Fichman

DOE/EIA-0035(85/04)

# Monthly Energy Review

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

**April 1985** 

Published: July 1985







### Monthly Energy Review

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:

"The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze and disseminate data and information . . . ."

The *Monthly Energy Review* is intended to provide timely energy information to Members of Congress, to Federal and State agencies, and to the general public.

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# Monthly Energy Review

**April 1985** 

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Energy Information Administration Office of Energy Markets and End Use U.S. Department of Energy Washington, D.C. 20585 DOE/EIA-0035(85/04)
Distribution Category UC-98







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Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 252-8800.

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### **Articles**

Feature articles on energy-related subjects are occasionally included in this publication. The following articles have appeared in issues since the beginning of 1981. A list of the articles included prior to 1981 may be found in any issue published from 1981 through 1983.

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
Impacts of Financial Constraints on the Electric Utility Industry	October	1982
The Effect of Weather on Energy Use	April	1983
Trends in U.S. Energy Since 1973	May	1983
Data Series on Petroleum Use at Electric Utilities		1983
Residential Energy Consumption, 1978 Through 1981	September	1983
Exploring for Oil and Gas	November	1983
The Influence of Federal Actions on Petroleum Exploration	December[2]	1983
Aggregate Statistics: Accurate or Misleading?	December[3]	1983
Estimating Well Completions		1985
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# **Highlights**

Summaries of Energy Information Administration reports have appeared as "Highlights" in this publication since 1982. The following is a list of all the reports that have been summarized in previous issues.

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids	
Reserves, 1981 Annual ReportSeptember	1982
Energy Company Development Patterns in the	
Postembargo Era, Volume OneNovember	1982
Residential Energy Consumption Survey:	
Consumption and ExpendituresJanuary	1983
Residential Energy Consumption Survey:	
Housing CharacteristicsFebruary	1983
Energy Price and Expenditure Data Report, 1970–1980July	1983
Railroad Deregulation: Impact on CoalAugust	1983
Port Deepening and User Fees: Impact on U.S. Coal ExportsAugust	1983
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Reserves, 1982 Annual ReportSeptember	
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State Energy Data Report, Consumption Estimates, 1960–1982March	1984
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State Energy Price and Expenditure Report, 1970-1981May	1984
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International Energy Annual 1983September	1984
Annual Energy Outlook 1984December	1984
Annual Energy Review 1984January	1985
Performance Profiles of Major Energy Producers 1983 February	1985
State Energy Price and Expenditure Report 1970–1982March	1985

# Highlights of the

### State Energy Data Report, Consumption Estimates, 1960–1983

#### Introduction

Energy consumption in each State varies over time in response to changes in factors such as energy prices and levels of economic activity. Differences among States arise from differences in such factors as population, climate, and the amount and type of industry. The State Energy Data Report presents estimates of annual energy consumption for each State for 1960 through 1983. Readers familiar with the consumption data series in Part 2 of the Monthly Energy Review will find that the State estimates are presented in greater detail. For example, State estimates are disaggregated by type of petroleum product consumed.

#### **Per Capita Consumption**

Prior to the 1973-1974 oil embargo, U.S. per capita energy consumption rose at an average annual rate of 2.9 percent (Table 1). After 1973, per capita energy use fluctuated until 1979, then declined to 301 million Btu in 1983. Most States followed a similar pattern. For the 14-year period preceding the embargo, every State recorded a positive growth rate in energy use per capita. In the post-embargo period, all but four States (Alaska, Oklahoma, and North and South Dakota) recorded a negative growth rate.

#### State Data

The State Energy Data Report includes both collected and estimated State-level consumption data. EIA collects data for natural gas consumption and for energy consumed at electric utilities, and those data are used directly, with only minor adjustments for end-use sector consistency. Where EIA does not collect State consumption data, especially for the numerous petroleum products, the report uses collected data on State sales or deliveries and adjusts the data to equal collected nationallevel data on product supplied.

**Table 1. Per Capita Energy Consumption Growth** Rates, Pre- and Post-Embargo

	Growth (Perc	Rates cent)	1983 Use
State	1960-73	1973-83	(Million Btu)
Alaska	6.2	4.1	875
Wyoming	5.1	-0.7	728
Louisiana	4.7	-0.8	723
Texas	3.0	-2.2	510
Indiana	2.9	-1.5	399
Oklahoma	3.7	0.6	395
Kansas	3.2	-1.1	379
Montana	2.7	-2.3	364
Washington	3.3	-1.2	357
North Dakota	1.9	0.5	351
West Virginia	2.9	-2.9	341
Idaho	3.5	-2.5	339
Tennessee	3.0	-1.1	339
Alabama	3.9	-2.1	336
Kentucky	2.5	-0.7	334
New Mexico	1.8	-2.7	328
Ohio	1.9	-1.7	328
Nevada	2.3	-2.3	327
Iowa	3.4	-0.6	327
Arkansas	4.7	-1.8	325
Nebraska	3.6	-0.9	320
Mississippi	6.0	-1.3	307
Delaware	2.2	-2.7	307
Maine	4.1	-1.8	303
Oregon	3.2	-1.9	302
United States Utah South Carolina Illinois Georgia	2.9	-1.5	<b>301</b>
	1.5	-2.8	300
	3.8	-0.6	297
	2.8	-1.9	292
	5.0	-0.6	291
Minnesota	3.4	-1.3	289
South Dakota	2.6	0.1	283
Missouri	3.0	-0.7	280
New Jersey	2.3	-0.3	279
Pennsylvania	2.0	-2.7	274
Colorado	2.4	-2.0	269
Wisconsin	2.6	-1.1	268
Virginia	2.8	-0.8	267
North Carolina	4.1	-0.8	264
District of Columbia	4.2	-0.4	263
Michigan	2.8	-2.6	258
Maryland	2.2	-1.6	256
Arizona	3.1	-2.3	254
California	2.3	-1.9	229
Florida	3.5	-1.1	226
Hawaii	4.4	-1.8	226
Connecticut	1.6	-1.5	216
Massachusetts	2.5	-2.9	208
Vermont	3.9	-2.5	204
New Hampshire	3.5	-3.2	194
New York	2.5	-2.7	188
Rhode Island	0.7	-2.8	185

Note: Growth rates are average annual growth rates from 1960 through 1973 and from 1973 through 1983.
Source: EIA, State Energy Data Report, Consumption Estimates, 1960–1983 (May 1985).

<sup>&</sup>quot;States" includes the District of Columbia.

Alaska's per capita use of energy in 1983 was the highest of any State. Alaska recorded the highest growth rates both before and after the embargo. In contrast, the pre-embargo average annual increase in Rhode Island was only 0.7 percent. After the embargo, Rhode Island's decline in energy consumption was one of the greatest, and energy use fell at an average annual rate of 2.8 percent.

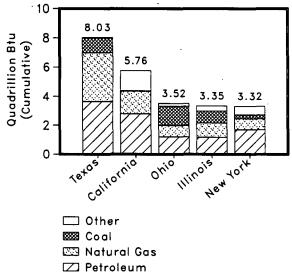
#### **Consumption by Source**

Not surprisingly, the most populous States generally consumed the most energy. In 1983, five of the six States with the highest populations were also the top five energy consumers. Of these, all but Ohio consumed more petroleum than any other fuel (Figure 1). In Texas, petroleum accounted for 45 percent of all energy consumed, and natural gas and coal accounted for virtually all of the remainder. In contrast, California consumed very little coal, and relied on nuclear and hydroelectric power and geothermal energy for 24 percent of total State energy consumption.

#### **Consumption by Sector**

Industrial use of energy in Texas was over three times that of California (Figure 2). In Ohio and Illinois,

Figure 1. Consumption of Energy by Source in Top Five States,\* 1983



\*States that consumed the most energy in 1983.

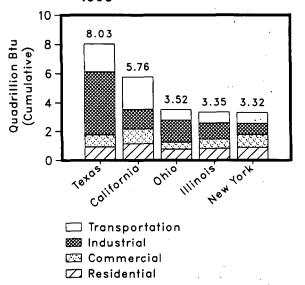
Source: EIA, State Energy Data Report, Consumption Estimates, 1960—1983 (May 1985). industrial sector use of energy accounted for a larger share than any other sector. Transportation use of energy was closely correlated with highway travel.<sup>2</sup> California, ranked first in terms of highway travel, was the only State among the top five energy consumers where the transportation sector consumed more energy than any other sector. In four of the top five States, commercial sector consumption was lower than any other sector. New York was the only State in which residential energy use accounted for the largest amount of the State total.

#### The Report

The State Energy Data Report, Consumption Estimates, 1960–1983 was published in May 1985 by EIA. The 688-page report includes documentation that describes all data sources and how consumption estimates were made. A public use computer tape of the State estimates and the data used to calculate them can be obtained from the National Technical Information Center, U.S. Department of Commerce (order number PB 85-218642) for \$140.00. The report itself may be obtained by using the order form in the back of this publication.

<sup>2</sup>State rankings by vehicle-miles of highway travel were obtained from a pre-publication copy of EIA's *State Energy Overview*, DOE/EIA-0354(83).

Figure 2. Consumption of Energy by Sector in Top Five States,\* 1983



\*States that consumed the most energy in 1983.

Source: EIA, State Energy Data Report, Consumption Estimates, 1960-1983 (May 1985).

#### **Production**

Energy production during April 1985 totaled 5.4 quadrillion Btu, a 0.3-percent increase compared with the level of production during April 1984. Coal production was up 4.5 percent. Natural gas production decreased 1.0 percent and petroleum production was down 0.3 percent compared with production in the previous April. Production of all other forms of energy combined decreased 5.6 percent compared with production 1 year earlier.

#### Consumption

Energy consumption during April 1985 totaled 5.8 quadrillion Btu, 1.2 percent below the level of consumption during April 1984. Natural gas consumption decreased 5.3 percent and petroleum consumption was down 1.4 percent. Coal consumption increased 5.7 percent. Consumption of all other forms of energy combined decreased 4.8 percent compared with consumption during April 1984.

#### **Net Imports**

Net imports of energy during April 1985 totaled 0.7 quadrillion Btu, 2.0 percent below the level of net imports during April 1984. Net imports of petroleum decreased 4.9 percent, while net imports of natural gas increased 6.1 percent. Net exports of coal were down 9.0 percent compared with the level in April 1984.

# **Energy Summary** (Quadrillion (1015) Btu)

		April		<b>Cumulative January through April</b>						
	1985	1984	Percent Change	1985	1985 Daily Rate	1984	1984 Daily Rate	Percent Change		
Total Production	5.409	5.390	+0.3	21.832	0.182	22.097	0.183	-0.4		
Petroleum <sup>2</sup>	1.729	1.734	-0.3	6.969	0.058	6.958	0.058	+1.0		
Natural Gas (Dry)	1.455	1.469	-1.0	5.968	0.050	6.102	0.050	-1.4		
Coal	1.664	1.592	+4.5	6.389	0.053	6.547	0.054	-1.6		
Other <sup>3</sup>	0.561	0.595	-5.6	2.505	0.021	2.490	0.021	+1.5		
Total Consumption	5.835	5.906	-1.2	25.968	0.216	26.078	0.216	+0.4		
Petroleum <sup>4</sup>	2.490	2.526	-1.4	10.185	0.085	10.456	0.086	-1.8		
Natural Gas⁵	1.398	1.476	-5.3	7.325	0.061	7.390	0.061	-0.1		
Coal	1.353	1.279	+5.7	5.818	0.048	5.618	0.046	+4.4		
Other®	0.595	0.624	-4.8	2.640	0.022	2.613	0.022	+1.9		
Net Imports	0.698	0.712	-2.0	2.441	0.020	3.145	0.026	-21.7		
Petroleum <sup>7</sup>	0.774	0.814	-4.9	2.614	0.022	3.322	0.027	-20.7		
Natural Gas	0.072	0.068	+6.1	0.357	0.003	0.292	0.002	+23.1		
Coal <sup>s</sup>	(0.182)	(0.200)	(-9.0)	(0.664)	(0.006)	(0.593)	(0.005)	(+12.9)		
Other <sup>a</sup>	0.033	0.030	+12.1	0.135	0.001	0.124	0.001	+9.9		

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

Includes crude oil, lease condensate, and natural gas plant liquids.
 Other is hydroelectric and nuclear electric power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
 Includes refined petroleum products and natural gas plant liquids.

Includes supplemental gaseous fuels.

Other is hydroelectric and nuclear electric power; electricity produced from geothermal, wood, waste, wind, photovoltaic, and

solar thermal energy sources connected to electric utility distribution systems; and net imports of electricity and coal coke.

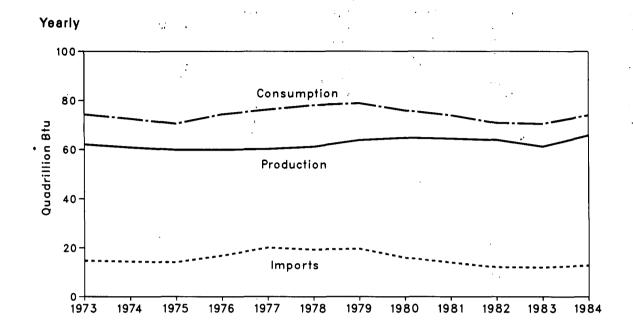
Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.

Parentheses indicate exports are greater than imports.

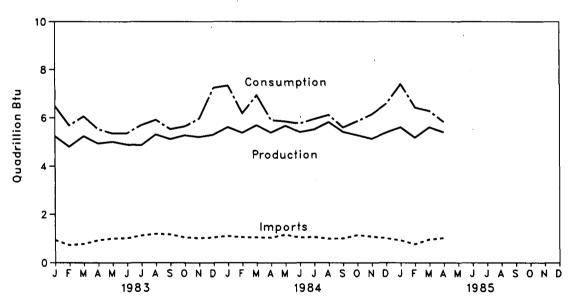
Other is net imports of electricity and coal coke.

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

# Overview



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#### Overview<sup>1</sup>

		Production <sup>2</sup>	Consumption <sup>2</sup>	Imports <sup>2</sup>	Exports	Net Imports
			Qu	adrillion (1015) B	tu	
1973	Total	62.067	74.288	14.730	2.051	12.680
1974	Total	60.841	72.548	14.412	2.223	12.190
1975	Total	59.865	70.551	14.111	2.359	11.752
1976	Total	59.896	74.366	16.837	2.189	14.648
1977	Total	60.222	76.292	20.090	2.072	18.018
1978	Total	61.106	78.091	19.254	1.931	17.323
1979	Total	63.810	78.900	19.616	2.871	
1980	Total	64.764	78.955			16.745
	Total			15.971	3.724	12.247
1981		64.424	73.989	13.974	4.329	9.644
1982	Total	63.892	70.842	12.093	4.636	7.457
1983	January	5.237	6.483	0.942	0.301	0.641
	February	4.803	5.685	0.732	0.264	0.468
	March	5.233	6.058	0.783	0.319	0.464
	April	4.933	5.533	0.931	0.314	0.617
	May	5.006	5.355	1.005	0.348	0.657
	June	4.889	5.364	1.018	0.334	0.684
	July	4.866	5.700	1.124	0.273	0.851
	August	5.312	5.922	1.199	0.348	0.852
	September October	5.120 5.280	5.538	1.172	0.323	0.849
	November	5.200 5.208	5.648 5.966	1.051 1.019	0.325	0.726
	December	5.308	7.246	1.019	0.280 0.290	0.739
	Total	61.196	7.246 70.497			0.758
		•		12.024	3.719	8.306
1984	January	R5.619	R7.341	R1.105	R0.247	R0.858
	February	R5.388	R6.194	R1.059	R0.220	R0.839
	March	R5.700	R6.637	R1.053	R0.316	R0.737
	April	R5.390	R5.906	R1.039	0.328	R0.712
	May	R5.679	R5.858	R1.167	R0.366	R0.801
	June July	R5.414	R5.768	R1.043	R0.367	R0.675
	August	R5.524 R5.832	R5.955 R6.129	R1.067	0.328	R0.739
	September	R5.428	R5.611	R1.001 R1.013	0.361 0.357	R0.640
	October	R5.289	R5.873	R1.148	0.357 R0.297	R0.657 0.851
	November	R5.142	R6.153	R1.092	R0.272	R0.820
	December	R5.400	R6.590	R1.021	R0.363	R0.659
	Total	R65.806	R74.016	R12.809	R3.822	R8.987
1985	January	R5.618	R7.402	0.929	0.307	0.622
	February	R5.187	R6.437	R0.772	0.307	R0.465
	March	R5.619	R6.294	0.968	0.311	0.657
	April	5.409	5.835	1.029	0.332	0.698
	Year to Date	21.832	25.968	3.699	1.257	2.441

<sup>&</sup>lt;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.

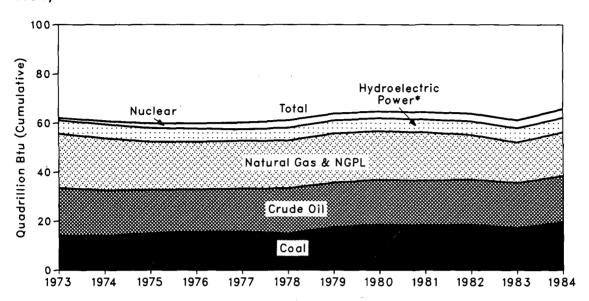
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

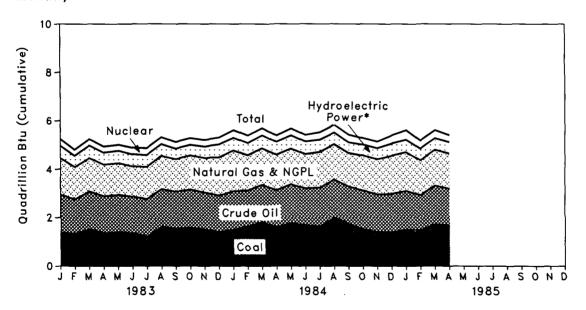
Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

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

# Production of Energy by Source

### Yearly





<sup>\*</sup>Includes other.

### **Production of Energy by Source**

		Coal	Crude Oil¹	NGPL <sup>2</sup>	Natural Gas (Dry)	Hydro- electric Power <sup>3</sup>	Nuclear Electric Power	Other¹	Total	Year to Date
					Qua	adrillion (101	⁵) Btu			
1973	Total	14.000	19.493	2.569	22.187	2.861	0.910	0.046	62.067	
1974	Total	14.080	18.575	2.471	21,210	3.177	1.272	0.056	60.841	
1975	Total	14.995	17.729	2.374	19.640	3.155	1.900	0.072	59.865	
1976	Total	15.659	17.262	2.327	19.480	2.976	2.111	0.081	59.896	
1977	Total	15.758	17.454	2.327	19.565	2.333	2.702	0.082	60.222	
1978	Total	14.912	18.434	2.245	19.485	2.937	3.024	0.068	61.106	
1979	Total	17.549	18.104	2.286	20.076	2.931	2.776	0.089	63.810	
1980	Total	18.600	18.249	2.254	19.907	2.900	2.739	0.114	64.764	
1981	Total	18.379	18.146	2.307	19.699	2.758	3.008	0.114	64.424	
1982	Total	18.641	18.309	2.191	18.255	3.256	3.131	0.127	63.892	
1983	January	1.384	1.564	0.188	1.509	0.308	0.273	0.011	5.237	5.237
	February	1.338	1.422	0.169	1.329	0.295	0.242	0.008	4.803	10.040
	March	1.520	1.564	0.183	1.376	0.319	0.261	0.009	5.233	15.274
	April	1.364	1.527	0.173	1.300	0.316	0.244	0.009	4.933	20.207
	May	1.394	1.552	0.178	1.305	0.329	0.240	0.007	5.006	25.213
	June	1.363	1.508	0.175	1.245	0.324	0.263	0.009	4.889	30.102
	July	1.218	1.553	0.183	1.325	0.297	0.279	0.012	4.866	34.968
	August	1.617	1.561	0.186	1.375	0.272	0.286	0.015	5.312	40.280
	September	1.001	1.528	0.184	1.340	0.229	0.273	0.014	5.120	45.400
	October November	1.583 1.515	1.577	0.191	1.415	0.219	0.281	0.015	5.280	50.680
	December	1.405	1.526 1.510	0.189 0.184	1.432 1.577	0.260 0.333	0.273 0.287	0.013	5.208	
	Total	17.252	18.392	2.184	16.530	3.502	3.203	0.011 <b>0.133</b>	5.308	61.196
									61.196	
1984	January	1.508	R1.594	R0.193	1.679	0.314	0.320	0.011	R5.619	R5.619
	February	1.636	R1.493	R0.188	1.455	0.294	0.310	0.013	R5.388	R11.007
	March	1.811	R1.559	R0.196	1.499	0.321	0.298	0.015	R5.700	R16.707
	April	1.592	R1.542	0.192	1.469	0.316	0.264	0.014	R5.390	R22.097
	May	1.775	R1.610	0.198	1.464	0.336	0.282	0.014	R5.679	R27.776
	June	1.672 1.644	R1.540	0.192	1.417	0.304	0.276	0.013	R5.414	R33.190
	July	1.995	R1.598 R1.584	R0.201 R0.201	1.470 1.450	0.290	0.308	0.013	R5.524	R38.714
	August September	1.735	R1.565	R0.201	1.450	0.265 0.221	0.322 0.318	0.016 0.015	R5.832	R44.546
	October	1.525	R1.601	0.202	R1.454	0.221	0.318	0.015	R5.428 R5.289	R49.974
	November	1.410	R1.562	R0.199	R1.454	0.220	0.270	0.016	R5.142	R55.264
	December	1.393	R1.600	0.202	R1.578	0.233	0.200	0.018	R5.400	R60.406 R65.806
	Total	19.696	R18.848	R2.362	R17.765	3.387	3.573	0.174	R65.806	H03.800
4005										
1985	January	R1.510	1.605 1.450	0.202	R1.598	0.290	0.395	0.018	R5.618	R5.618
	February March	R1.490		0.181	R1.442	0.273	0.336	0.016	R5.187	R10.805
		R1.726 1.664	1.605	0.198	R1.473	0.260	0.339	0.018	R5.619	R16.424
	April		1.539	0.190	1.455	0.258	0.289	0.015	5.409	21.832
	Year to Date	6.389	6.199	0.771	5.968	1.081	1.358	0.067	21.832	

includes lease condensate.

<sup>\*</sup>Natural gas plant liquids.

\*Natural gas plant liquids.

\*Includes industrial and utility production of hydroelectric power.

\*Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. R=Revised data.

Notes: 

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

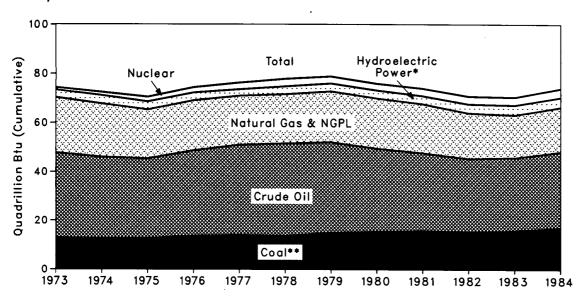
Totals may not equal sum of components due to independent rounding.

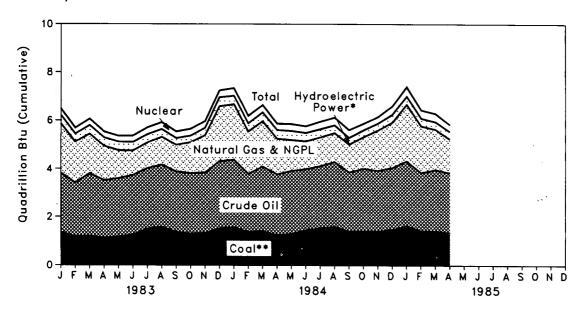
Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric

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

### Consumption of Energy by Source

#### Yearly





<sup>\*</sup>Includes other.
\*\*Includes net imports of coal coke.

### **Consumption of Energy by Source**

		Net Hydro- Nuclear Imports							Year	
			Natural	Petro-	electric	Electric	of Coal			tear
		Coal	Gas¹	leum	Power <sup>2</sup>	Power	Coke <sup>3</sup>	Other 4	Total	Date
					Qua	adrillion (101	⁵) Btu			
1973	Total	12.978	22.512	34.840	3.010	0.910	(0.008)	0.046	74.288	
1974	Total	12.668	21.732	33.455	3.309	1.272	0.056	0.056	72.548	
1975	Total	12.668	19.948	32.731	3.219	1.900	0.014	0.072	70.551	
1976	Total	13.589	20.345	35.175	3.066	2.111	0.000	0.081	74.366	
1977	Total	13.925	19.931	37.122	2.515	2.702	0.015	0.082	76.292	
1978	Total	13.767	20.000	37.965	3.141	3.024	0.125	0.068	78.091	
1979	Total	15.042	20.666	37.123	3.141	2,776	0.063	0.089	78.900	
1980	Total	15.426	20.391	34.202	3.118	2.739	(0.035)	0.114	75.955	
1981	Total	15.908	19.926	31.931	3.105	3.008	(0.016)	0.127	73.989	
1982	Total	15.324	18.507	30.232	3.561	3.131	(0.022)	0.108	70.842	
1983	January	1.360	2.036	2.467	0.337	0.273	(0.001)	0.011	6.483	6.483
	February	1.180	1.693	2.239	0.323	0.242	(0.001)	0.008	5.685	12.168
	March	1.196	1.640	2.604	0.348	0.261	(0.001)	0.009	6.058	18.226
	April	1.140	1.416	2.383	0.344	0.244	(0.002)	0.009	5.533	23.759
	May	1.173	1.153	2.431	0.352	0.240	(0.002)	0.007	5.355	29.113
	June	1.257	1.004	2.480	0.351	0.263	(0.001)	0.009	5.364	34.478
	July	1.500	1.066	2.517	0.328	0.279	(0.002)	0.012	5.700	40.178
	August	1.574	1.146	2.594	0.307	0.286	(0.001)	0.015	5.922	46.100
	September October	1.367 1.305	1.104 1.285	2.515 2.507	0.26 <del>6</del> 0.256	0.273	(0.001)	0.014	5.538	51.638
	November	1.305	1.550	2.517	0.292	0.281 0.273	(0.001) (0.001)	0.015	5.648	57.285
	December	1.523	2.259	2.803	0.252	0.273	(0.001)	0.013 0.011	5.966 7.246	63.252 70.497
	Total	15.900	17.352	30.054	3.871	3.203	(0.003)	0.133	70.497	70.497
1984	January	1.561	R2.288	R2.817	0.344	0.320	0.001	0.011	R7.341	R7.341
	February	1.367	R1.755	R2.421	0.325	0.310	0.002	0.013	R6.194	R13.535
	March April	1.411 1.279	R1.871 R1.476	R2.691 R2.526	0.351 0.346	0.298	(0.001)	0.015	R6.637	R20.172
	Mav	1.306	R1.476	R2.526	0.346	0.264 0.282	0.000 (0.001)	0.014 0.014	R5.906 R5.858	R26.078
	June	1.448	R1.151	R2.549	0.334	0.282	(0.001)	0.014	R5.768	R31.936 R37.704
	July	1.528	R1.184	2.599	0.324	0.308	(0.002)	0.013	R5.955	R43.659
	August	1.596	R1.193	R2.702	0.302	0.322	(0.001)	0.016	R6.129	R49.788
	September	1.392	R1.153	R2.474	0.261	0.318	0.000	0.015	R5.611	R55.399
	October	1.403	R1.308	R2.619	0.260	0.270	(0.003)	0.016	R5.873	R61.272
	November	1.402	R1.664	R2.536	0.269	0.268	(0.003)	0.016	R6.153	R67.425
	December	1.479	R1.872	R2.578	0:307	0.337	(0.001)	0.018	R6.590	R74.016
	Total	17.172	R18.192	R31.132	3.784	3.573	(0.011)	0.174	R74.016	
1985	January	R1.627	R2.332	R2.707	0.323	0.395	0.000	0.018	R7.402	R7.402
	February	R1.430	R1.928	R2.420	0.306	0.336	0.001	0.016	R6.437	R13.839
	March	R1.408	R1.667	R2.569	0.293	0.339	0.000	0.018	R6.294	R20.133
	April	1.353	1.398	2.490	0.290	0.289	0.001	0.015	5.835	25.968
	Year to Date	5.818	7.325	10.185	1.213	1.358	0.003	0.067	25.968	

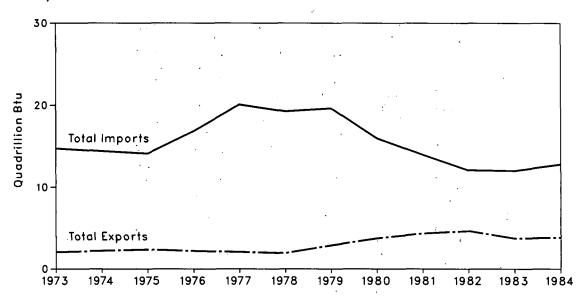
Includes supplemental gaseous fuels.
Includes industrial and utility production and net imports of electricity.
Parentheses indicate exports are greater than imports.
Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution 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.
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

# **Energy Imports and Exports**

### Yearly





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

			<b>6</b>	Refined Petro-	<b>N</b>		<b>01</b>		Year
		Coal	Crude Oil <sup>2</sup>	leum Products <sup>3</sup>	Natural Gas	Electri- city	Coal Coke	Total	to Date
					Quadrilli	on (10 <sup>15</sup> ) Btu			
1973	Total	(1.422)	6.883	6.097	0.981	0.148	(800.0)	12.680	
1974	Total	(1.568)	7.389	5.273	0.907	0.133	0.056	12.190	
1975	Total	(1.738)	8.708	3.800	0.904	0.064	0.014	11.752	
1976	Total	(1.567)	11.221	3.982	0.922	0.089	0.000	14.648	
1977	Total	(1.401)	13.921	4.321	0.981	0.182	0.015	18.018	
1978	Total	(1.004)	13.125	3.932	0.941	0.204	0.125	17.323	
1979	Total	(1.702)	13.328	3.603	1.243	0.211	0.063	16.745	
1980	Total	(2.391)	10.586	2.912	0.957	0.217	(0.035)	12.247	
1981	Total	(2.918)	8.854	2.522	0.855	0.347	(0.016)	9.644	
1982	Total	(2.768)	6.917	2.128	0.896	0.306	(0.022)	7.457	
1983	January	(0.116)	0.514	0.105	0.110	0.028	(0.001)	0.641	0.641
	February	(0.113)	0.327	0.134	0.092	0.029	(0.001)	0.468	1.108
	March	(0.162)	0.382	0.134	0.083	0.028	(0.001)	0.464	1.572
	April May	(0.157) (0.180)	0.530 0.556	0.148 0.202	0.071 0.057	0.028 0.023	(0.002)	0.617 0.657	2.190
	June	(0.188)	0.600	0.202	0.057	0.023	(0.002) (0.001)	0.684	2.847 3.531
	July	(0.159)	0.673	0.252	0.054	0.028	(0.001)	0.851	4.382
	August	(0.217)	0.732	0.252	0.051	0.034	(0.001)	0.852	5.233
	September	(0.195)	0.705	0.239	0.065	0.037	(0.001)	0.849	6.082
	October	(0.209)	0.597	0.241	0.061	0.037	(0.001)	0.726	6.809
	November	(0.153)	0.551	0.233	0.077	0.032	(0.001)	0.739	7.548
	December	(0.162)	0.563	0.222	0.105	0.032	(0.003)	0.758	8.306
	Total	(2.013)	6.731	2.351	0.883	0.369	(0.016)	8.306	
1984	January	(0.132)	R0.524	R0.340	R0.094	E0.031	0.001	R0.858	R0.858
	February	(0.109)	0.467	R0.382	R0.066	E0.031	0.002	R0.839	R1.697
	March April	(0.152) (0.200)	R0.584 0.567	R0.211 R0.247	R0.065 R0.068	E0.031 E0.030	(0.001) 0.000	R0.737 R0.712	R2.434
	May	(0.216)	R0.672	R0.258	R0.063	E0.030	(0.001)	R0.712	R3.145 R3.947
	June	(0.206)	R0.581	R0.216	R0.057	E0.023	(0.001)	R0.675	R4.622
	July	(0.215)	0.639	R0.231	R0.051	E0.034	(0.001)	R0.739	R5.361
	August	(0.214)	R0.552	0.216	R0.050	E0.037	(0.002)	R0.640	R6.001
	September	(0.228)	R0.556	R0.236	R0.053	E0.040	0.000	R0.657	R6.658
	October	(0.173)	0.652	R0.272	R0.064	E0.039	(0.003)	0.851	R7.508
	November	(0.109)	R0.591	R0.225	0.081	E0.035	(0.003)	R0.820	R8.328
	December	(0.169)	R0.533	R0.169	R0.091	E0.035	(0.001)	R0.659	R8.987
	Total	(2.122)	R6.918	R3.003	R0.803	E0.397	(0.011)	R8.987	
1985	January	(0.151)	0.462	0.176	0.101	E0.033	0.000	0.622	0.622
	February	(0.157)	0.311	0.180	R0.096	E0.033	0.001	R0.465	R1.087
	March	(0.174)	0.473	0.238	0.087	E0.033	0.000	0.657	R1.744
	April	(0.182)	0.553	0.221	0.072	E0.033	0.001	0.698	2.441
	Year to Date	(0.664)	1.798	0.815	0.357	E0.132	0.003	2.441	

<sup>&</sup>lt;sup>3</sup>Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.

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

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

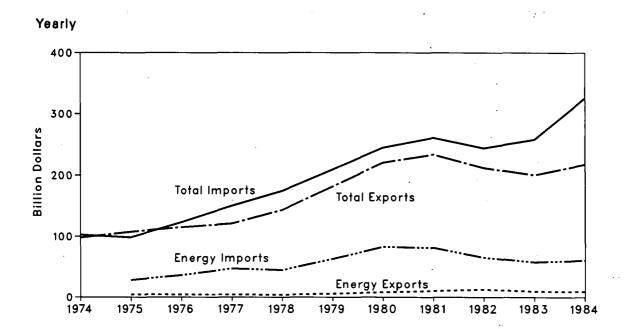
E=Estimated value. R=Revised data.

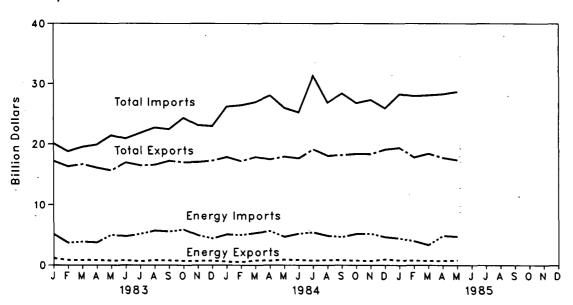
Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

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

# Merchandise Trade Value





#### **Merchandise Trade Value**

		Exports				Imports			Trade Balance			
		Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total		
					•	Million dolla	ırs					
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					
1980	Total	7,982	212,644	220,626	82,924	•	•	-57,402	+29,803	-27,599		
		•	•	,	•	161,947	244,871	-74,942	+50,698	-24,244		
1981	Total	10,279	223,398	233,677	81,360	179,622	260,982	-71,081	+43,776	-27,305		
1982	Totai	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	+20,921	-31,759		
1983	January	1,142	16,090	17,232	5,142	14,985	20,127	-4.000	+1,105	-2.895		
	February	833	15,479	16,312	3,704	15,100	18,804	-2,871	+378	-2,493		
	March	822	15,868	16,690	3,865	15,663	19,528	-3,043	+206	-2,837		
	April	850	15,245	16,095	3,763	16,151	19,914	-2,913	-906	-3,819		
	May	750	14,905	15,655	5,033	16,413	21,446	-4,283	-1,508	-5,791		
	June	791	16,168	16,959	4,767	16,149	20,916	-3,976	+19	-3,957		
	July	644	15,842	16,486	5,164	16,664	21,828	-4,520	-821	-5,341		
	August	824	15,758	16,582	5,703	17,011	22,714	-4,879	-1,253	-6,132		
	September	778	16,479	17,257	5,571	16,880	22,451	-4,793	-402	-5,195		
	October	699	16,334	17,033	5,872	18,461	24,333	-5,173	-2,127	-7,300		
	November	689	16,374	17,063	4,951	18,164	23,115	-4,262	-1,790	-6,052		
	December	739	16,559	17,298	4,417	18,559	22,976	-3,678	-2,000	-5,678		
	Total	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562		
1984	January	582	17,307	17,889	5,089	21,116	26,205	-4,507	-3,809	-8,316		
	February	502	16,706	17,208	5,006	21,414	26,420	-4,504	-4,708	-9,212		
	March	790	17,116	17,906	5,323	21,625	26,948	-4,533	-4,510	-9,043		
	April	759	16,761	17,520	5,629	22,445	28,074	-4,870	-5,683	-10,553		
	Мау	901	17,077	17,978	4,696	21,316	26,012	-3,795	-4,239	-8,034		
	June	872	16,833	17,705	5,206	20,070	25,276	-4,334	-3,237	-7,571		
	July	765	18,389	19,154	5,434	25,900	31,334	-4,669	-7,511	-12,180		
	August	878	17,245	18,123	4,886	21,980	26,866	-4,008	-4,735	-8,743		
	September	820	17,390	18,210	4,663	23,746	28,409	-3,843	-6,357	-10,200		
	October	757 740	17,654	18,411	5,168	21,615	26,783	-4,411	-3,961	-8,372		
	November	712 973	17,683	18,395	5,207	22,124	27,331	-4,495	-4,442	-8,937		
	December		18,169	19,142	4,672	21,261	25,933	-3,699	-3,092	-6,791		
	Total	9,311	208,554	217,865	60,980	264,746	325,726	-51,669	-56,192	-107,861		
1985	January	804	18,597	19,401	4,434	23,863	28,297	-3,630	-5,266	-8,896		
	February	786	17,067	17,853	3,989	23,996	27,985	-3,203	-6,928	-10,131		
	March	754	17,692	18,446	3,351	24,778	28,129	-2,597	-7,086	9,683		
	April	738	17,041	17,779	4,876	23,419	28,295	-4,138	-6,378	-10,516		
	May	837	16,577	17,414	4,748	23,937	28,685	-3,911	-7,360	-11,271		
	Year to Date	3,919	86,975	90,894	21,398	119,993	141,391	-17,479	-33,018	-50,497		

NA=Not available.

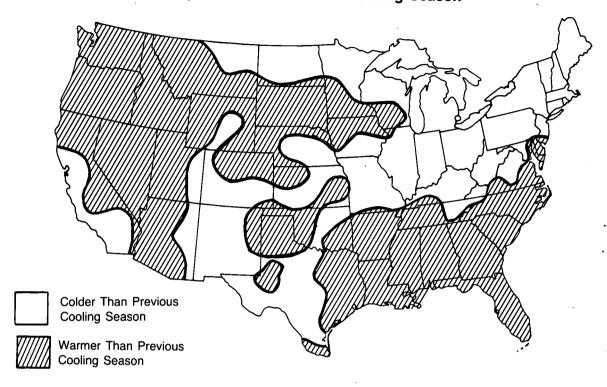
Notes: • Annual totals are unadjusted and may not equal the sum of monthly totals, which are adjusted for seasonal and working-day variation, if present and identifiable.

• 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.

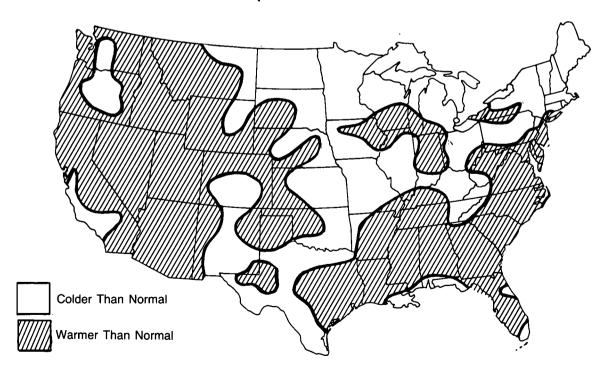
Additional Notes and Sources: • See the last page of this section.

Cooling Degree-Days Accumulated from January 1, 1985 through June 29, 1985...

# Departure from Previous Cooling Season



# **Departure from Normal**



Source: • Department of Commerce—National Oceanic and Atmospheric Administration.

### Population-Weighted Cooling Degree-Days<sup>1</sup>

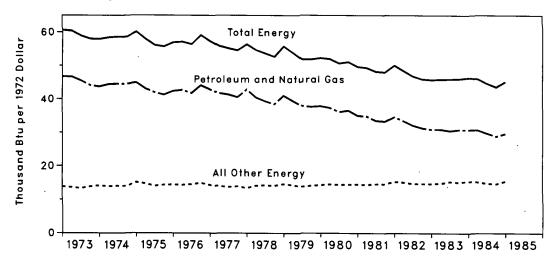
		i through	June 30		Cumulative January 1 through June 30					
Census				Percent Change					Percent	Change
Divisions	Normal <sup>2</sup>	1984	1985	Normal to 1985	1984 to 1985	Normal <sup>2</sup>	1984	1985	Normal to 1985	1984 to 1985
New England CT, ME, MA, NH, RI, VT	71	115	30	-57.7	-73.9	71	120	43	(3)	(3)
Middle Atlantic NJ, NY, PA	138	166	68	-50.7	-59.0	157	177	118	-24.8	-33.3
Eastern North Central IL, IN, MI, OH, WI	163	196	89	-45.4	-54.6	206	213	172	-16.5	-19.2
Western North Central IA, KS, MN, MO, NE, ND, SD	197	207	127	-35.5	-38.6	301	239	218	-27.6	-8.8
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	305	329	315	3.3	-4.3	634	613	691	9.0	12.7
Eastern South Central AL, KY, MS, TN	309	339	295	-4.5	-13.0	511	463	506	-1.0	9.3
Western South Central AR, LA, OK, TX	443	446	417	-5.9	-6.5	844	819	862	2.1	5.3
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	191	182	225	17.8	23.6	279	332	370	32.6	11.4
Pacific Coast CA, OR, WA	79	66	117	48.1	77.3	82	110	137	(3)	(3)
U.S. Average <sup>4</sup>	209	227	181	-13.4	-20.3	342	342	345	0.9	0.9

See Note 6 on the last page of this section for explanation of degree-days.
 Normal is based on calculations of data from 1951 through 1980.
 Percent change not meaningful.
 Excludes Alaska and Hawaii.
 Source: See Note 6 on the last page of this section.

# Energy Indicator—Energy Consumption per Dollar of Gross National Product (Seasonally Adjusted)

		Annual Rate		Energy Consumption	on per Dollar of GNP (Se	asonally Adjusted)
		of Energy Consumption	Gross National Product (GNP)	Total Energy	Petroleum and Natural Gas	All Other Energy
		• • • • • • • • • • • • • • • • • • • •	Trillion			
		Quadrillion Btu	1972 dollars	Th	ousand Btu per 1972 doll	ar
1973	Year	74.288	1.254	59.2	45.7	13.5
1974	Year	72.548	1.246	58.2	44.3	13.9
1975	Year	70.551	1.232	57.3	42.8	14.5
1976	Year	74.366	1.298	57.3	42.8	14.5
1977	Year	76.292	1.370	55.7	41.6	14.1 ·
1978	Year	78.091	1.439	54.3	40.3	14.0
1979	Year	78.900	1.479	53.3	39.1	14.2
1980	Year	75.955	1.475	51.5	37.0	14.5
1981	Year	73.989	1.512	48.9	34.3	14.6
1982	Year	70.842	1.480	47.9	32.9	15.0
1983	1st Quarter <sup>1</sup>	68.231	1.491	45.8	31.0	14.8
	2nd Quarter <sup>1</sup>	70.000	1.525	45.9	31.0	14.9
	3rd Quarter1	71.250	1.550	46.0	30.6	15.4
	4th Quarter <sup>1</sup>	72.453	1.573	46.1	30.9	15.2
	Year	70.497	1.535	45.9	30.9	15.0
1984	1st Quarter <sup>1</sup>	R74.725	1.611	R46.4	R30.9	R15.5
	2nd Quarter <sup>1</sup>	R75.476	1.639	R46.1	R30.8	15.3
	3rd Quarter <sup>1</sup>	R73.498	1.645	R44.7	R29.8	14.9
	4th Quarter <sup>1</sup>	R72.388	1.662	R43.6	R28.9	R14.7
	Year	R74.016	1.639	R45.2	R30.1	15.1
1985	1st Quarter <sup>1</sup>	R75.251	R1.664	R45.2	29.7	R15.5

# Quarterly Energy Consumption per Dollar of Gross National Product<sup>1</sup> . (Seasonally Adjusted)



<sup>&</sup>lt;sup>1</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 average of quarters due to seasonality adjustments and independent rounding. Sources: • See the last page of this section.

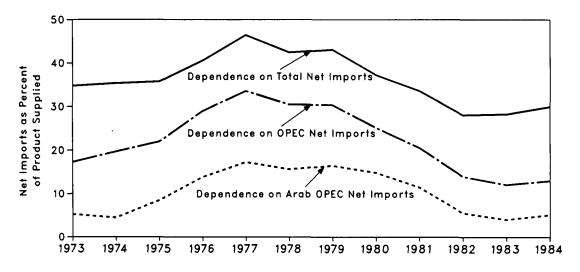
#### Energy Indicator—U.S. Dependence on Petroleum Net Imports<sup>1</sup>

Net Imports as Percent of Net Imports<sup>2</sup> **U.S. Petroleum Products Supplied** From From From **Petroleum** From From From Arab OPEC<sup>3</sup> All OPEC Arab OPEC3 All OPEC ΑII **Products** All Countries Countries Countries Supplied Countries Countries Countries **Annual Rate** Thousand barrels per day Percent 1973 **Average** 914 2,991 6,025 17,308 5.3 17.3 34.8 1974 Average 752 3,277 5,892 16,653 4.5 35.4 19.7 5,846 16,322 1975 Average 1,382 3,599 8.5 22.0 35.8 2,423 1976 5,063 7,090 17,461 13.9 29.0 40.6 **Average** 8,565 18,431 1977 3,184 6,190 17.3 33.6 46.5 Average 1978 Average 2.962 5.747 8.002 18,847 15.7 30.5 42.5 3,054 5,633 7,985 18.513 1979 Average 16.5 30.4 43.1 1980 **Average** 2,549 4,293 6,365 17,056 14.9 25.2 37.3 16,058 3,315 1981 **Average** 1,844 5,401 11.5 20.6 33.6 4,298 15,296 1982 2,136 28.1 **Average** 852 5.6 14.0 1983 1st Quarter 351 1,174 3,079 15,026 2.3 7.8 20.5 2nd Quarter 444 1,708 4,237 14,825 3.0 11.5 28.6 3rd Quarter 860 15,333 2,501 5,370 5.6 16.3 35.0 4th Quarter 1,972 4,536 15,732 857 5.4 12.5 28.8 Average 630 1,843 4,312 15,231 4.1 12.1 28.3 1984 1st Quarter R769 R1,878 R4.802 R16.110 R4.8 R11.7 R29.8 2nd Quarter R907 R2,278 R4,853 R15,632 R5.8 R14.6 R31.0 3rd Quarter R877 R2,080 R4,590 R15,625 5.6 R13.3 R29.4 4th Quarter R4,618 R715 R1,912 R15,538 4.6 R12.3 R29.7 Average **R817** R2,037 R4,715 R15,726 R5.2 R13.0 R30.0

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

1,364

327



3,564

15,807

2.1

8.6

22.5

R=Revised data.

1985

1st Quarter

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

<sup>&</sup>lt;sup>a</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.

Includes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
Includes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezueta.

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

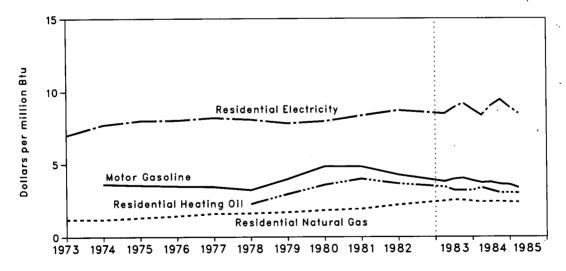
Annual averages may not equal average of quarters due to independent rounding.

Sources: • See the last page of this section.

### Energy Indicator—Cost of Fuels to End Users in Constant (1972) Dollars<sup>1</sup>

		. Leaded Regular Motor Gasoline			dential ing Oil		lential al Gas	Residential Electricity	
		cent/gal	\$/MMBtu	cent/gal	\$/MMBtu	cent/Mcf	\$/MMBtu	cent/kWh	\$/MMBtu
1973	Average	NA	NA	NA	NA	121.4	1.19	2.39	7.00
1974	Average	45.1	3.61	NA	NA	121.3	1.18	2.63	7.71
1975	Average	44.1	3.53	NA	NA	132.9	1.30	2.73	8.00
1976	Average	43.4	3.47	NA	NA	145.5	1.43	2.74	8.03
1977	Average	42.9	3.43	NA	NA	162.2	1.59	2.80	8.21
1978	Average	40.1	3.21	31.4	2.26	164.2	1.62	2.76	8.09
1979	Average	49.4	3.95	40.6	2.93	171.8	1.69	2.67	7.83
1980	Average	60.5	4.84	49.4	3.56	186.8	1.82	2.72	7.97
1981	Average	60.4	4.83	54.9	3.96	197.3	1.92	2.85	8.35
1982	Average	53.0	4.24	50.3	3.63	224.1	2.19	2.97	8.70
1983	1st Quarter	47.1	3.77	47.3	3.41	252.6	2.45	2.89	8.47
	2nd Quarter	49.3	3.94	44.2	3.19	260.0	2.52	3.03	8.88
	3rd Quarter	50.0	4.00	43.9	3.17	258.1	2.50	3.14	9.20
	4th Quarter	47.9	3.83	43.9	3.17	250.9	2.43	2.99	8.76
	Average	48.6	3.89	45.3	3.27	254.5	2.47	3.01	8.82
1984	1st Quarter	46.1	3.69	46.4	3.35	245.0	2.38	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	247.2	2.40	3.08	9.03
	3rd Quarter	44.9	3.59	41.6	3.00	248.5	2.41	3.22	9.44
	4th Quarter	44.5	3.56	41.7	3.01	244.3	2.37	3.04	8.91
	Average	45.5	3.64	43.9	3.17	244.1	2.37	3.04	8.91
1985	1st Quarter	41.7	3.33	41.5	2.99	243.2	2.36	2.89	8.47

### Average Cost of Fuels to End Users in Constant (1972) Dollars<sup>1</sup>



<sup>&</sup>lt;sup>1</sup>Fuel costs shown on this page are calculated using the Urban Consumer Price Index developed by the Bureau of Labor Statistics. See the Conversion Factors section of this report.

NA = Not available.

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

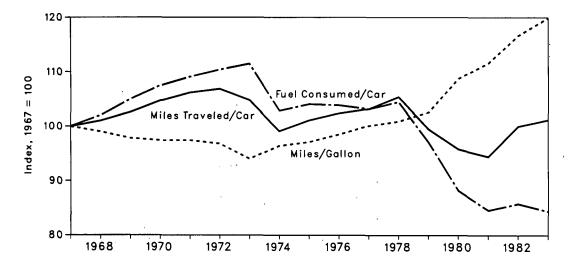
Annual averages may not equal average of quarters due to independent rounding.

<sup>.</sup>Sources: • See the last page of this section.

# 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	579	84.6	9,002	94.4	15.54	111.6	
1982	587	85.8	9,533	100.0	16.25	116.7	
1983†	577	84.4	9,641	101.2	16.70	119.9	

### U.S. Passenger Car Efficiency Index



†Preliminary data.

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 Energy Summary Section**

- 1. Energy Production: Production of energy includes production of coal, crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. The volumetric data are converted to approximate heat contents (Btu values) of these energy sources using the conversion factors provided in the Conversion Factors section of this publication.
- 2. Energy Consumption: Consumption of energy includes consumption of coal, natural gas (including supplemental gaseous fuels), refined petroleum products supplied, electric utility and industrial production of hydroelectric power, net imports of electricity produced from hydroelectric power, net imports of soal coals allostricity generated from puellors. imports of coal coke, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.
- 3. Energy Imports: Energy imports include imports of coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For further information on electricity, see the note and sources for imports and on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.
- 4. Energy Exports: Energy exports include coal, crude oil, refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For more information on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.
- 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 sumption, 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 several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the *Monthly Energy Review* (MER) is developed by the National Weather Service Climate Analysis is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at these weather stations is used to calculate the service of the service Climate Analysis Climate Analysis Country. mation recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1980 by the U.S. Department of Commerce, Bureau of the Census. The data shown in the MER are available sooner than the Historical Climatology Series 5-1 and 5-2 developed by the National Climatic Center, Asheville, NC, which compiles data from some 8,000 weather stations.

#### 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 Merchan-

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 1982: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1983 forward: EIA, *Petroleum State* ment, Monthly,

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

Leaded Regular Motor Gasoline—Bureau of Labor Statis-

• Residential Heating Oil—EIA, 1983 forward: EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA Form-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to 1983 are EIA estimates using data from FEA Form P112-M1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9-A, "No. 2 Distillate Price Monitoring Report." See Note 8 in the Notes and Sources for the Price Section for additional information.

 Residential Natural Gas—Annual data 1973 through 1982 from EIA, Natural Gas Annual, based on Form EIA-176, "Supply and Distribution of Natural Gas," and predecessors. Annual 1983 and quarterly data are EIA estimates based on the BLS Urban Consumer Price Index for natural gas and are adjusted to conform with final reported annual data. See Note 6 in the Notes and Sources for the Price Section for

estimation procedures.

estimation procedures.
• Residential 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 Urban Consumer Price Index)—BLS.
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.

Total U.S. energy consumption in April 1985 was 5.8 quadrillion Btu, 1.2 percent below the April 1984 level. Petroleum products accounted for 42.7 percent of the energy consumed in April 1985, while natural gas accounted for 24.0 percent and coal accounted for 23.2 percent.

The transportation sector used 64.7 percent of the petroleum products consumed in April 1985 and the industrial sector used 24.9 percent. Of natural gas consumed, the residential and commercial sector used 45.2 percent; the industrial sector, 34.7 percent; and electric utilities, 17.2 percent. Most of the coal used (79.7 percent) was consumed by electric utilities. The residential and commercial sector used 61.3 percent of total electricity sales, while the industrial sector used 38.7 percent.

Residential and commercial sector consumption was 2.1 quadrillion Btu in April 1985, down 4.0 percent from the level in April 1984. This sector consumed 35.2 percent of the April 1985 total, down from its 36.3-percent share in April 1984.

Industrial sector consumption was 2.1 quadrillion Btu in April 1985, slightly below the April 1984 level. The industrial sector accounted for 36.5 percent of the April 1985 total consumption, up from the industrial sector's 36.1-percent share in April 1984.

Transportation sector consumption of energy was 1.7 quadrillion Btu in April 1985, up 1.0 percent from the April 1984 level. This sector consumed 28.3 percent of the April 1985 total, up from the sector's 27.7-percent share in April 1984.

The electric utilities consumption of energy was an estimated 2.0 quadrillion Btu in April 1985, 2.0 percent higher than in April 1984. Coal contributed 54.6 percent of the energy consumed by electric utilities in April 1985, while nuclear electric power contributed 14.6 percent; hydroelectric power, 14.5 percent; natural gas, 12.1 percent; petroleum products, 3.3 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.8 percent.

# Consumption Summary for April 1985 (Quadrillion (1015) Btu)

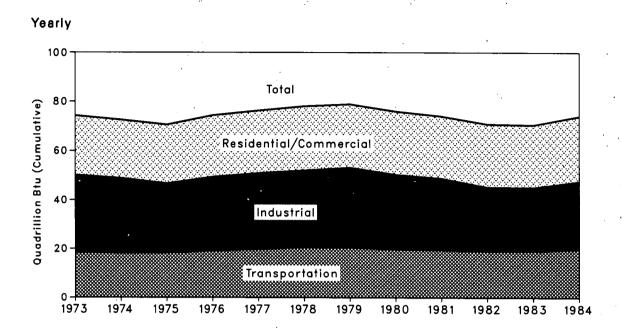
	Sector						
Energy Source	Residential and Commercial	industrial	Transportation	Electric Utilities	Total		
Coal	0.020	0.258	0.000	1.079	1.353		
Natural Gas <sup>1</sup>	0.632	0.485	0.040	0.240	1.398		
Petroleum Products	0.194	0.621	1.610	0.066	2.490		
Hydroelectric Power	0.000	0.003	0.000	0.287	0,290		
Nuclear Electric Power	0.000	0.000	0.000	0.289	0.289		
Net Imports of Coal Coke	0.000	0.001	0.000	0.000	0.001		
Other <sup>2</sup>	0.000	0.000	0.000	0.015	0.015		
Primary Consumption	0.846	1.368	1.650	1.976	5.835		
Electricity	0.371	0.234	0.001	(0.605)			
Net Energy Consumption	1.216	1.602	1.651		4.465		
Electrical System Energy Losses	0.840	0.529	0.002	(1.371)	1.371		
Total Energy Consumption	2.056	2.131	1.653		5.835		

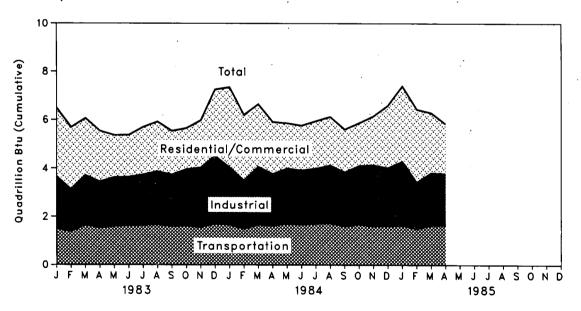
<sup>&</sup>lt;sup>1</sup> Includes supplemental gaseous fuels.

<sup>&</sup>lt;sup>2</sup> Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

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

### Consumption of Energy by End-Use Sector





### Consumption of Energy by End-Use Sector

	dential and		
·	mercial industrial	Transportation	Total
	Quadr	rillion (1018) Btu	
1973 Total 2	4.147 31.538	18.596	74.288
1974 Total 2	3.729 30.699	18.113	72.548
1975 Total 2	3.902 28.409	18.240	70.551
	5.020 30.245	19.093	74.366
- · · · · · · · · · · · · · · · · · · ·	5.386 31.090	19.808	76.292
<del>_</del>	6.085 31.415	20.589	78.091
	5.809 32.625		
	<del>-</del>	20.464	78.900
	******	19.693	75.955
	5.244 29.252	19.495	73.989
1982 Total 2	5.632 26.140	19.066	70.842
1983 January R	2.820 R2.156	1.506	6.483
February R	2.556 R1.751	1.379	5.685
	2.351 R2.046	1.660	6.058
April , A	2.088 R1.907	1.541	5.533
	1.733 R2.021	1.603	5.355
A	1.723 R2.000	1.639	5.364
· · · · · · · · · · · · · · · · · · ·	1.957 R2.091	1.648	5.700
	2.048 R2.193	1.676	5.922
	1.798 R2.141	1.598	5.538
The state of the s	1.692 R2.342	1.616	5.648
	1.944 R2.459	1.566	5.966
	2.731 R2.801	1.714	7.246
	5.441 R25.908	19.146	70.497
	3.309 R2.365	R1.666	R7.341
The state of the s	2.697 R1.998	R1.500	R6.194
	2.573 R2.391	R1.673	R6.637
	2.141 R2.134	R1.637	R5.906
•	1.869 R2.276	R1.717	R5.858
	1.844 R2.247 1.958 R2.270	R1.673	R5.768
. •	1.958 R2.270 1.996 R2.390	R1.723	R5.955
_ •	1.768 R2.234	R1.738 R1.609	R6.129
	1.766 R2.418	R1.687	R5.611 R5.873
2,	2.017 R2.515	1.619	R6.153
	2.568 R2.392	R1.629	R6.590
	6.507 R27.630	R19.870	R74.016
1985 January R	3.111 R2.634	1.652	R7.402
	3.001 R1.922	1.511 .	R6.437
	2.476 R2.160	R1.656	R6.294
April	2.056 2.131	1.653	5.835
Year to Date 10		6.472	25.968

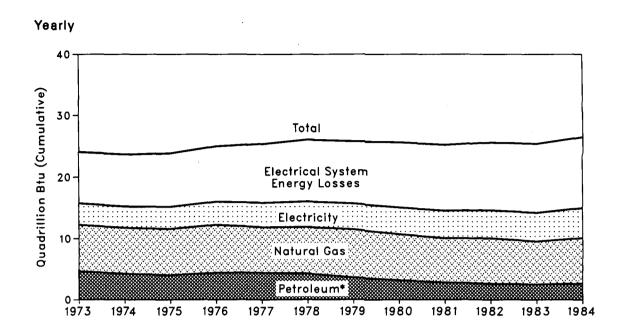
R=Revised data.

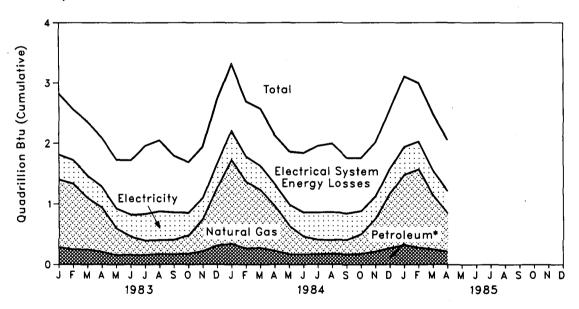
Notes: • Geographic coverage is the 50 States and the District of Columbia.

• 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 of Energy by the Residential and Commercial Sector





<sup>\*</sup>includes coal.

# Consumption of Energy by the Residential and Commercial Sector

						Electrical System		Year
		Coal	Natural Gas¹	Petroleum	Electricity	Energy Losses	Total	to Date
		oou.	Gus	•	·		IOLA	Date
					Quadrillion (1015)	Btu		
1973	Total	0.259	7.626	4.391	3.495	8.377	24.147	
1974	Total	0.260	7.518	3.996	3.475	8.480	23.729	
1975	Total	0.212	7.581	3.805	3.604	8.700	23.902	
1976	Total	0.206	7.866	4.181	3.747	9.021	25.020	
1977	Total	0.207	7.461	4.206	3.955	9.556	25.386	
1978	Total	0.215	7.624	4.070	4.116	10.061	26.085	
1979	Total	0.188	7.891	3.448	4.184	10.100	25.809	
1980	Total	0.147	7.539	3.035	4.355	10.580	25.656	
1981	Total	0.171	7.242	2.634	4.497	10.700	25.244	
1982	Total	0.189	7.433	2.449	4.566	10.993	25.632	
1983	January	0.021	R1.118	0.266	0.413	1.003	R2.820	R2.820
	February	0.018	R1.087	0.231	0.390	0.831	R2.556	R5.376
	March	0.013	R0.852	0.236	0.365	0.885	R2.351	R7.727
	April	0.018	R0.727	0.190	0.351	0.801	R2.088	R9.815
	May	0.011	R0.441	0.144	0.327	0.810	R1.733	R11.548
	June	0.009	R0.300	0.152	0.359	0.903	R1.723	R13.271
	July	0.014	R0.241	0.144	0.435	1.123	R1.957	R15.228
	August September	0.013 0.018	R0.233 R0.240	0.159	0.472	1.171	R2.048	R17.276
	October	0.018	R0.307	0.150 0.159	0.450 0.366	0.940 0.841	R1.798 R1.692	R19.074
	November	0.020	R0.531	0.202	0.350	0.841	R1.944	R20.766 R22.709
	December	0.025	R0.949	0.290	0.402	1.065	R2.731	R25.441
	Total	0.197	R7.025	2.322	4.681	11.215	R25.441	1125.741
1984	January	0.024	R1.384	R0.320	0.476	1.105	R3.309	R3.309
	February	0.021	R1.104	0.247	0.418	0.905	R2.697	R6.006
	March	0.015	R0.961	0.261	0.394	0.942	R2.573	R8.579
	April	0.022	R0.742	R0.207	0.360	0.810	R2.141	R10.720
	May	0.013	R0.470	R0.159	0.355	0.873	R1.869	R12.589
	June	0.010	R0.294	R0.159	0.395	0.986	R1.844	R14.434
	July	0.016	R0.237	R0.158	0.449	1.098	R1.958	R16.392
	August	0.015	R0.227	R0.164	0.456	1.134	R1.996	R18.388
	September October	0.020 0.016	R0.240 R0.327	R0.152	0.433	0.923	R1.768	R20.156
	November	0.018	R0.542	R0.165 0.200	0.377 0.372	0.880	R1.766	R21.922
	December	0.022	R0.903	0.250	0.372	0.886 0.983	R2.017 R2.568	R23.939
	Total	0.213	R7.431	R2.443	4.895	11.524	R26.507	R26.507
1985	January	R0.019	R1.157					50.44
1303	February	R0.019	R1.197	0.309 0.263	0.457 0.458	1.169	R3.111	R3.111
	March	R0.017	R0.893	0.242	0.458 R0.400	0.971 R0.929	R3.001 R2.476	R6.112
	April	0.020	0.632	0.194	0.371	0.840	2.056	R8.588 10.644
	Year to Date	0.068	3.975	1.008	1.685	3.908	10.644	10.044

Includes supplemental gaseous fuels.

R = Revised data.

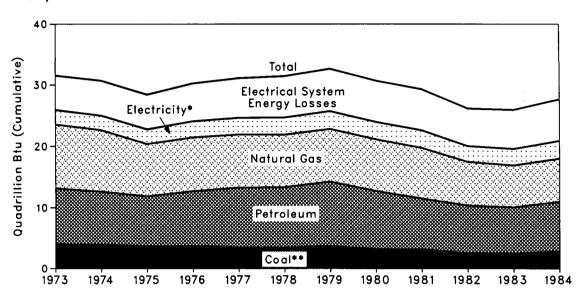
Notes: • Geographic coverage is the 50 States and the District of Columbia.

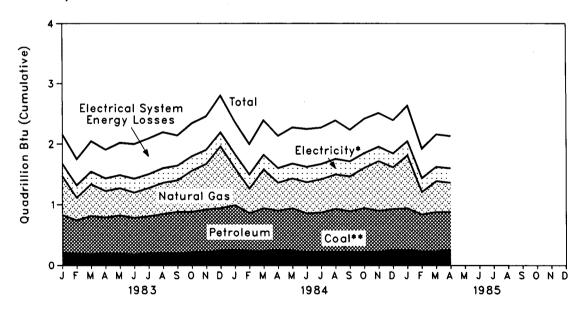
• Totals may not equal sum of components due to independent rounding.

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

# Consumption of Energy by the Industrial Sector

### Yearly





<sup>\*</sup>Includes hydroelectric power.
\*\*Includes net imports of coal coke.

### Consumption of Energy by the Industrial Sector

		Coal	Natural Gas¹	Petro- leum	Hydro- electric Power	Net imports of Coal Coke	Electricity	Electrical System Energy Losses	Total	Year to Date
					Q	uadrillion (10	)15) Btu			
1973	Total	4.059	10.388	9.113	0.035	(0.008)	2.341	5.611	31.538	
1974	Total	3.872	10.003	8.698	0.033	0.056	2.337	5.700	30.699	
1975	Total	3.669	8.532	8.151	0.032	0.014	2.346	5.665	28.409	
1976	Total	3.663	8.761	9.018	0.033	0.000	2.573	6.198	30.245	
1977	Total	3.456	8,636	9.786	0.033	0.015	2.682	6.484	31.090	
1978	Total	3.315	8.539	9.890	0.032	0.125	2.761	6.755	31.415	
1979	Total	3.594	8.549	10.576	0.034	0.063	2.873	6.936	32.625	
1980	Total	3.156	8.394	9.524	0.033	(0.035)	2.781	6.752	30.606	
1981	Total	3.158	8.257	8.295	0.033	(0.016)	2.817	6.707	29.252	
1982	Total	2.552	7.116	7.798	0.033	(0.022)	2.542	6.121	26.140	
1983	January	0.211	R0.645	0.620	0.003	(0.001)	0.198	0.480	R2.156	R2.156
	February	0.196	R0.374	0.548	0.003	(0.001)	0.201	0.430	R1.751	R3.907
	March	0.187	R0.527	0.626	0.003	(0.001)	0.206	0.498	R2.046	R5.953
	April	0.205	R0.438	0.586	0.003	(0.002)	0.207	0.471	R1.907	R7.860
	May	0.198	R0.452	0.625	0.003	(0.002)	0.214	0.529	R2.021	R9.881
	June	0.182	R0.420	0.601	0.003	(0.001)	0.226	0.568	R2.000	R11.881
	July August	0.206 0.209	'R0.470	0.602	0.003	(0.002)	0.227	0.585	R2.091	R13.972
	September	0.209	R0.518 R0.524	0.638 0.679	0.002 0.002	(0.001)	0.238	0.590	R2.193	R16.165
	October	0.203	R0.681	0.666	0.002	(0.001)	0.238 0.235	0.496 0.541	R2.141	R18.306
	November	0.227	R0.752	0.695	0.002	(0.001)	0.235	0.541	R2.342 R2.459	R20.648
	December	0.249	R1.019	0.696	0.002	(0.003)	0.230	0.607	R2.459	R23.107 R25.908
	Total	2.490	R6.821	7.583	0.033	(0.016)	2.648	6.349	R25.908	1123.900
1984	January	0.258	R0.615	R0.732	0.003	0.001	0.228	0.528	R2.365	R2.365
	February	0.238	R0.406	R0.621	0.003	0.002	0.230	0.498	R1.998	R4.363
	March	0.240	R0.643	R0.701	0.003	(0.001)	0.238	0.568	R2.391	R6.754
	April	0.255	R0.464	R0.647	0.003	0.000	0.236	0.530	R2.134	R8.889
	May June	0.246 0.226	R0.497	R0.693	0.003	(0.001)	0.241	0.594	R2.276	R11.164
	July	0.228	R0.517 R0.553	R0.632 R0.643	0.003	(0.002)	0.249	0.622	R2.247	R13.411
	August	0.226	R0.553	R0.701	0.003 0.002	(0.001) (0.002)	0.245 0.254	0.599	R2.270	R15.681
	September	0.224	R0.579	R0.761	0.002	0.002)	0.254	0.633 0.519	R2.390	R18.071
	October	0.223	R0.665	R0.723	0.002	(0.003)	0.243	0.519	R2.234 R2.418	R20.304 R22.722
	November	0.233	R0.821	R0.669	0.002	(0.003)	0.234	0.558	R2.515	R25.238
	December	0.257	R0.691	R0.671	0.002	(0.001)	0.227	0.546	R2.392	R27.630
	Total	2.860	R7.022	R8.100	0.033	(0.011)	2.868	6.759	R27.630	1121.000
1985	January	R0.254	R0.875	R0.685	0.003	0.000	0.229	0.587	R2.634	R2.634
	February	R0.234	R0.372	R0.603	0.003	0.001	0.227	0.482	R1.922	R4.557
	March	R0.235	R0.513	R0.645	0.003	0.000	R0.230	R0.534	R2.160	R6.717
	April	0.258	0.485	0.621	0.003	0.001	0.234	0.529	2.131	8.848
	Year to Date	0.981	2.246	2.555	0.012	0.003	0.920	2.132	8.848	

Includes supplemental gaseous fuels.

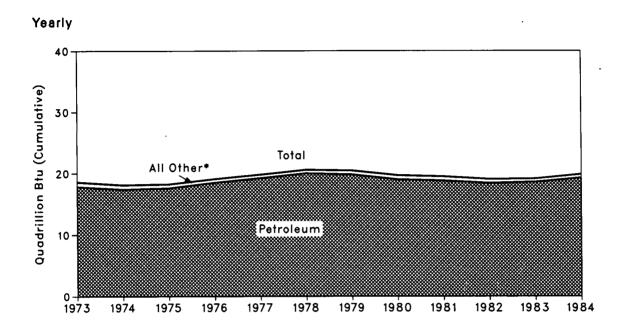
R = Revised data.

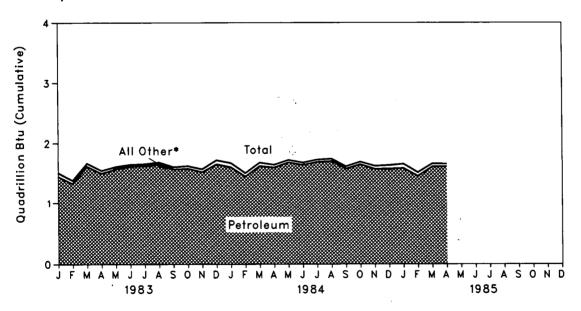
Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

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

### Consumption of Energy by the Transportation Sector





<sup>\*</sup>Includes coal, natural gas, electricity, and electrical system energy losses.

### **Consumption of Energy by the Transportation Sector**

,		Coal	Natural Gas¹	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
				Qua	drillion (1015) Btu			
1973	Total	0.003	0.743	17.821	0.009	0.020	18.596	
1974	Total	0.002	0.685	17.396	0.009	0.022	18.113	
1975	Total	0.001	0.595	17.610	0.010	0.025	18,240	
1976	Total	(²)	0.559	18.499	0.010	0.025	19.093	
1977	Total	(²)	0.543	19.230	0.010	0.025	19.808	
1978	Total	(²)	0.539	20.019	0.009	0.022	20.589	
1979	Total	(²)	0.612	19.817	0.010	0.025	20.464	
1980	Total	(²)	0.648	19.009	0.011	0.026	19.693	
1981	Total	(²)	0.657	18.800	0.011	0.026	19.495	
1982	Total	(²)	0.613	18.417	0.011	0.026	19.066	
1983	January	(2)	0.059	1.444	0.001	0.002	1.506	1.506
	February	(²)	0.049	1.327	0.001	0.002	1.379	2.885
	March	(²)	0.047	1.609	0.001	0.002	1.660	4.545
	April	(²)	0.041	1.497	0.001	0.002	1.541	6.086
	May	(²)	0.034	1.566	0.001	0.002	1.603	7.688
	June	(2)	0.029	1.607	0.001	0.002	1.639	9.327
	July	(2)	0.031	1.614	0.001	0.002	1.648	10.975
	August	(²)	0.033	1.640	0.001	0.002	1.676	12.651
	September	(2)	0.032	1.563	0.001	0.002	1.598	14.249
	October	(2)	0.037	1.576	0.001	0.002	1.616	15.866
	November	(2)	0.045	1.517	0.001	0.002	1.566	17.431
	December	(²)	0.066	1.645	0.001	0.002	1.714	19.146
	Total	<b>(</b> <sup>2</sup> <b>)</b>	0.504	18.605	0.011	0.026	19.146	
1984	January	(2)	R0.067	R1.596	0.001	0.002	R1.666	R1.666
	February	(2)	R0.052	R1.445	0.001	0.002	R1.500	R3.166
	March	(²)	R0.055	R1.615	0.001	0.002	R1.673	R4.839
	April	(2)	R0.043	R1.591	0.001	0.002	R1.637	R6.475
	May June	(2) (2)	0.037 0.033	R1.677	0.001	0.002	R1.717	R8.192
	July	(²) (²)	0.033	R1.637 R1.686	0.001 0.001	0.002 0.002	R1.673	R9.866
	August	(²)	R0.035	R1.700	0.001	0.002	R1.723 R1.738	R11.589 R13.327
	September	(²)	R0.034	R1.572	0.001	0.002	R1.609	R14.935
	October	(²)	0.038	R1.646	0.001	0.002	R1.687	R16.622
	November	(²)	0.048	R1.568	0.001	0.002	1.619	R18.241
	December	(²)	R0.055	R1.571	0.001	0.002	R1.629	R19.870
	Total	(²)	R0.531	R19.303	0.011	0.026	R19.870	
1985	January	(²)	0.068	1.581	0.001	0.002	1.652	1.652
	February	(²)	0.056	1.452	0.001	0.002	1.511	3.163
	March	(²)	R0.048	1.605	0.001	0.002	R1.656	R4.819
	April	(²)	0.040	1.610	0.001	0.002	1.653	6.472
	Year to Date	(²)	0.212	6.247	0.004	0.009	6.472	

Includes supplemental gaseous fuels.

<sup>2</sup>Since 1976, the amount of coal consumed by the transportation sector has been negligible. R = Revised data.

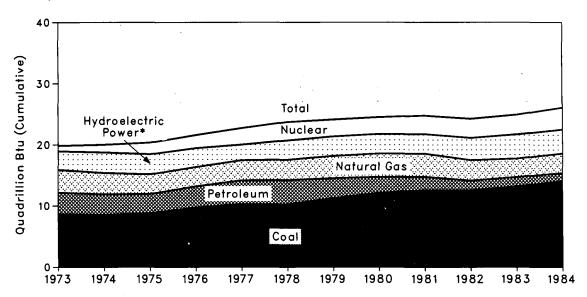
Notes: • Geographic coverage is the 50 States and the District of Columbia.

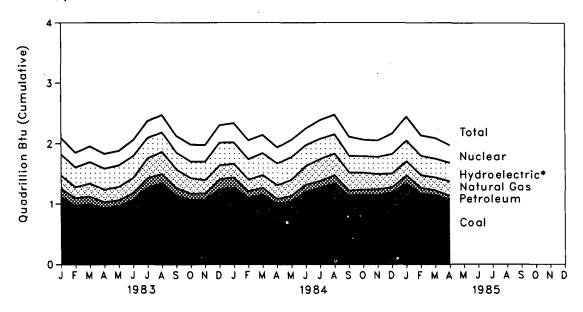
• Totals may not equal sum of components due to independent rounding.

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

### **Energy Input at Electric Utilities**

### Yearly





<sup>\*</sup>Includes other.

# Consumption

#### **Energy Input at Electric Utilities**

		Coal	Natural Gas¹	Petro- leum²	Hydro- electric Power <sup>3</sup>	Nuclear Electric Power	Other	Total	Year to Date
					Quadrillion	(1015) Btu			
1973	Total	8.658	3.748	3.515	2.975	0.910	0.046	19.852	
1974	Total	8.534	3.519	3.365	3.276	1.272	0.056	20.022	
1975	Total	8.786	3.240	3.166	3.187	1.900	0.072	20.350	
1976	Total	9.720	3.152	3.477	3.032	2.111	0.081	21.574	
1977	Total	10.262	3.284	3.901	2.482	2.702	0.082	22.713	
1978	Total	10.238	3.297	3.987	3.110	3.024	0.068	23.724	
1979	Total	11.260	3.613	3.283	3.107	2.776	0.089	24.128	
1980	Total	12.123	3.810	2.634	3.085	2.739	0.114	24.505	
1981	Total	12.583	3.768	2.202	3.072	3.008	0.127	24.760	
1982	Total	12.582	3.342	1.568	3.528	3.131	0.108	24.259	
1983		1.128	0.215	0.137	0.334				0.007
1903	January February	0.967	0.215 0.182	0.137	0.334	0.273 0.242	0.011 0.008	2.097 1.855	2.097 3.952
	March	0.996	0.102	0.133	0.345	0.242	0.009	1.958	5.909
	April	0.921	0.209	0.110	0.341	0.244	0.009	1.833	7.743
	May	0.965	0.225	0.097	0.349	0.240	0.007	1.883	9.626
	June	1.064	0.255	0.119	0.348	0.263	0.009	2.059	11.685
	July	1.276	0.324	0.156	0.325	0.279	0.012	2.373	14.058
	August	1.348	0.363	0.158	0.304	0.286	0.015	2.474	16.531
	September	1.146	0.307	0.123	0.264	0.273	0.014	2.127	18.658
	October	1.071	0.259	0.106	0.253	0.281	0.015	1.986	20.644
	November	1.082	0.221	0.099	0.290	0.273	0.013	1.977	22.621
	December	1.249	0.225	0.171	0.363	0.287	0.011	2.307	24.929
	Total	13.213	2.998	1.544	3.838	3.203	0.133	24.929	
1984	January	1.278	0.221	0.169	0.341	0.320	0.011	2.340	2.340
	February	1.109	0.193	0.108	0.322	0.310	0.013	2.055	4.395
	March	1.157	0.212	0.115	0.348	0.298	0.015	2.146	6.540
	April	1.009	0.227	0.081	0.343	0.264	0.014	1.938	8.478
	May	1.050	0.272	0.090	0.357	0.282	0.014	2.066	10.544
	June	1.208	0.306	0.121	0.330	0.276	0.013	2.255	12.799
	July	1.280	0.359	0.111	0.321	0.308	0.013	2.394	15.193
	August September	1.345 1.146	0.360 0.299	0.137 0.083	0.299 0.259	0.322 0.318	0.016 0.015	2.480	17.673
	October	1.161	0.299	0.083	0.259	0.318	0.015	2.120 2.068	19.793 21.861
	November	1.150	0.252	0.100	0.267	0.268	0.016	2.068	23.914
	December	1.200	0.224	0.086	0.305	0.237	0.018	2.053	26.083
	Total	14.094	3.205	1.286	3.751	3.573	0.174	26.083	20.003
1985			0.232						0.440
1303	January February	1.350 1.177	0.232	0.132 0.101	0.320 0.304	0.395 0.336	0.018	2.446	2.446
	March	1.177	0.207	0.101	0.304	0.336	0.016 0.018	2.140 2.096	4.586
	April	1.079	0.212	0.066	0.290	0.339	0.018	2.096 1.976	6.682 8.658
	Year to Date	4.765	0.891	0.376	1.201	1.358	0.067	8.658	0.000

Includes supplemental gaseous fuels.

Includes supplemental gaseous fuels.

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.

Includes net imports of electricity.

Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

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. Total Energy Consumed: Total energy consumed includes coal, natural gas (including supplemental gaseous fuels), refined petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.
- 2. 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, refrigeration, cooking, and clothes drying; by nonmanufacturing 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.
- 3. Conversion Factors: See the Conversion Factors section of this publication.
- 4. Coal: Coal is anthracite, bituminous coal, (including subbituminous coal), and lignite.

Sources:

- 1973 through September 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), Minerals Year-book 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"

  Output

  Output

  Description Report " bution 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 Quarter-Form 5/5A, ly/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
- 5. Natural Gas: Natural gas consumption by end-use sector is based on data presented in the table titled "Natural Gas Consumption" in Part 4. For the Part 2 consumption section, lease and plant fuel consumption are added to the industrial sector deliveries and pipeline fuel represents the transportation sector's use of natural gas. Values in Btu are derived using the conversion factors provided in the Conversion Factors section of this publication.

Sources:

- 1973 through 1975: DOI, BOM, Minerals Yearbook, "Natural Gas" chapter.
  1976 through 1978: EIA, Energy Data Reports, "Natu-
- ral Gas, Annual."
  1979: EIA, Natural Gas Production and Consumption 1979.
- 1980 and 1982: EIA, Natural Gas Annual. 1983 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.'
- 6. 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 Part 3.

  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, "Petro-
- leum Statement, Annual."

  1981 through 1983: EIA, Petroleum Supply Annual.

  1984 forward: EIA, Petroleum Supply Monthly.

Specific petroleum products' end-use allocation procedures

- 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 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 small amounts of kerosene deliveries through 1982) consumed at utilities. 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."

Non-Electric Utility Sectors, Annual Estimates

Through 1983

Through 1983.

The aggregate non-electric utility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility 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" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:

Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;

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

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

- 6. Petroleum (continued):

   Distillate Fuel (continued)

   Non-Electric Utility Sectors, Annual Estimates
  Through 1983 (cont'd).

   Commercial sector deliveries are directly from
  the "Deliveries" reports for 1979 through 1983.
  Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares; Industrial sector deliveries for 1979 through
  - 1983 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category 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.
     Non-Electric Utility Sectors, Monthly Estimates
  - Through 1983.
    - Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to 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 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 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.
  - Non-Electric Utility Sectors, 1984 Forward.
    Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month
  - · Jet Fuel-Through 1982, small amounts of kerosenetype jet fuel were consumed by the electric utility sector. Kerosene-type jet fuel deliveries to electric utilities as reported on the FERC-423 (formerly FPC-423) were used as estimates of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.
  - Kerosene—Total product supplied monthly is allo-cated 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" ("Deliver
    - ies") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:

      Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Deliveries for 1979 through 1983. eries for 1983 are used as estimates for 1984 forward. Prior to 1979, each year's deliveries category called "heating" is split into residential,

- commercial, and industrial in proportion to the 1979 shares;
- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Deliveries for 1983 are used as estimates for 1984 forward. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
- Industrial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Deliveries for 1983 are used as estimates for 1984 forward. Prior to 1979, each year's deliveries 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 1982: the annual shares of LPG's total consumption that are estimated to be con 
   sumed 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 be the annual consumption of LPG by the sector;
  - The quantity of LPG sold each year that is consumed in internal combustion engines is allocated between the transportation and indusallocated between the transportation and industrial sectors according to a 5-year moving average of the percentage of carburetors sold to each end-use category. The proportions range from 31 percent transportation and 69 percent industrial in 1973 to 52 percent transportation and 48 percent industrial in 1982.
  - and 48 percent industrial in 1982. 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 industrial sector includes LPG used by chemical plants as raw materials or solvents and for use in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine
  - 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.
  - 1983 forward: Because the collection of data under Form EIA-174 was discontinued after data year 1982, the 1982 annual end-use shares based on the 1982 sales data are applied for all succeeding periods to estimate LPG end-use consumption.
- 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

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

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

#### 6. Petroleum (continued):

- Motor Gasoline—Total product supplied monthly is allocated to the major end-use sectors in proportion to anocated 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 unclassi-
  - 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 petroleum coke 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 power plants. From January 1980, electric utility consumption of residu-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." Non-Electric Utility Sectors, Annual Estimates Through 1983.

The aggregate non-electric utility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility 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" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:

- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through industrial sector deliveries for 1979 through 1983 are the sum of deliveries for industrial, oil company, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category 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
- deliveries for railroad, vessel bunkering, and military uses for all years.

  Non-Electric Utility Sectors, Monthly Estimates Through 1983.

Commercial sector monthly consumption is esticommercial 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.
- Non-Electric Utility Sectors, 1984 Forward. Each month's non-electric utility consumption sub-total is disaggregated into the major end-use sec-tors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1983.
- · 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
- 7. Hydroelectric Power: Includes electricity generated by hydroelectric power at electric utilities, small amounts in the industrial sector, and net imports of electricity, which are assumed to be generated by hydroelectric power 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.

Note for imports and exports of electricity:

Monthly electricity imports and exports estimates for 1982 forward were revised in the May 1984 Monthly Energy Review. The revisions do not cause discontinuity in the annual data series: the data continue to come from the same source. The monthly data series, however, are discontinuous because monthly data from January 1982 forward are now available from the same source as the annual data. Estimates for monthly values prior to 1982, published in previous issues, were developed by converting the annual value to a daily rate and multiplying by the number of days in the month. Accordingly, month-to-month analyses are not comparable when taken across the transition date of January 1982. Monthly analyses on either side of that date will be comparable. There is no known bias in either the annual data or the monthly data since Janu-

- ary 1982.
  Sources for imports and exports of electricity:
  1973 through 1980: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
  1981: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982) vised June 1982).
- 1982 and 1983: DOE, Economic Regulatory Administration, ERA-781, "Annual Report of International Electric Import/Export Data.
- 1984 forward: EIA estimates.

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

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

8. Nuclear Electric Power:

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.'
- 9. Net Imports of Coal Coke: 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: EIA, Energy Data Report, "Coke Plant Report," quarterly.
- 1982 forward: EIA, Quarterly Coal Report.
- 10. Other Energy: "Other" is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution

Sources: same as Note 8 above, for Nuclear Electric

11. Electricity: Sales of electricity represent consumption. From the sources cited below the following electricity 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 govern-ment buildings) is added to the commercial sector except for approximately 4 percent, which represents the transportation sector use of electricity, primarily by railroads and railways. Sales of electricity are converted into Btu at the rate of 3,412 Btu per kilowatthour. 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." 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.'
- 12. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total energy input at electric utilities and the total energy content of electricity sold to end-use consumers. Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. This loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input to output losses are a result of imputing fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring these thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line-losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, approximately 67 percent of total energy input is lost in conversion; of electricity generated, approximately 5 percent is lost in plant use and 9 percent in transmission and distribution. Calculated electrical system energy losses may be less than actual losses, because primary consumption does not include the energy equivalent of utility purchases of electricity from non-electric utilities and from Canada and Mexico, although they are included in electricity sales.

Domestic crude oil production during June 1985 was estimated to be 9.0 million barrels per day, virtually the same as in the previous month, but 1.3 percent higher than the rate in June 1984. Crude oil production during the first 6 months of 1985 was estimated to be 8.9 million barrels per day, 0.9 percent more than the first-half 1984 production average.

Total petroleum imports averaged 4.8 million barrels per day in June 1985, 15.5 percent less than the May 1985 rate and 11.9 percent less than the June 1984 rate. Total petroleum imports during the first half of 1985 averaged 4.8 million barrels per day, 13.2 percent less than the average imports during the first half of 1984.

In June 1985, 15.4 million barrels per day of petroleum products were supplied for domestic use, 0.6 percent below the level in May 1985 and 2.2 percent below the level of the previous June. Motor gasoline accounted for 45.8 percent of the total; distillate fuel oil, 17.6 percent; and residual fuel oil, 5.6 percent.

During the first 6 months of 1985, 15.6 million barrels per day of petroleum products were supplied, 1.7 percent less than the average of 15.9 million barrels per day during the first 6 months of 1984. Motor gasoline was 43.3 percent of the total products supplied during the first half of 1985, while distillate fuel oil was 19.1 percent, and residual fuel oil was 7.8 percent, of the total.

Motor gasoline supplied during June 1985 averaged 7.0 million barrels per day, slightly

above the rate in May 1985 but 0.9 percent below the rate of the previous June. During the first half of 1985, an average of 6.8 million barrels per day of motor gasoline were supplied, 2.0 percent more than during the first half of 1984. Stocks of motor gasoline totaled 217 million barrels at the end of June 1985, the same level as in the previous month, but 29 million barrels below the level 1 year earlier.

In June 1985, 2.7 million barrels of distillate fuel oil were supplied per day, 4.2 percent higher than the May 1985 rate and 4.5 percent higher than the June 1984 rate. An average of 3.0 million barrels per day of distillate fuel oil were supplied during the first half of 1985, 0.3 percent less than during the first half of 1984. Distillate fuel oil ending stocks for June 1985 were 109 million barrels, 4 million barrels higher than the stocks level of the previous month but 4 million barrels lower than June 1984 ending stocks level.

Residual fuel oil supplied in June 1985 averaged 0.9 million barrels per day, 31.4 percent lower than in May 1985 and 35.9 percent lower than the June 1984 rate. The first half of 1985 average of residual fuel oil supplied was 1.2 million barrels per day, 20.4 percent less than the first-half 1984 average. Residual fuel oil stocks measured 41 million barrels at the end of June 1985, 1 million barrels less than the stocks level of the previous month and 6 million barrels less than the ending stocks level in June 1984.

<sup>\*</sup>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 March 1984. The total import data above include imports into the Strategic Petroleum Reserve.

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

		Field Production			Stock	Withdrawal <sup>2</sup>		Ending Stocks <sup>3</sup>	
		Total Domestic	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>s</sup> and Petroleum Products	
				Thousand	barrels per d	lay		Million barrels	
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	*1,07 <b>4</b>	
1975	Average	10.045	8,375	1,633	8-17	°-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	10,173	8,597	1,573	-98	-42	17,056	*1,392	
1981	Average	10,214	8,572	1,609	4-290	*130	16,058	•	
1982	Average	10,252	8,649	1,550	-136	283	15,296	1,484 *1,430	
1983	January	10,331	8,697	1,580	s-499	8772	14,722	1,452	
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430	
	March	10,279	8,700	1,541	83	1,810	15,541	1,372	
	April	10,322	8,776	1,506	-402	308	14,692	1,374	
	May	10,190	8,631	1,493	-15	-602	14,505	1,394	
	June	10,261	8,667	1,523	-122	-276	15,289	1,405	
	July	10,228	8,636	1,539	233	-909	15,019	1,426	
	August	10,284	8,679	1,562	-796	-271	15,480	1,460	
	September	10,447	8,784	1,602	-239	-621	15,506	1,485	
	October	10,434	8,771	1,604	-274	-442	14,962	1,508	
	November	10,461	8,770	1,641	114	-182	15,500	1,510	
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454	
	Average	10,299	8,688	1,559	-214	234	15,231		
1984	January	R10,477	R8,868	R1,572	R-328	R1,115	R16,801	R1,429	
	February	R10,565	R8,874	R1,635	R197	R-1,374	R15,437	R1,463	
	March	R10,319	R8,672	R1,599	R-25	R641	R16,050	_1,444	
	April	R10,531	R8,862	R1,619	R-476	R-106	R15,568	R1,462	
	May	R10,623	R8,955	R1,614	R-677	R-434	R15,620	R1,496	
	June	R10,507	R8,852	R1,613	R-104	R-109	R15,709	R1,503	
	July	R10,587	R8,885 R8,809	R1,634	R-169	R-169	R15,498	R1,513	
	August September	R10,478 R10,692	R8,993	R1,637 R1,660	250 R260	R252 R-769	R16,116	R1,498	
	October	R10,608	R8,906	R1,649	R-759	R-246	R15,247 R15,616	R1,513	
	November	R10,689	R8,979	R1,678	R-236	R-177	R15,627	R1,544 1,556	
	December	R10,578	R8,897	1,649	R-290	R293	R15,375	1,556 R1,556	
	Average	R10,554	R8,879	R1,630	R-199	R-81	R15,726	H1,550	
1985	January	10.612	8.929	1,642	18	1,443	16.142	1,510	
	February	10,598	8,928	1,629	281	1,232	15,975	1,467	
	March	10,588	8,927	1,615	-165	426	15,321	1,459	
	April	10,481	8,842	1,600	-534	46	15,345	1,474	
	May	10,619	8,969	1,607	R-696	R-386	R15,460	R1,508	
	Junet	NA	<i>8,965</i>	NA	186	-294	15,368	1,504	
	Average	NA	8,927	NA	-159	404	15,598		

Includes lease condensate.

<sup>&</sup>lt;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.

Stocks are totals as of end of period.
Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.
Includes stocks located in the Strategic Petroleum Reserve.
Includes crude oil for storage in the Strategic Petroleum Reserve.
Net imports equals imports minus exports.
In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stocks withdrawal calculations. See Note 5 on the last page of this section.
Footnotes continued on following page.

**Petroleum** 

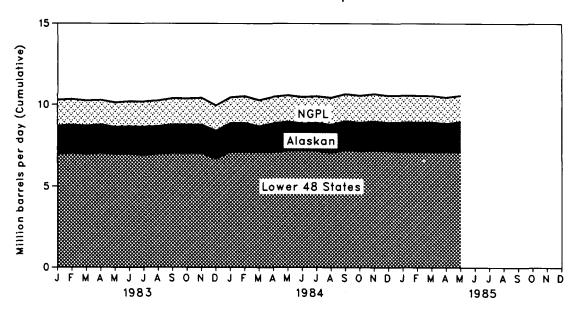
### Crude Oll<sup>1</sup> and Petroleum Products Overview (continued)

			Imports			Exports			
		Total	Crude Oil⁵	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports <sup>7</sup>	
				Tf	nousand barrels	s 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	Average	5,996	4,396	1,599	595	228	367	•	
1982	Average	5,113	4,390 3,488	1,625	815	226	579	5,401 4,298	
1983	January	4,438	2,964	1,474	973	117	856	3,464	
	February	3,726	2,267	1,459	865	262	603	2,861	
	March	3,690	2,290	1,400	801	174	627	2,889	
	April	4,727	3,118	1,609	809	88	721	3,918	
	May	5,089	3,360	1,729	848	280	568	4,241	
	June	5,326	3,577	1,749	774	144	630	4,552	
	July	5,741	3,871	1,870	571	145	426	5,170	
	August	6,159	4,227	1,933	663	172	491	5,496	
	September	6,129	4,210	1,919	684	177	507	5,445	
	October	5,258	3,446	1,812	576	140	436	4,682	
	November	5,210	3,337	1,873	679	186	494	4,531	
	December	5,033	3,213	1,820	639	95	544	4,394	
	Average	5,051	3,329	1,722	739	164	575	4,312	
1984	January	R5,430	R3,055	R2,375	575	153	422	R4,855	
	February	R5,693	R2,950	R2,743	582	185	397	R5,111	
	March	R5,301	R3,470	R1,832	840	236	605	R4,461	
	April May	R5,372 R5,979	3,417 B2 042	R1,955	655 766	172	483	R4,717	
	June	R5,482	R3,942 R3,546	R2,036 R1,936	864	219 222	548 642	R5,212	
	July	R5,407	3,646	R1,761	536	108	429	R4,618 R4,871	
	August	R5,044	R3,248	R1,796	732	190	542	R4,312	
	September	R5,252	R3,342	R1,909	664	162	502	R4,588	
	October	R5,779	3,751	R2,028	599	141	458	R5,179	
	November	R5,587	R3,583	R2.004	854	202	652	R4,733	
	December	R4,933	R3,136	R1,796	986	185	801	R3,947	
	Average	R5,437	R3,426	R2,011	R722	R181	R541	R4,715	
1985	January	4,376	2,700	1,676	792	144	647	3,584	
	February	3,921	2,126	1,795	857	221	636	3,064	
	March	4,689	2,808	1,881	694	189	505	3,996	
	April	5,252	3,401	1,851	764	236	528	4,488	
	May	R5,718	R3,724	R1,994	705	250	455	5,012	
	June†	4,829	<i>3,287</i>	1,54 <u>2</u>	NA	NA	NA	NA	
	Average	4,809	3,019	1,791	NA	NA	NA	NA	

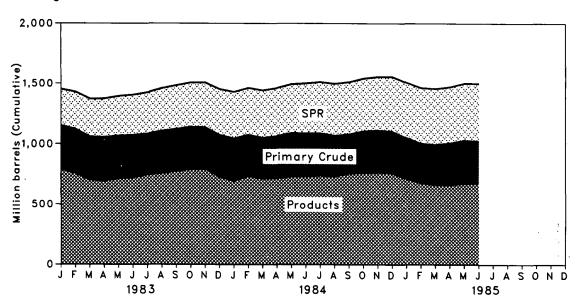
Footnotes continued.
†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

### Overview

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

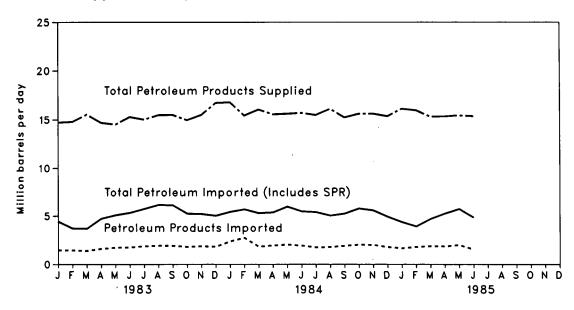


#### **Ending Stocks**

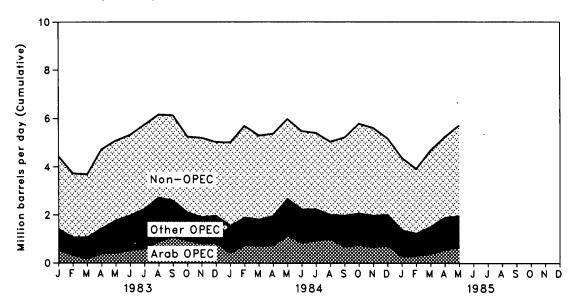


#### Overview

#### **Products Supplied and Imports**



#### Petroleum Imports by Source



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

Supply

		Field Pro	oduction		Imports		Stock W	/ithdrawal <sup>3</sup>	Unaccounted
		Total Domestic	Alaskan	Total	SPR'	Other	SPR'	Other	Unaccounted for Crude Oil
					Thousan	d barrels per d	lay		
1973	Average	9,208	198	3,244	•	3,244		11	<b>3</b> .
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	<b>-6</b>
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-103 -67	-81	-11
1980	_	8,597	1,617	5,263	44	•			
1981	Average	•	•	• •		5,219	-45	-52	34
	Average	8,572	1,609	4,396	256	4,141	-336	°46	83
1982	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	January	8,697	1,732	2,964	219	2,746	-219	°-280	. 170
	February	8,758	1,717	2,267	197	2,070	-197	-123	262
	March	8,700	1,732	2,290	201	2,089	-184	267	31
	April	8,776	1,721	3,118	205	2,913	-197	-205	98
	May	8,631	1,662	3,360	289	3,071	-293	278	169
	June	8,667	1,687	3,577	190	3,387	-188	66	370
	July	8,636	1,715	3,871	274	3,597	-264	497	-167
	August	8,679	1,697	4,227	350	3,876	-358	-438	281
	September	8,784	1,738	4,210	309	3,901	-307	68	-30
	October	8,771	1,733	3,446	202	3,244	-201	-73	44
	November	8,770	1,720	3,337	171	3,166	-135	250	34
	December	8,397	1,711	3,213	193	3,020	-252	-78	117
	Average	8,688	1,714	3,329	234	3,096	-234	20	114
1984	January	R8,868	R1,752	R3,055	200	R2,855	-173	R-155	R211
	February	R8,874	R1,749	R2,950	85	R2,866	-96	R293	R386
	March	R8,672	R1,570	R3,470	148	R3,322	-147	R122	R110
	April	R8,862	R1,770	3,417	170	R3,248	-170	R-307	R325
	May	R8,955	R1,764	R3,942	246	R3,696	-245	R-432	R309
	June	R8,852	R1,659	R3,546	309	R3,237	-309	R205	R246
	July	R8,885	R1,695	3,646	329	3,317	-328	R159	R-164
	August	R8,809	R1,722	R3,248	180	R3,068	-179	429	R293
	September October	R8,993 R8,906	R1,761 R1,732	R3,342	53	R3,289	-53	R314	R-94
	November	R8,979	R1,732	3,751 R3,583	187 219	R3,565	R-186	R-573	R291
	December	R8,897	R1,720	R3,136	219	R3,364 R2,907	R-207 -241	R-29 R-50	R47 R262
	Average	R8,879	R1,722	R3,136	197	R3,229	-241 -195	R-4	H262
1985	•	8,929	•			•			
1900	January February	8,929 8.928	1,788 1,787	2,700 2,126	223 98	2,478	-223	241	23
	March	8,927	1,787	2,126 2,808	98 48	2,028	-97	378	346
	April	8,842	1,699	2,808 3,401	48 108	2,760 3,293	-48 -111	-117	92
	May	8,969	1,827	R3,724	R222	3,293 R3,501	R-225	-423 R-471	411 457
	June†	8,965	1,828	3.287	164	3,123	-164	350	NA
	Average	8,927	1,786	3,019	145	2,874	-145	-13	NA NA
		-,	.,. 00	2,010	170	-,077	- 173	- 10	17/2

<sup>&</sup>lt;sup>1</sup>Includes lease condensate.

Includes lease condensate.

Stocks are totals as of end of period.
A negative number indicates an increase in stocks and a positive number indicates a decrease.
Strategic Petroleum Reserve.
Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Notes 5 and 6 on the last page of this section.

Footnotes continued on following page.

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

		Supply		Dispos	sition	Ending Stocks <sup>2</sup>			
		Crude Used Directly	Crude Losses	Refinery Inputs	Exports	Product Supplied <sup>5</sup>	Total	SPR <sup>4</sup>	Other Primary
			Thousan	d barrels per	day			Million barr	els
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 NA	271		271
1976	Average	-18	15	13,416	8	NA NA	285		285
1977	•	-14	16	•	-			-	
	Average			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	⁴466	108	°358
1981	Average	-58	5	12,470	228	NA	594	230	363
1982	Average	-59	3	11,774	236	NA	644	294	350
1983	January	· NA	2	11,143	117	71	660	301	360
	February	NA .	3	10,633	262	71	669	306	363
	March	NA NA	2 .	10,859	174	70	667	312	355
	April	NA	2	11,433	88	68	679	318	361
	May	NA	1	11,800	280	63	679	327	353
	June	NA	(s)	12,284	144	64	683	332	351
	July	NA	2	12,360	145	65	676	341	335
	August	NA ·	1	12,152	172	64	700	352	349
	September	NA	1	12,482	177	66	708	361	347
	October	NA .	1	11,782	140	63	716	367	349
	November	NA	2	12,004	186	64	713	371	341
	December	NA	1	11,234	95	67	723	379	344
	Average	NA	2	11,685	164	66			
1984	January	, NA	1	R11,587	153	64	733	384	R349
	February	NA NA	1	R12,157	185	65	727	387	340
	March	NA	2	R11,926	236	62	728	392	336
	April	NA	R1	R11,891	172	64	R742	397	R346
	May	NA	. 2	R12,247	219	62	R763	404	359
	June	NA .	2	R12,255	222	61	R767	414	353
	July	NA	R2	R12,028	108	60	772	424	348
	August	NA	1	R12,346	190	63	764	429	335
	September	NA	R3	R12,271	162	66	756	431	325
	October November	NA .	R1	R11,978	141	69	R780	R437	343
	December	NA NA	R(s)	R12,108	202	62	R787	443	R344
	Average	NA NA	(s) <b>R2</b>	R11,755 <b>R12,044</b>	185 <b>181</b>	64 <b>64</b>	R796	451	R345
400E	· .			•					
1985	January	NA NA	1	11,456	144	69	793	457	336
	February	NA NA	1	11,393	221	66	786	460	325
	March April	NA NA	1	11,404	189	69	791	462	329
	May	NA NA	(s) 1	11,817 P12,141	236 250	67 62	807	465	342
	June†	NA NA	NA NA	R12,141 <i>12,323</i>	NA NA	δ∠ NA	R828 <i>820</i>	R472 <i>476</i>	R356 <i>343</i>
	,	NA NA	NA NA	•			020	4/0	343
	Average	NA	NA	11,758	NA	NA .			

Footnotes continued.
†Italics denote estimates based upon 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.
Sources: • See the last page of this section.

### **Crude Oil and Petroleum Product Imports**

#### Imports from OPEC Sources<sup>1</sup>

						iiiboi is ii	OIII OPE	C Sources	_			
		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indo- nesia	Iran	Nigeria	Vene- zuela	Other OPEC <sup>2</sup>	Total OPEC	Total Arab OPEC <sup>3</sup>
						Thousa	nd barrel	s 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		488	554	1,350	172	348	9	-			•	
1981	Average	311			81			857	481	130	4,300	2,551
	Average		319	1,129		366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	January	207	0	282	47	255	43	186	337	54	1,412	537
	February	115	0	214	9	217	0	92	393	28	1,068	338
	March	63	0	103	0	138	0	121	440	201	1,066	183
	April	227	0	162	(s)	210	0	186	523	125	1,432	389
	May	286	0	122	12	405	37	385	455	· 69	1,771	420
	June	300	0	188	40	466	38	467	335	138	1,973	528
	July	283	0	182	64	464	112	525	434	187	2,251	606
	August	378	0	448	52	433	213	464	511	230	2,728	903
	September	423	0	587	21	501	86	324	432	221	2,595	1,084
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	184	0	545	56	302	21	215	452	135	1,910	807
	December	144	0	569	45	294	9	329	415	163	1,969	826
	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	January	242	0	R477	114	R289	0	243	R549	51	R1,965	R842
	February	R369	R7	324	33	267	0	244	R478	174	R1,896	R751
	March	R285	0	R310	112	R283	67	R269	R358	127	R1,811	R723
	April	280	0	320	95	R226	0	288	R593	158	R1,962	R735
	May	R471	0	329	240	R479	0	289	R627	242	R2,677	R1,146
	June	R302	0	411	46	415	0	243	R640	R171	R2,227	R838
	July	332	0	429	112	384	0	204	R539	242	R2,241	946
	August	404	0	438	82	281	0	114	R475	216	R2,009	993
	September	R359	0	159	113	333	17	160	R715	147	R2,002	R688
	October	333	0	287	114	R421	0	208	R585	115	R2,062	754
	November	R298	0	183	124	R424	24	163	R564	173	R1,954	R668
	December	R204		R224	211	314	12	R166	R459	174	R1,765	R723
	Average	R323	1	R325	117	R343	10	R216	R548	R166	R2,049	R819
1985	January	95	0	106	60	274	0	262	481	89	1,367	289
	February	174	0	108	0	232	0	131	524	64	1,233	307
	March	252	0	85	52	283	0	180	575	84	1,512	390
	April	286	8	186	70	313	0	280	669	86	1,899	561
	May	281	0	49	128	211	0	381	549	354	1,953 <sup>,</sup>	669
	Average	218	2	106	63	263	0	249	559	137	1,598	445

<sup>&</sup>lt;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.

Footnotes continued on following page.

#### **Crude Oil and Petroleum Product Imports (continued)**

		imports from Non-OPEC Sources										
		Bahamas	Canada	Mexico	Nether- lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non- OPEC	Total Non- OPEC	Total Imports
						Thousa	nd barrels p	er day				
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	. 78	455	533	225	176	176	88	388	491	2,609	6,909
1981	-	74	447	522	197	133	375	62				
	Average								327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	January	68	534	849	228	73	314	40	299	621	3,026	4,438
	February	92	586	722	183	81	193	50	192	558	2,658	3,726
	March	86	488	775	187	78	240	43	162	565	2,624	3,690
	April	174	454	981	216	85	421	20	183	759	3,295	4,727
	Мау	135	518	944	153	108	484	42	235	699	3,318	5,089
	June	137	586	830	173	120	440	48	262	757	3,353	5,326
	July	69	634	849	198	107	369	37	364	864	3,490	5,741
	August	144	542	906	197	90	461	40	313	738	3,431	6,159
	September	148	533	849	261	82	475 .	33	307	845	3,534	6,129
,	October	· 171	532	771 700	172	106	414	48	357	580	3,151	5,258
, .	November	148 127	556	726	144	110	334	55	427	801	3,300	5,210
, .	December Average	127	604 <b>547</b>	710 <b>826</b>	153 <b>189</b>	113 <b>96</b>	429 <b>382</b>	22 <b>40</b>	278 <b>282</b>	628 <b>701</b>	3,063 <b>3,189</b>	5,033 <b>5,051</b>
1984	January	R159	R635	R710	R279	54	382	53	390	R804	R3.465	R5.430
	February	R156	620	R748	R289	77	R344	58	418	R1,087	R3,797	R5,693
	March	R90	R694	R716	169	93	R434	34	R248	R1,013	R3,490	R5,301
	April	R95	R705	R869	207	91	282	37	257	R869	R3,410	R5,372
	May	31	R722	R676	192	57	R429	38	336	R819	R3,302	R5,979
	June	R52	. R506	R754	234	104	R345	53	268	R939	R3,255	R5,482
	July	14	R577	R740	99	120	362	27	292	R934	R3,166	R5,407
	August	57	R547	R640	R206	98	388	34	236	R829	R3,035	R5,044
	September	. R98	R550	R780	133	103	490	38	R250	R808	R3,249	R5,252
	October	R151	R682	827	112	122	486	37	321	R979	R3,717	R5,779
	November	88	R640	R841	· R181	115	544	44	283	R897	R3,633	R5,587
	December	75	R675	R686	R161	98	337	46	235	R855	R3,168	R4,933
	Average	R88	R630	R748	R188	94	R402	42	294	R902	R3,388	R5,437
1985	January	90	610	765	125	113	345	32	235	695	3,009	4,376
	February	37	730	649	39	119	150	50	213	702	2,688	3,921
	March	. 32	900	921	52	137	141	29	235	730	3,177	4,689
	April -	0	880	950	18	107	214	42	205	937	3,353	5,252
	May	66	796	959	22	126	419	37	252	1,088	3,765	5,718
	Average	45	784	852	52	121	256	37	229	832	3,208	4,805

Footnotes continued.

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.

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

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

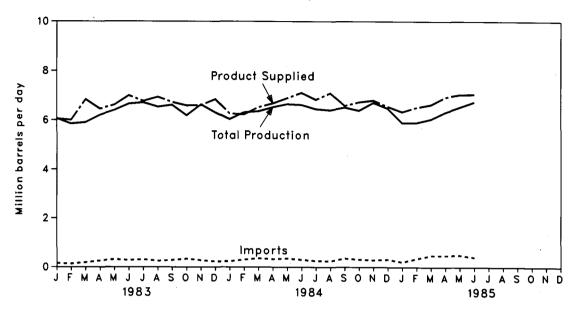
• Totals may not equal sum of components due to independent rounding.

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

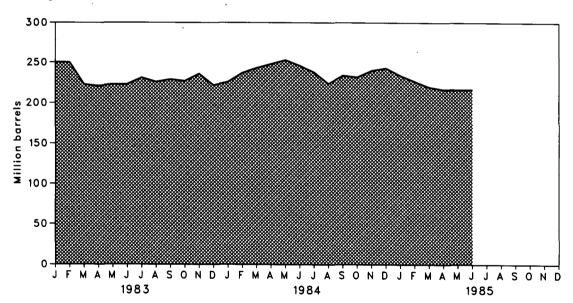
Sources: • See the last page of this section.

# Finished Motor Gasoline Supply and Disposition

### Products Supplied, Total Production, and Imports



#### **Ending Stocks**



#### Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>	
		Total		011-		Р	roduct Suppl	ied	Total	Finished
			Imports <sup>2</sup>	Stock Withdrawal <sup>2 3</sup>	Exports	Total	Unleaded <sup>4</sup>	Unleaded Percent	Motor Gasoline <sup>s</sup>	Motor Gasoline
				Thousan	d barrels pe	d barrels per day		of Total		
1973	Average	6,535	134	9	4	6,674			209	
1974	Average	6,360	204	-24	2	6,537			4218	
1975	Average	6,520	184	6-28	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	Average <sup>7</sup>	6,405	157	-00 428	2	6,588	3,264	49.5	253	
1982		6,338	197			•	•			
1902	Average	0,330	197	25	20	6,539	3,409	52.1	<sup>6</sup> 235	
1983	January	6,065	153	⁴-167	(s)	6,051	3,364	55.6	250	207
	February	5,848	128	24	(s)	6,000	3,264	54.4	250	207
	March	5,906	186	768	23	6,836	3,622	53.0	223	183
	April	6,201	255	-3	1	6,452	3,492	54.1	221	183
	May	6,397	305	-83	1	6,617	3,558	53.8	223	185
	June	6,655	277	84	22	6,994	3,792	54.2	223	183
	July	6,707	302	-225	18	6,765	3,746	55.4	231	190
	August	6,537	250	161	13	6,936	3,836	55.3	226	185
	September	6,611	279	-149	14	6,727	3,691	54.9	229	189
	October	6,188 6,634	330	72	2 2	6,588	3,711	56.3	227	187
	November December	6,308	269 224	-298 339	25	6,603	3,692	55.9	236	196
		•		45	25 10	6,846	3,966	57.9	222	186
	Average	6,340	247	45	10	6,622	3,647	55.1		
1984	January	R6,036	R231	-1	1	R6,265	R3,605	57.5	R226	186
	February	R6,317	R299	R-383	2	R6,231	3,585	57.5	237	197
	March	R6,359	R355	R-176	9	R6,528	R3,750	R57.4	243	R202
	April	R6,525	R319	R-167	(s)	R6,676	R3,857	R57.8	248	207
	May	6,650	R346	R-105	(s)	R6,890	R4,004	_58.1	_ 253	R210
	June	R6,619	R296	R209	17	R7,107	R4,214	R59.3	R246	204
	July	R6,450	247	R142	9	R6,830	R4,057	R59.4	R238	200
	August	R6,405	R242	R447	1	R7,093	R4,283	R60.4	R224	R186
	September October	R6,516 R6,388	R349 R308	R-275 R34	2 1	R6,588	R3,973	R60.3	R234	194
	November	R6,709	286	R-183	11	R6,729	R4,093	R60.8	R232	193
	December	R6,478	308	R-215	16	R6,800 R6,555	R4,245 R4,168	R62.4 63.6	240 243	R199
	Average	R6,453	R299	R-54	6 ·	R6,693	3,987	R59.6	. 243	205
1985	January	5,889	204	245	2	6,336	4,026	63.5	234	198
	February	5,900	347	. 277	2	6,521	4,048	62.1	234 227	190
	March	6,041	473	118	3	6.629	4,189	63.2	220	186
	April	6,322	475	145	11	6,931	4,377	63.1	217	182
	May	R6,533	R487	R25	8	R7.036	R4,422	62.8	R217	R181
	June†	6,741	402	-93	NA	7,045	NA	NA	217	184
	Average	6,240	398	118	NA	6,751	NA	NA		

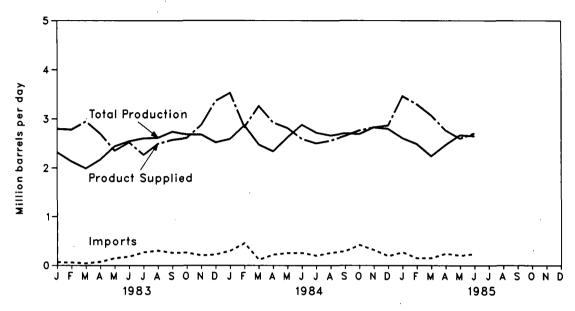
<sup>&</sup>lt;sup>1</sup>Stocks are totals as of end of period.
<sup>2</sup>Beginning in 1981, excludes blending components.
<sup>3</sup>A negative number indicates an increase in stocks and a positive number indicates a decrease.

Includes gasohol.

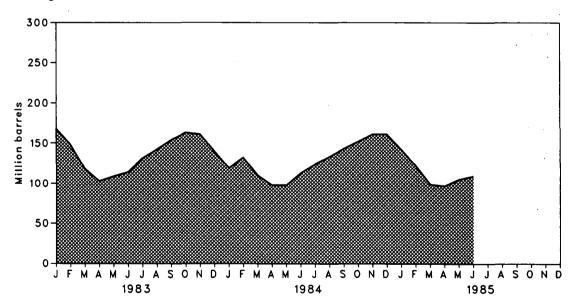
<sup>\*</sup>Includes gasohol.
\*Includes motor gasoline blending components.
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\*In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.
\*Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.
†Italics denote estimates based upon 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.
Sources: • See the last page of this section.

### Distillate Fuel Oil Supply and Disposition

### Product Supplied, Total Production, and Imports



### **Ending Stocks**



#### Distillate Fuel Oil Supply and Disposition

			Sup	ply		Dispo	sition	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 ba	arrels 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	4200	
1975	Average	2,654	155	440	2	1	2,851	209	
1976	Average	2,924	146	62	ī	i	3,133	186	
1977	Average	3,278	250	-176	i	1	3,352	250	
1978		3,167	173	93	i	3	3,432	216	
	Average	•			i		•		
1979	Average	3,153	193	-34	-	3	3,311	229	
1980	Average	2,662	142	64	1	3	2,866	1205	
1981	Average <sup>5</sup>	2,613	173	138	10	5	2,829	192	
1982	Average	2,606	93	35	10	74	2,671	179	
1983	January	2,321	68	<b>458</b> 0	NA	173	2,797	168	
	February	2,135	59	691	NA	105	2,780	148	
	March	1,993	42	971	NA	59	2,947	118	
	April	2,171	73	500	NA	47	2,697	103	
	May	2,444	147	-186	NA	50	2,354	109	
	June	2,546	179	-161	NA	40	2,524	114	
	July	2,604	267	-546	NA NA	55	2,270	131	
	August	2,615	301	-379	NA NA	43	2,495	142	
	September	2,739	259 260	-386 -276	NA NA	37 55	2,575	154	
	October November	2,681 2.680	203	-276 45	NA NA	55 54	2,611 2,874	163 161	
	December	2,522	203	676	NA NA	54 54	2,874 3,365	140	
	Average	2,456	174	124	NA	64	2,690	140	
1984	January	R2,591	R299	676	NA	40	R3.525	119	
	February	R2,867	R454	R-446	NA NA	41	R2.834	132	
	March	R2,479	115	R731	NA	66	R3,259	110	
	April	R2,342	220	R396	NA	32	R2,926	98	
	May	R2,624	R253	R-15	NA	48	R2,814	98	
	June	R2,880	R256	-490	NA	53	R2,593	113	
	July	R2,719	R199	R-373	NA	40	R2,504	R124	
	August	R2,661	R259	R-287	NA	74	R2,559	R133	
	September	R2,707	R291	R-321	NA	22	R2,654	143	
	October	R2,691	R421	R-300	NA	47	R2,765	152	
	November	R2,826	R316	R-291	NA	24	R2,827	161	
	December	R2,798	190	R-3	NA	120	R2,865	161	
	Average	R2,681	R272	-57	NA	51	R2,845		
1985	January	2,608	271	624	NA	41	3,462	142	
	February	2,491	148	724	NA	64	3,299	122	
	March	2,244	153	715	NA	44	3,069	99	
	April	2,474	244	75	NA	27	2,767	.97	
	May	R2,670	R203	R-243	NA	31	2,600	105	
	June† <b>Average</b>	<i>2,650</i> <b>2,523</b>	<i>237</i> 210	- <i>140</i> <b>289</b>	NA <b>NA</b>	NA <b>NA</b>	<i>2,709</i> <b>2,982</b>	109	
	AGIANG	2,323	210	205	ITA	MM	2,302		

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<sup>&</sup>lt;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. See Note 4 on the last page of this section.

this section.

In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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

Italics denote estimates based upon preliminary data. R = Revised data. NA = Not available.

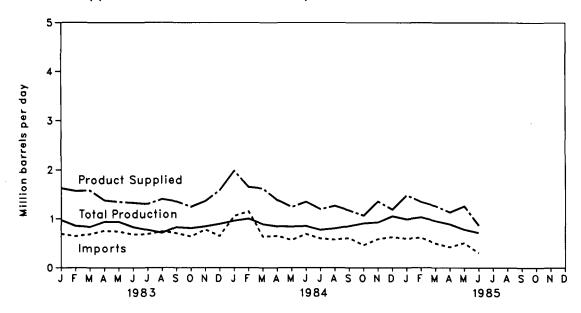
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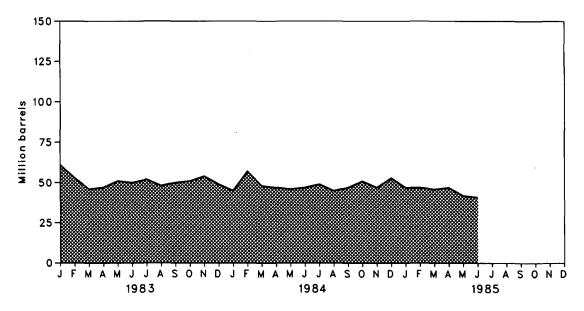
Sources: • See the last page of this section.

### Residual Fuel Oil Supply and Disposition

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



### **Ending Stocks**



#### Residual Fuel Oil Supply and Disposition

			Sup	pply		Dispo	sition	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 ba	rrels per day			Million barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	460
1975	Average	1,235	1,223	42	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	•	- <del>-</del>
1978	. •	1,667	1,355	-40 -1	13	-	3,071	90
	Average	•	•	•		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	192
1981	Average <sup>5</sup>	1,321	800	<b>437</b>	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	<b>166</b>
1983	January	972	691	1258	NA	294	1,626	61
	February	857	647	257	NA	191	1,570	53
	March	835	686	227	NA	169	1,579	46
	April	941	753	-10	NA	310	1,374	47
	Мау	936	738	-141	NA	190	1,342	51
	June	828	677	36	NA	218	1,323	50
	July	769	684	-64	NA	90	1,299	52
	August	. 710	739	115	NA	165	1,400	48
	September	826	706	-47	NA	134	1,351	50
	October	807	638	-50	NA ·	153	1,243	51
	November	845	780	-97	NA	167	1,362	54
	December	897	649	182	NA	141	1,587	49
	Average	852	699	55	NA	185	1,421	
1984	January	R961	R1,059	R110	NA	151	R1,979	45
	February	1,003	R1,151	R-416	NA	87	R1,651	R57
	March	R889	R636	R298	NA	204	R1,619	48
	April	R847	R651	R15	NA	130	R1,384	47
	May	R840	R565	R32	NA	200	R1,237	46
	June	R849	R685	R-15	NA	176	R1,344	47
	July	R770	R597	R-76	NA	99	R1,192	49
	August	R800	572	R149	NA	260	R1,261	45
	September	R850	R606	R-74	NA	214	R1,168	47
	October November	R907	461 D505	R-127	NA	174	R1,066	51
	December	R928	R585 627	R125	NA	286	R1,352	47
	Average	R1,053 <b>R891</b>	8681	-193 <b>R-12</b>	NA <b>NA</b>	299	R1,189	53
4005	•					190	R1,369	
1985	January	991	594	208	NA	312	1,481	47
	February	1,031	614	-7	NA	295	1,343	47
	March	954	496	22	NA	216	1,256	46
	April May	888 B780	422	-11 Dass	NA	167	1,133	47
	May	R780 <i>713</i>	R505	R156	NA NA	185	R1,255	42
	June† <b>Average</b>	713 <b>892</b>	<i>300</i> <b>488</b>	<i>48</i> 71	NA <b>NA</b>	NA <b>NA</b>	<i>861</i>	41
	Average	032	400	· / I	NÁ	NA	1,222	

<sup>&</sup>lt;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. See Note 4 on the last page of this

<sup>\*</sup>Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used ullectly. See Note 4 of the last page of this section.

\*In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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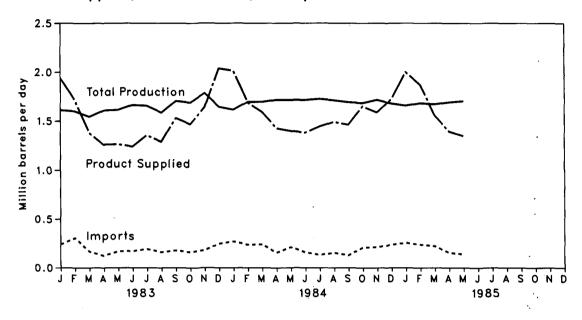
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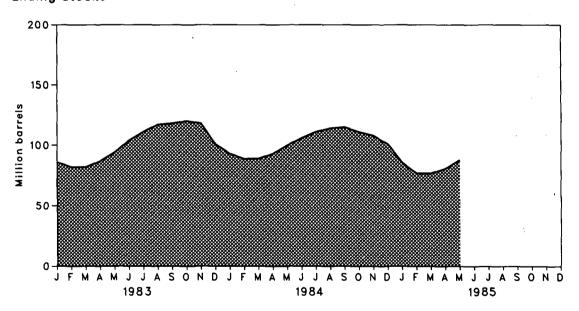
Sources: • See the last page of this section.

### Liquefied Petroleum Gases Supply and Disposition

### Product Supplied, Total Production, and Imports



### **Ending Stocks**



### Liquefied Petroleum Gases¹ Supply and Disposition

		Supply				1	Ending Stocks <sup>2</sup>	
		Total Production	Imports	Stock Withdrawai <sup>3</sup>	Refinery Inputs	Exports	Product Supplied	
				Thousand bar	rels 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	4113
1975	Average	1,527	112	4-35	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	<b>1110</b>
1981	Average	1,571	244	۰-18	289	42	1,466	
1982	Average	1,528	226	111	300	42 65	•	135
	•	•					1,499	<b>194</b>
1983	January	1,611	240	<b>4520</b>	313	118	1,939	86
	February	1,600	305	128	244	76	1,713	82
	March	1,543	166	-9 150	197	127	1,377	82
	April May	1,607 1.613	124 167	-156	198	116	1,260	87
	June	1,664	172	-225 -334	207	84 50	1,263	94
	July	1,656	191	-33 <del>4</del> -221	203 217	59 55	1,241	104
	August	1,586	160	-199	229	29	1,354 1,289	111
	September	1,705	178	-30	236	86	1,531	117 118
	October	1,688	160	-81	268	32	1,467	120
	November	1,785	180	70	362	33	1,640	118
	December	1,645	247	575	363	66	2,038	1101
	Average	1,642	190	4	253	73	1,509	
1984	January	R1.615	269	R•494	R340	23	R2.015	93
	February	R1,696	237	R122	R324	41	R1,690	89
	March	R1,696	241	12	R288	68	R1,593	89
	April	R1,716	155	R-139	253	54	R1,426	R93
	May	R1,714	211	R-240	244	42	R1,399	R100
	June	1,714	158	R-201	237	53	R1,380	106
	July	R1,725	132	R-139	232	43	R1,444	111
	August	R1,711	154	R-100	241	34	R1,490	R114
	September	R1,693	128	R-50	283	26	R1,462	115
	October	R1,684	207	R138	322	56	R1,650	111
	November	R1,716	212	R89	376	52	R1,588	108
	December	R1,679	237	R239	R349	82	R1,724	101
	Average	R1,697	195	19	291	48	R1,572	
1985	January	1,658	255	466	309	70	2,001	86
	February	1,682	237	338	313	72	1,872	77
	March	1,672	223	-13	270	52	1,560	77
	April	1,691	156	-115	260	78	1,394	81
	May	1,703	138	-217	235	40	1,349	88
	Average	1,681	201	- 88	277	62	1,632	

Ending

Includes ethane, propane, normal butane, and isobutane.

Stocks are totals as of end of period.

A negative number indicates an increase in stocks and a positive number indicates a decrease.

In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Note 5 on the last page of this section.

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.

Sources: • See the last page of this section.

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

		Supply				Ending Stocks <sup>2</sup>		
		Total Production	Imports	Stock Withdrawal³	Refinery Inputs	Exports	Product Supplied	
		•		Thousand bar	rels per day	•	,	Million barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	1218
1975	Average	3,424	277	4-2	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	•		210	-37 -23	311	209 198		
	Average	3,956					3,634	<b>1247</b>
1981	Average	3,739	226	:46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	1253
1983	January	3,194	322	<b>4-419</b>	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247 <sup>-</sup>	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479 <b>411</b>	361 <b>6</b>	883 <b>712</b>	257	2,823	<b>1</b> 256
	Average	3,460		-		242	2,923	
1984	January	R3,376	R517	R•-163	R570	207	R2,953	253
	February	R3,595	R602	R-250	R754	225	R2,966	261
	March	R3,512	R485	R-227	R527	258	R2,988	268
	April	3,584	R610	R-211	R623	268	R3,092	274
	May	3,683	R662	R-105	R764	257	R3,218	277
	June July	R3,869 R3,864	R541 R587	R391 R277	R1,232 R1,022	343 238	R3,223	265 267
	August	R3,848	R569	R41	R637	236 172	R3,467 R3,650	257 256
	September	R3,759	R536	R-50	R699	238	R3,308	R257
	October	R3,585	632	R10	R709	180	3,336	257
	November	R3,532	R606	R81	R945	R279	R2,997	R254
	December	R3,379	R434	464	R1,016	284	R2,977	240
	Average	R3,632	R565	R23	R791	R245	R3,183	240
1985	January	3,258	352	-102	494	223	2.792	243
.500	February	3,385	449	-99	658	204	2,874	246
	March	3,436	536	-415	627	190	2,739	259
	April	3,570	553	-49	776	245	3,054	260
	May	3,677	661	-106	883	191	3,158	264
	Average	3,466	511	-156	688	211	2,924	

Includes pentanes plus, other hydrocarbons and alcohol, unfinished oil, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Stocks are totals as of end of period.

A negative number indicates an increase in stocks and a positive number indicates a decrease.

In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Note 5 on the last page of this section.

Net See Note 5 of the last page of this section.

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.

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 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 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 sealing (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. Begin-ning 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*.
- 5. New Stock Basis: In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and

pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982—645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974—1,121; 1980— 1,420; and 1982-1,462.
- Motor Gasoline: 1974-225; 1980-263; 1982-244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974—224; 1980—205; and 1982—
- Residual Fuel Oil: 1974—75; 1980—91; and 1982—68.
- Liquefied Petroleum Gases: 1974-113;1980-128; and 1982 - 103
- Other Petroleum Products: 1974—220; 1980—249; and 1982-259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983, were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the 'Liquefied Petroleum Gases Supply and Disposition" table. This change will affect stocks reported and stock withdrawals in each table. Under new basis, end-of-year 1983 stocks, in million barrels would have been:

- Liquefied Petroleum Gases: 1983—108.
  Other Petroleum Products: 1983—248.
- 6. Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

#### Sources

- 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
- 1977 through 1980: Energy Information Administration (EIA), Energy Data Reports, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual" and unleaded gasoline data from Monthly Petroleum Statistics Report.
- January 1981 through December 1984: EIA, Petroleum Supply Annual.
- January 1985 through May 1985: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- June 1985: Estimates based on EIA weekly data (except
- domestic crude oil production).

   January 1985 through June 1985: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

Total dry natural gas production in the United States during May 1985 was an estimated 1.4 trillion cubic feet, only slightly higher than the production in May 1984.

Consumption of natural and supplemental gas in May 1985 was an estimated 1.2 trillion cubic feet, 2.2 percent lower than the consumption in May 1984.

Deliveries to industrial consumers, the principal end users of natural gas, during April 1985 (latest data available) were an estimated 385 billion cubic feet, 6.1 percent higher than in April 1984.

Imports of natural gas in May 1985 were an estimated 73 billion cubic feet, 10.6 percent higher than in the previous May. Receipts of foreign gas during May 1985 included Algerian liquéfied natural gas (LNG) equivalent to approximately 2 billion cubic feet.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of May 1985 totaled 2,131 billion cubic feet. This was 15.6 percent above stocks available a year earlier. Net injections into storage during May 1985 were 274 billion cubic feet, 20.7 percent higher than during the previous May.

Natural Ga

<sup>\*</sup>Gas available for withdrawal.

#### **Production Summary**

		Gross Wet Gas Withdrawals <sup>1</sup>	Used for Repressuring <sup>2</sup>	Nonhydro- carbon Gas Removed³	Vented and Flared	Marketed Production (Wet) <sup>4</sup>	Extraction Loss	Total Dry Gas Production⁵
,				. 6	Billion cubic fe	et	. )	
1973	Total	24,067	1,171	, NA	248	°22,648	917	°21,731
1974	Total	22,850	1,080	NA	169	<sup>6</sup> 21,601	887	°20,713
1975	Total	21,104	861	NA	134	°20,109	872	°19,236
1976	Total	20,944	859	NA NA	132	°19,952	854	°19,098
1977	Total	21,097	935	NA NA	137	10,032	863	*19,163
1978	Totai	21,309	1,181	NA NA	153	°19,974	852	419,122
		-	•	-		•	808	•
1979	Total	21,883	1,245	NA 100	167	°20,471		°19,663
1980	Total	21,870	1,365	199	125	20,180	777	19,403
1981	Total	21,587	1,312	222	98	19,956	775	19,181
1982	Total	20,210	1,388	208	93	18,520	762	17,758
1983	January '	1.688	125	20	7	1,536	72	1,464
	February	1,488	111	17	7	1,353	64	1,289
	March	1,552	125	18	8	1,401	66	1,335
	April	1,470	123	16	8	1,323	62	1,261
	May	1,467	114	17	9.	1,328	62	1,266
	June .	1,415	121	· 19	7	1,268	60	1,208
	.July	1,502	128	18	8	1,348	63	1,285
	'August	1,555	127	20	8	1,400	66	1,334
	September	1,514	123	19	8	1,364	64	1,300
	October	1,591	125	18	8 ·	1,440	68	1,372
	November	1,602	117	19	9	1,457	68	1,389
	December :	1,753	119	: 21	8	1,605	₹ 75	1,530
	Total	18,597	1,458	222	95	16,822	790	16,033
1984	January	1,858	119	22	7	1,709	. 80	1,629
	February	1,621	115	19	6	1,481	· 70	1,411
	March	1,666	112	21	7	1,526	. 72	1,454
	April	1,642	120	19	7	1,495	70	1,425
	May	1,644	127	20	7	1,490	70	1,420
	June	1,593	124	20	8	1,442	68	1,374
	July	1,649	126	19	8	1,496	. 70	1,426
	August	1,628	127	19	8	1,475	69	1,406
	September	1,547	121	15	7	1,403	66	1,337
	October	1,634	128	18	7	R1,480	70	R1,410
	November	R1,626	124	16	8	R1,477	69 75	R1,408
	December	R1,764	131	21	7	R1,606	75	R1,531
	Total	R19,872	1,474	229	87	R18,082	849	R17,231
1985	January	R1,777	R124	20	R7	R1,626	R76	R1,550
	February	R1,614	R122	18	R6	R1,468	_69	R1,399
	March	R1,661	R137	19	R6	R1,500	R71	R1,429
	April	R1,628	R123	R18	R6	R1,481	R70	R1,411
	May	1,652	125	19	6	1,502	71	1,431
	Year to Date	8,332	631	94	31	7,577	357	7,220

¹Gas withdrawn from gas and oil wells.
²Gas returned to formations for repressuring, pressure maintenance, and cycling.
³For definitions and further explanations, see Notes on the last two pages of this section.
⁴Equal to gross withdrawals minus volumes used for repressuring, volumes of nonhydrocarbon gases removed, and volumes vented and flared. See Note 2 on the last two pages of this section for further explanation.
⁵Equal to marketed production (wet) minus extraction loss.
⁴May include unknown quantities of nonhydrocarbon gases.
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.
• Italics denote estimated data. Data for 1973 through 1983 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

#### Supply and Disposition of Natural Gas

				Disposition						
		Total Dry Gas Production	With- drawals from Storage <sup>1</sup>	Supple- mental Gaseous Fuels <sup>2</sup>	Imports <sup>2</sup>	Total Supply/ Disposition <sup>3</sup>	Additions to Storage <sup>1</sup>	Exports <sup>2</sup>	Consump- tion <sup>2</sup>	Un- accounted for <sup>s</sup>
					E	Billion cubic fee	t			
1973	Total	121,731	1,533	NA -	1,033	24,297	1,974	77	22,049	196
1974	Total	120,713	1,701	NA	959	23,373	1.784	77	21,223	289
1975	Total	119,236	1,760	NA	953	21,949	2,104	73	19,538	235
1976	Total	119,098	1,921	NA	964	21,983	1,756	65	•	
1977	Total	19,163	1,750	NA	1.011	21,924	•	56	19,946	216
1978	Total	19,122	2,158	NA NA		•	2,307		19,521	41
1979	Total	•			966	22,245	2,278	53	19,627	287
		119,663	2,047	NA	1,253	22,964	2,295	56	20,241	372
1980	Total	19,403	1,972	155	985	22,515	1,949	49	19,877	640
1981	Total	19,181	1,930	176	904	22,191	2,228	59	19,404	501
1982	Total	17,758	2,164	145	933	21,000	2,472	52	18,001	475
1983	January	1,464	474	15	112	2,065	- 26	5	1.975	59
	February	1,289	341	13	95	1,738	39	5	1,642	52
	March	1,335	280	12	86	1,713	63	5	1,591	54
	April	1,261	171	11	74	1,517	88	5	1,373	51
	May	1,266	43	9	61	1,379	205	5	1,118	51
	June	1,208	23	8	59	1,298	273	3	974	48
	July	1,285	26	8	58	1,377	287	5	1,034	51
	August	1,334	37	9	56	1,436	265	6	1,112	53
	September	1,300	28	9	67	1,404	277	4	1,071	52
	October	1,372	42	10	64	1,488	183	4	1,246	55
	November	1,389	169	12	80	1,650	86	5	1,503	56
	December	1,530	634	17	107	2,288	31	5	2,191	61
	Total	16,033	2,270	132	920	19,354	1,822	55	16,835	<b>5642</b>
1984	January	1,629	563	17	R97	R2,306	54	R5	R2,219	R28
	February	1,411	300	13	R69	R1,793	62	R5	R1,702	R24
	March	1,454	359	14	69	1,896	50	R6	R1,815	R25
	April	1,425	99	11	R71	R1,606	145	5	R1,432	R24
	May	1,420	30	10	R66	R1,526	258	R5	R1,239	R24
	June	1,374	26	9	R59	R1,468	325	R3	R1,116	R24
	July	1,426	28	9	R55	R1,518	341	5	R1,148	R24
	August	1,406	30	9	R54	R1,499	313	5	R1,157	R24
	September October	1,337	30	9	R57	R1,433	287	5	R1,118	R23
		R1,410	55	10	R67	R1,542	244	R5	R1,269	R24
	November December	R1,408	221	12	R84	1,725	82	R5	R1,614	R24
		R1,531	R302	14	94	R1,941	R94	R5	R1,816	R26
	Total	R17,231	R2,042	137	R843	R20,253	R2,255	55	R17,645	R294
1985	January	R1,550	R658	17	104	R2,329	R35	5	R2,262	R27
	February	R1,399	R438	14	R98	R1,949	R49	4	R1,872	R24
	March	R1,429	R208	R12	R89	R1,738	R93	4	R1,617	R24
	April	R1,411	R99	R14	R75	R1,596	R211	5	R1,356	R24
	May	1,431	18	12	73	1,534	293	5	1,212	24
	Year to Date	7,220	1,421	66	439	9,146	683	23	8,317	123

<sup>&</sup>lt;sup>1</sup>Monthly and annual data for 1980 through 1983 include underground storage and liquefied natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 on the last two pages of this section.

<sup>2</sup>For definitions and further explanations, see Notes on the last two pages of this section.

<sup>3</sup>Data for 1978 through 1982 do not include intransit receipts and deliveries.

<sup>4</sup>May include unknown quantities of nonhydrocarbon gases.

<sup>5</sup>See Note 7 on the last two pages of this section.

R=Revised data. NA=Not available.

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

Notes: • Geographic coverage is the 50 States and the District of Columbia.
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#### Natural Gas¹ Consumption

#### **Delivered to Consumers**

		Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial <sup>2</sup>	Industrial	Electric Utilities	· Total	Total Consumption
					Billion	cubic feet			
1973	Total	1,496	728	4,879	2.597	8,689	3.660	19,825	22.049
1974	Total	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223
1975	Total	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538
1976	Total	1,634	548	5,051	2,668	6,964	3,081	17,764	19,946
1977	Total	1,659	533	4,821	2,501	6,815	3,191	•	•
1978	Total	1,648	530	4,903	2,601	6,757		17,329	19,521
1979	Total	1,499		•	•	•	3,188	17,449	19,627
		,	601	4,965	2,786	6,899	3,491	18,141	20,241
1980	Total	1,026	635	4,752	2,611	7,172	3,682	18,216	19,877
1981	Total	928	642	4,546	2,520	7,128	3,640	17,834	19,404
1982	Total	1,109	596	4,633	2,606	5,831	3,226	16,295	18,001
1983	January	89	57	R718	R366	R537	208	1,829	1,975
	February	79	48	R694	R360	R284	177	1,515	1,642
	March	81	46	R541	R285	R430	208	1,464	1,591
	April	77	40	R464	R241	R348	203	1,256	1,373
	Мау	77	33	R277	R151	R362	218	1,008	1,118
	June	. 74	28	R181	R110	R333	248	872	974
	July	. 78	30	R134	R100	R378	314	926	1,034
	August	81	32	R123	R103	R421	352	999	1,112
	September	79	31	R128	R105	R429	299	961	1,071
	October	84	36	R179	R119	R577	251	1,126	1,246
	November	85	44	R330	R185	R645	214	1,374	1,503
	December	93	64	R612	R308	R896	218	2,034	2,191
	Total	978	490	4,381	2,433	5,643	2,911	15,367	16,835
1984	January	99	R65	R902	R440	R498	215	R2,055	R2,219
	February	86	R50	R714	R357	R308	187	R1,566	R1,702
	March	89	R53	R618	R314	R535	206	R1,673	R1,815
	April	87	R42	R474	R246	R363	220	R1,303	, R1,432
	May	87	36	R293	R163	R395	R265	R1,116	R1,239
	June	84	32	R174	R111	R417	R298	R1,000	R1,116
	July	87	33	R131	R99	R449	349	R1,028	R1,148
	August	86	R34	R120	R100	R467	350	R1,037	R1,157
	September October	82 86	R33	R129	R104	R479	291	R1,003	R1,118
	November	86	37 47	R186 R329	R131	R559	270	R1,146	R1,269
	December	R93	R53	R577	R197 R299	R710 R577	245	R1,481	R1,614
	Total	R1,052	R515	R4,647	R2,559	R5,757	217 <b>R3,111</b>	R1,670	R1,816
				•			•	R16,078	R17,645
1985	January	R94	66	R748	R374	R755	225	R2,102	R2,262
	February	85 507	54	R843	R411	R278	201	R1,733	R1,872
	March	R87	R47	R573	R293	R411	206	:R1,483	R1,617
	April	86	39	405	208	385	233	1,231	1,356
	Year to Date	352	206	2,569	1,286	1,827	865	6,547	7,105

Revisions to the monthly residential and commercial consumption series since January 1983 reflect data now being collected on Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers." Since the monthly total consumption series for 1983 did not change, the monthly industrial series was adjusted so that the sums of the sectors would equal the totals.

Includes supplemental gaseous fuels.

Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.

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.

• Data for 1973 through December 1983 are final. All other data are preliminary unless otherwise indicated. Sources: • See the last page of this section.

# **Underground Natural Gas Storage—All Operators**

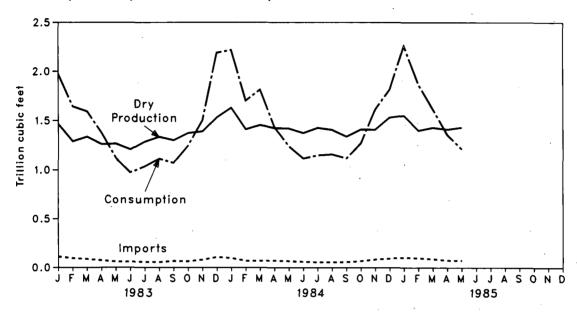
			Natural Gas in Underground Storage at End of Period		from Sar	Change in Working Gas from Same Period Previous Year		Storage Activity		
1973   Total   2,864   2,034   4,898   305   17.6   1,974   1,533   441     1974   Total   2,912   2,050   4,962   16   0.8   1,784   1,701   83     1975   Total   3,162   2,212   5,374   162   7.9   2,104   1,760   344     1976   Total   3,323   1,926   5,250   -286   -12.9   1,756   1,921   -165     1977   Total   3,391   2,475   5,866   549   26.5   2,307   1,750   557     1978   Total   3,473   2,547   6,020   72   2.9   2,278   2,158   120     1979   Total   3,553   2,753   6,006   207   8.1   2,295   2,047   248     1980   Total   3,552   2,817   6,559   162   6.1   2,180   1,897   293     1982   Total   3,752   2,817   6,559   162   6.1   2,180   1,897   293     1982   Total   3,808   3,071   6,879   255   9.0   2,399   2,094   306     1983   January   3,811   2,356   6,167   569   31.9   36   325   -289     March   3,818   2,074   5,893   398   23.8   82   160   -78     May   3,818   2,222   6,041   188   9.3   191   40   151     June   3,819   2,454   6,272   85   3,6   255   22   234     July   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,824   1,876   5,704   -480   -20.4   62   300   -238     March   3,826   1,876   5,704   -480   -20.4   62   300   -238     March   3,826   1,876   5,704   -480   -20.4   62   300   -238     March   3,822   1,876   5,704   -480   -20.4   62   300   -238     March   3,829			Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net <sup>2</sup>
1974 Total 2,912 2,050 4,982 16 0.8 1,784 1,701 83 1975 Total 3,162 2,212 5,374 162 7.9 2,104 1,760 344 1976 Total 3,323 1,926 5,250 286 -12.9 1,756 1,921 -165 1977 Total 3,331 2,475 5,866 549 28.5 2,307 1,750 557 1978 Total 3,473 2,547 6,020 72 2.9 2,278 2,158 120 1979 Total 3,473 2,547 6,020 72 2.9 2,278 2,158 120 1979 Total 3,553 2,753 6,306 207 8.1 2,295 2,047 248 1980 Total 3,642 2,655 6,297 -99 -3.6 1,896 1,910 -14 1981 Total 3,752 2,817 6,569 162 6.1 2,180 1,887 293 1982 Total 3,808 3,071 6,879 255 9.0 2,399 2,094 306 1983 January 3,813 2,644 6,457 462 21.2 24 449 -424 February 3,811 2,356 6,167 569 31.9 36 325 -289 March 3,812 2,148 5,959 544 33.9 59 266 -207 April 3,816 2,074 5,893 398 23.8 82 160 -78 May 3,818 2,222 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3,6 255 22 234 August 3,823 2,908 6,732 -89 -3.0 247 35 212 September 3,847 2,595 6,442 476 155 29 597 -567 Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 480 -20.4 62 300 -238 April 3,829 2,1860 5,593 -544 -41 80 158 -78 December 3,847 2,595 6,442 476 -155 29 597 -567 Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 480 -20.4 62 300 -238 April 3,829 2,1860 5,442 476 -155 29 597 -567 Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 480 -20.4 62 300 -238 April 3,829 2,1860 5,442 454 -21.9 145 99 46 May 3,829 1,876 5,704 480 -20.4 62 300 -238 April 3,829 2,1860 5,442 454 -21.9 145 99 46 May 3,829 2,1860 5,442 454 -21.9 145 99 46 May 3,829 2,1860 5,442 454 -21.9 145 99 46 May 3,829 2,1860 5,442 454 -21.9 145 99 46 November 83,801 R3,707 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,707 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0 62 221 -139 December R3,801 R3,607 R6,918 R-158 R-5.0					Volumes in	billion cubic fee	t			
1974   Total   2,912   2,050   4,982   16   0.8   1,784   1,701   83   1976   Total   3,182   2,212   5,374   162   7.9   2,104   1,760   344   1976   Total   3,323   1,926   5,250   -286   -12.9   1,756   1,921   -165   1977   Total   3,331   2,475   5,866   549   28.5   2,307   1,750   557   1978   Total   3,473   2,547   6,020   72   2.9   2,278   2,158   120   1979   Total   3,553   2,753   6,306   207   8.1   2,295   2,047   248   1980   Total   3,642   2,655   6,297   -99   -3.6   1,896   1,910   -14   1981   Total   3,642   2,655   6,297   -99   -3.6   1,896   1,910   -14   1981   Total   3,752   2,817   6,689   162   6.1   2,180   1,887   293   1982   Total   3,808   3,071   6,879   255   9.0   2,399   2,094   306   1983   January   3,813   2,644   6,457   462   21.2   24   449   -424   449   4424   449   444   440   4	1973	Total	2,864	2,034	4,898	305	17.6	1,974	1.533	441
1975	1974	Total	2,912	2,050	4.962	16				
1976   Total   3,323   1,926   5,250   -286   -12.9   1,756   1,921   -165   1977   Total   3,391   2,475   5,866   549   28.5   2,307   1,750   557   1978   Total   3,473   2,547   6,020   72   2.9   2,278   2,158   120   1979   Total   3,553   2,753   6,306   207   8.1   2,295   2,047   248   1980   Total   3,642   2,655   6,297   -99   -3,6   1,896   1,910   -14   1981   Total   3,752   2,817   6,569   162   6.1   2,180   1,887   293   1982   Total   3,808   3,071   6,879   255   9,0   2,999   2,094   306   1983   January   3,811   2,356   6,167   569   31.9   36   325   -289   March   3,812   2,148   5,959   544   33.9   59   266   -207   April   3,818   2,222   6,041   188   9,3   191   40   151   June   3,818   2,222   6,041   188   9,3   191   40   151   June   3,819   2,454   6,272   85   3,6   255   22   234   August   3,823   3,141   6,964   -110   -3,4   2,58   2,66   232   Cotober   3,823   3,141   6,964   -110   -3,4   2,58   2,60   2,29   5,704   -442	1975	Total	•		•				•	
1977   Total   3,391   2,475   5,866   549   28.5   2,307   1,750   557   1978   Total   3,473   2,547   6,020   72   2.9   2,278   2,158   120   1979   Total   3,553   2,753   6,306   207   8.1   2,295   2,047   248   1980   Total   3,642   2,655   6,297   -99   -3.6   1,886   1,910   -14   1981   Total   3,752   2,817   6,569   162   6.1   2,180   1,887   293   1982   Total   3,808   3,071   6,879   255   9.0   2,399   2,094   306   1983   January   3,813   2,644   6,457   462   21.2   24   449   -424   February   3,811   2,356   6,167   569   31.9   36   325   -289   325   -289   336   -240   -248   -2	1976	Total	•					•	•	
1978 Total 3,473 2,547 6,020 72 2.9 2,278 2,158 120 1979 Total 3,553 2,753 6,306 207 8.1 2,295 2,047 248 1980 Total 3,553 2,753 6,306 207 8.1 2,295 2,047 248 1980 Total 3,542 2,655 6,297 -99 -3.6 1,896 1,910 -14 1981 Total 3,752 2,817 6,569 162 6.1 2,180 1,887 293 1982 Total 3,808 3,071 6,879 255 9.0 2,399 2,094 306 1983 January 3,813 2,644 6,457 569 31.9 36 325 -289 February 3,811 2,356 6,167 569 31.9 36 325 -289 March 3,812 2,148 5,959 544 33.9 59 266 -207 April 3,818 2,074 5,893 398 23.8 82 160 78 May 3,818 2,222 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3.6 255 22 234 July 3,826 2,696 6,522 -8 3.3 268 25 243 August 3,823 2,908 6,522 -8 3.3 268 25 243 August 3,823 2,908 6,522 -8 3.3 268 25 243 August 3,823 2,908 6,732 -89 -3.0 247 35 212 September 3,823 3,141 6,964 -110 -3.4 258 26 232 October 3,825 3,270 7,095 -94 -2.8 171 40 131 November 3,841 3,175 7,015 -134 4.1 80 158 78 December 3,847 2,595 6,442 -476 -15.5 29 597 -567 Total  1984 January 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 May 3,829 2,456 6,285 -240 -8.9 341 28 39 39 39 39 30 283 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -169 -5.8 313 30 283 September 3,829 2,799 6,588 -144 -4.6 267 30 257 October 3,837 3,177 7,014 -92 -2.8 244 -4.5 5 899 March	1977	Total		•	•					
1979 Total 3,553 2,753 6,306 207 8.1 2,295 2,047 248 1980 Total 3,642 2,655 6,297 -99 -3.6 1,896 1,910 -14 1981 Total 3,642 2,655 6,297 -99 -3.6 1,896 1,910 -14 1981 Total 3,752 2,817 6,569 162 6.1 2,180 1,887 293 1982 Total 3,808 3,071 6,879 255 9.0 2,399 2,094 306 1983 January 3,813 2,644 6,457 462 21.2 24 449 -424 February 3,811 2,356 6,167 569 31.9 36 325 -2289 March 3,812 2,148 5,959 544 33.9 59 266 -207 April 3,818 2,074 5,893 398 23.8 82 1160 -78 May 3,818 2,022 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3.6 255 22 234 July 3,823 2,908 6,732 -89 -3.0 247 35 212 September 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 6,964 -1110 -3.4 258 26 26 232 October 3,823 3,141 5,969 -133 -4.1 80 158 -78 Docember 3,841 3,175 7,015 -134 -4.1 80 158 -78 Docember 3,841 3,175 7,015 -134 -4.1 80 158 -78 Docember 3,847 2,595 6,442 -456 -15.5 29 597 -567 Total 1940 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,822 1,620 5,442 -454 2,19 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,799 6,688 5 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92										
Total 3,642 2,555 6,297 -99 -3.6 1,896 1,910 -14 1981 Total 3,752 2,817 6,569 162 6.1 2,180 1,887 293 1982 Total 3,808 3,071 6,879 255 9.0 2,399 2,094 306 1983 January 3,813 2,644 6,457 462 21.2 24 449 -424 February 3,811 2,356 6,167 559 31.9 36 325 -289 March 3,812 2,148 5,959 544 33.9 59 266 -207 April 3,818 2,074 5,893 398 23.8 82 160 -78 May 3,818 2,222 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3.6 255 22 234 July 3,826 2,696 6,522 -8 -0.3 268 25 22 34 July 3,826 2,696 6,522 -8 -0.3 268 25 243 August 3,823 3,141 6,964 -110 -3.4 258 26 232 October 3,825 3,270 7,095 -94 -2.8 171 40 131 November 3,841 3,175 7,015 -134 -4.1 80 158 -78 December 3,847 2,595 6,442 -476 -15.5 29 597 -567 Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,822 1,660 5,442 -445 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,823 3,177 7,015 -134 -4.1 80 158 -78 December 3,847 1,572 5,396 -575 -26.8 50 359 -308 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,829 2,456 6,265 -575 -26.8 50 359 -308 March 3,829 2,456 6,265 -240 -8.9 341 28 313 August 3,829 2,456 6,265 -240 -8.9 341 28 313 August 3,829 2,456 6,265 -240 -8.9 341 28 313 August 3,829 2,456 6,265 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November 83,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R95 R658 R-623 February 3,842 R1,856 R5,698 R-20 R1.1 R49 R438 -389 March 3,884 R1,866 R5,698 R-20 R1.1 R49 R438 -389 March 3,884 R1,866 R5,698 R-20 R1.1 R49 R438 -389 March 3,886 R5,508 R242 R44,9 R211 R99 R438 -389				•					•	
1981 Total 3,752 2,817 6,569 162 6.1 2,180 1,887 293 1982 Total 3,808 3,071 6,879 255 9.0 2,399 2,094 306 1983 January 3,813 2,644 6,457 462 21.2 24 449 4.24 February 3,811 2,356 6,167 569 31.9 36 325 2,289 March 3,812 2,148 5,959 544 33.9 59 266 2,007 April 3,818 2,074 5,893 398 23.8 82 160 7.8 May 3,818 2,074 5,893 398 23.8 82 160 7.8 May 3,818 2,222 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3.6 255 22 234 July 3,826 2,696 6,522 8-8 0.3 268 25 22 34 August 3,823 2,908 6,732 8-9 -3.0 247 35 212 September 3,823 2,908 6,732 8-9 -3.0 247 35 212 September 3,823 3,141 6,964 -110 -3.4 258 26 232 October 3,825 3,270 7,095 94 -2.8 171 40 131 November 3,841 3,175 7,015 -134 -4.1 80 158 78 December 3,847 2,595 6,442 -476 -15.5 29 597 -567 Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,822 1,620 5,442 -454 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 29 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,2456 6,285 -240 -8.9 341 28 313 August 3,829 2,2456 6,285 -240 -8.9 341 28 313 August 3,829 2,2456 6,285 -240 -8.9 341 28 313 November 3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 February 3,842 R2,878 R6,087 R154 R7.4 R35 R658 R-23 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R2,875 R6,087 R154 R7.4 R35 R658 R-823 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116			·='	•	•			•	•	
1982   Total   3,808   3,071   6,879   255   9.0   2,399   2,094   306   1983   3   3   2,644   6,457   462   21.2   24   449   4.24   4.24   4.25   4.25   6,167   569   31.9   36   325   2.289   4.25   3.39   59   266   207   4.26   4.26   4.26   4.27			•	•	•			•		
1983   January   3,813   2,644   6,457   462   21.2   24   449   4.424			•							
February 3,811 2,356 6,167 569 31.9 36 325 -289 March 3,812 2,148 5,959 544 33.9 59 266 -207 April 3,818 2,074 5,893 398 23.8 82 160 -78 May 3,818 2,222 6,041 188 9.3 191 40 151 June 3,819 2,454 6,272 85 3.6 255 22 234 July 3,826 2,696 6,522 -8 -0.3 268 25 243 August 3,823 2,908 6,732 -89 -3.0 247 35 212 September 3,823 3,141 6,964 -110 -3.4 258 26 232 October 3,825 3,270 7,095 -94 -2.8 171 40 131 November 3,841 3,175 7,015 -134 -4.1 80 158 -78 December 3,847 2,595 6,442 -476 -15.5 29 597 -567 Total  1984 January 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,828 2,141 5,969 -313 -12.7 325 26 29 July 3,828 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,823 7,77 7,014 -92 -2.8 244 55 189 November 3,841 7,77 7,014 -92 -2.8 244 55 189 November 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November 83,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December 83,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total	1982	lotai	3,808	3,071	6,879	255	9.0	2,399	2,094	306
March         3,812         2,148         5,959         544         33.9         59         266         -207           April         3,818         2,074         5,9893         398         23.8         82         160         -78           May         3,818         2,222         6,041         188         9.3         191         40         151           June         3,819         2,454         6,272         85         3.6         255         22         234           July         3,823         2,908         6,732         -89         -3.0         247         35         212           September         3,823         3,141         6,964         -110         -3.4         258         26         232           October         3,825         3,270         7,095         -94         -2.8         171         40         131           November         3,847         2,595         6,442         -476         -15.5         29         597         -567           Total         January         3,847         2,091         5,937         -553         -20.9         54         563         -509           February         3,828	1983	January	3,813	2,644	6,457	462	21.2	24	449	-424
April 3,818 2,074 5,893 398 23.8 82 160 78   May 3,818 2,222 6,041 188 9.3 191 40 151   June 3,819 2,454 6,272 85 3.6 255 22 234   July 3,826 2,696 6,522 -8 -0.3 268 25 243   August 3,823 2,908 6,732 -89 -3.0 247 35 212   September 3,823 3,141 6,964 -110 3.4 258 26 232   October 3,825 3,270 7,095 -94 -2.8 171 40 131   November 3,841 3,175 7,015 -134 -4.1 80 158 -78   December 3,847 2,595 6,442 -456 -15.5 29 597 -567   Total 1,700 2,142 -442    1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509   February 3,828 1,876 5,704 -480 -20.4 62 300 -238   March 3,824 1,572 5,396 -575 -26.8 50 359 -308   April 3,822 1,620 5,442 -454 -21.9 145 99 46   May 3,827 1,843 5,670 -379 -17.1 258 30 227   June 3,828 2,141 5,969 -313 -12.7 325 26 299   July 3,829 2,456 6,285 -240 -8.9 341 28 313   August 3,829 2,456 6,285 -240 -8.9 341 28 313   August 3,829 2,739 6,588 -169 -5.8 313 30 283   September 3,829 2,996 6,625 -144 -4.6 287 30 257   October 3,837 3,177 7,014 -92 -2.8 244 55 189   November R3,801 R3,017 R6,918 R-158 R-5.0 82 221 -139   December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208   Total R2,878 R6,710 R283 R10.9 R94 R302 R-208   February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389   April 3,831 1,862 5,693 242 14.9 R211 R99 112		February	3,811	2,356	6,167	569	31.9	36	325	-289
May         3,818         2,222         6,041         188         9.3         191         40         151           June         3,819         2,454         6,272         85         3.6         255         22         234           July         3,826         2,696         6,522         -8         -0.3         268         25         243           August         3,823         2,908         6,732         -89         -3.0         247         35         212         September         3,823         3,141         6,964         -110         -3.4         258         26         232         October         3,825         3,270         7,095         -94         -2.8         171         40         131         November         3,841         3,175         7,015         -134         -4.1         80         158         -78           December         3,847         2,595         6,442         -476         -15.5         29         597         -567         -57         157         -15.5         29         597         -567         -75         -75         -26.8         50         359         -308         -89         -30         -299         -46         -442 <t< td=""><td></td><td></td><td></td><td>2,148</td><td>5,959</td><td>544</td><td>33.9</td><td>59</td><td>266</td><td>-207</td></t<>				2,148	5,959	544	33.9	59	266	-207
June   3,819   2,454   6,272   85   3.6   255   22   234     July   3,826   2,696   6,522   -8   -0.3   268   25   243     August   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   3,141   6,964   -110   -3.4   258   26   232     October   3,825   3,270   7,095   -94   -2.8   171   40   131     November   3,841   3,175   7,015   -134   -4.1   80   158   -78     December   3,847   2,595   6,442   -476   -15.5   29   597   -567     Total		•			5,893	398	23.8	82	160	-78
July   3,826   2,696   6,522   -8   -0.3   268   25   243     August   3,823   2,908   6,732   -89   -3.0   247   35   212     September   3,823   3,141   6,964   -110   -3.4   258   26   232     October   3,825   3,270   7,095   -94   -2.8   171   40   131     November   3,841   3,175   7,015   -134   -4.1   80   158   -78     December   3,847   2,595   6,442   -476   -15.5   29   597   -567     Total					•		9.3	191	40	151
August 3,823 2,908 6,732 -89 -3.0 247 35 212 September 3,823 3,141 6,964 -110 -3.4 258 26 232 October 3,825 3,270 7,095 -94 -2.8 171 40 131 November 3,841 3,175 7,015 -134 -4.1 80 158 -78 December 3,847 2,595 6,442 -476 -15.5 29 597 -567  Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 -509 February 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,822 1,620 5,442 -454 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,799 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -1116 April 3,831 1,862 5,693 242 14.9 R211 R99 112			•	_,	•			255	22	234
September   3,823   3,141   6,964   -110   -3.4   258   26   232     October   3,825   3,270   7,095   -94   -2.8   171   40   131     November   3,841   3,175   7,015   -134   -4.1   80   158   7.8     December   3,847   2,595   6,442   -476   -15.5   29   597   -567     Total		•		•		_				
October         3,825         3,270         7,095         -94         -2.8         171         40         131           November         3,841         3,175         7,015         -134         -4.1         80         158         -78           December         3,847         2,595         6,442         -476         -15.5         29         597         -567           Total           1984         January         3,847         2,091         5,937         -553         -20.9         54         563         -509           February         3,828         1,876         5,704         -480         -20.4         62         300         -238           March         3,824         1,572         5,396         -575         -26.8         50         359         -308           April         3,822         1,620         5,442         -454         -21.9         145         99         46           May         3,828         2,141         5,969         -313         -12.7         258         30         227           June         3,828         2,241         5,969         -313         -12.7         258         30         227										
November   3,841   3,175   7,015   -134   -4.1   80   158   -78		•	•							
December   3,847   2,595   6,442   -476   -15.5   29   597   -567     Total						Ŧ.				
Total  1984 January 3,847 2,091 5,937 -553 -20.9 54 563 .509 February 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,822 1,620 5,442 -454 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112			•	•						
1984   January   3,847   2,091   5,937   -553   -20.9   54   563   -509			3,847	2,595	6,442	-4/6	-15.5			
February 3,828 1,876 5,704 -480 -20.4 62 300 -238 March 3,824 1,572 5,396 -575 -26.8 50 359 -308 April 3,822 1,620 5,442 -454 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112		ı otai						1,700	2,142	-442
March         3,824         1,572         5,396         -575         -26.8         50         359         -308           April         3,822         1,620         5,442         -454         -21.9         145         99         46           May         3,827         1,843         5,670         -379         -17.1         258         30         227           June         3,828         2,141         5,969         -313         -12.7         325         26         299           July         3,829         2,456         6,285         -240         -8.9         341         28         313           August         3,829         2,739         6,568         -169         -5.8         313         30         283           September         3,829         2,996         6,825         -144         -4.6         287         30         257           October         3,837         3,177         7,014         -92         -2.8         244         55         189           November         R3,831         R2,878         R6,710         R283         R10.9         R94         R302         R-208           Total         R2,255	1984					-553	-20.9	54	563	-509
April 3,822 1,620 5,442 -454 -21.9 145 99 46 May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112		•		1,876	5,704	-480	-20.4	62	300	-238
May 3,827 1,843 5,670 -379 -17.1 258 30 227 June 3,828 2,141 5,969 -313 -12.7 325 26 299 July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112					,			50		-308
June         3,828         2,141         5,969         -313         -12.7         325         26         299           July         3,829         2,456         6,285         -240         -8.9         341         28         313           August         3,829         2,739         6,568         -169         -5.8         313         30         283           September         3,829         2,996         6,825         -144         -4.6         287         30         257           October         3,837         3,177         7,014         -92         -2.8         244         55         189           November         R3,901         R3,017         R6,918         R-158         R-5.0         82         221         -139           December         R3,831         R2,878         R6,710         R283         R10.9         R94         R302         R-208           Total         R2,255         R2,042         R214           1985           January         R3,842         R2,245         R6,087         R154         R7.4         R35         R658         R-623           February         3,842         R1,856         R5,		•		•						
July 3,829 2,456 6,285 -240 -8.9 341 28 313 August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112					•					
August 3,829 2,739 6,568 -169 -5.8 313 30 283 September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112										
September 3,829 2,996 6,825 -144 -4.6 287 30 257 October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112		•								
October 3,837 3,177 7,014 -92 -2.8 244 55 189 November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112										
November R3,901 R3,017 R6,918 R-158 R-5.0 82 221 -139 December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 Total R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112					•					
December R3,831 R2,878 R6,710 R283 R10.9 R94 R302 R-208 R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112			,		,					
Total R2,255 R2,042 R214  1985 January R3,842 R2,245 R6,087 R154 R7.4 R35 R658 R-623 February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112				•						
1985         January         R3,842         R2,245         R6,087         R154         R7.4         R35         R658         R-623           February         3,842         R1,856         R5,698         R-20         R-1.1         R49         R438         -389           March         3,836         1,746         5,582         174         11.0         R93         R208         -116           April         3,831         1,862         5,693         242         14.9         R211         R99         112			110,001	112,070	HO,7 TO	H203	H10.9			
February 3,842 R1,856 R5,698 R-20 R-1.1 R49 R438 -389 March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112	1085	lanuani	D2 942	D0 045	D6 007	D454	D7.4			
March 3,836 1,746 5,582 174 11.0 R93 R208 -116 April 3,831 1,862 5,693 242 14.9 R211 R99 112	1303		•							
April 3,831 1,862 5,693 242 14.9 R211 R99 112		•			,					
140 1121 1100 112					•					
		,	•							

¹Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1978—6,890; 1979—6,929; 1980—7,434; 1981—7,805; 1982—7,915; 1983—7,985; and 1984—8,043. Current total capacity is 8,069. ²Positive numbers indicate injections are greater than withdrawals. Negative numbers indicate withdrawals are greater than injections. Net injections or withdrawals may not equal the difference between applicable ending stocks. See Note 8 on the last two pages of this section. R=Revised data.

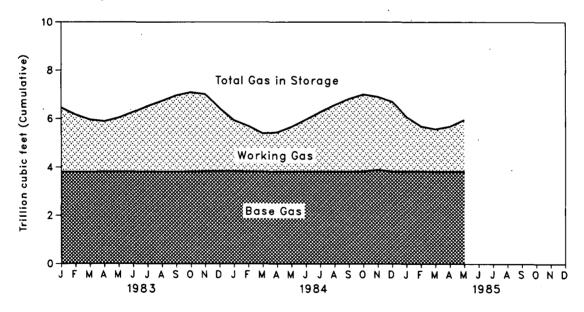
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Data for 1978 through 1983 are final. All other data are preliminary unless otherwise indicated. Sources: • See the last page of this section.

### Overview

### Consumption, Dry Production, and Imports



#### Gas in Storage at End of Period



#### Notes and Sources for the Natural Gas Section

#### Notes

1. Nonhydrocarbon Gases Removed: Annual data on gases nonhydrocarbon removed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the Energy Information Administration (EIA) Natural Gas Annual 1983. These data are not available for periods prior to 1980. For 1983, of the 31 producing States, 20 reported data on nonhydrocarbon gases removed. These 20 States accounted for 56 percent of total 1983 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 38 percent of the 1983 total production, did not include all or most of the nonhydrocarbon gases removed on leases. No estimates are made for the two States not reporting nonhydrocarbon gases removed. For further information, see the EIA Natural Gas Monthly.

Monthly data are reported by five States and computed for two States. All monthly data are considered preliminary until after publication of the EIA Natural Gas Annual for that year. For further information on methods of estimating preliminary monthly data, see the EIA Natural Gas Monthly.

Monthly data are revised and considered final after publication of the EIA *Natural Gas Annual* by proportionally allocating the differences between annual data published in the EIA *Natural Gas Annual* and the sum of the preliminary monthly data (January-December).

2. Production: Annual data. Final annual data are from the EIA Natural Gas Annual 1983.

Estimated Monthly Data. All data for the two most recent months presented are estimated. Some of the data for earlier months are also estimated or computed. For a discussion of computation and estimation procedures, see the EIA Natural Gas Monthly.

Preliminary monthly data. All monthly data are considered preliminary until after publication of the EIA Natural Gas Annual for that year. Preliminary monthly data are gathered from reports from the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary to a standard 14.73 psia pressure base. Unless there are major changes, data are not revised until after publication of the EIA Natural

Final monthly data. The difference between annual production data published in the EIA Natural Gas Annual 1983 and the sum of preliminary monthly data (January-December) is allocated proportionally to the preliminary monthly data.

3. Extraction Loss: Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Annual data for extraction loss are from the EIA Natural

Gas Annual for which they have been estimated based on the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated extraction losses, see the EIA Natural Gas Annual.

Preliminary monthly data are estimated based on extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to extract the production of the pr

duction to estimate monthly extraction loss.

Monthly data are revised and considered final after the publication of the EIA Natural Gas Annual. Final monthly data are estimated by allocating annual extraction loss data to each month based on its total natural gas disposition.

4. Supplemental Gaseous Fuels: Supplemental gaseous fuels are mainly synthetic natural gas, propane-air, and refinery gas. Other gases may also be included such as, coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization.

Annual data beginning with 1980 are from the EIA Natural Gas Annual 1983. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

All monthly data are considered preliminary until after the publication of the EIA Natural Gas Annual for that year.

Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a monthy supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Mexico and Canada, and liquefied natural gas via tanker from Algeria. The United States exports natural gas via pipeline to Mexico and Canada and liquefied natural gas via tanker to Japan.

Annual and final monthly data are published from the

annual Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," which requires data to be reported by month for the calendar year.

Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see the EIA Natural Gas Monthly. Preliminary data are revised after the publication of the EIA U.S. Imports and Exports of Natural Gas for that

6. Consumption: Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

All final data are from the EIA, Natural Gas Annual. All monthly data are considered preliminary until after publication of the EIA Natural Gas Annual. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA Natural Gas Monthly.

- 7. Unaccounted for: The "Unaccounted for" category represents quantities lost; the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; metering inaccuracies; differences between billing cycle and calendar period time frames; the effect of variations in company accounting and billing practices; and imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of 167 billion cubic feet (Bcf) in the "Unaccounted for" catego-ry in 1983, as compared to 1982 figures, reflects unusually large differences resulting from the use of the annual billing cycle (nominally December 15, 1982, through December 15, 1983) for consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 333-Bcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was only partially reflected in 1983 consumption data. For underground storage data, see Table F2 in the June 1984 Natural Gas Monthly, which was published in August 1984.
- 8. Natural Gas Storage: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. This difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

All monthly data concerning underground storage are collected from the essentially identical Forms FPC-8 and EIA-191. Monthly data are revised after publication of the EIA *Underground Natural Gas Storage in the United States* for that heating year (April through March). In addition, injection and withdrawal data from the FPC-8/EIA-191 surgestions and withdrawal data from the FPC-8/EIA-191 surgestions and withdrawal data from the FPC-8/EIA-191 surgestions. vey are adjusted to correspond to data from Form EIA-176 following publication of the EIA Natural Gas Annual.

The final monthly and annual storage and withdrawal data for 1980 through 1983 include both underground and liquefied natural gas (LNG) storage. Underground storage data are taken from the FPC-8/EIA-191 survey in the data are taken from the FPC-0/EIA-191 survey in the following manner. Annual data on LNG additions and withdrawals are taken from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals to annual underground storage additions. ground storage additions and withdrawals and applying it to annual LNG data.

### **Notes and Sources for the Natural Gas Section (continued)**

#### Sources

Production: 1973 through 1983: Energy Information Administration (EIA), Natural Gas Annual 1983; January 1984 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.

Extraction Loss, Consumption, and Unaccounted For: 1973 through 1983: EIA, *Natural Gas Annual 1983*; January

1984 forward: EIA computations.

Withdrawals from and Additions to Storage: 1973 through 1983: EIA, Natural Gas Annual 1983; January 1984 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."

Supplemental Gaseous Fuels: 1980 through 1983: EIA, Natural Gas Annual 1983; January 1984 forward: EIA com-

Imports and Exports: 1973 through 1983: Form FPC-14, "Imports and Exports of Natural Gas"; January 1984 forward: EIA computations.

End-Use Consumption: • All data except electric utility-1973 through 1982 EIA, Natural Gas Annual, 1983; January 1983 forward: Form EIA-857, 'Monthly Report of Natural Gas Purchases and Deliveries to Consumers, and EIA computations.

emputations.
• Electric utility data—EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).

Underground Storage: 1973 and 1974: American Gas Association, Gas Facts; 1975 through 1979: EIA, Form FPC-8 and Form EIA-191, and the Natural Gas Annual; 1980 forward: EIA, Form FPC-8, Form EIA-191, and Form 176, "Manual Bonot of Natural and Supplemental Gas Supplemental Cas "Annual Report of Natural and Supplemental Gas Supply and Disposition."

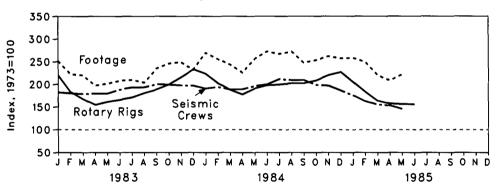
### Oil and Gas Resource Development

The 364 crews engaged in seismic exploration in May 1985 were 25.7 percent fewer than the seismic crews working in May 1984. The 41 marine vessels were 10.9 percent fewer and the 323 land crews were 27.3 percent fewer than those working in May 1984.

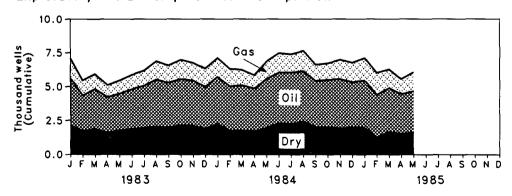
The June 1985 rotary rig count of 1,858 was 21.4 percent less than the June 1984 count of 2,363. The 203 rigs operating offshore during June 1985 were 2 rigs fewer than those working in June 1984.

Total well completions during May 1985 were an estimated 6,060, a decrease of 11.8 percent from the 6,870 wells estimated in May 1984. Oil well completions in May 1985 were an estimated 3,030, a 15.6-percent decrease from the comparable 1984 figure of 3,590 wells. Gas well completions were 1,390 in May 1985, an increase of 6.9 percent from the May 1984 figure of 1,300. Total footage drilled in May 1985 was 26.3 million feet, a decrease of 13.2 percent from the May 1984 figure of 30.3 million feet.

#### Seismic Crews and Rotary Rigs in Operation, and Footage Drilled



#### **Exploratory and Development Well Completions**



Monthly Energy Review April 1985 Energy Information Administration

# **Oil and Gas Resource Development**

### Seismic Crews and Rotary Rigs

Crews Engaged In

		Sela	mic Explora	tion	Rotary Rigs in Operation <sup>1</sup>				
		Offshore	Onshore	Total	Offshore	Onshore	Total		
		Monthly average			Monthly average				
1973	Average	23	<b>227</b> ·	250	84	1,110	1,194		
1974	Average	31	274	305	94	1,378	1,472		
1975	Average	30	254	284	106	1,554	1,660		
1976	Average	25	237	262	129	1,529	1,658		
1977	Average	27	281	308	167	1,834	2,001		
1978	Average	25	327	352	185	2,074	2,259		
1979	Average	30	370	400	207	1,970	2,177		
1980	Average	37	493	530	231	2,678	2,909		
1981	Average	44	637	681	256	3,714	3,970		
1982	Average	57	531	588	243	2,862	3,105		
	_								
1983	January	49 47	407	456 451	218	2,404	2,622		
	February	47 45	404	451 447	216	1,976	2,192		
	March April	45 39	402 410	447 449	210 213	1,793 1,633	2,003		
	May	39	410	449	209	1,717	1,846 1,926		
	June	43	428	471	203	1,777	1,979		
	July	46	437	483	178	1,861	2,039		
	August	49	435	484	181	1,975	2,156		
	September	57	444	501	175	2,077	2,252		
	October	50	448	498	177	2,205	2,382		
	November	49	446	495	159	2,413	2,572		
	December	. 48	445	493	210	2,570	2,780		
	Average	47	426	473	196	2,033	2,229		
1984	January	50	427	477	216	2,450	2,666		
	February	53	433	486	202	2,221	2,423		
	March	47	424	471	198	2,047	2,245		
	April	50	423	473	203	1,917	2,120		
	May	46	444	490	202	2,075	2,277		
	June	45	455	500	205	2,158	2,363		
	July	47	482	529 520	206	2,180	2,386		
	August September	53 52	470 472	523 524	216	2,201	2,417		
	October	52 48	472 449	524 497	214 223	2,206 2,269	2,420		
	November	49	444 444	493	232	2,269 2,397	2,492 2,629		
	December	52	414	466	242	2,471	2,713		
	Average	. 49	445	494	213	2,215	2,428		
1985	January	46	393	439	242	2,210	2,452		
	February	46	360	406	233	1,955	2,188		
	March	48	340	388	223	1,732	1,955		
	April	47	336	383	210	1,667	1,877		
	May	41	323	364	200	1,665	1,865		
	June	NA	NA	NA	203	1,653	1,858		
	Average <sup>2</sup>	46	350	396	218	1,814	2,032		

<sup>&</sup>lt;sup>1</sup>Monthly data are averages of 4- or 5-week reporting periods and are not calendar months.

<sup>&</sup>lt;sup>2</sup>Average of available data.

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

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

Sources: • Crews Engaged: Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletins, *Geophysics* and *Leading Edge.* • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—by State."

# Oil and Gas Resource Development

#### **Exploratory and Development Wells and Footage Drilled**

#### **Exploratory and Development** Well Completions

Total   10.25   6.97   10.46   27.68   139.		
1973   Total   10.25   6.97   10.46   27.68   139.     1974   Total   13.67   7.17   12.22   33.05   153.1     1975   Total   16.98   8.17   13.75   38.90   181.     1976   Total   17.69   9.42   13.85   40.95   187.     1977   Total   18.72   12.13   15.06   45.91   216.     1978   Total   19.07   14.42   16.63   50.12   238.     1979   Total   20.73   15.22   16.09   52.05   244.     1980   Total   32.28   17.25   20.32   69.86   312.     1981   Total   42.99   20.03   27.24   90.26   409.     1982   Total   39.01   18.79   26.38   84.19   378.     1983   January   3.48   1.45   2.14   7.07   29.     February   2.60   1.11   1.74   5.44   23.     March   2.95   1.09   1.88   5.92   26.     April   2.62   0.89   1.60   5.12   22.     May   2.70   0.96   R1.78   R5.43   R23.     June   2.93   1.05   1.88   5.87   23.     July   3.11   1.11   1.95   6.17   24.     August   3.46   1.35   2.06   6.86   27.     September   3.30   1.28   1.98   6.56   26.     October   3.38   1.43   2.16   6.96   29.     November   3.33   1.30   2.12   6.75   28.     December   3.06   1.36   1.90   6.32   27.     Total   36.94   14.37   R23.19   R74.47   R313.     1984   January   3.47   1.39   2.24   7.11   31.     1985   January   3.72   1.44   2.30   7.45   31.     July   3.71   1.50   2.42   7.63   32.     April   3.15   0.97   1.72   5.84   25.     May   R3.59   R1.30   1.97   R6.87   R30.     June   3.72   1.44   2.30   7.45   31.     July   3.78   1.34   2.26   7.39   31.     July   3.78   1.34   2.26   7.39   31.     July   3.78   1.35   2.20   6.62   28.     April   3.15   0.97   1.72   5.84   2.5     May   R3.59   R1.30   1.97   R6.87   R30.     June   3.72   1.44   2.30   7.45   31.     July   3.78   1.34   2.26   7.39   31.     August   3.71   1.50   2.42   7.63   32.     September   3.40   1.19   2.03   6.62   28.     October   3.49   1.22   2.01   6.72   30.     November   R3.62   R1.42   R1.94   R6.97   R30.     December   3.49   1.22   2.01   6.77   30.     Total   R41.84   R15.63   R24.42   R81.90   R359.	otage	
1974 Total 13.67 7.17 12.22 33.05 153.1 1975 Total 16.98 8.17 13.75 38.90 181. 1976 Total 17.69 9.42 13.85 40.95 187. 1977 Total 18.72 12.13 15.06 45.91 216. 1978 Total 19.07 14.42 16.63 50.12 238. 1979 Total 20.73 15.22 16.09 52.05 244. 1980 Total 32.28 17.25 20.32 69.86 312. 1981 Total 42.99 20.03 27.24 90.26 409. 1982 Total 39.01 18.79 26.38 84.19 378. 1983 January 3.48 1.45 2.14 7.07 29. February 2.60 1.11 1.74 5.44 23. March 2.95 1.09 1.88 5.92 26.1 May 2.70 0.96 F1.78 F5.43 R23. June 2.93 1.05 1.88 5.87 23. July 3.11 1.11 1.95 6.17 24. August 3.46 1.35 2.06 6.86 27. September 3.30 1.28 1.98 6.56 26. October 3.38 1.43 2.16 6.96 29.1 November 3.33 1.30 2.12 6.75 28. November 3.33 1.30 2.12 6.75 28. December 3.06 1.36 1.90 6.32 27. Total 36.94 14.37 R23.19 R74.47 R313. 1984 January 3.47 1.39 2.24 7.11 7.17 6.31 28. March 3.33 1.13 1.76 6.22 28. April 3.15 0.97 1.72 6.31 28. May 3.25 1.29 1.77 6.31 28. March 3.33 1.13 1.66 6.96 29.1 November 3.35 1.99 1.77 6.31 28. March 3.33 1.13 1.76 6.22 28. April 3.15 0.97 1.72 5.84 25. May 8.359 R1.30 1.97 R6.87 R30. June 3.72 1.44 2.30 7.45 31. July 3.71 1.50 2.42 7.63 32. June 3.72 1.44 2.30 7.45 31. July 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. April 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. October 3.49 1.22 2.01 6.72 30. November R3.62 R1.42 R1.94 R6.97 R30. December R3.62 R1.42 R1.94 R6.97 R30. November R3.62 R1.42 R1.94 R6.97 R30.	Million feet	
1974   Total   13.67   7.17   12.22   33.05   153.1   1975   Total   16.98   8.17   13.75   38.90   181.   1976   Total   17.69   9.42   13.85   40.95   187.   1977   Total   18.72   12.13   15.06   45.91   216.   1978   Total   19.07   14.42   16.63   50.12   238.   1979   Total   20.73   15.22   16.09   52.05   244.   1980   Total   32.28   17.25   20.32   69.86   312.   1981   Total   42.99   20.03   27.24   90.26   409.   1982   Total   39.01   18.79   26.38   84.19   378.   1983   January   3.48   1.45   2.14   7.07   29.   February   2.60   11.11   1.74   5.44   23.   March   2.95   1.09   1.88   5.92   26.   April   2.62   0.89   1.60   5.12   22.   May   2.70   0.96   R1.78   R5.43   R23.   July   3.11   1.11   1.95   6.17   24.   August   3.46   1.35   2.06   6.86   27.   September   3.30   1.28   1.98   6.56   26.   Cotober   3.38   1.43   2.16   6.96   29.   November   3.33   1.30   2.12   6.75   28.   November   3.33   1.30   2.12   6.75   28.   November   3.36   1.36   1.90   6.32   27.   Total   36.94   14.37   R23.19   R74.47   R313.   1984   January   3.47   1.99   2.24   7.11   31.   31.   February   3.25   1.29   1.77   6.31   28.   April   3.15   0.97   1.72   5.84   25.   May   R3.59   R1.30   1.97   R6.87   R30.   June   3.72   1.44   2.30   7.45   31.   June   3.72   3.40   3.11   3.40   2.26   7.39   31.11   3.40   2.26   7.39   31.11   3.40   2.26   7.39   31.11   3.40   2.26   7.39   31.11   3.40   2.26   7.39   31.11   3.40   2.26   7.39   31.11   3.40   2.26	.42	
1975   Total   16.98   8.17   13.75   38.90   181.     1976   Total   17.63   9.42   13.85   40.95   187.     1977   Total   18.72   12.13   15.06   45.91   216.     1978   Total   19.07   14.42   16.63   50.12   238.     1979   Total   20.73   15.22   16.09   52.05   244.     1980   Total   32.28   17.25   20.32   69.86   312.     1981   Total   42.99   20.03   27.24   90.26   409.     1982   Total   39.01   18.79   26.38   84.19   378.     1983   January   3.48   1.45   2.14   7.07   29.     February   2.60   1.11   1.74   5.44   23.     March   2.95   1.09   1.88   5.92   26.     April   2.62   0.89   1.60   5.12   22.     May   2.70   0.96   R1.78   R5.43   R23.     July   3.11   1.11   1.95   6.17   24.     August   3.46   1.35   2.06   6.86   27.     September   3.30   1.28   1.98   6.56   26.     October   3.38   1.43   2.16   6.96   29.     November   3.33   1.30   2.12   6.75   28.     December   3.06   1.36   1.90   6.32   27.     Total   36.94   14.37   R23.19   R74.47   R313.     1984   January   3.47   1.99   2.24   7.11   31.     February   3.25   1.29   1.77   6.31   28.     April   3.15   0.97   1.72   5.84   25.     May   R3.59   R1.30   1.97   R6.87   R30.     June   3.72   1.44   2.30   7.45   31.     July   3.71   1.50   2.42   7.63   32.     April   3.15   0.97   1.72   5.84   25.     May   R3.59   R1.30   1.97   R6.87   R30.     June   3.72   1.44   2.30   7.45   31.     July   3.78   1.34   2.26   7.39   31.     July   3.78   1.34   2.26   7.39   31.     July   3.78   1.34   2.26   7.39   31.     August   3.71   1.50   2.42   7.63   32.     September   3.40   1.19   2.03   6.62   28.     October   3.49   1.22   2.01   6.72   30.     November   R3.62   R1.42   R1.94   R6.97   R30.     December   3.33   1.44   2.00   6.77   30.     Total   R41.84   R15.63   R24.42   R81.90   R359.		
1976         Total         17.69         9.42         13.85         40.95         187.1977           1977         Total         18.72         12.13         15.06         45.91         216.1978           1978         Total         19.07         14.42         16.63         50.12         238.1979           1980         Total         32.28         17.25         20.32         69.86         312.1981           1981         Total         42.99         20.03         27.24         90.26         409.1982           1982         Total         39.01         18.79         26.38         84.19         378.3           1983         January         3.48         1.45         2.14         7.07         29.378.3           1983         January         3.48         1.45         2.14         7.07         29.378.3           1984         1.45         2.14         7.07         29.378.3         20.60         1.11         1.74         5.44         23.378.3           March         2.95         1.09         1.88         5.92         26.67         April         2.62         0.89         1.60         5.12         22.24         March         2.62         0.89		
1977 Total 18.72 12.13 15.06 45.91 216. 1978 Total 19.07 14.42 16.63 50.12 238. 1979 Total 20.73 15.22 16.09 52.05 244. 1980 Total 32.28 17.25 20.32 69.86 312. 1981 Total 42.99 20.03 27.24 90.26 409. 1982 Total 39.01 18.79 26.38 84.19 378. 1983 January 3.48 1.45 2.14 7.07 29. February 2.60 11.11 1.74 5.44 23. March 2.95 10.99 1.88 5.92 26. April 2.62 0.89 1.60 5.12 22. May 2.70 0.96 R1.78 R5.43 R23. June 2.93 1.05 1.88 5.87 23. July 3.11 1.11 1.95 6.17 24. August 3.46 1.35 2.06 6.86 27. September 3.30 1.28 1.98 6.56 26. October 3.38 1.43 2.16 6.96 29. November 3.33 1.30 2.12 6.75 28. December 3.06 1.36 1.90 6.32 27. Total 36.94 14.37 R23.19 R74.47 R313. 1984 January 3.47 1.39 2.24 7.11 31. February 3.25 1.29 1.77 6.31 28. April 3.15 0.97 1.72 5.84 25. May R3.59 R1.30 1.97 R6.87 R30. June 3.72 1.44 2.30 7.45 31. July 3.78 1.34 2.26 7.39 31. June 3.72 1.44 2.30 7.45 31. July 3.71 1.50 2.42 7.63 32. September 3.30 7.45 31. June 3.72 1.44 2.30 7.45 31. August 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. October 3.49 1.22 2.01 6.72 30. November R3.62 R1.42 R1.94 R6.97 R30. December 3.33 1.44 2.00 6.77 30. November R3.62 R1.42 R1.94 R6.97 R30. November R3.62 R1.42 R1.94 R6.97 R30. December 3.33 1.44 2.00 6.77 30. Total R41.84 R15.63 R24.42 R81.90 R359.		
1978         Total         19.07         14.42         16.63         50.12         238.           1979         Total         20.73         15.22         16.09         52.05         244.           1980         Total         32.28         17.25         20.32         69.86         312.           1981         Total         42.99         20.03         27.24         90.26         409.1           1982         Total         39.01         18.79         26.38         84.19         378.           1983         January         3.48         1.45         2.14         7.07         29.           February         2.60         1.11         1.74         5.44         23.           March         2.95         1.09         1.88         5.92         26.           April         2.62         0.89         1.60         5.12         222.           May         2.70         0.96         R1.78         R5.43         R23.           July         3.11         1.11         1.95         6.17         24.           August         3.46         1.35         2.06         6.86         227.           September         3.30		
1979 Total 20.73 15.22 16.09 52.05 244. 1980 Total 32.28 17.25 20.32 69.86 312. 1981 Total 42.99 20.03 27.24 90.26 409. 1982 Total 39.01 18.79 26.38 84.19 378. 1983 January 3.48 1.45 2.14 7.07 29. February 2.60 1.11 1.74 5.44 23. March 2.95 1.09 1.88 5.92 26. April 2.62 0.89 1.60 5.12 22. May 2.70 0.96 R1.78 R5.43 R23. June 2.93 1.05 1.88 5.87 23. July 3.11 1.11 1.95 6.17 24. August 3.46 1.35 2.06 6.86 27. September 3.30 1.28 1.98 6.56 26. October 3.38 1.43 2.16 6.96 29. November 3.33 1.30 2.12 6.75 28. December 3.06 1.36 1.90 6.32 27. Total 36.94 14.37 R23.19 R74.47 R313. 1984 January 3.47 1.39 2.24 7.11 31. February 3.25 1.29 1.77 6.31 28. March 3.33 1.13 1.76 6.22 28. April 3.15 0.97 1.72 5.84 25. May R3.59 R1.30 1.97 R6.87 R30. June 3.72 1.44 2.30 7.45 31. July 3.78 1.34 2.26 7.39 31. July 3.78 1.34 2.26 7.39 31. August 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. October 3.49 1.22 2.01 6.72 30. November 3.33 1.44 2.26 7.39 31. August 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. October 3.49 1.22 2.01 6.72 30. November R3.62 R1.42 R1.94 R6.97 R30. December R3.62 R1.42 R1.94 R6.97 R30. December R3.62 R1.42 R1.94 R6.97 R30. Total R41.84 R15.63 R24.42 R81.90 R359.		
1980         Total         32.28         17.25         20.32         69.86         312.           1981         Total         42.99         20.03         27.24         90.26         409.1           1982         Total         39.01         18.79         26.38         84.19         378.           1983         January         3.48         1.45         2.14         7.07         29.9           February         2.60         1.11         1.74         5.44         23.           March         2.95         1.09         1.88         5.92         26.6           April         2.62         0.89         1.60         5.12         22.           May         2.70         0.96         R1.78         R5.43         R23.           June         2.93         1.05         1.88         5.87         23.           July         3.11         1.11         1.95         6.17         24.           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.           October         3.38         1.43         2.16         6.96<		
1981         Total         42.99         20.03         27.24         90.26         409.1982           1982         Total         39.01         18.79         26.38         84.19         378.           1983         January         3.48         1.45         2.14         7.07         29.           February         2.60         1.11         1.74         5.44         23.           March         2.95         1.09         1.88         5.92         26.           April         2.62         0.89         1.60         5.12         22.           May         2.70         0.96         R1.78         R5.43         R23.           Jule         2.93         1.05         1.88         5.87         23.           July         3.11         1.11         1.95         6.17         24.           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.           October         3.38         1.43         2.16         6.96         29.           November         3.33         1.30         2.12         6.75         28. <td></td>		
1982         Total         39.01         18.79         26.38         84.19         378.           1983         January         3.48         1.45         2.14         7.07         29.           February         2.60         1.11         1.74         5.44         23.           March         2.95         1.09         1.88         5.92         26.           April         2.62         0.89         1.60         5.12         22.           May         2.70         0.96         R1.78         R5.43         R23.           June         2.93         1.05         1.88         5.87         23.           July         3.11         1.11         1.95         6.17         24.           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.           October         3.38         1.43         2.16         6.96         29.           November         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.		
1983   January   3.48   1.45   2.14   7.07   29.     February   2.60   1.11   1.74   5.44   23.     March   2.95   1.09   1.88   5.92   26.     April   2.62   0.89   1.60   5.12   22.     May   2.70   0.96   R1.78   R5.43   R23.     June   2.93   1.05   1.88   5.87   23.     July   3.11   1.11   1.95   6.17   24.     August   3.46   1.35   2.06   6.86   27.     September   3.30   1.28   1.98   6.56   26.     October   3.38   1.43   2.16   6.96   29.     November   3.33   1.30   2.12   6.75   28.     December   3.06   1.36   1.90   6.32   27.     Total   36.94   14.37   R23.19   R74.47   R313.     1984   January   3.47   1.39   2.24   7.11   31.     February   3.25   1.29   1.77   6.31   28.     March   3.33   1.13   1.76   6.22   28.     April   3.15   0.97   1.72   5.84   25.     May   R3.59   R1.30   1.97   R6.87   R30.     June   3.72   1.44   2.30   7.45   31.     July   3.78   1.34   2.26   7.39   31.     August   3.71   1.50   2.42   7.63   32.     September   3.40   1.19   2.03   6.62   28.     October   3.49   1.22   2.01   6.72   30.     November   R3.62   R1.42   R1.94   R6.97   R30.     Total   R41.84   R15.63   R24.42   R81.90   R359.     1985   January   3.48   R1.65   1.98   R7.11   30.		
February 2.60 1.11 1.74 5.44 23 March 2.95 1.09 1.88 5.92 26. April 2.62 0.89 1.60 5.12 22. May 2.70 0.96 R1.78 R5.43 R23. June 2.93 1.05 1.88 5.87 23. July 3.11 1.11 1.95 6.17 24. August 3.46 1.35 2.06 6.86 27. September 3.30 1.28 1.98 6.56 26. October 3.38 1.43 2.16 6.96 29. November 3.33 1.30 2.12 6.75 28. December 3.06 1.36 1.90 6.32 27. Total 36.94 14.37 R23.19 R74.47 R313.  1984 January 3.47 1.39 2.24 7.11 31. February 3.25 1.29 1.77 6.31 28. March 3.33 1.13 1.76 6.22 28. April 3.15 0.97 1.72 5.84 25. May R3.59 R1.30 1.97 R6.87 R30. June 3.72 1.44 2.30 7.45 31. June 3.72 1.44 2.30 7.45 31. July 3.78 1.34 2.26 7.39 31. August 3.71 1.50 2.42 7.63 32. September 3.40 1.19 2.03 6.62 28. October 3.49 1.22 2.01 6.72 30. November R3.62 R1.42 R1.94 R6.97 R30. December R3.62 R1.42 R1.94 R6.97 R30. Total R41.84 R15.63 R24.42 R81.90 R359.	.27	
March April         2.95         1.09         1.88         5.92         260           April         2.62         0.89         1.60         5.12         22.           May         2.70         0.96         R1.78         R5.43         R23.           June         2.93         1.05         1.88         5.87         23.           July         3.11         1.11         1.95         6.17         24.           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.           October         3.38         1.43         2.16         6.96         29.           November         3.33         1.30         2.12         6.75         28.           December         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.           1984         January         3.47         1.39         2.24         7.11         31.           February         3.25         1.29         1.77         6.31         28.           March </td <td>.78</td>	.78	
April         2.62         0.89         1.60         5.12         22.1           May         2.70         0.96         R1.78         R5.43         R23.1           June         2.93         1.05         1.88         5.87         23.3           July         3.11         1.11         1.95         6.17         24.1           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.1           October         3.38         1.43         2.16         6.96         29.1           November         3.33         1.30         2.12         6.75         28.1           December         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.3           1984         January         3.47         1.39         2.24         7.11         311.3           February         3.25         1.29         1.77         6.31         28.2           April         3.15         0.97         1.72         5.84         25.4           M	.77	
May         2.70         0.96         R1.78         R5.43         R23.1           June         2.93         1.05         1.88         5.87         23.1           July         3.11         1.11         1.95         6.17         24.4           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.           October         3.38         1.43         2.16         6.96         29.9           November         3.33         1.30         2.12         6.75         28.           December         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.           1984         January         3.47         1.39         2.24         7.11         31.           February         3.25         1.29         1.77         6.31         28.           March         3.33         1.13         1.76         6.22         28.           April         3.15         0.97         1.72         5.84         25.           May	.04	
June         2.93         1.05         1.88         5.87         23.9           July         3.11         1.11         1.95         6.17         24.1           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.1           October         3.38         1.43         2.16         6.96         29.1           November         3.33         1.30         2.12         6.75         28.           December         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.           1984         January         3.47         1.39         2.24         7.11         31.3           February         3.25         1.29         1.77         6.31         28.3           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.1           May         R3.59         R1.30         1.97         R6.87         R30.           July	.60	
July         3.11         1.11         1.95         6.17         24.4           August         3.46         1.35         2.06         6.86         27.           September         3.30         1.28         1.98         6.56         26.6           October         3.38         1.43         2.16         6.96         29.9           November         3.33         1.30         2.12         6.75         28.           December         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.           1984         January         3.47         1.39         2.24         7.11         31.           February         3.25         1.29         1.77         6.31         28.           March         3.33         1.13         1.76         6.22         28.           April         3.15         0.97         1.72         5.84         25.           May         R3.59         R1.30         1.97         R6.87         R30.           June         3.72         1.44         2.30         7.45         31.           July	.86	
August       3.46       1.35       2.06       6.86       27.         September       3.30       1.28       1.98       6.56       26.4         October       3.38       1.43       2.16       6.96       29.4         November       3.33       1.30       2.12       6.75       28.5         December       3.06       1.36       1.90       6.32       27.4         Total       36.94       14.37       R23.19       R74.47       R313.4         1984       January       3.47       1.39       2.24       7.11       31.5         February       3.25       1.29       1.77       6.31       28.5         March       3.33       1.13       1.76       6.22       28.4         April       3.15       0.97       1.72       5.84       25.4         May       R3.59       R1.30       1.97       R6.87       R30.5         June       3.72       1.44       2.30       7.45       31.5         July       3.78       1.34       2.26       7.39       31.4         August       3.71       1.50       2.42       7.63       32.5         September	.83	
September October         3.30         1.28         1.98         6.56         26.4           October October         3.38         1.43         2.16         6.96         29.4           November October         3.06         1.30         2.12         6.75         28.5           December October         3.06         1.36         1.90         6.32         27.7           Total         36.94         14.37         R23.19         R74.47         R313.4           1984 January         3.47         1.39         2.24         7.11         31.3           February         3.25         1.29         1.77         6.31         28.3           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.5           June         3.72         1.44         2.30         7.45         31.3           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.0	.81	
October November December         3.38 3.33         1.43 1.30         2.16 2.12         6.96 6.75         29.0 28.0 27.0 27.0 27.0 27.0 27.0 27.0 27.0 27	.16	
November         3.33         1.30         2.12         6.75         28.3           December         3.06         1.36         1.90         6.32         27.7           Total         36.94         14.37         R23.19         R74.47         R313.3           1984         January         3.47         1.39         2.24         7.11         31.3           February         3.25         1.29         1.77         6.31         28.3           March         3.33         1.13         1.76         6.22         28.3           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.           October         3.49         1.22         2.01         6.72         30.4           November         R3.62         R1.42         R1.94         R6.97         R30.4	.88	
December Total         3.06         1.36         1.90         6.32         27.           Total         36.94         14.37         R23.19         R74.47         R313.3           1984         January         3.47         1.39         2.24         7.11         31.5           February         3.25         1.29         1.77         6.31         28.3           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           July         3.78         1.34         2.26         7.39         31.4           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.           October         3.49         1.22         2.01         6.72         30.4           November         R3.62         R1.42         R1.94         R6.97         R30.4	.09	
Total         36.94         14.37         R23.19         R74.47         R313.4           1984         January         3.47         1.39         2.24         7.11         31.5           February         3.25         1.29         1.77         6.31         28.4           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           July         3.78         1.34         2.26         7.39         31.4           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.           October         3.49         1.22         2.01         6.72         30.4           November         R3.62         R1.42         R1.94         R6.97         R30.4           December         3.33         1.44         2.00         6.77         30.4		
1984         January         3.47         1.39         2.24         7.11         31.9           February         3.25         1.29         1.77         6.31         28.1           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           July         3.78         1.34         2.26         7.39         31.4           August         3.71         1.50         2.42         7.63         32.5           September         3.40         1.19         2.03         6.62         28.0           October         3.49         1.22         2.01         6.72         30.4           November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.4           Total         R41.84         R15.63         R24.42         R81.90         R359.1	.49	
February         3.25         1.29         1.77         6.31         28.3           March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           July         3.78         1.34         2.26         7.39         31.4           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.           October         3.49         1.22         2.01         6.72         30.0           November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.7           Total         R41.84         R15.63         R24.42         R81.90         R359.           1985         January         3.48         R1.65         1.98         R7.11         30.4	.88	
March         3.33         1.13         1.76         6.22         28.4           April         3.15         0.97         1.72         5.84         25.4           May         R3.59         R1.30         1.97         R6.87         R30.3           June         3.72         1.44         2.30         7.45         31.3           July         3.78         1.34         2.26         7.39         31.4           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.0           October         3.49         1.22         2.01         6.72         30.0           November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.7           Total         R41.84         R15.63         R24.42         R81.90         R359.1           1985         January         3.48         R1.65         1.98         R7.11         30.4	.90	
April       3.15       0.97       1.72       5.84       25.8         May       R3.59       R1.30       1.97       R6.87       R30.1         June       3.72       1.44       2.30       7.45       31.3         July       3.78       1.34       2.26       7.39       31.4         August       3.71       1.50       2.42       7.63       32.3         September       3.40       1.19       2.03       6.62       28.0         October       3.49       1.22       2.01       6.72       30.0         November       R3.62       R1.42       R1.94       R6.97       R30.0         December       3.33       1.44       2.00       6.77       30.0         Total       R41.84       R15.63       R24.42       R81.90       R359.1         1985       January       3.48       R1.65       1.98       R7.11       30.4	.33	
May         R3.59         R1.30         1.97         R6.87         R30.           June         3.72         1.44         2.30         7.45         31.           July         3.78         1.34         2.26         7.39         31.           August         3.71         1.50         2.42         7.63         32.           September         3.40         1.19         2.03         6.62         28.           October         3.49         1.22         2.01         6.72         30.           November         R3.62         R1.42         R1.94         R6.97         R30.           December         3.33         1.44         2.00         6.77         30.           Total         R41.84         R15.63         R24.42         R81.90         R359.           1985         January         3.48         R1.65         1.98         R7.11         30.4	.86	
June     3.72     1.44     2.30     7.45     31.       July     3.78     1.34     2.26     7.39     31.       August     3.71     1.50     2.42     7.63     32.       September     3.40     1.19     2.03     6.62     28.       October     3.49     1.22     2.01     6.72     30.       November     R3.62     R1.42     R1.94     R6.97     R30.       December     3.33     1.44     2.00     6.77     30.       Total     R41.84     R15.63     R24.42     R81.90     R359.       1985     January     3.48     R1.65     1.98     R7.11     30.4	.89	
July         3.78         1.34         2.26         7.39         31.1           August         3.71         1.50         2.42         7.63         32.3           September         3.40         1.19         2.03         6.62         28.0           October         3.49         1.22         2.01         6.72         30.0           November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.0           Total         R41.84         R15.63         R24.42         R81.90         R359.1           1985         January         3.48         R1.65         1.98         R7.11         30.0	.29	
August     3.71     1.50     2.42     7.63     32.3       September     3.40     1.19     2.03     6.62     28.0       October     3.49     1.22     2.01     6.72     30.0       November     R3.62     R1.42     R1.94     R6.97     R30.0       December     3.33     1.44     2.00     6.77     30.0       Total     R41.84     R15.63     R24.42     R81.90     R359.1       1985     January     3.48     R1.65     1.98     R7.11     30.0	.23	
September October         3.40         1.19         2.03         6.62         28.           October November         3.49         1.22         2.01         6.72         30.           November December         3.362         R1.42         R1.94         R6.97         R30.           Total         R41.84         R15.63         R24.42         R81.90         R359.           1985         January         3.48         R1.65         1.98         R7.11         30.4	.63	
October         3.49         1.22         2.01         6.72         30.0           November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.0           Total         R41.84         R15.63         R24.42         R81.90         R359.0           1985         January         3.48         R1.65         1.98         R7.11         30.0	.22	
November         R3.62         R1.42         R1.94         R6.97         R30.0           December         3.33         1.44         2.00         6.77         30.0           Total         R41.84         R15.63         R24.42         R81.90         R359.0           1985         January         3.48         R1.65         1.98         R7.11         30.0	.40	
December 3.33 1.44 2.00 6.77 30.7 Total R41.84 R15.63 R24.42 R81.90 R359.1 1985 January 3.48 R1.65 1.98 R7.11 30.4	.00	
Total         R41.84         R15.63         R24.42         R81.90         R359.0           1985         January         3.48         R1.65         1.98         R7.11         30.0	.01	
1985 January 3.48 R1.65 1.98 R7.11 30.0	.47	
_ · ·	.23	
February 3.11 R1.61 1.29 R6.01 R26.6		
The state of the s		
March 3.23 R1.37 1.67 R6.27 26.0		
April 2.91 1.10 1.54 5.55 23.9		
May 3.03 1.39 1.64 6.06 26.3		
Year to Date 15.76 5.92 8.12 29.80 131.	.14	

Statistics shown on this page were developed using a computer model that estimates well completions and associated footage. See the explanation of changes on the last two pages of this section.

R=Revised data.

<sup>&</sup>lt;sup>1</sup>Data exclude service wells and stratigraphic and core tests.

H= 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.

• Due to the method of estimation, data shown on this page are frequently revised. See the last two pages of this section for further

Source: • Energy Information Administration computations based on well reports submitted to the American Petroleum Institute. See the last two pages of this section for further explanation.

#### **Explanation of Changes in the Oil and Gas Resource Development Section**

The data series on rotary rigs in operation is now shown in onshore and offshore categories. The annual line-miles of seismic exploration data series have been discontinued in the *Monthly Energy Review* because there are no monthly data available. However, those data are published in the *Annual Energy Review*.

Beginning in the March 1985 Monthly Energy Review (MER), the Energy Information Administration (EIA) revised the exploratory and development wells drilled data series. In order to present a consistent series, historical as well as

current statistics have been adjusted.

In previous issues, the MER published statistics based on data on well completions reported to the American Petroleum Institute during a given month, as opposed to data on wells actually completed during the month. Because of the time lag from date of well completion to date of reporting, data on well completions reported are not as accurate an indicator of drilling activity as are data on well completions. For example, during 1982 well completions reported continued to rise even though the number of wells actually completed fell. Starting in the March 1985 issue of the MER, published figures have been EIA estimates of the number of wells actually completed in a given month and are shown in thousands, rounded to two decimal places. The associated footage drilled is shown in millions, also rounded to two decimal places.

The EIA estimates are calculated using an adjustment process model that imputes total well counts and footage by type and class based on partial counts of well completions available from the reported data. That is, based on statistical analysis of the incomplete reported data, the model imputes the missing portions to determine values for total well completions and footage. Estimates for a given month

are first published in the MER for that month, that is, estimates for June 1984 are first published in the June 1984 MER. Revisions to the estimates are scheduled for the 6th, 12th, and 24th months following initial publication, as newly reported data refine the accuracy of the estimate. Unscheduled revisions to the published data will also be made when the latest estimate differs by more than 15 percent during the first 5 months, more than 10 percent during the next 6 months, more than 5 percent during the following 6 months, or more than 2 percent thereafter through 5 years. After 5 years, the actual reported data will be published.

The three well types considered in the model are oil, gas, and dry. By convention, wells with both oil and gas zones are categorized as oil. Well classes in the model are either development or exploratory; wells in any other class have been deleted. Exploratory well categories considered are new field wildcat, new pool wildcat, deeper pool test, shallower pool test, or extension (American Association of Petroleum Geologists well classification codes 1 through 5).

Analysis of the reported data for completion years 1970 through 1982 showed that the average cumulative coverage within 36 months was 99.2 percent, that is, almost all wells were reported within 3 years after completion. The analysis further showed that 65.6 percent were reported within 3 months, 83.1 percent within 6 months, and 92.9 percent within 1 year after completion. Over that time period, however, the reporting process slowed. For instance, in 1971, 75 percent of the completions were reported by the end of the following month. By 1981, only 33 percent of the completions were reported within that time.

Additional information may be obtained from "Estimating Well Completions," the feature article published in the

March 1985 Monthly Energy Review.

### **Explanation of Changes in the Oil and Gas Resource Development Section** (Continued)

				Previous S	eries		New Series					
		Exp	loratory and Wells Di		ent		Ex	ploratory a Well Cor	nd Develop			
		OII	Gas	Dry	Total	Total Footage	OII	Gas	Dry	Total	Total Footage	
			Number	of wells		Thousand feet		Thous	and wells		Million feet	
1973	Total	9,902	6,385	10.305	26,592	136.391	10.25	6.97	10.46	27.68	139.42	
1974	Total	12,784	7,240	11,674	31,698	150,551	13.67	7.17	12.22	33.05	153.85	
1975	Total	16,408	7,580	13,247	37,235	174,434	16.98	8.17	13.75	38.90	181.16	
1976	Total	17.059	9.085	13.621	39,765	181,780	17.68	9.42	13.85	40.95	187.37	
1977	Total	18,912	11,378	14,692	44,982	210,848	18.72	12.13	15.06			
1978	Total	17,775	•	•	•	•	1			45.91	216.14	
			13,064	16,218	47,057	227,110	19.07	14.42	16.63	50.12	238.70	
1979	Total	19,383	14,681	15,752	49,816	238,659	20.73	15.22	16.09	52.05	244.36	
1980	Total	27,026	15,730	18,089	60,845	284,461	32.28	17.25	20.32	69.86	312.72	
1981	Total	37,671	17,894	22,973	78,538	361,407	42.99	20.03	27.24	90.26	409.82	
1982	Total	40,301	18,952	26,542	85,795	395,993	39.01	18.79	26.38	84.19	378.27	
1983	January	2,376	891	1.640	4.907	20,922	3.48	1.45	2.14	7.07	29.78	
	February	2,885	1,184	2,211	6,280	27,659	2.60	1.11	1.74	5.44	23.77	
	March	3,433	1,607	2,630	7,670	34,210	2.95	1.09	1.88	5.92	26.04	
	April	3,031	1,403	1,979	6,413	27,423	2.62	0.89	1.60	5,12	22.60	
	May	3,187	1,747	1,830	6,764	28,564	2.70	0.96	R1.78	R5.43	R23.86	
	June	3,523	1,242	2,113	6,878	28,154	2.93	1.05	1.88	5.87	23.83	
	July	2,689	1,127	1,639	5,455	22,970	3.11	1.11	1.95	6.17	24.81	
	August	2,641	1,080	1,535	5,256	22,634	3.46	1.35	2.06	6.86	27.16	
	September	3,736	. 1,282	. 2,016	7,034	30,374	3.30	1.28	1.98	6.56	26.88	
	October	2,976	1,221	1,702	5,899	24,965	3.38	1.43	2.16	6.96	29.09	
	November	3,240	1,145	1,990	6,375	26,833	3.33	1.30	2.12	6.75	28.57	
	December	3,490	1,699	2,209	7,398	31,051	3.06	1.36	1.90	6.32	27.49	
	Total	37,207	15,628	23,494	76,329	325,760	36.94	14.37	R23.19	R74.47	R313.88	
1984	January	²3,253	²1,058	²2,004	²6,315	°27,915	3.47	1.39	2.24	7.11	31.90	
	February	3,212	1,425	2,123	6,760	27,623	3.25	1.29	1.77	6.31	28.33	
	March	4,092	1,373	2,941	8,406	34,156	3.33	1.13	1.76	6.22	28.86	
	April	2,821	1,162	1,690	5,673	26,234	3.15	0.97	1.72	5.84	25.89	
	May	3,137	1,155	1,637	5,929	26,417	R3.59	R1.30	1.97	R6.87	R30.29	
	June	3,723	1,362	2,298	7,383	32,174	3.72	1.44	2.30	7.45	31.23	
	July	2,629	1,138	1,831	5,598	25,454	3.78	1.34	2.26	7.39	31.63	
	August September	3,968 3,946	1,421 1,332	2,121	7,510	31,612	3.71	1.50	2.42	7.63	32.22	
	October	3,946	1,238	2,900	8,178	32,867	3.40	1.19	2.03	6.62	28.40	
	November	3,434	1,236	2,058 1,695	6,730 5,897	28,065 24,287	3.49	1.22	2.01	6.72	30.00	
	December	3,131	1,955	1,924	7,597	24,287 31,431	R3.62 3.33	R1.42	R1.94	R6.97	R30.01	
	Total	41,064	15,692	25,223	81,979	348,235	R41.84	1.44 R15.63	2.00 R24.42	6.77 <b>R81.90</b>	30.47 <b>R359.23</b>	
1985	January	2.440	1.054	1,479	4.973	22,319	3.48	R1.65	1.98	R7.11		
	February	3.128	1,150	1,867	6,145	27,250	3.46	R1.65	1.98	H7.11 R6.01	30.60	
	March	3,965	1,422	2,921	8,308	27,250 37,424	3.11	R1.61	1.29		R26.68	
	April	3,341	1,615	1,980	7,026	37,424 33,142	2.91	1.10	1.54	R6.27 5.55	26.05 23.92	
	May	3,921	1,767	1,131	6,819	28,571	3.03	1.10	1.64	6.06	23.92 26.29	
	,	-, '	.,,	1,101	0,010	20,011	1 0.00	1.55	1.04	0.00	20.23	

Data exclude service wells and stratigraphic and core tests.

Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), and (4,4,5). In 1984, weekly data are aggregated into months differently to more closely represent the actual number of weeks in the calendar months—(5,4,5), (4,4,5), (4,5,4), and (4,4,5). Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

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

R = Revised data.

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

Sources: • Previous Series: 1973 through 1984—American Petroleum Institute, "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States"; 1985—Energy Information Administration aggregation of American Petroleum Institute data using their pre-1985 methodology.

• New Series: Energy Information Administration computations based on well reports submitted to the American Petroleum Institute.

### Coal

Coal production in May 1985 was 77.3 million short tons, 3.6 percent less than the 80.2 million short tons produced in May 1984.

Electric utility coal consumption in April 1985 totaled 50.9 million short tons, 6.9 percent more than consumption in April 1984.

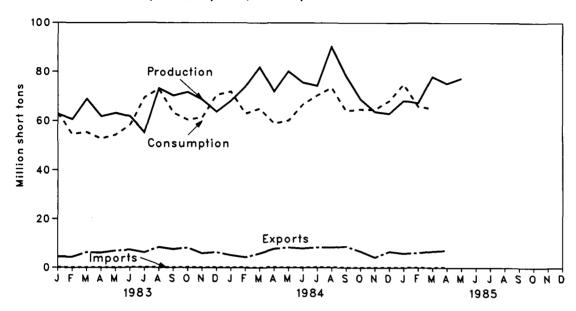
Electric utility coal stocks of 171.7 million short tons at the end of April 1985 were 6.1 million short tons (3.7 percent) above the level 1 year earlier.

Imports of coal in April 1985 totaled 203,000 short tons, 55,000 short tons more than the amount imported in April 1984. Exports of coal in April 1985 totaled 7.1 million short tons, 8.1 percent less than the amount exported during April 1984. Coal exports in April 1985 were principally to Europe (46.5 percent), Canada (17.6 percent), and Japan (17.4 percent).

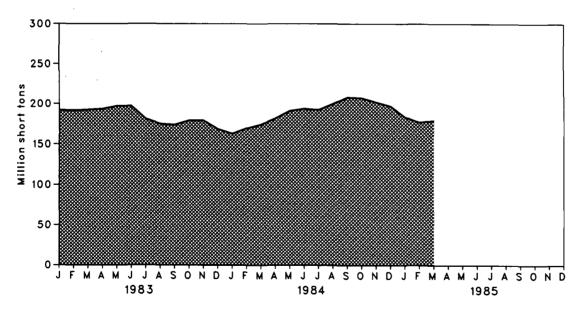
### Coal

### Overview

### Production, Consumption, Imports, and Exports



### Stocks at End of Period



### Overview

		Production	Consumption	Imports	Exports <sup>1</sup>	Stocks <sup>2</sup>
			Tho	usand 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	•
1980	Total	829,700	•	•	•	181,646
	-	•	702,729	1,194	91,742	204,028
1981	Total	823,775	732,627	1,043	112,541	185,274
1982	Total	838,112	706,911	742	106,277	195,254
1983	January	62,731	63,019	78	4,471	191,902
	February	60,654	54,692	71	4,382	191,574
	March	68,896	55,434	120	6,291	192,315
	April	61,837	52,816	144	6,115	193,402
	May	63,210	54,327	102	6,952	196,982
	June	61,797	58,237	133	7,279	197,033
	July	55,213 70,004	69,478	87	6,140	181,222
	August	73,291	72,947	115	8,380	175,067
	September October	70,312 71,754	63,317	97	7,525	173,743
	November	68,684	60,454 61,411	190 32	8,131	179,166
	December	63,713	70,541	102	5,838 6,269	179,281
	Total	782,091	736,672	1,271	•	168,654
		•	•	1,27 1	77,772	
1984	January†	68,154	71,919	81	5,062	162,943
	February†	73,933	62,994	140	4,251	169,617
	March†	81,864	65,028	55	5,813	174,283
	April†	71,939	58,946	148	7,688	181,900
	May†	80,204	60,164	72	8,221	191,280
	June†	75,586 74,299	66,707	49	7,828	194,065
	July†	74,299 90,163	70,422	193	8,318	192,657
	August† September†	78,394	73,558 64,133	147 95	8,235	200,143
	October†	68,933	64,664	104	8,710 6,641	208,019
	Novembert	63,729	64,613	68	4,190	R207,186 R202,075
	Decembert	62,946	68,147	134	6,526	R197,210
	Total†	890,143	791,296	1,286	81,483	H197,210
1985	Januaryt	R68,259	74,978	126	5,817	100 500
1000	February†	R67,319	65,881	101	5,817 6,030	183,530 177,004
	March†	R77,989	64.892	103	6,696	177,004
	April†	75,195	04,092 NA	203	7,065	179,363 NA
	May†	77,340	NA NA	NA NA	NA	NA NA

<sup>&</sup>lt;sup>1</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (347,000 short tons in 1982, 341,000 short tons in 1983, and 298,000

<sup>\*</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (347,000 short tons in 1984).

\*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, and stocks held by coal producers and distributors. †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

### **Consumption by End-Use Sector**

			Inc	dustrial		
		Electric Utilitles	Coke Plants	Other Industrial <sup>1</sup> Including Transportation	Residential and Commercial	Total
		•		Thousand short tons	·	
1973	Total	389,212	94,101	68,154	11,117	562,584
1974	Total	391,811	90,191	64,983	11,417	558,402
1975	Total	405,962	83,598	63,670	9,410	562,641
1976	Total	448,371	84,704	61,799	8,916	603,790
1977	Total	477,126	77,739	61,472	8,954	625,291
1978	Total	481,235	71,394	63,085	9,511	625,225
1979	Total	527,051	77,368	67,717	8,388	680,524
1980	Total	569,274	66,657	60,347	6,451	702,729
1981	Total	596,797	61,014	67,395	7,421	732,627
1982	Total	593,666	40,908	64,097	8,240	706,911
1983	January	53,351	2,813	5,970	884	63,019
	February	45,772	2,742	5,405	773	54,692
	March	47,110	2,567	5,206	551	55,434
	April	43,589	3,206	5,254	767	52,816
	May	45,691	3,151	5,023	463	54,327
	June	50,338	2,734	4,798	367	58,237
	July	60,390	3,269	5,220	599	69,478
	August	63,767	3,252	5,362	566 750	72,947
	September	54,212	3,196	5,156 5,650	752 799	63,317 60,454
	October	50,689	3,307 3,335	5,659 6,046	799 845	61,411
	November December	51,185 59,117	3,335 3,461	6,880	1,082	70,541
	Total	625,211	37 <b>.033</b>	65 <b>.980</b>	8,448	736,672
		•	•	•	•	•
1984	January	60,225	3,791	6,858	1,045 915	71,919 62,994
	February	52,257 54,534	3,592	6,230 5,999	652	65,028
	March April	54,534 47,565	3,843 4,180	6,273	928	58,946
	May	49,507	4,100	5,997	560	60,164
	June	56,971	3,564	5,729	443	66,707
	July	60,359	3,639	5,730	694	70,422
	August	63,396	3,620	5,886	656	73,558
	September	54,045	3,557	5,659	872	64,133
	October	54,753	3,317	5,902	692	64,664
	November	54,229	3,346	6,305	733	64,613
	December	56,560	3,473	7,176	938	68,147
	Total	664,399	44,022	73,745	9,130	791,296
1985	January†	63,629	3,463	7,063	823	74,978
	February†	55,463	3,282	6,416	720 510	65,881
	March†	54,690 50,854	3,511	6,178	513 NA	64,892 NA
	April†	50,854	NA	NA	INA	INA

<sup>&#</sup>x27;See Note on the last page of this section.
†Preliminary 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 by End-Use Sector at End of Period

			Indu		
		Electric Utilities	Coke Plants	Other Industrial	- Total <sup>1</sup>
			Thousand	d short tons	
1973	Year	86,967	6,998	10,370	104,335
1974	Year	83,509	6,209	6,605	96,323
1975	Year	110,724	8,797	8,529	128,050
1976	Year	117,436	9,902	7,100	134,438
1977	Year	133,219	12,816	11,063	157,098
1978	Year	128,225	8,278	9,048	145,551
1979	Year	159,714	10,155	11,777	181,646
1980	Year	183,010	9,067	11,951	204,028
1981	Year	168,893	6,475	9,906	185,274
1982	Year	181,132	4,642	9,479	195,254
1983	January	178,604	4,338	8,960	191,902
	February	179,101	4,034	8,439	191,574
	March	180,671	3,728	7,916	192,315
	April	181,371	4,089	7,942	193,402
	May	184,567	4,450	7,965	196,982
	June	184,236	4,812	7,985	197,033
	July	168,566	4,489	8,167	181,222
	August	162,557	4,165	8,345	175,067
	September	161,384	3,842	8,518	173,743
	October November	166,574	4,010	8,582	179,166
	December	166,457 155,598	4,178 4,346	8,645 8,710	179,281
		•	ŕ	•	168,654
1984	January	149,403	4,947	8,593	162,943
	February	155,593	5,548	8,476	169,617
	March	159,775	6,149	8,359	174,283
	April May	165,592	7,171	9,137	181,900
	June	173,171 174,155	8,194 9,217	9,915	191,280
	July	174,135	9,658	10,693 11,904	194,065 192,657
	August	176,928	10,099	13,116	200,143
	September	183,151	10,541	14,327	208,019
	October	184,779	9,083	R13,324	R207,186
	November	182,130	7,625	R12,320	R202,075
	December	179,727	6,166	R11,317	R197,210
1985	January†	167,524	5,583	10,423	183,530
	February†	162,476	4,999	9,529	177,004
	March†	166,313	4,415	8,635	179,363
	April†	171,651	NA	NA	NA

¹Total excludes stocks at retail dealers that are consumed by the residential and commercial sector, and stocks held by producers and distributors.
†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

### **Notes**

1. Production: Preliminary monthly estimates of national coal production are the sum of weekly estimates developed by the Energy Information Administration (EIA) and published in the Weekly Coal Production report. When a week extends into a new month, production is allocated on a daily basis and added to the appropriate month. Weekly estimates are based on Association of American Railroads (AAR) data showing the number of railcars loaded with coal during the week by Class I and certain other railroads. This number is converted into tons of coal by EIA using the average number of tons of coal per railcar loaded reported in the most recent Quarterly Freight Commodity Statistics from the Interstate Commerce Commission (ICC). If an adversarial content is a statistic of the commerce of the com average coal tonnage per railcar loaded is not available for a specific railroad, the national average is used. To derive the estimate of total weekly production, the total rail tonproduction shipped by rail and total quarterly production. Data for the corresponding quarter of previous years are used to derive this factor because data for the current quarter are not yet available. This method also ensures that the seasonal variations in production are preserved.

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figure. The adjustment procedure uses Statelevel production data and is explained in the Quarterly Coal Report. Initial estimates of annual production published in January of the following year are based on preliminary production data covering the first 9 months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the Monthly Energy Review in the fall of the

following year.

2. Consumption: Both monthly and quarterly consumption for electric utility plants are taken directly from reported data. Prior to 1980, monthly consumption at coke plants was also taken directly from reported data. Since that time, it has been estimated by proportioning reported quarterly data using the ratios of monthly to quarterly consumption in 1979, the last year in which monthly data were reported. Quarterly consumption is taken directly from reported data.

Prior to 1978, monthly consumption for the other industrial sector (i.e., all industrial users minus coke plants) was derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census tion figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and subsequent years, monthly figures were derived from data reported on Forms EIA-3 and EIA-6. Beginning in 1980, monthly figures have been estimated by proportioning derived quarterly data using the ratios of monthly to quarterly consumption in 1979, the last year in which monthly data were reported on Form EIA-3. Quarterly consumption for the other industrial sector is derived from consumption for the other industrial sector is derived from reported data by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are taken as the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, mining, and construction consumption are included where appropriate.

Prior to 1980, monthly consumption for the residential and commercial sector was derived by using reported data to modify baseline figures developed by the Bureau of Mines. Since that time, it has been estimated by proportioning reported quarterly data using the ratios of monthly to quarterly consumption in 1979, the last year in which monthly data were reported on Form EIA-2. During 1981 and 1982, the estimates were also modified to reflect air temperature degree-days. Quarterly consumption is taken directly from reported data and is defined as distribution to the residential and commercial sector as reported by coal proresidential and commercial sector as reported by coal producers and distributors on Form EIA-6.

3. Stocks: Both monthly and quarterly stocks at electric utility plants are taken directly from reported data. Prior to 1980, monthly stocks at coke plants were also taken directly from reported data. Since that time, they have been estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.

Prior to 1978, stocks for the other industrial sector were

Prior to 1978, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. During the period 1978 through 1982, they were derived by During the period 1978 through 1982, they were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. Since that time, they have been estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries: data for agriculture, forestry, fishing, mining, and construction stocks are not available. Monthly and quarterly stock data are not available for the residential and commercial sector.

4. Imports and Exports: All coal import and export figures are taken directly from data reported monthly by the Bureau of the Census.

Additional information concerning coal production, consumption, and stock data and estimation procedures may be obtained in EIA's Quarterly Coal Report, DOE/EIA-0121.

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

Electric Utilities—October 1977 forward: EIA, Form EIA-759 (formerly FPC Form 4), "Monthly Power Plant Report."
Coke Plants—October 1977 through December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals—Monthly/Annual"; January 1981 forward: EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement." Other Industrial—October 1977 through December 1979: EIA, Form EIA-3, "Monthly Fuel Consumption Report—Manufacturing Plants"; January 1980 forward: EIA, Form EIA-3, "Quarterly Fuel Consumption Report—Manufacturing Plants" and Form EIA-6, "Coal Distribution Report."

Posidot Field Commercial Cottober 1977 through

Plants" and Form EIA-6, "Coal Distribution Report."

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

Imports and Exports: Bureau of the Census, U.S. Department of Commerce, Monthly Reports IM-145 (Imports) and

EM-522 (Exports).

### Part

## **Electric Utilities**

### **Electric Utilities**

During April 1985, electric utilities generated 184.7 billion kilowatthours of electricity, 2.0 percent above the April 1984 generation level. Coal-fired generation totaled 104.7 billion kilowatthours, 7.3 percent above the April 1984 level. Nuclear generation totaled 26.5 billion kilowatthours, 9.2 percent above the April 1984 level. Hydroelectric generation was 24.4 billion kilowatthours in April 1985, 18.7 percent below the April 1984 level. Natural gas-fired generation was 22.4 billion kilowatthours, 5.7 percent above the level 1 year earlier. Petroleum-fired generation totaled 6.0 billion kilowatthours, 19.3 percent below the April 1984 level.

Sales of electricity to all ultimate consumers in the United States in April 1985 were 177.3 billion kilowatthours, 1.4 percent above April 1984 sales. Sales to residential consumers during April 1985 were 56.0 billion kilowatthours, 0.6 percent below the level of sales during the same month in 1984. Commercial sales were 45.8 billion kilowatthours, 6.4 percent more than the amount sold to commer-

cial consumers in April 1984. Sales to industrial consumers totaled 68.4 billion kilowatthours in April 1985, 0.9 percent less than the 1984 figure. In April 1985, other sales totaled 7.0 billion kilowatthours, 11.2 percent above the April 1984 level.

Electric utility petroleum consumption (excluding petroleum coke) during April 1985 was 10.5 million barrels, 18.2 percent below the April 1984 level. Coal consumption during April 1985 was 50.9 million short tons, 6.9 percent above the April 1984 rate. During April 1985, electric utilities consumed 233.2 billion cubic feet of natural gas, 6.0 percent above the April 1984 consumption level.

On April 30, 1985, utility stocks of anthracite, bituminous coal, and lignite totaled 171.7 million short tons. Stockpiles were 3.7 percent above the level of April 30, 1984. Petroleum stocks (excluding petroleum coke) on April 30, 1985, totaled 78.2 million barrels, 10.7 percent below the level on the same date in 1984.

### **Net Electricity Generation by Primary Energy Source**

		Coal	Petroleum <sup>1</sup>	Natural Gas²	Nuclear Electric Power	Hydro- electric Power	Other <sup>3</sup>	Total
			•	Mil	llion kilowatthou	ırs		
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	255,155 251,116	276,021	4,307 5,506	2,247,372 2,286,439
1981	Total	• •	·	•		•	•	
1982		1,203,203	206,421	345,777	272,674	260,684	6,054	2,294,812
1902	Total	1,192,004	146,797	305,260	282,773	309,213	5,164	2,241,211
1983	January	108,164	12,880	19,721	25,073	29,235	506	195,579
	February	92,692	12,586	16,659	22,198	27,950	395	172,479
	March	95,598	12,556	19,686	23,890	30,302	455	182,488
	April	88,114	10,337	19,174	22,335	29,989	424	170,372
	May	91,296	9,050	20,445	22,051	31,194	356	174,392
	June	101,512	11,139	23,091	24,152	30,692	462	191,048
	July	121,560	14,710	29,615	25,602	28,113	565	220,165
	August	129,313	14,731	33,147	26,201	25,828	738	229,957
	September	108,868	11,299	28,040	25,007	21,712	678	195,604
	October	101,951	9,941	23,783	25,797	20,747	712	182,931
	November	103,225	9,229	20,169	25,010	24,678	637	182,949
	December	117,131	16,041	20,567	26,361	31,691	528	212,319
	Total	1,259,424	144,499	274,098	293,677	332,130	6,456	2,310,285
1984	January	120,850	15,939	20,245	29,313	29,737	547	216,632
	February	104,706	10,053	17,827	28,436	27,900	643	189,564
	March	111,158	10,806	19,645	27,345	30,435	719	200,107
	April	97,542	7,450	21,197	24,231	29,970	695	181,084
	May	100,139	8,422	25,304	25,867	31,814	673	192,217
	June	115,426	11,152	28,345	25,299	28,773	654	209,648
	July	121,094	10,397	33,327	28,284	27,495	648	221,245
	August	127,744	12,836	33,292	29,493	25,137	794	229,296
	September	108,862	7,713	27,839	29,146	20,911	728	195,198
	October	110,801	7,874	25,783	24,774	20,887	819	190,936
	November	109,759	9,232	23,728	24,575	22,259	827	190,380
	December	113,601	7,935	20,863	30,872	25,834	892	199,996
	Total	1,341,681	119,808	297,394	327,634	321,150	8,638	2,416,304
1985	January	129,066	12,076	22,001	36,186	27,498	906	227,733
	February	111,994	9,264	19,370	30,809	25,880	803	198,121
	March	111,223	7,116	19,813	31,041	24,583	930	194,707
	April	104,706	6,015	22,409	26,458	24,370	783	184,740

¹Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.
²Includes supplemental gaseous fuels.
³Other is electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.
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."

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

		Residential	Commercial	Industrial	Other <sup>2</sup>	Total
			Millio	n kilowatthours		
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	73,770 73,732	2,071,099
1981	Total	717,495	514,338	•	•	
1982	Total	•	•	825,742	84,756 05 575	2,147,101
1902	lotai	729,519	526,397	744,949	85,575	2,086,440
1983	January	69,967	44,019	57,938	7,252	179,176
	February	65,039	42,475	59,032	6,919	173,465
	March	58,912	41,518	60,261	6,893	167,584
	April	56,284	40,679	60,548	6,296	163,807
	May	49,669	40,305	62,729	6,216	158,919
	June	54,138	45,086	66,152	6,228	171,604
	July	69,965	51,013	66,424	6,752	194,153
	August	78,374	53,245	69,611	6,885	208,115
	September	73,197	52,147	69,618	6,960	201,922
	October	55,374	45,517	68,924	6,492	176,307
	November	53,704	42,666	67,544	6,560	170,474
	December	66,326	45,119	67,217	6,765	185,428
	Total	750,948	543,788	775,999	80,219	2,150,955
1984	January	83,295	49,243	66,709	7,289	206,537
	February	69,818	46,293	67,445	6,690	190,246
	March	63,656	45,252	69,684	6,902	185,475
	April	56,373	43,052	69,048	6,339	174,813
	May	53,519	44,150	70,774	6,559	175,003
	June	59,955	49,454	73,037	6,714	189,160
	July	71,020	53,922	71,843	7,006	203,791
	August	73,138	53,603	74,534	7,089	208,364
	September	67,456	52,854	71,275	6,780	198,365
	October November	55,965 56,540	48,061 45,007	70,945	6,732	181,702
	December	56,543 66,915	45,937 46,481	68,688	6,840	178,008
	Total	•	•	66,606	6,908	186,910
4005		777,654	578,281	840,588	81,849	2,278,372
1985	January	77,242	49,634	67,220	7,270	201,365
	February	78,011	49,406	66,582	7,046	201,045
	March	R63,981	R46,629	R67,437	R6,875	R184,922
	April†	56,025	45,826	68,445	7,049	177,345

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

<sup>2</sup>Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.

†Initial estimates. R = Revised data.

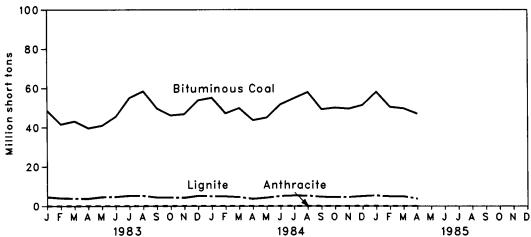
Notes: • Geographic coverage is the 50 States and the District of Columbia.

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

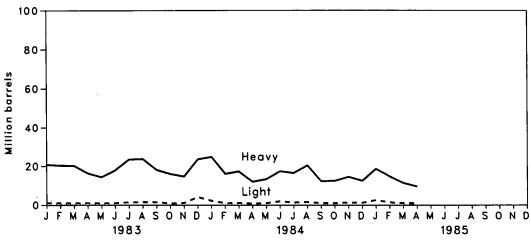
Sources: Energy Information Administration (EIA), • 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; • March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; • January 1983 forward: Form EIA 826, "Electric Utility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

### Primary Energy Consumed to Produce Electricity

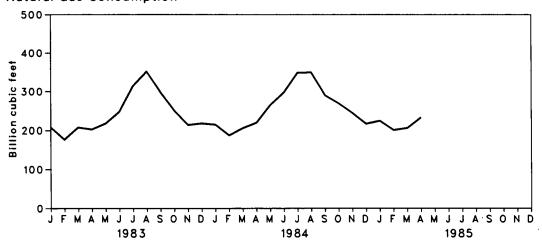
### **Coal Consumption**



### **Petroleum Consumption**



### **Natural Gas Consumption**



### **Primary Energy Consumed to Produce Electricity**

			Coal			Petroleum				Gas <sup>1</sup>
		Anthracite	Bituminous Coal	Lignite	Total	Heavy²	Light³	Total Liquids	Petroleum Coke	
		•	Thousand sh	ort tons		The	ousand barr	els	Thousand short tons	Million cubic feet
1973	Total	1,443	376,975	10,794	389,212	(4)	(4)	560,248	507	3,660,172
1974	Total	1,498	378,643	11,670	391,811	(4)	(4)	536,274	625	3,443,428
1975	Total	1,480	388,523	15,960	405,962	(4)	Ö	506,128	70	3,157,669
1976	Total	1,350	425,205	21,817	448,371	(4)	(4)	555,920	68	3,080,868
1977	Total	1,425	451,051	24,650	477,126	(4)	(4)	623,705	98	3,191,200
1978	Total	1,064	448,763	31,407	481,235	(1)	(1)	635,839	398	3,188,363
1979	Total	1,046	488,129	31,407 37,876	527,051		(*)		268	3,490,523
1980	Total	951	526,680	41.642	569,274	(°) 391,163	29.051	523,297	179	
1981	Tótal			,	•			420,214	-	3,681,595
1982		1,221	550,784	44,792	596,797	329,798	21,313	351,111	139	3,640,154
1302	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	1,110	21,838	17	208,341
	February	73	41,668	4,032	45,772	20,305	984	21,289	19	176,965
	March	75	43,165	3,870	47,110	20,174	945	21,119	16	208,013
	April	92	39,716	3,781	43,589	16,374	1,054	17,429	24	202,917
	May	104	41,002	4,585	45,691	14,360	937	15,297	30	218,184
	June	88	45,560	4,690	50,338	17,892	1,020	18,912	23	247,825
	July	89	55,082	5,219	60,390	23,383	1,433	24,815	25	314,357
	August	92	58,475	5,200	63,767	23,622	1,543	25,165	24	352,031
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,517
	October	91 86	46,263	4,335	50,689	15,993	870	16,863	22	251,151
	November December	86 88	46,883 53.854	4,216 5.176	51,185	14,690	1,075	15,766	17	214,275
	Total	1,036	53,854 <b>570,108</b>	5,176	59,117	23,440	4,034	27,474	21 <b>261</b>	218,191
	lotai	1,030	570,108	54,067	625,211	228,984	16,512	245,497	201	2,910,767
1984	January	98	55,142	4,985	60,225	24,745	2,176	26,921	24	215,027
	February	75	47,279	4,904	52,257	16,091	1,018	17,108	21	187,259
	March	69	49,921	4,543	54,534	17,274	1,016	18,290	18	206,171
	April	83	43,779	3,703	47,565	11,971	831	12,802	22	220,005
	May	99	45,115	4,294	49,507	13,327	1,010	14,337	23	264,522
	June	102	51,757	5,112	56,971	17,363	1,927	19,289	23	297,560
	July	100 97	54,928	5,331	60,359	16,453	1,259	17,712	22	348,848
	August September	97 81	58,026 49,288	5,273	63,396	20,337	1,522	21,859	20	349,878
	October	83	49,266 50,091	4,675 4,578	54,045 54,753	12,235	996	13,231	21	290,595
	November	91	49,595	4,576 4,543	54,753 54,229	12,450 14,543	965 1,326	13,415 15,870	19 17	269,629 244,637
	December	93	51,418	5,050	56,560	12,499	1,146	13,645	20	217,210
	Total	1,070	606,339	56,990	664,399	189,289	15,190	204,479	252	3,112,342
		-	•	•	•	•	-	•		•
1985	January	88	58,139	5,402	63,629	18,574	2,478	21,052	18	224,873
	February	70 70	50,453	4,940	55,463	14,729	1,315	16,044	17	201,160
	March	78 00	49,699	4,913	54,690	11,323	970	12,294	16	206,247
	April	92	47,024	3,738	50,854	9,561	905	10,466	16	233,201

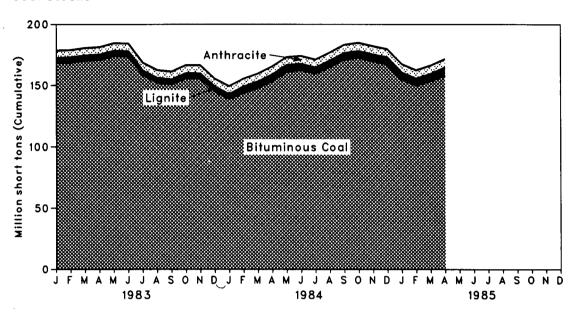
Natural

¹Includes supplemental gaseous fuels.
²Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
³Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
⁴Prior 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.

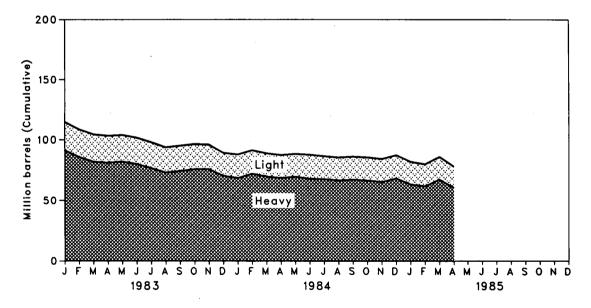
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; • October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; • 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

### Coal and Petroleum Stocks at End of Period

### **Coal Stocks**



### Petroleum Stocks



### Coal and Petroleum Stocks at End of Period

			Co	al		Petroleum				
		Anthracite	Bituminous Coal	Lignite	Total	Heavy¹	Light <sup>2</sup>	Total Liquids	Petroleum Coke	
			Thousand sh	nort tons		Th	ousand barre	ls	Thousand short tons	
1973	Year	1,066	84,941	961	86,967	(³)	(³)	89,216	312	
1974	Year	930	81,712	867	83,509	(³)	(³)	112,917	35	
1975	Year	982	107,927	1,815	110,724	(³)	(³)	125,257	31	
1976	Year	1,000	114,130	2,306	117,436	· (3)	(³)	121,696	32	
1977	Year	2,321	128,210	2,688	133,219	(³)	(³)	144,031	44	
1978	Year	2,178	123,020	3,027	128,225	(³)	(³)	118,788	198	
1979	Year	3,274	152,981	3,459	159,714	(3)	(°)	131,422	183	
1980	Year	4,741	174,154	4,115	183,010	105,351	30,023	135,374	52	
1981	Year	5,537	158,258	5,098	168,893	103,331	26,094	128,136	52 42	
1982	Year	6,080	170,480	4,573	181,132	95,515	23,369	118,884	42	
1983	January	6,107	168,287	4,210	178,604	91,523	23,183	114,706	54	
	February	6,104	168,635	4,362	179,101	85,847	22,665	108,512	53 ·	
	March	6,143	170,327	4,201	180,671	81,957	22,387	104,344	54	
	April	6,120	170,815	4,436	181,371	81,243	21,967	103,211	47	
	May	6,145	173,969	4,453	184,567	82,091	21,758	103,849	44	
	June	6,230	173,483	4,524	184,236	80,197	21,471	101,667	52	
	July	6,299	158,701	3,566	168,566	76,881	21,101	97,982	50	
	August	6,380	152,140	4,038	162,557	73,266	20,763	94,029	45	
	September	6,435	150,778	4,171	161,384	74,560	20,696	95,256	47	
	October	6,506	156,012	4,056	166,574	75,949	20,568	96,517	53	
	November	6,531	155,931	3,995	166,457	75,930	20,271	96,201	63	
	December	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55	
1984	January	6,500	139,026	3,877	149,403	68,679	19,369	88,048	43 ·	
	February	6,510	143,731	5,352	155,593	72,339	19,227	91,566	41	
	March	6,519	147,756	5,500	159,775	69,984	19,058	89,042	45	
	April May	6,515 6,532	153,300	5,777	165,592	68,771	18,849	87,620	47	
	June	6,532 6,541	161,067 162,426	5,573 5,188	173,171 174,155	69,890	18,695 19,807	88,584	51 51	
	July	6,530	159,683	4,883	174,155	68,098 67,856	18,840	87,906 86,696	51 50	
	August	6,583	164,987	5,358	176,928	66,836	18,795	85,632	47	
	September	6,628	170,987	5,536	183,151	67,370	18,921	86,291	49	
	October	6,674	172,553	5,552	184,779	66,717	18,965	85,682	49	
	November	6,715	169,788	5,627	182,130	65,548	18,875	84,423	43	
	December	6,710	167,118	5,899	179,727	68,503	19,116	87,619	50	
1985	January	6,719	154,999	5,806	167,524	63,546	18,511	82,057	57	
	February	6,736	150,023	5,717	162,476	62,072	18,073	80,145	50	
	March	6,782	153,697	5,834	166,313	62,558	18,652	81,209	43	
	April	6,836	158,174	6,641	171,651	60,889	17,356	78,245	31	

<sup>&</sup>lt;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.

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."

### Petroleum Consumption and Stocks by Prime Mover Type

		Petr	oleum Consum	ption	Petroleum Stocks at End of Period				
		Steam Plants	GT/IC¹	Total Liquids	Steam Plants	GT/IC¹	Total Liquids		
				Thousar	nd barrels				
1973	Total	513,190	47,058	560,248	79,121	10,095	89,216		
1974	Total	483,146	53,128	536,274	97,718	15,199	112,917		
1975	Total	467,221	38,907	506,128	108,825	16,432	125,257		
1976	· Total	514,077	41,843	555,920	106,993	14,703	121,696		
1977	Total	574,869	48,837	623,705	124,750	19,281	144,031		
1978	Total	588,319	47,520	635,839	102,402	16,386	118,788		
1979	Total	492,606	30,691	523,297	111,121	20,301	131,422		
1980	Total		•	•	•		•		
1981	Total	401,863	18,351	420,214	117,227	18,147	135,374		
		339,680	11,431	351,111	112,380	15,756	128,136		
1982	Total	243,537	6,234	249,771	105,287	13,597	118,884		
1983	January	21,373	465	21,838	101,394	13,312	114,706		
	February	20,885	404	21,289	95,459	13,053	108,512		
	March	20,728	392	21,119	91,394	12,750	104,344		
	April	16,997	432	17,429	90,667	12,544	103,211		
	May	14,968	330	15,297	91,360	12,489	103,849		
	June	18,437	475	18,912	89,283	12,384	101,667		
	July	23,927	888	24,815	85,891	12,091	97,982		
	August	24,166	999	25,165	82,307	11,722	94,029		
	September	18,532	996	19,529	83,511	11,745	95,256		
	October	16,518	345	16,863	84,873	11,644	96,517		
	November	15,336	430	15,766	84,804	11,397	96,201		
	December	25,978	1,496	27,474	78,285	11,090	89,375		
	Total	237,845	7,652	245,497					
1984	January	25,838	1,082	26,921	76,756	11,292	88,048		
	February	16,662	447	17,108	80,404	11,163	91,566		
	March	17,881	410	18,290	78,014	11,028	89,042		
	April	12,495	306	12,802	76,721	10,899	87,620		
	May	13,896	441	14,337	77,699	10,886	88,584		
	June	17,997	1,293	19,289	76,126	11,780	87,906		
	July	17,085	627	17,712	75,788	10,908	86,696		
	August	20,957	902	21,859	74,832	10,799	85,632		
	September October	12,795	436	13,231	75,588	10,703	86,291		
		13,019	396	13,415	74,906	10,775	85,682		
	November December	15,177 13,247	692 398	15,870 13,645	73,833 76,836	10,590	84,423		
		•		13,645	76,836	10,784	87,619		
	Total	197,050	7,429	204,479					
1985	January	19,842	1,210	21,052	71,522	10,535	82,057		
	February	15,576	467	16,044	70,051	10,094	80,145		
	March	11,957	337	12,294	70,364	10,845	81,209		
	April	10,127	338	10,466	68,641	9,604	78,245		

<sup>&#</sup>x27;IGT/IC=Gas turbine and internal combustion plants.

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

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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."

In April 1985, U.S. nuclear power plants generated a total of 26.5 billion net kilowatthours of electricity at an average capacity factor of 50.4 percent. This generation represents an increase of 9.2 percent compared with April 1984 generation. Nuclear power supplied 14.3 percent of the electricity distributed in April 1985, compared with 13.4 percent in April of the previous year.

On April 26, Pacific Gas and Electric Company's Diablo Canyon-2, a 1,106-net-megawatt-electric pressurized-water reactor, received a license from the Nuclear Regulatory Commission to start low-power testing before power ascension.

There were 89 operable U.S. nuclear power reactors as of April 30, 1985, with a collective net generating capacity of 72.9 million kilowatts. Of the 89 operable reactors, 6 units were in power ascension (Byron-1, Callaway-1, Catawba-1, Diablo Canyon-1, Grand Gulf-1,

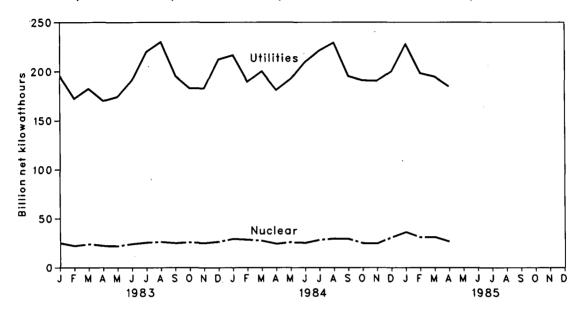
and Waterford-3), and 31 units generated no electricity or operated substantially below capacity in April (Arkansas Nuclear-2, Arnold, Browns Ferry-1, Browns Ferry-2, Browns Ferry-3, Brunswick-1, Calvert Cliffs-1, Cook-1, Cooper, Crystal River-3, Farley-1, Fitzpatrick, Fort St. Vrain, Hatch-2, LaCrosse, LaSalle-2, McGuire-1, McGuire-2, Millstone-2, Oconee-2, Peach Bottom-2, Point Beach-1, Quad Cities-2, Rancho Seco, Salem-2, San Onofre-2, Susquehanna-1, Surrey-2, Three Mile Island-1, Turkey Point-3, and Zion-1). Five units had licenses from the Nuclear Regulatory Commission authorizing fuel-loading and lowpower testing (Fermi-2, Diablo Canyon-2, Limerick-1, Palo Verde-1, and Wolf Creek), and one unit (Shoreham) was authorized to load fuel and conduct cold criticality testing.

As of April 30, 1985, there were 132 domestic nuclear power plants in all stages of planning, construction, or operation, with an aggregate design capacity of 123 million net kilowatts.

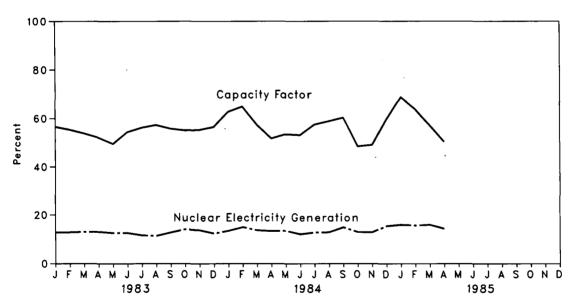
### Nuclear

### **Nuclear Power Plant Operations**

### Electricity Generated by Utilities and by Nuclear Power Plants



### Nuclear Portion of Electricity Generation and Capacity Factor



### **Nuclear**

### **Nuclear Power Plant Operations**

		Operable Reactors¹ ²	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity of Operable Reactors <sup>1, 3</sup>	Capacity Factor
			Million net kilowatthours	Percent	Million net kilowatts	Percent
1973	Year	39	83,479	4.5	22.900	52.9
1974	Year	48	113,976	6.1	31.710	48.3
1975	Year	54	172,505	9.0	33.312	59.7
1976	Year	60	191,104	9.4	43.277	57.8
1977	Year	65	250,883	11.8	46.046	64.1
1978	Year	70	276,403	12.5	49.629	65.7
1979	Year	68	255,155	11.4	49.326	58.7
1980	Year	70	251,116	11.0	51.059	57.1
1981	Year	74	272,674	11.9	55.534	57.1 58.4
1982	Year	74 77	282,773	11. <del>9</del> 12.6	59.552	56.4 57.2
			202,773	12.0	39.332	57.2
1983	January	77	25,073	12.8	59.532	56.6
	February	77	22,198	12.9	59.632	55.4
	March	77	23,890	13.1	59.632	53.9
	April	77	22,335	13.1	59.658	52.1
	May	78	22,051	12.6	59.883	49.5
	June	79	24,152	12.6	61.686	54.4
	July	79 	25,602	11.6	61.230	56.2
	August	79	26,201	11.4	61.440	57.3
	September	80	25,007	12.8	62.227	55.8
	October November	80	25,797	14.1	62.876	55.1
	December	80 80	25,010	13.7	62.809	55.3 50.5
	Year	= -	26,361	12.4	62.809	56.5
	rear	80	293,677	12.7	62.809	54.8
1984	January	80	29,313	13.5	62.772	62.8
	February	80	28,436	15.0	62.942	64.9
	March	81	27,345	13.7	64.036	57.4
	April	82	24,231	13.4	65.049	51.8
	May	82	25,867	13.5	64.986	53.5
	June	83	25,299	12.1	66.091	53.2
	July	83	28,284	12.8	66.091	57.5
	August	84	29,493	12.9	67.341	58.9
	September	84	29,146	14.9	67.066	60.4
	October November	<b>85</b>	24,774	13.0	68.497	48.5
	December	86 86	24,575	12.9	69.534	49.1
	Year	= =	30,872	15.4	69.522	59.7
	rear	86	327,634	13.6	69.522	56.5
1985	January	87	36,186	15.9	70.667	68.8
	February	88	30,809	15.6	71.841	63.8
	March	89	31,041	15.9	72.931	57.2
	April	89	26,458	14.3	<del>†</del> 72.911	†50.4

¹Monthly data are the status as of the last day of the month. Yearly data are the status as of December 31 of each year.
²See Note 1 on the last page of this section for the definition.
³When possible, net maximum dependable capacity (MDC) is used. When a reactor has not operated long enough to permit determination of a net MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced to reflect the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. For the definitions of net MDC and net DER, see Note 3 on the last page of this section.
⁴For an explanation of the method of calculating the capacity factor, see Note 4 on the last page of this section.
†Preliminary data.

Note: • Geographic coverage is the 50 States and the District of Columbia. Sources: • See the last page of this section.

### **Nuclear**

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

			ensed peration	Constr Pern				Total Design	
		Operable <sup>2</sup>	In Startup <sup>3</sup>	Granted	Pending	On Order	Announced	Total	Capacity <sup>4</sup>
									Million net kilowatts
1973	Year	39	3	51	58	48	20	219	212
1974	Year	48	5	58	80	28	16	235	234
1975	Year	54	2	69	73	19	19	236	236
1976	Year	60	1	72	66	16	19	234	236
1977	Year	65	1	80	52	13	9	220	220
1978	Year	70	Ó	90	32	9	4	205	204
1979	Year	68	Õ	91	21	3	ō	183	179
1980	Year	70	2	82	12	3	Ŏ	169	163
1981	Year	74	ō	75	11	3	0	163	157
1982	Year	77	2	75 R60	R3	2	0	R144	R135
	· car	• •		nou	пэ	2	U	R 144	H 135
1983	January	77	2	60	3	2	0	144	135
	February	77	2	60	3	2	0	144	135
	March	77	3	59	3	2	0	144	135
	April	77	4	57	3	2	0	143	134
	May	78	3	57	3	2	Ō	143	134
	June	79	2	57	3	2	0	143	134
	July	79	2	57	3	2	0	143	134
	August	79 80	2	57	3	2	0	143	134
	September	80 80	1	57 56	3 2	2	0	143	134
	October November	80 80	1	56 56	0	2	0	141 139	133
	December	80 80	3	56 53	0	2 2	0 0	138	131 129
	December	80	-		U	_	U	130	129
1984	January	80	3	51	0	2	0	136	128
	February	80	3	51	0	2	0	136	128
	March	81	3	50	0	2	0	136	128
	April	82	3	49	0	2	0	136	128
	May	82	3	49	0	2	0	136	128
	June	83	3	48	0	2	0	136	128
	July	83 84	. 3	48	0	2	0	136	128
	August September	84	2 2	44 44	0 0	2 2	0 0	132 132	123 123
	October	85	3	44 42	0	2	0	132	123
	November	86	2	42	ŏ	2	Ö	132	123
	December	86	6	38	Ö	2	0	132	123
1985	January	87	5	38	0	2	0	132	123
	February	88	4	38	0	2	0	132	123
	March	89	5	36	0	2	0 .	132	123
	April	89	6	35	0	2	0	132	123

¹Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.
²See Note 1 on the last page of this section for the definition.
³See Note 2 on the last page of this section for the definition.
⁴Net design electrical rating (DER) is used because many of the units have not had the operational experience needed to determine a net maximum dependable capacity (MDC). See Note 3 on the last page of this section. R=Revised data.
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. Operable Reactors: Units that have received Operating Licenses, completed low-power testing, and are authorized to operate at full power (i.e., in receipt of a Full Power Amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N reactor operated by the Department of Energy (DOE). The Hanford-N reactor, with a net capacity of 860 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net capacity of 60 MWe) operated by DOE, was included prior to retirement from service on October 1, August 1977 when it was excluded because of a major core modification outage. The DOE-operated Experimental Breeder Reactor-2 (EBR-2) is not included because the electricity it generates is not distributed commercially. Five units, each of which has been inoperative for at least 4 years prior to January 1, 1984, are deleted from entries subsequent to their removal from service: Peach Bottom-1 (net capacity of 40 MWe) and Indian Point-1 (net capacity of 265 MWe), both out of service since November 1974; Humboldt Bay (net capacity of 65 MWe), down since August 1976 for major seismic modifications and subsequently offi-cially retired; Dresden-1 (net capacity of 200 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island-2 (net capacity of 906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. A sister unit, Three Mile Island-1 (net capacity of 819 MWe), continues to be listed as "Operable" because it could, in theory, return to service once the restraining order imposed by the NRC is lifted.
- 2. In Startup: Units that have received Operating Licenses authorizing fuel loading and low-power testing but have not received a Full Power Amendment from the NRC. Without the amendment, these units cannot distribute electricity commercially.

3. Capacity: Nuclear power plants may have more than one type of net capacity rating including:

(a) Net 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) less the station service load. The typical station service load for a nuclear plant is about 5

percent of its gross generation.
(b) 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.

4. Monthly Capacity Factors: The monthly capacity factors are computed as the actual monthly generation divided by the maximum possible generation for that month. The maximum possible generation is the number of hours in the month multiplied by the net monthly maximum dependable capacity. This fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

### Sources

Reactors Licensed for Operation: Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Re-

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 Reactives"

Capacity Factor: Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.

June 1982—Compiled from various sources, primarily the 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."

### **Price**

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$24.15 per barrel in April 1985. This was 1.1 percent above the previous month's level but 6.9 percent below the level in April 1984.

During April 1985, the composite refiner acquisition cost of crude oil was \$27.04 per barrel, 1.0 percent above the previous month's average of \$26.77. The cost of imported crude oil increased \$0.38 per barrel from the March 1985 level to \$27.61 per barrel in April. This was 5.2 percent below the April 1984 average. The cost of domestic crude oil in April 1985 was \$26.79, \$0.18 more than the March 1985 average.

### **Motor Gasoline**

The national city average retail price of leaded regular gasoline at all types of stations was \$1.14 per gallon in May 1985, 2.2 percent higher than the price in April 1985. The price of unleaded regular gasoline was \$1.23 per gallon in May, 2.2 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged \$1.36 per gallon in May, 1.5 percent higher than during April 1985.

### Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users (utilities, industry, and other ultimate consumers) in April 1985 was \$0.64 per gallon, 4.5 percent below the previous month's price and 7.1 percent below the April 1984 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in April 1985 was \$0.60 per gallon, 3.5 percent below the March 1985 average and 9.1 percent below the April 1984 average.

### **Aviation Fuel**

The average price, excluding taxes, of aviation gasoline sold to end users in April 1985 was \$1.21 per gallon, 0.2 percent below the price in the previous month and 2.6 percent below the price in April 1984. The average

price, excluding taxes, of kerosene-type jet fuel sold to end users in April 1985 was \$0.80 per gallon, down 0.4 percent from the previous month's price and down 5.9 percent from the price 1 year earlier.

### No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in April 1985 was \$1.04 per gallon. This was 1.1 percent below the price in March 1985 and 5.5 percent below the April 1984 price. The average price for resale was \$0.79 per gallon in April 1985, 4.2 percent below the price in April 1984.

### **Natural Gas**

In March 1985, the average wellhead price of marketed natural gas production was \$2.62 per thousand cubic feet, \$0.02 (0.8 percent) lower than in February 1985 but \$0.01 above the March 1984 price. The average price of natural gas delivered to electric utility plants was \$3.79 per thousand cubic feet in March 1985, \$0.07 (1.9 percent) higher than the February 1985 price and \$0.27 (7.7 percent) above the March 1984 price. The average price of natural gas used by residential consumers in April 1985 was \$6.14 per thousand cubic feet, \$0.02 lower than in March 1985 but \$0.14 (2.3 percent) more than the April 1984 price.

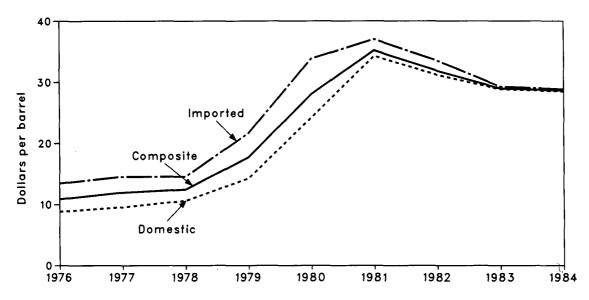
### Electricity

The average retail price of electricity sold by selected privately owned utilities to residential consumers in April 1985 was 7.73 cents per kilowatthour an increase of 3.3 percent from the March 1985 price and 5.5 percent above the April 1984 price. The average price of electricity sold to commercial consumers was 7.44 cents per kilowatthour in April 1985, a 1.1-percent increase from the previous month's price and up 2.6 percent from the April 1984 price. The average electricity price to industrial users during April 1985 was 5.09 cents per kilowatthour, a decrease of 0.8 percent from the previous month's price but 4.3 percent more than during April 1984.

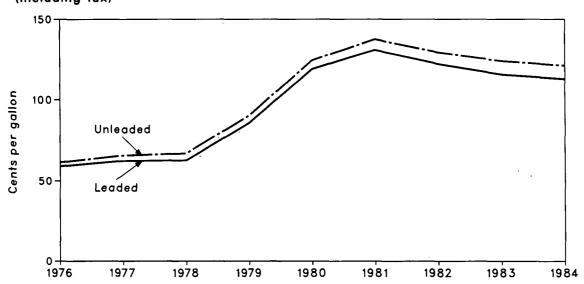
### Price

### Selected Petroleum Series

### Refiner Aquisition Cost of Crude Oil



### Regular Motor Gasoline Prices (Including Tax)



**Price Crude Oil Price Summary** 

		Actual Domestic	Average FOB	Average Landed	Refiner Acquisition Cost of Crude O			
		Average Wellhead Price <sup>1</sup>	Cost of Crude Oil Imports <sup>2</sup>	Cost of Crude Oil Imports <sup>3</sup>	Domestic	Imported	Composite	
				Dollars per	barrel			
1976	Average	8.19	12.17	13.34	8.84	13.48	10.89	
1977	Average	8.57	13.24	14.31	9.55	14.53	11.96	
1978	Average	9.00	13.30	14.38	10.61	14.57	12.46	
1979	Average	12.64	20.19	21.65	14.27	21.67	17.72	
1980	Average	21.59	32.27	33.95	24.23	33.89	28.07	
1981	Average	31.77	35.10	36.52	34.33	37.05	35.24	
1982	Average	28.52	32.11	33.18	31.22	33.55	31.87	
1983		27.22	29.47	30.62				
1903	January Extrust	27.22 26.41	29.47 27.79	29.08	30.55	31.40 30.76	30.73	
	February March	26.08	26.88	29.06 27.84	29.16 28.69	28.43	29.49 28.64	
	April	25.85	27.18	28.24	28.45	26.43 27.95	28.33	
	May	26.08	27.16	28.55	28.68	28.53	28.64	
	June	25.98	27.71	29.00	28.67	29.23	28.85	
	July	25.86	27.84	28.99	28.74	28.76	28.75	
	August	26.03	27.89	29.22	28.58	29.50	28.88	
	September	26.08	27.88	29.24	28.69	29.54	28.97	
	October	26.04	27.84	29.08	28.88	29.67	29.14	
	November	26.09	27.75	28.93	28.76	29.09	28.85	
	December	25.88	27.50	28.58	28.62	29.30	28.83	
	Average	26.19	27.73	28.93	28.87	29.30	28.99	
1984	January	25.93	27.56	28.49	28.62	28.80	28.67	
	February	26.06	27.78	28.89	28.76	28.91	28.81	
	March	26.05	27.70	28.69	28.75	28.95	28.81	
	April	25.93	27.84	28.91	28.63	29.11	28.77	
	May	26.00	27.87	28.94	28.65	29.26	28.83	
	June	26.09	27.78	28.89	28.58	29.19	28.77	
	July .	26.11	27.19	28.32	28.70	29.00	28.79	
	August	26.02	27.29	28.20	28.59	28.92	28.69	
	September	25.97	27.14	28.14	28.56	28.70	28.60	
	October	25.92	27.15	28.18	28.46	28.79	28.56	
	November	25.44	26.91	27.88	28.10	28.74	28.30	
	December	25.05	26.69	27.69	27.95	28.02	27.97	
	Average	25.88	27.44	28.46	28.53	28.88	28.63	
1985	January	24.28	26.10	26.95	26.89	27.51	27.02	
	February	23.63	R25.90	R26.82	26.39	27.05	26.53	
	March	R23.88	R†26.36	R†27.15	26.61	27.23	26.77	
	April	†24.15	†26.60	†27.44	26.79	27.61	27.04	

See Note 1 in the Notes and Sources for this section.

See Note 2 in the Notes and Sources for this section.

See Note 3 in the Notes and Sources for this section.

See Note 4 in the Notes and Sources for this section.

Treliminary data. R = Revised data.

Note: • Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and

Sources: • See the Notes and Sources for this section.

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

		Algeria	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
					Dollars	per barrel			
1976	Average	13.05	12.76	11.61	NA	13.08	11.69	NA	11.32
1977	Average	14.36	13.57	12.67	13.42	14.44	12.37	NA	12.68
1978	Average	14.10	13.64	12.65	13.24	14.04	12.70	13.82	12.45
1979	Average	20.65	19.35	23.71	20.29	21.80	17.63	21.20	17.37
1980	Average	36.57	32.37	(2)	31.11	35.82	28.53	34.58	24.78
1981	Average	39.09	35.93	(²)	33.13	38.53	32.48	36.08	28.86
1982	Average	34.23	35.27	30.93	28.07	35.13	33.50	33.46	23.77
1983	January	W	34.71	W	26.90	W	w	32.77	21.58
	February	W	33.74	W	25.69	W	W	30.95	21.82
	March	31.07	29.69	W	24.53	29.52	30.03	29.16	20.04
	April	29.37	29.57	W	24.18	29.63	W	30.07	20.05
	May	29.54	29.31	W	24.60	29.72	W	29.61	19.88
	June	29.80	29.59	W	24.13	29.57	W	28.92	20.80
	July	30.15	29.73	28.41	24.92	29.81	27.91	30.00	19.89
	August	30.32	29.60	28.19	25.15	29.92	27.83	29.88	21.56
	September	30.33	29.77	28.03	25.10	29.59	27.73	30.33	21.81
	October	29.98	29.81	28.29	25.72	30.23	28.24	29.73	23.58
	November	29.75	30.34	W	25.76	29.99	28.22	29.42	23.17
	December	W	29.77	28.30	26.20	29.60	27.18	29.05	24.17
	Average	30.06	29.93	28.25	25.19	29.78	28.03	29.84	21.48
1984	January	27.60	29.89	W	26.22	29.80	27.76	29.29	24.21
	February	28.56	29.09	W	26.04	29.98	26.72	29.70	23.55
	March	28.69	W	NA	26.30	29.89	28.39	29.95	23.86
	April	28.90	29.50	W	26.07	29.93	28.17	29.85	23.93
	May	28.98	29.44	W	26.36	29.67	27.43	29.93	24.07
	June	28.52	29.35	NA	26.58	29.34	W	29.67	24.23
	July	27.43	29.21	W	26.62	29.22	W	28.91	24.37
	August	26.97	W	W	26.71	29.02	W	28.13	23.91
	September	26.90	28.83	NA	26.34	29.24	27.99	27.99	24.57
	October	27.42	28.93	NA	26.44	28.40	W	28.50	24.43
	November	26.50	28.68	NA	26.53	28.32	NA	27.61	24.24
	December	25.13	28.03	NA	26.43	28.11	NA	27.85	24.32
	Average	28.04	29.10	26.93	26.37	29.39	27.60	28.90	24.16
1985	January	25.47	27.43	NA	26.10	27.22	W	W	24.02
	February	W	27.62	NA	26.00	27.41	W	W	24.36
	March†	R26.61	27.01	W	R26.31	28.20	NA	W	R24.93
	April†	27.44	27.50	W	26.33	27.96	NA	28.19	24.49

¹The Free on Board (FOB) cost excludes all costs related to insurance and transportation. See Note 2 in the Notes and Sources for this

section.

2No crude oil was imported.
†Preliminary data. R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of company data.

Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.

Sources: • See the Notes and Sources for this section.

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

		Algeria	Canada	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
						ollars per ba	rrel			
1975	Average	12.72	12.72	13.79	12.21	NA	12.62	12.30	NA	11.65
1976	Average	13.81	13.57	13.82	12.82	NA	13.80	13.04	NA	11.80
1977	Average	15.20	14.21	14.63	13.80	13.75	15.25	13.61	NA	13.13
1978	Average	14.91	14.50	14.64	13.88	13.54	14.86	13.92	NA	12.83
1979	Average	21.90	20.43	20.69	25.02	20.86	22.96	19.15	22.16	18.18
1980	Average	37.90	30.47	33.92	(²)	31.80	37.05	30.02	35.88	25.86
1981	Average	40.49	32.16	37.57	(²)	33.78	39.70	34.19	37.24	29.87
1982	Average	35.28	26.92	36.75	32.40	28.64	36.17	35.00	34.28	24.82
	•								34.20	24.02
1983	January	33.20	27.62	36.12	W	27.50	W	W	33.48	23.20
	February	32.17	26.19	35.07	W	26.15	32.24	W	33.33	23.36
	March	31.24	24.78	31.17	W	25.06	30.49	31.63	29.92	21.48
	April	30.55	24.35	31.14	W	24.65	30.63	W	30.84	21.45
	May	30.48	24.32	30.82	W	25.17	30.75	W	30.60	21.24
	June	30.88	24.88	31.40	29.10	24.81	30.56	W	30.02	· 22.07
	July	31.36	25.45	31.46	30.06	25.34	30.91	29.53	30.86	21.30
	August	31.85	25.45	31.65	29.57	25.80	31.21	29.39	30.83	22.82
	September	31.78	25.71	31.27	29.31	25.66	30.70	29.53	31.39	23.12
	October	30.97	26.01	31.14	29.73	26.44	31.16	29.98	30.79	24.75
	November	30.96	25.83	31.30	W	26.29	31.02	29.88	30.33	24.68
	December	30.23	26.69	31.12	28.57	26.88	30.57	28.83	30.00	24.91
	Average	31.26	25.63	31.57	29.81	25.78	30.84	29.76	30.87	22.94
1984	January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
	February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
	March	30.31	26.01	30.81	NA	26.92	30.93	30.20	30.98	24.75
	April	29.81	26.10	31.02	W	26.68	31.08	29.95	30.73	24.86
	May	29.96	27.12	30.80	W	26.92	30.96	28.95	30.75	24.93
	June	29.62	26.00	31.21	NA	27.24	31.05	29.90	30.43	25.29
	July	28.63	27.16	30.26	W	26.98	30.07	W	29.54	25.24
	August	28.16	26.95	30.59	W	26.99	29.99	W	28.93	24.95
	September	27.94	27.03	30.05	W	26.66	30.60	29.75	28.81	25.29
	October	28.42	26.82	30.11	W	26.80	29.47	28.57	29.27	25.49
	November	28.12	26.33	30.03	W	26.78	29.45	NA	28.39	25.35
	December	27.07	26.50	30.12	NA	26.86	29.32	NA	28.55	25.24
	Average	29.08	26.59	30.64	28.67	26.87	30.50	29.50	29.60	25.15
1985	January	26.28	24.99	29.26	NA	26.46	28.70	W	W	25.18
	February	26.06	R24.00	28.73	NA	26.37	28.55	W	W	25.37
	March†	R27.17	25.13	R28.40	W	R26.60	R29.42	NA	W	R25.72
	April†	28.25	26.15	29.00	W	26.57	28.98	W	28.77	25.47

<sup>&</sup>lt;sup>1</sup>See Note 3 in the Notes and Sources for this section.

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

†Preliminary data. R = Revised data. NA = Not available. W = Value withheld to avoid disclosure of company data.

Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.

Sources: • See the Notes and Sources for this section.

**Price** 

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

		Leaded Regular	Unleaded Regular	Unleaded Premium	Average for All Types²
			Cents per gallo	on, including tax	
1974	Average	53.2	NA	NA	NA
1975	Average	56.7	NA	NA	NA
1976	Average	59.0	61.4	NA	NA
1977	Average	62.2	65.6	NA	NA
1978	Average	62.6	67.0	NA	65.2
1979	Average	85.7	90.3	NA	88.2
1980	Average	119.1	124.5	· NA	122:1
1981	Average <sup>3</sup>	131.1	137.8	147.0	135.3
1982	Average	122.2	129.6	141.5	128.1
1983	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	. 133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October November	117.2	125.5 124.1	139.5 138.4	123.9
	December	·115.6 114.6	124.1 123.1	136.4	122.4 121.5
	Average	115.7	124.1	138.3	122.5
1984	January	113.1	121.6	136.9	120.0
1004	February	112.5	120.9	136.1	119.3
	March	112.5	121.0	136.2	119.4
	April	114.5	122.7	137.5	121.1
	May	115.4	123.6	138.0	122.1
	June	114.7	122.9	137.7	121.4
	July	112.9	121.2	137.0	119.7
	August	111.6	119.6	135.5	118.4
	September	112.0	120.3	136.0	118.9
	October	112.7	120.9	136.5	119.5
	November	112.4	120.7	136.4	119.3
	December	110.9	119.3	135.4	117.9
	Average	112.9	121.2	136.6	119.8
1985	January	106.0	114.8	130.4	114.5
	February	104.1	113.1	129.0	112.8
	March	107.1	115.9	131.0	115.5
	April May	111.9 114.4	120.5 123.1	134.0 136.0	119.9
	May	114.4	123.1	130.0	122.3

<sup>&</sup>lt;sup>1</sup>See Note 5 in the Notes and Sources for this section.

<sup>2</sup>Also includes types of gasoline not shown separately.

<sup>3</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 Notes and Sources for this section.

**Price** Refiner and Gas Plant Operator Sales Prices of Residual Fuel Oil<sup>1</sup>

		Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Sulfur	il Fuel Oil Content an 1 percent	Average		
		Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	
				Cents per gallo	on, excluding tax			
1978	Average	29.3	31.4	24.5	27.5	26.3	29.8	
1979	Average	45.0	46.8	36.6	38.9	39.9	43.6	
1980	Average	60.8	67.5	47.9	52.3	52.8	60.7	
1981	Average	74.8	82.9	62.2	67.3	66.3	75.6	
1982	Average	69.5	74.7	57.2	61.1	61.2	67.6	
1983	January	65.0	70.5	57.0	60.1	60.3	64.2	
	February	63.0	66.0	55.7	58.5	58.5	62.0	
	March	60.0	66.2	55.9	57.0	57.7	60.9	
	April	60.1	64.3	56.5	58.7	57.7	61.0	
	May	62.6	66.9	57.8	59.7	59.2	63.2	
	June	63.2	69.2	58.5	60.1	60.2	64.7	
	July	65.2	70.4	60.5	61.4	62.2	65.9	
	August	66.7	71.6	62.0	63.2	63.8	67.7	
	September	67.0	72.6	63.3	65.3	64.6	69.0	
	October	68.8	72.1	62.6	64.9	64.7	68.7	
	November	66.5	70.7	62.2	64.4	63.6	67.4	
	December	67.3	72.0	60.2	63.1	62.3	67.2	
	Average	64.3	69.5	59.1	61.1	60.9	65.1	
1984	January	71.0	73.6	62.3	64.6	64.8	69.0	
	February	71.4	75.1	65.7	65.8	67.5	70.4	
	March	70.5	73.1	61.9	64.7	64.5	68.5	
	April	69.2	73.1	64.7	66.5	66.2	69.1	
	May	68.3	72.7	65.0	67.4	66.0	69.5	
	June	69.8	73.2	66.1	68.9	67.2	71.0	
	July	66.8	71.5	64.0	66.7	65.0	69.0	
	August	65.6	69.5	62.7	65.0	63.6	67.1	
	September	65.9	70.0	63.8	64.9	64.5	67.5	
	October	66.8	70.8	64.3	65.8	65.1	67.8	
	November	66.8	70.4	63.6	65.8	64.6	67.9	
	December	67.5	70.5	63.3	65.6	64.6	67.7	
	Average	68.5	72.0	63.9	65.9	65.4	68.7	
1985	January	67.6	71.1	63.3	66.5	64.7	68.4	
	February	67.6	71.2	63.4	66.3	65.0	68.7	
	March	66.2	R70.1	R60.8	65.0	R62.4	R67.2	
	April†	63.0	67.7	58.7	61.9	60.2	64.2	

Sources: •See the Notes and Sources for this section.

<sup>&</sup>lt;sup>1</sup>Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

<sup>†</sup>Preliminary data. R=Revised data.

Notes: 

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

Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.

**Price** Refiner and Gas Plant Operator Sales Prices of Petroleum Products for Resale<sup>1</sup>

		Finished Motor Gasoline <sup>2</sup>	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
				Cents p	er gallon, excludir	ng tax		
1978	Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1979	Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
1980	Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1981	Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
1982	Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
1983	January	88.5	124.8	91.8	94.2	85.7	85.5	47.0
	February	85.4	123.7	89.9	90.0	80.1	80.7	46.7
	March	82.9	121.2	84.5	83.1	76.0	75.2	47.4
	April	86.5	120.0	82.9	84.2	78.9	76.8	50.0
	May	90.4	120.2	84.3	87.7	80.9	80.2	50.5
	June	91.5	115.0	84.1	84.6	80.9	80.3	50.9
	July	92.3	115.2	84.8	85.2	81.7	80.8	50.7
	August	91.5	114.7	85.4	86.7	83.4	81.7	49.8
	September	90.2	113.7	86.3	91.9	85.1	83.5	50.1
	October	88.1	118.9	86.4	90.8	83.5	83.0	49.9
	November	86.6	118.7	84.4	90.4	82.6	82.0	47.3
	December	83.8	118.8	83.6	88.6	80.7	80.1	45.4
	Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
1984	January	83.2	116.7	86.4	95.9	87.5	82.6	47.7
	February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
	March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
	April	86.9	116.8	84.2	90.7	82.8	80.8	44.6
	May	86.6	117.1	84.3	90.9	83.2	81.9	44.4
	June	84.5	116.8	84.2	88.1	82.4	81.9	44.1
	July	81.7	117.2	82.8	87.6	79.4	79.3	42.3
	August	81.1	116.7	81.0	86.0	77.8	77.7	43.2
	September	82.8	116.8	81.7	88.8	80.0	78.4	44.8
	October	83.6	116.4	82.9	88.9	80.8	80.0	46.1
	November	81.9	114.8	81.4	88.0	79.4	79.0	45.6
	December	78.0	114.0	80.1	86.4	77.1	77.0	43.0
	Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
1985	January	75.2	114.5	79.5	85.8	75.7	74.9	40.0
	February	76.3	114.0	79.3	86.5	75.2	74.1	39.4
	March	81.0	113.6	78.6	85.7	76.4	75.6	R38.0
	April†	85.8	112.6	79.3	84.7	79.3	79.2	37.9

<sup>&</sup>lt;sup>1</sup>Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

<sup>2</sup>See Note 5 in the Notes and Sources for this section.

†Preliminary data. R=Revised data.

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

•Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: • See the Notes and Sources for this section.

**Price** Refiner and Gas Plant Operator Sales Prices of Petroleum Products to End Users<sup>1</sup>

		Finished Motor Gasoline <sup>2</sup>	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
				Cents	per gallon, exclud	ing tax		
1978	Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1979	Average	71.3	68.9	54.7	58.5	51.6	58.5	- 35.7
1980	Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1981	Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
1982	Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
1983	January	97.1	129.2	94.5	104.5	100.9	89.2	72.7
	February	92.5	127.2	92.6	101.4	97.0	84.0	72.7 71.7
	March	89.8	126.6	90.6	97.1	93.0	78.0	68.1
	April	94.7	125.2	88.8	93.4	89.1	78.8	68.6
	May	96.6	125.4	87.8	93.8	89.5	81.8	72.2
	June	97.8	125.6	86.3	90.0	87.3	81.5	67.3
	July	98.8	125.1	85.6	89.0	85.1	82.0	66.4
	August	98.4	125.9	85.5	90.8	86.1	83.0	68.9
	September	96.9	124.2	86.1	92.7	88.0	84.8	74.9
	October	95.4	124.7	86.0	98.9	89.0	84.2	69.6
	November	93.9	124.5	85.8	100.0	90.1	83.5	72.8
	December	92.4	124.4	85.5	96.6	92.1	82.2	76.4
	Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
1984	January	90.6	123.9	85.8	106.8	97.7	84.4	76.8
	February	90.2	123.7	86.5	117.9	104.6	87.4	76.3
	March	90.7	123.8	85.6	111.3	94.7	83.2	76.4
	April	92.9	124.4	85.1	105.8	91.9	82.4	76.5
	May	93.4	123.9	85.2	102.4	90.9	83.2	70.4
	June	92.5	124.6	84.5	94.3	86.9	84.0	70.6
	July	90.4	124.3	84.1	90.6	84.3	81.3	69.6
	August	89.2	123.2	83.4	92.8	82.8	79.7	71.9
	September	89.7	123.7	83.1	99.2	84.3	80.2	73.4
	October	90.5	123.3	83.2	102.7	87.3	81.6	74.1
	November	89.9	119.3	82.4	106.1	87.7	80.7	73.8
	December	88.0	121.9	82.2	101.4	88.1	79.4	70.0
	Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
1985	January	84.6	121.7	81.4	106.0	87.0	77.6	78.8
	February	83.6	121.1	80.9	103.7	86.1	76.7	76.1
	March	R87.1	121.4	80.4	R103.1	R86.0	77.0	74.6
	April†	92.4	121.2	80.1	101.0	85.6	79.9	75.9

<sup>&</sup>lt;sup>1</sup>Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

See Note 5 in the Notes and Sources for this section.

Preliminary data. R = Revised data.

Notes: 

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

Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.

Sources: • See the Notes and Sources for this section.

**Price**Sales Prices of No. 2 Distillate to Residences for Selected States<sup>1</sup>

		СТ	ME ·	MA	NH	RI	VT	DE	DC	MD	NJ	NY	PA	VA
						С	ents per	galloñ, ex	cluding t	ax				
1978	Average	50.1	48.6	48.8	50.3	50.7	50.8	47.8	50.7	49.2	49.6	50.1	48.8	49.1
1979	Average	72.0	68.8	70.9	72.5	72.8	72.5	68.2	74.2	70.1	71.0	71.2	69.8	70.4
1980	Average	98.0	96.3	97.8	100.4	101.1	101.5	95.4	102.6	97.9	97.9	98.2	96.4	98.5
1981	Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4	121.4	121.5	123.2	118.1	120.5
1982	Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5	117.1	117.4	120.5	113.7	117.7
1983	January	119.5	109.0	116.3	111.6	116.2	121.5	110.5	122.8	115.4	115.7	120.6	113.7	116.0
	February	115.8	103.7	113.2	105.5	112.2	116.9	108.2	119.7	112.6	110.4	117.6	109.6	112.0
	March	108.3	97.4	105.4	100.8	106.8	109.6	103.9	115.3	108.2	104.6	110.2	104.0	106.9
	April	104.5	99.5	104.4	100.9	108.8	110.6	103.0	113.1	107.9	104.4	106.9	101.8	106.7
	May	105.9	101.6	107.0	102.6	109.6	111.2	104.6	112.9	108.6	105.5	108.2	103.3	107.2
	June	104.3	102.6	105.9	101.2	112.0	112.8	107.3	114.7	108.3	104.6	110.5	102.2	106.8
	July	104.2	102.6	105.3	104.3	109.1	112.3	107.8	112.8	107.2	104.5	109.9	101.3	107.4
	August	103.8	105.6	105.4	103.5	107.9	111.7	102.5	113.3	107.0	105.5	110.0	101.6	107.7
	September	103.8	103.8	106.2	104.0	108.1	111.0	103.5	113.9	108.1	106.1	110.5	102.8	108.1
	October	104.3	102.9	105.6	103.1	108.0	109.4	103.5	113.4	108.7	105.4	110.3	103.3	104.8
	November	104.1	101.8	106.1	101.5	108.7	109.8	103.7	113.5	108.8	104.6	110.2	103.7	104.9
	December	105.6	102.2	108.1	103.7	109.4	110.0	105.5	114.7	109.2	106.7	110.9	104.6	105.2
	Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0	110.3	107.9	112.1	105.8	108.7
1984	January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0	115.6	114.1	118.3	112.9	111.4
	February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6	121.9	119.5	124.3	117.4	117.5
	March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6	116.2	113.5	117.0	110.9	112.6
	April	113.4	103.3	112.4	107.7	110.7	113.3	109.9	119.9	115.6	110.6	116.0	107.8	110.8
	May	112.5	102.7	112.5	108.8	111.4	112.2	109.0	119.5	113.0	109.1	114.5	105.8	111.1
	June	110.6	103.7	110.5	104.5	110.8	112.8	107.2	116.3	109.9	107.1	115.0	103.3	108.7
	July	107.4	102.5	107.3	101.9	109.3	108.6	103.7	116.5	109.0	104.9	112.8	99.7	107.2
	August	104.7	98.0	105.5	98.6	106.0	108.0	103.7	109.8	105.2	103.6	110.2	99.6	105.2
	September	105.4	99.1	106.0	101.0	105.9	106.9	102.1	109.9	106.7	104.3	109.3	100.9	105.9
	October	106.2	101.9	106.9	102.2	107.4	108.0	103.5	111.8	107.5	105.7	111.9	101.5	106.7
	November	107.2	100.6	107.2	102.7	106.5	107.5	103.3	111.9	108.2	105.2	111.7	102.9	107.1
	December	106.4	97.9	107.0	103.1	107.1	106.4	102.8	112.9	107.1	104.9	111.3	103.2	107.7
	Average	112.1	103.9	111.6	108.4	111.4	111.9	109.6	118.7	113.5	111.0	115.5	107.9	110.5
1985	January	106.9	97.9	107.2	101.3	108.1	106.9	103.8	112.1	107.5	105.0	111.3	102.9	106.2
	February	107.2	98.5	107.1	102.7	106.9	107.3	104.0	117.1	108.6	105.7	112.0	103.2	106.8
	March	106.8	R100.6	107.3	R103.3	106.2	107.9	104.6	115.9	108.3	105.1	111.3	102.1	R105.8
	April†	105.9	101.8	106.8	102.0	106.9	106.5	105.1	113.7	109.7	102.1	NA	100.9	105.4

<sup>&</sup>lt;sup>1</sup>The States are listed by geographic region of the country. State names are abbreviated as follows: CT - Connecticut, ME - Maine, MA - Massachusetts, NH - New Hampshire, RI - Rhode Island, VT - Vermont, DE - Delaware, DC - District of Columbia, MD - Maryland, NJ - New Jersey, NY - New York, PA - Pennsylvania, VA - Virginia, WV - West Virginia, IL - Illinois, IN - Indiana, MI - Michigan, MN - Minnesota, OH - Ohio, WI - Wisconsin, ID - Idaho, AK - Alaska, OR - Oregon, WA - Washington. Footnotes continued on following page.

**Price** Sales Prices of No. 2 Distillate to Residences for Selected States<sup>1</sup> (continued)

		wv	IL	IN	МІ	MN	ОН	WI	ID	AK	OR	WA	U.S. Average
						Cent	s per gall	on, exclu	ding tax				
1978	Average	46.2	46.5	48.5	47.9	47.8	47.4	44.7	43.6	53.2	45.8	48.6	49.0
1979	Average	65.1	68.8	72.7	70.9	72.4	68.6	67.3	62.1	68.2	68.0	69.7	70.4
1980	Average	92.2	95.8	99.6	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	97.4
1981	Average	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4
1982	Average	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6	116.0
1983	January	105.6	103.8	105.7	110.6	107.8	107.9	108.5	109.1	114.6	113.6	117.7	115.0
	February	104.7	99.5	102.8	108.5	101.6	104.4	104.5	104.8	NA	107.8	114.3	111.6
	March	99.2	96.6	95.7	103.7	96.5	98.2	96.8	99.6	110.7	101.4	109.0	105.1
	April	97.5	97.7	96.8	102.5	100.5	95.8	97.1	99.0	106.6	99.1	106.0	103.5
	May	96.1	100.3	98.2	102.7	101.9	96.5	98.7	99.2	106.0	99.0	105.5	104.8
	June	97.3	100.2	98.2	110.7	102.4	96.1	98.7	98.7	105.0	99.4	105.4	106.0
	July	94.9	99.6	99.4	105.3	102.6	97.3	99.0	99.3	105.8	97.8	105.2	105.0
	August	96.1	100.7	98.9	102.2	104.4	95.2	99.2	98.1	105.1	98.7	104.0	104.9
	September	100.7	102.5	101.4	103.9	103.7	101.2	100.7	98.9	106.2	100.5	105.6	105.7
	October	100.6	101.0	101.5	105.8	104.8	100.2	101.8	99.5	106.1	101.4	106.3	106.0
	November	100.5	100.8	100.7	105.4	104.4	101.0	100.4	99.5	105.5	102.1	106.4	106.0
	December	101.5	99.6	101.1	106.8	104.2	102.1	100.5	100.3	105.5	101.8	106.1	106.7
	Average	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	107.8
1984	January	108.5	104.7	106.0	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
	February	109.9	105.9	107.3	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
	March	104.9	102.3	100.6	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
	April	101.6	100.3	103.4	104.8	103.9	101.9	101.4	96.2	107.3	100.6	105.0	109.8
	May	98.9	102.3	102.4	105.2	105.3	103.1	101.0	98.1	107.2	99.5	104.2	108.4
	June	99.5	101.6	105.9	103.3	104.2	101.7	100.5	93.8	107.8	98.2	103.3	107.2
	July	96.2	99.4	101.4	102.6	105.1	101.8	100.5	93.1	107.2	97.1	100.4	104.8
	August	96.6	98.9	100.3	101.8	104.5	99.5	100.0	97.4	107.3	94.9	99.7	103.3
	September	96.9	98.6	100.7	103.2	103.5	100.1	98.8	98.4	105.0	95.9	100.4	103.6
	October	98.3	97.1	100.9	103.0	103.0	101.2	100.7	99.4	107.8	96.5	100.9	104.9
	November	99.6	95.8	102.3	103.5	103.1	100.8	101.0	97.9	107.8	97.6	101.3	105.3
	December	99.2	94.4	100.9	103.2	102.8	99.3	99.0	98.8	107.5	97.4	100.5	104.8
	Average	102.1	100.1	103.1	105.0	104.1	102.1	101.0	98.5	106.9	99.3	102.6	109.1
1985	January	98.6	95.2	98.6	102.1	99.5	98.3	97.3	96.8	108.6	96.1	100.6	104.9
	February	98.3	94.4	97.8	101.0	99.8	98.7	96.1	96.9	107.6	96.6	99.8	105.3
	March	98.1	94.5	R96.3	R101.3	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0
	April†	99.9	96.8	98.7	98.2	101.5	97.4	96.8	96.1	NA	95.4	99.2	103.8

Footnotes continued.
†Preliminary data. R=Revised data. NA=Not available.
Note: • Prices prior to January 1983 are Energy Information Administration estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

### **Price**

### **National Average Natural Gas Prices**

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies¹	Purchased by Electric Plants <sup>1</sup> <sup>2</sup>	Residential Price <sup>1 3</sup>
,				Dollars per thousa	and cubic feet		
1973	Average	0.22	,NA	NA	, NA	0.35	1.29
1974	Average	0.30	NA	NA	NA	0.49	1.43
1975	Average	0.45	NA	NA	NA	0.77	1.71
1976	Average	0.58	NA	NA	NA .	1.06	1.98
1977	Average	0.79	NA	NA	NA	1.33	2.35
1978	Average	0.91	2.21	0.83	1.54	1.48	2.56
1979	Average	1.18	2.60	1.22	2.01	1.80	2.98
1980	Average	1.59	4.42	1.63	2.53	2.28	3.68
	•	1.98	4.84	2.15	2.55 3.11	2.20	
1981							4.29
1982	Average	2.46	• 4.94	2.72	3.73	3.49	5.17
1983	January	2.66	5.03	3.06	4.38	²3.57	5.86
	February	2.66	5.09	3.15	4.41	3.41	5.87
	March	2.58	5.01	3.01	4.24 <sup>-</sup>	3.45	6.00
	April	2.53	4.58	2.90	4.44	3.35	6.06
	May	2.53	4.40	2.98	4.24	3.55	6.22
	June	2.59	4.41	2.95	4.22	3.58	6.20
	July	2.52	4.31	2.9 <del>6</del>	4.28	3.72	6.21
	August	2.58	3.93	2.90	4.23	3.75	6.18
	September	2.67	4.02	2.87	4.08	3.70	6.19
	October	2.58	4.03	2.86	4.22	R3.62	6.10
	November	2.60	4.26	2.84	. 4.26	R3.54	6.04
	December	2.61	4.33	2.73	4.12	3.49	6.06
	Average	2.59	4.51	2.93	4.26	3.58	6.06
1984	January	2.65	4.40	2.80	4.25	R3.55	5.98
•	February	2.70	4.37	2.82	3.97	R3.61	6.01
	March	R2.61	4.40	2.80	4.18	R3.52	5.98
	April	2.59	4.23	2.95	4.11	R3.57	6.00
-	May	2.61	4.15	2.86	4.17	R3.75	6.19
	June	R2.64	4.25	2.89	4.06	R3.76	6.13
	July	R2.62	4.15	2.95	4.04	R3.89	6.17
	August	R2.63	4.12	2.95	4.07	R3.80	6.20
	September	R2.56	4.34	2.84	4.10	R3.83	6.26
	October	R2.57	·4.19	2.96	4.06	R3.75	6.25
	November	R2.56	3.43	3.13	4.26	R3.72	6.12
	December	R2.51	3.34	2.95	4.22	R3.69	6.09
	Average	R2.60	4.08	2.91	4.13	R3.72	6.06
1985	January	R12.65	3.21	2.89	4.19	3.77	6.19
	February	R2.64	3.08	2.87	4.15	R3.72	6.12
	March	2.62	3.29	2.90	4.01	3.79	6.16
	April	NA	NA	NA <sub>.</sub>	NA .	NA	6.14

A new series for residential natural gas prices is being developed to replace the series shown here. The new series is based on monthly data now being collected on Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and is shown in the Natural Gas Monthly, DOE/EIA-0130. Monthly prices in the new series differ from the old series shown here, but annual prices through 1983 are the same in both series. Annual prices for 1984 will also be the same when finalized.

<sup>&</sup>lt;sup>1</sup>Includes supplemental gaseous fuels.

<sup>&</sup>lt;sup>a</sup>Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or

greater.

Monthly residential prices are Energy Information Administration calculations. See Note 6 in the Notes and Sources for this section for

estimation procedures.

The increase from the previous month was primarily the result of the expiration of large, long-term, low-priced intrastate contracts in

R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Data for 1973 through December 1983 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the Notes and Sources for this section.

### **Electricity**

Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants<sup>2</sup>

Average Retail Electricity Prices<sup>1</sup> for Selected Privately Owned Utilities<sup>3</sup>

		10 3	ream-Electi	ic Utility P	Iants-	for Selected Privately Owned Utilities						
* * * •	• • .	Coal	Heavy Oil	Natural Gas <sup>s</sup>	All Fossii Fuels'	Residential	Commercial	Industrial	Other	Total*		
			Cents per	million Btu			Cents pe	er kilowatthoui	•			
1973	Average	40.5	78.5	33.8	47.6	2.54	2.41	1.25	2.10	1.96		
1974	Average	70.9	189.0	48.2	91.4	3.10	3.04	1.69	2.75	2.49		
1975	Average	81.4	200.5	75.2	104.4	3.51	3.45	2.07	3.08	2.92		
1976	Average	84.8	195.2	103.4	111.9	3.73	3.69	2.21	3.27	3.09		
1977	Average	94.7	219.8	129.1	129.7	4.05	4.09	2.50	3.51	3.42		
1978	Average	111.6	212.5	142.2	141.1	4.31	4.36	2.79	3.62	3.69		
1979	Average	122.4	298.8	174.9	163.9	4.64	4.68	3.05	3.96	3.99		
1980	Average	135.1	426.7	219.9	192.8	5.36	5.48	3.69	4.76	4.73		
1981	Average	153.2	533.4	280.5	225.6	6.20	6.29	4.29	5.28	5.46		
1982	Average	164.7	483.2	337.6	224.9	6.86	6.86	4.95	5.92	6.13		
1983	January	²166.8	²448.9	²347.1	²216.7	6.65	6.78	5.03	5.91	6.13		
	February	167.8	441.4	331.9	213.9	6.73	6.86	4.96	5.97	6.12		
	March	168.1	426.0	336.1	215.5	6.93	6.93	5.07	6.16	6.23		
•	April	168.5	431.6	326.1	215.8	6.91	6.86	4.92	6.15	6.12		
	May	165.0	446.6	344.3	216.6	7.20	7.04	4.89	6.60	6.21		
· .	June	167.3	453.6 467.0	347.2	220.9	7.41	7.13	4.96	6.62	6.35		
* *	July · August	165.3 164.3	467.0 470.4	361.1 363.2	237.4 230.1	7.50 7.52	7.13 7.06	5.11 5.01	6.24 6.37	6.53 6.51		
	September	163.9	470.4 482.8	358.1	226.4	7.55	7.06 7.15	5.00 ·	6.58	6.52		
	October	164.6	479.6	350.1	219.8	7.50	7.19	5.00	6.66	6.41		
	November	163.6	472.2	340.5	212.2	7.25	7.13	4.83	6.63	6.23		
	December	162.2	468.7	338.7	219.2	6.97	6.91	4.81	6.40	6.14		
	Average	165.6	457.8	347.4	220.6	7.18	7.01	4.97	6.36	6.29		
1984	January	161.6	488.9	343.7	221.0	6.77	6.81	4.86	6.33	6.14		
	February	164.9	496.3	347.5	217.4	6.97	7.01	4.86		6.19		
	March	163.4	484.0	339.8	208.4	7.18	7.14	4.88	6.68	6.27		
	April	. 165.7	494.1	344.4	210.6	7.33	7.25	4.88	6.73	6.30		
	May June	168.6 169.1	486.9 488.3	360.4	220.3	7.59	7:30	4.92	6.85	6.40 6.65		
	July	168.2	400.3 474.6	360.9 373.1	223.2 231.3	7.90 8.00	7.48 7.51	5.09 5.21	6.78 6.97	6.83		
	August	167.2	459.6	365.6	223.5	8.06	7.51 7.51	5.15	6.75	6.82		
:	September	167.4	472.5	368.0	217.5	8.06	7.64	5.25	7.05	6.88		
	October	168.7	474.1	361.4	218.8	7.95	7.63	5.13	6.86	6.71		
	November	166.6	470.6	357.2	216.8	7.62	7.43	5.06	6.99	6.54		
	December	165.0	480.4	355.4	218.7	7.34	7.30	5.07	6.70	6.48		
	Average	166.4	481.2	358.3	219.2	7.56	7.33	5.03	6.76	6.52		
1985	January	164.0	472.7	364.2	218.8	7.28	7.25	5.12	6.80	6.52		
•	February	167.3	482.4	358.1	218.4	7.19	7.21	5.12	6.77	6.47		
	March April†	167.5 NA	458.9 NA	365.1 NA ·	210.2 NA	7.48 7.73	7.36 7.44	5.13 5.09	7.01 6.95	6.55 6.58		

<sup>&</sup>lt;sup>1</sup>Prices are calculated by dividing revenues by sales. Revenues may not correspond to sales for a particular month because of utility billing and accounting procedures. This could result in uncharacteristic increases or decreases in the monthly prices.

<sup>2</sup>Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or data include peaking units. Beginning with January 1903, data cover steam of the country of the cover selected privately owned electric utilities in Classes A and B. Data for 1980 forward cover selected privately owned electric utilities in Class A whose electric operating revenues were \$100 million or more during the previous year.

See Note 7 in the Notes and Sources for this section.

Includes supplemental gaseous fuels.

Average price for total sales to ultimate consumers.

Initial estimates. NA = Not available.

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

Sources: • See the Notes and Sources for this section.

### Notes and Sources for the Price Section

### Notes

- 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. 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.
- 3. 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
- 4. 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 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. The composite cost is the weighted average of domestic and imported crude oil costs.

Crude oil costs.

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.

5. Several different series of motor gasoline prices are published in this section. U.S. City Average Retail Prices for Motor Gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. 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).

Refiner and Gas Plant Operator Sales Prices of Finished Motor Gasoline for Resale and to End-Users are determined by the Energy Information Administration in a monthly survey of refiners and gas plant operators (Form EIA-782A). The prices do not include any Federal, State, or local taxes paid at the time of sale. Estimates of prices prior to January 1983 are based on FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices," and also exclude all Federal, State, or local taxes paid at the time of sale. Sales for Resale are those made to purchasers who are other-than-ultimate consumers. Sales to End-Users are sales made directly to the consumer of the product, including bulk consumers such as agriculture, industry, and utilities, as well as residential and commercial consumers.

- **6.** The monthly national average price of residential natural gas is based on data from the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) for natural gas (piped) and on data from Form EIA-176. Initial monthly estimates are obtained by multiplying the annual average price of residential natural gas collected on Form EIA-176 by the ratio of monthly values of the natural gas CPI-U for consecutive months. When a subsequent year's annual average price becomes available, the initial monthly estimates are adjusted to this annual average.
- 7. Heavy 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.
- 8. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous annual data series have been generated for 1978–1980, and monthly series for 1981 and 1982, by estimating the prices that would have been published had the EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment for product and sales type matching, and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale, and between retail and end-user. The resale category continues to include sales among resellers. However, bulk sales to utility, industrial, and commercial accounts previously included in industrial, and commercial accounts previously included in the wholesale category are now counted as made to end users. The end user category continues to include retail sales through company owned and operated outlets but also includes the bulk utility, industrial, and commercial sales. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article reprinted from the December 1983 [3] Petroleum Marketing Monthly published by the Energy Information Administration Monthly published by the Energy Information Administration.

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

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

### Sources

Petroleum and Petroleum Products: • Actual domestic average wellhead prices—Economic Regulatory Administra-tion (ERA), January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report"; February 1976 through September 1979: FEA Form P124, "Domestic Crude Oil Purchaser's (Monthly) Report"; October 1979 through December 1982: ERA Form 182, "Domestic Crude Oil First Purchase Report."; January 1983 forward: EIA Form 182, "Domestic Crude Oil First Purchase Report."

\*\*Crude Oil First Purchase Report."

Crude oil imports costs—Energy Information Administration (EIA), 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 through June 1984: EP Form 51, "Monthly Foreign Crude Oil Transaction Report"; July 1984 forward: Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report"

• Refiner acquisition costs—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."

· U.S. City average retail motor gasoline prices-Bureau of

Labor Statistics.

 No. 2 Distillate to Residences—January 1983 forward, EIA • No. 2 Distillate to Hesidences—January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA-782B, "Reselers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA estimates using data from 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." See Note 8 on the previous page for additional information on the estimated

· All other petroleum products-January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petro-leum Product Sales Report." Prices prior to January 1983 are EIA estimates using data from FEA Form 302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices." See Note 8 on the previous page for additional information on the estimated data.

Natural Gas: • Average wellhead price—annual data from EIA, Natural Gas Annual, 1973 through 1982. Monthly data are estimated primarily on the basis of values reported by State agencies in Mississippi, New Mexico, Oklahoma, and Texas. These States together account for almost 50 percent of total U.S. marketed production. Monthly data are adjusted to conform with final reported annual data.

· Imports, Purchased from Producers, and Industrial Sales by Major Interstate Pipeline Companies-FERC Form 11, "Interstate Pipeline Company Purchases, and Industrial

• Electric plant data-EIA, FPC Form 423, "Monthly Report

of Cost and Quality of Fuels for Electric Plants.

· Residential Price-Annual data from EIA, Natural Gas Annual, 1973 through 1982. Monthly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index (CPI-U) for natural gas and are adjusted to conform with final reported annual data. See Note 6 on the

previous page for estimation procedures.

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 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement". Utility Company Monthly Statement.'

# Internationa

### International

### **Crude Oil Production**

World crude oil production during April 1985 was 53.4 million barrels per day, down 0.6 million from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during April 1985 averaged 16.2 million barrels per day, down 0.5 million from the level during the previous month. Production by the Arab members of OPEC during the month averaged 8.9 million barrels per day, down 0.5 million from the March 1985 level. During the same period, production decreased in Saudi Arabia by 365,000 barrels per day, in Kuwait by 115,000, in Qatar by 55,000, and in Algeria by 40,000 barrels per day. Production levels remained the same as during the previous month in Libya and the United Arab Emirates, while production increased in Iraq by 100,000 barrels per day. Among non-Arab OPEC countries during the month, production increased in Iran by 100,000 barrels per day. Production decreased in Nigeria and Indonesia by 100,000 and 60,000 barrels per day, respectively, while production in Venezuela remained the same as during the previous month.

Of the non-OPEC nations during April 1985, production increased in the United Kingdom and Mexico by 35,000 and 15,000 barrels per day, respectively. Production in the United States decreased by 85,000 barrels per day, while production in Canada remained the same as during the previous month.

### **Petroleum Consumption**

Preliminary petroleum consumption data for April 1985 were available for France, Italy, and the United States. Consumption in France and Italy decreased by 110,000 and 40,000 barrels per day, respectively, compared with levels 1 year earlier, while consumption in the United States decreased by 223,000 barrels per day compared with the April 1984 level.

### Petroleum Stocks

Preliminary data for April 1985 indicate that petroleum stock levels were lower compared with April 1984 levels in three of the five countries reporting. Petroleum stocks were down in Italy by 5.3 percent, in the United Kingdom by 4.1 percent, and in West Germany by 3.1 percent. Japan and the United States reported increases in petroleum stocks of 2.7 percent and 0.8 percent, respectively.

Petroleum stocks for all Organization for Economic Cooperation and Development members were 3,345 million barrels on December 31, 1984 (latest data available), an increase of 87 million barrels (2.7 percent) compared with stocks held on December 31, 1983.

### **Nuclear Electricity Production**

In April 1985, the 20 non-Communist nations with significant nuclear power capacity generated 93.2 gross terawatthours (billion kilowatthours) of nuclear-based electricity. This generation represents an increase of 17.7 percent compared with April 1984 generation. The United States accounted for 26.3 gross terawatthours (28.2 percent) of total generation in April 1985.

In West Germany, Philippsburg-2, a 1,350-gross-megawatt-electric pressurized-water reactor, went into commercial operation on April 18. Philippsburg-2, obtained criticality in December 1984 by achieving a substained chain reaction. In Belgium, Doel-4, a 980-gross-megawatt-electric pressurized-water reactor, was connected to the Belgian electrical grid on April 28, as a step toward commercial operation.

With the additions of Philippsburg-2 and Doel-4, there were 283 operable reactors in the non-Communist countries as of April 30, 1985, with a collective gross generating capacity of 208.9 gigawatts (million kilowatts). In April 1985, the 89 operable U.S. units accounted for 77.7 gross gigawatts (37.2 percent) of the total non-Communist capacity.

### **Crude Oil Production for Major Petroleum Producing Countries**

							Saudi	United Arab	Arab Members	Indo-	
	•	Algeria	Iraq	Kuwait¹	Libya	Qatar	Arabia¹	Emirates .	of OPEC <sup>2</sup>	nesia	Iran
					Thou	sand barre	els 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	Average	805	1.000	1,125	1,140	405	9,815	1,474	15,764	1,605	
1982		710	1,012	•			•	•	•	,	1,380
1902	Average	710	1,012	823	1,150	330	6,483	1,250	11,758	1,339	2,214
1983	January	700	850	780	1,100	255	4,950	1,060	9,695	1,225	2,700
	February	600	850	895	900	200	3,510	1,060	8,015	1,015	2,400
	March	600	900	965	900	170	3,910	1,035	8,480	1,180	2,200
	April	700	950	880	1,000	260	3,930	1,145	8,865	1,400	2,000
	May	600	1,000	1,030	1,100	275	4,725	1,175	9,905	1,400	2,300
	June	700	1,000	920	1,100	300	4,620	1,180	9,820	1,400	2,500
	July	700	1,050	1,086	1,100	300	5,536	1,175	10,947	1,490	2,800
	August	700	1,100	1,181	1,100	265	5,931	1,185	11,462	1,490	2,500
	September	700	1,050	1,376	1,150	310	6,026	1,185	11,797	1,470	2,700
	October	700	1,100	1,305	1,150	320	6,005	1,165	11,745	1,520	2,400
	November	700 700	1,150	1,265	1,150	460	5,915	1,195	11,835	1,560	2,300
	December		1,050	1,075	1,150	420	5,825	1,195	11,415	1,440	2,300
1004	Average	675	1,005	1,064	1,076	295	5,086	1,147	10,348	1,385	2,426
1984	January	650	1,100	1,080	1,100	445	5,130	1,200	10,705	1,470	2,200
	February	600	1,000	1,240	1,100	315	5,040	1,200	10,495	1,575	2,300
	March April	600 600	1,200	1,293	1,100	440	4,843	1,205	10,681	1,560	2,400
	May	650	1,200 1,200	1,250 1,200	1,200 1,200	400 400	5,150 5,000	1,205	11,005	1,570	2,200
	June	700	1,200	1,200	1,250	500	5,000 5,450	1,200 1,225	10,850	1,470	1,700
	July	650	1,200	1,110	1,100	430	5,450	1,225	11,525 10,590	1,520 1,390	2,200 2,400
	August	650	1,300	1,220	1,000	400	4,520	990	10,080	1,410	1,800
	September	650	1,300	1,183	1,000	480	4,133	1,110	9,856	1,400	1,900
	October	650	1,200	1,129	1,000	380	4,129	1,060	9,548	1,430	2,100
	November	650	1,300	990	1,000	280	3,990	1,060	9,270	1,350	2,400
	December	600	1,300	990	1,000	260	3,590	1,210	8,950	1,450	2,500
	Average	638	1,209	1,157	1,087	394	4,663	1,146	10,294	1,466	2,175
1985	January	600	1,300	1,110	1,000	270	3,510	1,100	8,890	1,310	1,900
	February	650	1,300	1,125	1,000	290	4,025	1,160	9,550	1,330	2,100
	March	690	1,250	1,085	1,000	315	3,835	R1,215	R9,390	1,300	R2,200
	April	650	1,350	970	1,000	260	3,470	1,215	8,915	1,240	2,300
	Average	647.	1,300	1,072	1,000	284	3,704	1,172	9,179	1,295	2,124

Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In April 1985, total production in this region amounted to approximately 340,000 barrels per day.

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

OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Equador, and Gabon.

Venezuela, Ecuador, and Gabon. Footnotes continued on following page.

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

		Nigeria	Vene- zuela	Total OPEC <sup>3</sup>	Canada	Mexico	United Kingdom	United	China	USSR	Other	World
		gou	200,0	0. 20			barrels p		Olima	00011	Other	World
1973	Average	2,054	3,366	30,989	1,800	465	2	•	4 000	0.405	0.055	55.074
1974	. •	2,255	2,976	30,729	1,684	571	2	9,208	1,090	8,465	3,655	55,674
1975	Average	2,255 1,783	2,346	•		705	12	8,774	1,315	9,000	3,777	55,852
1976	Average			27,155	1,439			8,375	1,490	9,625	4,079	52,880
	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	31,298	1,320	981	768	8,245	1,874	10,682	4,517	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	26,891	1,435	1,936	1,622	8,597	2,114	11,773	5,170	59,538
1981	Average	1,433	2,102	22,646	1,285	2,313	1,811	8,572	2,012	11,909	5,352	55,900
1982	Average	1,295	1,895	18,868	1,372	2,748	2,065	8,649	2,045	12,080	5,631	53,458
1983	January	880	2,060	16,952	1,288	2,980	2,135	8,697	2,085	12,410	5,913	52,460
	February	675	1,758	14,250	1,425	2,295	2,315	8,758	2,110	12,410	6,014	49,577
	March	905	2,055	15,192	1,461	2,415	2,265	8,700	2,110	12,410	5,949	50,502
,	April	1,150	1,694	15,506	1,320	2,670	2,170	8,776	2,120	12,000	6,110	50,672
	May	1,625	1,664	17,266	1,383	2,795	2,235	8,631	2,120	11,900	6,095	52,425
	June	1,535	1,669	17,326	1,577	2,775	2,045	8,667	2,120	11,900	6,195	52,605
	July	1,710	1,674	19,033	1,551	2,685	2,280	8,636	2,120	11,900	6,187	54,392
	August	1,300	1,709	18,878	1,488	2,775	2,290	8,679	2,130	11,900	6,092	54,232
	September	1,220	1,704	19,278	1,504	2,735	2,385	8,784	2,130	11,900	6,157	54,873
	October	1,290	1,718	19,075	1,456	2,660	2,355	8,771	2,130	11,900	6,266	54,613
•	November	1,245	1,748	19,075	1,483	2,730	2,490	8,770	2,130	11,900	6,386	54,964
•	December Average	1,310 1,241	1,753 <b>1,768</b>	18,620 <b>17,562</b>	1,467 <b>1,450</b>	2,690 <b>2,686</b>	2,530 <b>2,291</b>	8,397 <b>8,688</b>	2,130 <b>2,120</b>	11,900 <b>12,034</b>	6,421 <b>6,150</b>	54,155 <b>52,981</b>
1984	January	1,365	1,840	17,980	1.365	2,670	2.525	R8,868	2,200	11,900	6,656	R54,164
1004	February	1,565	1,815	18,140	1,445	2,755	2,600	R8,874	2,200	11,900	6,642	R54,556
	March	1,560	1,815	18,416	1,475	2,710	2,480	R8,672	2,200	11,750	6,576	R54,279
	April	1,300	1,815	18,300	1,430	2,770	2,475	R8,862	2,225	11,750	6,662	
	May	1,300	1,840	17,570	1,415	2,800	2,439	R8,955	2,225	11,900	6,737	
	June	1,400	1,805	18,870	1,470	2,820	2,350	R8,852	2,225	11,900	6,847	R55,334
	July	1,200	1,860	17,860	1,515	2,845	2,470	R8,885	2,305	11,870	6,851	R54,601
	August	1,150	1,820	16,670	1,435	2,680	2,300	R8,809	2,305	11,870	6,859	R52,928
	September	1,400	1,850	16,826	1,330	2,705	2,435	R8,993	2,335	11,790	6,970	R53,384
	October	1,600	1,800	16,893	1,450	2,675	2,615	R8,906	2,335	11,790	7,131	R53,795
	November	1,600	1,725	16,760	1,460	2,745	2,605	R8,979	2,335	11,750	7,183	R53,817
	December	1,600	1,770	16,685		2,830	2,645	R8,897	2,335	11,750	7,224	R53,811
	Average	1,419	1,813	17,577	1,436	2,750	2,495	R8,879	2,269	11,827	6,862	R54,094
1985	January	1,400	1,670	15,580	1,450	2,635	2,780	8,929	2,390	11,700	7,214	52,678
	February	1,690	1,680	16,770	1,450	2,685	2,650	8,928	2,390	11,700	7,253	53,826
	March	1,700	R1,670	R16,690	1,500	2,810	2,600	8,927		R11,700	7,324	R53,941
	April	1,600	1,670	16,155	•	2,825	2,635	8,842	2,390	11,700	7,324	53,371
•	Average	1,595	1,672	16,288	1,475	2,739	2,667	8,906	2,390	11,700	7,279	53,445

Footnotes continued.

\*Other is a calculated total derived from the difference between world production and the nations represented above.

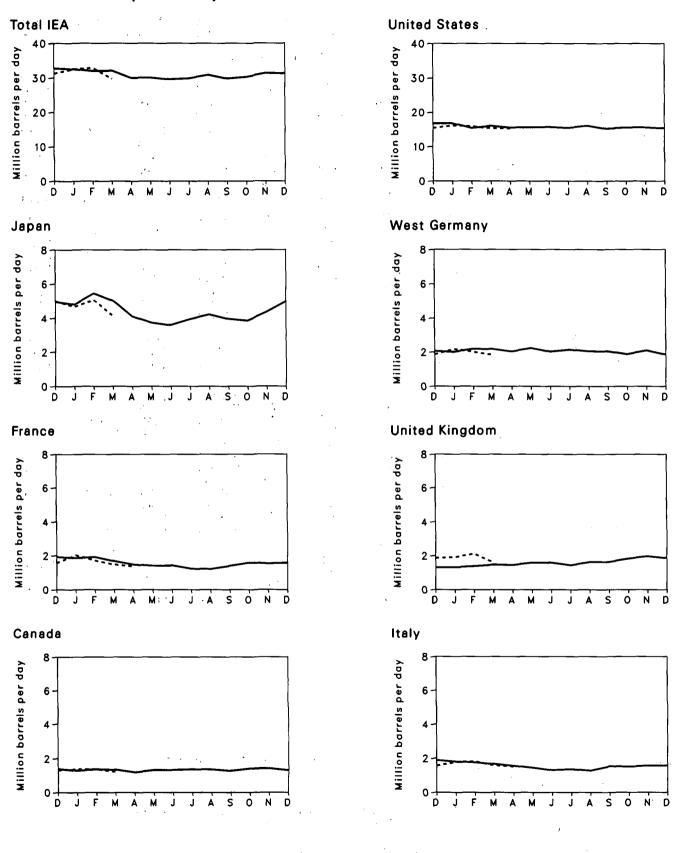
R = Revised data.

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.

### Petroleum Consumption for Major Non-Communist Industrialized Countries



### Petroleum Consumption for Major Non-Communist Industrialized Countries<sup>1</sup>

		Canada	France <sup>2</sup>	Italy <sup>3</sup>	Japan⁴	United Kingdom	United States	West Germany	Other IEA <sup>3</sup>	Total IEA <sup>s</sup>
					Thou	sand 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	Average	1,615	1,745	1,705	4,445	1,325	16,058	2,120	4,032	31,300
1982	Average	1,450	1,645	1,614	4,196	1,337	15,296	2,045	3,962	29,900
1983	January	1,260	1,685	1,675	4,410	1,260	14,722	1,875	.3,998	29,200
	February	1,430	1,985	1,865	4,950	1,415	14,792	2,060	4,288	30,800
	March	1,305	1,685	1,605	4,625	1,430	15,541	2,180	4,314	31,000
	April	1,190	1,785	1,415	3,850	1,300	14,692	1,940	3,913	28,300
	May	1,320	1,500	1,470	3,460	1,230	14,505	2,010	3,805	27,800
	June	1,360	1,405	1,475	4,040	1,255	15,289	2,060	4,121	29,600
	July August	1,265 1,440	1,210 1,350	1,365 1,315	3,745 3,990	1,160 1,220	15,019 15,480	1,785 1.920	3,861	28,200
	September	1,380	1,415	1,515	3,990 4,040	1,220	15,460	2,040	4,035 4,144	29,400 30,000
	October	1,360	1,415	1,625	3.900	1,300	14,962	2,040	4,144	29,300
	November	1,460	1,800	1,840	4,290	1,340	15,500	2,055	4,003	30,700
	December	1,400	1,930	1,880	4,960	1,300	16,726	2,050	4,484	32,800
	Average	1,345	1,600	1,590	4,185	1,290	15,231	2,005	4,054	29,700
1984	January	1,300	1,860	1,800	4,800	1,310	R16,801	2,000	R4,489	R32,500
	February	1,370	1,915	1,750	5,450	1,380	R15,437	2,180	R4,433	R32,000
	March	1,350	1,680	1,660	5,020	1,470	R16,050	2,170	R4,380	32,100
	April	1,200	1,475	1,550	4,110	1,450	R15,568	2,030	R4,092	30,000
	May	1,329	1,410	1,435	3,740	1,590	R15,620	2,230	R4,156	R30,100
	June July	1,330 1,370	1,420 1,225	1,295 1,350	3,590 3.950	1,585 1,440	R15,709 R15,498	2,020	R4,071	29,600
	August	1,365	1,225	1,350	4,230	1,630	R16,116	2,140 2,050	R4,152 R4,239	29,900 30,900
	September	1,280	1,400	1,525	3,960	1,635	R15,247	2,030	R4,239	R29,800
	October	1,415	1,590	1,500	3,860	1,830	R15,616	1,880	R4,199	30,300
	November	1,420	1,530	1,560	4,375	1,965	R15,627	2.095	R4,358	R31,400
	December	1,320	1,580	1,560	4,995	1,855	R15,375	1,855	R4,340	R31,300
	Average	1,338	1,523	1,520	4,338	1,595	R15,726	2,057	R4,226	30,800
1985	January	R1,390	2,025	1,765	R4,670	1,905	16,142	2,165	R4,463	R32,500
	February	R1,370	R1,710	R1,810	R5,060	2,110	15,975	R2,005	R4,570	R32,900
	March	1,235	R1,480	R1,575	4,130	1,600	15,321	1,840	4,099	29,800
	April	NA	1,365	1,510	NA	NA	15,345	NA.	NA	NA
	Average <sup>7</sup>	1,330	1,646	1,663	4,605	1,864	15,692	2,003	4,371	31,528

¹These 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.
²Not a member of the International Energy Agency (IEA).
³Principal products only prior to 1981.
⁴Excludes liquefied petroleum gases and condensate.
⁵Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.
⁴The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.
²Average of available data.
R=Revised data. NA=Not available

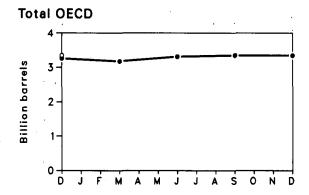
R=Revised data. NA=Not available.

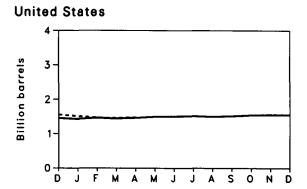
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.

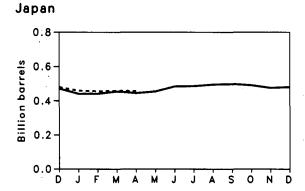
• Data for 1983 through 1985 are preliminary.

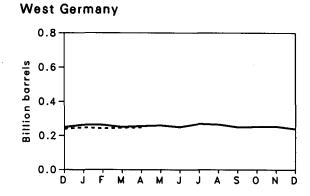
Sources: • See the last page of this section.

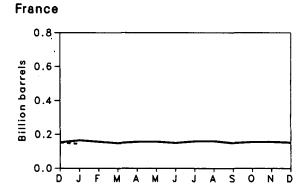
### Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period

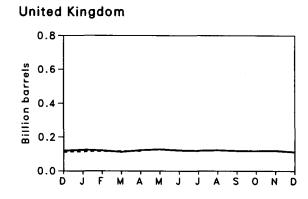


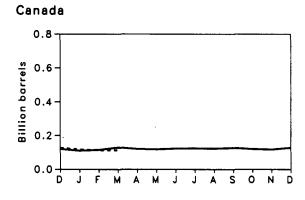


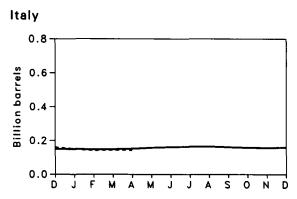












### Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period<sup>1</sup>

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD <sup>2</sup>	Total OECD <sup>3</sup>
						Million barrel	s .			
1973	Year	149	203	NA	303	156	1,008	NA	NA	NA
1974	Year	164	240	169	370	161	1,074	215	NA	NA
1975	Year	167	239	143	375	164	1,133	190	NA	NA
1976	Year	156	231	142	394	165	1,112	214	NA	NA
1977	Year	167	239	161	409	148	1,312	225	524	3,185
1978	Year	144	201	154	413	157	1,278	238	512	3,097
1979	Year	150	226	163	460	169	1,341	272	594	3,375
1980	Year	164	243	170	495	168	1,392	319	636	3,587
1981	Year	161	214	167	482	143	1,392	297	583	3,587 3,531
1982	Year	136	193	179	468	125	1,430	297 272	557	
	Tear			179	400	125	1,430	212	557	3,360
1983	January	136	206	170	473	125	1,452	274	NA	ŅA
	February	133	187	163	450	121	1,430	274	NA	NA
	March	135	162	155	456	120	1,372	262	539	3,201
	April	123	158	151	422	120	1,374	255	NA	NA
	May	125	164	152	437	123	1,394	274	NA	NA
	June	113	158	159	460	116	1,405	261	531	3,203
	July	110	174	151	436	119	1,426	270	NA	NA
	August	110	183	161	433	121	1,460	274	NA .	NA
	September	125	165	160	452	125	1,485	263	549	3,324
	October	111	170	157	441	129	1,508	267	NA	NA
	November	105	162	150	440	124	1,510	267	NA	NA
	December	120	153	149	471	119	1,454	250	542	3,258
1984	January	109	165	149	441	125	R1,429	264	NA	NA
	February	114	157	146	441	121	R1,463	263	NA	NA
	March	128	149	148	454	112	1,444	251	489	3,174
	April	120	156	151	444	123	R1,462	256	NA	NA
	May	117	157	157	454	128	R1,496	260	NA	NA
	June	122	150	161	484	122	R1,503	250	R519	R3,310
	July	123	159	163	486	120	R1,513	269	NA	NA
	August	122	160	165	495	123	R1,498	265	NA DESC	NA
	September October	R126 120	149	161	498	119	R1,513	250	R532	R3,348
	November	117	155 156	158	491	118	R1,544	252	NA	NA
	December	R127	R152	157 D150	476	120	1,556	254	NA 510	NA
4005				R159	R480	R112	R1,556	R240	519	3,345
1985	January	117	145	149	459	115	1,510	248	NA	NA
	February	112	NA	142	456	117	1,467	242	NA	NA
	March	112	NA	144	458	117	1,459	246	NA	NA
	April	NA	NA	143	456	118	1,474	248	NA ·	NA

R=Revised data. NA=Not available.

Sources: . See the last page of this section.

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.

2"Other OECD" includes Organization for Economic Cooperation and Development (OECD) members not shown.

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

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.
• In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported. Using the new basis, the end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,420 in 1980, and 1,462 in 1982.

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 gre	oss kilowat	thours.					
1973	Total	0	0	. 10	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	Ö	13.2	. 0	18.3	2.5	3.8	22.2	3.3	0.5	
1976	Total	2.6	10.0	. 0	18.0	ŏ	15.8	3.2	3.8	36.7	3.9	0.5	
1977	Total	1.6	11.9	· ŏ	26.8	2.7	17.9	2.8	3.4	28.1	3. <del>5</del> 3.7	0.3	
1978	Total	2.9	12.5	Ö	32.9	3.3	30.5	2.3					
1979	Total ·	2.5	11.4	. 0	38.4	5.3 6.7	39.9	_	4.4	53.2	4.1	0.2	
1980	Total							3.2	2.6	62.0	3.5	(s)	
		2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2	0.1	•
1981	Total	2.8	12.8	0	43.3	14.5	105.2	3.1	2.7	86.0	3.7 -	0.2	
1982	Total	1.9	15.6	0.1	42.6	16.5	108.9	2.2	6.8	104.5	3.9	0.1	:
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)	٠
	April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2	(s)	
	May .	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3	(s)	
•	June	R0.3	2.5	0	4.4	. 1.0	9.3	0.3	0.7	9.1	0.4	(s)	
	July	0.3	2.5	0	4.8	1.3	11.0		0.7	9.6	0.4	0	
	August	R0.3	2.4	0	3.8	1.6	12.1	0.3	0.5	10.5	0.4	(s)	
	September	R0.5	2.2	0	4.4	1.5	12.4	0.3	0.6	10.1	0.4	(s)	
	October	R0.3	2.2	0	4.7	1.4	13.0	0.3	0.6	R10.3	0.4	(s)	
	November	R0.4	2.0	(s)	4.3	1.5	13.4	0.2	0.7	R9.1	0.4	. (s)	
•	December	R0.4	<b>2.1</b> .	0.1	5.0	1.7	16.8	0.3	0.7	R10.1	0.4	· (s)	
,	Total	3.4	24.1	0.2	R53.0	17.4	144.2	2.9	5.8	109.1	3.6	0.2	
1984	January	R0.7	2.7	(s)	5.0	1.7	18.0	0.3	0.4	10.1	0.3	` (s)	
	February	, R0.4	2.3	0.2	4.6	1.6	17.1	0.4	0.6	9.2	0.4	`ó	
	March	R0.6	1.9	0.1	5.1	1.7	17.8	0.3	0.7	8.8	0.2	0	
	April	R0.5	2.4	(s)	4.3	1.6	15.4	0.4	0.3	8.9	0.2	(s)	
	May	R0.5	2.0	0.1	3.6	1.2	14.2	0.5	0.3	10.5	0.4	(s)	
	June	R0.4	2.6	0.0	3.7	1.3	13.1	0.4	0.3	9.9	0.4	(s)	
	July	R0.4	2.4	0.0	4.4	1.4	13.1	0.5	0.3	10.6	0.2	(s)	
	August	R0.3	1.9	(s)	4.7	1.4	13.2	0.4	0.8	11.0	0.3 .	(s)	
	September	R0.4	1.9	0.3	3.9	1.5	. 14.7	0.2	0.8	11.4	0.4	(s)	
•	October	- 0.1	2.5	0.5	4.5	1.8	16.0	0.4	0.8	11.6	0.4	(s)	
	November	0	2.6	0.4	4.7	1.7	17.8	0.3.	0.8	11.8	0.4	(s)	
	December	0.1	2.6	0.4	5.1	1.7	20.9	0.2	0.8	12.5	0.4	(s)	
	Total '	4.5	27.7	2.0	54.0	18.5	191.2	4.1	<b>6.9</b> .	126.5	3.7	0.3	
1985	January	0.2	2.5	0.4	5.7	1.7	21.9	0.2	0.8	11.9	0.4	(s)	
.:	February	0.4	1.7	0.3	5.0	1.6	19.2	0.2	0.7	10.1	0.3	(s)	
•	March	0.5	2.0	0.3	5.9	1.8	20.6	0.4	8.0	11.3	0.2	ò.ó	
	April	0.4	2.2	0.1	4.3	1.6	17.7	0.6	0.7	10.7	(s)	0.0	
	Year to Date	1.5	8.4	1.1	20.9	6.7	79.4	1.5	3.0	44.0	0.9	0.1	

<sup>&</sup>lt;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.

R = Revised data. (s) = Less than 0.05 billion gross kilowatthours.

Footnotes continued on following page.

### Nuclear Electricity Generation by Non-Communist Countrles¹ (continued)

										Non- Communist World		Total Non-
		South Africa	South Korea	Spain	Sweden	Switzer- land	Taiwan	United Kingdom <sup>2</sup>	West Germany	Excluding U.S.	United States	Communist World
						Billion gr	oss kilov	watthours				
1973	Total	0	0	6.5	2.1	6.2	0	28.0	11.9	100.7	88.0	188.7
1974	Total	0	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
1975	Total	0	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.7	334.4
1976	Total	0	. 0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.8	389.1
1977	Total	0	0.1	6.5	19.9	8.1	0.1	38.1	35.8	207.8	263.3	471.0
1978	Total	0	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
1979	Total	Ô	3.2	6.7	21.0	- 11.8	6.3	38.5	42.2	300.1	270.6	570.7
1980	Total	0	3.5	5.2	26.7	14.3	8.2	37.2	43.7	354.4	265.4	619.8
1981	Total	ō	2.9	9.4	37.7	15.2	10.7	38.9	53.4	442.4	288.5	730.9
1982	Total	0 .	3.8	8.8	38.8	15.0	13.1	44.1	63.4	489.9	298.6	788.5
1983	January	0	0.5	1.0	4.2	1.5	1.5	4.3	6.5	50.0	27.4	77.4
	February	Ö	0.4	0.9	3.7	1.4	0.8	4.3	5.6	42.7	23.8	R66.6
	March	0	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	25.0	71.7
	April	0	0.4	0.8	3.3	1.5	1.7	4.3	4.0	43.1	23.4	66.5
	May	0	0.2	0.4	2.4	1.2	2.0	3.4	2.9	40.6	23.9	64.5
	June	0	0.7	0.6	2.4	0.5	2.0	3.9	4.2	42.4	25.7	R67.8
	July	0	0.7	0.6	1.6	1.2	1.6	R3.4	5.1	44.9	27.3	72.2
	August	0	1.1	1.0	2.7	1.0	1.4	3.7	4.6	47.3	27.9	R75.4
	September	0	1.1	1.0	3.0	1.4	1.2	4.4	6.0	50.2	26.4	R76.7
	October	. 0	0.8	1.1	3.6	1.5	1.6	3.7	7.6	53.0	27.6	R80.8
	November December	0	1.2 1.3	1.1	4.5	1.4	1.6	3.9	7.1	52.8	26.6	79.3
	Total	0	9.0	1.4 <b>10.7</b>	5.0 <b>R40.4</b>	1.5 • <b>15.5</b>	1.7 <b>18.9</b>	5.5 <b>50.0</b>	6.2 <b>65.8</b>	59.8 <b>R573.9</b>	28.6 <b>313.6</b>	R88.6 <b>R887.5</b>
1984		0										
1904	January February	0	1.3 1.2	1.5 1.5	5.3 5.0	1.5	1.7 1.8	4.4 4.6	6.9	R61.8	30.8	R92.6
	March	0	1.0	1.5	5.0 5.4	1.4 1.5	2.0	4.8	7.4 7.1	R59.7 R60.6	29.4 28.6	R89.1 R89.2
	April	0.1	0.9	1.3	4.5	1.5	1.8	4.0	6.4	R54.5	24.7	R79.2
	Mav	0.1	0.8	1.9	3.3	1.3	1.4	4.3	7.2	R53.6	27.3	R80.9
	June	0.3	0.7	2.2	2.8	0.6	1.8	4.7	7.1	R52.3	26.4	R78.7
	July	0.5	0.7	2.5	2.4	1.3	2.4	3.7	6.2	R53.2	29.3	R82.6
	August	0.7	0.9	2.3	3.5	1.0	2.4	3.6	6.3	R54.7	31.8	R86.5
	September	0.7	0.9	2.6	4.2	1.4	2.6	4.9	8.2	R61.0	30.3	R91.2
	October	0.7	1.3	1.8	5.0	1.5	2.0	4.1	8.6	63.6	26.8	90.4
	November	0.4	1.3	1.9	4.5	1.5.	1.8	4.4	9.8	66.1	25.5	91.5
	December	0.5	0.9	2.2	5.4	1.9	2.3	6.3	10.4	74.7	31.3	105.9
	Total	4.0	11.8	23.0	51.3	16.3	24.6	54.1	92.4	716.9	342.3	1,059.2
1985	January	0.3	1.0	2.2	5.4	2.2	2.4	5.7	R10.8	R75.8	37.0	R112.8
	February	0.0	1.1	1.9	5.0	2.0	2.1	5.6	R10.1	R67.6	31.3	R98.9
	March	0.0	1.4	2.8	5.6	2.2	2.5	6.6	R11.7	R76.6	31.0	R107.6
	April	0.0	1.2	2.4	4.5	2.2	2.7	5.1	10.6	66.9	26.3	93.2
	Year to Date	0.3	4.7	9.3	20.5	8.6	9.6	23.0	43.2	286.8	125.7	412.5

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• The sum of the months may not equal the annual total because the annual total may reflect revisions which are not included in the monthly data. Also, the sum of the months may not equal the annual total 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 issued dom, 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 for 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 includes the U.S. Territories.

### Sources

Crude Oil Production: • 1973-1983 annual data (except the United States): Energy Information Administration (EIA), 1983 International Energy Annual.

. . .

• 1973-1985 U.S. annual and monthly data: EIA, Petroleum Supply Monthly.

• 1983-1985 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.

• 1983-1985 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).

• U.S. data: EIA, Petroleum Supply Monthly.

• International Energy Agency totals for latest months are EIA estimates.

Petroleum Stocks: • U.S. data: EIA, Petroleum Supply

Monthly.
• Other OECD data: OECD, Quarterly Oil Statistics; Comite Professionnel du Petrole, Bulletin Mensuel.

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

**Nuclear Electricity** Generation and Capacities: · Nucleonics Week.

### **Conversion Factors**

### **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)

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

### **Conversion Factors for Uranium**

1 short ton (U <sub>3</sub> O <sub>6</sub> )	contains	0.769 metric tons of uranium
1 short ton (UF <sub>6</sub> )	contains	0.613 metric tons of uranium
1 metric ton (UF <sub>4</sub> )	contains	0.676 metric tons of uranium

### Price indexes, 1972 = 100.0

	Gross National Product Implicit Price Deflator	Consumer Price Index, All Urban Consumers, All Items
1972	100.00	100.0
1973	105.75	106.2
1974	115.08	117.9
1975	125.79	128.7
1976	132.34	136.1
1977	140.05	144.9
1978	150.42	155.9
1979	163.42	173.5
1980	178.42	197.0
1981	195.60	217.4
1982	207.38	230.7
1983	215.34	238.1
1984‡	223.43	248.3

t=Preliminary data.
Sources: • Gross National Product Implicit Price Deflator—U.S. Department of Commerce, Bureau of

Economic Analysis, *Survey of Current Business*.

• Consumer Price Index, All Urban Consumers, All Items—1967=100.0 from U.S. Department of Labor, Bureau of Labor Statistics. Rebased to 1972=100.0 by Energy Information Administration.

Million Btu

### **Approximate Heat Content of Refined Petroleum Products**

	per Barrel
Asphalt	6.636
Aviation gasoline	
Butane	
Butane-propane mixture <sup>1</sup>	4.130
Distillate fuel oil	
Ethane	3.082
Ethane-propane mixture <sup>2</sup>	
Isobutane	
Jet fuel—kerosene type	
Jet fuel-naphtha type	
Kerosene	
Lubricants	
Motor gasoline	
Natural gasoline	4.620
Petrochemical feedstocks	
Naphtha 400° F or less	
Other oils over 400° F	
Still gas	
Petroleum coke	
Plant condensate	
Propane	
Residual fuel oil	
Road oil	
Special naphtha	
Still gas	
Unfinished oils	
Unfractionated stream	
Wax	
Miscellaneous	. 5.796

# Conversion

<sup>&</sup>lt;sup>1</sup> 60 percent butane and 40 percent propane. <sup>2</sup> 70 percent ethane and 20 percent propane.

### **Conversion Factors (continued)**

### **Approximate Heat Content of Fuels, 1973-1978**

••	•						
	Units	1973	1974	1975	1976	1977	1978
Coal							
Production	Million Btu/short ton	23.389	23.081	22.907	22.862	22.602	22.252
Consumption	Million Btu/short ton	23.071	22.685	22.510	22.499	22.268	22.022
Non-electric utility users	Million Btu/short ton	24.919	24.823	24.777	24.890	24:721	24.512
Electric utilities	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.60	26.70	26.56			
Exports	Willion Blu/Short ton	20.60	20.70	20.50	26.60	26.55	26.48
Anthracite							
Production	Million Btu/short ton	23.17	22.56	22.39	22.77	23.18	23.52
Consumption	Million Btu/short ton	22.71	21.95	21.74	22.15	22.69	22.97
Non-electric utility users	Million Btu/short ton	24.34	23.75	23.65	23.84	24.99	25.17
Electric utilities	Million Btu/short ton	17.92	17.20	17.06	17.53	17.24	17.10
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
Bituminous coal and lignite							
Production	Million Btu/short ton	23.391	23.087	22.911	22.863	22.597	22.242
Consumption	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014
Residential and commercial	Million Btu/short ton	22.887					
			22.523	22.258	22.819	22.594	22.078
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175
Electric utilities	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501
Coal coke, imports and exports:	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
Crude oil <sup>s</sup>							
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Imports		5.817	5.827	5.821	5.808	5.810	5.802
Exports		5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products							
Imports		5.897	5.884	5.858	5.856	5.834	5.839
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808
Petroleum products <sup>2</sup>						4 - 1	
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382
Industrial		5.565	5.537	5.527	5.535	5.552	5.546
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407
Electric utilities	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251
Imports		5.983	5.959	5.935	5.980	5.908	5.955
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814
LPG consumption averages	Million Btu/barrel	3.746	3.730	3.715	3.711		
LFG consumption average	Without Dio/Dairei	3.740	3.730	3.715	3.711	3.677	3.669
Natural gas plant liquids							
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925
Natural gas							
Production, dry	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Production, wet		1,093	1,097	1,095	1,093	1,093	1,088
Consumption		1,021	1,024	1,021	1,020	1,021	1,019
Non-electric utility users		1,020	1,024	1,020	1,019	1,027	•
Electric utilities			•	•			1,016
		1,024	1,022	1,026	1,023	1,029	1,034
Imports		1,026	1,027	1,026	1,025	1,026	1,030
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013
Approximate Heat Rates for Electi	ricity			•			
Fossil fuel steam-electric power plant generation4	Btu/kilowatthour	10,389	10,442	10,406	10,373	10,435	10,361
Nuclear power plant generation	Btu/kilowatthour	10,903	11,161	11,013	11,047	10,769	10,941
Geothermal energy power plant generation		21,674	21,674	21,611	21,611	21,611	21,611
Electricity consumption		3,412	3,412	3,412	3,412	3,412	3,412
•		-,	-,·· <del>-</del>	- <b>,</b>	-,=	-,	5, , , &

 <sup>&</sup>lt;sup>1</sup> Includes lease condensate.
 <sup>2</sup> Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this

section.

LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.

This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.
 Sources: See "Thermal Conversion Factor Source Documentation" on the following pages.

### **Conversion Factors (continued)**

### **Approximate Heat Content of Fuels, 1979-1985**

	Units	1979	1980	1981	1982	1983	1984-1985‡
Coal							
Production	Million Btu/short ton	22.466	22.418	22.312	22.242	22.059	22.127
Consumption	Million Btu/short ton	22.103	21.946	21.712	21.669	21.574	21.694
Non-electric utility users	Million Btu/short ton	24.640	24.751	24.506	24.211	24.110	24.230
Electric utilities	Million Btu/short ton	21.364	21.295	21.085	21.194	21.133	21.213
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.55	26.38	26.16	26.22	26.29	26.44
Anthracite							
Production	Million Btu/short ton	23.59	23.35	23.69	23.69	23.24	23.24
Consumption	Million Btu/short ton	22.70	22.16	22.10	23.00	22.41	22.54
Non-electric utility users	Million Btu/short ton	25.20	23.74	25.12	25.37	25.59	25.41
Electric utilities	Million Btu/short ton	17.45	17.65	18.17	18.16	16.52	17.28
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
Bituminous coal and lignite							
Production	Million Btu/short ton	22.459	22.411	22.302	22.234	22.053	22.122
Consumption	Million Btu/short ton	22.100	21.950	21.712	21.671	21.581	21.698
Residential and commercial	Million Btu/short ton	21.884	22.488	22.191	22.373	22.934	22.902
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation	Million Btu/short ton	22.436	22.690	22.572	22.694	22.679	22.763
Electric utilities	Million Btu/short ton	21.372	21.301	21.091	21.200	21.141	21.219
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.570	26.404	26.176	26.231	26.300	26.445
Coal coke, imports and exports	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
Crude oil <sup>1</sup>							
Production		5.800	5.800	5.800	5.800	5.800	5.800
Imports		5.810	5.812	5.818	5.826	5.825	5.823
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products Imports	Million Btu/barrel	5.810	5.796	5.775	5.775	5.774	5,763
Exports		5.832	5.820	5.821	5.820	5.800	5.853
Petroleum products <sup>2</sup>							
Consumption		5.494	5.479	5.448	5.415	5.406	R5.409
Residential and commercial	Million Btu/barrel	5.471	5.468	5.409	5.392	5.363	R5.267
Industrial		5.416	5.376	5.310	5.262	5.279	R5.305
Transportation		5.430	5.440	5.434	5.423	5.416	R5.424
Electric utilities		6.258	6.254	6.258	6.258	6.255	6.251
Imports		5.811	5.748	5.659	5.664	5.677	5.659
Exports		5.864	5.841	5.837	5.829	5.800	5.871
LPG consumption averages	Million Btu/barrel	3.680	3.674	3.643	3.615	3.614	3.599
Natural gas plant liquids Production	Million Btu/barrel	3.955	3.914	3.930	3.872	3.839	3.960
	Willion Star barrer	0.000	0.514	0.550	0.072	3.033	3.300
Natural gas							
Production, dry		1,021	1,026	1,027	1,028	1,031	1,031
Production, wet		1,092	1,098	1,103	1,107	1,115	1,115
Consumption		1,021	1,026	1,027	1,028	1,031	1,031
Non-electric utility users		1,018	1,024	1,025	1,026	1,031	1,031
Electric utilites		1,035	1,035	1,035	1,036	1,030	1,030
Imports		1,037	1,022	1,014	1,018	1,024	1,024
Exports	Btu/cubic toot	1,013	1,013	1,011	1,011	1,010	1,010
Approximate Heat Rates for Electi	ricity						
• •	•	10.353	10 200	10.450	10 400	10 4454	10.445
Fossil fuel steam-electric power plant generation		10,353	10,388	10,453	10,423	10,445‡	10,445
Nuclear power plant generation		10,879	10,908	11,030	11,073	10,905‡	10,905
Geothermal energy power plant generation Electricity consumption		21,545 3,412	21,639 3,412	21,639 3,412	21,629‡ 3,412	21,290‡ 3,412	21,303 3,412

 <sup>&</sup>lt;sup>1</sup> Includes lease condensate.
 <sup>2</sup> Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this

section.

3 LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.

<sup>•</sup> This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities. ‡=Preliminary data. R=Revised data. Sources: • See "Thermal Conversion Factor Source Documentation" on the following pages.

### Thermal Conversion Factor Source Documentation

### **Approximate Heat Content of Refined Petroleum Products**

**Asphalt.** • 1973 forward: The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

Aviation Gasoline. • 1973 forward: EIA adopted the thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication Competition and Growth in American Energy Markets 1947–1985, 1968.

**Butane.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book*, Ninth Edition, 1972.

**Butane-Propane Mixture.** • 1973 forward: EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See "Butane" and "Propane."

**Distillate Fuel Oil.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, *Bureau of Mines Standard Average Heating Value of Various Fuels, adopted January 3, 1950.* 

**Ethane.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book*, Ninth Edition, 1972.

Ethane-Propane Mixture. • 1979 forward: EIA calculated 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See "Ethane" and "Propane."

**Isobutane.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book*, Ninth Edition, 1972.

**Jet Fuel, Kerosene Type.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as published for "Jet Fuel, Commercial" by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets* 1947–1985, 1968.

Jet Fuel, Naphtha Type. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel as published for "Jet Fuel, Military" by the Texas Eastern Transmission Corporation in the report Competition and Growth in American Energy Markets 1947–1985, 1968.

**Kerosene.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, *Bureau of Mines Standard Average Heating Values of Various Fuels, adopted January 3, 1950.* 

**Lubricants.** • 1973 forward: EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

**Miscellaneous Products.** • 1973 forward: EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

**Motor Gasoline.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel as published for "Gasoline, Motor Fuel" by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets* 1947–1985, 1968.

**Natural Gasoline.** • 1973 forward: EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

Petrochemical Feedstocks, Naphtha 400 Degrees Fahrenheit or Less. • 1973 forward: Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphtha. See "Special Naphtha."

Petrochemical Feedstock, Oils Over 400 Degrees Fahrenheit. • 1973 forward: Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See "Distillate Fuel Oil."

Petrochemical Feedstock, Still Gas. • 1973 forward: Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See "Still Gas."

Petroleum Coke. • 1973 forward: EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum Bureau of Mines Standard Average Heating Value of Various Fuels, adopted January 3, 1950. The Bureau of Mines calculated this factor by dividing the 30,120,000 Btu per short ton as given in the referenced Bureau of Mines internal memorandum by 5.0 barrels per short ton as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

Plant Condensate. • 1973 forward: Estimated to be 5.418 million Btu per barrel by EIA from data provided by McClanahan Consultants, Inc., Houston, Texas.

**Propane.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel as published by the Gas Processors Suppliers Association/Gas Processors Association in the *Engineering Data Book*, Ninth Edition, 1972.

Residual Fuel Oll. • 1973 forward: EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum Bureau of Mines Standard Average Heating Values of Various Fuels, adopted January 3, 1950.

Road Oil. • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel which was assumed to be equal to that of

asphalt (see "Asphalt") and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970.* 

**Special Naphtha.** • 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel which was assumed to be equal to that of total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement, Annual, 1970.* 

Still Gas. • 1973 forward: EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel and first published in the *Petroleum Statement, Annual, 1970.* 

**Unfinished Oil.** • 1973 forward: EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see "Distillate Fuel Oil") and first published in the *Annual Report to Congress, Volume 3, 1977.* 

**Unfractionated Stream.** • 1979 forward: EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for natural gasoline (see "Natural Gasoline") and first published in the *Annual Report to Congress, Volume 2, 1981*.

**Wax.** • 1973 forward: EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*, 1956.

### **Approximate Heat Content of Fuels**

### **Coal and Coal Coke**

Anthracite, Consumption. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of anthracite production and the heat content of anthracite imports less the heat content of anthracite exports, including shipments to U.S. Armed Forces overseas, and dividing this total heat content by the total anthracite consumed, adjusted for the quantity of anthracite stock changes and unaccounted for.

Anthracite, Consumption by Electric Utilities.

• 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite receipts at electric utilities by the quantity of anthracite received at electric utilities. Heat contents and receipts are from FERC Form 423 and predecessor forms.

Anthracite, Consumption by Non-Electric Utility Users. • 1973 forward: Calculated annually by EIA by subtracting the total heat content of anthracite

received at electric utilities from the total heat content of all anthracite consumed and dividing the resulting amount by the quantity of anthracite consumed by non-electric utility users.

Anthracite, Imports and Exports. • 1973 forward: EIA assumed the anthracite imports and exports to be freshly mined anthracite having an estimated heat content of 25.40 million Btu per short ton.

Anthracite, Production. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of freshly mined anthracite (estimated to have an average thermal content of 25.40 million Btu per short ton) and the heat content of anthracite recovered from culm banks (estimated to have a thermal content of 19.00 million Btu per short ton) by the total quantity of anthracite production.

Bituminous Coal and Lignite, Consumption.

• 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal

and lignite consumed by electric utilities, coal coke plants, other industrial plants, the residential and commercial sector, and the transportation sector by the sum of their respective tonnages.

Bituminous Coal and Lignite, Consumption by Coke Plants. • 1973 forward: Estimated by EIA to be 26.80 million Btu per short ton based on an input/output analysis of coal carbonization.

Bituminous Coal and Lignite, Consumption by Electric Utilities. • 1973 forward: Calculated annually by EIA by dividing the total heat content of bituminous coal and lignite received at electric utilities by the total quantity received at electric utilities. Heat contents and receipts are from FERC Form 423 and predecessor forms.

Bituminous Coal and Lignite, Consumption by Other Industrial and Transportation Users. • 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by other industrial users and that of coal consumed at electric utilities in the 1974-1982 period. • 1974 forward: Calculated by EIA assuming that the bituminous coal and lignite delivered to other industrial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coal-producing district was applied to the volume of deliveries to other industrial users from each coal-producing district, and the sum total of the heat content was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Consumption by Residential and Commercial Users. • 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by residential and commercial users and that of coal consumed by electric utilities in the 1974-1982 period. • 1974 forward: Calculated by EIA by assuming that the bituminous coal and lignite delivered to residential and commercial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coalproducing district was applied to the volume of deliveries to residential and commercial users from each coal-producing district, and the sum total of the heat value was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Exports. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of exported metallurgical coal (estimated to average 27.00 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25.00 million Btu per short ton) by the total quantity of bituminous coal and lignite exported.

**Bituminous Coal and Lignite, Imports.** • 1973 forward: EIA estimated the average thermal conversion factor to be 25.00 million Btu per short ton.

Bituminous Coal and Lignite, Production. • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumption, net exports, stock changes, and unaccounted for by the sum of their respective tonnages. Consumers' stock changes by sectors were assumed to have the same conversion factor as the consumption sector. Producers' stock changes and unaccounted for were assumed to have the same conversion factor as consumption by all users.

**Coal, Consumption.** • 1973 forward: Calculated by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumption by the sum of their respective tonnages.

Coal, Consumption by Electric Utilities. • 1973 forward: Calculated by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite received at electric utilities by the sum of their respective tonnages received.

Coal, Consumption by Non-Electric Utility Users.
• 1973 forward: Calculated by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumed by non-electric utility users by the sum of their respective tonnages.

Coal, Exports. • 1973 forward: Calculated by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite exported by the sum of their respective tonnages.

Coal, Imports. • 1973 forward: Calculated by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite imported by the sum of their respective tonnages.

**Coal, Production.** • 1973 forward: Calculated by EIA by dividing the sum of the total heat content of bituminous coal and lignite and anthracite production by the sum of their respective tonnages.

Coal Coke, Imports and Exports. • 1973 forward: EIA adopted the Bureau of Mines estimate of 24.80 million Btu per short ton.

### **Natural Gas**

Natural Gas, Consumption. • 1973-1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in Gas Facts, an AGA annual. • 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. Heat content and quantity consumed are from Form EIA-176.

Natural Gas, Consumption by Electric Utilities. 1973 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed at electric utilities by the quantity consumed at electric utilities. The heat contents and the quantities consumed are from Form EIA-759 and predecessor forms.

Natural Gas, Consumption by Non-Electric Utility Users. • 1973 forward: Calculated annually by EIA by dividing the heat content of natural gas consumed by non-electric utility consumers by the quantity of non-electric utility natural gas consumed. Data are from Forms EIA-176, FERC Form 423, EIA-759, and predecessor forms.

**Natural Gas, Exports.** • 1973 forward: Calculated annually by EIA by dividing the heat content of exported natural gas by the quantity of natural gas exported, both reported on Form FPC-14.

**Natural Gas, Imports.** • 1973 forward: Calculated annually by EIA by dividing the heat content of imported natural gas by the quantity of natural gas imported, both reported on Form FPC-14.

Natural Gas (Dry), Production. • 1973 forward: Assumed by EIA to be equal to the thermal conversion factor for the consumption of dry natural gas. See "Natural Gas, Consumption."

Natural Gas (Wet), Production. • 1973 forward: Calculated annually by EIA by adding the heat content of dry natural gas production and the total heat content of natural gas plant liquids production and dividing this sum by the total quantity of marketed (wet) natural gas production.

Natural Gas Plant Liquids, Production. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors of each natural gas plant liquid produced weighted by the quantity of each natural gas plant liquid produced.

### Petroleum

Crude Oil, Exports. • 1973 forward: Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See "Crude Oil and Lease Condensate, Production."

Crude Oil, Imports. • 1973 forward: Calculated annually by EIA by weighting the thermal conversion factor of each type of crude oil imported by the quantity imported. Thermal conversion factors for each type were calculated on a foreign country basis, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977 and converting average API gravity to average Btu content using National Bureau of Standards, Miscellaneous Publication No. 97, Thermal Properties of Petroleum Products, 1933.

Crude Oil and Lease Condensate, Production.

1973 forward: EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum Bureau of Mines Standard Average Heating Values of Various Fuels adopted January 3, 1950.

Crude Oil and Petroleum Products, Exports.

• 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported and crude oil exported weighted by the quantity of each petroleum product and crude oil exported. See "Petroleum Products, Exports" and "Crude Oil, Exports."

Crude Oil and Petroleum Products, Imports.

• 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product and each type of crude oil imported weighted by the quantity of each petroleum product and each type of crude oil imported. See "Crude Oil, Imports." and "Petroleum Products, Imports."

**Petroleum Products, Consumption.** • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed, weighted by the quantity of each petroleum product consumed.

Petroleum Products, Consumption by Electric Utilities. • 1973-1983: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product

consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the State Energy Data Report. • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption by Industrial Users. • 1973–1983: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the State Energy Data Report. • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption by Residential and Commercial Users. • 1973–1983: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as docu-

mented in the State Energy Data Report. • 1984 forward: Estimated by EIA.

Petroleum Products, Consumption for Transportation Use. • 1973–1983: Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the State Energy Data Report. • 1984 forward: Estimated by EIA.

Petroleum Products, Exports. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product weighted by the quantity of each petroleum product exported.

Petroleum Products, Imports. • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported weighted by the quantity of each petroleum product imported.

### **Approximate Heat Rates for Electricity**

Fossil Fuel Steam-Electric Power Plant Generation. • 1973–1983: This is the weighted average heat rate of fossil fueled steam-electric power plants in the United States as published by EIA in *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants.* • 1984 forward: Estimated to be the same as 1983.

**Geothermal Energy (Consumed by Electric Utilities).** • 1973–1981: Calculated by EIA by weighting the average annual heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. • 1982 forward: Estimated by EIA.

Hydroelectric Power. There is no generally accepted practice for measuring hydroelectric power thermal conversion rates. EIA has selected a rate that is equal to the prevailing heat rate factor at fossil fuel steam-electric power plants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydroelectric power production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydroelectric power is the principal

means for producing electricity. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour.

• 1973 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

**Nuclear Power.** • 1973 forward: Calculated annually by EIA by dividing the total heat content consumed in reactors at nuclear plants by the total (net) electricity generated by nuclear plants as reported on Form FERC-1, EIA-412 and predecessor forms.

Photovoltaic and Solar Thermal Energy (Consumed by Electric Utilities). • 1984 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Wind Energy (Consumed by Electric Utilities).

• 1983 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

Wood and Waste Energy (Consumed by Electric Utilities). • 1973 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

### Glossary

Anthracite. A hard, jet black, high-luster coal containing a high percentage of fixed carbon and a low percentage of volatile matter and having an ignition temperature of about 900 degrees Fahrenheit. Domestic anthracite is mined almost exclusively in northeastern Pennsylvania and is often referred to as hard coal. It is used for generating electricity and for space heating. It includes meta-anthracite and semianthracite and conforms to ASTM Specification D388 for anthracite.

**ASTM.** The acronym for the American Society for Testing and Materials.

Bituminous Coal. A dense, black coal that often has well-defined bands of bright and dull material. It has a volatility greater than anthracite and a calorific value greater than lignite. In the United States, it is often referred to as soft coal and is used for electricity generation, coke production, and space heating. It includes subbituminous coal and conforms to ASTM Specification D388 for bituminous coal and subbituminous coal.

British Thermal Unit (Btu). The amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit (°F) at or near 39.2 °F. 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.

**Butane.** A normally gaseous, colorless, paraffinic hydrocarbon  $(C_4H_{10})$  extracted from natural gas and refinery gas streams. Included are isobutane, a branch-chain configuration of  $(CH_3)_3CH$  with a boiling point of 10.9 °F and normal butane, a straight-chain configuration of  $C_4H_{10}$  with a boiling point of 31.1 °F. Butane is used primarily for blending into motor gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

**Coal.** Includes all ranks of coal—anthracite, bituminous coal (including subbituminous coal), and lignite—conforming to ASTM Specification D388.

Coal Coke. The strong, porous residue consisting of carbon and mineral ash that is formed when the volatile constituents of bituminous coal are driven off by heat in the absence of or in a limited supply of air. It is used primarily in blast furnaces for smelting ores, especially iron ore.

Crude Oil (including lease condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are excluded where identifiable.

Crude Oil Refinery Input. Total crude oil (including lease condensate) input to crude oil distillation units and other processing units.

**Degree-Day Normals.** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951–1980). These may be simple degree-day normals or population-weighted degree-day normals.

**Degree-Days, Cooling.** The number of degrees per day that the daily average temperature is above 65 °F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

**Degree-Days, Heating.** The number of degrees per day that the daily average temperature is below 65 °F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Population-Weighted. Heating or cooling degree-days weighted by the population of the area in which the degreedays are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and these products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are

### Glossary (continued)

multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population-weighted degree-day figure.

**Distillate Fuel Oil.** Light fuel oils distilled during the refining process. Included are products known as No. 1, No. 2, and No. 4 fuel oils; and No. 1, No. 2, and No. 4 diesel fuels that 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 fuel for agricultural machinery), and electric power generation.

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

Ethane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C₂H₀) with a boiling point of -127.48 °F extracted from natural gas and refinery gas streams. Ethane is used primarily as petrochemical feedstock for 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.

Imports. Receipts into the 50 States and the District of Columbia of foreign goods (including 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 warehouses 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.

Isobutane. See "Butane."

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, and license (ticket) fees. Averages are based on major importers, which account for an estimated 90 to 95 percent total crude oil imports. Coverage includes the United States and its territories.

Lease Condensate. A natural gas liquid recovered from gas-well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

Lignite. A brownish-black coal with a high moisture content. It is also referred to as brown coal. Domestic lignite is mined in North Dakota, Montana, and Texas and is used mainly for electric power generation. It conforms to ASTM Specification D388 for lignite.

Line Miles of Seismic Exploration. The distance along the earth's surface that is covered by seismic surveying.

Liquefied Petroleum Gases. Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Maximum Dependable Capacity, Net. The dependable main-unit net capacity of nuclear power plant reactors and generally varies throughout the year because the unit efficiency varies with seasonal cooling water temperature variations. The maximum dependable capacity is the highest net dependable output of the turbine generator during the most restrictive seasonal conditions (usually summer).

Motor Gasoline, Finished. 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 and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Excludes blendstock until blending has been completed and excludes alcohol that is 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 hydrocarbons and small quantities of various nonhydrocarbons existing in the

### Glossary (continued)

gaseous phase or in solution with crude oil in natural reservoirs.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the ASTM and the Gas Processors Association and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Normal Butane. See "Butane."

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. This product includes isopentane, natural gasoline, and plant condensate.

**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 residue that is the final product of the cracking process in petroleum refining. 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, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 °F endpoint, other oils over 400 °F end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Stocks, Primary.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can

receive petrolum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve, is included. Excluded are stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon  $(C_3H_8)$  with a boiling point of -43.67 °F. It is extracted from natural gas and refinery gas streams. 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 calculated by adding production, imports, and crude oil burned directly; and subtracting exports and changes in primary stocks (net withdrawals is a plus quantity and net additions is a minus quantity).

Refiner Acquisition Cost. The cost of crude oil to the refiner, including transportation and fees. The composite cost is the weighted average of domestic and imported crude oil costs.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. Included are products known as No. 5 and No. 6 fuel oils that conform to ASTM Specification D396 and Navy Special Fuel Oil specifications, as well as Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include imported crude oil burned as fuel.

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

Startup Test Phase of Nuclear Power Plants. A nuclear power plant 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 power plant in the rate base calculation.

**Strategic Petroleum Reserve (SPR).** Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

### Glossary (continued)

Supplemental Gaseous Fuels. Mainly synthetic natural gas, propane-air, and refinery gas. May also include coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization.

**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 crude oil 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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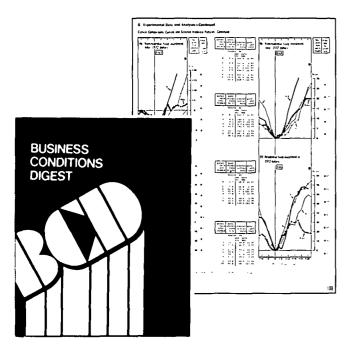
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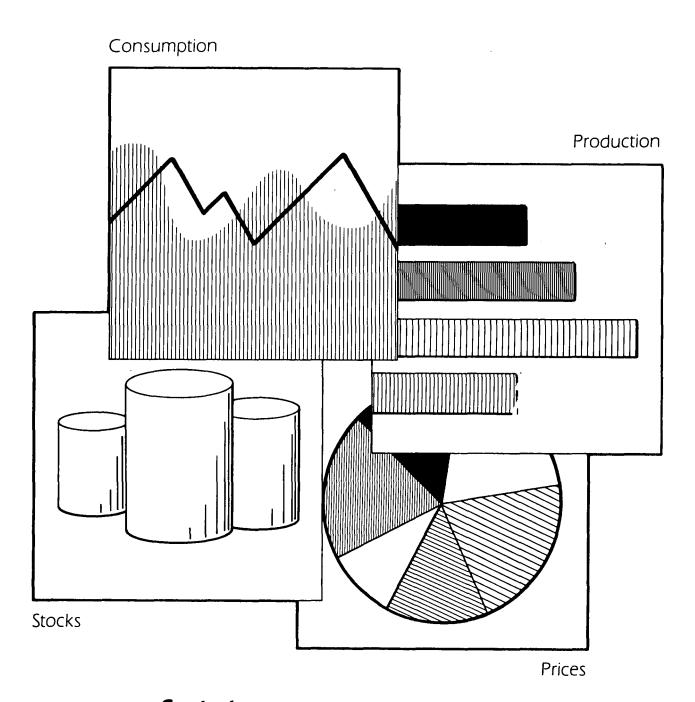
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