          |
| AVERAGE                  | -58                              | 4            | R11,774         | 236     | NA                            |                            |                  |               |
| 1983 January             | NA                               | 2            | 11,070          | 117     | 54                            | 661                        | 301              | 361           |
| February                 | NA                               | 3            | 10,635          | 262     | 69                            | 672                        | 306              | 366           |
| March                    | NA                               | 2            | 10,854          | 174     | 70                            | 670                        | 312              | 359           |
| April                    | NA                               | 2            | R11,436         | 88      | 68                            | R684                       | 318              | R366          |
| May†                     | NA                               | NA           | 11,857          | NA      | NA                            | 686                        | 327              | 359           |
| AVERAGE                  | NA                               | NA           | 11,179          | NA      | NA                            |                            |                  |               |

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

<sup>2</sup>Stocks are totals as of end of period.

<sup>3</sup>Beginning in January 1983, crude oil used directly as fuel is presented as product supplied for crude oil. Prior to January 1983, crude oil used directly was included with crude oil losses in this table and with product supplied for distillate and residual fuel oils on those tables.

<sup>4</sup>Strategic Petroleum Reserve.

†Italics denote preliminary data. R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

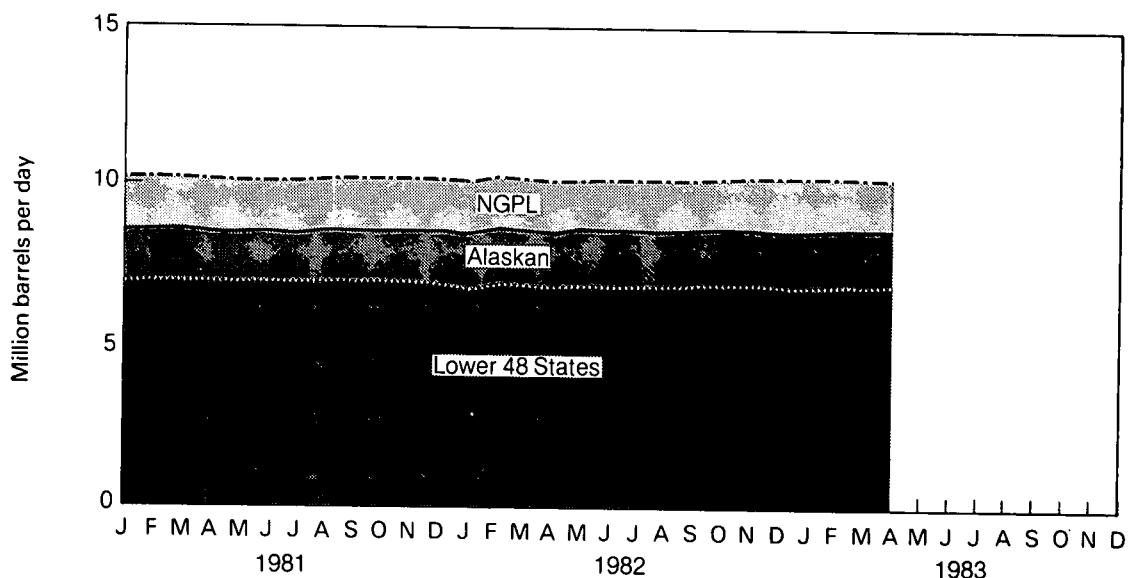
• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—265; 1980—483 (Total) and 375 (Other Primary); and 1982—644 (Total) and 350 (Other Primary).

Sources: • See the last page of this section.

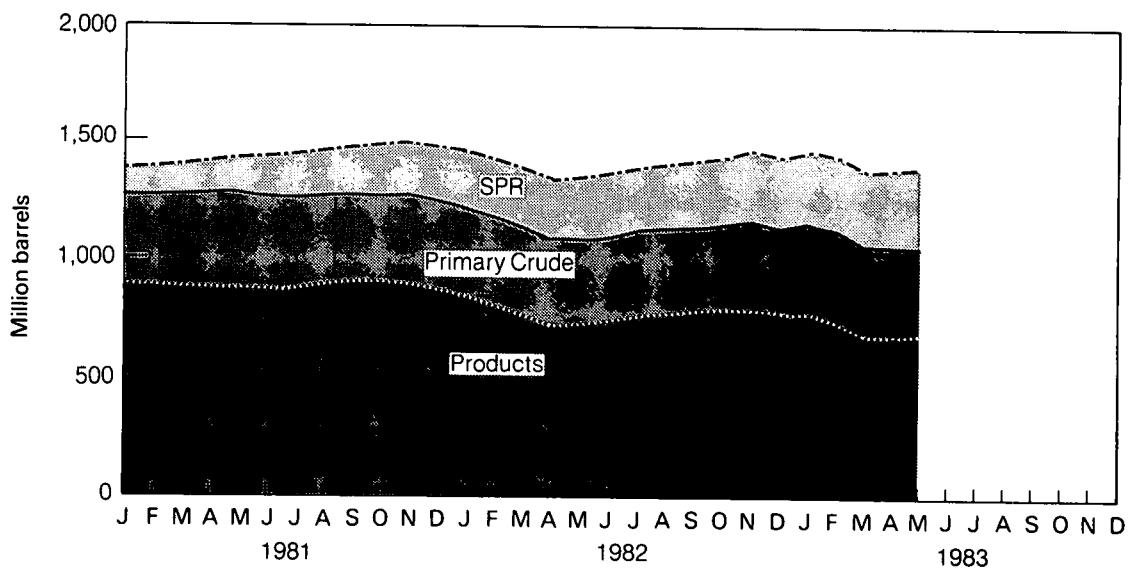
# Petroleum

## Overview

### Production of Crude Oil and Natural Gas Plant Liquids



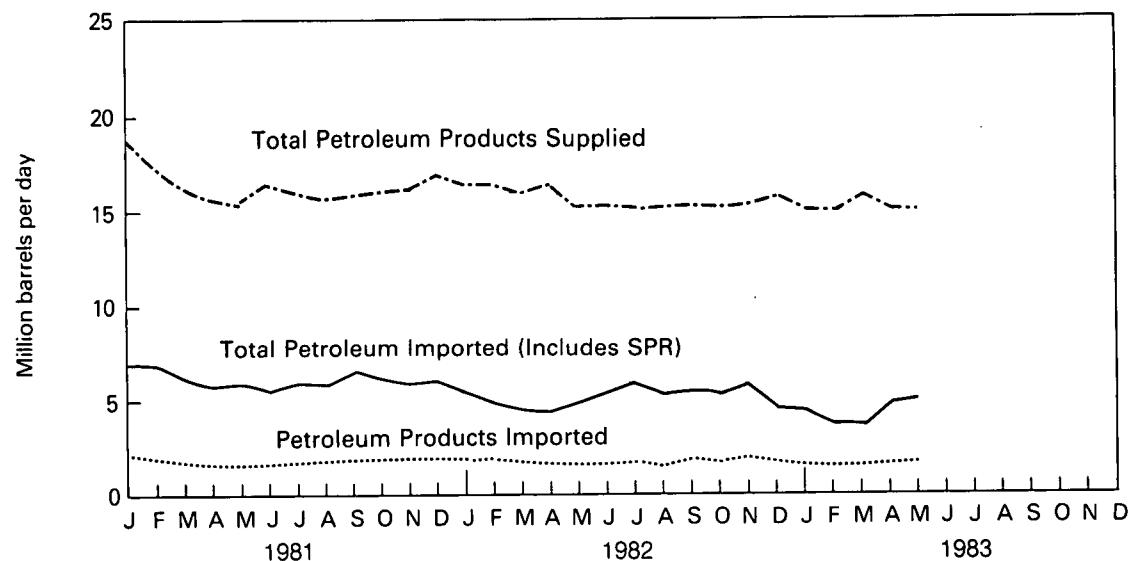
### Stocks



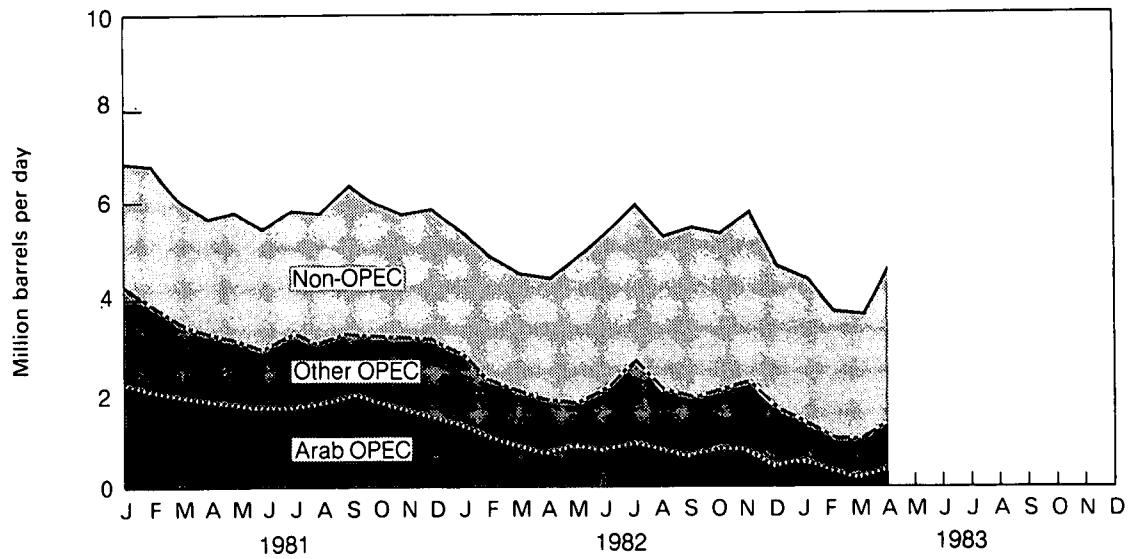
# Petroleum

## Overview

### Products Supplied and Imports



### Petroleum Imports by Source



# Petroleum

## Crude Oil and Petroleum Product Imports from OPEC Sources<sup>1</sup>

|                          |           | Algeria | Libya | Saudi Arabia | United Arab Emirates | Indonesia | Iran | Nigeria | Venezuela | Other OPEC <sup>2</sup> | Total OPEC | Total Arab OPEC <sup>3</sup> |
|--------------------------|-----------|---------|-------|--------------|----------------------|-----------|------|---------|-----------|-------------------------|------------|------------------------------|
| Thousand barrels per day |           |         |       |              |                      |           |      |         |           |                         |            |                              |
| 1973                     | AVERAGE   | 136     | 164   | 486          | 71                   | 213       | 223  | 459     | 1,135     | 106                     | 2,993      | 915                          |
| 1974                     | AVERAGE   | 190     | 4     | 461          | 74                   | 300       | 469  | 713     | 979       | 88                      | 3,280      | 752                          |
| 1975                     | AVERAGE   | 282     | 232   | 715          | 117                  | 390       | 280  | 762     | 702       | 122                     | 3,601      | 1,383                        |
| 1976                     | AVERAGE   | 432     | 453   | 1,230        | 254                  | 539       | 298  | 1,025   | 700       | 134                     | 5,066      | 2,424                        |
| 1977                     | AVERAGE   | 559     | 723   | 1,380        | 335                  | 541       | 535  | 1,143   | 690       | 287                     | 6,193      | 3,185                        |
| 1978                     | AVERAGE   | 649     | 654   | 1,144        | 385                  | 573       | 555  | 919     | 645       | 226                     | 5,751      | 2,963                        |
| 1979                     | AVERAGE   | 636     | 658   | 1,356        | 281                  | 420       | 304  | 1,080   | 690       | 212                     | 5,637      | 3,056                        |
| 1980                     | AVERAGE   | 488     | 554   | 1,261        | 172                  | 348       | 9    | 857     | 481       | 130                     | 4,300      | 2,551                        |
| 1981                     | January   | 341     | 500   | 1,284        | 93                   | 424       | 0    | 908     | 549       | 27                      | 4,127      | 2,219                        |
|                          | February  | 381     | 468   | 1,122        | 93                   | 406       | 0    | 866     | 463       | 92                      | 3,891      | 2,064                        |
|                          | March     | 352     | 485   | 1,027        | 47                   | 328       | 0    | 771     | 360       | 54                      | 3,425      | 1,912                        |
|                          | April     | 263     | 485   | 1,034        | 68                   | 307       | 0    | 812     | 237       | 39                      | 3,245      | 1,867                        |
|                          | May       | 393     | 443   | 933          | 17                   | 297       | 0    | 664     | 331       | 124                     | 3,203      | 1,796                        |
|                          | June      | 356     | 380   | 865          | 60                   | 367       | 0    | 528     | 248       | 118                     | 2,922      | 1,703                        |
|                          | July      | 333     | 251   | 1,073        | 80                   | 340       | 0    | 651     | 466       | 38                      | 3,233      | 1,757                        |
|                          | August    | 348     | 274   | 1,082        | 61                   | 377       | 0    | 321     | 523       | 84                      | 3,070      | 1,765                        |
|                          | September | 336     | 154   | 1,477        | 96                   | 371       | 0    | 323     | 359       | 149                     | 3,264      | 2,063                        |
|                          | October   | 242     | 147   | 1,342        | 90                   | 427       | 0    | 412     | 389       | 172                     | 3,220      | 1,820                        |
|                          | November  | 210     | 132   | 1,270        | 112                  | 353       | 0    | 517     | 535       | 56                      | 3,184      | 1,724                        |
|                          | December  | 176     | 122   | 1,045        | 158                  | 400       | 0    | 684     | 411       | 132                     | 3,129      | 1,502                        |
|                          | AVERAGE   | 311     | 319   | 1,129        | 81                   | 366       | 0    | 620     | 406       | 90                      | 3,323      | 1,848                        |
| 1982                     | January   | 254     | 161   | 877          | R111                 | R289      | 0    | R663    | 376       | 128                     | R2,859     | R1,403                       |
|                          | February  | 139     | 92    | R693         | R89                  | R244      | 0    | R584    | R355      | 102                     | R2,297     | R1,054                       |
|                          | March     | 91      | 37    | 555          | 155                  | 200       | 0    | R522    | 399       | 91                      | R2,051     | 860                          |
|                          | April     | 85      | 0     | R511         | 122                  | 215       | 0    | 427     | R426      | R85                     | R1,871     | R740                         |
|                          | May       | 179     | 0     | 601          | 116                  | 236       | 0    | R222    | R422      | 54                      | R1,830     | 897                          |
|                          | June      | R115    | 0     | 593          | 94                   | 215       | 72   | 537     | 361       | 110                     | R2,096     | R820                         |
|                          | July      | R159    | 0     | R660         | R108                 | 327       | 69   | 910     | R356      | 95                      | R2,685     | R965                         |
|                          | August    | R181    | 0     | 489          | 133                  | R271      | 27   | R574    | R299      | R133                    | R2,107     | R818                         |
|                          | September | R179    | 0     | 432          | 57                   | 191       | 21   | R477    | R518      | R69                     | R1,943     | R677                         |
|                          | October   | 249     | 7     | 494          | 61                   | R242      | 108  | R313    | R504      | R106                    | R2,084     | 810                          |
|                          | November  | 247     | R14   | 489          | 47                   | 283       | 34   | R479    | R528      | 115                     | R2,235     | R797                         |
|                          | December  | R155    | 0     | 237          | 12                   | 265       | 88   | R462    | 399       | 73                      | R1,690     | R421                         |
|                          | AVERAGE   | R170    | 26    | R552         | R92                  | R248      | 35   | R514    | R412      | R97                     | R2,146     | R854                         |
| 1983                     | January   | 204     | 0     | 282          | 47                   | 255       | 43   | 186     | 324       | 43                      | 1,384      | 533                          |
|                          | February  | 104     | 0     | 214          | 9                    | 217       | 0    | 92      | 371       | 28                      | 1,035      | 326                          |
|                          | March     | 63      | 0     | 103          | 0                    | 138       | 0    | 121     | 425       | 173                     | 1,023      | 183                          |
|                          | April     | 228     | 0     | 180          | (s)                  | 210       | 0    | 186     | 508       | 125                     | 1,438      | 409                          |
|                          | AVERAGE   | 150     | 0     | 194          | 14                   | 205       | 11   | 147     | 407       | 94                      | 1,223      | 363                          |

<sup>1</sup>Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.

<sup>2</sup>Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>3</sup>Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

R=Revised data. (s)=Less than 500 barrels per day.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

# Petroleum

## Crude Oil and Petroleum Product Imports from Non-OPEC Sources<sup>1</sup>

|      |           | Bahamas                  | Canada | Mexico | Netherlands<br>Antilles | Trinidad<br>and<br>Tobago | United<br>Kingdom | Puerto<br>Rico <sup>2</sup> | Virgin<br>Islands <sup>2</sup> | Other | Total  |
|------|-----------|--------------------------|--------|--------|-------------------------|---------------------------|-------------------|-----------------------------|--------------------------------|-------|--------|
|      |           | Thousand barrels per day |        |        |                         |                           |                   |                             |                                |       |        |
| 1973 | AVERAGE   | 174                      | 1,325  | 16     | 585                     | 255                       | 15                | 99                          | 329                            | 465   | 3,263  |
| 1974 | AVERAGE   | 164                      | 1,070  | 8      | 511                     | 251                       | 8                 | 90                          | 391                            | 340   | 2,832  |
| 1975 | AVERAGE   | 152                      | 846    | 71     | 332                     | 242                       | 14                | 90                          | 406                            | 300   | 2,454  |
| 1976 | AVERAGE   | 118                      | 599    | 87     | 275                     | 274                       | 31                | 88                          | 422                            | 353   | 2,247  |
| 1977 | AVERAGE   | 171                      | 517    | 179    | 211                     | 289                       | 126               | 105                         | 466                            | 550   | 2,614  |
| 1978 | AVERAGE   | 160                      | 467    | 318    | 229                     | 253                       | 180               | 94                          | 429                            | 484   | 2,613  |
| 1979 | AVERAGE   | 147                      | 538    | 439    | 231                     | 190                       | 202               | 92                          | 431                            | 548   | 2,819  |
| 1980 | AVERAGE   | 78                       | 455    | 533    | 225                     | 176                       | 176               | 88                          | 388                            | 491   | 2,609  |
| 1981 | January   | 39                       | 543    | 401    | 198                     | 150                       | 233               | 89                          | 494                            | 552   | 2,701  |
|      | February  | 84                       | 546    | 437    | 227                     | 163                       | 271               | 46                          | 481                            | 626   | 2,881  |
|      | March     | 74                       | 472    | 488    | 227                     | 93                        | 263               | 45                          | 370                            | 571   | 2,603  |
|      | April     | 68                       | 412    | 418    | 198                     | 139                       | 402               | 40                          | 365                            | 380   | 2,423  |
|      | May       | 122                      | 365    | 522    | 213                     | 105                       | 368               | 58                          | 344                            | 474   | 2,573  |
|      | June      | 51                       | 353    | 538    | 196                     | 124                       | 397               | 67                          | 262                            | 525   | 2,513  |
|      | July      | 77                       | 382    | 384    | 212                     | 178                       | 553               | 50                          | 206                            | 541   | 2,583  |
|      | August    | 69                       | 378    | 489    | 255                     | 123                       | 592               | 68                          | 184                            | 539   | 2,698  |
|      | September | 111                      | 423    | 708    | 163                     | 169                       | 528               | 72                          | 265                            | 661   | 3,100  |
|      | October   | 63                       | 449    | 669    | 161                     | 121                       | 351               | 60                          | 303                            | 562   | 2,739  |
|      | November  | 63                       | 547    | 628    | 168                     | 108                       | 253               | 76                          | 294                            | 421   | 2,557  |
|      | December  | 70                       | 501    | 587    | 148                     | 125                       | 280               | 73                          | 367                            | 563   | 2,714  |
|      | AVERAGE   | 74                       | 447    | 522    | 197                     | 133                       | 375               | 62                          | 327                            | 534   | 2,672  |
| 1982 | January   | R58                      | R513   | R425   | 179                     | 106                       | 346               | 62                          | 334                            | R452  | R2,474 |
|      | February  | R67                      | R537   | R476   | 221                     | 120                       | R181              | 38                          | R362                           | R508  | R2,510 |
|      | March     | 43                       | R437   | 503    | 189                     | 118                       | R294              | 62                          | 307                            | R480  | R2,433 |
|      | April     | R82                      | R360   | R476   | R184                    | 166                       | 247               | 36                          | 266                            | R690  | R2,507 |
|      | May       | R77                      | R419   | R766   | 152                     | 95                        | 516               | 47                          | 302                            | R607  | R2,981 |
|      | June      | 32                       | R481   | 797    | R148                    | 129                       | R557              | 58                          | 322                            | R708  | R3,231 |
|      | July      | R64                      | R536   | 783    | 158                     | R118                      | 433               | 38                          | R376                           | R698  | R3,204 |
|      | August    | R80                      | R443   | R853   | 145                     | 106                       | 520               | 24                          | R317                           | R650  | R3,137 |
|      | September | 92                       | R493   | 897    | 195                     | 89                        | 631               | 51                          | R278                           | R746  | R3,472 |
|      | October   | 45                       | R459   | 682    | 148                     | 109                       | 666               | 52                          | 262                            | R801  | R3,222 |
|      | November  | R51                      | R553   | 860    | R212                    | 90                        | 623               | 81                          | 334                            | R706  | R3,508 |
|      | December  | R88                      | 561    | R689   | 174                     | 102                       | 438               | 48                          | 336                            | 480   | R2,916 |
|      | AVERAGE   | R65                      | R482   | R685   | R175                    | 112                       | R456              | 50                          | R316                           | R627  | R2,968 |
| 1983 | January   | 68                       | 536    | 849    | 218                     | 73                        | 315               | 40                          | 299                            | 588   | 2,988  |
|      | February  | 92                       | 592    | 722    | 179                     | 81                        | 193               | 50                          | 192                            | 554   | 2,655  |
|      | March     | 86                       | 488    | 760    | 187                     | 78                        | 240               | 43                          | 162                            | 563   | 2,606  |
|      | April     | 167                      | 452    | 981    | 216                     | 85                        | 421               | 20                          | 183                            | 781   | 3,306  |
|      | AVERAGE   | 103                      | 516    | 829    | 200                     | 79                        | 294               | 38                          | 210                            | 622   | 2,891  |

<sup>1</sup>Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.

<sup>2</sup>U.S. possessions.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

# Petroleum

## Finished Motor Gasoline Supply and Disposition

|                          |           | Supply           |                      |                                  | Disposition |                  |                       |                           | Ending Stocks                     |                                      |
|--------------------------|-----------|------------------|----------------------|----------------------------------|-------------|------------------|-----------------------|---------------------------|-----------------------------------|--------------------------------------|
|                          |           | Total Production | Imports <sup>1</sup> | Stock Withdrawal <sup>1, 2</sup> | Exports     | Product Supplied |                       |                           | Total Motor Gasoline <sup>4</sup> | Finished Motor Gasoline <sup>4</sup> |
|                          |           |                  |                      |                                  |             | Total            | Unleaded <sup>3</sup> | Unleaded Percent of Total |                                   |                                      |
| Thousand barrels per day |           |                  |                      |                                  |             |                  |                       |                           |                                   |                                      |
| 1973                     | AVERAGE   | 6,535            | 134                  | 9                                | 4           | 6,674            |                       |                           | 209                               |                                      |
| 1974                     | AVERAGE   | 6,360            | 204                  | -24                              | 2           | 6,537            |                       |                           | 218                               |                                      |
| 1975                     | AVERAGE   | 6,520            | 184                  | -28                              | 2           | 6,675            |                       |                           | 235                               |                                      |
| 1976                     | AVERAGE   | 6,841            | 131                  | 10                               | 3           | 6,978            |                       |                           | 231                               |                                      |
| 1977                     | AVERAGE   | 7,033            | 217                  | -72                              | 2           | 7,177            | 1,976                 | 27.5                      | 258                               |                                      |
| 1978                     | AVERAGE   | 7,169            | 190                  | 54                               | 1           | 7,412            | 2,521                 | 34.0                      | 238                               |                                      |
| 1979                     | AVERAGE   | 6,852            | 181                  | 2                                | (s)         | 7,034            | 2,798                 | 39.8                      | 237                               |                                      |
| 1980                     | AVERAGE   | 6,506            | 140                  | -66                              | 1           | 6,579            | 3,067                 | 46.6                      | 261                               |                                      |
| 1981                     | January   | 6,715            | 138                  | -421                             | (s)         | 6,431            | 3,141                 | 48.8                      | 276                               | 227                                  |
|                          | February  | 6,308            | 111                  | -118                             | 1           | 6,301            | 3,095                 | 49.1                      | 284                               | 230                                  |
|                          | March     | 6,213            | 171                  | -81                              | (s)         | 6,303            | 3,097                 | 49.1                      | 285                               | 232                                  |
|                          | April     | 6,114            | 186                  | 303                              | (s)         | 6,602            | 3,284                 | 49.7                      | 272                               | 223                                  |
|                          | May       | 6,122            | 150                  | 344                              | 1           | 6,615            | 3,115                 | 47.1                      | 259                               | 213                                  |
|                          | June      | 6,220            | 186                  | 622                              | 1           | 7,028            | 3,419                 | 48.6                      | 242                               | 194                                  |
|                          | July      | 6,405            | 151                  | 268                              | (s)         | 6,823            | 3,424                 | 50.2                      | 228                               | 186                                  |
|                          | August    | 6,611            | 124                  | -95                              | 3           | 6,637            | 3,344                 | 50.4                      | 233                               | 189                                  |
|                          | September | 6,564            | 169                  | -70                              | 2           | 6,662            | 3,338                 | 50.1                      | 237                               | 191                                  |
|                          | October   | 6,426            | 147                  | 7                                | 3           | 6,578            | 3,257                 | 49.5                      | 236                               | 190                                  |
|                          | November  | 6,564            | 148                  | -338                             | 1           | 6,373            | 3,198                 | 50.2                      | 248                               | 201                                  |
|                          | December  | 6,586            | 197                  | -91                              | 11          | 6,681            | 3,444                 | 51.5                      | 253                               | 203                                  |
|                          | AVERAGE   | 6,405            | 157                  | 28                               | 2           | 6,588            | 3,264                 | 49.5                      |                                   |                                      |
| 1982                     | January   | R6,167           | R128                 | R-316                            | 18          | R5,961           | R3,067                | R51.5                     | R261                              | R213                                 |
|                          | February  | R5,899           | 133                  | R172                             | 8           | R6,196           | R3,210                | 51.8                      | R257                              | R208                                 |
|                          | March     | R5,994           | 183                  | R334                             | 44          | R6,466           | R3,358                | R51.9                     | R247                              | R198                                 |
|                          | April     | R6,095           | R185                 | R650                             | 33          | R6,897           | R3,495                | 50.7                      | R221                              | R179                                 |
|                          | May       | R6,319           | R182                 | R177                             | 23          | R6,655           | 3,415                 | 51.3                      | R214                              | R173                                 |
|                          | June      | R6,754           | R230                 | R-134                            | 14          | R6,835           | R3,565                | R52.2                     | R219                              | R177                                 |
|                          | July      | R6,768           | R225                 | R-178                            | 24          | R6,790           | R3,577                | R52.7                     | 226                               | 183                                  |
|                          | August    | R6,419           | R291                 | R-81                             | 16          | R6,614           | R3,526                | R53.3                     | R227                              | 185                                  |
|                          | September | R6,527           | R223                 | R-198                            | 22          | R6,531           | R3,404                | R52.1                     | 234                               | 191                                  |
|                          | October   | R6,262           | R185                 | R-42                             | 15          | 6,391            | R3,351                | R52.4                     | 234                               | 192                                  |
|                          | November  | 6,273            | R211                 | R101                             | 11          | R6,574           | R3,451                | R52.5                     | 230                               | 189                                  |
|                          | December  | R6,542           | 178                  | R-165                            | 7           | R6,549           | R3,485                | 53.2                      | 235                               | 194                                  |
|                          | AVERAGE   | R6,338           | R197                 | R25                              | 20          | R6,539           | R3,409                | 52.1                      |                                   |                                      |
| 1983                     | January   | 6,020            | 148                  | -186                             | (s)         | 5,981            | 3,352                 | 56.0                      | 251                               | 208                                  |
|                          | February  | 5,848            | 142                  | 32                               | (s)         | 6,022            | 3,257                 | 54.1                      | 251                               | 207                                  |
|                          | March     | 5,897            | 205                  | 765                              | 23          | 6,843            | 3,620                 | 52.9                      | 224                               | 184                                  |
|                          | April     | R6,202           | R273                 | R27                              | 1           | R6,501           | 3,505                 | 53.9                      | R221                              | R183                                 |
|                          | May†      | 6,439            | 272                  | 19                               | NA          | 6,722            | NA                    | NA                        | 220                               | 185                                  |
|                          | AVERAGE   | 6,085            | 209                  | 134                              | NA          | 6,421            | NA                    | NA                        |                                   |                                      |

<sup>1</sup>Beginning in 1981, excludes blending components.

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup>Includes gasohol.

<sup>4</sup>Includes motor gasoline blending components. Stocks are totals as of end of period.

<sup>†</sup>Italics denote preliminary data. R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

Notes: • Geographic coverage is the .50 States and the District of Columbia.

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

• Beginning in 1981, survey forms were modified. See Note 2 on the last page of this section.

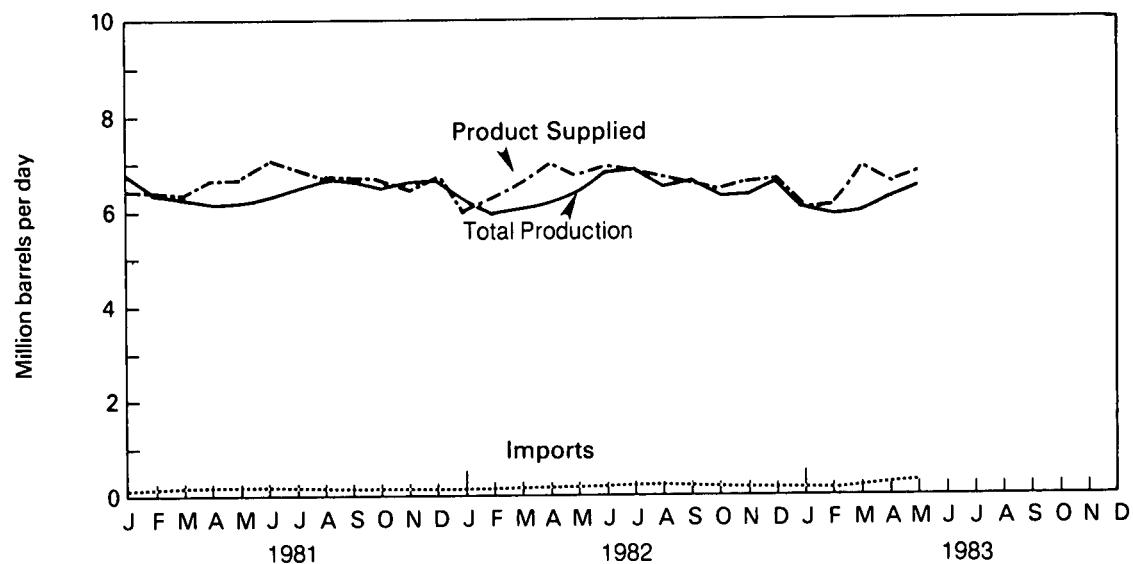
• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—225; 1980—263; 1982—244 (Total) and 203 (Finished). Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

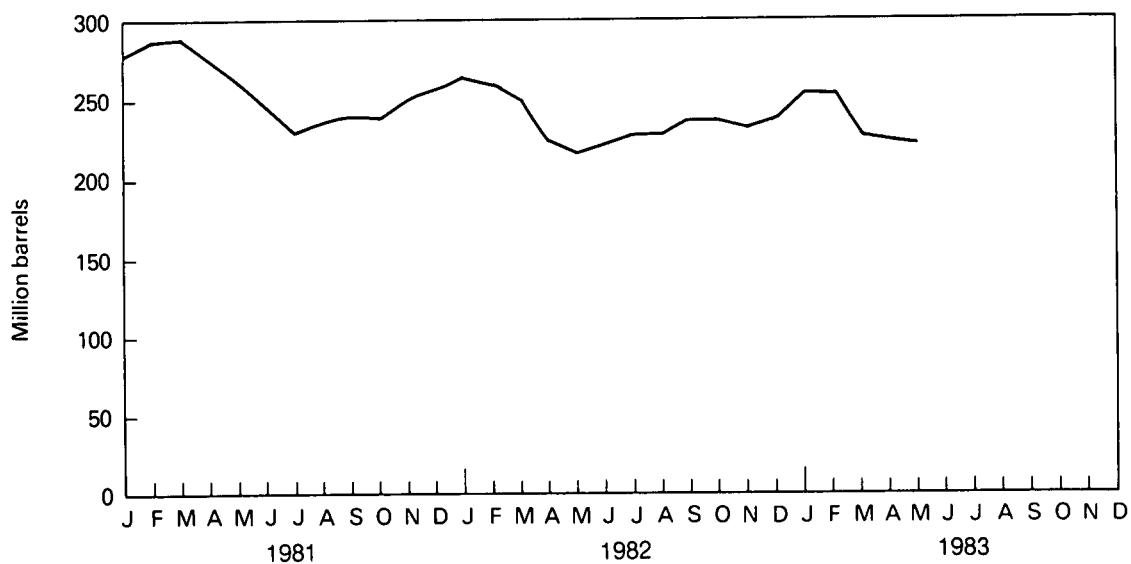
## Petroleum

## **Motor Gasoline**

## **Product Supplied, Total Production, and Imports**



## **Stocks**



# Petroleum

## Distillate Fuel Oil Supply and Disposition

|      |           | Supply                   |         |                               |                                  | Disposition |                               | Ending Stocks <sup>1</sup> |
|------|-----------|--------------------------|---------|-------------------------------|----------------------------------|-------------|-------------------------------|----------------------------|
|      |           | Total Production         | Imports | Stock Withdrawal <sup>2</sup> | Crude Used Directly <sup>3</sup> | Exports     | Product Supplied <sup>3</sup> |                            |
|      |           | Thousand barrels per day |         |                               |                                  |             |                               |                            |
|      |           |                          |         |                               |                                  |             |                               | Million barrels            |
| 1973 | AVERAGE   | 2,822                    | 392     | -115                          | 2                                | 9           | 3,092                         | 196                        |
| 1974 | AVERAGE   | 2,669                    | 289     | -9                            | 2                                | 2           | 2,948                         | 200                        |
| 1975 | AVERAGE   | 2,654                    | 155     | 40                            | 2                                | 1           | 2,851                         | 209                        |
| 1976 | AVERAGE   | 2,924                    | 146     | 62                            | 1                                | 1           | 3,133                         | 186                        |
| 1977 | AVERAGE   | 3,278                    | 250     | -176                          | 1                                | 1           | 3,352                         | 250                        |
| 1978 | AVERAGE   | 3,167                    | 173     | 93                            | 1                                | 3           | 3,432                         | 216                        |
| 1979 | AVERAGE   | 3,153                    | 193     | -34                           | 1                                | 3           | 3,311                         | 229                        |
| 1980 | AVERAGE   | 2,662                    | 142     | 64                            | 1                                | 3           | 2,866                         | 205                        |
| 1981 | January   | 2,989                    | 273     | 836                           | 11                               | (s)         | 4,109                         | 179                        |
|      | February  | 2,809                    | 325     | 246                           | 11                               | 17          | 3,373                         | 173                        |
|      | March     | 2,484                    | 147     | 264                           | 9                                | (s)         | 2,904                         | 164                        |
|      | April     | 2,418                    | 116     | -9                            | 10                               | 3           | 2,532                         | 165                        |
|      | May       | 2,454                    | 179     | -232                          | 10                               | (s)         | 2,411                         | 172                        |
|      | June      | 2,501                    | 225     | -270                          | 9                                | (s)         | 2,464                         | 180                        |
|      | July      | 2,395                    | 179     | -204                          | 10                               | 2           | 2,378                         | 186                        |
|      | August    | 2,656                    | 174     | -450                          | 8                                | (s)         | 2,388                         | 200                        |
|      | September | 2,610                    | 129     | -235                          | 10                               | 1           | 2,513                         | 207                        |
|      | October   | 2,485                    | 119     | 197                           | 9                                | 5           | 2,803                         | 201                        |
|      | November  | 2,716                    | 124     | 36                            | 11                               | 6           | 2,880                         | 200                        |
|      | December  | 2,856                    | 95      | 277                           | 11                               | 26          | 3,212                         | 192                        |
|      | AVERAGE   | 2,613                    | 173     | 38                            | 10                               | 5           | 2,829                         |                            |
| 1982 | January   | R2,591                   | R97     | R876                          | 10                               | 90          | R3,484                        | R164                       |
|      | February  | R2,427                   | R132    | R605                          | 11                               | 90          | R3,085                        | 147                        |
|      | March     | R2,288                   | 48      | R682                          | 10                               | 84          | R2,945                        | R126                       |
|      | April     | R2,358                   | 59      | R612                          | 13                               | 64          | R2,978                        | R108                       |
|      | May       | 2,618                    | 74      | R-183                         | 10                               | 75          | 2,444                         | 114                        |
|      | June      | R2,729                   | R102    | -335                          | 10                               | 55          | R2,452                        | R124                       |
|      | July      | 2,734                    | R125    | R-789                         | 11                               | 24          | R2,058                        | 148                        |
|      | August    | R2,507                   | R80     | R-339                         | 10                               | 40          | R2,218                        | 159                        |
|      | September | R2,657                   | R61     | R-85                          | 12                               | 139         | R2,507                        | 161                        |
|      | October   | R2,838                   | R91     | R-289                         | 8                                | 66          | R2,581                        | 170                        |
|      | November  | R2,860                   | R145    | -514                          | 8                                | 24          | 2,475                         | 186                        |
|      | December  | 2,655                    | 109     | R225                          | 10                               | 143         | R2,855                        | 179                        |
|      | AVERAGE   | R2,606                   | 93      | R35                           | 10                               | 74          | R2,671                        |                            |
| 1983 | January   | 2,314                    | 58      | 561                           | NA                               | 173         | 2,760                         | 168                        |
|      | February  | 2,136                    | 58      | 742                           | NA                               | 105         | 2,832                         | 147                        |
|      | March     | 1,991                    | 42      | 926                           | NA                               | 59          | 2,900                         | 119                        |
|      | April     | R2,443                   | R73     | R518                          | NA                               | 47          | R2,713                        | 103                        |
|      | May†      | 2,443                    | 99      | -118                          | NA                               | NA          | 2,338                         | 107                        |
|      | AVERAGE   | 2,212                    | 66      | 522                           | NA                               | NA          | 2,706                         |                            |

<sup>1</sup>Stocks are totals as of end of period.

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup>Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly.

†Italics denote preliminary data. R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• Beginning in 1981, survey forms were modified. See Note 3 on the last page of this section.

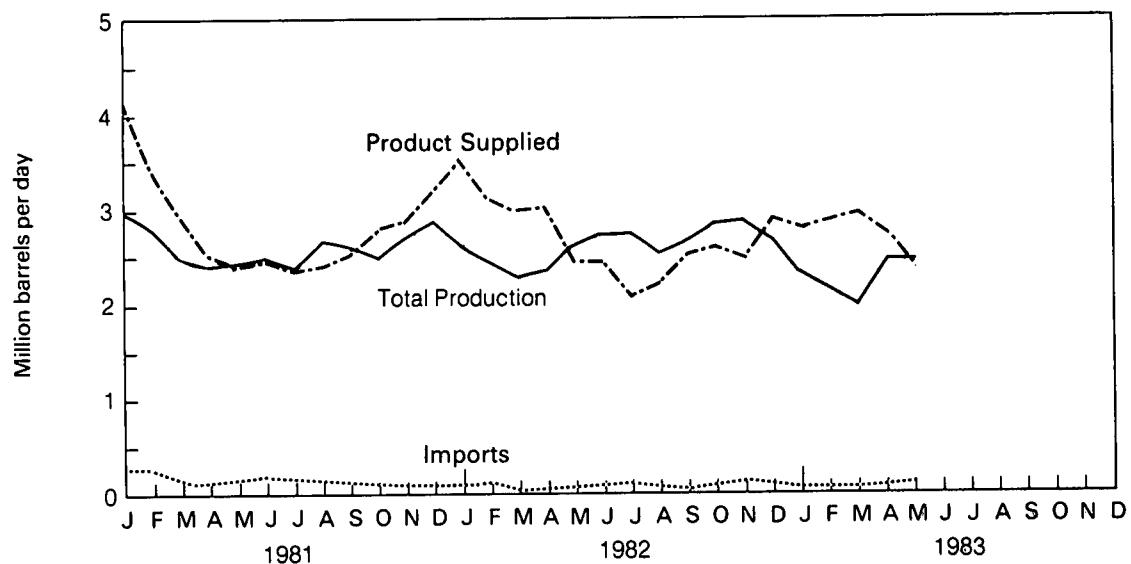
• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—224; 1980—205; and 1982—186. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

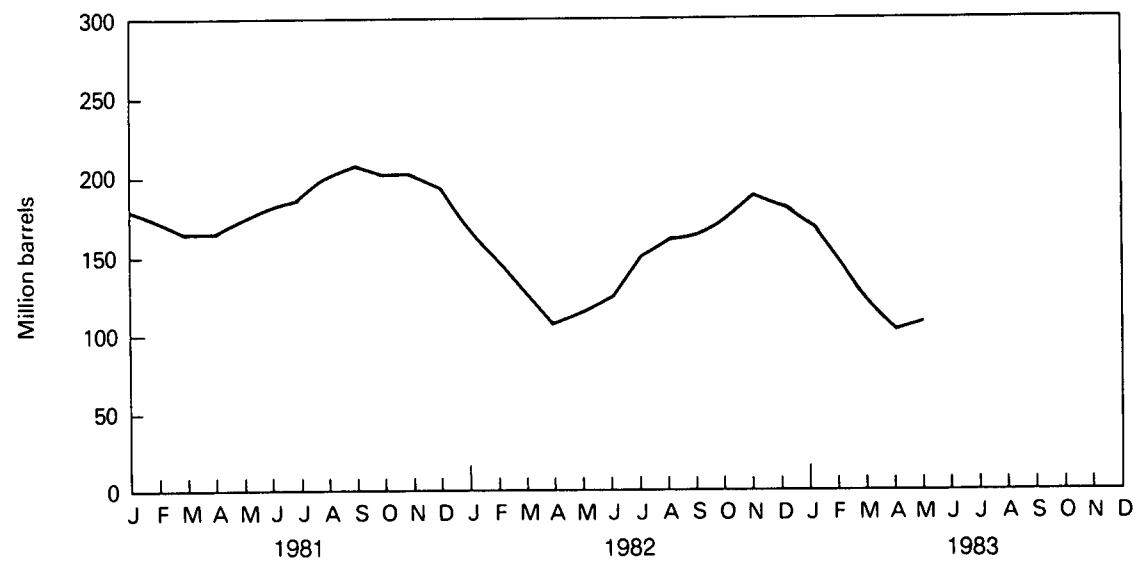
## Petroleum

### Distillate Fuel Oil

#### Product Supplied, Total Production, and Imports



#### Stocks



# Petroleum

## Residual Fuel Oil Supply and Disposition

|      |           | Supply                   |         |                               | Disposition                      |         | Ending Stocks <sup>1</sup><br>Million barrels |     |
|------|-----------|--------------------------|---------|-------------------------------|----------------------------------|---------|---|-----|
|      |           | Total Production         | Imports | Stock Withdrawal <sup>2</sup> | Crude Used Directly <sup>3</sup> | Exports |   |     |
|      |           | Thousand barrels per day |         |                               |                                  |         |   |     |
| 1973 | AVERAGE   | 971                      | 1,853   | 5                             | 17                               | 23      | 2,822   | 53  |
| 1974 | AVERAGE   | 1,070                    | 1,587   | -17                           | 13                               | 14      | 2,639   | 60  |
| 1975 | AVERAGE   | 1,235                    | 1,223   | 2                             | 15                               | 15      | 2,462   | 74  |
| 1976 | AVERAGE   | 1,377                    | 1,413   | 5                             | 17                               | 12      | 2,801   | 72  |
| 1977 | AVERAGE   | 1,754                    | 1,359   | -48                           | 13                               | 6       | 3,071   | 90  |
| 1978 | AVERAGE   | 1,667                    | 1,355   | -1                            | 13                               | 13      | 3,023   | 90  |
| 1979 | AVERAGE   | 1,687                    | 1,151   | -15                           | 12                               | 9       | 2,826   | 96  |
| 1980 | AVERAGE   | 1,580                    | 939     | 10                            | 12                               | 33      | 2,508   | 92  |
| 1981 | January   | 1,612                    | 1,015   | 302                           | 32                               | 65      | 2,896   | 82  |
|      | February  | 1,565                    | 954     | 150                           | 44                               | 125     | 2,588   | 78  |
|      | March     | 1,424                    | 699     | 100                           | 48                               | 145     | 2,126   | 75  |
|      | April     | 1,320                    | 584     | 66                            | 49                               | 151     | 1,868   | 73  |
|      | May       | 1,223                    | 741     | -170                          | 49                               | 25      | 1,817   | 78  |
|      | June      | 1,232                    | 540     | 291                           | 49                               | 76      | 2,037   | 69  |
|      | July      | 1,174                    | 830     | 2                             | 48                               | 82      | 1,971   | 69  |
|      | August    | 1,231                    | 819     | -179                          | 50                               | 69      | 1,852   | 75  |
|      | September | 1,292                    | 841     | -176                          | 51                               | 126     | 1,882   | 80  |
|      | October   | 1,238                    | 786     | 8                             | 54                               | 202     | 1,884   | 80  |
|      | November  | 1,227                    | 880     | -49                           | 53                               | 203     | 1,909   | 81  |
|      | December  | 1,329                    | 916     | 110                           | 52                               | 157     | 2,250   | 78  |
|      | AVERAGE   | 1,321                    | 800     | 37                            | 48                               | 118     | 2,088   |     |
| 1982 | January   | R1,235                   | R831    | R301                          | 53                               | 235     | R2,185  | R69 |
|      | February  | R1,186                   | R956    | R363                          | 53                               | 213     | R2,344  | 58  |
|      | March     | R1,123                   | R912    | R12                           | 53                               | 197     | R1,903  | R58 |
|      | April     | R1,166                   | R788    | R150                          | 52                               | 234     | R1,923  | 54  |
|      | May       | R1,128                   | R742    | R-172                         | 52                               | 191     | R1,560  | 59  |
|      | June      | R1,074                   | R652    | R-57                          | 50                               | 217     | R1,501  | 61  |
|      | July      | R1,028                   | R657    | R56                           | 49                               | 239     | R1,550  | 59  |
|      | August    | R965                     | R551    | R203                          | 47                               | 235     | R1,531  | 53  |
|      | September | R1,008                   | R872    | R-306                         | 44                               | 148     | R1,470  | 62  |
|      | October   | R955                     | R783    | R-57                          | 43                               | 234     | R1,490  | 64  |
|      | November  | 989                      | R837    | R-94                          | 43                               | 182     | R1,591  | 66  |
|      | December  | R989                     | 747     | R6                            | 43                               | 186     | R1,598  | 66  |
|      | AVERAGE   | R1,070                   | R776    | R32                           | 48                               | 209     | R1,716  |     |
| 1983 | January   | 935                      | 691     | 243                           | NA                               | 294     | 1,574   | 61  |
|      | February  | 857                      | 632     | 270                           | NA                               | 191     | 1,568   | 53  |
|      | March     | 833                      | 686     | 220                           | NA                               | 169     | 1,569   | 46  |
|      | April     | R942                     | R743    | R-10                          | NA                               | 310     | R1,364  | R47 |
|      | May†      | 1,002                    | 660     | -145                          | NA                               | NA      | 1,334   | 49  |
|      | AVERAGE   | 915                      | 683     | 113                           | NA                               | NA      | 1,481   |     |

<sup>1</sup>Stocks are totals as of end of period.

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup>Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly.

†Italics denote preliminary data. R = Revised data. NA = Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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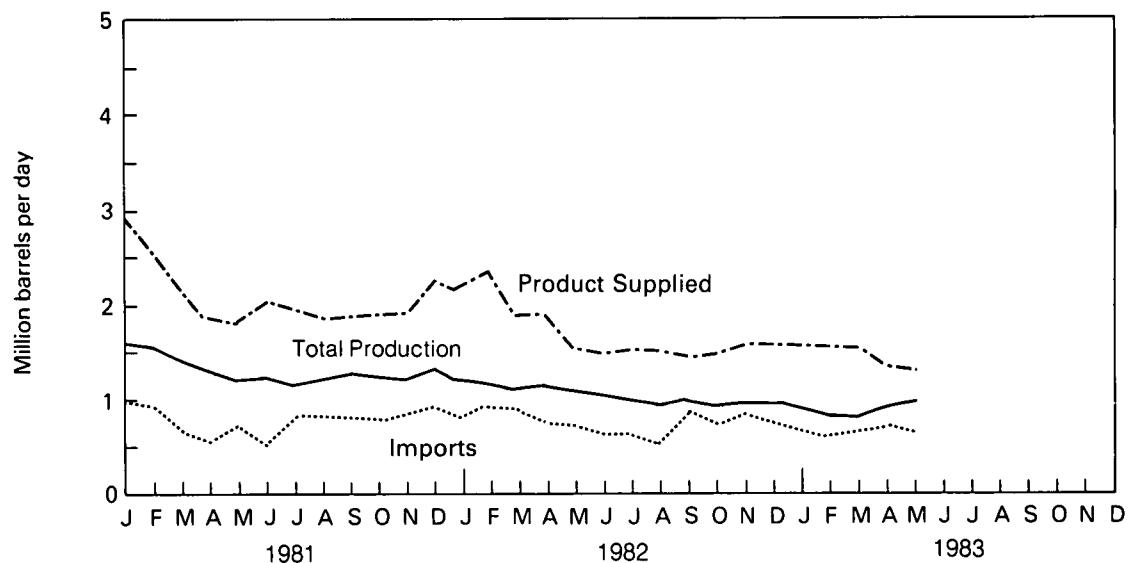
• In January 1975, 1981, and 1983 significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—75; 1980—91; and 1982—68. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

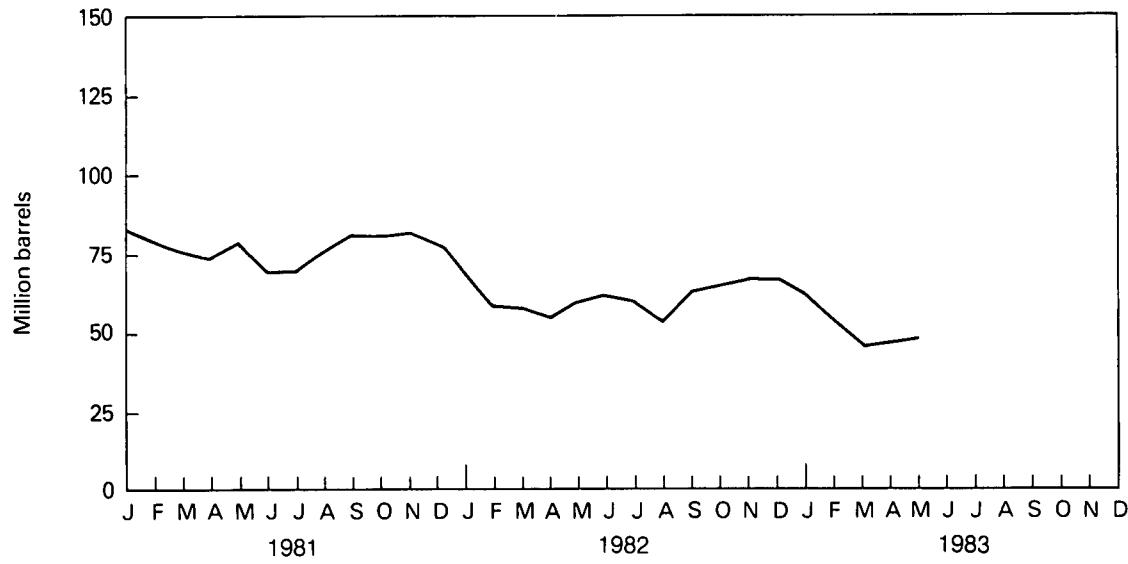
## Petroleum

### Residual Fuel Oil

#### Product Supplied, Total Production, and Imports



#### Stocks



# Petroleum

## Liquefied Petroleum Gases Supply and Disposition

|      |           | Supply                   |         |                               | Disposition     |         |                  | Ending Stocks <sup>1</sup> |
|------|-----------|--------------------------|---------|-------------------------------|-----------------|---------|------------------|----------------------------|
|      |           | Total Production         | Imports | Stock Withdrawal <sup>2</sup> | Refinery Inputs | Exports | Product Supplied |                            |
|      |           | Thousand barrels per day |         |                               |                 |         |                  | Million barrels            |
| 1973 | AVERAGE   | 1,600                    | 132     | -35                           | 220             | 27      | 1,449            | 99                         |
| 1974 | AVERAGE   | 1,565                    | 123     | -38                           | 220             | 25      | 1,406            | 113                        |
| 1975 | AVERAGE   | 1,527                    | 112     | -35                           | 246             | 26      | 1,333            | 125                        |
| 1976 | AVERAGE   | 1,535                    | 130     | 24                            | 260             | 25      | 1,404            | 116                        |
| 1977 | AVERAGE   | 1,566                    | 161     | -55                           | 233             | 18      | 1,422            | 136                        |
| 1978 | AVERAGE   | 1,537                    | 123     | 12                            | 239             | 20      | 1,413            | 132                        |
| 1979 | AVERAGE   | 1,556                    | 217     | 70                            | 236             | 15      | 1,592            | 111                        |
| 1980 | AVERAGE   | 1,535                    | 216     | -27                           | 233             | 21      | 1,469            | 120                        |
| 1981 | January   | 1,617                    | 306     | 363                           | 352             | 21      | 1,913            | 117                        |
|      | February  | 1,593                    | 327     | 173                           | 303             | 21      | 1,769            | 112                        |
|      | March     | 1,551                    | 260     | -4                            | 257             | 20      | 1,530            | 112                        |
|      | April     | 1,586                    | 214     | -236                          | 231             | 26      | 1,308            | 119                        |
|      | May       | 1,587                    | 189     | -258                          | 220             | 19      | 1,279            | 127                        |
|      | June      | 1,567                    | 206     | -208                          | 237             | 24      | 1,304            | 133                        |
|      | July      | 1,507                    | 213     | -258                          | 215             | 17      | 1,229            | 141                        |
|      | August    | 1,592                    | 195     | -242                          | 235             | 149     | 1,160            | 149                        |
|      | September | 1,622                    | 199     | -75                           | 287             | 21      | 1,438            | 151                        |
|      | October   | 1,593                    | 287     | 72                            | 320             | 76      | 1,556            | 149                        |
|      | November  | 1,571                    | 280     | 86                            | 383             | 58      | 1,495            | 146                        |
|      | December  | 1,468                    | 255     | 379                           | 428             | 50      | 1,624            | 135                        |
|      | AVERAGE   | 1,571                    | 244     | -18                           | 289             | 42      | 1,466            |                            |
| 1982 | January   | R1,565                   | 314     | R443                          | R391            | 67      | R1,863           | R121                       |
|      | February  | R1,466                   | 291     | R243                          | 327             | 51      | R1,621           | 114                        |
|      | March     | R1,544                   | 223     | R211                          | 289             | 74      | R1,615           | R108                       |
|      | April     | R1,506                   | 188     | R98                           | 257             | 77      | R1,458           | R105                       |
|      | May       | R1,565                   | 186     | R-71                          | R234            | 43      | R1,403           | R107                       |
|      | June      | R1,515                   | 192     | R-86                          | 262             | 106     | R1,254           | R109                       |
|      | July      | R1,476                   | 227     | R-13                          | 253             | 37      | R1,399           | R110                       |
|      | August    | R1,511                   | 125     | R-45                          | 254             | 61      | R1,276           | R111                       |
|      | September | R1,538                   | 247     | R37                           | R274            | 85      | R1,463           | R110                       |
|      | October   | R1,517                   | 194     | R97                           | 306             | 81      | R1,421           | R107                       |
|      | November  | R1,542                   | 267     | R175                          | R363            | 37      | R1,583           | R102                       |
|      | December  | R1,580                   | 258     | R256                          | 395             | 56      | R1,642           | R94                        |
|      | AVERAGE   | R1,528                   | R226    | R111                          | R300            | 65      | R1,499           |                            |
| 1983 | January   | 1,662                    | 240     | 618                           | 313             | 118     | 2,088            | 84                         |
|      | February  | 1,560                    | 305     | 84                            | 237             | 76      | 1,636            | 81                         |
|      | March     | 1,517                    | 166     | -51                           | 189             | 127     | 1,316            | 83                         |
|      | April     | 1,531                    | 124     | -107                          | 198             | 116     | 1,232            | 86                         |
|      | AVERAGE   | 1,568                    | 207     | 139                           | 234             | 110     | 1,569            |                            |

<sup>1</sup>Stocks are totals as of end of period.

<sup>2</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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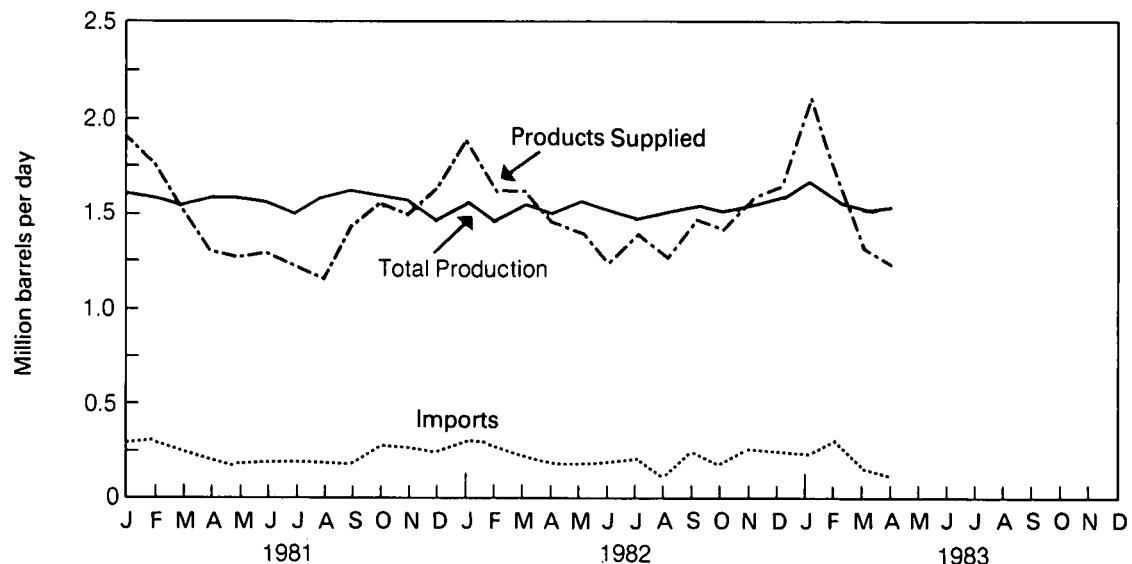
• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—113; 1980—128; and 1982—103. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

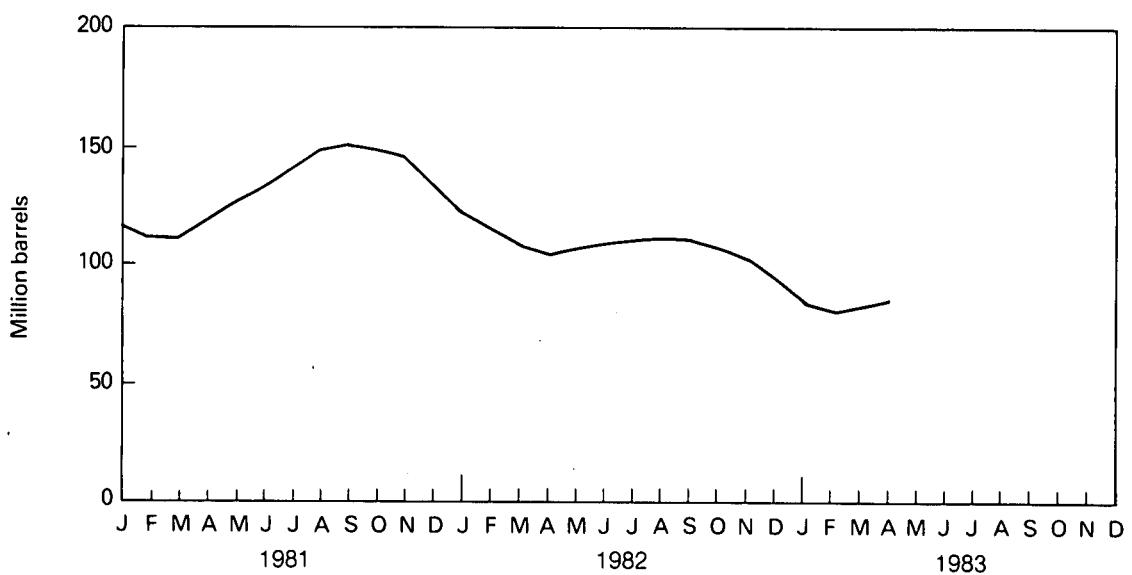
# Petroleum

## **Liquefied Petroleum Gases and Ethane**

## **Product Supplied, Total Production, and Imports**



## **Stocks**



# Petroleum

## Other Petroleum Products<sup>1</sup> Supply and Disposition

|      |           | Supply                   |         |                               | Disposition     |         |                  | Ending Stocks <sup>2</sup><br>Million barrels |
|------|-----------|--------------------------|---------|-------------------------------|-----------------|---------|------------------|---|
|      |           | Total Production         | Imports | Stock Withdrawal <sup>3</sup> | Refinery Inputs | Exports | Product Supplied |   |
|      |           | Thousand barrels per day |         |                               |                 |         |                  |   |
| 1973 | AVERAGE   | 3,693                    | 502     | -9                            | 750             | 166     | 3,270            | 208   |
| 1974 | AVERAGE   | 3,558                    | 432     | -28                           | 665             | 174     | 3,123            | 218   |
| 1975 | AVERAGE   | 3,424                    | 277     | -2                            | 537             | 160     | 3,002            | 219   |
| 1976 | AVERAGE   | 3,643                    | 206     | -5                            | 524             | 175     | 3,145            | 220   |
| 1977 | AVERAGE   | 3,912                    | 205     | -27                           | 514             | 165     | 3,410            | 230   |
| 1978 | AVERAGE   | 4,046                    | 166     | 14                            | 492             | 167     | 3,568            | 225   |
| 1979 | AVERAGE   | 4,153                    | 195     | -37                           | 352             | 209     | 3,749            | 238   |
| 1980 | AVERAGE   | 3,956                    | 210     | -23                           | 311             | 198     | 3,634            | 247   |
| 1981 | January   | 3,821                    | 162     | 80                            | 851             | 132     | 3,081            | 296   |
|      | February  | 3,723                    | 182     | -200                          | 538             | 208     | 2,958            | 302   |
|      | March     | 3,722                    | 230     | -55                           | 642             | 210     | 3,043            | 304   |
|      | April     | 3,711                    | 230     | 24                            | 733             | 192     | 3,040            | 303   |
|      | May       | 3,892                    | 229     | -58                           | 594             | 238     | 3,231            | 305   |
|      | June      | 3,925                    | 218     | -29                           | 656             | 197     | 3,261            | 306   |
|      | July      | 3,852                    | 149     | 284                           | 791             | 212     | 3,282            | 297   |
|      | August    | 3,876                    | 276     | -33                           | 676             | 219     | 3,225            | 298   |
|      | September | 3,718                    | 286     | 215                           | 883             | 176     | 3,159            | 291   |
|      | October   | 3,503                    | 241     | 193                           | 710             | 227     | 3,000            | 285   |
|      | November  | 3,579                    | 262     | 33                            | 784             | 154     | 2,935            | 284   |
|      | December  | 3,543                    | 243     | 71                            | 805             | 223     | 2,829            | 282   |
|      | AVERAGE   | 3,739                    | 226     | 46                            | 723             | 199     | 3,088            |   |
| 1982 | January   | R3,171                   | R269    | R-7                           | R624            | 180     | R2,631           | R282  |
|      | February  | R3,403                   | R305    | R-153                         | R663            | 138     | R2,755           | 287   |
|      | March     | R3,466                   | R243    | R-191                         | R725            | 161     | R2,631           | R293  |
|      | April     | R3,408                   | R309    | R73                           | R796            | 204     | R2,790           | R290  |
|      | May       | R3,317                   | R318    | R184                          | R824            | 210     | R2,785           | 285   |
|      | June      | R3,547                   | 315     | R123                          | R812            | 216     | R2,954           | 281   |
|      | July      | R3,660                   | R408    | R-1                           | R856            | 187     | R3,023           | 281   |
|      | August    | R3,583                   | R346    | R217                          | R743            | 202     | R3,201           | R274  |
|      | September | R3,533                   | R375    | R105                          | R749            | 213     | R3,051           | 271   |
|      | October   | R3,529                   | R383    | R244                          | R915            | 266     | R2,976           | 264   |
|      | November  | R3,498                   | R423    | R-28                          | R837            | 269     | R2,786           | 264   |
|      | December  | R3,324                   | R313    | R366                          | R885            | 275     | R2,842           | 253   |
|      | AVERAGE   | R3,453                   | R334    | R80                           | R787            | 211     | R2,869           |   |
| 1983 | January   | 3,222                    | 297     | -371                          | 570             | 271     | 2,307            | 271   |
|      | February  | 3,270                    | 287     | -1                            | 680             | 232     | 2,645            | 271   |
|      | March     | 3,400                    | 298     | -94                           | 570             | 249     | 2,786            | 273   |
|      | April     | 3,363                    | 377     | 3                             | 596             | 247     | 2,901            | 273   |
|      | AVERAGE   | 3,314                    | 315     | -120                          | 602             | 250     | 2,658            |   |

<sup>1</sup>Includes natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and ethane.

<sup>2</sup>Stocks are totals as of end of period.

<sup>3</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

• In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end-of-year stocks would be: 1974—220; 1980—249; and 1982—259. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Sources: • See the last page of this section.

## Notes and Sources for the Petroleum Section

### Notes

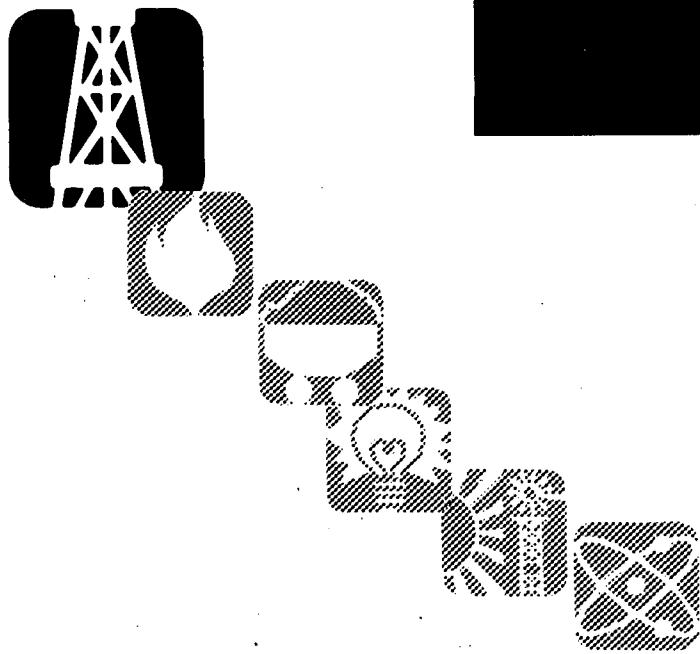
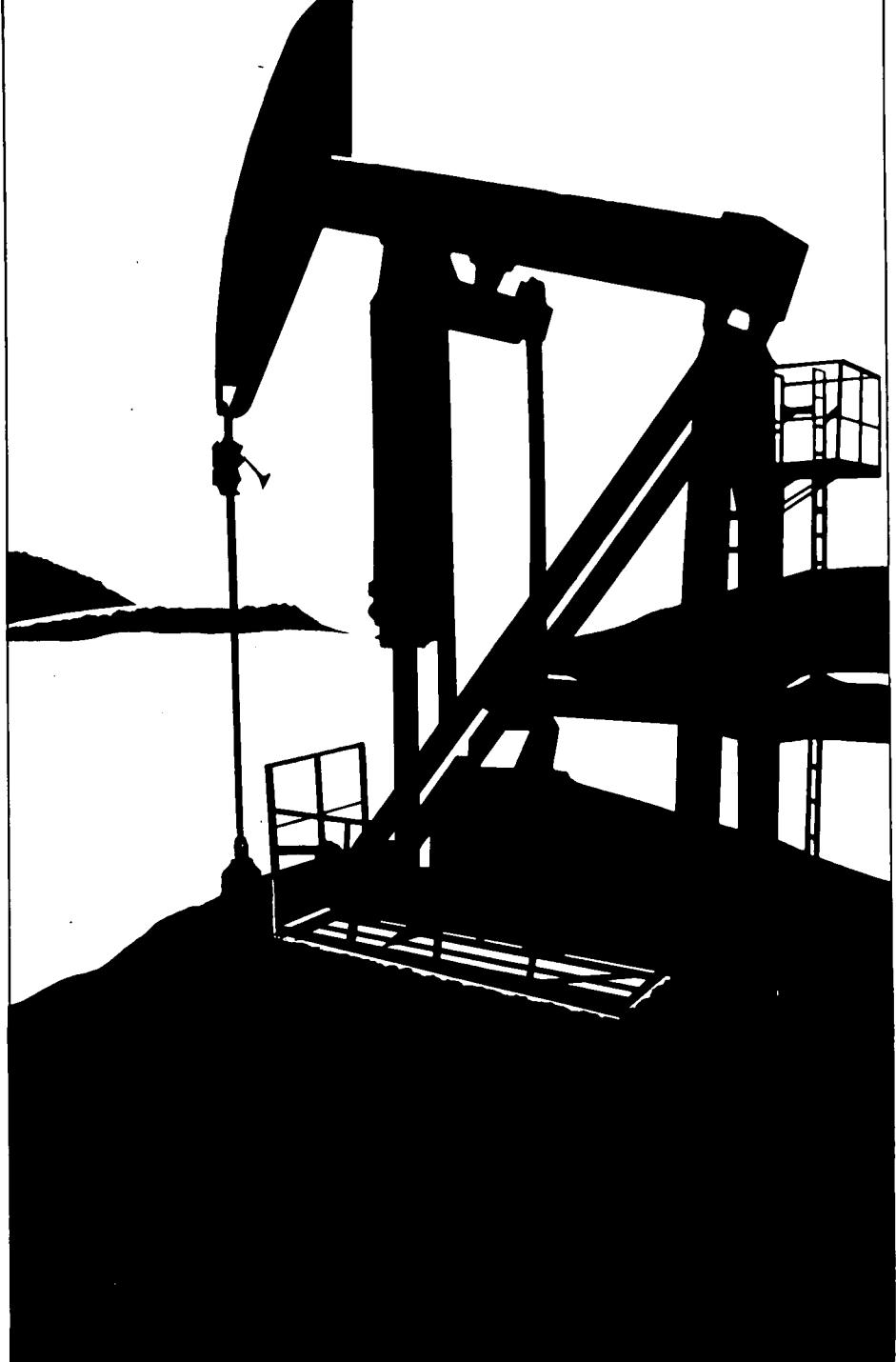
1. During 1981 the listing (frame) of operators of all facilities required to complete each monthly survey was updated. The refinery frame was found to be complete and accurate, although the frames for bulk terminals, pipelines, and crude oil stocks facilities were found to be outdated. A variety of sources (published directories, listings, and exploratory surveys) were researched for potential new respondents. As a result of this research, a significant number of respondents were added to the frames. The increase in the respondents for the frames affects the stocks of crude oil and petroleum products. For further details see the Energy Information Administration (EIA), *Petroleum Supply Monthly*.
2. Research conducted by the EIA in the latter half of 1980 indicated changes had taken place in the petroleum industry that were not being adequately reflected in the EIA survey forms. First, the flows of unfinished oils and the redesignation of finished products were not being accurately described on the EIA survey forms. Second, a substantial amount of motor gasoline was being produced at non-refinery "downstream blending stations" but was not being reported. Although empirical information is not available to precisely measure the historical effects, estimates of the magnitude of the differences in the major series affected are shown in the EIA, *Petroleum Supply Monthly*. Beginning in January 1981, the EIA modified its survey forms, changed definitions of gasoline (motor and aviation), and added the non-refinery blenders previously not reported.
3. **Motor Gasoline:** Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately. For further details, see the EIA *Petroleum Supply Monthly*.
4. **Distillate and Residual Fuel Oils:** The requirement to report crude oil burned on leases and pipelines as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils number typically exceeded the number for available supply of unfinished oils. This was assumed to be due to the redesignation of distillate and residual fuel oils received as such, but used as an unfinished oil input by the receiving refinery. This imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of this difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment. For further details, see the EIA *Petroleum Supply Monthly*.

### Sources

- 1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual" (except unleaded gasoline) and "PAD Districts Supply/Demand, Annual."
- Unleaded gasoline—1977 through 1980: Energy Information Administration (EIA), *Monthly Petroleum Statistics Report*.
- 1977 through 1982: EIA, *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
- January 1983 through April 1983: EIA, *Petroleum Supply Monthly*.
- 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*, the *Petroleum Supply Monthly*, 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).

# **Explore the Future of Petroleum Supply Information**

**...with the Energy  
Information  
Administration**



**Wednesday, August 24, 1983**

**8 A.M. - 3:30 P.M.**

**KEY BRIDGE MARRIOTT HOTEL  
Arlington, Virginia**

# **Energy Information Administration**

## **Symposium on Petroleum Supply Information**

**Wednesday, August 24, 1983**

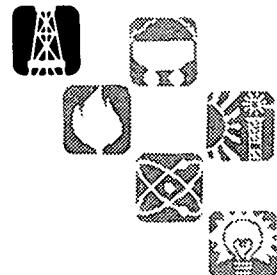
**8 a.m. - 3:30 p.m.**

**KEY BRIDGE MARRIOTT HOTEL**  
**Arlington, Virginia**

### **Keynote Address**

#### **"Energy Issues Facing the U.S.: A Policy Perspective"**

Danny J. Boggs, Special Assistant  
to the President for Energy,  
Natural Resources, Environment  
and Agriculture



### **Opening Remarks**

J. Erich Evered,  
Administrator  
Energy Information  
Administration



### **"Petroleum Supply Division Activities: Present and Future"**

Frank E. Lalley, Director  
Petroleum Supply Division  
Energy Information  
Administration

## **Morning Sessions**

### **Session 1**

**10:20-11:50 a.m.**

#### **World Economic Changes and U.S. Oil Supply**

Chairman: Jimmie L. Petersen, Director,  
Office of Oil and Gas, EIA

- "Trends in Refinery Capacity and Utilization (Results of 1983 EIA Refinery Survey)." Elizabeth Campbell, Economist, Petroleum Supply Division, EIA
- "World Oil Price and Inventory Cycles." Dr. John L. Moore, Deputy Area Manager, Applied Management Sciences
- "Minimum Operating Inventories for Gasoline, Distillate Fuel Oil and Residual Fuel Oil." Richard D. Farmer, Economist, Petroleum Supply Division, EIA

Room A

### **Session 2**

**10:20-11:50 a.m.**

#### **Availability of EIA Petroleum Supply Information: Surveys, Systems and Publications**

Room B

Chairman: Dr. Barry M. Yaffe, Chief,  
Data Analysis and Support Branch, EIA

- "EIA Petroleum Supply Surveys: An Overview." Ronald W. O'Neill, Publications Branch, Petroleum Supply Division, EIA
- "Systems Improvements: The Integrated Petroleum Supply Data Base." Robert Lesko, Vice President, Technology and Information Systems, Applied Management Sciences
- "New Data and Information Services." John Daniels, Director, National Energy Information Center, EIA

# Afternoon Sessions

## Session 3

1:30-3:30 p.m.

### Current Petroleum Supply Situation and Outlook

Chairman: Dr. Wray Smith, Director,  
Office of Energy Markets and End Use, EIA

- "The Current Petroleum Situation: Expectations for Fall and Winter 1983/84." Albert H. Linden, Jr., Deputy Administrator, EIA
- "Outlook for World Crude Oil Prices." Calvin W. Kilgore, Acting Director, Short-Term Information, EIA
- "The Outlook for Transportation Fuels." Dr. David Green, Group Leader, Transportation Energy Group, Oak Ridge National Laboratory
- "Intermediate Term Petroleum Projections." Dr. John Pearson, Director, Longer-Term Information, EIA

Room A

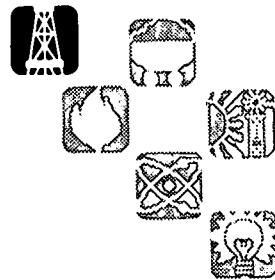
## Session 4

1:30-3:30 p.m.

### Petroleum Supply Data: Scope and Quality Room B

Chairman: Dr. Yvonne M. Bishop, Director,  
Office of Statistical Standards, EIA

- "Accuracy of Petroleum Supply Data." Dr. Nancy Kirkendall, Statistician, Petroleum Supply Division, EIA
- "Advances in Quality Control in PSD Data." Dr. Lawrence A. Thibodeau, Deputy Area Manager, Applied Management Sciences
- "Liquefied Petroleum Gas Reporting." Gary Oleson, Statistician, Petroleum Supply Division, EIA
- "Statistical Design of the Weekly Petroleum Status Report." Dr. Eugene Burns and Yahia Ahmed, Statisticians, Petroleum Supply Division, EIA



**There is no charge for attendance. However, because of space limitations, reservations are required and requests will be honored on an "as received" basis.**

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I want to attend the symposium on Petroleum Supply Information  
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## Natural Gas

Total dry natural gas production, including nonhydrocarbon gases, in the United States during May 1983 was an estimated 1.4 trillion cubic feet (Tcf). This was 8.9 percent lower than in May 1982. Output during the first 5 months of 1983 totaled 6.9 Tcf, 11.8 percent less than during the period January through May 1982.

Consumption of natural and supplemental gas in May 1983 was an estimated 1.2 Tcf, 7.3 percent higher than in May 1982. Estimated consumption during the period January through May 1983 totaled 8.0 Tcf, 8.9 percent lower than during the comparable 1982 period.

Imports of natural gas in May 1983 were an estimated 56 billion cubic feet (Bcf), 13.8 percent lower than in the previous May. During the first 5 months of 1983, imports of natural gas totaled an estimated 445 Bcf, 10.7 percent higher than during the comparable 1982 period. Receipts of foreign gas during May 1983 included Algerian liquefied natural gas (LNG) equivalent to approximately 11 Bcf.

Domestic producer sales to major interstate pipelines in April 1983 (latest data available) totaled 678 Bcf, 20.5 percent lower than during the previous April. Total sales during the first 4 months of 1983 were 3.0 Tcf, 18.5 percent less than during the comparable 1982 period.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of May 1983 totaled 2.2 Tcf. This was 8.9 percent above stocks available a year earlier. Net additions to storage during May 1983 were 149 Bcf, 59.6 percent lower than during the previous May.

\*Gas available for withdrawal.

# Natural Gas

| Production         |                             |                        |                               |                            |   |         |         | Domestic Producer Sales to Major Interstate Pipelines |        |
|--------------------|-----------------------------|------------------------|-------------------------------|----------------------------|---|---------|---------|---|--------|
|                    | Total Marketed <sup>1</sup> | Total Dry <sup>2</sup> | Nonhydro-carbon Gases Removed | Supplemental Gaseous Fuels | Total Domestic Consumption <sup>3</sup> | Imports | Exports |   |        |
| Billion cubic feet |                             |                        |                               |                            |   |         |         |   |        |
| 1973               | TOTAL                       | 22,648                 | 21,731                        | NA                         | NA                                      | 22,049  | 1,033   | 77  | 12,067 |
| 1974               | TOTAL                       | 21,601                 | 20,713                        | NA                         | NA                                      | 21,223  | 959     | 77  | 11,462 |
| 1975               | TOTAL                       | 20,109                 | 19,236                        | NA                         | NA                                      | 19,538  | 953     | 73  | 10,652 |
| 1976               | TOTAL                       | 19,952                 | 19,098                        | NA                         | NA                                      | 19,946  | 964     | 65  | 10,140 |
| 1977               | TOTAL                       | 20,025                 | 19,163                        | NA                         | NA                                      | 19,521  | 1,011   | 56  | 9,883  |
| 1978               | TOTAL                       | 19,974                 | 19,122                        | NA                         | NA                                      | 19,627  | 966     | 53  | 9,911  |
| 1979               | TOTAL                       | 20,471                 | 19,663                        | NA                         | NA                                      | 20,241  | 1,253   | 56  | 10,496 |
| 1980               | TOTAL                       | 20,379                 | 19,602                        | 195                        | 155                                     | 19,877  | 985     | 49  | 10,578 |
| 1981               | January                     | 1,772                  | 1,704                         | 20                         | 20                                      | 2,279   | 91      | 5   | 962    |
|                    | February                    | 1,591                  | 1,530                         | 17                         | 17                                      | 1,894   | 85      | 5   | 869    |
|                    | March                       | 1,753                  | 1,686                         | 18                         | 17                                      | 1,900   | 80      | 5   | 942    |
|                    | April                       | 1,692                  | 1,627                         | 17                         | 14                                      | 1,489   | 69      | 5   | 900    |
|                    | May                         | 1,716                  | 1,650                         | 18                         | 13                                      | 1,426   | 62      | 4   | 909    |
|                    | June                        | 1,653                  | 1,590                         | 19                         | 12                                      | 1,309   | 65      | 5   | 877    |
|                    | July                        | 1,683                  | 1,618                         | 20                         | 12                                      | 1,315   | 66      | 5   | 889    |
|                    | August                      | 1,724                  | 1,658                         | 18                         | 12                                      | 1,314   | 64      | 5   | 864    |
|                    | September                   | 1,595                  | 1,534                         | 18                         | 12                                      | 1,266   | 67      | 6   | 869    |
|                    | October                     | 1,660                  | 1,596                         | 17                         | 14                                      | 1,518   | 79      | 5   | 889    |
|                    | November                    | 1,600                  | 1,539                         | 17                         | 15                                      | 1,619   | 82      | 5   | 904    |
|                    | December                    | 1,738                  | 1,671                         | 19                         | 19                                      | 2,077   | 93      | 5   | 1,055  |
|                    | TOTAL                       | 20,178                 | 19,403                        | 217                        | 176                                     | 19,404  | 904     | 59  | 10,929 |
| 1982               | January                     | 1,725                  | 1,659                         | 18                         | 21                                      | R2,363  | R98     | R3  | 969    |
|                    | February                    | 1,583                  | 1,522                         | 18                         | R17                                     | R1,957  | R85     | 5   | 901    |
|                    | March                       | 1,670                  | 1,606                         | 18                         | 16                                      | R1,815  | R82     | 5   | 909    |
|                    | April                       | 1,575                  | 1,515                         | 17                         | 13                                      | R1,468  | R72     | R2  | 853    |
|                    | May                         | 1,547                  | 1,488                         | 16                         | R10                                     | R1,135  | R65     | R3  | 889    |
|                    | June                        | 1,500                  | 1,442                         | 15                         | 10                                      | R1,113  | R61     | R6  | 814    |
|                    | July                        | 1,520                  | 1,462                         | 15                         | R10                                     | R1,142  | 67      | 5   | 787    |
|                    | August                      | 1,488                  | 1,431                         | 17                         | R10                                     | R1,147  | R61     | R6  | 793    |
|                    | September                   | 1,426                  | 1,371                         | 15                         | R10                                     | R1,139  | R66     | 5   | 753    |
|                    | October                     | 1,453                  | 1,397                         | 15                         | 12                                      | R1,300  | R77     | 5   | 765    |
|                    | November                    | 1,468                  | 1,412                         | 17                         | 14                                      | R1,537  | R91     | R5  | 801    |
|                    | December                    | 1,506                  | 1,448                         | 18                         | 15                                      | 1,714   | R110    | R5  | 834    |
|                    | TOTAL                       | 18,462                 | 17,753                        | 199                        | R158                                    | R17,831 | R933    | R52   | 10,068 |
| 1983               | January                     | 1,523                  | 1,465                         | 18                         | R17                                     | R1,961  | 120     | 5   | 782    |
|                    | February                    | R1,377                 | R1,324                        | 16                         | 15                                      | R1,684  | 102     | 5   | 762    |
|                    | March                       | R1,449                 | R1,393                        | R17                        | R14                                     | R1,642  | 91      | 5   | 738    |
|                    | April                       | R1,387                 | R1,334                        | R17                        | 13                                      | R1,452  | 76      | 4   | 678    |
|                    | May                         | 1,409                  | 1,355                         | 17                         | 11                                      | 1,218   | 56      | 3   | NA     |

<sup>1</sup>Includes nonhydrocarbon gases removed such as carbon dioxide, hydrogen sulfide, helium, and nitrogen. See Note 1 on the last page of this section.

<sup>2</sup>Total net dry marketed production is the volume of total marketed production, including nonhydrocarbon gases, remaining after the extraction of natural gas plant liquids, such as ethane, propane, butanes, etc. See Note 1 on the last page of this section.

<sup>3</sup>Includes supplemental gaseous fuels such as synthetic natural gas, propane-air, and refinery (still) gas normally mixed with natural gas prior to consumption. See Note 1 on the last page of this section.

R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

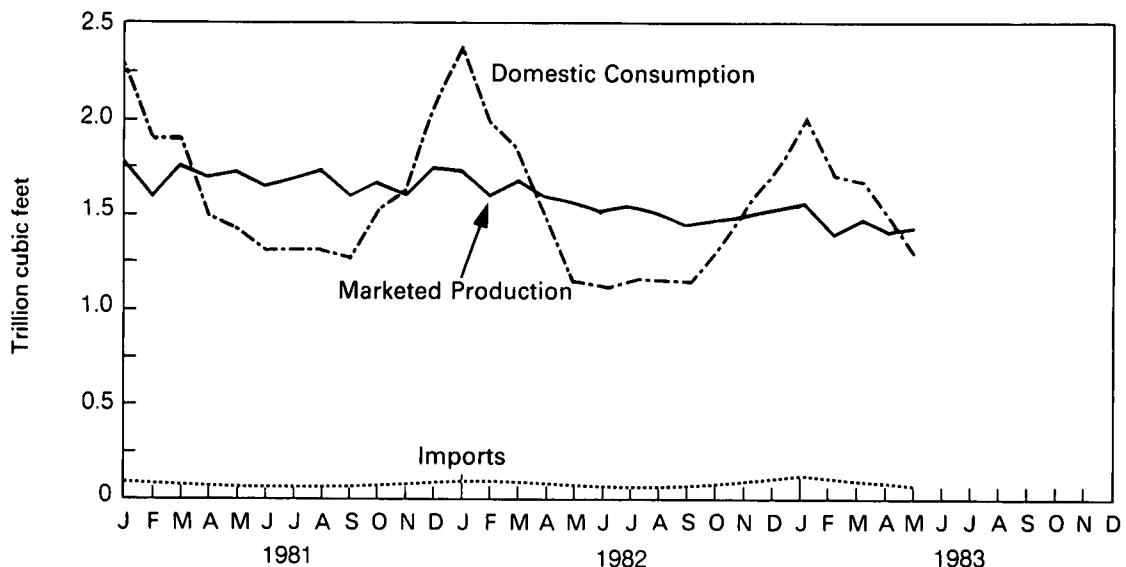
• Totals may not equal sum of components due to independent rounding.

• Estimated data are in italics and are likely to be revised.

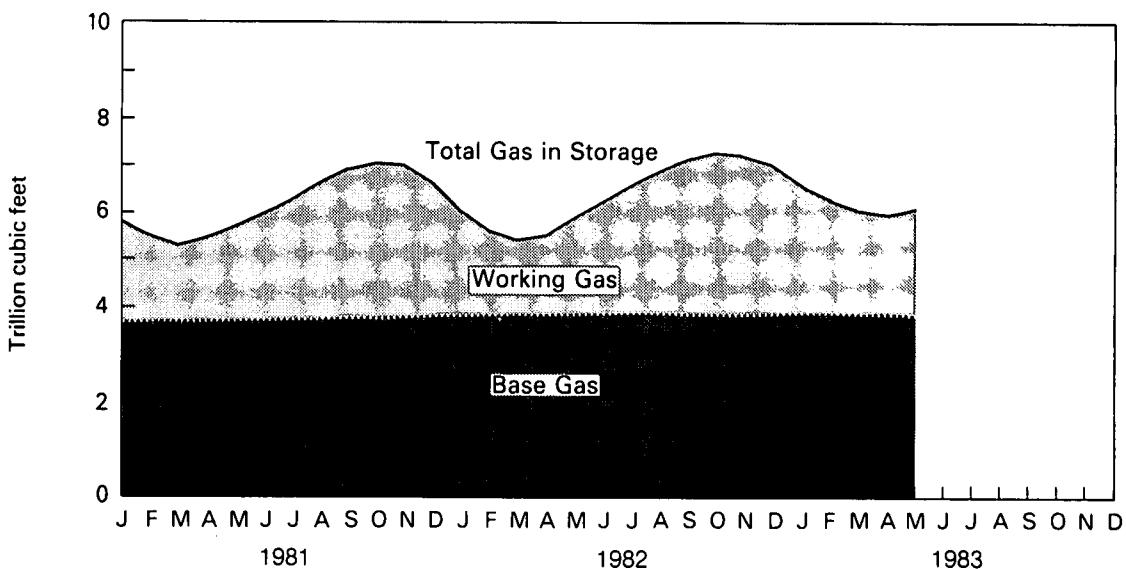
Sources: • See the last page of this section.

## Natural Gas

### Domestic Consumption, Marketed Production, and Imports



### Gas in Storage



# Natural Gas

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

|                    |           | Total Gas<br>In<br>Storage <sup>2</sup> | Base<br>Gas <sup>2</sup> | Working<br>Gas <sup>2</sup> | Storage<br>Injections | Storage<br>Withdrawals | Net<br>Storage<br>Injections <sup>3</sup> |
|--------------------|-----------|---|--------------------------|-----------------------------|-----------------------|------------------------|---|
| Billion cubic feet |           |   |                          |                             |                       |                        |   |
| 1973               | TOTAL     | 4,898                                   | 2,864                    | 2,034                       | NA                    | NA                     | NA  |
| 1974               | TOTAL     | 4,962                                   | 2,912                    | 2,050                       | NA                    | NA                     | NA  |
| 1975               | TOTAL     | 5,374                                   | 3,162                    | 2,212                       | NA                    | NA                     | NA  |
| 1976               | TOTAL     | 5,250                                   | 3,323                    | 1,926                       | 1,960                 | 2,114                  | (154)                                     |
| 1977               | TOTAL     | 5,866                                   | 3,391                    | 2,475                       | 2,401                 | 1,773                  | 628                                       |
| 1978               | TOTAL     | 6,020                                   | 3,473                    | 2,547                       | 2,338                 | 2,186                  | 151                                       |
| 1979               | TOTAL     | 6,306                                   | 3,553                    | 2,753                       | 2,370                 | 2,044                  | 327                                       |
| 1980               | TOTAL     | 6,297                                   | 3,642                    | 2,655                       | 1,898                 | 1,911                  | (13)                                      |
| 1981               | January   | 5,795                                   | 3,642                    | 2,152                       | 37                    | 558                    | (521)                                     |
|                    | February  | 5,472                                   | 3,648                    | 1,824                       | 59                    | 376                    | (317)                                     |
|                    | March     | 5,285                                   | 3,654                    | 1,631                       | 55                    | 234                    | (179)                                     |
|                    | April     | 5,434                                   | 3,670                    | 1,764                       | 208                   | 55                     | 153                                       |
|                    | May       | 5,660                                   | 3,684                    | 1,977                       | 255                   | 26                     | 228                                       |
|                    | June      | 5,933                                   | 3,681                    | 2,252                       | 314                   | 27                     | 287                                       |
|                    | July      | 6,205                                   | 3,649                    | 2,556                       | 335                   | 26                     | 309                                       |
|                    | August    | 6,595                                   | 3,713                    | 2,882                       | 361                   | 15                     | 346                                       |
|                    | September | 6,872                                   | 3,720                    | 3,152                       | 287                   | 9                      | 277                                       |
|                    | October   | 6,974                                   | 3,726                    | 3,247                       | 155                   | 50                     | 104                                       |
|                    | November  | 6,931                                   | 3,731                    | 3,200                       | 80                    | 124                    | (44)                                      |
|                    | December  | 6,568                                   | 3,752                    | 2,815                       | 34                    | 387                    | (353)                                     |
| 1982               | January   | 5,932                                   | 3,751                    | 2,181                       | 24                    | 673                    | (648)                                     |
|                    | February  | 5,536                                   | 3,750                    | 1,786                       | 50                    | 446                    | (396)                                     |
|                    | March     | 5,369                                   | 3,766                    | 1,603                       | 88                    | 264                    | (177)                                     |
|                    | April     | 5,452                                   | 3,777                    | 1,675                       | 180                   | 107                    | 73  |
|                    | May       | 5,813                                   | 3,780                    | 2,033                       | 380                   | 11                     | 369                                       |
|                    | June      | 6,146                                   | 3,777                    | 2,368                       | 350                   | 11                     | 339                                       |
|                    | July      | 6,485                                   | 3,779                    | 2,706                       | 351                   | 12                     | 339                                       |
|                    | August    | 6,781                                   | 3,780                    | 3,001                       | 328                   | 33                     | 295                                       |
|                    | September | 7,032                                   | 3,782                    | 3,251                       | 271                   | 19                     | 251                                       |
|                    | October   | 7,147                                   | 3,785                    | 3,362                       | 188                   | 59                     | 128                                       |
|                    | November  | 7,079                                   | 3,770                    | 3,309                       | 81                    | 160                    | (80)                                      |
|                    | December  | 6,877                                   | 3,805                    | 3,072                       | 87                    | 289                    | (202)                                     |
| 1983               | January   | 6,460                                   | 3,808                    | 2,651                       | 22                    | 443                    | (420)                                     |
|                    | February  | 6,165                                   | 3,813                    | 2,352                       | 37                    | 336                    | (299)                                     |
|                    | March     | 5,962                                   | 3,812                    | 2,150                       | 56                    | 258                    | (202)                                     |
|                    | April     | 5,877                                   | 3,812                    | 2,065                       | 79                    | 164                    | (85)                                      |
|                    | May       | 6,026                                   | 3,812                    | 2,214                       | 187                   | 38                     | 149                                       |

<sup>1</sup>See Note 2 on the last page of this section.

<sup>2</sup>Totals as of end of period.

<sup>3</sup>Net storage injections are storage injections minus storage withdrawals. Parentheses indicate withdrawals greater than injections.

NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • See the last page of this section.

## Notes and Sources for the Natural Gas Section

### Notes

1. Domestic consumption of natural gas includes quantities of gas delivered to consumers plus gas used for lease, plant, and pipeline fuel after natural gas liquids have been extracted. Delivered quantities include sizable amounts of supplemental gaseous fuels (synthetic natural gas, etc.) that are not quantified for 1979 and previous years. Beginning with January 1980, the amounts of supplemental gaseous fuels included in domestic consumption are provided.

Marketed production for 1979 and previous years represents gross withdrawals (full well-stream volume excluding lease condensate separated at the lease) less gas used for repressuring and quantities vented and flared. This definition includes the nonhydrocarbon gases subsequently removed. Beginning with January 1980 data, the marketed production series was expanded into two series. They both represent gross withdrawals less gas used for repressuring and quantities vented or flared. However, one series includes the nonhydrocarbon gases subsequently removed, and the other series excludes the nonhydrocarbon gases removed. For the purpose of maintaining a continuous series, those data that include the nonhydrocarbon gases subsequently removed are displayed as "Total Marketed" in this publication and the quantities of nonhydrocarbons subsequently removed are shown separately. Also for the purpose of maintaining a continuous series, the "Total Dry" displayed in this publication represents total marketed production including nonhydrocarbon gases subsequently removed less extraction loss due to removal of natural gas plant liquids.

2. 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 that 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.

### 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"; 1980 and 1981: EIA, *Natural Gas Annual*; January 1982 forward: EIA estimates based on a supply/disposition balance calculation.

**Domestic Production:** 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"; 1980 and 1981: EIA, *Natural Gas Annual*; January 1982 forward: State reports to the Interstate Oil Compact Commission, data from the U.S. Minerals Management Service, and EIA estimates for States that do not report monthly data on a regular or timely basis.

**Domestic Producer Sales:** EIA, FERC Form 11, "Natural Gas Pipeline Company Monthly Statement."

**Imports:** 1973 through 1982: EIA, FPC Form 14, "Imports and Exports of Natural Gas"; January 1983 forward: EIA estimates based on import data from FERC Form 11.

**Exports:** 1973 through 1982: EIA, FPC Form 14; January 1983 forward: EIA estimates based primarily on historical data reported on FPC Form 14.

**Underground Storage:** 1973 and 1974: American Gas Association, *Gas Facts*; 1975 through 1979: EIA, EIA Form 191 and FPC Form 8, "Underground Gas Storage Report"; 1980 forward: EIA, EIA Form 191, FPC Form 8, and *Natural Gas Annual*.

# Part 5

# Oil and Gas Resource Development

## Oil and Gas Resource Development

The May 1983 rotary rig count of 1,926 was 39.4 percent lower than the May 1982 count of 3,178, but represented the first month-to-month increase since December 1982. The 209 rigs operating offshore were 16.8 percent fewer than those working in May 1982.

In May 1983, the reported total wells drilled were 6,758, an 11.0-percent decrease from the 7,596 reported for May 1982. Oil well completions reported during May 1983 were 3,186, a 7.7-percent decrease from the comparable 1982 figure of 3,451. Gas well completions of 1,745 were reported for May 1983, a 10.1-percent decrease from 1982's comparable figure of 1,940. Total reported footage for May 1983 of 28.5 million feet decreased 22.8 percent from the May 1982 figure of 37.0 million feet.

In May 1983, 455 crews were engaged in seismic exploration, 25.7 percent fewer than during May 1982. The 455 crews continued the month-to-month increase that started in April 1983. The 416 land crews employed during May 1983 were 24.5 percent fewer than those reported during May 1982. The 39 marine vessels working during May 1983 were 36.1 percent fewer than those in May 1982.

# Oil and Gas Resource Development

|      |           | Rotary Rigs<br>in Operation <sup>1</sup> | Exploratory and Development<br>Wells Drilled <sup>2</sup> |        |        |        | Total Footage of<br>Wells Drilled <sup>2</sup> |         |
|------|-----------|--|---|--------|--------|--------|--|---------|
|      |           |  | Oil   | Gas    | Dry    | Total  |  |         |
|      |           | Monthly average                          |   |        |        |        | Thousand feet                                  |         |
| 1973 | AVERAGE   | 1,194                                    | TOTAL   | 9,902  | 6,385  | 10,305 | 26,592   | 136,391 |
| 1974 | AVERAGE   | 1,472                                    | TOTAL   | 12,784 | 7,240  | 11,674 | 31,698   | 150,551 |
| 1975 | AVERAGE   | 1,660                                    | TOTAL   | 16,408 | 7,580  | 13,247 | 37,235   | 174,434 |
| 1976 | AVERAGE   | 1,658                                    | TOTAL   | 17,059 | 9,085  | 13,621 | 39,765   | 181,780 |
| 1977 | AVERAGE   | 2,001                                    | TOTAL   | 18,912 | 11,378 | 14,692 | 44,982   | 210,848 |
| 1978 | AVERAGE   | 2,259                                    | TOTAL   | 17,775 | 13,064 | 16,218 | 47,057   | 227,110 |
| 1979 | AVERAGE   | 2,177                                    | TOTAL   | 19,383 | 14,681 | 15,752 | 49,816   | 238,659 |
| 1980 | AVERAGE   | 2,909                                    | TOTAL   | 27,026 | 15,730 | 18,089 | 60,845   | 284,461 |
| 1981 | January   | 3,386                                    |   | 1,794  | 964    | 1,339  | 4,097  | 19,907  |
|      | February  | 3,502                                    |   | 2,459  | 1,046  | 1,610  | 5,115  | 22,726  |
|      | March     | 3,595                                    |   | 3,099  | 1,423  | 1,883  | 6,405  | 30,166  |
|      | April     | 3,728                                    |   | 2,905  | 1,600  | 1,546  | 6,051  | 27,836  |
|      | May       | 3,816                                    |   | 2,604  | 1,159  | 1,675  | 5,438  | 24,842  |
|      | June      | 3,926                                    |   | 3,497  | 1,320  | 2,105  | 6,922  | 31,689  |
|      | July      | 3,998                                    |   | 2,790  | 1,116  | 1,698  | 5,604  | 25,542  |
|      | August    | 4,131                                    |   | 3,140  | 1,260  | 1,874  | 6,274  | 28,933  |
|      | September | 4,242                                    |   | 3,414  | 1,978  | 2,014  | 7,406  | 33,630  |
|      | October   | 4,352                                    |   | 3,772  | 1,879  | 2,099  | 7,750  | 35,520  |
|      | November  | 4,436                                    |   | 3,591  | 1,584  | 2,069  | 7,244  | 32,263  |
|      | December  | 4,520                                    |   | 4,619  | 2,586  | 3,078  | 10,283   | 48,594  |
|      | AVERAGE   | 3,970                                    | TOTAL   | 37,671 | 17,894 | 22,973 | 78,538   | 361,407 |
| 1982 | January   | 4,436                                    |   | 2,798  | 954    | 2,132  | 5,884  | 28,167  |
|      | February  | 4,160                                    |   | 3,036  | 1,430  | 2,234  | 6,700  | 31,985  |
|      | March     | 3,816                                    |   | 3,736  | 1,480  | 2,479  | 7,695  | 37,896  |
|      | April     | 3,460                                    |   | 3,674  | 1,530  | 2,287  | 7,491  | 36,439  |
|      | May       | 3,178                                    | R3,451  | R1,940 | R2,205 | R7,596 | R36,987  |         |
|      | June      | 2,908                                    |   | 3,899  | 1,892  | 2,524  | 8,315  | 39,008  |
|      | July      | 2,746                                    |   | 3,286  | 1,705  | 1,929  | 6,920  | 31,202  |
|      | August    | 2,620                                    |   | 2,848  | 1,575  | 1,903  | 6,326  | 28,556  |
|      | September | 2,482                                    |   | 3,360  | 1,592  | 2,331  | 7,283  | 32,538  |
|      | October   | 2,402                                    |   | 2,838  | 1,220  | 2,136  | 6,194  | 27,447  |
|      | November  | 2,500                                    |   | 3,282  | 1,662  | 2,020  | 6,964  | 31,141  |
|      | December  | 2,696                                    |   | 4,090  | 1,966  | 2,361  | 8,417  | 34,737  |
|      | AVERAGE   | 3,105                                    | TOTAL   | 40,298 | 18,953 | 26,549 | 85,800   | 396,017 |
| 1983 | January   | 2,622                                    |   | 2,381  | 892    | 1,651  | 4,924  | 20,998  |
|      | February  | 2,192                                    |   | 2,899  | 1,190  | 2,223  | 6,312  | 27,758  |
|      | March     | 2,003                                    |   | 3,462  | 1,606  | 2,644  | 7,712  | 34,360  |
|      | April     | 1,846                                    |   | 3,028  | 1,401  | 1,985  | 6,414  | 27,459  |
|      | May       | 1,926                                    |   | 3,186  | 1,745  | 1,827  | 6,758  | 28,544  |

<sup>1</sup>These data are for operating rotary rigs reported by the Hughes Tool Company during the reporting period. Monthly figures are averages of a 4- or 5-week reporting period and are not calendar months.

<sup>2</sup>These data are for wells drilled reported to the American Petroleum Institute (API) during the reporting period. They exclude service wells and stratigraphic and core tests. 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.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

• 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: 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 | AVERAGE   | 23                                   | 227     | 250   | 258,944                           | 127,160              | 386,104            |
| 1974 | AVERAGE   | 31                                   | 274     | 305   | 341,784                           | 158,629              | 500,413            |
| 1975 | AVERAGE   | 30                                   | 254     | 284   | 309,283                           | 150,694              | 459,977            |
| 1976 | AVERAGE   | 25                                   | 237     | 262   | 226,303                           | 142,926              | 369,229            |
| 1977 | AVERAGE   | 27                                   | 281     | 308   | 124,676                           | 120,072              | 244,748            |
| 1978 | AVERAGE   | 25                                   | 327     | 352   | 174,607                           | 135,899              | 310,506            |
| 1979 | AVERAGE   | 30                                   | 370     | 400   | 193,212                           | 163,929              | 357,141            |
| 1980 | AVERAGE   | 37                                   | 493     | 530   | 202,694                           | 184,088              | 386,782            |
| 1981 | January   | 38                                   | 553     | 591   |                                   |                      |                    |
|      | February  | 41                                   | 561     | 602   |                                   |                      |                    |
|      | March     | 40                                   | 570     | 610   |                                   |                      |                    |
|      | April     | 40                                   | 605     | 645   |                                   |                      |                    |
|      | May       | 42                                   | 619     | 661   |                                   |                      |                    |
|      | June      | 44                                   | 652     | 696   |                                   |                      |                    |
|      | July      | 43                                   | 668     | 711   |                                   |                      |                    |
|      | August    | 46                                   | 689     | 735   |                                   |                      |                    |
|      | September | 47                                   | 697     | 744   | 338,201                           | 256,201              | 594,402            |
|      | October   | 52                                   | 689     | 741   |                                   |                      |                    |
|      | November  | 52                                   | 681     | 733   |                                   |                      |                    |
|      | December  | 47                                   | 656     | 703   |                                   |                      |                    |
|      | AVERAGE   | 44                                   | 637     | 681   |                                   |                      |                    |
| 1982 | January   | 53                                   | 642     | 695   |                                   |                      |                    |
|      | February  | 53                                   | 625     | 678   |                                   |                      |                    |
|      | March     | 52                                   | 597     | 649   |                                   |                      |                    |
|      | April     | 55                                   | 571     | 626   |                                   |                      |                    |
|      | May       | 61                                   | 551     | 612   |                                   |                      |                    |
|      | June      | 69                                   | 546     | 615   |                                   |                      |                    |
|      | July      | 66                                   | 527     | 593   |                                   |                      |                    |
|      | August    | 62                                   | 500     | 562   |                                   |                      |                    |
|      | September | 59                                   | 476     | 535   |                                   |                      |                    |
|      | October   | 51                                   | 465     | 516   |                                   |                      |                    |
|      | November  | 50                                   | 452     | 502   |                                   |                      |                    |
|      | December  | 49                                   | 428     | 477   |                                   |                      |                    |
|      | AVERAGE   | 57                                   | 531     | 588   |                                   |                      |                    |
| 1983 | January   | 49                                   | 407     | 456   |                                   |                      |                    |
|      | February  | 47                                   | 404     | 451   |                                   |                      |                    |
|      | March     | 45                                   | 402     | 447   |                                   |                      |                    |
|      | April     | 39                                   | 410     | 449   |                                   |                      |                    |
|      | May       | 39                                   | 416     | 455   |                                   |                      |                    |

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

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

# **Part 6**

## **Coal**

### **Coal**

Coal production in May 1983 was 62.8 million short tons, 11.6 percent less than the 71.0 million short tons produced in May 1982.

Electric utility coal consumption in April 1983 totaled 43.6 million short tons, 0.2 percent more than consumption in April 1982.

Electric utility coal stocks of 181.4 million short tons at the end of April 1983 were 10.0 million short tons (5.8 percent) above the level 1 year earlier.

Imports of coal in April 1983 totaled 144 thousand short tons, 134 thousand short tons more than the amount imported in April 1982. Exports of coal in April 1983 totaled 6.1 million short tons, 43.5 percent less than the amount exported during April 1982. Coal exports in April 1983 were principally to Europe (49.0 percent), Japan (22.3 percent), and Canada (17.3 percent).

# Coal

## Bituminous Coal, Lignite, and Anthracite

|                     |              | Production     | Domestic Consumption | Imports <sup>1</sup> | Exports <sup>2</sup> | Stocks <sup>3</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                | 40,714               | 145,551             |
| 1979                | TOTAL        | 781,134        | 680,524              | 2,059                | 66,042               | 181,646             |
| 1980                | TOTAL        | 829,700        | 702,729              | 1,194                | 91,742               | 204,028             |
| 1981                | January      | 65,927         | 67,580               | 35                   | 5,795                | 198,603             |
|                     | February     | 70,918         | 59,735               | 104                  | 6,771                | 197,962             |
|                     | March        | 78,266         | 60,069               | 77                   | 9,710                | 207,340             |
|                     | April        | 36,253         | 54,649               | 63                   | 8,271                | 187,143             |
|                     | May          | 38,100         | 55,025               | 96                   | 6,086                | 168,126             |
|                     | June         | 61,555         | 59,685               | 138                  | 6,158                | 158,274             |
|                     | July         | 74,076         | 67,394               | 13                   | 10,762               | 154,423             |
|                     | August       | 78,782         | 65,896               | 150                  | 11,315               | 157,141             |
|                     | September    | 81,720         | 59,722               | 69                   | 11,900               | 164,970             |
|                     | October      | 85,241         | 59,161               | 94                   | 12,360               | 175,384             |
|                     | November     | 76,577         | 58,695               | 76                   | 11,849               | 183,044             |
|                     | December     | 76,360         | 65,017               | 127                  | 11,564               | 185,274             |
|                     | <b>TOTAL</b> | <b>823,775</b> | <b>732,627</b>       | <b>1,043</b>         | <b>112,541</b>       |                     |
| 1982                | January†     | 66,796         | R68,692              | 71                   | 6,177                | 173,931             |
|                     | February†    | 70,725         | R59,746              | 30                   | 8,964                | 173,193             |
|                     | March†       | 83,391         | R58,236              | 12                   | 10,423               | 179,171             |
|                     | April†       | 73,429         | R53,274              | 10                   | 10,831               | 186,458             |
|                     | May†         | 70,985         | R54,844              | 109                  | 10,110               | 192,926             |
|                     | June†        | 71,550         | R55,950              | 9                    | 10,680               | 198,376             |
|                     | July†        | 60,181         | R63,828              | 69                   | 9,182                | 189,997             |
|                     | August†      | 72,461         | R63,528              | 131                  | 7,385                | 190,310             |
|                     | September†   | 67,543         | R56,734              | 71                   | 8,683                | 189,967             |
|                     | October†     | 70,446         | R55,034              | 66                   | 9,972                | 195,107             |
|                     | November†    | 63,381         | R56,831              | 87                   | 7,807                | 196,700             |
|                     | December†    | 62,521         | R60,214              | 76                   | 6,064                | 195,254             |
|                     | <b>TOTAL</b> | <b>833,409</b> | <b>R706,911</b>      | <b>742</b>           | <b>106,277</b>       |                     |
| 1983                | January†     | R62,103        | 63,118               | 78                   | 4,471                | 177,919             |
|                     | February†    | R60,487        | 54,573               | 71                   | 4,382                | 190,782             |
|                     | March†       | R68,462        | 55,364               | 120                  | 6,291                | 191,530             |
|                     | April†       | 60,336         | NA                   | 144                  | 6,115                | NA                  |
|                     | May†         | 62,786         | NA                   | NA                   | NA                   | NA                  |

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

<sup>2</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (335,000 short tons in 1982).

<sup>3</sup>Stocks held by electric utilities, coke plants, and general industry at the end of period. Excludes stocks at retail dealers that are consumed by the residential and commercial sector.

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

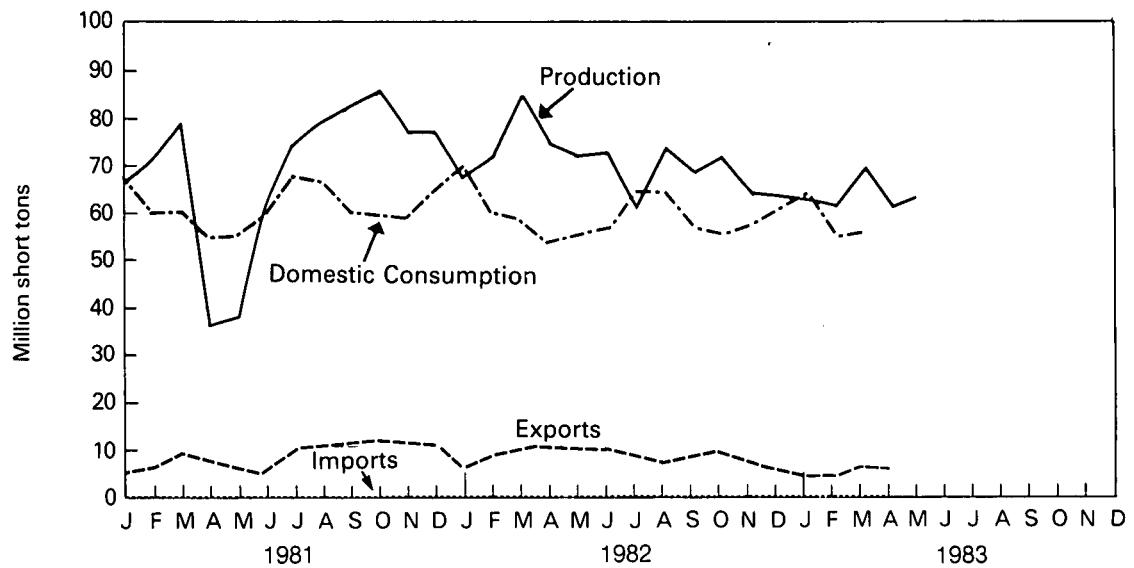
• See Note on the last page of this section for methodology used to calculate production, consumption, and stocks.

Sources: • See the last page of this section.

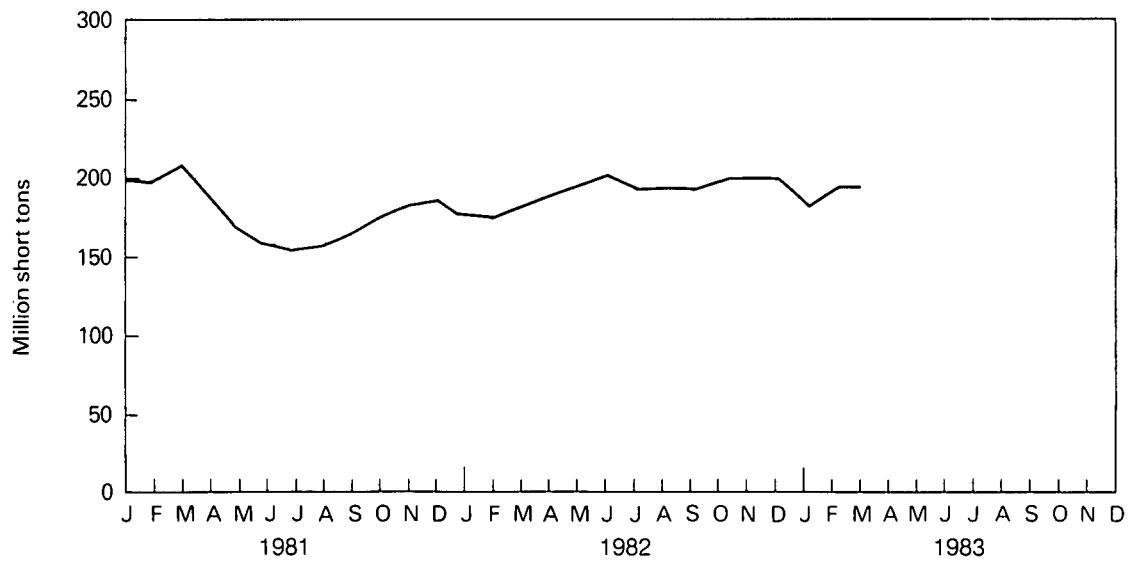
## Coal

### Bituminous Coal, Lignite, and Anthracite

#### Production, Consumption, Imports, and Exports



#### Stocks



# Coal

## Consumption—Bituminous Coal, Lignite, and Anthracite

|                     |            | Industrial         |                          |  |                            | Total    |
|---------------------|------------|--------------------|--------------------------|--|----------------------------|----------|
|                     |            | Electric Utilities | Coke Plants <sup>1</sup> | Other Industrial <sup>2</sup> Including Transportation | Residential and Commercial |          |
| 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                | TOTAL      | 527,051            | 77,368                   | 67,717   | 8,388                      | 680,524  |
| 1980                | TOTAL      | 569,274            | 66,657                   | 60,347   | 6,451                      | 702,729  |
| 1981                | January    | 54,688             | 5,465                    | 6,532  | 895                        | 67,580   |
|                     | February   | 47,914             | 5,177                    | 5,932  | 712                        | 59,735   |
|                     | March      | 48,398             | 5,532                    | 5,665  | 474                        | 60,069   |
|                     | April      | 43,677             | 4,862                    | 5,548  | 562                        | 54,649   |
|                     | May        | 44,999             | 4,259                    | 5,297  | 470                        | 55,025   |
|                     | June       | 50,080             | 4,460                    | 4,845  | 300                        | 59,685   |
|                     | July       | 56,144             | 5,449                    | 5,371  | 430                        | 67,394   |
|                     | August     | 54,483             | 5,434                    | 5,520  | 459                        | 65,896   |
|                     | September  | 48,483             | 5,340                    | 5,312  | 587                        | 59,722   |
|                     | October    | 47,800             | 5,158                    | 5,577  | 626                        | 59,161   |
|                     | November   | 47,014             | 5,037                    | 5,793  | 851                        | 58,695   |
|                     | December   | 53,116             | 4,842                    | 6,003  | 1,056                      | 65,017   |
|                     | TOTAL      | 596,797            | 61,014                   | 67,395   | 7,421                      | 732,627  |
| 1982                | January†   | 56,825             | 4,444                    | R6,430   | R993                       | R68,692  |
|                     | February†  | 48,878             | 4,340                    | R5,835   | R693                       | R59,746  |
|                     | March†     | 47,884             | 4,173                    | R5,616   | R563                       | R58,236  |
|                     | April†     | 43,490             | 3,708                    | R5,373   | R703                       | R53,274  |
|                     | May†       | 45,622             | 3,622                    | R5,133   | R467                       | R54,844  |
|                     | June†      | 47,424             | 3,481                    | R4,681   | R364                       | R55,950  |
|                     | July†      | 55,248             | 3,121                    | R4,831   | 628                        | R63,828  |
|                     | August†    | 54,838             | 3,058                    | R4,962   | 670                        | R63,528  |
|                     | September† | 48,414             | 2,924                    | R4,759   | 637                        | R56,734  |
|                     | October†   | 46,330             | 2,757                    | R5,287   | 660                        | R55,034  |
|                     | November†  | 47,799             | 2,693                    | R5,494   | 845                        | R56,831  |
|                     | December†  | 50,914             | 2,587                    | R5,695   | 1,018                      | R60,214  |
|                     | TOTAL      | 593,666            | 40,908                   | R64,097  | R8,240                     | R706,911 |
| 1983                | January†   | 53,351             | 2,813                    | 5,963  | 990                        | 63,118   |
|                     | February†  | 45,772             | 2,742                    | 5,399  | 660                        | 54,573   |
|                     | March†     | 47,039             | 2,567                    | 5,200  | 557                        | 55,364   |
|                     | April†     | 43,589             | NA                       | NA   | NA                         | NA       |

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

<sup>2</sup>See Note on the last page of this section.

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • See the last page of this section.

# Coal

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

|                     | Industrial         |                          |                  |                    |
|---------------------|--------------------|--------------------------|------------------|--------------------|
|                     | Electric Utilities | Coke Plants <sup>2</sup> | Other Industrial | Total <sup>3</sup> |
| 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                | 159,714            | 10,155                   | 11,777           | 181,646            |
| 1980                | 183,010            | 9,067                    | 11,951           | 204,028            |
| 1981                | January            | 176,975                  | 9,634            | 198,603            |
|                     | February           | 175,715                  | 10,211           | 197,962            |
|                     | March              | 183,983                  | 10,788           | 207,340            |
|                     | April              | 169,221                  | 6,952            | 187,143            |
|                     | May                | 153,415                  | 4,850            | 168,126            |
|                     | June               | 144,520                  | 4,500            | 158,274            |
|                     | July               | 140,124                  | 5,074            | 154,423            |
|                     | August             | 142,318                  | 5,648            | 157,141            |
|                     | September          | 149,526                  | 6,163            | 164,970            |
|                     | October            | 159,676                  | 6,308            | 175,384            |
|                     | November           | 167,002                  | 6,392            | 183,044            |
|                     | December           | 168,893                  | 6,475            | 185,274            |
| 1982                | January†           | 158,469                  | 6,207            | 173,931            |
|                     | February†          | 158,136                  | 5,909            | 173,193            |
|                     | March†             | 164,518                  | 5,612            | R179,484           |
|                     | April†             | 171,390                  | 5,931            | 186,458            |
|                     | May†               | 177,461                  | 6,231            | 192,926            |
|                     | June†              | 182,513                  | 6,532            | R198,377           |
|                     | July†              | 174,503                  | 6,166            | 189,997            |
|                     | August†            | 175,194                  | 5,800            | 190,310            |
|                     | September†         | 175,225                  | 5,434            | 189,967            |
|                     | October†           | 180,571                  | 5,171            | 195,107            |
|                     | November†          | 182,368                  | 4,908            | 196,700            |
|                     | December†          | 181,132                  | 4,642            | 195,254            |
| 1983                | January†           | 177,832                  | 4,338            | 191,130            |
|                     | February†          | 178,310                  | 4,034            | 190,782            |
|                     | March†             | 179,883                  | 3,728            | 191,530            |
|                     | April†             | 181,371                  | NA               | NA                 |

<sup>1</sup>Stocks held by electric 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 that are consumed by the residential and commercial sector.

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • See the last page of this section.

## Notes and Sources for the Coal Section

### Note

Preliminary estimates of monthly coal production are based on the number of railcars loaded at mines as reported weekly to the Association of American Railroads and the average coal tonnage carried per railcar as reported quarterly to the Interstate Commerce Commission by Class 1 railroads. The amount of coal production shipped by rail (estimated for each railroad by multiplying the number of railcars of coal loaded by the average coal tonnage carried per railcar) is multiplied by the ratio of total production as reported on Form EIA-6, "Coal Distribution Report," to production shipped by rail for the corresponding quarter of the previous year to arrive at the monthly coal production estimate. Final monthly and annual coal production data are derived from the Form EIA-6 and State coal production reports.

Domestic coal consumption data in this series approximate actual consumption. Coal consumption at electric utility plants is derived directly from Form EIA-759, "Monthly Power Plant Report." Prior to 1980, monthly coal consumption at coke plants was derived directly from Form EIA-5, "Coke and Coal Chemicals Monthly." For 1980 and subsequent years, monthly coal consumption at coke plants is derived from the quarterly coal consumption reported on Form EIA-5, "Coke Plant Report—Quarterly." These quarterly coal consumption figures are converted to monthly coal consumption figures using the ratios of monthly to quarterly consumption in 1979, the last year that coke plant data was collected monthly on Form EIA-5. These ratios by month (January-December) are: 0.3377, 0.3200, 0.3423; 0.3529, 0.3462, 0.3009; 0.3364, 0.3347, 0.3289; and 0.3273, 0.3301, 0.3426.

Prior to 1978, coal consumption for the "Other Industrial" sector (i.e. industrial users minus coke plants) was derived by using monthly data reported on Form EIA-3, "Monthly Fuel Consumption Report—Manufacturing Plants" to modify baseline coal consumption figures from the most recent Census of Manufacturers or Annual Survey of Manufacturers, Bureau of the Census, U.S. Department of Commerce. For 1978 and subsequent years, the data sources used to compute monthly coal consumption for the "Other Industrial" sector are:

- (a) Form EIA-3, "Quarterly Coal Consumption Report—Manufacturing Plants."
- (b) Form EIA-6, "Coal Distribution Report." (Quarterly)

The basic assumption used in deriving a quarterly estimate for coal consumption for the "Other Industrial" sector 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  $D S$ . From equation (1), consumption is

$$C = D S + R. \quad (2)$$

Form EIA-6 provides complete coverage of the "Other Industrial" sector. The quarterly receipts ( $R$ ) are equated to the coal distribution to the "Other Industrial" sector as reported on Form EIA-6. Form EIA-3 provides almost total coverage of the stock change for the "Other Industrial" sector and hence  $D S$  is equated to this figure.

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

$$C_m = (C_{m3}/C_3) \times C \quad (3)$$

where  $C_{m3}/C_3$  is the ratio of monthly to quarterly coal consumption as reported on Form EIA-3. For the 1978 coal consumption figures, the ratios used are based on 1978 EIA-3 data. For 1979 and subsequent years, the ratios used are based on the 1979 EIA-3 data. These 1979 ratios by month (January-December) are: 0.3593, 0.3264, 0.3143; 0.3485, 0.3332, 0.3183; 0.3317, 0.3407, 0.3276; and 0.3045, 0.3253, 0.3702.

For 1980 and subsequent years, quarterly coal consumption in the residential and commercial sector is equated to the quarterly coal distribution to that sector as reported on Form EIA-6, "Coal Distribution Report." These quarterly coal consumption figures are converted to monthly coal consumption figures using the ratios of monthly to quarterly coal deliveries to this sector in 1979 as reported on Form EIA-2, "Monthly Coal Report—Retail Dealers and Upper Lake Docks." These 1979 ratios by month (January-December) are: 0.4002, 0.3502, 0.2496; 0.4805, 0.2901, 0.2294; 0.3126, 0.2952, 0.3922; and 0.2931, 0.3101, 0.3968.

Prior to 1980, monthly coal consumption for the residential and commercial sector was derived by using monthly data reported on Form EIA-2 to modify baseline coal consumption figures developed by the Bureau of Mines, U.S. Department of the Interior.

### Sources

**Production:** 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*; October 1977 forward: Energy Information Administration (EIA), "Weekly Coal Production Report" from selected State agencies and EIA Form 6, "Coal Distribution Report."

**Consumption and Stocks:** 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*;

- Electric Utilities—October 1977 forward: EIA, EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
- Other Industrial—October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report-Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly Fuel Consumption Report-Manufacturing Plants" and EIA Form 6, "Coal Distribution Report."

- Coke Plants—October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals-Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals—Quarterly/Annual."

- Residential and Commercial—October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."

**Imports/Exports:** 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*; October 1977 forward: Bureau of the Census, Monthly Reports IM-145 (Imports) and EM-522 (Exports).

# Part 7

## Electric Utilities

### Electric Utilities

April 1983 production of electricity by utilities was 170.4 billion kilowatt-hours, 1.3 percent lower than the April 1982 production level. Coal-fired production totaled 88.1 billion kilowatt-hours, slightly lower than the April 1982 level. Hydroelectric production totaled 30.0 billion kilowatt-hours, 7.4 percent above the April 1982 level. Nuclear production was 22.4 billion kilowatt-hours in April 1983, 2.6 percent above the April 1982 level. Natural gas-fired production was 19.2 billion kilowatt-hours, 17.5 percent below the level 1 year earlier. Petroleum-fired production totaled 10.3 billion kilowatt-hours, 7.6 percent below the April 1982 level.

Sales of electricity to all ultimate consumers in the United States in April 1983 were 163.9 billion kilowatt-hours, 0.3 percent below April 1982 sales. Sales to residential consumers during April 1983 were 56.3 billion kilowatt-hours, 2.6 percent above the level of sales for the same month in 1982. Commercial sales were 40.7 billion kilowatt-hours, 1.8 percent more than the amount sold to commercial consumers in April 1982. Sales to

industrial consumers totaled 60.6 billion kilowatt-hours in April 1983, 3.4 percent less than the 1982 figure. In April 1983, other sales totaled 6.3 billion kilowatt-hours, 7.5 percent below the April 1982 level.

Electric utility petroleum consumption (excluding petroleum coke) during April 1983 was 17.4 million barrels, an 8.4-percent drop from the April 1982 level. Coal consumption for April 1983 was 43.6 million short tons, 0.2 percent above the April 1982 rate. During April 1983, consumption of natural gas by electric utilities was 202.9 billion cubic feet, 17.6 percent below the April 1982 consumption level.

On April 30, 1983, utility stocks of anthracite, bituminous coal, and lignite totaled 181.4 million short tons. Stockpiles were 5.8 percent above the level of April 1982. Petroleum stocks (excluding petroleum coke) on April 30, 1983, totaled 103.3 million barrels, 14.3 percent below the level on the same date in 1982.

# Electric Utilities

## Net Electricity Generation by Primary Energy Source

|                        |           | Coal <sup>1</sup> | Petroleum <sup>2</sup> | Natural Gas | Nuclear | Hydro   | Other <sup>3</sup> | Total     |
|------------------------|-----------|-------------------|------------------------|-------------|---------|---------|--------------------|-----------|
| Million kilowatt-hours |           |                   |                        |             |         |         |                    |           |
| 1973                   | TOTAL     | 847,651           | 314,343                | 340,858     | 83,479  | 272,083 | 2,294              | 1,860,710 |
| 1974                   | TOTAL     | 828,433           | 300,931                | 320,065     | 113,976 | 301,032 | 2,703              | 1,867,140 |
| 1975                   | TOTAL     | 852,786           | 289,095                | 299,778     | 172,505 | 300,047 | 3,437              | 1,917,649 |
| 1976                   | TOTAL     | 944,391           | 319,988                | 294,624     | 191,104 | 283,707 | 3,883              | 2,037,696 |
| 1977                   | TOTAL     | 985,219           | 358,179                | 305,505     | 250,883 | 220,475 | 4,063              | 2,124,323 |
| 1978                   | TOTAL     | 975,742           | 365,060                | 305,391     | 276,403 | 280,419 | 3,315              | 2,206,331 |
| 1979                   | TOTAL     | 1,075,037         | 303,525                | 329,485     | 255,155 | 279,783 | 4,387              | 2,247,372 |
| 1980                   | TOTAL     | 1,161,562         | 245,994                | 346,240     | 251,116 | 276,021 | 5,506              | 2,286,439 |
| 1981                   | January   | 111,765           | 25,963                 | 22,081      | 23,779  | 22,338  | 540                | 206,467   |
|                        | February  | 97,653            | 17,444                 | 21,339      | 21,595  | 21,099  | 483                | 179,613   |
|                        | March     | 99,482            | 16,957                 | 25,997      | 22,004  | 20,572  | 541                | 185,553   |
|                        | April     | 88,109            | 15,106                 | 27,460      | 20,646  | 20,723  | 500                | 172,545   |
|                        | May       | 88,941            | 14,508                 | 30,070      | 19,723  | 24,081  | 483                | 177,806   |
|                        | June      | 99,837            | 18,972                 | 35,885      | 21,166  | 26,370  | 473                | 202,702   |
|                        | July      | 112,854           | 20,072                 | 38,712      | 23,080  | 25,133  | 523                | 220,373   |
|                        | August    | 108,403           | 16,001                 | 36,918      | 26,946  | 21,615  | 520                | 210,403   |
|                        | September | 97,664            | 15,566                 | 30,850      | 24,398  | 17,822  | 538                | 186,838   |
|                        | October   | 97,046            | 16,213                 | 28,917      | 20,556  | 18,088  | 531                | 181,352   |
|                        | November  | 94,841            | 13,847                 | 24,670      | 22,783  | 18,963  | 465                | 175,570   |
|                        | December  | 106,608           | 15,772                 | 22,877      | 25,997  | 23,879  | 457                | 195,590   |
|                        | TOTAL     | 1,203,203         | 206,421                | 345,777     | 272,674 | 260,684 | 6,054              | 2,294,812 |
| 1982                   | January   | 113,124           | 20,674                 | 22,621      | 25,678  | 26,896  | 411                | 209,403   |
|                        | February  | 96,906            | 15,217                 | 20,920      | 20,188  | 26,690  | 380                | 180,299   |
|                        | March     | 97,625            | 13,495                 | 23,598      | 22,755  | 29,885  | 330                | 187,687   |
|                        | April     | 88,116            | 11,192                 | 23,231      | 21,785  | 27,928  | 328                | 172,580   |
|                        | May       | 92,997            | 9,868                  | 24,291      | 21,639  | 27,971  | 381                | 177,147   |
|                        | June      | 95,314            | 10,419                 | 27,959      | 24,026  | 27,953  | 458                | 186,128   |
|                        | July      | 110,617           | 13,380                 | 33,340      | 25,467  | 27,294  | 485                | 210,584   |
|                        | August    | 110,124           | 11,753                 | 34,418      | 24,986  | 23,894  | 480                | 205,656   |
|                        | September | 96,896            | 10,363                 | 27,649      | 25,391  | 19,896  | 468                | 180,662   |
|                        | October   | 93,769            | 9,885                  | 25,804      | 23,248  | 19,750  | 509                | 172,966   |
|                        | November  | 95,547            | 9,313                  | 21,466      | 23,235  | 23,297  | 520                | 173,377   |
|                        | December  | 100,970           | 11,238                 | 19,963      | 24,376  | 27,760  | 415                | 184,722   |
|                        | TOTAL     | 1,192,004         | 146,797                | 305,260     | 282,773 | 309,213 | 5,164              | 2,241,211 |
| 1983                   | January   | 108,164           | 12,881                 | 19,720      | 25,090  | 29,318  | 506                | 195,680   |
|                        | February  | 92,692            | 12,586                 | 16,659      | 22,204  | 27,950  | 395                | 172,485   |
|                        | March     | 95,598            | 12,557                 | 19,686      | 23,897  | 30,302  | 455                | 182,494   |
|                        | April     | 88,114            | 10,337                 | 19,174      | 22,352  | 29,988  | 424                | 170,389   |

<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 and wood and waste.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

# Electric Utilities

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

|                        |           | Residential | Commercial | Industrial | Other <sup>2</sup> | Total     |
|------------------------|-----------|-------------|------------|------------|--------------------|-----------|
| Million kilowatt-hours |           |             |            |            |                    |           |
| 1973                   | TOTAL     | 579,231     | 388,266    | 686,085    | 59,328             | 1,712,910 |
| 1974                   | TOTAL     | 578,184     | 384,826    | 684,875    | 58,039             | 1,705,924 |
| 1975                   | TOTAL     | 588,140     | 403,049    | 687,680    | 68,222             | 1,747,091 |
| 1976                   | TOTAL     | 606,452     | 425,094    | 754,069    | 69,631             | 1,855,246 |
| 1977                   | TOTAL     | 645,239     | 446,514    | 786,037    | 70,571             | 1,948,361 |
| 1978                   | TOTAL     | 674,466     | 461,163    | 809,078    | 73,215             | 2,017,922 |
| 1979                   | TOTAL     | 682,819     | 473,307    | 841,903    | 73,070             | 2,071,099 |
| 1980                   | TOTAL     | 717,495     | 488,156    | 815,067    | 73,732             | 2,094,449 |
| 1981                   | January   | 74,087      | 43,229     | 67,076     | 7,557              | 191,949   |
|                        | February  | 66,359      | 41,345     | 67,411     | 7,092              | 182,207   |
|                        | March     | 57,660      | 39,541     | 68,590     | 7,035              | 172,826   |
|                        | April     | 50,914      | 37,910     | 68,138     | 6,562              | 163,525   |
|                        | May       | 48,348      | 39,331     | 68,714     | 6,780              | 163,173   |
|                        | June      | 56,165      | 44,244     | 71,641     | 6,777              | 178,827   |
|                        | July      | 69,990      | 48,989     | 71,712     | 7,124              | 197,814   |
|                        | August    | 70,299      | 49,003     | 72,010     | 7,147              | 198,459   |
|                        | September | 61,098      | 46,977     | 71,011     | 7,164              | 186,250   |
|                        | October   | 52,989      | 42,183     | 69,154     | 7,024              | 171,350   |
|                        | November  | 51,965      | 39,747     | 66,161     | 7,143              | 165,016   |
|                        | December  | 62,391      | 41,839     | 64,124     | 7,351              | 175,705   |
|                        | TOTAL     | 722,265     | 514,338    | 825,742    | 84,756             | 2,147,101 |
| 1982                   | January   | 76,193      | 44,866     | 62,928     | 7,894              | 191,881   |
|                        | February  | 69,070      | 43,389     | 62,767     | 7,409              | 182,634   |
|                        | March     | 60,441      | 41,635     | 64,484     | 7,221              | 173,780   |
|                        | April     | R54,868     | R39,968    | R62,711    | R6,804             | R164,352  |
|                        | May       | 49,092      | 40,021     | 62,480     | 6,976              | 158,569   |
|                        | June      | 54,083      | 44,206     | 63,684     | 6,766              | 168,739   |
|                        | July      | 65,704      | 48,211     | 62,617     | 7,035              | 183,567   |
|                        | August    | 69,906      | 49,720     | 63,306     | 6,808              | 189,740   |
|                        | September | 63,053      | 48,068     | 59,980     | 7,194              | 178,296   |
|                        | October   | 52,638      | 42,864     | 60,830     | 7,084              | 163,416   |
|                        | November  | 52,136      | 40,572     | 60,651     | 7,122              | 160,479   |
|                        | December  | 62,102      | 42,584     | 58,464     | 7,128              | 170,278   |
|                        | TOTAL     | 729,451     | 526,317    | 744,937    | 85,539             | 2,086,241 |
| 1983                   | January   | 69,929      | 44,011     | 57,931     | 7,251              | 179,122   |
|                        | February  | 65,094      | 42,495     | 59,085     | 6,922              | 173,596   |
|                        | March     | 59,003      | 41,589     | 60,267     | 6,902              | 167,761   |
|                        | April†    | 56,314      | 40,689     | 60,565     | 6,297              | 163,865   |

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

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

†Preliminary data.

R=Revised data. For further explanation of factors used in revising data, see the Technical Notes section of the Energy Information Administration (EIA), *Electric Power Monthly*.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • EIA 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement."

# Electric Utilities

## Primary Energy Consumed to Produce Electricity

|      |           | Coal       |                     |         |         | Petroleum          |                    |               |                | Natural Gas         |
|------|-----------|------------|---------------------|---------|---------|--------------------|--------------------|---------------|----------------|---------------------|
|      |           | Anthracite | Bituminous Coal     | Lignite | Total   | Heavy <sup>1</sup> | Light <sup>2</sup> | Total Liquids | Petroleum Coke |                     |
|      |           |            | Thousand short tons |         |         |                    | Thousand barrels   |               |                | Thousand short tons |
|      |           |            |                     |         |         |                    |                    |               |                | Million cubic feet  |
| 1973 | TOTAL     | 1,443      | 376,975             | 10,794  | 389,212 | (*)                | (*)                | 560,248       | 507            | 3,660,172           |
| 1974 | TOTAL     | 1,498      | 378,643             | 11,670  | 391,811 | (*)                | (*)                | 536,274       | 625            | 3,443,428           |
| 1975 | TOTAL     | 1,480      | 388,523             | 15,960  | 405,962 | (*)                | (*)                | 506,128       | 70             | 3,157,669           |
| 1976 | TOTAL     | 1,350      | 425,205             | 21,817  | 448,371 | (*)                | (*)                | 555,920       | 68             | 3,080,868           |
| 1977 | TOTAL     | 1,425      | 451,051             | 24,650  | 477,126 | (*)                | (*)                | 623,705       | 98             | 3,191,200           |
| 1978 | TOTAL     | 1,064      | 448,763             | 31,407  | 481,235 | (*)                | (*)                | 635,839       | 398            | 3,188,363           |
| 1979 | TOTAL     | 1,046      | 488,129             | 37,876  | 527,051 | (*)                | (*)                | 523,297       | 268            | 3,490,523           |
| 1980 | TOTAL     | 951        | 526,680             | 41,642  | 569,274 | 391,163            | 29,051             | 420,214       | 179            | 3,681,595           |
| 1981 | January   | 81         | 50,635              | 3,972   | 54,688  | 40,885             | 3,047              | 43,931        | 10             | 231,606             |
|      | February  | 58         | 44,583              | 3,272   | 47,914  | 27,755             | 2,242              | 29,997        | 9              | 224,003             |
|      | March     | 75         | 45,168              | 3,155   | 48,398  | 27,862             | 1,405              | 29,267        | 9              | 273,431             |
|      | April     | 73         | 40,535              | 3,069   | 43,677  | 24,229             | 1,356              | 25,585        | 7              | 289,053             |
|      | May       | 91         | 41,405              | 3,503   | 44,999  | 23,130             | 1,795              | 24,925        | 14             | 316,310             |
|      | June      | 105        | 46,503              | 3,471   | 50,080  | 29,699             | 2,705              | 32,404        | 13             | 380,775             |
|      | July      | 102        | 51,705              | 4,337   | 56,144  | 31,628             | 2,615              | 34,243        | 11             | 410,666             |
|      | August    | 133        | 50,010              | 4,339   | 54,483  | 25,760             | 1,422              | 27,182        | 13             | 389,564             |
|      | September | 98         | 44,557              | 3,828   | 48,483  | 25,137             | 1,145              | 26,282        | 13             | 324,828             |
|      | October   | 115        | 44,161              | 3,524   | 47,800  | 26,078             | 1,123              | 27,201        | 15             | 301,670             |
|      | November  | 141        | 43,032              | 3,841   | 47,014  | 22,042             | 1,139              | 23,181        | 12             | 258,811             |
|      | December  | 148        | 48,487              | 4,481   | 53,116  | 25,593             | 1,319              | 26,912        | 12             | 239,436             |
|      | TOTAL     | 1,221      | 550,784             | 44,792  | 596,797 | 329,798            | 21,313             | 351,111       | 139            | 3,640,154           |
| 1982 | January   | 89         | 52,014              | 4,723   | 56,825  | 32,269             | 3,131              | 35,399        | 10             | 237,675             |
|      | February  | 83         | 44,478              | 4,317   | 48,878  | 24,351             | 1,421              | 25,772        | 9              | 220,032             |
|      | March     | 73         | 43,751              | 4,060   | 47,884  | 21,617             | 1,304              | 22,921        | 4              | 246,550             |
|      | April     | 88         | 39,888              | 3,515   | 43,490  | 17,913             | 1,132              | 19,045        | 11             | 246,344             |
|      | May       | 98         | 41,845              | 3,678   | 45,622  | 15,939             | 991                | 16,930        | 12             | 257,848             |
|      | June      | 94         | 43,340              | 3,990   | 47,424  | 16,539             | 1,053              | 17,592        | 13             | 295,557             |
|      | July      | 108        | 50,769              | 4,371   | 55,248  | 21,550             | 1,360              | 22,910        | 11             | 352,818             |
|      | August    | 95         | 50,283              | 4,460   | 54,838  | 18,873             | 1,053              | 19,926        | 13             | 361,351             |
|      | September | 67         | 44,431              | 3,916   | 48,414  | 16,544             | 921                | 17,464        | 9              | 293,232             |
|      | October   | 81         | 42,598              | 3,650   | 46,330  | 15,990             | 870                | 16,860        | 17             | 273,003             |
|      | November  | 100        | 43,756              | 3,943   | 47,799  | 14,908             | 1,007              | 15,916        | 18             | 226,477             |
|      | December  | 99         | 46,192              | 4,622   | 50,914  | 17,940             | 1,094              | 19,035        | 22             | 214,630             |
|      | TOTAL     | 1,075      | 543,346             | 49,245  | 593,666 | 234,434            | 15,337             | 249,771       | 149            | 3,225,518           |
| 1983 | January   | 73         | 48,695              | 4,583   | 53,351  | 20,728             | 1,122              | 21,850        | 17             | 208,337             |
|      | February  | 73         | 41,668              | 4,032   | 45,772  | 20,305             | 996                | 21,301        | 19             | 176,965             |
|      | March     | 75         | 43,095              | 3,870   | 47,039  | 20,174             | 957                | 21,131        | 16             | 208,010             |
|      | April     | 92         | 39,716              | 3,781   | 43,589  | 16,374             | 1,066              | 17,440        | 24             | 202,919             |

<sup>1</sup>Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

<sup>2</sup>Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

<sup>3</sup>Prior to 1980, petroleum consumption data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

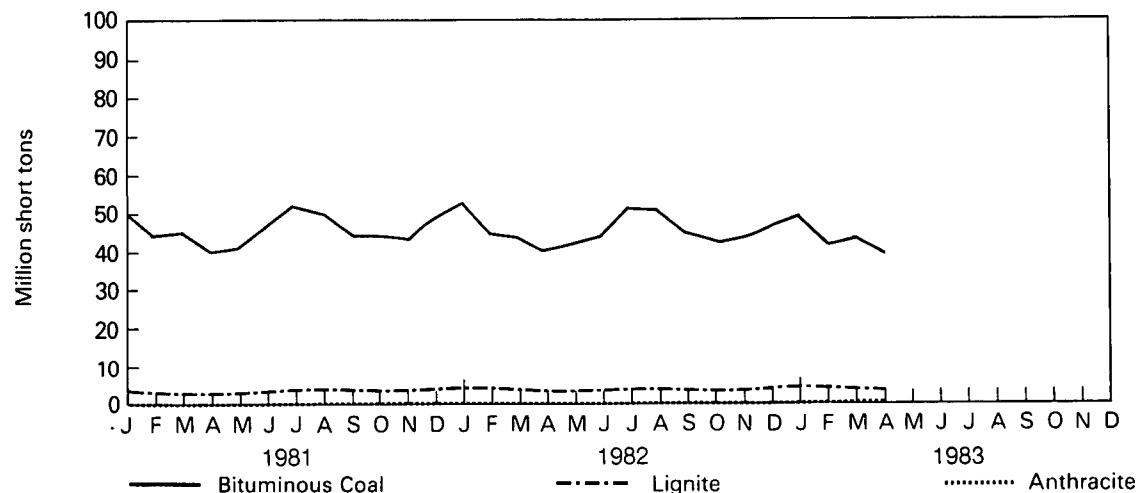
• Totals may not equal sum of components due to independent rounding.

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

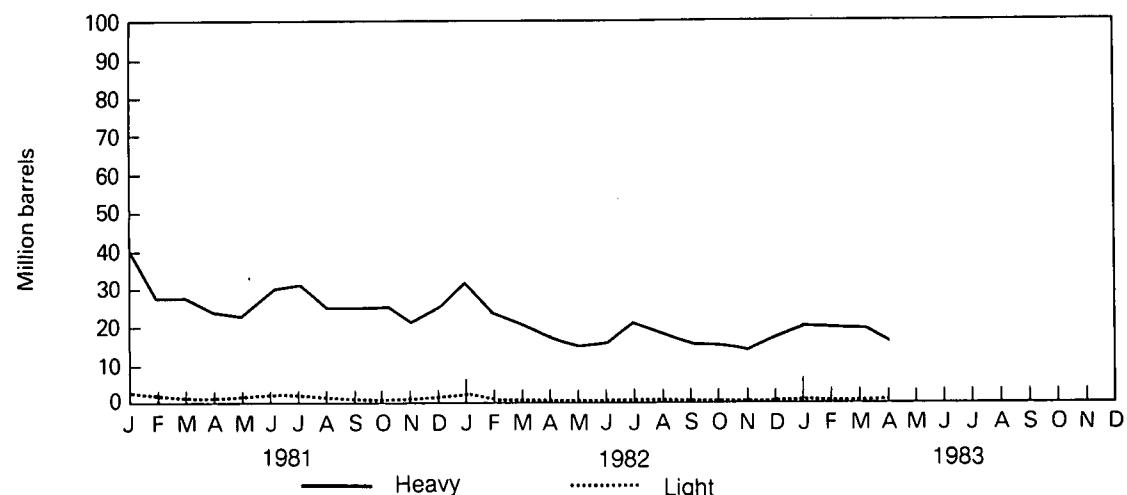
# Electric Utilities

## Primary Energy Consumed to Produce Electricity

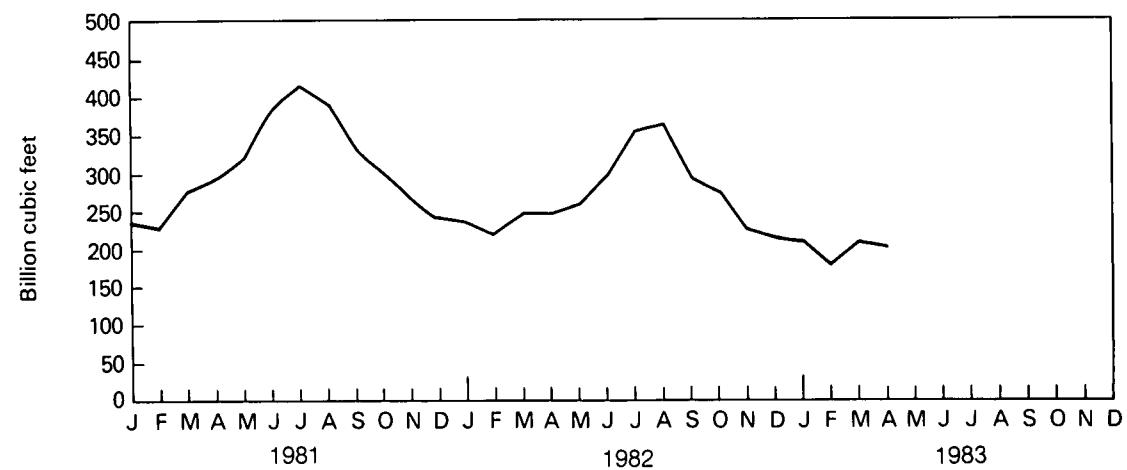
### Coal Consumption



### Petroleum Consumption



### Natural Gas Consumption



# Electric Utilities

## Coal and Petroleum Stocks at End of Period

|                     | Coal       |            |         |         | Petroleum          |                    |               |                |
|---------------------|------------|------------|---------|---------|--------------------|--------------------|---------------|----------------|
|                     | Anthracite | Bituminous |         |         | Heavy <sup>1</sup> | Light <sup>2</sup> | Total Liquids | Petroleum Coke |
|                     |            | Coal       | Lignite | Total   |                    |                    |               |                |
| Thousand short tons |            |            |         |         |                    |                    |               |                |
| 1973                | 1,066      | 84,941     | 961     | 86,967  | (*)                | (*)                | 89,216        | 312            |
| 1974                | 930        | 81,712     | 867     | 83,509  | (*)                | (*)                | 112,917       | 35             |
| 1975                | 982        | 107,927    | 1,815   | 110,724 | (*)                | (*)                | 125,257       | 31             |
| 1976                | 1,000      | 114,130    | 2,306   | 117,436 | (*)                | (*)                | 121,696       | 32             |
| 1977                | 2,321      | 128,210    | 2,688   | 133,219 | (*)                | (*)                | 144,031       | 44             |
| 1978                | 2,178      | 123,020    | 3,027   | 128,225 | (*)                | (*)                | 118,788       | 198            |
| 1979                | 3,274      | 152,981    | 3,459   | 159,714 | (*)                | (*)                | 131,422       | 183            |
| 1980                | 4,741      | 174,154    | 4,115   | 183,010 | 105,351            | 30,023             | 135,374       | 52             |
| 1981                | January    | 4,824      | 167,884 | 4,267   | 176,975            | 99,196             | 29,535        | 128,732        |
|                     | February   | 4,859      | 166,552 | 4,304   | 175,715            | 101,867            | 28,328        | 130,195        |
|                     | March      | 4,951      | 174,554 | 4,478   | 183,983            | 100,178            | 28,732        | 128,911        |
|                     | April      | 5,035      | 159,645 | 4,541   | 169,221            | 97,629             | 29,024        | 126,652        |
|                     | May        | 5,008      | 143,500 | 4,907   | 153,415            | 101,574            | 27,671        | 129,245        |
|                     | June       | 5,081      | 134,321 | 5,119   | 144,520            | 99,398             | 28,547        | 127,945        |
|                     | July       | 5,269      | 129,684 | 5,171   | 140,124            | 99,603             | 27,729        | 127,332        |
|                     | August     | 5,337      | 132,072 | 4,909   | 142,318            | 103,104            | 27,714        | 130,817        |
|                     | September  | 5,428      | 138,808 | 5,290   | 149,526            | 102,104            | 27,403        | 129,506        |
|                     | October    | 5,512      | 148,952 | 5,213   | 159,676            | 100,008            | 27,055        | 127,063        |
|                     | November   | 5,548      | 156,360 | 5,094   | 167,002            | 100,301            | 26,715        | 127,016        |
|                     | December   | 5,537      | 158,258 | 5,098   | 168,893            | 102,042            | 26,094        | 128,136        |
| 1982                | January    | 5,437      | 148,404 | 4,628   | 158,469            | 94,609             | 26,162        | 120,771        |
|                     | February   | 5,401      | 148,118 | 4,617   | 158,136            | 92,622             | 25,418        | 118,040        |
|                     | March      | 5,488      | 154,724 | 4,305   | 164,518            | 97,706             | 25,136        | 122,842        |
|                     | April      | 5,542      | 161,720 | 4,128   | 171,390            | 95,984             | 24,636        | 120,620        |
|                     | May        | 5,569      | 167,805 | 4,088   | 177,461            | 96,607             | 24,796        | 121,403        |
|                     | June       | 5,603      | 172,819 | 4,092   | 182,513            | 97,959             | 24,647        | 122,606        |
|                     | July       | 5,658      | 164,688 | 4,157   | 174,503            | 96,085             | 25,008        | 121,093        |
|                     | August     | 5,791      | 165,182 | 4,221   | 175,194            | 96,345             | 24,193        | 120,538        |
|                     | September  | 5,896      | 165,065 | 4,264   | 175,225            | 98,160             | 24,225        | 122,385        |
|                     | October    | 5,992      | 170,281 | 4,298   | 180,571            | 96,920             | 23,595        | 120,515        |
|                     | November   | 6,060      | 171,832 | 4,476   | 182,368            | 96,618             | 23,553        | 120,171        |
|                     | December   | 6,080      | 170,480 | 4,573   | 181,132            | 95,515             | 23,369        | 118,884        |
| 1983                | January    | 6,107      | 167,515 | 4,210   | 177,832            | 91,474             | 23,942        | 115,416        |
|                     | February   | 6,104      | 167,843 | 4,362   | 178,310            | 85,847             | 23,438        | 109,284        |
|                     | March      | 6,143      | 169,538 | 4,201   | 179,883            | 81,632             | 23,199        | 104,831        |
|                     | April      | 6,120      | 170,815 | 4,436   | 181,371            | 81,243             | 22,084        | 103,327        |

<sup>1</sup>Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

<sup>2</sup>Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

<sup>3</sup>Prior to 1980, petroleum stock data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

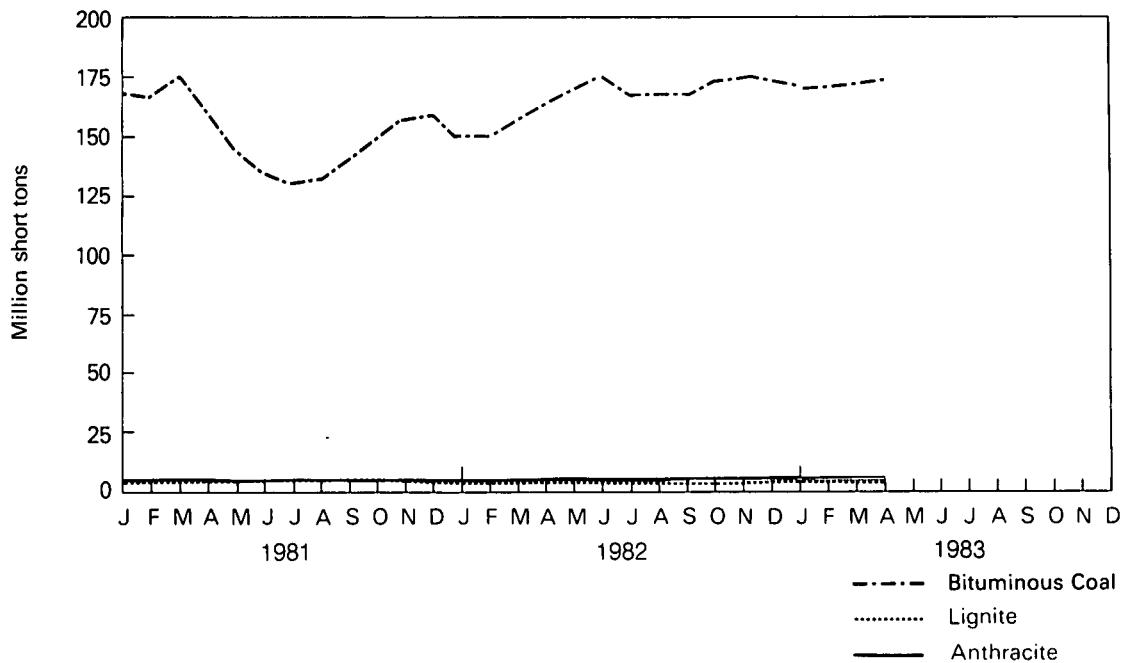
• Totals may not equal sum of components due to independent rounding.

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

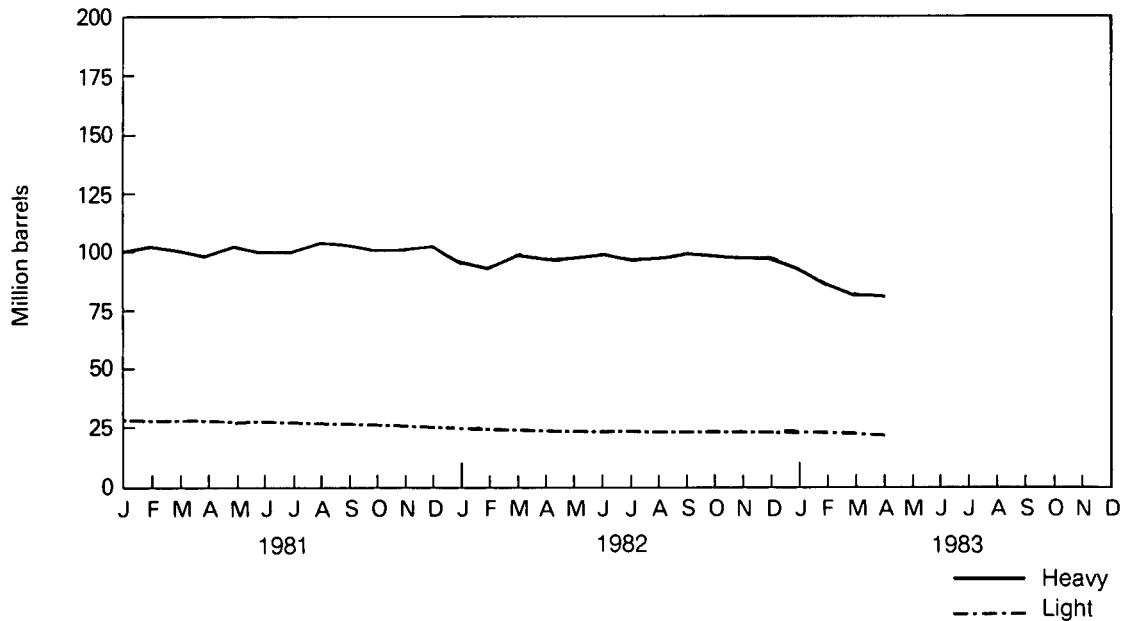
## Electric Utilities

### Coal and Petroleum Stocks at End of Period

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



#### Petroleum Stocks



# Electric Utilities

## Petroleum Consumption and Stocks by Prime Mover Type

| Petroleum Consumption |              |                    |               | Petroleum Stocks at End of Period |                    |               |
|-----------------------|--------------|--------------------|---------------|-----------------------------------|--------------------|---------------|
|                       | Steam Plants | GT/IC <sup>1</sup> | Total Liquids | Steam Plants                      | GT/IC <sup>1</sup> | Total Liquids |
| Thousand barrels      |              |                    |               |                                   |                    |               |
| 1973                  | TOTAL        | 513,190            | 47,058        | 560,248                           | 79,121             | 10,095        |
| 1974                  | TOTAL        | 483,146            | 53,128        | 536,274                           | 97,718             | 15,199        |
| 1975                  | TOTAL        | 467,221            | 38,907        | 506,128                           | 108,825            | 16,432        |
| 1976                  | TOTAL        | 514,077            | 41,843        | 555,920                           | 106,993            | 14,703        |
| 1977                  | TOTAL        | 574,869            | 48,837        | 623,705                           | 124,750            | 19,281        |
| 1978                  | TOTAL        | 588,319            | 47,520        | 635,839                           | 102,402            | 16,386        |
| 1979                  | TOTAL        | 492,606            | 30,691        | 523,297                           | 111,121            | 20,301        |
| 1980                  | TOTAL        | 401,863            | 18,351        | 420,214                           | 117,227            | 18,147        |
| 1981                  | January      | 41,904             | 2,027         | 43,931                            | 110,533            | 18,199        |
|                       | February     | 28,948             | 1,049         | 29,997                            | 112,879            | 17,315        |
|                       | March        | 28,492             | 775           | 29,267                            | 111,490            | 17,421        |
|                       | April        | 25,028             | 557           | 25,585                            | 109,455            | 17,197        |
|                       | May          | 23,958             | 967           | 24,925                            | 112,172            | 17,073        |
|                       | June         | 30,673             | 1,731         | 32,404                            | 109,988            | 17,957        |
|                       | July         | 32,577             | 1,666         | 34,243                            | 110,476            | 16,856        |
|                       | August       | 26,598             | 584           | 27,182                            | 114,016            | 16,801        |
|                       | September    | 25,762             | 520           | 26,282                            | 112,992            | 16,515        |
|                       | October      | 26,646             | 556           | 27,201                            | 110,900            | 16,164        |
|                       | November     | 22,749             | 432           | 23,181                            | 110,939            | 16,077        |
|                       | December     | 26,345             | 567           | 26,912                            | 112,380            | 15,756        |
|                       | TOTAL        | 339,680            | 11,431        | 351,111                           |                    |               |
| 1982                  | January      | 33,832             | 1,567         | 35,399                            | 105,475            | 15,296        |
|                       | February     | 25,249             | 524           | 25,772                            | 102,883            | 15,157        |
|                       | March        | 22,371             | 550           | 22,921                            | 108,142            | 14,699        |
|                       | April        | 18,553             | 492           | 19,045                            | 106,143            | 14,477        |
|                       | May          | 16,614             | 316           | 16,930                            | 106,701            | 14,702        |
|                       | June         | 17,241             | 351           | 17,592                            | 108,189            | 14,417        |
|                       | July         | 22,192             | 718           | 22,910                            | 106,170            | 14,923        |
|                       | August       | 19,508             | 418           | 19,926                            | 106,438            | 14,100        |
|                       | September    | 17,146             | 318           | 17,464                            | 108,177            | 14,208        |
|                       | October      | 16,547             | 313           | 16,860                            | 106,701            | 13,813        |
|                       | November     | 15,591             | 325           | 15,916                            | 106,361            | 13,809        |
|                       | December     | 18,694             | 341           | 19,035                            | 105,287            | 13,597        |
|                       | TOTAL        | 243,537            | 6,234         | 249,771                           |                    |               |
| 1983                  | January      | 21,373             | 477           | 21,850                            | 101,246            | 14,170        |
|                       | February     | 20,885             | 416           | 21,301                            | 95,459             | 13,825        |
|                       | March        | 20,728             | 403           | 21,131                            | 91,288             | 13,543        |
|                       | April        | 16,997             | 444           | 17,440                            | 90,796             | 12,531        |
|                       |              |                    |               |                                   |                    | 103,327       |

<sup>1</sup>GT/IC = Gas turbine and internal combustion plants.

Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

# Part 8

## Nuclear

### Nuclear

During April 1983, U.S. nuclear powerplants generated a total of 22.4 billion net kilowatt-hours (kWh) of electricity, equivalent to an average hourly output of 31.1 million net kWh, adjusted for the daylight saving time change. This was 3.2 percent below the average hourly generation for March 1983, but 2.6 percent above the comparable output for April 1982. Nuclear power supplied 13.1 percent of the electricity generated by domestic utilities in April 1983.

St. Lucie-2, an 802-net megawatt pressurized water reactor operated by Florida Power and Light, received a Low Power License on April 6, 1983. The addition of this unit brought the number of licensed U.S. power reactors, as of April 30, 1983, to 81 and raised the total U.S. nuclear powerplant capacity to 63.5 million net kilowatts. Of the 81 units, 4 were in fuel loading or low-power testing (Grand Gulf-1, McGuire-2, San Onofre-3, and St. Lucie-2), 4 were in power ascension (LaSalle-1, San Onofre-2, Summer-1, and Susquehanna-1), and 27 generated no electricity or operated substantially below capacity in April (Arnold, Arkansas-1, Brunswick-1, Crystal River-3, Dresden-2, Fort St. Vrain, Ginna, Hatch-2, Indian Point-3, Keweenaw, McGuire-1, Nine Mile Point-1, North Anna-2, Oyster Creek, Peach Bottom-3, Point Beach-2, Rancho Seco, Salem-1, Salem-2, San Onofre-1, St.

Lucie-1, Surry-1, Three Mile Island-1, Trojan, Turkey Point-4, Vermont Yankee, and Zion-2).

The large number of plants operating in the first fuel cycle or shut down for refueling or repairs, as well as the greater availability of hydro-electric power in April, contributed to a very low monthly capacity factor of 48.9 percent.

On April 29, 1983, Duke Power Company canceled Cherokee-1, a 1,280-net megawatt pressurized water reactor. The reactor, located in South Carolina, was 18 percent complete. This cancellation lowered the total number of domestic nuclear powerplants in all stages of planning, construction, or operation to 143, with an aggregate design capacity of 134 million net kilowatts.

In April 1983, the U.S. Supreme Court ruled that psychological stress need not be considered in licensing decisions for nuclear plants. This ruling clears the way for a restart of the undamaged Three Mile Island-1 unit in Pennsylvania. In a second case in April, the Court ruled that certification of new reactors in California continue to be restricted by requiring State and Federal approval of a high-level nuclear waste disposal technology.

# Nuclear

## Nuclear Powerplant Operations<sup>1</sup>

|             | <b>Reactors<br/>Licensed For<br/>Operation<sup>2</sup></b> | <b>Nuclear-Based<br/>Electricity<br/>Generation</b> | <b>Nuclear<br/>Portion of<br/>Domestic<br/>Electricity<br/>Generation</b> | <b>Maximum<br/>Dependable<br/>Capacity<sup>3</sup></b> | <b>Capacity<br/>Factor<sup>4</sup></b> |             |
|-------------|--|---|---|--|--|-------------|
|             |  | Million net<br>kilowatt-hours                       | Percent   | Million net<br>kilowatts                               | Percent                                |             |
| <b>1973</b> | <b>40</b>  | <b>83,479</b>                                       | <b>4.5</b>  | <b>19.843</b>  | <b>63.2</b>                            |             |
| <b>1974</b> | <b>55</b>  | <b>113,976</b>                                      | <b>6.1</b>  | <b>35.732</b>  | <b>43.5</b>                            |             |
| <b>1975</b> | <b>58</b>  | <b>172,505</b>                                      | <b>9.0</b>  | <b>35.794</b>  | <b>55.2</b>                            |             |
| <b>1976</b> | <b>65</b>  | <b>191,104</b>                                      | <b>9.4</b>  | <b>44.609</b>  | <b>53.5</b>                            |             |
| <b>1977</b> | <b>68</b>  | <b>250,883</b>                                      | <b>11.8</b>   | <b>47.155</b>  | <b>62.9</b>                            |             |
| <b>1978</b> | <b>72</b>  | <b>276,403</b>                                      | <b>12.5</b>   | <b>50.824</b>  | <b>63.9</b>                            |             |
| <b>1979</b> | <b>71</b>  | <b>255,155</b>                                      | <b>11.4</b>   | <b>50.944</b>  | <b>57.6</b>                            |             |
| <b>1980</b> | <b>72</b>  | <b>251,116</b>                                      | <b>11.0</b>   | <b>52.597</b>  | <b>55.1</b>                            |             |
| <b>1981</b> | January  | 73  | 23,779  | 11.5   | 54.374                                 | 58.8        |
|             | February   | 73  | 21,595  | 12.0   | 54.372                                 | 59.1        |
|             | March  | 73  | 22,004  | 11.9   | 54.429                                 | 54.3        |
|             | April  | 73  | 20,646  | 12.0   | 54.095                                 | 53.1        |
|             | May  | 73  | 19,723  | 11.1   | 54.074                                 | 49.0        |
|             | June   | 74  | 21,166  | 10.4   | 55.214                                 | 53.2        |
|             | July   | 74  | 23,080  | 10.5   | 54.998                                 | 56.4        |
|             | August   | 74  | 26,946  | 12.8   | 54.820                                 | 66.1        |
|             | September  | 75  | 24,398  | 13.1   | 56.974                                 | 60.5        |
|             | October  | 75  | 20,556  | 11.3   | 56.412                                 | 48.9        |
|             | November   | 74  | 22,783  | 13.0   | 55.328                                 | 57.2        |
|             | December   | 74  | 25,997  | 13.3   | 55.524                                 | 62.9        |
|             | <b>ANNUAL</b>  | <b>74</b>   | <b>272,674</b>  | <b>11.9</b>  | <b>55.524</b>                          | <b>56.6</b> |
| <b>1982</b> | January  | 74  | 25,678  | 12.3   | 55.471                                 | 62.2        |
|             | February   | 75  | 20,188  | 11.2   | 56.608                                 | 53.1        |
|             | March  | 75  | 22,755  | 12.1   | 56.609                                 | 54.0        |
|             | April  | 76  | 21,785  | 12.6   | 57.415                                 | 52.8        |
|             | May  | 76  | 21,639  | 12.2   | 57.428                                 | 50.6        |
|             | June   | 77  | 24,026  | 12.9   | 58.560                                 | 57.0        |
|             | July   | 78  | 25,467  | 12.1   | 59.601                                 | 57.4        |
|             | August   | 79  | 24,986  | 12.1   | 60.521                                 | 55.5        |
|             | September  | 79  | 25,391  | 14.1   | 60.501                                 | 58.3        |
|             | October  | 78  | 23,248  | 13.4   | 59.921                                 | 52.1        |
|             | November   | 79  | 23,235  | 13.4   | 61.523                                 | 52.5        |
|             | December   | 79  | 24,376  | 13.2   | 59.678                                 | 54.9        |
|             | <b>ANNUAL</b>  | <b>79</b>   | <b>282,773</b>  | <b>12.6</b>  | <b>59.678</b>                          | <b>55.0</b> |
| <b>1983</b> | January  | 79  | 25,090  | 12.8   | 61.030                                 | 55.3        |
|             | February   | 79  | 22,204  | 12.9   | 61.117                                 | 54.1        |
|             | March  | 80  | 23,897  | 13.1   | 62.697                                 | 51.2        |
|             | April  | 81  | 22,352  | 13.1   | 63.515                                 | 48.9        |

<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>See Note 1 on the last page of this section.

<sup>3</sup>In this table, when possible, net maximum dependable capacity (MDC) is used. When a reactor has not been operating long enough to permit determination of an MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced by the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. Beginning in January 1980, the reduced capacities are used for these units. For the definitions of MDC and DER, see Note 2 on the last page of this section.

<sup>4</sup>The monthly capacity factors are computed as the actual monthly generation divided by the maximum possible generation for that month, where the maximum possible generation is the number of hours in the month multiplied by the monthly maximum dependable capacity (MDC). This fraction is then multiplied by 100 to obtain a percentage. Monthly capacity factors are averaged to obtain annual values. For the definition of MDC, see Note 2 on the last page of this section.

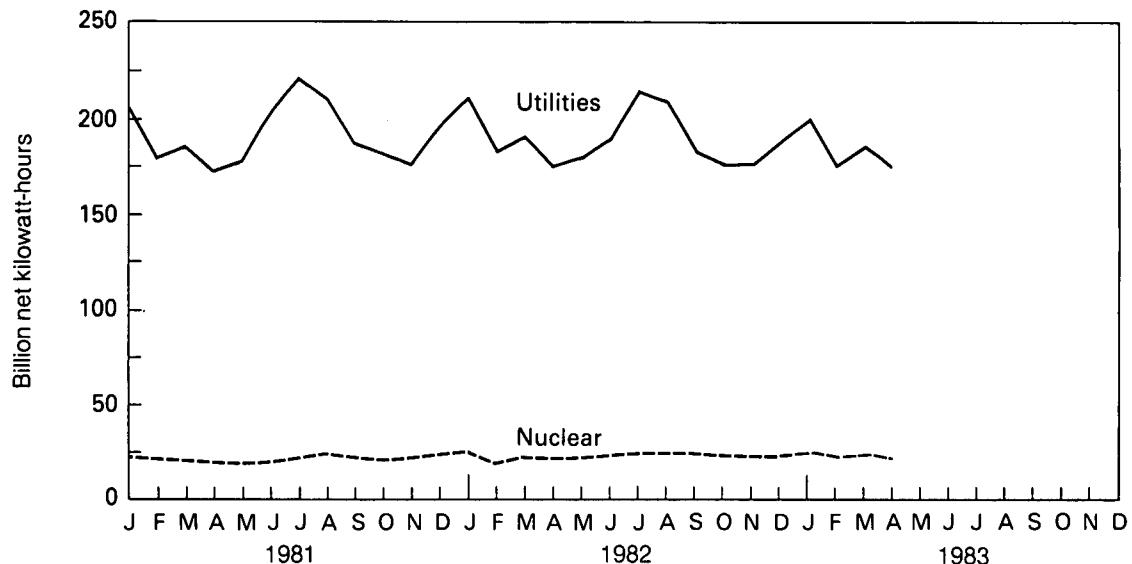
Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last page of this section.

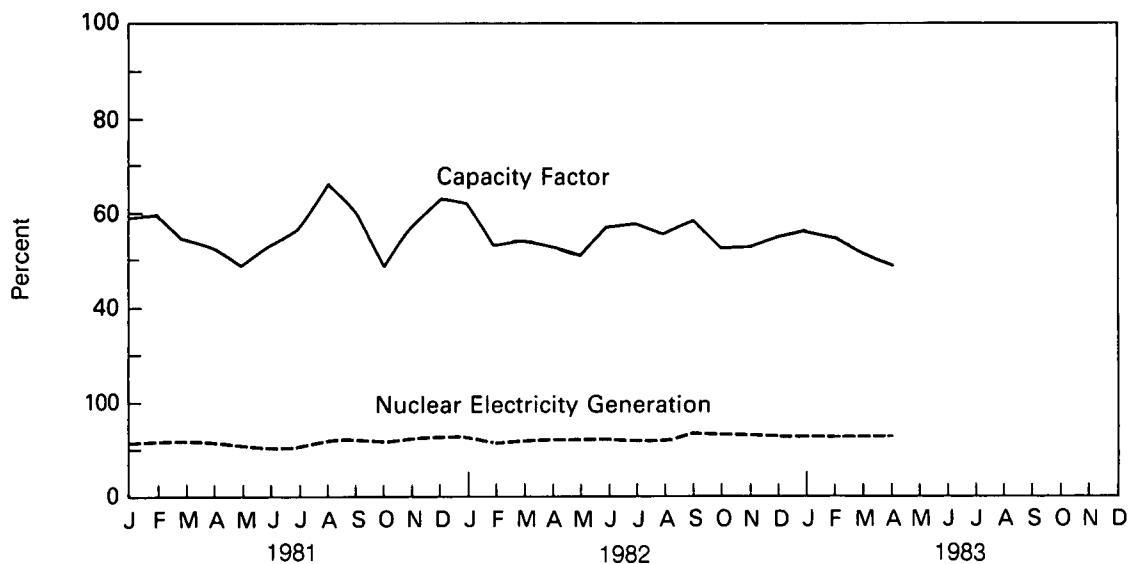
# Nuclear

## 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

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

|      | Reactors<br>Licensed For<br>Operation <sup>2</sup> | Construction<br>Permits<br>Granted | Construction<br>Permits<br>Pending | Reactor<br>Units on<br>Order | Reactor<br>Units<br>Announced | Total<br>Reactor<br>Units | Total<br>Design<br>Capacity <sup>3</sup><br>(Million<br>Net<br>Kilowatts) |
|------|--|------------------------------------|------------------------------------|------------------------------|-------------------------------|---------------------------|---|
| 1973 | 40   | 51                                 | 58                                 | 48                           | 20                            | 217                       | 212   |
| 1974 | 55   | 58                                 | 80                                 | 28                           | 16                            | 235                       | 234   |
| 1975 | 58   | 69                                 | 73                                 | 19                           | 19                            | 236                       | 236   |
| 1976 | 65   | 72                                 | 66                                 | 16                           | 19                            | 235                       | 236   |
| 1977 | 68   | 80                                 | 52                                 | 13                           | 9                             | 221                       | 220   |
| 1978 | 72   | 90                                 | 32                                 | 9                            | 4                             | 206                       | 204   |
| 1979 | 71   | 91                                 | 21                                 | 3                            | 0                             | 186                       | 180   |
| 1980 | 72   | 82                                 | 12                                 | 3                            | 0                             | 169                       | 163   |
| 1981 | January  | 73                                 | 81                                 | 12                           | 3                             | 0                         | 169   |
|      | February   | 73                                 | 81                                 | 12                           | 3                             | 0                         | 169   |
|      | March  | 73                                 | 81                                 | 12                           | 3                             | 0                         | 169   |
|      | April  | 73                                 | 81                                 | 12                           | 3                             | 0                         | 169   |
|      | May  | 73                                 | 81                                 | 12                           | 3                             | 0                         | 169   |
|      | June   | 74                                 | 80                                 | 12                           | 3                             | 0                         | 169   |
|      | July   | 74                                 | 80                                 | 12                           | 3                             | 0                         | 169   |
|      | August   | 74                                 | 79                                 | 12                           | 3                             | 0                         | 168   |
|      | September  | 75                                 | 78                                 | 11                           | 3                             | 0                         | 167   |
|      | October  | 75                                 | 77                                 | 11                           | 3                             | 0                         | 166   |
|      | November   | 74                                 | 78                                 | 11                           | 3                             | 0                         | 166   |
|      | December   | 74                                 | 75                                 | 11                           | 3                             | 0                         | 157   |
| 1982 | January  | 74                                 | 73                                 | 11                           | 3                             | 0                         | 161   |
|      | February   | 75                                 | 72                                 | 6                            | 2                             | 0                         | 155   |
|      | March  | 75                                 | 72                                 | 6                            | 2                             | 0                         | 155   |
|      | April  | 76                                 | 71                                 | 6                            | 2                             | 0                         | 155   |
|      | May  | 76                                 | 71                                 | 6                            | 2                             | 0                         | 147   |
|      | June   | 77                                 | 70                                 | 6                            | 2                             | 0                         | 155   |
|      | July   | 78                                 | 67                                 | 6                            | 2                             | 0                         | 153   |
|      | August   | 79                                 | 64                                 | 5                            | 2                             | 0                         | 150   |
|      | September  | 79                                 | 64                                 | 3                            | 2                             | 0                         | 148   |
|      | October  | 78                                 | 64                                 | 3                            | 2                             | 0                         | 147   |
|      | November   | 79                                 | 60                                 | 3                            | 2                             | 0                         | 144   |
|      | December   | 79                                 | 60                                 | 3                            | 2                             | 0                         | 144   |
| 1983 | January  | 79                                 | 60                                 | 3                            | 2                             | 0                         | 144   |
|      | February   | 79                                 | 60                                 | 3                            | 2                             | 0                         | 144   |
|      | March  | 80                                 | 59                                 | 3                            | 2                             | 0                         | 144   |
|      | April  | 81                                 | 57                                 | 3                            | 2                             | 0                         | 143   |

<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>See Note 1 on the last page of this section.

<sup>3</sup>Net design electrical rating is used because many of the units in this table have not been operating long enough for a maximum dependable capacity to be determined. See Note 2 on the last page of this section.

Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last page of this section.

## Notes and Sources for the Nuclear Section

### Notes

**1. Reactors Licensed for Operation:** This column includes units that have received Full Power and/or Low Power Licenses from the Nuclear Regulatory Commission with two exceptions. Hanford, an 850-net megawatt (MWe) reactor operated by the Department of Energy, is included, although it is not licensed by the NRC, because it distributes commercial electricity. The Experimental Breeder Reactor-2 is not included, although it generates electricity, because it does not distribute the electricity commercially. Three units that had been inoperative for at least 9 months prior to January 1980 are deleted from subsequent entries in the tables: Humboldt Bay (capacity=65 MWe), which requires major seismic modifications; Dresden-1 (capacity=200 MWe), which also needs major modifications; and Three Mile Island-2 (capacity=906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. Shippingport (capacity=60 MWe), which was a second reactor operated by the Department of Energy, was officially retired from service on October 1, 1982, and is deleted from subsequent entries in the tables.

**2. Capacity:** Nuclear powerplants may have more than one type of capacity rating, including:

(a) Gross Maximum Dependable Capacity (MDC)—The gross electrical output measured at the output terminals of the turbine generator(s) during the most restrictive seasonal conditions (usually summer).

(b) Net Maximum Dependable Capacity (MDC)—The gross MDC less the station service load. The typical station service load for a nuclear plant is about 5 percent of its gross generation.

(c) Net Design Capacity or Net Design Electrical Rating (DER) —The nominal net electrical output of the unit, specified by the utility and used for plant design.

### Sources

**Reactors Licensed for Operation:** •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors." **Electricity Generation:** •1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report." •October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report." •1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

**Maximum Dependable Capacity:** •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors." **Capacity Factor:** •Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.

**Reactor Construction and Planning Data:** •1973 through June 1982—Compiled from various sources, primarily the Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and from the Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels. •July 1982 forward—Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and various trade journals.

**Total Design Capacity:** •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors" and Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report."

# Part 9

# Price

## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$25.82 per barrel in April 1983. This was 1.0 percent below the previous month's level and 6.6 percent below the level in April 1982.

During April 1983, the composite refiner acquisition cost of crude oil was \$28.32 per barrel, \$0.32 per barrel (1.1 percent) below the previous month's price of \$28.64. The price of imported crude oil decreased \$0.48 per barrel from the March 1983 level to \$27.95 per barrel in April. This price was 14.8 percent below the April 1982 level. The price of domestic crude oil in April 1983 was \$28.44, a decrease of \$0.25 per barrel from the March 1983 average.

### Residual Fuel Oil

The average price, excluding taxes, of No. 6 residual fuel oil sold to utilities, industry, and other ultimate consumers in December 1982 (latest data available) was \$28.47 per barrel, \$1.37 per barrel (4.6 percent) below the previous month's price and 7.9 percent below the December 1981 average. The average price, excluding taxes, of No. 6 residual fuel oil sold to resellers, bulk plants, jobbers, and other wholesale accounts in December 1982 was \$26.81 per barrel, \$1.50 per barrel (5.3 percent) below the November 1982 average and 1.7 percent below the December 1981 average.

### Heating Oil

The national average price of heating oil sold to residential customers in December 1982 (latest data available) was 119.6 cents per gallon. This was 1.6 percent below the selling price in November 1982 and 2.0 percent below the December 1981 price. The average distributor margin on residential

heating oil in December was 22.9 cents per gallon, 25.1 percent above the margin during December 1981. The refiners' national average selling price to resellers and retailers was 89.9 cents per gallon in December 1982, 10.6 percent below the December 1981 average.

### Aviation Fuel

The average price, excluding taxes, of kerosene-type jet fuel sold to commercial airlines, Department of Defense, and other ultimate consumers in December 1982 (latest data available) was 95.6 cents per gallon, a decrease of 0.8 percent from the previous month's average and a 6.5-percent decrease from the December 1981 average.

### Motor Gasoline

The national average retail price of all grades and all types of motor gasoline was 124.3 cents per gallon in May 1983. Leaded regular gasoline at all types of stations sold for an average of 117.7 cents per gallon in May, 4.6 cents (4.1 percent) higher than the price in April 1983. The price of unleaded regular gasoline at all types of stations was 125.9 cents per gallon in May, 4.4 cents (3.6 percent) higher than the price in April.

### Liquefied Petroleum Gases

The average wholesale price of propane, excluding taxes, during December 1982 (latest data available) was 49.5 cents per gallon, 7.0 percent below the previous month's level but 8.8 percent above the December 1981 level.

In December 1982, the average wholesale price of butane, excluding taxes, was 72.6 cents per gallon, 4.6 percent below the previous month's price but 31.0 percent above the December 1981 average.

# Price

## Petroleum Price Summary

|                     | <b>Actual<br/>Domestic<br/>Average<br/>Wellhead Price<sup>1</sup></b> | <b>Refiner Acquisition Cost of Crude Oil<sup>2</sup></b> |                 |                  | <b>No. 6 Residual Oil Price<br/>Average<sup>3</sup></b> |                           |
|---------------------|---|--|-----------------|------------------|---|---------------------------|
|                     |   | <b>Domestic</b>  | <b>Imported</b> | <b>Composite</b> | <b>Wholesale<sup>4</sup></b>                            | <b>Retail<sup>4</sup></b> |
| 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 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 AVERAGE</b> | <b>21.59</b>  | <b>24.23</b>   | <b>33.89</b>    | <b>28.07</b>     | <b>23.14</b>  | <b>26.09</b>              |
| <b>1981</b> January | 28.85   | 32.71  | 38.85           | 34.86            | 31.14   | 33.65                     |
| February            | 34.14   | 36.27  | 39.00           | 37.28            | 31.81   | 36.04                     |
| March               | 34.70   | 36.97  | 38.31           | 37.48            | 31.78   | 36.11                     |
| April               | 34.05   | 35.58  | 38.41           | 36.58            | 30.56   | 34.70                     |
| May                 | 32.71   | 35.21  | 37.84           | 36.11            | 30.41   | 34.11                     |
| June                | 31.71   | 34.20  | 37.03           | 35.03            | 25.95   | 31.03                     |
| July                | 31.13   | 33.76  | 36.58           | 34.70            | 26.52   | 30.57                     |
| August              | 31.13   | 33.79  | 35.82           | 34.46            | 27.01   | 30.52                     |
| September           | 31.13   | 33.47  | 35.44           | 34.11            | 26.20   | 30.33                     |
| October             | 31.00   | 33.48  | 35.43           | 34.07            | 26.78   | 30.32                     |
| November            | 30.98   | 33.49  | 36.21           | 34.33            | 27.99   | 30.16                     |
| December            | 30.72   | 33.51  | 35.95           | 34.33            | 27.26   | 30.90                     |
| <b>AVERAGE</b>      | <b>31.77</b>  | <b>34.33</b>   | <b>37.05</b>    | <b>35.24</b>     | <b>28.86</b>  | <b>32.50</b>              |
| <b>1982</b> January | 30.87   | 33.39  | 35.54           | 33.95            | 27.07   | 29.83                     |
| February            | 29.76   | 32.71  | 35.48           | 33.40            | 26.29   | 30.02                     |
| March               | 28.31   | 31.08  | 34.07           | 31.81            | 25.73   | 29.50                     |
| April               | 27.65   | 30.27  | 32.82           | 30.83            | 25.46   | 28.21                     |
| May                 | 27.67   | 30.37  | 32.78           | 31.02            | 26.52   | 28.93                     |
| June                | 28.11   | 30.79  | 33.79           | 31.74            | 26.62   | 29.59                     |
| July                | 28.33   | 30.92  | 33.44           | 31.74            | 25.97   | 29.33                     |
| August              | 28.18   | 30.85  | 32.95           | 31.45            | 26.34   | 28.44                     |
| September           | 27.99   | 30.76  | 33.03           | 31.40            | 26.49   | 28.43                     |
| October             | 28.74   | 31.38  | 33.28           | 31.98            | 27.52   | 29.28                     |
| November            | 28.70   | 31.57  | 33.09           | 32.07            | 28.31   | 29.84                     |
| December            | 28.12   | 30.80  | 32.85           | 31.29            | 26.81   | 28.47                     |
| <b>AVERAGE</b>      | <b>28.52</b>  | <b>31.22</b>   | <b>33.55</b>    | <b>31.87</b>     | <b>26.55</b>  | <b>29.08</b>              |
| <b>1983</b> January | 27.22   | 30.55  | 31.40           | 30.73            | NA  | NA                        |
| February            | 26.41   | 29.16  | 30.76           | 29.49            | NA  | NA                        |
| March               | R26.08  | R28.69   | 28.43           | R28.64           | NA  | NA                        |
| April†              | 25.82   | 28.44  | 27.95           | 28.32            | NA  | NA                        |
| May                 | NA  | NA   | NA              | NA               | NA  | NA                        |

<sup>1</sup>See Note 1 on the last two pages of this section.

<sup>2</sup>See Note 2 on the last two pages of this section.

<sup>3</sup>Wholesale refers to the price of residual fuel oil 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.

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

See additional footnotes on the following page.

# Price

## Petroleum Price Summary (continued)

|                     | No. 2 Diesel Price Average <sup>6</sup> |                     | No. 2 Heating Oil Price Average |              | Gasoline Price Average All Types <sup>6</sup> | Propane Price Average <sup>7</sup> | Butane Price Average <sup>7</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 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 AVERAGE</b> | <b>81.2</b>                             | <b>87.3</b>         | <b>82.2</b>                     | <b>97.8</b>  | <b>122.1</b>                                  | <b>42.4</b>                        | <b>62.9</b>                       |
| <b>1981</b>         | <b>January</b>                          | <b>92.5</b>         | <b>100.9</b>                    | <b>98.6</b>  | <b>114.4</b>                                  | <b>126.9</b>                       | <b>46.5</b>                       |
|                     | February                                | 99.5                | 106.1                           | 106.0        | 123.4   | 135.3                              | 48.2                              |
|                     | March                                   | 101.7               | 108.8                           | 106.3        | 125.5   | 138.8                              | 48.3                              |
|                     | April                                   | 101.3               | 107.7                           | 105.2        | 123.9   | 138.1                              | 49.3                              |
|                     | May                                     | 100.8               | 106.8                           | 104.0        | 122.7   | 137.0                              | 48.6                              |
|                     | June                                    | 99.5                | 106.6                           | 103.0        | 120.9   | 136.2                              | 46.0                              |
|                     | July                                    | 98.8                | 103.8                           | 102.7        | 121.0   | 135.3                              | 46.0                              |
|                     | August                                  | 97.8                | 105.9                           | 102.2        | 119.4   | 134.8                              | 47.2                              |
|                     | September                               | 97.6                | 104.8                           | 101.6        | 119.7   | 135.8                              | 47.7                              |
|                     | October                                 | 97.4                | 105.3                           | 101.1        | 118.8   | 135.3                              | 47.3                              |
|                     | November                                | 98.3                | 105.2                           | 102.3        | 120.8   | 135.1                              | 47.5                              |
|                     | December                                | 98.3                | 105.1                           | 102.6        | 122.0   | 134.8                              | 45.5                              |
|                     | <b>AVERAGE</b>                          | <b>98.5</b>         | <b>106.2</b>                    | <b>102.6</b> | <b>120.5</b>                                  | <b>135.3</b>                       | <b>47.2</b>                       |
| <b>1982</b>         | <b>January</b>                          | <b>98.0</b>         | <b>105.3</b>                    | <b>101.5</b> | <b>122.0</b>                                  | <b>134.1</b>                       | <b>43.1</b>                       |
|                     | February                                | 94.8                | 103.2                           | 98.3         | 120.7   | 131.8                              | 38.3                              |
|                     | March                                   | 90.2                | 98.0                            | 91.3         | 115.3   | 126.8                              | 35.7                              |
|                     | April                                   | 86.6                | 96.1                            | 90.0         | 113.2   | 121.0                              | 34.9                              |
|                     | May                                     | 89.1                | 97.6                            | 95.1         | 114.3   | 122.4                              | 35.4                              |
|                     | June                                    | 93.5                | 102.2                           | 98.5         | 116.2   | 129.6                              | 36.9                              |
|                     | July                                    | 93.4                | 101.1                           | 98.6         | 115.8   | 131.8                              | 39.7                              |
|                     | August                                  | 92.3                | 99.3                            | 96.7         | 115.9   | 131.0                              | 43.8                              |
|                     | September                               | 92.4                | 99.8                            | 97.7         | 115.2   | 129.5                              | 49.5                              |
|                     | October                                 | 95.7                | 102.1                           | 102.0        | 119.6   | 128.0                              | 51.0                              |
|                     | November                                | 97.3                | 104.5                           | 101.5        | 121.6   | 126.8                              | 53.2                              |
|                     | December                                | 91.2                | 100.3                           | 95.9         | 119.6   | 124.4                              | 49.5                              |
|                     | <b>AVERAGE</b>                          | <b>92.7</b>         | <b>100.5</b>                    | <b>97.4</b>  | <b>118.6</b>                                  | <b>128.1</b>                       | <b>43.3</b>                       |
| <b>1983</b>         | <b>January</b>                          | <b>NA</b>           | <b>NA</b>                       | <b>NA</b>    | <b>NA</b>                                     | <b>121.3</b>                       | <b>NA</b>                         |
|                     | February                                | NA                  | NA                              | NA           | NA  | 117.0                              | NA                                |
|                     | March                                   | NA                  | NA                              | NA           | NA  | 113.5                              | NA                                |
|                     | April                                   | NA                  | NA                              | NA           | NA  | 119.8                              | NA                                |
|                     | May                                     | NA                  | NA                              | NA           | NA  | 124.3                              | NA                                |

Footnotes continued.

<sup>6</sup>Beginning with September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the average for all types category, gasohol is now included and unleaded premium is weighted more heavily. See Note 5 on the last two pages of this section for additional information on motor gasoline prices.

<sup>7</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>†</sup>Preliminary data. R=Revised data. NA=Not available.

Note: • Geographic coverage is the 50 States and the District of Columbia, except for the refiner acquisition cost of crude oil, which is the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Sources: • See the last two pages of this section.

## 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 |           |         |           |                  |                  |        |         |              |                      |                |           |
| 1976               | AVERAGE   | 13.05   | 12.76     | 11.61            | 12.55            | NA     | 13.08   | 11.69        | 11.94                | NA             | 11.32     |
| 1977               | AVERAGE   | 14.36   | 13.57     | 12.67            | 13.90            | 13.42  | 14.44   | 12.37        | 12.83                | NA             | 12.68     |
| 1978               | AVERAGE   | 14.10   | 13.64     | 12.65            | 13.75            | 13.24  | 14.04   | 12.70        | 13.24                | 13.82          | 12.45     |
| 1979               | AVERAGE   | 20.65   | 19.35     | 23.71            | 22.43            | 20.29  | 21.80   | 17.63        | 19.58                | 21.20          | 17.37     |
| 1980               | AVERAGE   | 36.57   | 32.37     | ( <sup>2</sup> ) | 36.41            | 31.11  | 35.82   | 28.53        | NA                   | 34.58          | 24.78     |
| 1981               | January   | 39.37   | 36.54     | ( <sup>2</sup> ) | 40.52            | 35.88  | 40.11   | 32.39        | NA                   | 38.34          | 32.87     |
|                    | February  | 40.13   | 36.13     | ( <sup>2</sup> ) | 40.73            | 36.57  | 40.03   | 32.60        | NA                   | 39.41          | 30.36     |
|                    | March     | 40.30   | 36.40     | ( <sup>2</sup> ) | 40.25            | 35.60  | 39.85   | 32.73        | NA                   | 39.50          | 31.24     |
|                    | April     | 39.70   | 36.38     | ( <sup>2</sup> ) | 40.04            | 33.81  | 39.92   | 32.41        | NA                   | 38.85          | 29.93     |
|                    | May       | 39.57   | 36.09     | ( <sup>2</sup> ) | 38.91            | 34.45  | 39.11   | 32.13        | NA                   | 37.16          | 28.39     |
|                    | June      | 39.20   | 36.95     | ( <sup>2</sup> ) | 39.85            | 30.30  | 38.44   | 32.42        | NA                   | 35.84          | 30.50     |
|                    | July      | 38.06   | 35.47     | ( <sup>2</sup> ) | 38.70            | 32.72  | 39.25   | 32.07        | NA                   | 34.89          | 29.25     |
|                    | August    | 39.34   | 35.61     | ( <sup>2</sup> ) | 39.45            | 31.23  | 39.55   | 31.95        | NA                   | 34.38          | 27.08     |
|                    | September | 39.60   | 35.82     | ( <sup>2</sup> ) | 36.74            | 30.37  | 36.04   | 32.09        | NA                   | 34.44          | 28.14     |
|                    | October   | 36.90   | 35.08     | ( <sup>2</sup> ) | 36.36            | 30.83  | 35.45   | 33.56        | NA                   | 34.87          | 27.27     |
|                    | November  | 36.55   | 35.53     | ( <sup>2</sup> ) | 37.15            | 31.80  | 36.41   | 33.49        | NA                   | 35.97          | 28.39     |
|                    | December  | 37.35   | 36.08     | ( <sup>2</sup> ) | 36.78            | 31.29  | 36.49   | 33.70        | NA                   | 36.46          | 28.02     |
|                    | AVERAGE   | 39.09   | 35.93     | ( <sup>2</sup> ) | 39.44            | 33.13  | 38.53   | 32.48        | NA                   | 36.08          | 28.86     |
| 1982               | January   | 36.96   | 35.53     | ( <sup>2</sup> ) | 35.69            | 29.67  | 36.23   | 33.40        | NA                   | 36.20          | 29.07     |
|                    | February  | 35.56   | 35.59     | ( <sup>2</sup> ) | 34.64            | 30.92  | 35.92   | 33.50        | NA                   | 34.00          | 28.94     |
|                    | March     | 31.50   | 35.74     | ( <sup>2</sup> ) | 34.21            | 27.86  | 34.94   | 33.77        | NA                   | 30.78          | 22.89     |
|                    | April     | 30.54   | 35.69     | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 26.96  | 33.80   | 33.49        | NA                   | 32.49          | 21.89     |
|                    | May       | 33.32   | 34.82     | 31.11            | ( <sup>2</sup> ) | 28.53  | 35.22   | 32.97        | NA                   | 32.43          | 22.31     |
|                    | June      | 34.72   | 35.95     | NA               | ( <sup>2</sup> ) | 28.18  | 35.18   | 33.80        | NA                   | 33.67          | 22.25     |
|                    | July      | 34.35   | 35.22     | 31.44            | ( <sup>2</sup> ) | 28.32  | 35.15   | 33.26        | NA                   | 33.66          | 23.50     |
|                    | August    | 33.03   | 35.63     | 31.17            | ( <sup>2</sup> ) | 27.67  | 35.13   | 32.63        | NA                   | 33.17          | 20.71     |
|                    | September | 34.20   | 35.24     | NA               | ( <sup>2</sup> ) | 27.95  | 34.70   | 32.98        | NA                   | 33.30          | 23.58     |
|                    | October   | 34.26   | 35.25     | NA               | ( <sup>2</sup> ) | 27.82  | 35.05   | 33.54        | NA                   | 33.93          | 22.93     |
|                    | November  | 34.44   | 34.99     | 29.80            | ( <sup>2</sup> ) | 27.63  | 35.02   | 33.59        | NA                   | 34.08          | 23.74     |
|                    | December  | 34.86   | 34.73     | 29.09            | ( <sup>2</sup> ) | 27.63  | 33.18   | 34.04        | NA                   | 33.21          | 26.21     |
|                    | AVERAGE   | 34.23   | 35.27     | 30.93            | 35.12            | 28.07  | 35.13   | 33.50        | NA                   | 33.46          | 23.77     |
| 1983               | January   | NA      | 34.71     | NA               | ( <sup>2</sup> ) | 26.90  | NA      | NA           | NA                   | 32.77          | 21.58     |
|                    | February  | NA      | 33.74     | NA               | ( <sup>2</sup> ) | 25.69  | NA      | NA           | NA                   | 30.95          | 21.82     |
|                    | March     | 31.07   | 29.69     | NA               | ( <sup>2</sup> ) | R24.53 | R29.52  | 30.03        | NA                   | R29.16         | R20.04    |
|                    | April†    | 29.06   | 29.65     | NA               | ( <sup>2</sup> ) | 24.20  | 29.73   | NA           | NA                   | 28.84          | 20.35     |

<sup>1</sup>The Free on Board (FOB) cost excludes all costs related to insurance and transportation. See Note 3 on the last two pages of this section.

<sup>2</sup>No crude oil was imported.

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

Note: • Prices shown through December 1980 are for the month of reporting; prices since then are for the month of loading.

Sources: • See the last two pages of this section.

## 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 |           |         |        |           |                  |                  |        |         |              |                      |                |           |
| 1975               | AVERAGE   | 12.72   | 12.72  | 13.79     | 12.21            | 12.35            | NA     | 12.62   | 12.30        | 12.87                | NA             | 11.65     |
| 1976               | AVERAGE   | 13.81   | 13.57  | 13.82     | 12.82            | 13.58            | NA     | 13.80   | 13.04        | 13.30                | NA             | 11.80     |
| 1977               | AVERAGE   | 15.20   | 14.21  | 14.63     | 13.80            | 14.87            | 13.75  | 15.25   | 13.61        | 14.04                | NA             | 13.13     |
| 1978               | AVERAGE   | 14.91   | 14.50  | 14.64     | 13.88            | 14.72            | 13.54  | 14.86   | 13.92        | 14.39                | NA             | 12.83     |
| 1979               | AVERAGE   | 21.90   | 20.43  | 20.69     | 25.02            | 23.68            | 20.86  | 22.96   | 19.15        | 21.90                | 22.16          | 18.18     |
| 1980               | AVERAGE   | 37.90   | 30.47  | 33.92     | ( <sup>2</sup> ) | 37.72            | 31.80  | 37.05   | 30.02        | NA                   | 35.88          | 25.86     |
| 1981               | January   | 41.25   | 34.26  | 38.08     | ( <sup>2</sup> ) | 41.81            | 36.81  | 41.55   | 34.06        | NA                   | 39.90          | 33.80     |
|                    | February  | 41.90   | 33.73  | 37.86     | ( <sup>2</sup> ) | 42.19            | 37.23  | 41.46   | 34.38        | NA                   | 40.69          | 31.20     |
|                    | March     | 41.62   | 33.88  | 38.11     | ( <sup>2</sup> ) | 41.60            | 36.42  | 40.98   | 34.42        | NA                   | 40.72          | 32.09     |
|                    | April     | 40.96   | 33.74  | 37.95     | ( <sup>2</sup> ) | 41.58            | 34.42  | 41.04   | 34.16        | NA                   | 40.02          | 30.97     |
|                    | May       | 40.81   | 32.70  | 37.72     | ( <sup>2</sup> ) | 40.46            | 34.83  | 40.10   | 33.73        | NA                   | 38.31          | 29.39     |
|                    | June      | 40.31   | 32.67  | 38.73     | ( <sup>2</sup> ) | 41.44            | 31.03  | 39.60   | 34.29        | NA                   | 37.04          | 31.46     |
|                    | July      | 39.59   | 31.19  | 37.20     | ( <sup>2</sup> ) | 40.27            | 33.18  | 40.05   | 33.72        | NA                   | 35.87          | 29.22     |
|                    | August    | 40.65   | 30.44  | 37.07     | ( <sup>2</sup> ) | 40.30            | 31.77  | 40.85   | 33.23        | NA                   | 35.40          | 28.11     |
|                    | September | 41.62   | 30.83  | 37.52     | ( <sup>2</sup> ) | 37.73            | 30.84  | 37.20   | 33.66        | NA                   | 35.26          | 29.12     |
|                    | October   | 37.52   | 31.17  | 36.39     | ( <sup>2</sup> ) | 38.15            | 31.34  | 36.64   | 34.88        | NA                   | 36.00          | 28.27     |
|                    | November  | 37.43   | 31.04  | 36.84     | ( <sup>2</sup> ) | 38.50            | 32.42  | 37.59   | 34.91        | NA                   | 36.87          | 29.27     |
|                    | December  | 38.14   | 31.37  | 37.31     | ( <sup>2</sup> ) | 38.89            | 31.85  | 37.52   | 35.37        | NA                   | 37.44          | 29.00     |
|                    | AVERAGE   | 40.49   | 32.16  | 37.57     | ( <sup>2</sup> ) | 40.92            | 33.78  | 39.70   | 34.19        | NA                   | 37.24          | 29.87     |
| 1982               | January   | 38.19   | 31.05  | 36.88     | ( <sup>2</sup> ) | 36.91            | 30.21  | 37.37   | 34.44        | NA                   | 36.78          | 29.82     |
|                    | February  | 37.09   | 28.80  | 36.81     | ( <sup>2</sup> ) | 35.28            | 31.47  | 37.06   | 34.51        | NA                   | 35.04          | 30.09     |
|                    | March     | 32.25   | 26.71  | 37.17     | ( <sup>2</sup> ) | 34.80            | 28.69  | 35.81   | 34.92        | NA                   | 31.35          | 23.92     |
|                    | April     | 31.66   | 24.86  | 36.87     | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 27.58  | 34.82   | 34.80        | NA                   | 33.19          | 23.09     |
|                    | May       | 34.24   | 24.90  | 36.50     | 32.01            | ( <sup>2</sup> ) | 29.18  | 36.06   | 34.28        | NA                   | 33.22          | 23.44     |
|                    | June      | 35.41   | 24.63  | 37.35     | NA               | ( <sup>2</sup> ) | 28.76  | 36.15   | 35.20        | NA                   | 34.41          | 23.43     |
|                    | July      | 35.26   | 26.62  | 37.04     | 32.08            | ( <sup>2</sup> ) | 28.95  | 36.19   | 35.04        | NA                   | 34.67          | 24.61     |
|                    | August    | 33.87   | 26.40  | 36.81     | 31.84            | ( <sup>2</sup> ) | 28.19  | 36.16   | 34.28        | NA                   | 33.88          | 21.90     |
|                    | September | 34.88   | 26.52  | 36.65     | NA               | ( <sup>2</sup> ) | 28.50  | 35.56   | 34.45        | NA                   | 34.01          | 24.53     |
|                    | October   | 35.41   | 26.91  | 36.83     | 33.28            | ( <sup>2</sup> ) | 28.22  | 35.98   | 35.21        | NA                   | 34.56          | 23.90     |
|                    | November  | 35.82   | 26.78  | 36.49     | 32.66            | ( <sup>2</sup> ) | 28.17  | 36.04   | 35.41        | NA                   | 34.74          | 24.91     |
|                    | December  | 35.70   | 27.35  | 36.19     | 32.73            | ( <sup>2</sup> ) | 28.19  | 34.54   | 36.43        | NA                   | 34.05          | 27.09     |
|                    | AVERAGE   | 35.28   | 26.92  | 36.75     | 32.40            | 36.05            | 28.64  | 36.17   | 35.00        | NA                   | 34.28          | 24.82     |
| 1983               | January   | 33.20   | 27.62  | 36.12     | NA               | ( <sup>2</sup> ) | 27.50  | NA      | NA           | NA                   | 33.48          | 23.20     |
|                    | February  | 32.17   | 26.19  | 35.07     | NA               | ( <sup>2</sup> ) | 26.15  | 32.24   | NA           | NA                   | 33.33          | 23.36     |
|                    | March     | R31.24  | 24.78  | 31.17     | NA               | ( <sup>2</sup> ) | R25.06 | R30.49  | 31.63        | NA                   | R29.92         | R21.48    |
|                    | April†    | 30.30   | 24.35  | 31.20     | NA               | ( <sup>2</sup> ) | 24.67  | 30.78   | NA           | NA                   | 29.82          | 21.78     |

<sup>1</sup>See Note 4 on the last two pages of this section.

<sup>2</sup>No crude oil was imported.

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

Note: Prices shown through December 1980 are for the month of reporting; prices since then are for the month of loading.

Sources: • See the last two pages of this section.

## Price

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

|                                 |                        | Leaded<br>Regular | Unleaded<br>Regular | Leaded<br>Premium | Average<br>for All<br>Types |
|---------------------------------|------------------------|-------------------|---------------------|-------------------|-----------------------------|
| Cents per gallon, including tax |                        |                   |                     |                   |                             |
| 1974                            | <b>AVERAGE</b>         | <b>53.2</b>       | <b>NA</b>           | <b>56.9</b>       | <b>NA</b>                   |
| 1975                            | <b>AVERAGE</b>         | <b>56.7</b>       | <b>NA</b>           | <b>60.9</b>       | <b>NA</b>                   |
| 1976                            | <b>AVERAGE</b>         | <b>59.0</b>       | <b>61.4</b>         | <b>63.6</b>       | <b>NA</b>                   |
| 1977                            | <b>AVERAGE</b>         | <b>62.2</b>       | <b>65.6</b>         | <b>67.4</b>       | <b>NA</b>                   |
| 1978                            | <b>AVERAGE</b>         | <b>62.6</b>       | <b>67.0</b>         | <b>69.4</b>       | <b>65.2</b>                 |
| 1979                            | <b>AVERAGE</b>         | <b>85.7</b>       | <b>90.3</b>         | <b>92.2</b>       | <b>88.2</b>                 |
| 1980                            | <b>AVERAGE</b>         | <b>119.1</b>      | <b>124.5</b>        | <b>128.1</b>      | <b>122.1</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                       |
|                                 | April                  | 134.4             | 141.2               | 145.1             | 138.1                       |
|                                 | May                    | 133.3             | 140.0               | 144.7             | 137.0                       |
|                                 | June                   | 132.4             | 139.1               | 144.6             | 136.2                       |
|                                 | July                   | 131.5             | 138.2               | 144.6             | 135.3                       |
|                                 | August                 | 131.0             | 137.6               | 144.4             | 134.8                       |
|                                 | September <sup>2</sup> | 130.5             | 137.6               | 145.6             | 135.8                       |
|                                 | October                | 129.9             | 137.1               | 145.7             | 135.3                       |
|                                 | November               | 129.7             | 136.9               | 146.2             | 135.1                       |
|                                 | December               | 129.3             | 136.5               | 146.0             | 134.8                       |
|                                 | <b>AVERAGE</b>         | <b>131.1</b>      | <b>137.8</b>        | <b>143.9</b>      | <b>135.3</b>                |
| 1982                            | January                | 128.5             | 135.8               | 145.6             | 134.1                       |
|                                 | February               | 126.0             | 133.4               | 143.8             | 131.8                       |
|                                 | March                  | 120.6             | 128.4               | 140.7             | 126.8                       |
|                                 | April                  | 114.8             | 122.5               | 136.8             | 121.0                       |
|                                 | May                    | 116.6             | 123.7               | 137.9             | 122.4                       |
|                                 | June                   | 124.2             | 130.9               | 140.8             | 129.6                       |
|                                 | July                   | 126.3             | 133.1               | 145.0             | 131.8                       |
|                                 | August                 | 125.4             | 132.3               | 145.8             | 131.0                       |
|                                 | September              | 123.6             | 130.8               | 144.1             | 129.5                       |
|                                 | October                | 121.9             | 129.5               | 141.3             | 128.0                       |
|                                 | November               | 120.7             | 128.3               | 141.2             | 126.8                       |
|                                 | December               | 118.1             | 126.0               | 137.1             | 124.4                       |
|                                 | <b>AVERAGE</b>         | <b>122.2</b>      | <b>129.6</b>        | <b>141.7</b>      | <b>128.1</b>                |
| 1983                            | January                | 114.6             | 122.8               | 135.3             | 121.3                       |
|                                 | February               | 109.9             | 118.7               | 131.8             | 117.0                       |
|                                 | March                  | 106.4             | 115.1               | 127.4             | 113.5                       |
|                                 | April                  | 113.1             | 121.5               | 132.1             | 119.8                       |
|                                 | May                    | 117.7             | 125.9               | 137.6             | 124.3                       |

<sup>1</sup>See Note 5 on the last two pages of this section.

<sup>2</sup>Beginning with September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the average for all types category, gasohol is now included and unleaded premium is weighted more heavily.

NA=Not available.

Note: • Geographic coverage for 1974 through 1977 is 56 urban areas. For 1978 forward it is 85 urban areas.

Sources: • See the last two pages of this section.

# 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 |                     |                           |                        |                     |  |
| 1976 | AVERAGE   | 42.4                            | 43.1                | 31.5                      | 32.5                   | 31.2                |  |
| 1977 | AVERAGE   | 46.7                            | 47.7                | 35.0                      | 36.7                   | 35.8                |  |
| 1978 | AVERAGE   | 51.0                            | 52.1                | 37.5                      | 38.9                   | 38.9                |  |
| 1979 | AVERAGE   | 68.5                            | 69.5                | 52.3                      | 66.5                   | 55.1                |  |
| 1980 | AVERAGE   | 107.2                           | 109.4               | 88.2                      | 87.5                   | 87.4                |  |
| 1981 | January   | 118.9                           | 121.6               | 99.2                      | 97.1                   | 95.7                |  |
|      | February  | 121.3                           | 128.1               | 102.7                     | 103.6                  | 101.6               |  |
|      | March     | 127.2                           | 131.1               | 106.9                     | 104.8                  | 106.3               |  |
|      | April     | 117.5                           | 131.3               | 109.0                     | 103.8                  | 106.4               |  |
|      | May       | 120.7                           | 133.5               | 109.1                     | 104.4                  | 106.2               |  |
|      | June      | 116.5                           | 132.1               | 107.6                     | 102.3                  | 104.8               |  |
|      | July      | 120.1                           | 133.4               | 106.3                     | 100.5                  | 103.8               |  |
|      | August    | 120.0                           | 132.5               | 105.7                     | 101.4                  | 103.3               |  |
|      | September | 121.0                           | 133.5               | 105.6                     | 103.0                  | 103.3               |  |
|      | October   | 117.2                           | 134.5               | 104.8                     | 99.9                   | 101.1               |  |
|      | November  | 114.4                           | 133.2               | 104.5                     | 101.9                  | 102.6               |  |
|      | December  | 116.8                           | 131.9               | 103.8                     | 101.9                  | 102.2               |  |
|      | AVERAGE   | 118.8                           | 131.5               | 105.7                     | 102.0                  | 103.1               |  |
| 1982 | January   | 122.4                           | 133.2               | 101.7                     | 101.3                  | 101.6               |  |
|      | February  | 122.0                           | 134.0               | 101.3                     | 100.0                  | 101.0               |  |
|      | March     | 117.0                           | 134.8               | 98.4                      | 97.6                   | 99.6                |  |
|      | April     | 113.4                           | 132.7               | 96.0                      | 93.0                   | 96.8                |  |
|      | May       | 109.6                           | 132.7               | 94.1                      | 91.7                   | 95.5                |  |
|      | June      | 114.7                           | 132.5               | 98.4                      | 94.1                   | 95.3                |  |
|      | July      | 120.4                           | 134.4               | 98.7                      | 94.3                   | 95.3                |  |
|      | August    | 117.7                           | 132.6               | 97.3                      | 95.0                   | 95.4                |  |
|      | September | 115.7                           | 130.0               | 98.2                      | 95.5                   | 95.1                |  |
|      | October   | 116.6                           | 131.5               | 98.5                      | 98.4                   | 95.8                |  |
|      | November  | 118.4                           | 131.7               | 96.4                      | 98.2                   | 96.4                |  |
|      | December  | 119.6                           | 130.3               | 94.0                      | 93.7                   | 95.6                |  |
|      | AVERAGE   | 116.7                           | 132.4               | 97.7                      | 96.1                   | 96.9                |  |

<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.

Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last two pages of this section.

## 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             | AVERAGE   | 31.4   | 32.6   | NA   | 40.6  |
| 1977             | AVERAGE   | 35.7   | 36.9   | NA   | 46.0  |
| 1978             | AVERAGE   | 37.2   | 38.7   | 11.0   | 49.4  |
| 1979             | AVERAGE   | 55.9   | 53.0   | 12.8   | 65.6  |
| 1980             | AVERAGE   | 80.0   | 82.2   | 15.8   | 97.8  |
| 1981             | January   | 94.9   | 98.6   | 15.1   | 114.4   |
|                  | February  | 102.5  | 106.0  | 16.1   | 123.4   |
|                  | March     | 102.8  | 106.3  | 17.6   | 125.5   |
|                  | April     | 100.9  | 105.2  | 17.7   | 123.9   |
|                  | May       | 100.7  | 104.0  | 17.6   | 122.7   |
|                  | June      | 99.3   | 103.0  | 16.9   | 120.9   |
|                  | July      | 98.5   | 102.7  | 17.1   | 121.0   |
|                  | August    | 98.2   | 102.2  | 16.2   | 119.4   |
|                  | September | 97.8   | 101.6  | 17.2   | 119.7   |
|                  | October   | 98.0   | 101.1  | 16.6   | 118.8   |
|                  | November  | 100.0  | 102.3  | 17.6   | 120.8   |
|                  | December  | 100.6  | 102.6  | 18.3   | 122.0   |
|                  | AVERAGE   | 99.3   | 102.6  | 16.8   | 120.5   |
| 1982             | January   | 99.1   | 101.5  | 19.3   | 122.0   |
|                  | February  | 94.7   | 98.3   | 21.3   | 120.7   |
|                  | March     | 87.4   | 91.3   | 22.6   | 115.3   |
|                  | April     | 86.0   | 90.0   | 22.0   | 113.2   |
|                  | May       | 91.2   | 95.1   | 18.4   | 114.3   |
|                  | June      | 95.4   | 98.5   | 16.9   | 116.2   |
|                  | July      | 93.8   | 98.6   | 16.3   | 115.8   |
|                  | August    | 92.5   | 96.7   | 18.2   | 115.9   |
|                  | September | 93.3   | 97.7   | 16.3   | 115.2   |
|                  | October   | 98.8   | 102.0  | 16.7   | 119.6   |
|                  | November  | 99.2   | 101.5  | 19.0   | 121.6   |
|                  | December  | 89.9   | 95.9   | 22.9   | 119.6   |
|                  | AVERAGE   | 93.2   | 97.4   | 20.2   | 118.6   |

<sup>1</sup>See Note 6 on the last two pages of this section.

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

NA=Not available.

Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last two pages of this section.

# Price

## Residential Heating Oil Prices by Region

### Standard Federal Region<sup>1</sup>

|             |           | Cents per gallon |       |                  |       |       |                  |                  |                  |                  |       |
|-------------|-----------|------------------|-------|------------------|-------|-------|------------------|------------------|------------------|------------------|-------|
|             |           | 1                | 2     | 3                | 4     | 5     | 6                | 7                | 8                | 9                | 10    |
| <b>1980</b> | January   | 91.8             | 91.0  | 90.2             | 88.6  | 90.4  | ( <sup>2</sup> ) | 90.0             | 90.2             | 89.6             | 91.0  |
|             | February  | 96.7             | 95.3  | 94.7             | 93.0  | 93.5  | ( <sup>2</sup> ) | 93.6             | 93.5             | 95.8             | 95.7  |
|             | March     | 98.7             | 97.2  | 96.5             | 94.8  | 94.3  | ( <sup>2</sup> ) | 95.1             | 95.9             | 93.9             | 97.6  |
|             | April     | 99.2             | 97.3  | 96.6             | 94.1  | 94.5  | ( <sup>2</sup> ) | 95.3             | 99.5             | 94.7             | 99.0  |
|             | May       | 98.7             | 97.3  | 96.4             | 94.2  | 95.8  | ( <sup>2</sup> ) | 95.2             | 97.7             | 95.5             | 98.6  |
|             | June      | 99.8             | 97.9  | 96.8             | 95.1  | 95.8  | ( <sup>2</sup> ) | 95.3             | 98.4             | 96.0             | 99.8  |
|             | July      | 100.3            | 98.1  | 96.6             | 94.2  | 96.2  | ( <sup>2</sup> ) | 93.1             | 97.0             | 96.7             | 100.2 |
|             | August    | 100.2            | 97.9  | 96.8             | 94.8  | 95.7  | ( <sup>2</sup> ) | 95.4             | 92.1             | 99.7             | 100.4 |
|             | September | 100.5            | 98.2  | 97.0             | 94.7  | 95.7  | ( <sup>2</sup> ) | 93.7             | 93.0             | 97.2             | 100.6 |
|             | October   | 101.1            | 98.8  | 97.4             | 95.6  | 95.9  | ( <sup>2</sup> ) | 94.7             | 94.1             | 98.6             | 100.4 |
|             | November  | 102.5            | 103.0 | 99.9             | 101.5 | 98.8  | ( <sup>2</sup> ) | 95.2             | 98.5             | 101.0            | 103.1 |
|             | December  | 108.2            | 108.5 | 105.3            | 106.6 | 103.4 | ( <sup>2</sup> ) | 99.6             | 101.8            | ( <sup>2</sup> ) | 105.6 |
| <b>1981</b> | January   | 116.2            | 117.1 | 113.2            | 114.0 | 110.4 | ( <sup>2</sup> ) | 106.3            | 108.6            | ( <sup>2</sup> ) | 107.5 |
|             | February  | 125.8            | 126.6 | 123.0            | 124.4 | 117.8 | ( <sup>2</sup> ) | 114.2            | 113.1            | ( <sup>2</sup> ) | 113.7 |
|             | March     | 127.6            | 128.4 | 125.0            | 125.3 | 119.3 | ( <sup>2</sup> ) | 115.4            | 119.3            | 111.5            | 116.5 |
|             | April     | 126.8            | 126.6 | 122.7            | 124.8 | 118.3 | ( <sup>2</sup> ) | 114.7            | 118.4            | ( <sup>2</sup> ) | 117.5 |
|             | May       | 125.5            | 125.6 | 122.1            | 118.8 | 117.3 | ( <sup>2</sup> ) | 114.5            | 115.1            | 114.1            | 115.6 |
|             | June      | 124.1            | 123.6 | 121.1            | 115.9 | 116.5 | ( <sup>2</sup> ) | 112.5            | 116.0            | ( <sup>2</sup> ) | 117.1 |
|             | July      | 123.3            | 122.9 | 120.6            | 120.2 | 116.0 | ( <sup>2</sup> ) | 115.9            | 116.2            | ( <sup>2</sup> ) | 118.3 |
|             | August    | 122.7            | 122.2 | 117.9            | 117.4 | 115.1 | ( <sup>2</sup> ) | 112.1            | 116.9            | ( <sup>2</sup> ) | 117.7 |
|             | September | 122.7            | 121.4 | 118.5            | 120.5 | 116.2 | ( <sup>2</sup> ) | 111.6            | 116.8            | ( <sup>2</sup> ) | 117.8 |
|             | October   | 122.5            | 122.0 | 115.3            | 117.6 | 116.3 | ( <sup>2</sup> ) | 112.0            | 115.8            | ( <sup>2</sup> ) | 118.2 |
|             | November  | 123.3            | 123.2 | 119.5            | 118.2 | 116.7 | ( <sup>2</sup> ) | 114.1            | 115.8            | ( <sup>2</sup> ) | 118.8 |
|             | December  | 124.8            | 124.7 | 120.7            | 119.0 | 117.4 | ( <sup>2</sup> ) | 112.4            | 117.1            | ( <sup>2</sup> ) | 120.0 |
| <b>1982</b> | January   | 125.3            | 124.7 | 120.6            | 118.7 | 117.1 | ( <sup>2</sup> ) | 112.7            | 116.1            | ( <sup>2</sup> ) | 119.7 |
|             | February  | 123.2            | 123.7 | 119.3            | 115.3 | 116.0 | ( <sup>2</sup> ) | 110.9            | 114.9            | ( <sup>2</sup> ) | 119.5 |
|             | March     | 117.4            | 119.0 | 112.3            | 112.9 | 111.0 | ( <sup>2</sup> ) | 106.4            | 109.7            | ( <sup>2</sup> ) | 118.1 |
|             | April     | 113.9            | 116.6 | 112.2            | 109.4 | 108.7 | ( <sup>2</sup> ) | 100.8            | 106.3            | ( <sup>2</sup> ) | 116.0 |
|             | May       | 115.9            | 117.1 | 113.2            | 111.7 | 110.8 | ( <sup>2</sup> ) | 108.7            | 108.4            | ( <sup>2</sup> ) | 116.6 |
|             | June      | 117.5            | 118.5 | 115.2            | 113.5 | 114.4 | ( <sup>2</sup> ) | 111.8            | 112.3            | ( <sup>2</sup> ) | 116.0 |
|             | July      | 117.7            | 118.5 | 113.4            | 115.2 | 113.6 | ( <sup>2</sup> ) | 111.7            | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 115.9 |
|             | August    | 118.6            | 118.8 | 113.9            | 112.4 | 111.9 | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 116.3 |
|             | September | 119.4            | 119.3 | ( <sup>2</sup> ) | 115.0 | 112.4 | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 114.2            | ( <sup>2</sup> ) | 116.2 |
|             | October   | 122.3            | 122.4 | 118.5            | 117.3 | 114.8 | ( <sup>2</sup> ) | 110.5            | 113.1            | ( <sup>2</sup> ) | 117.4 |
|             | November  | 124.2            | 124.7 | 120.1            | 118.4 | 115.9 | ( <sup>2</sup> ) | 110.2            | 114.7            | ( <sup>2</sup> ) | 118.9 |
|             | December  | 122.2            | 122.9 | 117.8            | 114.1 | 113.0 | ( <sup>2</sup> ) | 107.3            | 112.0            | ( <sup>2</sup> ) | 118.6 |

<sup>1</sup>Standard Federal Regions are defined in Note 7 on the last two pages of this section.

<sup>2</sup>Not available for publication due to fewer than four firms reporting.

Sources: • See the last two pages of this section.

## 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-  | Retail |
|                                     |           |                           |        |                            |        |                                 |        | sale    | Retail |
| Dollars per barrel, excluding taxes |           |                           |        |                            |        |                                 |        |         |        |
| 1976                                | AVERAGE   | 12.20                     | 12.54  | 10.83                      | 11.79  | 9.98                            | 10.43  | 10.72   | 11.49  |
| 1977                                | AVERAGE   | 13.45                     | 14.36  | 12.09                      | 13.45  | 11.31                           | 12.27  | 11.96   | 13.23  |
| 1978                                | AVERAGE   | 12.77                     | 14.47  | 11.95                      | 12.78  | 10.73                           | 11.70  | 11.51   | 12.75  |
| 1979                                | AVERAGE   | 19.87                     | 21.21  | 18.33                      | 19.33  | 15.89                           | 16.44  | 17.66   | 18.67  |
| 1980                                | AVERAGE   | 26.41                     | 31.13  | 24.91                      | 27.59  | 20.77                           | 22.11  | 23.14   | 26.09  |
| 1981                                | January   | 34.27                     | 37.23  | 32.12                      | 33.96  | 29.12                           | 31.35  | 31.14   | 33.65  |
|                                     | February  | 38.04                     | 41.60  | 34.96                      | 37.32  | 28.96                           | 32.02  | 31.81   | 36.04  |
|                                     | March     | 37.78                     | 41.19  | 34.47                      | 38.01  | 29.55                           | 31.95  | 31.78   | 36.11  |
|                                     | April     | 35.66                     | 41.71  | 33.10                      | 35.94  | 28.35                           | 30.56  | 30.56   | 34.70  |
|                                     | May       | 33.61                     | 41.09  | 32.53                      | 35.94  | 28.77                           | 30.64  | 30.41   | 34.11  |
|                                     | June      | 28.01                     | 38.30  | 26.71                      | 32.38  | 25.33                           | 27.16  | 25.95   | 31.03  |
|                                     | July      | 29.56                     | 39.02  | 27.38                      | 31.93  | 25.62                           | 25.96  | 26.52   | 30.57  |
|                                     | August    | 30.48                     | 36.57  | 27.77                      | 32.04  | 26.03                           | 26.20  | 27.01   | 30.52  |
|                                     | September | 29.91                     | 39.17  | 27.46                      | 32.08  | 24.80                           | 26.26  | 26.20   | 30.33  |
|                                     | October   | 30.26                     | 39.90  | 28.64                      | 31.88  | 24.96                           | 26.18  | 26.78   | 30.32  |
|                                     | November  | 31.71                     | 39.48  | 29.63                      | 31.02  | 26.09                           | 26.45  | 27.99   | 30.16  |
|                                     | December  | 31.40                     | 37.65  | 28.29                      | 32.19  | 25.39                           | 26.53  | 27.26   | 30.90  |
|                                     | AVERAGE   | 32.97                     | 39.31  | 30.56                      | 33.69  | 27.07                           | 28.57  | 28.86   | 32.50  |
| 1982                                | January   | 33.03                     | 37.56  | 28.90                      | 31.13  | 24.60                           | 25.94  | 27.07   | 29.83  |
|                                     | February  | 31.67                     | 38.41  | 29.30                      | 30.95  | 23.60                           | 24.70  | 26.29   | 30.02  |
|                                     | March     | 30.95                     | 38.96  | 27.60                      | 30.57  | 23.45                           | 24.21  | 25.73   | 29.50  |
|                                     | April     | 30.11                     | 36.77  | 27.08                      | 30.00  | 23.57                           | 24.40  | 25.46   | 28.21  |
|                                     | May       | 30.38                     | 37.97  | 27.89                      | 30.05  | 25.15                           | 25.94  | 26.52   | 28.93  |
|                                     | June      | 27.98                     | 38.93  | 28.26                      | 30.89  | 25.35                           | 26.56  | 26.62   | 29.59  |
|                                     | July      | 30.05                     | 37.46  | 27.39                      | 29.84  | 24.19                           | 26.49  | 25.97   | 29.33  |
|                                     | August    | 28.86                     | 31.82  | 27.50                      | 30.37  | 25.40                           | 26.02  | 26.34   | 28.44  |
|                                     | September | 30.22                     | 32.41  | 27.73                      | 30.45  | 25.21                           | 25.93  | 26.49   | 28.43  |
|                                     | October   | 31.98                     | 33.51  | 29.51                      | 32.24  | 25.72                           | 26.59  | 27.52   | 29.28  |
|                                     | November  | 32.28                     | 34.14  | 29.44                      | 32.24  | 26.30                           | 26.99  | 28.31   | 29.84  |
|                                     | December  | 31.31                     | 32.59  | 28.19                      | 30.25  | 25.16                           | 26.22  | 26.81   | 28.47  |
|                                     | AVERAGE   | 30.92                     | 36.34  | 28.27                      | 30.71  | 24.76                           | 25.82  | 26.55   | 29.08  |

Notes: • Geographic coverage is the 50 States and the District of Columbia.

• 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.

Sources: • See the last two pages of this section.

# Price

## Natural Gas

|                                 |                | Average Wellhead Value | Delivered to Electric Plants <sup>1</sup> | Average Residential Heating |
|---------------------------------|----------------|------------------------|---|-----------------------------|
| Dollars per thousand cubic feet |                |                        |   |                             |
| 1973                            | <b>AVERAGE</b> | <b>0.22</b>            | <b>0.35</b>                               | <b>1.08</b>                 |
| 1974                            | <b>AVERAGE</b> | <b>0.30</b>            | <b>0.49</b>                               | <b>1.25</b>                 |
| 1975                            | <b>AVERAGE</b> | <b>0.45</b>            | <b>0.77</b>                               | <b>1.54</b>                 |
| 1976                            | <b>AVERAGE</b> | <b>0.58</b>            | <b>1.06</b>                               | <b>1.85</b>                 |
| 1977                            | <b>AVERAGE</b> | <b>0.79</b>            | <b>1.33</b>                               | <b>2.26</b>                 |
| 1978                            | <b>AVERAGE</b> | <b>0.91</b>            | <b>1.48</b>                               | <b>2.63</b>                 |
| 1979                            | <b>AVERAGE</b> | <b>1.18</b>            | <b>1.80</b>                               | <b>3.23</b>                 |
| 1980                            | <b>AVERAGE</b> | <b>1.59</b>            | <b>2.28</b>                               | <b>3.95</b>                 |
| 1981                            | January        | 1.77                   | 2.51                                      | 4.10                        |
|                                 | February       | 1.81                   | 2.67                                      | 4.13                        |
|                                 | March          | 1.86                   | 2.71                                      | 4.21                        |
|                                 | April          | 1.93                   | 2.81                                      | 4.25                        |
|                                 | May            | 1.95                   | 2.92                                      | 4.61                        |
|                                 | June           | 1.95                   | 2.95                                      | 4.61                        |
|                                 | July           | 2.01                   | 2.97                                      | 4.64                        |
|                                 | August         | 2.02                   | 2.99                                      | 4.70                        |
|                                 | September      | 2.08                   | 2.95                                      | 4.90                        |
|                                 | October        | 2.11                   | 3.07                                      | 4.91                        |
|                                 | November       | 2.15                   | 3.07                                      | 4.88                        |
|                                 | December       | 2.16                   | 2.97                                      | 4.75                        |
|                                 | <b>AVERAGE</b> | <b>1.98</b>            | <b>2.91</b>                               | <b>4.56</b>                 |
| 1982                            | January        | 2.21                   | 3.07                                      | 4.86                        |
|                                 | February       | 2.23                   | 3.18                                      | 4.87                        |
|                                 | March          | 2.31                   | 3.25                                      | 5.06                        |
|                                 | April          | 2.35                   | 3.32                                      | 5.18                        |
|                                 | May            | 2.41                   | 3.42                                      | 5.63                        |
|                                 | June           | 2.44                   | 3.57                                      | 5.62                        |
|                                 | July           | 2.45                   | 3.69                                      | 5.60                        |
|                                 | August         | 2.51                   | 3.67                                      | 5.56                        |
|                                 | September      | 2.54                   | 3.67                                      | 5.82                        |
|                                 | October        | 2.56                   | 3.68                                      | 6.11                        |
|                                 | November       | 2.59                   | 3.61                                      | 5.94                        |
|                                 | December       | 2.60                   | 3.64                                      | 6.06                        |
|                                 | <b>AVERAGE</b> | <b>2.43</b>            | <b>3.49</b>                               | <b>5.53</b>                 |
| 1983                            | January        | 2.62                   | 3.57                                      | 6.15                        |
|                                 | February       | 2.65                   | 3.41                                      | 6.15                        |
|                                 | March          | 2.66                   | 3.44                                      | 6.17                        |

<sup>1</sup>Includes all steam and gas turbine engine electric utility generating plants with a combined capacity of 25 megawatts or greater through December 1982. Beginning with January 1983 data, coverage is of steam electric utility generating plants with a combined capacity of 50 megawatts or greater. Small quantities of coke oven gas, refinery gas, and blast furnace gas are included.

Note: • Geographic coverage is the 50 States and the District of Columbia.

Sources: • See the last two pages of this section.

# Price

## Electricity

| Cost of Fossil Fuels Delivered<br>to Steam-Electric Utility Plants |                       |                              |                             |                                     | Average Retail Electricity Prices<br>for Privately Owned Utilities <sup>1</sup> |                         |            |       |                    |      |
|--|-----------------------|------------------------------|-----------------------------|-------------------------------------|---|-------------------------|------------|-------|--------------------|------|
|  | Coal                  | Residual<br>Oil <sup>2</sup> | Natural<br>Gas <sup>3</sup> | All<br>Fossil<br>Fuels <sup>2</sup> | Residential   | Commercial              | Industrial | Other | Total <sup>4</sup> |      |
|  | Cents per million Btu |                              |                             |                                     |   | Cents per kilowatt-hour |            |       |                    |      |
| 1973   | AVERAGE               | 40.5                         | 78.8                        | 33.8                                | 47.5  | 2.54                    | 2.41       | 1.25  | 2.10               | 1.96 |
| 1974   | AVERAGE               | 71.0                         | 191.0                       | 48.1                                | 90.9  | 3.10                    | 3.04       | 1.69  | 2.75               | 2.49 |
| 1975   | AVERAGE               | 81.4                         | 201.4                       | 75.4                                | 103.0   | 3.51                    | 3.45       | 2.07  | 3.08               | 2.92 |
| 1976   | AVERAGE               | 84.8                         | 195.9                       | 103.4                               | 110.4   | 3.73                    | 3.69       | 2.21  | 3.27               | 3.09 |
| 1977   | AVERAGE               | 94.7                         | 220.4                       | 130.0                               | 127.7   | 4.05                    | 4.09       | 2.50  | 3.51               | 3.42 |
| 1978   | AVERAGE               | 111.6                        | 212.3                       | 143.8                               | 139.3   | 4.31                    | 4.36       | 2.79  | 3.62               | 3.69 |
| 1979   | AVERAGE               | 122.4                        | 299.7                       | 175.4                               | 162.1   | 4.64                    | 4.68       | 3.05  | 3.96               | 3.99 |
| 1980   | AVERAGE               | 135.1                        | 427.9                       | 221.4                               | 190.4   | 5.36                    | 5.48       | 3.69  | 4.76               | 4.73 |
| 1981   | January               | 142.7                        | 540.2                       | 245.9                               | 219.2   | 5.43                    | 5.72       | 3.94  | 4.92               | 4.96 |
|  | February              | 146.3                        | 572.9                       | 260.5                               | 218.2   | 5.52                    | 5.83       | 3.95  | 5.01               | 4.99 |
|  | March                 | 148.3                        | 583.9                       | 264.0                               | 215.0   | 5.76                    | 6.01       | 4.04  | 5.33               | 5.12 |
|  | April                 | 146.9                        | 568.3                       | 273.5                               | 241.9   | 5.99                    | 6.14       | 4.07  | 5.20               | 5.20 |
|  | May                   | 146.7                        | 552.8                       | 282.7                               | 250.6   | 6.26                    | 6.29       | 4.16  | 5.47               | 5.36 |
|  | June                  | 152.7                        | 506.1                       | 286.3                               | 234.6   | 6.49                    | 6.48       | 4.36  | 5.37               | 5.59 |
|  | July                  | 156.5                        | 496.3                       | 288.6                               | 227.5   | 6.58                    | 6.47       | 4.48  | 5.61               | 5.76 |
|  | August                | 157.0                        | 494.4                       | 291.1                               | 220.2   | 6.62                    | 6.49       | 4.49  | 5.52               | 5.78 |
|  | September             | 157.2                        | 501.0                       | 286.5                               | 212.3   | 6.63                    | 6.48       | 4.49  | 5.65               | 5.74 |
|  | October               | 160.2                        | 511.9                       | 300.7                               | 217.7   | 6.57                    | 6.52       | 4.40  | 5.31               | 5.64 |
|  | November              | 159.1                        | 521.0                       | 300.0                               | 215.1   | 6.42                    | 6.48       | 4.46  | 5.43               | 5.61 |
|  | December              | 156.7                        | 505.0                       | 291.4                               | 215.5   | 6.32                    | 6.46       | 4.56  | 4.60               | 5.65 |
|  | AVERAGE               | 153.2                        | 529.4                       | 282.5                               | 222.5   | 6.20                    | 6.29       | 4.29  | 5.28               | 5.46 |
| 1982   | January               | 160.9                        | 484.6                       | 301.0                               | 226.4   | 6.22                    | 6.49       | 4.66  | 5.44               | 5.74 |
|  | February              | 164.1                        | 487.6                       | 310.4                               | 220.7   | 6.35                    | 6.68       | 4.70  | 5.83               | 5.84 |
|  | March                 | 165.7                        | 470.9                       | 315.8                               | 219.8   | 6.58                    | 6.79       | 4.83  | 6.38               | 5.97 |
|  | April                 | 164.6                        | 478.0                       | 323.4                               | 214.3   | 6.72                    | R6.81      | 4.84  | 5.77               | 5.99 |
|  | May                   | 165.1                        | 485.7                       | 331.6                               | 215.7   | 6.94                    | 6.86       | 4.95  | 5.91               | 6.09 |
|  | June                  | 167.0                        | 479.6                       | 345.8                               | 224.7   | 7.08                    | 6.94       | 4.92  | 6.01               | 6.18 |
|  | July                  | 164.5                        | 468.8                       | 335.9                               | 237.6   | 7.18                    | 6.98       | 5.12  | 6.13               | 6.38 |
|  | August                | 164.7                        | 458.8                       | 355.7                               | 227.6   | 7.22                    | 6.91       | 5.14  | 6.09               | 6.40 |
|  | September             | 165.9                        | 464.4                       | 358.5                               | 226.9   | 7.18                    | 6.97       | 5.25  | 6.07               | 6.41 |
|  | October               | 164.9                        | 479.3                       | 360.4                               | 220.1   | 7.21                    | 7.09       | 5.09  | 5.81               | 6.33 |
|  | November              | 165.3                        | 493.4                       | 351.5                               | 218.2   | 6.94                    | 7.04       | 4.88  | 5.69               | 6.14 |
|  | December              | 162.9                        | 456.3                       | 355.4                               | 216.8   | 6.71                    | 6.78       | 5.01  | 5.85               | 6.11 |
|  | AVERAGE               | 164.7                        | 475.5                       | 340.6                               | 222.5   | 6.86                    | 6.86       | 4.95  | 5.92               | 6.13 |
| 1983   | January               | 166.7                        | 444.0                       | 346.9                               | 214.6   | 6.65                    | 6.78       | 5.03  | 5.91               | 6.13 |
|  | February              | 167.7                        | 439.7                       | 331.9                               | 212.1   | 6.73                    | 6.86       | 4.96  | 5.97               | 6.12 |
|  | March                 | 168.1                        | 421.0                       | 334.9                               | 213.9   | 6.93                    | 6.93       | 5.07  | 6.16               | 6.23 |
|  | April†                | NA                           | NA                          | NA                                  | NA  | 6.91                    | 6.86       | 4.92  | 6.15               | 6.12 |

<sup>1</sup>The 1973 through 1979 data are for Classes A and B privately owned electric utilities only. The 1980 and forward data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year.

<sup>2</sup>See Note 8 on the last two pages of this section.

<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.

†Includes a major adjustment by one utility.

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

Note: • Geographic coverage for fossil fuels is the lower 48 States and the District of Columbia. For electricity it is the 50 States and the District of Columbia.

Sources: • See the last two pages of this section.

## Notes and Sources for the Price Section

### Notes

1. 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.

2. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on EIA Form 14, the "Refiners' Monthly Cost Report." These prices were previously published from data collected on ERA Form 49, the "Domestic Crude Oil Entitlements Program Refiners Monthly Report." The ERA Form 49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for EIA Form 14 in accordance with conventions used for ERA Form 49. Also, the respondents for the two forms are essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken in comparing the data collected on the two forms.

The costs previously published for January 1981, viz., \$30.87 per barrel for domestic crude, \$37.59 per barrel for imported, and \$33.40 per barrel for the composite, were from data collected on ERA Form 49. The revised costs are from data collected on EIA Form 14. The January prices are being replaced because the ERA Form 49 data were based on only the 27 days of controlled activity, and because there was considerable recertification of oil, which occurred in January.

The refiner acquisition cost of crude oil is the average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1331. Imported crude oil is either that oil reported on ERA Form 51, the "Transfer Pricing Report," or any crude oil that is not domestic oil.

Crude oil costs and volumes reported on ERA Form 49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the FEA Form P110-M-1 included unfinished oils but excluded SPR. Imported averages derived from ERA Form 49 exclude oil purchased for SPR, whereas the composite averages derived from ERA Form 49 include SPR. None of the prices derived from EIA Form 14 include either unfinished oils or SPR.

3. 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.

4. 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 that 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.

5. The motor gasoline prices are calculated monthly by the Bureau of Labor Statistics 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 were 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).

6. 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.

7. Standard Federal 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, the 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.

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

### Sources

**Petroleum and Petroleum Products:** • Actual domestic average wellhead prices—Economic Regulatory Administration (ERA), January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report"; February 1976 forward: ERA Form 182, "Domestic Crude Oil First Purchase Report."

• Refiner acquisition costs—Energy Information Administration (EIA), January 1976: FEO Form 96, "Monthly Cost Allocation Report"; February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report"; July 1978 through December 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report"; January 1981 forward: EIA Form 14, "Refiners' Monthly Cost Report."

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

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

(Notes and Sources for the Price Section are continued on the next page.)

## **Notes and Sources for the Price Section (continued)**

### **Petroleum and Petroleum Products (continued):**

- No. 2 heating oil (residential heating oil) prices—EIA, 1976 through October 1980: FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report"; November 1980 forward: EIA Form 9A, "No. 2 Distillate Price Monitoring Report."

- Motor gasoline prices—Bureau of Labor Statistics.

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

- Crude oil imports costs—Environmental Protection, Safety and Emergency Preparedness, 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 forward: ERA Form 51, "Transfer Pricing Report."

- Aviation fuel prices—EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

**Natural Gas:** • Annual data for wellhead values are from the appropriate agencies of the individual producing States and the U.S. Minerals Management Service; monthly data are estimated primarily on the basis of values reported by State agencies in New Mexico, Oklahoma, and Texas, which together provide data for almost 50 percent of total U.S. marketed production excluding nonhydrocarbon gases removed. Monthly data for 1980 and 1981 have been adjusted to conform with final reported annual data.

- Electric plant data—Energy Information Administration (EIA), FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

- Average residential heating prices—Bureau of Labor Statistics.

**Electricity:** • Cost of fossil fuels—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

- Retail prices—EIA, January 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."

## International

### Crude Oil Production

World crude oil production during March 1983 was 50.2 million barrels per day, up 0.7 million barrels per day (1.4 percent) from the February 1983 level.

Organization of Petroleum Exporting Countries (OPEC) output during March 1983 averaged 15.0 million barrels per day, up 0.6 million barrels per day from the previous month. Average production by Arab members of OPEC was 8.1 million barrels per day, down 0.1 million barrels per day from the February 1983 level. There were production decreases in every Arab OPEC country except Algeria, Iraq, and Libya, which reported the same level of production as the previous month's average, and Kuwait, which reported a 0.1 million barrel per day increase. Saudi Arabia experienced the largest decline in production, 0.1 million barrels per day. Qatar and the United Arab Emirates showed declines of less than 0.1 million barrels per day. Among non-Arab OPEC countries, Indonesia, Nigeria, and Venezuela experienced production increases of 0.2, 0.2, and 0.3 million barrels per day, respectively.

Of the non-OPEC nations, only the United Kingdom experienced a decline in crude oil production, a decrease of 0.1 million barrels per day. Mexico showed an increase of 0.1 million barrels per day from the level of the month before. Canada and the United States experienced very slight increases in production.

### Petroleum Consumption

Preliminary petroleum consumption data for March 1983 were available for France, Italy, the United Kingdom, and the United States. In comparison to March 1982, consumption in Italy and France decreased by 0.2 and 0.3 million barrels per day, respectively. Con-

sumption in both the United Kingdom and the United States was down by 0.1 million barrels per day during the same interval.

### Petroleum Stocks

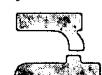
Preliminary data on petroleum stocks for March 1983 were available for Canada, France, Italy, Japan, the United Kingdom, the United States, and West Germany. Petroleum stocks in France and Japan were down from the March 31, 1982, level by 17.9 and 12.9 percent, respectively. Canada, the United Kingdom, and West Germany showed declines of 12.8, 9.0, and 5.7 percent, respectively. Italy reported the same level of stocks for March 1982 and 1983.

Petroleum stocks for all Organization for Economic Cooperation and Development members stood at 3,351 million barrels on December 31, 1982 (latest data available), a decrease of 169 million barrels (4.8 percent) from stocks held on December 31, 1981.

### Nuclear Electricity Production

In April 1983, the 19 non-Communist nations with significant nuclear power capacity generated 66.4 billion gross kilowatt-hours of nuclear-based electricity. On a per-day basis, this output was down 4.3 percent from March 1983 generation, but up 1.7 percent compared to generation during April 1982.

On April 29, 1983, Cruas-1, a 928-gross megawatt pressurized water reactor operated by Electricite de France, generated its first electricity. With the addition of this unit, there were, as of April 30, 1983, 240 operational, non-Communist power reactors, with a collective generating capacity of 165.1 million gross kilowatts (GWe). The 81 U.S. units accounted for 68.6 GWe (41.6 percent) of this capacity.



# International

## Crude Oil Production for Major Petroleum Producing 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                     | AVERAGE   | 1,097   | 2,018 | 3,020               | 2,175 | 570   | 7,596                     | 1,533                | 18,009                            | 1,339     | 5,861  |
| 1974                     | AVERAGE   | 1,009   | 1,971 | 2,546               | 1,521 | 518   | 8,480                     | 1,679                | 17,724                            | 1,375     | 6,022  |
| 1975                     | AVERAGE   | 983     | 2,262 | 2,084               | 1,480 | 438   | 7,075                     | 1,664                | 15,986                            | 1,307     | 5,350  |
| 1976                     | AVERAGE   | 1,075   | 2,415 | 2,145               | 1,933 | 497   | 8,577                     | 1,936                | 18,578                            | 1,504     | 5,883  |
| 1977                     | AVERAGE   | 1,152   | 2,348 | 1,969               | 2,063 | 445   | 9,245                     | 1,999                | 19,221                            | 1,686     | 5,663  |
| 1978                     | AVERAGE   | 1,161   | 2,563 | 2,131               | 1,983 | 487   | 8,301                     | 1,831                | 18,457                            | 1,635     | 5,242  |
| 1979                     | AVERAGE   | 1,154   | 3,477 | 2,500               | 2,092 | 508   | 9,532                     | 1,831                | 21,094                            | 1,591     | 3,168  |
| 1980                     | AVERAGE   | 1,012   | 2,514 | 1,656               | 1,787 | 472   | 9,900                     | 1,709                | 19,050                            | 1,577     | 1,662  |
| 1981                     | January   | 950     | 600   | 1,765               | 1,600 | 505   | 10,265                    | 1,620                | 17,305                            | 1,630     | 1,600  |
|                          | February  | 950     | 700   | 1,565               | 1,650 | 480   | 10,265                    | 1,605                | 17,215                            | 1,620     | 1,700  |
|                          | March     | 950     | 1,000 | 1,560               | 1,600 | 505   | 10,110                    | 1,610                | 17,335                            | 1,635     | 1,700  |
|                          | April     | 900     | 1,000 | 995                 | 1,600 | 515   | 10,195                    | 1,570                | 16,775                            | 1,630     | 1,600  |
|                          | May       | 900     | 1,000 | 990                 | 1,400 | 435   | 10,140                    | 1,550                | 16,415                            | 1,600     | 1,500  |
|                          | June      | 800     | 1,000 | 1,080               | 1,200 | 340   | 10,180                    | 1,435                | 16,035                            | 1,600     | 1,600  |
|                          | July      | 725     | 1,100 | 1,200               | 750   | 380   | 10,170                    | 1,415                | 15,740                            | 1,600     | 1,400  |
|                          | August    | 600     | 1,100 | 830                 | 700   | 295   | 10,330                    | 1,480                | 15,335                            | 1,600     | 1,100  |
|                          | September | 550     | 1,100 | 855                 | 700   | 365   | 9,155                     | 1,465                | 14,190                            | 1,600     | 1,100  |
|                          | October   | 700     | 1,100 | 985                 | 700   | 360   | 9,685                     | 1,480                | 15,010                            | 1,600     | 920    |
|                          | November  | 750     | 1,100 | 890                 | 900   | 340   | 8,640                     | 1,365                | 13,985                            | 1,600     | 930    |
|                          | December  | 800     | 1,100 | 895                 | 1,000 | 340   | 8,645                     | 1,430                | 14,210                            | 1,580     | 1,200  |
|                          | AVERAGE   | 805     | 1,000 | 1,125               | 1,140 | 405   | 9,815                     | 1,474                | 15,764                            | 1,605     | 1,380  |
| 1982                     | January   | 800     | 1,500 | 805                 | 1,000 | 405   | 8,655                     | 1,450                | 14,615                            | 1,490     | 1,100  |
|                          | February  | 700     | 1,500 | 840                 | 600   | 375   | 8,440                     | 1,375                | 13,830                            | 1,450     | 1,200  |
|                          | March     | 600     | 1,500 | 745                 | 600   | 300   | 7,145                     | 1,365                | 12,255                            | 1,400     | 1,800  |
|                          | April     | 600     | 900   | 680                 | 700   | 230   | 6,630                     | 1,215                | 10,955                            | 1,245     | 1,800  |
|                          | May       | 620     | 750   | 720                 | 800   | 320   | 5,870                     | 1,125                | 10,205                            | 1,240     | 2,500  |
|                          | June      | 650     | 750   | 840                 | 1,000 | 410   | 6,670                     | 1,210                | 11,530                            | 1,305     | 2,500  |
|                          | July      | 650     | 800   | 870                 | 1,300 | 275   | 6,170                     | 1,160                | 11,225                            | 1,305     | 2,500  |
|                          | August    | 700     | 800   | 920                 | 1,300 | 340   | 5,920                     | 1,155                | 11,135                            | 1,240     | 2,200  |
|                          | September | 800     | 800   | 885                 | 1,400 | 285   | 5,685                     | 1,155                | 11,010                            | 1,300     | 2,700  |
|                          | October   | 800     | 800   | 860                 | 1,700 | 380   | 5,660                     | 1,155                | 11,355                            | 1,370     | 2,700  |
|                          | November  | 800     | 800   | 915                 | 1,700 | 310   | 5,615                     | 1,155                | 11,295                            | 1,400     | 2,700  |
|                          | December  | 800     | 800   | 850                 | 1,750 | 305   | 5,250                     | 1,155                | 10,910                            | 1,360     | 2,800  |
|                          | AVERAGE   | 710     | 972   | 827                 | 1,158 | 328   | 6,470                     | 1,214                | 11,679                            | 1,339     | 2,214  |
| 1983                     | January   | 700     | 800   | R780                | 1,100 | 255   | R4,750                    | 1,030                | R9,415                            | R1,155    | R2,500 |
|                          | February  | 600     | 800   | R895                | 900   | 200   | R3,710                    | 1,030                | R8,135                            | R945      | 2,500  |
|                          | March     | 600     | 800   | 960                 | 900   | 170   | 3,610                     | 1,010                | 8,050                             | 1,100     | 2,500  |

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In March 1983, total production in this region amounted to approximately 220,000 barrels per day.

<sup>2</sup>Arab members of the Organization of Petroleum Exporting Countries (OPEC) include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>3</sup>OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.

See additional footnotes on following page.

# International

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

|                          |           | Nigeria | Vene-zuela | Total OPEC <sup>3</sup> | Canada | Mexico | United Kingdom | United States | China | USSR   | Other <sup>4</sup> | World   |
|--------------------------|-----------|---------|------------|-------------------------|--------|--------|----------------|---------------|-------|--------|--------------------|---------|
| Thousand barrels per day |           |         |            |                         |        |        |                |               |       |        |                    |         |
| 1973                     | AVERAGE   | 2,054   | 3,366      | 30,989                  | 1,800  | 465    | 2              | 9,208         | 1,090 | 8,465  | 3,655              | 55,674  |
| 1974                     | AVERAGE   | 2,255   | 2,976      | 30,729                  | 1,684  | 571    | 2              | 8,774         | 1,315 | 9,000  | 3,777              | 55,852  |
| 1975                     | AVERAGE   | 1,783   | 2,346      | 27,155                  | 1,439  | 705    | 12             | 8,375         | 1,490 | 9,625  | 4,079              | 52,880  |
| 1976                     | AVERAGE   | 2,067   | 2,294      | 30,738                  | 1,295  | 831    | 245            | 8,132         | 1,670 | 10,143 | 4,258              | 57,312  |
| 1977                     | AVERAGE   | 2,085   | 2,238      | 31,278                  | 1,320  | 981    | 768            | 8,245         | 1,874 | 10,682 | 4,537              | 59,685  |
| 1978                     | AVERAGE   | 1,897   | 2,166      | 29,805                  | 1,313  | 1,209  | 1,082          | 8,707         | 2,082 | 11,185 | 4,674              | 60,057  |
| 1979                     | AVERAGE   | 2,302   | 2,356      | 30,928                  | 1,496  | 1,461  | 1,568          | 8,552         | 2,122 | 11,460 | 4,948              | 62,535  |
| 1980                     | AVERAGE   | 2,055   | 2,168      | 26,890                  | 1,435  | 1,936  | 1,622          | 8,597         | 2,114 | 11,773 | 5,171              | 59,538  |
| 1981                     | January   | 1,900   | 2,220      | 25,025                  | 1,390  | 2,220  | 1,765          | 8,540         | 2,024 | 11,900 | 5,111              | 57,975  |
|                          | February  | 1,960   | 2,195      | 25,075                  | 1,390  | 2,120  | 1,820          | 8,604         | 2,025 | 11,900 | 5,161              | 58,095  |
|                          | March     | 1,875   | 2,240      | 25,190                  | 1,280  | 2,365  | 1,885          | 8,613         | 2,025 | 11,900 | 5,152              | 58,410  |
|                          | April     | 1,625   | 2,200      | 24,215                  | 1,330  | 2,540  | 1,750          | 8,557         | 2,011 | 11,900 | 5,122              | 57,425  |
|                          | May       | 1,295   | 2,200      | 23,380                  | 1,250  | 2,545  | 1,770          | 8,501         | 2,025 | 11,900 | 5,264              | 56,635  |
|                          | June      | 1,350   | 1,990      | 22,945                  | 1,235  | 2,300  | 1,765          | 8,629         | 2,025 | 11,900 | 5,066              | 55,865  |
|                          | July      | 770     | 1,760      | 21,620                  | 1,270  | 2,095  | 1,750          | 8,500         | 2,010 | 11,900 | 5,215              | 54,360  |
|                          | August    | 710     | 1,960      | 21,050                  | 1,235  | 2,260  | 1,760          | 8,583         | 2,020 | 11,900 | 4,962              | 53,770  |
|                          | September | 1,065   | 2,080      | 20,385                  | 1,265  | 2,480  | 1,830          | 8,604         | 1,990 | 11,900 | 5,166              | 53,620  |
|                          | October   | 1,250   | 1,970      | 21,200                  | 1,120  | 2,490  | 1,845          | 8,563         | 2,020 | 11,900 | 5,247              | 54,385  |
|                          | November  | 1,590   | 2,230      | 20,575                  | 1,280  | 2,090  | 1,840          | 8,586         | 2,020 | 11,900 | 5,109              | 53,400  |
|                          | December  | 1,820   | 2,260      | 21,230                  | 1,380  | 1,980  | 1,870          | 8,585         | 2,020 | 11,900 | 5,135              | 54,100  |
|                          | AVERAGE   | 1,433   | 2,102      | 22,624                  | 1,285  | 2,313  | 1,811          | 8,572         | 2,012 | 11,909 | 5,262              | 55,788  |
| 1982                     | January   | 1,765   | 1,985      | 21,285                  | 1,218  | 2,315  | 1,905          | 8,669         | 2,020 | 11,900 | 5,488              | 54,800  |
|                          | February  | 1,395   | 1,730      | 19,950                  | 1,275  | 2,550  | 1,955          | 8,690         | 2,020 | 11,900 | 5,560              | 53,900  |
|                          | March     | 945     | 1,870      | 18,615                  | 1,182  | 2,545  | 2,000          | 8,597         | 2,020 | 11,900 | 5,341              | 52,200  |
|                          | April     | 890     | 1,490      | 16,725                  | 928    | 2,780  | 2,110          | 8,652         | 2,025 | 11,900 | 5,480              | 50,600  |
|                          | May       | 1,310   | 1,480      | 17,075                  | 1,114  | 2,715  | 2,085          | 8,660         | 2,025 | 11,900 | 5,526              | 51,100  |
|                          | June      | 1,645   | 1,500      | 18,845                  | 1,330  | 2,790  | 2,140          | 8,681         | 2,025 | 11,900 | 5,489              | 53,200  |
|                          | July      | 1,280   | 1,800      | 18,450                  | 1,235  | 2,790  | 2,120          | 8,649         | 2,025 | 12,000 | 5,506              | 52,775  |
|                          | August    | 1,105   | 2,000      | 18,045                  | 1,300  | 2,795  | 2,125          | 8,701         | 2,025 | 12,000 | 5,549              | 52,540  |
|                          | September | 1,170   | 1,990      | 18,515                  | 1,300  | 2,830  | 2,175          | 8,733         | 2,025 | 12,000 | 5,497              | 53,075  |
|                          | October   | 1,480   | 2,160      | 19,430                  | 1,310  | 2,900  | 2,165          | 8,676         | 2,040 | 12,410 | 5,489              | 54,420  |
|                          | November  | 1,355   | 2,300      | 19,415                  | 1,420  | 2,940  | 2,220          | 8,690         | 2,040 | 12,410 | 5,685              | 54,820  |
|                          | December  | 1,215   | 2,325      | 18,985                  | 1,300  | 3,025  | 2,315          | 8,660         | 2,040 | 12,410 | 5,730              | 54,465  |
|                          | AVERAGE   | 1,295   | 1,891      | 18,780                  | 1,241  | 2,749  | 2,117          | 8,671         | 2,029 | 12,053 | 5,550              | 53,190  |
| 1983                     | January   | 880     | 2,085      | R16,415                 | 1,230  | 2,980  | R2,135         | 8,634         | 2,085 | 12,410 | R5,853             | R51,742 |
|                          | February  | 675     | 1,780      | R14,370                 | 1,360  | 2,295  | R2,315         | 8,660         | 2,085 | 12,410 | R5,958             | R49,453 |
|                          | March     | 905     | 2,080      | 15,000                  | 1,395  | 2,415  | 2,265          | 8,677         | 2,085 | 12,410 | 5,916              | 50,163  |

Footnotes continued.

<sup>4</sup>Other is a calculated total derived from the difference between world production and the nations represented above.

R=Revised data.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.

• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • See the last page of this section.

# International

## Petroleum Consumption for Major Non-Communist 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                     | AVERAGE   | 1,766  | 2,107               | 1,607 | 5,173 | 1,690          | 18,513        | 2,664        | 4,487                  | 35,900                 |
| 1980                     | AVERAGE   | 1,730  | 1,965               | 1,602 | 4,680 | 1,420          | 17,056        | 2,360        | 4,152                  | 33,000                 |
| 1981                     | January   | 1,760  | 2,310               | 1,880 | 4,980 | 1,400          | 18,430        | 2,230        | 4,420                  | 35,100                 |
|                          | February  | 1,770  | 2,170               | 2,195 | 5,350 | 1,460          | 16,989        | 2,510        | 4,126                  | 34,400                 |
|                          | March     | 1,550  | 1,790               | 1,895 | 5,020 | 1,430          | 15,907        | 2,100        | 3,598                  | 31,500                 |
|                          | April     | 1,600  | 1,500               | 1,785 | 4,140 | 1,290          | 15,350        | 1,810        | 3,925                  | 29,900                 |
|                          | May       | 1,490  | 1,670               | 1,410 | 3,600 | 1,190          | 15,353        | 1,880        | 3,977                  | 28,900                 |
|                          | June      | 1,635  | 1,600               | 1,510 | 3,915 | 1,210          | 16,095        | 2,155        | 3,880                  | 30,400                 |
|                          | July      | 1,620  | 1,450               | 1,580 | 4,160 | 1,170          | 15,682        | 2,150        | 4,138                  | 30,500                 |
|                          | August    | 1,630  | 1,160               | 1,360 | 4,100 | 1,125          | 15,263        | 2,111        | 3,711                  | 29,300                 |
|                          | September | 1,595  | 1,425               | 1,715 | 4,060 | 1,285          | 15,655        | 2,085        | 3,905                  | 30,300                 |
|                          | October   | 1,585  | 1,655               | 1,600 | 4,085 | 1,390          | 15,822        | 2,305        | 4,013                  | 30,800                 |
|                          | November  | 1,595  | 2,010               | 1,650 | 4,610 | 1,470          | 15,593        | 2,030        | 4,052                  | 31,000                 |
|                          | December  | 1,635  | 2,215               | 1,930 | 5,425 | 1,380          | 16,596        | 2,100        | 3,934                  | 33,000                 |
|                          | AVERAGE   | 1,615  | 1,745               | 1,705 | 4,445 | 1,325          | 16,058        | 2,120        | 4,032                  | 31,300                 |
| 1982                     | January   | 1,530  | 1,770               | 1,800 | 4,645 | 1,400          | 15,890        | 1,935        | 3,800                  | 31,000                 |
|                          | February  | 1,715  | 1,815               | 1,795 | 5,275 | 1,465          | 15,941        | 2,230        | 4,179                  | 32,600                 |
|                          | March     | 1,510  | 1,940               | 1,805 | 4,640 | 1,560          | 15,560        | 2,340        | 4,185                  | 31,600                 |
|                          | April     | 1,350  | 1,730               | 1,560 | 4,015 | 1,340          | 16,048        | 2,125        | 3,962                  | 30,400                 |
|                          | May       | 1,325  | 1,580               | 1,510 | 3,515 | 1,210          | 14,845        | 1,770        | 3,625                  | 27,800                 |
|                          | June      | 1,430  | 1,505               | 1,520 | 3,780 | 1,280          | 14,931        | 2,115        | 3,704                  | 28,900                 |
|                          | July      | 1,390  | 1,455               | 1,475 | 3,995 | 1,235          | 14,771        | 1,955        | 3,679                  | 28,500                 |
|                          | August    | 1,500  | 1,295               | 1,410 | 3,705 | 1,170          | 14,838        | 2,105        | 3,672                  | 28,400                 |
|                          | September | 1,410  | 1,510               | 1,630 | 3,865 | 1,295          | 14,921        | 2,035        | 4,044                  | 29,200                 |
|                          | October   | 1,335  | 1,605               | 1,555 | 3,830 | 1,305          | 14,820        | 1,922        | 3,933                  | 28,700                 |
|                          | November  | 1,470  | 1,735               | 1,650 | 4,355 | 1,415          | 15,031        | 2,005        | 4,174                  | 30,100                 |
|                          | December  | 1,460  | 1,815               | 1,670 | 4,810 | 1,380          | 15,508        | 2,025        | 4,347                  | 31,200                 |
|                          | AVERAGE   | 1,450  | 1,645               | 1,614 | 4,196 | 1,337          | 15,253        | 2,045        | 4,005                  | 29,900                 |
| 1983                     | January   | 1,260  | 1,685               | 1,675 | 4,410 | 1,260          | 14,765        | 1,875        | 4,055                  | 29,300                 |
|                          | February  | NA     | 1,985               | 1,865 | 4,950 | 1,415          | 14,772        | 2,060        | NA                     | NA                     |
|                          | March     | NA     | 1,685               | 1,605 | NA    | 1,430          | 15,484        | NA           | NA                     | NA                     |

<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 IEA are listed in Note 1 on the last page of this section.

NA=Not available.

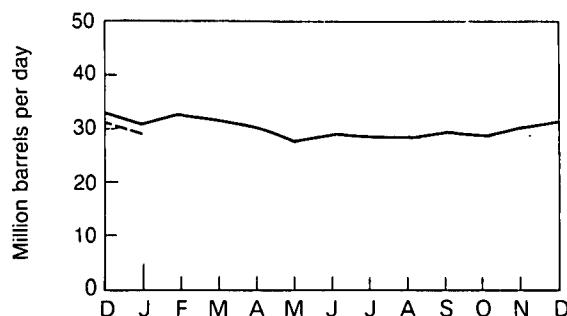
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.

• Data for 1980 through 1983 are preliminary.

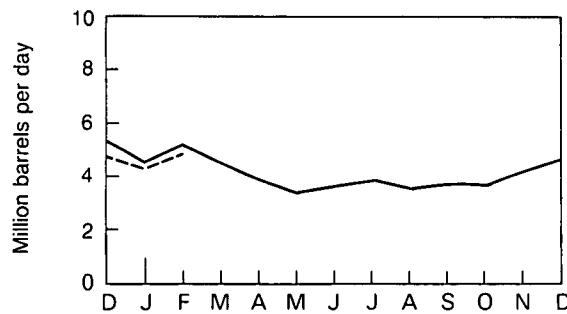
Sources: • See the last page of this section.

## International Petroleum Consumption

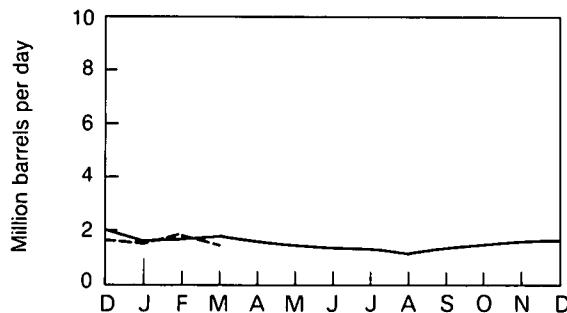
Total IEA



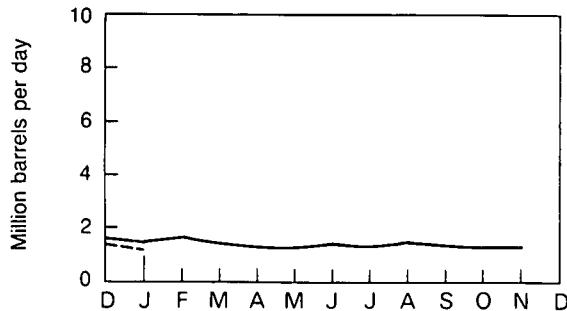
Japan\*



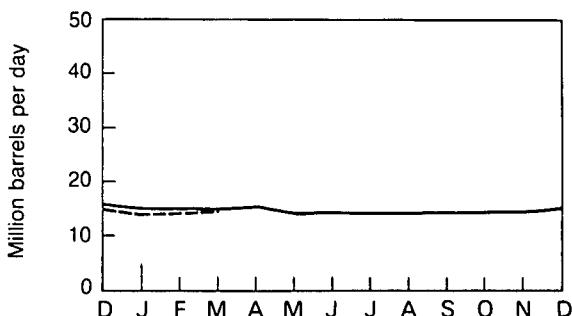
France\*\*



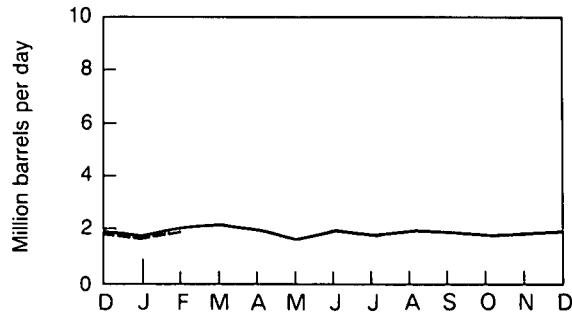
Canada



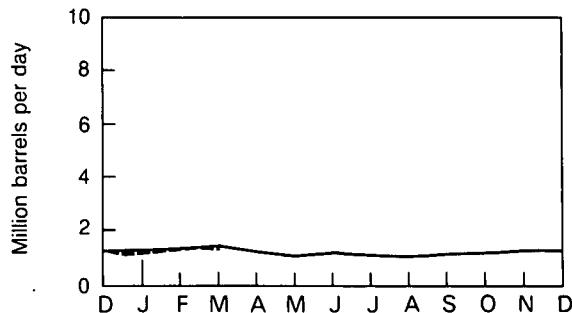
United States



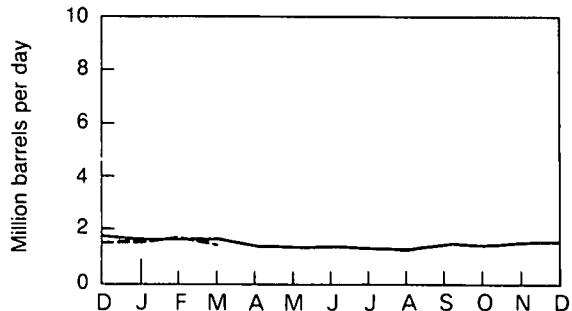
West Germany



United Kingdom



Italy\*\*\*



\*Excludes liquefied petroleum gases and condensates.

\*\*Not a member of IEA.

\*\*\*Principal products only.

— 1982

- - - 1983

## International

### Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period<sup>1</sup>

|                 | Canada    | France | Italy | Japan | United Kingdom | United States | West Germany | Other OECD <sup>2</sup> | Total OECD <sup>3</sup> |        |
|-----------------|-----------|--------|-------|-------|----------------|---------------|--------------|-------------------------|-------------------------|--------|
| Million barrels |           |        |       |       |                |               |              |                         |                         |        |
| 1973            | 149       | 203    | NA    | 303   | 156            | 1,008         | NA           | NA                      | NA                      |        |
| 1974            | 164       | 240    | 169   | 370   | 191            | 1,074         | 215          | NA                      | NA                      |        |
| 1975            | 167       | 239    | 143   | 375   | 164            | 1,133         | 190          | NA                      | NA                      |        |
| 1976            | 156       | 231    | 142   | 394   | 165            | 1,112         | 214          | NA                      | NA                      |        |
| 1977            | 170       | 241    | 162   | 399   | 147            | 1,312         | 236          | 485                     | 3,152                   |        |
| 1978            | 148       | 214    | 153   | 422   | 147            | 1,278         | 239          | 487                     | 3,089                   |        |
| 1979            | 156       | 231    | 163   | 457   | 163            | 1,341         | 273          | 574                     | 3,358                   |        |
| 1980            | 171       | 254    | 173   | 481   | 169            | 1,392         | 323          | 610                     | 3,573                   |        |
| 1981            | January   | 169    | 234   | 155   | 479            | 168           | 1,388        | 319                     | NA                      | NA     |
|                 | February  | 162    | 235   | 184   | 457            | 170           | 1,389        | 312                     | NA                      | NA     |
|                 | March     | 165    | 227   | 158   | 452            | 164           | 1,401        | 317                     | 581                     | 3,465  |
|                 | April     | 174    | 235   | 169   | 484            | 165           | 1,415        | 322                     | NA                      | NA     |
|                 | May       | 176    | 229   | 173   | 496            | 162           | 1,438        | 321                     | NA                      | NA     |
|                 | June      | 179    | 225   | 171   | 484            | 158           | 1,430        | 312                     | 598                     | 3,557  |
|                 | July      | 179    | 228   | 177   | 476            | 153           | 1,439        | 305                     | NA                      | NA     |
|                 | August    | 184    | 233   | 189   | 483            | 151           | 1,457        | 308                     | NA                      | NA     |
|                 | September | 181    | 241   | 187   | 493            | 151           | 1,476        | 307                     | 591                     | 3,627  |
|                 | October   | 172    | 238   | 188   | 500            | 149           | 1,485        | 303                     | NA                      | NA     |
|                 | November  | 163    | 230   | 178   | 483            | 147           | 1,501        | 300                     | NA                      | NA     |
|                 | December  | 164    | 222   | 167   | 466            | 145           | 1,484        | 297                     | 575                     | 3,520  |
| 1982            | January   | 163    | 222   | 165   | 464            | NA            | 1,461        | 280                     | NA                      | NA     |
|                 | February  | 156    | 215   | 162   | 460            | NA            | 1,431        | 280                     | NA                      | NA     |
|                 | March     | 149    | 207   | 158   | 480            | 133           | 1,401        | 279                     | 524                     | 3,331  |
|                 | April     | 148    | 201   | 154   | 483            | NA            | 1,350        | 312                     | NA                      | NA     |
|                 | May       | 147    | 193   | 154   | 484            | NA            | 1,349        | 310                     | NA                      | NA     |
|                 | June      | 131    | 200   | 156   | 478            | 141           | 1,362        | 288                     | 541                     | 3,297  |
|                 | July      | 130    | 205   | 160   | 460            | 134           | 1,394        | 286                     | NA                      | NA     |
|                 | August    | 137    | 207   | 179   | 470            | 139           | 1,407        | 311                     | NA                      | NA     |
|                 | September | R131   | 212   | 179   | R472           | R137          | 1,415        | 280                     | R548                    | R3,374 |
|                 | October   | 135    | 212   | 177   | 471            | 135           | 1,434        | 279                     | NA                      | NA     |
|                 | November  | 138    | 213   | 174   | 472            | 130           | 1,455        | 280                     | NA                      | NA     |
|                 | December  | R133   | 201   | R179  | R469           | R125          | 1,429        | R273                    | 542                     | 3,351  |
| 1983            | January   | 136    | 206   | 170   | 473            | 125           | 1,453        | 274                     | NA                      | NA     |
|                 | February  | 133    | 187   | 163   | 450            | 121           | 1,432        | 274                     | NA                      | NA     |
|                 | March     | 130    | 170   | 158   | 418            | 121           | 1,375        | 263                     | NA                      | NA     |

<sup>1</sup>Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for storage, regardless of ownership, within each country in bulk terminals, refinery tanks, pipeline tankage, intercoastal tankers, tankers in port, and inland ship bunkers. Data exclude oil held in pipelines (except for the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea.

<sup>2</sup>"Other OECD" includes Organization of Economic Cooperation and Development (OECD) members not shown.

<sup>3</sup>The members of OECD are listed in Note 2 on the last page of this section.

R=Revised data. NA=Not available.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.

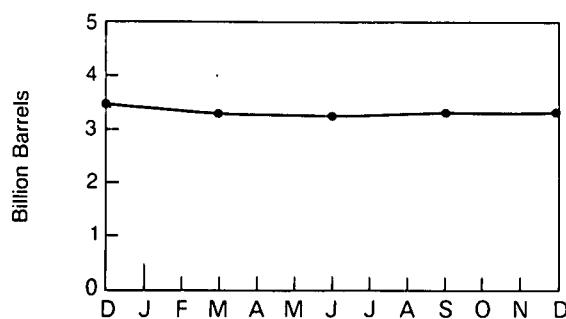
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

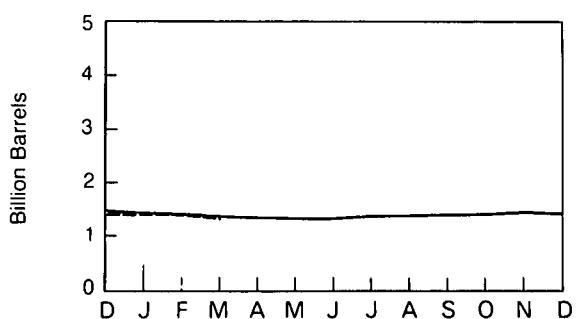
## International

### Petroleum Stocks

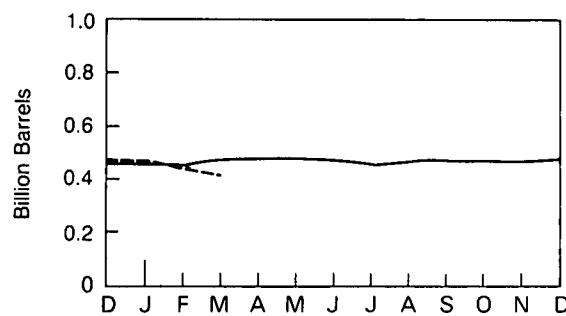
Total OECD



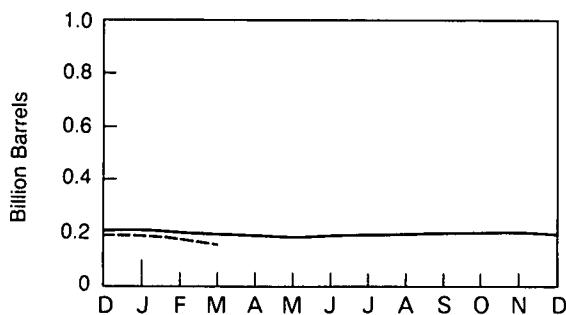
United States



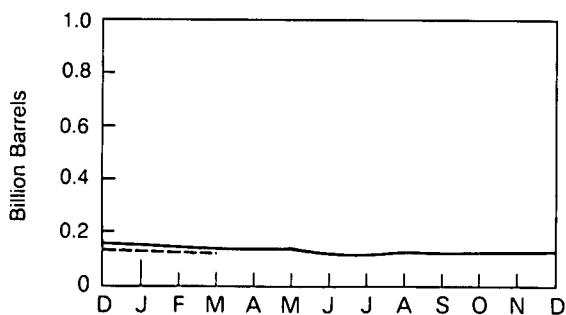
Japan



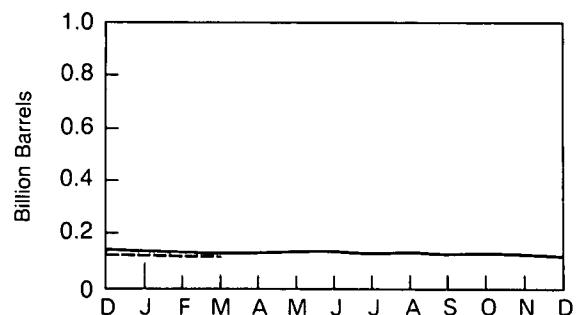
France



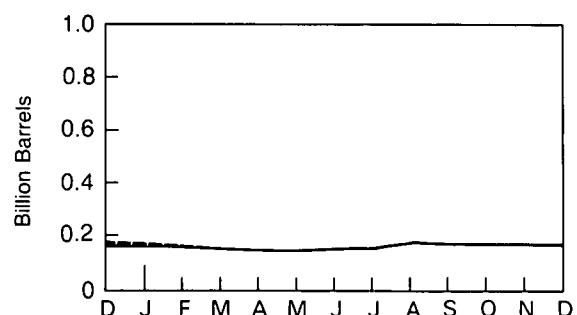
Canada



United Kingdom



Italy



● 1982  
○ 1983

# International

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

|                              | Argen-tina | Belgium     | Brazil     | Canada      | Finland     | France       | India      | Italy      | Japan             | Nether-lands | Paki-stan  |
|------------------------------|------------|-------------|------------|-------------|-------------|--------------|------------|------------|-------------------|--------------|------------|
| Billion gross kilowatt-hours |            |             |            |             |             |              |            |            |                   |              |            |
| 1973 TOTAL                   | 0          | 0           | 0          | 18.3        | 0           | 11.6         | 1.9        | 3.1        | 9.4               | 1.1          | 0.5        |
| 1974 TOTAL                   | 1.0        | 0.1         | 0          | 15.4        | 0           | 14.7         | 2.5        | 3.4        | 18.1              | 3.3          | 0.6        |
| 1975 TOTAL                   | 2.5        | 6.8         | 0          | 13.2        | 0           | 18.3         | 2.5        | 3.8        | 22.2              | 3.3          | 0.5        |
| 1976 TOTAL                   | 2.6        | 10.0        | 0          | 18.0        | 0           | 15.8         | 3.2        | 3.8        | 36.7              | 3.9          | 0.5        |
| 1977 TOTAL                   | 1.6        | 11.9        | 0          | 26.8        | 2.7         | 17.9         | 2.8        | 3.4        | 28.1 <sup>1</sup> | 3.7          | 0.3        |
| 1978 TOTAL                   | 2.9        | 12.5        | 0          | 32.9        | 3.3         | 30.5         | 2.3        | 4.4        | 53.2              | 4.1          | 0.2        |
| 1979 TOTAL                   | 2.7        | 11.4        | 0          | 38.4        | 6.7         | 39.9         | 3.2        | 2.6        | 62.0              | 3.5          | (s)        |
| 1980 TOTAL                   | 2.3        | 12.5        | 0          | 40.4        | 7.0         | 61.2         | 2.9        | 2.2        | 82.8              | 4.2          | 0.1        |
| 1981 January                 | 0.3        | 1.2         | 0          | 3.2         | 1.3         | 9.3          | 0.2        | 0.2        | 8.2               | 0.1          | (s)        |
| February                     | 0.2        | 1.0         | 0          | 3.5         | 0.9         | 8.6          | 0.2        | 0.3        | 7.1               | (s)          | (s)        |
| March                        | 0.3        | 0.6         | 0          | 3.9         | 1.4         | 8.8          | 0.3        | 0.1        | 7.8               | 0.3          | 0          |
| April                        | 0.2        | 0.7         | 0          | 3.3         | 1.5         | 8.3          | 0.3        | 0.6        | 7.9               | 0.4          | 0          |
| May                          | 0.2        | 1.2         | 0          | 3.4         | 1.0         | 8.9          | 0.4        | 0.3        | 8.0               | 0.4          | (s)        |
| June                         | 0.2        | 1.2         | 0          | 3.6         | 0.7         | 8.3          | 0.3        | 0.1        | 6.7               | 0.4          | (s)        |
| July                         | 0.3        | 1.3         | 0          | 4.0         | 0.8         | 8.4          | 0.3        | 0.3        | 8.3               | 0.4          | (s)        |
| August                       | 0.2        | 1.2         | 0          | 4.0         | 1.4         | 7.7          | 0.2        | 0.1        | 8.5               | 0.4          | (s)        |
| September                    | 0.3        | 0.9         | 0          | 3.3         | 1.5         | 8.5          | 0.2        | 0.1        | 6.4               | 0.4          | (s)        |
| October                      | 0.2        | 1.0         | 0          | 3.4         | 1.4         | 8.1          | 0.2        | 0.1        | 5.6               | 0.4          | (s)        |
| November                     | 0.2        | 1.3         | 0          | 3.5         | 1.3         | 9.3          | 0.2        | 0.1        | 5.3               | 0.4          | (s)        |
| December                     | 0.2        | 1.3         | 0          | 4.1         | 1.2         | 11.0         | 0.3        | 0.4        | 6.1               | 0.3          | (s)        |
| <b>TOTAL</b>                 | <b>2.8</b> | <b>12.8</b> | <b>0</b>   | <b>43.3</b> | <b>14.5</b> | <b>105.2</b> | <b>3.1</b> | <b>2.7</b> | <b>86.0</b>       | <b>3.7</b>   | <b>0.2</b> |
| 1982 January                 | 0.3        | 1.3         | 0          | 4.1         | 1.5         | 11.0         | 0.2        | 0.6        | 8.1               | 0.4          | (s)        |
| February                     | 0.2        | 0.8         | 0          | 3.2         | 1.5         | 10.0         | 0.2        | 0.7        | 7.7               | 0.1          | (s)        |
| March                        | 0.3        | 0.5         | 0          | 3.5         | 1.7         | 10.6         | 0.2        | 0.7        | 9.2               | (s)          | 0          |
| April                        | 0.3        | 1.0         | (s)        | 3.7         | 1.6         | 10.1         | 0.2        | 0.5        | 9.7               | 0.3          | 0          |
| May                          | 0.3        | 1.3         | (s)        | 3.1         | 1.3         | 9.0          | 0.2        | 0.7        | 9.5               | 0.4          | 0          |
| June                         | 0.3        | 1.2         | (s)        | 3.3         | 0.9         | 7.8          | 0.1        | 0.6        | 9.5               | 0.4          | 0          |
| July                         | 0.2        | 1.3         | 0          | 3.6         | 1.2         | 8.3          | 0.1        | 0.6        | 9.8               | 0.4          | 0          |
| August                       | 0          | 1.2         | 0          | 3.9         | 1.5         | 7.0          | 0.2        | 0.4        | 9.7               | 0.4          | (s)        |
| September                    | (s)        | 0.7         | 0          | 3.2         | 1.5         | 7.2          | 0.1        | 0.6        | 8.0               | 0.4          | (s)        |
| October                      | 0          | 1.7         | 0          | 4.0         | 1.4         | 6.6          | 0.2        | 0.6        | 7.5               | 0.4          | (s)        |
| November                     | (s)        | 1.8         | 0          | 3.3         | 1.3         | 8.3          | 0.3        | 0.3        | 7.8               | 0.4          | 0          |
| December                     | 0.2        | 1.8         | 0          | 3.8         | 1.3         | 13.0         | 0.2        | 0.5        | 8.1               | 0.4          | (s)        |
| <b>TOTAL</b>                 | <b>1.9</b> | <b>15.6</b> | <b>0.1</b> | <b>42.6</b> | <b>16.5</b> | <b>108.9</b> | <b>2.2</b> | <b>6.8</b> | <b>104.5</b>      | <b>3.9</b>   | <b>0.1</b> |
| 1983 January                 | 0.2        | 1.9         | 0          | 4.3         | 1.7         | 13.8         | 0.2        | 0.2        | 8.0               | 0.4          | (s)        |
| February                     | 0.2        | 1.4         | 0          | 4.5         | 1.5         | 10.9         | 0.1        | 0.1        | 6.8               | (s)          | (s)        |
| March                        | 0.2        | 0.7         | (s)        | 4.6         | 1.6         | 11.3         | 0.2        | 0.1        | 7.9               | (s)          | (s)        |
| April                        | 0.2        | 1.6         | (s)        | 4.3         | 1.5         | 10.5         | 0.2        | 0.1        | 8.4               | 0.2          | (s)        |

<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.

(s) = Less than 0.05 billion gross kilowatt-hours.

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

Sources: • See the last page of this section.

# 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 |              |             |            |             |              |             |                             |              |                                    |               |                           |
| 1973                         | <b>TOTAL</b> | 0           | 6.5        | 2.1         | 6.2          | 0           | 28.0                        | 11.9         | 100.7                              | 88.0          | 188.7                     |
| 1974                         | <b>TOTAL</b> | 0           | 7.2        | 1.6         | 7.0          | 0           | 34.0                        | 12.0         | 121.1                              | 104.5         | 225.6                     |
| 1975                         | <b>TOTAL</b> | 0           | 7.5        | 12.0        | 7.7          | 0           | 30.5                        | 21.7         | 152.7                              | 181.7         | 334.4                     |
| 1976                         | <b>TOTAL</b> | 0           | 7.6        | 16.0        | 7.9          | 0           | 36.8                        | 24.5         | 187.3                              | 201.8         | 389.1                     |
| 1977                         | <b>TOTAL</b> | 0.1         | 6.5        | 19.9        | 8.1          | 0.1         | 38.1                        | 35.8         | 207.8                              | 263.3         | 471.0                     |
| 1978                         | <b>TOTAL</b> | 2.3         | 7.6        | 23.8        | 8.3          | 2.7         | 36.7                        | 35.9         | 263.6                              | 292.7         | 556.3                     |
| 1979                         | <b>TOTAL</b> | 3.2         | 6.7        | 21.0        | 11.8         | 6.3         | 38.5                        | 42.2         | 300.1                              | 270.6         | 570.7                     |
| 1980                         | <b>TOTAL</b> | 3.5         | 5.2        | 26.7        | 14.3         | 8.2         | 37.2                        | 43.7         | 354.4                              | 265.4         | 619.8                     |
| 1981                         | January      | 0.3         | 0.8        | 3.5         | 1.5          | 0.8         | 3.8                         | 5.0          | 39.7                               | 25.7          | 65.4                      |
|                              | February     | 0           | 0.6        | 3.6         | 1.4          | 0.7         | 3.4                         | 4.6          | 36.2                               | 22.6          | 58.8                      |
|                              | March        | 0           | 0.7        | 3.7         | 1.5          | 0.8         | 4.2                         | 4.9          | 39.1                               | 23.1          | 62.2                      |
|                              | April        | 0           | 0.6        | 3.3         | 1.4          | 0.8         | 2.8                         | 4.4          | 36.5                               | 21.7          | 58.2                      |
|                              | May          | 0.2         | 0.8        | 2.8         | 1.4          | 0.8         | 2.5                         | 4.3          | 36.6                               | 20.9          | 57.4                      |
|                              | June         | 0.4         | 0.8        | 2.8         | 0.7          | 0.8         | 3.3                         | 4.1          | 34.5                               | 22.6          | 57.1                      |
|                              | July         | 0.4         | 1.1        | 1.4         | 0.6          | 0.8         | 2.5                         | 5.2          | 36.1                               | 24.8          | 61.0                      |
|                              | August       | 0.4         | 1.0        | 2.6         | 1.0          | 0.8         | 2.5                         | 3.9          | 36.0                               | 28.3          | 64.2                      |
|                              | September    | 0.3         | 0.6        | 3.0         | 1.3          | 0.8         | 3.1                         | 3.3          | 33.9                               | 25.7          | 59.6                      |
|                              | October      | 0.3         | 1.2        | 3.3         | 1.5          | 1.2         | 2.7                         | 4.0          | 34.7                               | 21.6          | 56.3                      |
|                              | November     | 0.3         | 0.6        | 3.6         | 1.4          | 1.0         | 3.1                         | 4.3          | 36.0                               | 24.0          | 60.1                      |
|                              | December     | 0.4         | 0.7        | 4.1         | 1.5          | 1.1         | 4.9                         | 5.4          | 43.1                               | 27.5          | 70.6                      |
|                              | <b>TOTAL</b> | <b>2.9</b>  | <b>9.4</b> | <b>37.7</b> | <b>15.2</b>  | <b>10.7</b> | <b>38.9</b>                 | <b>53.4</b>  | <b>442.4</b>                       | <b>288.5</b>  | <b>730.9</b>              |
| 1982                         | January      | 0.4         | 1.0        | 4.0         | 1.5          | 0.8         | 3.4                         | 5.9          | 44.5                               | 27.1          | 71.6                      |
|                              | February     | 0.4         | 0.9        | 3.3         | 1.3          | 1.0         | 3.5                         | 5.4          | 40.0                               | 21.3          | 61.3                      |
|                              | March        | 0.4         | 0.5        | 3.8         | 1.5          | 1.0         | 4.1                         | 5.3          | 43.2                               | 24.0          | 67.1                      |
|                              | April        | 0.2         | 0.4        | 3.8         | 1.4          | 0.8         | 3.3                         | 5.3          | 42.5                               | 22.8          | 65.3                      |
|                              | May          | 0           | 0.5        | 2.5         | 1.2          | 0.8         | 2.6                         | 5.6          | 39.0                               | 22.8          | 61.8                      |
|                              | June         | (s)         | 0.7        | 1.9         | 0.6          | 1.0         | 3.3                         | 4.2          | 35.6                               | 25.3          | 60.9                      |
|                              | July         | 0.3         | 0.6        | 1.2         | 0.9          | 1.2         | 3.3                         | 4.5          | 37.6                               | 26.8          | 64.4                      |
|                              | August       | 0.4         | 0.7        | 2.0         | 1.0          | 1.2         | 3.7                         | 4.5          | 37.7                               | 26.4          | 64.1                      |
|                              | September    | 0.4         | 0.7        | 3.7         | 1.2          | 1.3         | 4.2                         | 5.4          | 38.6                               | 26.7          | 65.3                      |
|                              | October      | 0.4         | 1.0        | 4.2         | 1.5          | 1.4         | 3.7                         | 5.2          | 39.8                               | 25.4          | 65.3                      |
|                              | November     | 0.4         | 0.9        | 4.0         | 1.4          | 1.1         | 3.8                         | 5.8          | 41.0                               | 24.2          | 65.3                      |
|                              | December     | 0.4         | 0.9        | 4.2         | 1.5          | 1.4         | 5.1                         | 6.5          | 49.2                               | 25.8          | 75.0                      |
|                              | <b>TOTAL</b> | <b>3.8</b>  | <b>8.8</b> | <b>38.8</b> | <b>15.0</b>  | <b>13.1</b> | <b>44.1</b>                 | <b>63.4</b>  | <b>489.9</b>                       | <b>298.6</b>  | <b>788.5</b>              |
| 1983                         | January      | 0.5         | 1.0        | 4.2         | 1.5          | 1.5         | 4.8                         | 6.5          | 49.9                               | 27.4          | 77.3                      |
|                              | February     | 0.4         | 0.9        | 3.7         | 1.4          | 0.8         | 4.3                         | 5.6          | 42.5                               | 23.8          | 66.5                      |
|                              | March        | 0.6         | 0.9        | 4.1         | 1.5          | 1.8         | 4.9                         | 6.0          | 46.7                               | 25.0          | 71.7                      |
|                              | April        | 0.4         | 0.8        | 3.3         | 1.5          | 1.7         | 4.3                         | 4.0          | 43.0                               | 23.4          | 66.4                      |

<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>The United Kingdom assesses generation at 4-, 5- or 6-week intervals, rather than by calendar month.

(s)=Less than 0.05 billion gross kilowatt-hours.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.

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

Sources: • See the last page of this section.

## Notes and Sources for the International Section

### Notes

1. The 21 signatory nations of the International Energy Agency (IEA) are Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the 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.

2. The members of the Organization of Economic Cooperation and Development (OECD) are Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Total OECD excludes the United States Territories.

### Sources

#### Crude Oil Production:

- 1973-1981 annual data: Energy Information Administration, *1981 International Energy Annual*.
- U.S. annual and monthly data: Energy Information Administration, *Petroleum Supply Monthly*.
- 1980-1983 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.

- 1980-1983 monthly data for World: Sum of data for all countries using above sources.

#### Petroleum Consumption:

- Central Intelligence Agency, "International Energy Statistical Review" (except the United States).
- United States data: Energy Information Administration, *Petroleum Supply Monthly*.

- IEA totals for latest months are Energy Information Administration estimates.

#### Petroleum Stocks:

- Canada: Energy, Mines and Resources Canada, *Energy Information Handbook*; Statistics Canada, *Refined Petroleum Products*.
- France: Comite Professionel du Petrole, *Petrole 80: Activite de L'Industrie Petroliere* and *Bulletin Mensuel*.
- West Germany and Italy: OECD, *Quarterly Oil Statistics* and *Monthly Oil Statistics*.
- Japan: Ministry of International Trade and Industry, *Yearbook of Coal, Petroleum, and Coke Statistics 1979*; *Energy Production: Supply and Demand Statistics Report*.
- United Kingdom: United Kingdom Department of Energy, *Digest of United Kingdom Energy Statistics 1981* and *Energy Trends*; and OECD, *Monthly Oil Statistics*.
- United States: 1973 through 1979: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; January 1980 forward: EIA, *Petroleum Supply Monthly*.

- Other OECD: OECD, *Quarterly Oil Statistics*.

- Total OECD: Sum of data for all OECD member countries using above sources.

#### Nuclear Electricity Generation:

- *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.

### **Bituminous Coal**

A coal that is high in carbonaceous matter having a volatility greater than anthracite 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.

### **British Thermal Unit (Btu)**

The amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit. One Btu is equivalent to about 252 calories. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

### **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 used primarily 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, shale oil, and tar sands oil.

### **Crude Oil Refinery Input**

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

### **Crude Oil Stocks**

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

### **Distillate Fuel Oil**

A light fuel oil distilled off during the refining process. Included are products known as No. 1 and No. 2 heating oils, diesel fuels, and No. 4

fuel oil, which conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel), and electric power generation.

### **Electricity Production**

Net electricity (gross electricity output measured at the generator terminals, minus powerplant use) generated at electric utilities. Excludes industrial electricity generation. International data are gross electricity output.

### **Ethane**

A normally gaseous, colorless hydrocarbon ( $C_2H_6$ ) produced at natural gas processing plants and refineries. It is used primarily as petrochemical feedstock for eventual production of chemicals and plastic materials.

### **Exports**

Shipments from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

### **Full-Serve Station**

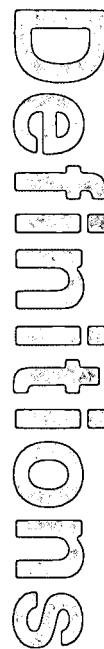
Station at which services such as pumping gas, washing windows, and checking under the hood are performed by attendants.

### **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) that are classified by customs officials as "imports for consumption" or "withdrawals from bonded warehouse for consumption," including withdrawals from bonded warehouses 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 warehouses and into U.S. territories and U.S. Foreign Trade Zones.

### **Landed Cost of Imported Crude Oil**

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 are computed based on major importers, which account for an estimated 90 to 95 percent of total crude oil



imports. Coverage includes the United States and its territories.

#### **Lease Condensate**

A natural gas liquid recovered from gas-well gas in lease separators and field facilities. It consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

#### **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.

#### **Liquefied Petroleum Gases**

Propane, propylene, butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "liquefied gases."

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

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

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

Represents the dependable main-unit net capacity of domestic nuclear powerplant 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**

See Motor Gasoline, Finished, and Motor Gasoline, Total.

#### **Motor Gasoline, Average Retail Selling Price**

The average price (including taxes) of sales of motor gasoline to retail customers at service stations.

#### **Motor Gasoline, Finished**

Beginning in January 1981, "Motor Gasoline" was redefined as "Finished Motor Gasoline," which is 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 premium and regular grade, both leaded and unleaded, gasohol, and all other refinery products listed in ASTM Specification D439. Excludes any blendstock until blending has been completed and the blendstock is incorporated in the finished gasoline and no longer separately identified. Also excludes any alcohol to be used in the blending of gasohol.

#### **Motor Gasoline, Premium Grade**

Finished motor gasoline that has an antiknock designation of 3 or more for unleaded motor gasoline and 4 or more for leaded motor gasoline.

#### **Motor Gasoline, Regular Grade**

Motor gasoline that has an antiknock designation of 2 or less for unleaded motor gasoline and 3 or less for leaded motor gasoline.

#### **Motor Gasoline, Total**

This includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

#### **Natural Gas**

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

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

Those portions of natural gas that are liquefied at natural gas processing plants, including natural gasoline plants, cycling plants, and fractionators, and, in some instances, field facilities. Products obtained include ethane, liquefied petroleum gases (propane, butane, isobutane, propane-butane mixtures, ethane-propane mixtures), isopentane, natural gasoline, unfractionated streams, plant condensate, and minor quantities of finished products such as motor gasoline, aviation gasoline, special naphthas, jet fuel, kerosene, distillate fuel oil, and miscellaneous products.

#### **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 products. This product is reported as marketable or catalyst coke.

#### **Petroleum Products**

Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline,

naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400°F end-point, other oils over 400°F end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

#### **Propane**

A colorless, highly volatile hydrocarbon ( $C_3H_8$ ) that is gaseous at ordinary atmospheric conditions and readily recovered as a liquid at natural gas processing plants and refineries. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

#### **Refined Petroleum Product Supplied**

Total refined petroleum product supplied is the sum of all refined petroleum products supplied. For each product the amount supplied is derived by summing production, imports, and crude oil burned directly, and subtracting changes in primary stocks (net withdrawals is a plus quantity; net additions is a minus quantity) and 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 that 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, 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 Station**

Station at which services such as pumping gas, washing windows, and checking under the hood are not performed by attendants.

#### **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, natural gas processing plants, bulk terminals, and pipelines (including pipeline fill) where the storage capacity exceeds 50,000 barrels or where refined petroleum products are received by tanker, barge, or pipeline. Stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers, are excluded.

#### **Strategic Petroleum Reserve**

Petroleum inventories (currently only crude oil) held in Government-owned underground storage for use during periods of major supply interruptions. 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.

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

A product resulting from the manufacture, conversion, or reforming of hydrocarbons that 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.

#### **Wells, Exploratory and Development**

Holes drilled for the purpose of finding or producing crude oil or natural gas. They include wells classified as oil wells, gas wells, or dry holes.

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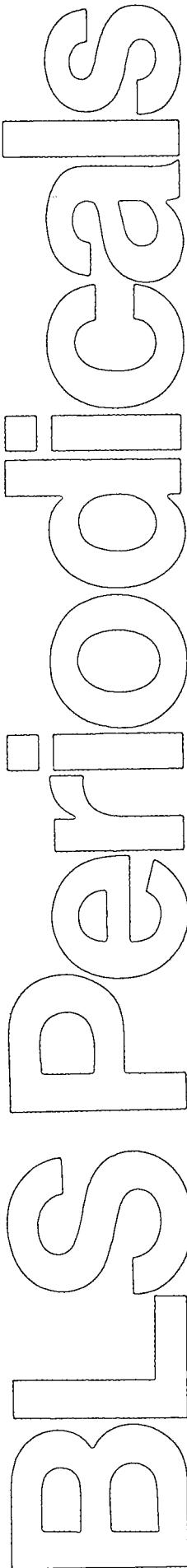
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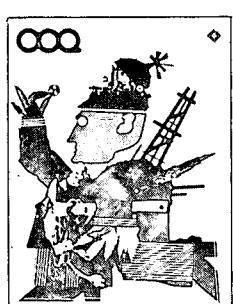
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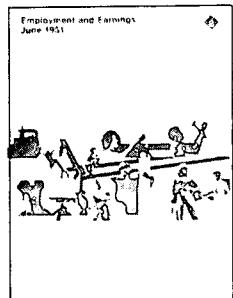
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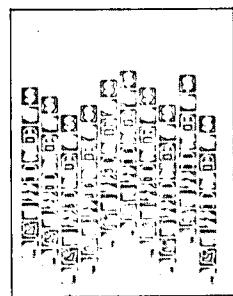
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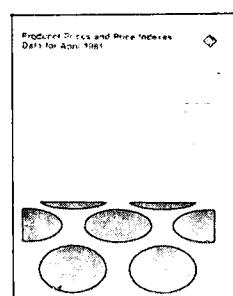
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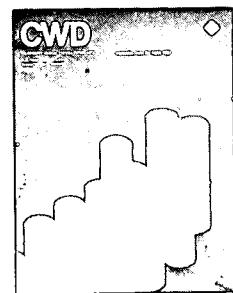
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## Conversion Factors

| Approximate Heat Content<br>of Various Fuels | Units                  | 1973   | 1974   | 1975   | 1976   | 1977   | 1978   | 1979   | 1980   | 1981   | 1982-83† |
|--|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| Anthracite                                   |                        |        |        |        |        |        |        |        |        |        |          |
| Production.....                              | Million Btu/short ton  | 23.17  | 22.56  | 23.39  | 22.77  | 23.18  | 23.52  | 23.59  | 23.35  | 23.69  | 23.69    |
| Imports and exports.....                     | Million Btu/short ton  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40  | 25.40    |
| Consumption, average.....                    | Million Btu/short ton  | 22.71  | 21.95  | 21.74  | 22.15  | 22.69  | 22.97  | 22.70  | 22.16  | 22.10  | 22.10    |
| Electric utility consumption.....            | Million Btu/short ton  | 17.92  | 17.20  | 17.06  | 17.53  | 17.24  | 17.10  | 17.45  | 17.65  | 18.17  | 18.17    |
| Non-utility consumption.....                 | Million Btu/short ton  | 24.34  | 23.75  | 23.65  | 23.84  | 24.99  | 25.17  | 25.20  | 23.74  | 25.12  | 25.12    |
| Bituminous coal and lignite                  |                        |        |        |        |        |        |        |        |        |        |          |
| Production.....                              | Million Btu/short ton  | 24.01  | 23.73  | 23.20  | 23.15  | 22.70  | 22.43  | 22.59  | 22.46  | 22.38  | 22.38    |
| Imports.....                                 | Million Btu/short ton  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00  | 25.00    |
| Exports.....                                 | Million Btu/short ton  | 27.00  | 27.00  | 27.00  | 27.00  | 27.00  | 27.00  | 27.00  | 26.40  | 26.18  | 26.18    |
| Consumption, average.....                    | Million Btu/short ton  | 23.65  | 23.07  | 22.80  | 22.75  | 22.33  | 22.14  | 22.20  | 22.00  | 21.80  | 21.80    |
| Electric utility consumption.....            | Million Btu/short ton  | 22.26  | 21.80  | 21.66  | 21.69  | 21.48  | 21.28  | 21.38  | 21.30  | 21.09  | 21.09    |
| Non-utility consumption.....                 | Million Btu/short ton  | 26.84  | 26.12  | 25.81  | 25.87  | 25.13  | 25.07  | 25.06  | 25.06  | 24.96  | 24.96    |
| Coal coke.....                               | 'Million Btu/short ton | 26.00  | 26.00  | 26.00  | 26.00  | 26.00  | 26.00  | 26.00  | 26.00  | 26.00  | 26.00    |
| Crude petroleum <sup>1</sup>                 |                        |        |        |        |        |        |        |        |        |        |          |
| Production.....                              | Million Btu/barrel     | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800    |
| Imports.....                                 | Million Btu/barrel     | 5.817  | 5.827  | 5.821  | 5.808  | 5.810  | 5.802  | 5.810  | 5.812  | 5.818  | 5.818    |
| Exports.....                                 | Million Btu/barrel     | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800  | 5.800    |
| Crude petroleum and products                 |                        |        |        |        |        |        |        |        |        |        |          |
| Imports, average.....                        | Million Btu/barrel     | 5.897  | 5.884  | 5.858  | 5.856  | 5.834  | 5.839  | 5.810  | 5.798  | 5.795  | 5.775    |
| Exports, average.....                        | Million Btu/barrel     | 5.752  | 5.774  | 5.748  | 5.745  | 5.797  | 5.808  | 5.832  | 5.820  | 5.821  | 5.821    |
| Petroleum products                           |                        |        |        |        |        |        |        |        |        |        |          |
| Consumption, average.....                    | Million Btu/barrel     | 5.515  | 5.504  | 5.494  | 5.504  | 5.518  | 5.519  | 5.494  | 5.479  | 5.448  | 5.448    |
| Residential and commercial.....              | Million Btu/barrel     | 5.387  | 5.377  | 5.358  | 5.383  | 5.389  | 5.392  | 5.471  | 5.468  | 5.408  | 5.354    |
| Industrial.....                              | Million Btu/barrel     | 5.559  | 5.530  | 5.520  | 5.529  | 5.546  | 5.542  | 5.415  | 5.373  | 5.306  | 5.383    |
| Transportation.....                          | Million Btu/barrel     | 5.399  | 5.397  | 5.395  | 5.399  | 5.405  | 5.409  | 5.430  | 5.442  | 5.436  | 5.429    |
| Electric utility.....                        | Million Btu/barrel     | 6.245  | 6.238  | 6.250  | 6.251  | 6.249  | 6.251  | 6.258  | 6.254  | 6.258  | 6.258    |
| Imports.....                                 | Million Btu/barrel     | 5.983  | 5.959  | 5.935  | 5.980  | 5.908  | 5.955  | 5.811  | 5.748  | 5.659  | 5.659    |
| Exports.....                                 | Million Btu/barrel     | 5.752  | 5.773  | 5.747  | 5.743  | 5.796  | 5.814  | 5.864  | 5.841  | 5.837  | 5.837    |
| LPG consumption average <sup>2</sup> .....   | Million Btu/barrel     | 3.746  | 3.730  | 3.715  | 3.711  | 3.677  | 3.669  | 3.680  | 3.674  | 3.643  | 3.643    |
| Natural gas plant liquid production.....     | Million Btu/barrel     | 4.049  | 4.011  | 3.984  | 3.964  | 3.941  | 3.925  | 3.955  | 3.914  | 3.930  | 3.930    |
| Natural gas, dry                             |                        |        |        |        |        |        |        |        |        |        |          |
| Production.....                              | Btu/cubic foot         | 1,021  | 1,024  | 1,021  | 1,020  | 1,021  | 1,019  | 1,021  | 1,016  | 1,015  | 1,015    |
| Consumption.....                             | Btu/cubic foot         | 1,021  | 1,024  | 1,021  | 1,020  | 1,021  | 1,019  | 1,021  | 1,026  | 1,027  | 1,027    |
| Electric utility consumption.....            | Btu/cubic foot         | 1,024  | 1,022  | 1,026  | 1,023  | 1,029  | 1,034  | 1,034  | 1,034  | 1,034  | 1,034    |
| Non-utility consumption.....                 | Btu/cubic foot         | 1,020  | 1,024  | 1,020  | 1,019  | 1,019  | 1,016  | 1,018  | 1,024  | 1,025  | 1,025    |
| Imports.....                                 | Btu/cubic foot         | 1,026  | 1,027  | 1,026  | 1,025  | 1,026  | 1,030  | 1,037  | 1,022  | 1,014  | 1,014    |
| Exports.....                                 | Btu/cubic foot         | 1,023  | 1,016  | 1,014  | 1,013  | 1,013  | 1,013  | 1,013  | 1,013  | 1,011  | 1,011    |
| Wet natural gas production.....              | Btu/cubic foot         | 1,093  | 1,097  | 1,095  | 1,093  | 1,093  | 1,088  | 1,092  | 1,088  | 1,091  | 1,091    |
| Hydropower <sup>3</sup> .....                | Btu/kWh                | 10,389 | 10,442 | 10,406 | 10,373 | 10,435 | 10,361 | 10,353 | 10,388 | 10,388 | 10,388   |
| Nuclear power <sup>4</sup> .....             | Btu/kWh                | 10,903 | 11,161 | 11,013 | 11,047 | 10,769 | 10,941 | 10,640 | 10,908 | 10,908 | 10,908   |
| Geothermal power <sup>5</sup> .....          | Btu/kWh                | 21,674 | 21,674 | 21,611 | 21,611 | 21,611 | 21,611 | 21,545 | 21,637 | 21,594 | 21,594   |
| Electricity consumption.....                 | Btu/kWh                | 3,412  | 3,412  | 3,412  | 3,412  | 3,412  | 3,412  | 3,412  | 3,412  | 3,412  | 3,412    |

### Approximate Heat Content of Refined Petroleum Products

Million Btu/barrel

|   |       |
|---|-------|
| Asphalt.....                              | 6.636 |
| Aviation gasoline .....                   | 5.048 |
| Butane .....                              | 4.326 |
| Butane-propane mixture <sup>6</sup> ..... | 4.130 |
| Distillate fuel oil .....                 | 5.825 |
| Ethane .....                              | 3.082 |
| Ethane-propane mixture <sup>6</sup> ..... | 3.308 |
| Isobutane.....                            | 3.974 |
| Jet fuel—kerosene type.....               | 5.670 |
| Jet fuel—naphtha type.....                | 5.355 |
| Kerosene.....                             | 5.670 |
| Lubricants.....                           | 6.065 |
| Motor gasoline.....                       | 5.253 |
| Natural gasoline.....                     | 4.620 |
| Petrochemical feedstocks                  |       |
| Naphtha 400° F or less.....               | 5.248 |
| Other oils over 400° F.....               | 5.825 |
| Still gas.....                            | 6.000 |
| Petroleum coke.....                       | 6.024 |
| Plant condensate.....                     | 5.418 |
| Propane.....                              | 3.836 |
| Residual fuel oil .....                   | 6.287 |
| Road oil .....                            | 6.636 |
| Special naphtha.....                      | 5.248 |
| Still gas.....                            | 6.000 |
| Unfinished oils .....                     | 5.825 |
| Unfractionated stream.....                | 5.418 |
| Wax.....                                  | 5.537 |
| Miscellaneous.....                        | 5.796 |

### 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 ( $U_3O_8$ ) | contains | 0.769 metric tons of uranium |
| 1 short ton ( $UF_4$ )   | contains | 0.613 metric tons of uranium |
| 1 metric ton ( $UF_4$ )  | 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 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.

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

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

<sup>6</sup> Preliminary data.

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