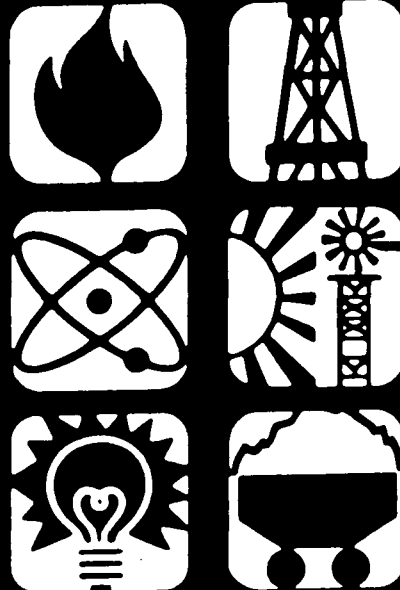


DOE/EIA-0035(86/07)

# Monthly Energy Review

Energy Information Administration  
Washington, DC

July 1986



See Notice  
Inside Cover



## **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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Released for printing: October 28, 1986

# Monthly Energy Review

Energy Information Administration  
Office of Energy Markets  
and End Use  
U.S. Department of Energy  
Washington, DC 20585

DOE/EIA-0035(86/07)  
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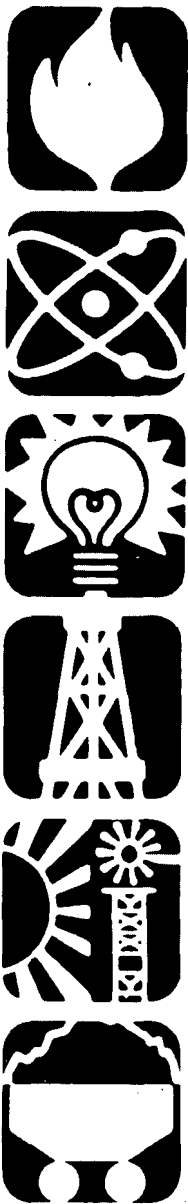
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This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.



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The *Monthly Energy Review* is prepared in the Statistics Branch of the Office of Energy Markets and End Use, Energy Information Administration, under the direction of Katherine E. Seiferlein (202) 252-5692.

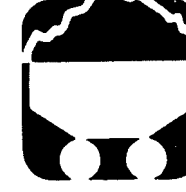
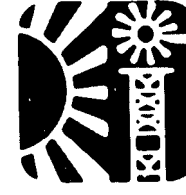
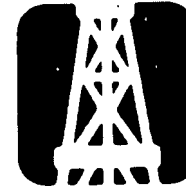
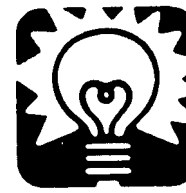
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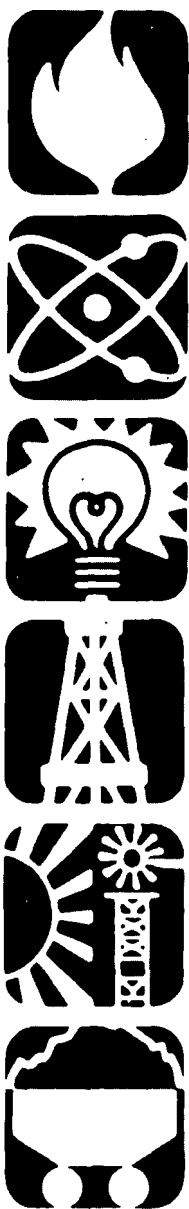
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## Articles

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 .....	July	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 .....	March	1985
State Motor Gasoline Taxes, 1960-1985.....	March	1986
The Impact of Low Oil Prices on Electric Utility Fuel Choice.....	June	1986
U.S. Energy Industry Financial Developments, 1986 Second Quarter .....	June	1986

## 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.

<i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report .....</i>	September	1982
<i>Energy Company Development Patterns in the Postembargo Era, Volume One .....</i>	November	1982
<i>Residential Energy Consumption Survey: Consumption and Expenditures .....</i>	January	1983
<i>Residential Energy Consumption Survey: Housing Characteristics .....</i>	February	1983
<i>Energy Price and Expenditure Data Report, 1970-1980 .....</i>	July	1983
<i>Railroad Deregulation: Impact on Coal .....</i>	August	1983
<i>Port Deepening and User Fees: Impact on U.S. Coal Exports .....</i>	August	1983
<i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report .....</i>	September	1983
<i>Annual Energy Review 1983 .....</i>	February	1984
<i>State Energy Data Report, Consumption Estimates, 1960-1982 .....</i>	March	1984
<i>Annual Energy Outlook 1983 .....</i>	March	1984
<i>State Energy Price and Expenditure Report, 1970-1981 .....</i>	May	1984
<i>Solar Collector Manufacturing Activity 1983 .....</i>	June	1984
<i>Estimates of U.S. Wood Energy Consumption, 1980-1983 .....</i>	September	1984
<i>International Energy Annual 1983 .....</i>	September	1984
<i>Energy Conservation Indicators 1983 Annual Report .....</i>	November	1984
<i>Annual Energy Outlook 1984 .....</i>	December	1984
<i>Annual Energy Review 1984 .....</i>	January	1985
<i>Performance Profiles of Major Energy Producers 1983 .....</i>	February	1985
<i>State Energy Price and Expenditure Report 1970-1982 .....</i>	March	1985
<i>State Energy Data Report, Consumption Estimates, 1960-1983 .....</i>	April	1985
<i>Annual Outlook for U.S. Electric Power 1985 .....</i>	June	1985
<i>Short-Term Energy Outlook, Volume 1, October 1985 .....</i>	August	1985
<i>Analysis of Growth in Electricity Demand, 1980-1984 .....</i>	August	1985
<i>Profiles of Foreign Direct Investment in U.S. Energy 1984 .....</i>	November	1985
<i>Performance Profiles of Major Energy Producers 1984 .....</i>	December	1985

## Energy Summary

### January through July Summary

The United States produced 0.1 percent less energy during the first 7 months of 1986 than during the same period in 1985, and U.S. consumption was relatively unchanged. Net imports of all energy were 18.9 percent higher with net imports of petroleum up 19.5 percent, compared with the first 7 months of 1985.

### Production

Energy production during July 1986 totaled 5.2 quadrillion Btu, a 1.0-percent decrease compared with the level of production during July 1985. Coal production was down 2.9 percent and petroleum production dropped 2.2 percent. Natural gas production decreased 0.8 percent. All other forms of energy production combined were up 6.4 percent from the level of production during July 1985.

### Consumption

Energy consumption during July 1986 totaled 6.1 quadrillion Btu, 3.4 percent above the level of consumption during July 1985. Coal consumption increased 5.1 percent and petroleum consumption increased 4.2 percent. Natural gas consumption decreased 1.8 percent. Consumption of all other forms of energy combined increased 5.0 percent compared with the level 1 year earlier.

### Net Imports

Net imports of energy during July 1986 totaled 1.0 quadrillion Btu, 45.6 percent above the level of net imports 1 year earlier. Net imports of petroleum increased 44.1 percent, while net imports of natural gas dropped 24.5 percent. Net exports of coal rose 6.4 percent compared with the level in July 1985.

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

	July			Cumulative January through July				
	1986	1985	Percent Change <sup>1</sup>	1986	1986 Daily Rate	1985	1985 Daily Rate	Percent Change <sup>1</sup>
<b>Total Production</b>	<b>5.221</b>	<b>5.275</b>	<b>-1.0</b>	<b>37.731</b>	<b>0.178</b>	<b>37.762</b>	<b>0.178</b>	<b>-0.1</b>
Petroleum <sup>2</sup>	1.755	1.794	-2.2	12.188	0.057	12.356	0.058	-1.4
Natural Gas (Dry)	1.336	1.348	-0.8	9.739	0.046	9.944	0.047	-2.1
Coal	1.471	1.514	-2.9	11.334	0.053	11.169	0.053	1.5
Other <sup>3</sup>	0.659	0.619	6.4	4.471	0.021	4.292	0.020	4.2
<b>Total Consumption</b>	<b>6.137</b>	<b>5.936</b>	<b>3.4</b>	<b>43.084</b>	<b>0.203</b>	<b>43.095</b>	<b>0.203</b>	<b>0.0</b>
Petroleum <sup>4</sup>	2.685	2.577	4.2	18.246	0.086	17.858	0.084	2.2
Natural Gas <sup>5</sup>	1.093	1.112	-1.8	10.040	0.047	10.604	0.050	-5.3
Coal	1.665	1.585	5.1	10.098	0.048	10.112	0.048	-0.1
Other <sup>6</sup>	0.694	0.661	5.0	4.701	0.022	4.521	0.021	4.0
<b>Net Imports</b>	<b>0.969</b>	<b>0.666</b>	<b>45.6</b>	<b>5.320</b>	<b>0.025</b>	<b>4.474</b>	<b>0.021</b>	<b>18.9</b>
Petroleum <sup>7</sup>	1.094	0.759	44.1	5.977	0.028	5.003	0.024	19.5
Natural Gas	0.040	0.053	-24.5	0.376	0.002	0.534	0.003	-29.7
Coal <sup>8</sup>	(0.200)	(0.188)	(6.4)	(1.263)	(0.006)	(1.292)	(0.006)	(-2.2)
Other <sup>9</sup>	0.035	0.042	-15.8	0.230	0.001	0.229	0.001	0.7

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

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

<sup>3</sup>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.

<sup>4</sup>Includes petroleum products.

<sup>5</sup>Includes supplemental gaseous fuels.

<sup>6</sup>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.

<sup>7</sup>Includes crude oil, lease condensate, petroleum products, pentanes plus, unfinished oils, gasoline blending components, and imports of crude oil for the Strategic Petroleum Reserve.

<sup>8</sup>Parentheses indicate exports are greater than imports.

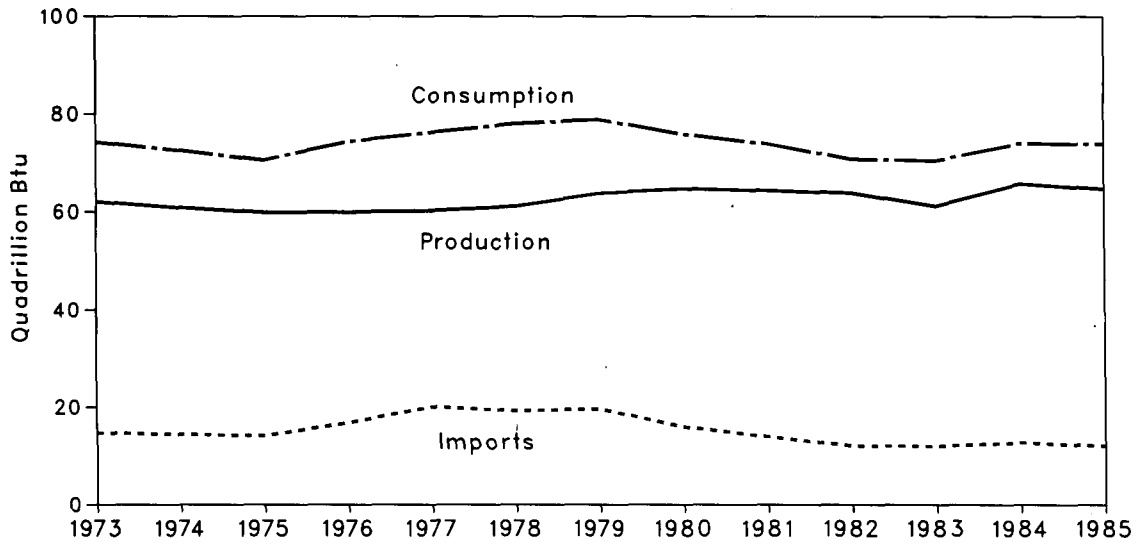
<sup>9</sup>Other is net imports of electricity and coal coke.

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

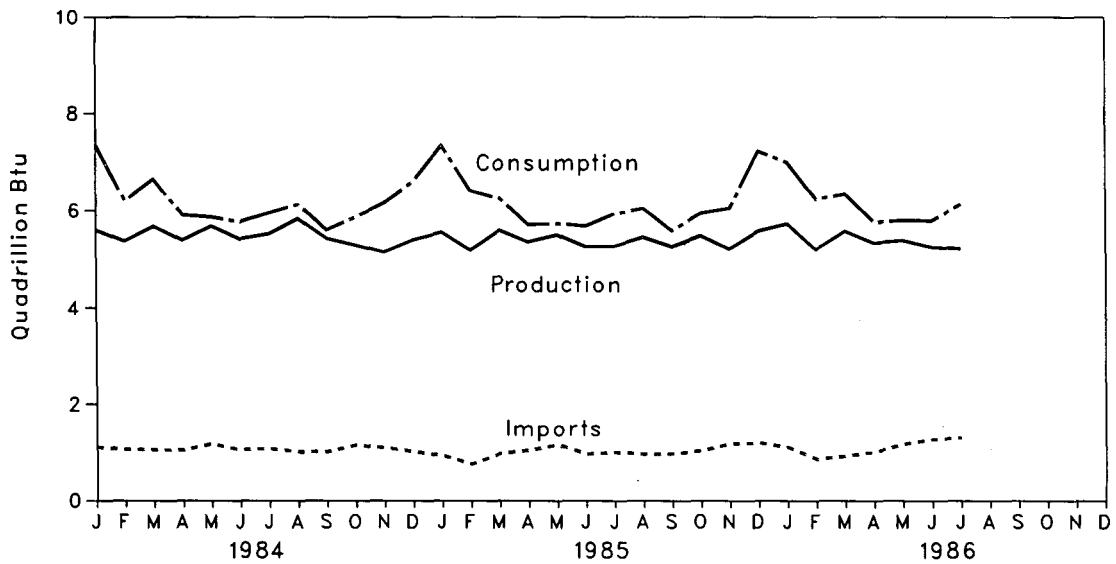
# Energy Summary

## Overview

### Yearly



### Monthly





# Energy Summary

## Overview<sup>1</sup>

		Production <sup>2</sup>	Consumption <sup>2</sup>	Imports <sup>2</sup>	Exports	Net Imports
Quadrillion (10 <sup>15</sup> ) Btu						
<b>1973</b>	<b>Total</b>	<b>62.060</b>	<b>74.282</b>	<b>14.731</b>	<b>2.051</b>	<b>12.680</b>
<b>1974</b>	<b>Total</b>	<b>60.835</b>	<b>72.543</b>	<b>14.412</b>	<b>2.223</b>	<b>12.190</b>
<b>1975</b>	<b>Total</b>	<b>59.860</b>	<b>70.546</b>	<b>14.111</b>	<b>2.359</b>	<b>11.752</b>
<b>1976</b>	<b>Total</b>	<b>59.891</b>	<b>74.362</b>	<b>16.837</b>	<b>2.189</b>	<b>14.648</b>
<b>1977</b>	<b>Total</b>	<b>60.219</b>	<b>76.289</b>	<b>20.090</b>	<b>2.072</b>	<b>18.018</b>
<b>1978</b>	<b>Total</b>	<b>61.103</b>	<b>78.088</b>	<b>19.254</b>	<b>1.931</b>	<b>17.323</b>
<b>1979</b>	<b>Total</b>	<b>63.800</b>	<b>78.898</b>	<b>19.616</b>	<b>2.871</b>	<b>16.745</b>
<b>1980</b>	<b>Total</b>	<b>64.761</b>	<b>75.952</b>	<b>15.971</b>	<b>3.724</b>	<b>12.247</b>
<b>1981</b>	<b>Total</b>	<b>64.422</b>	<b>73.989</b>	<b>13.974</b>	<b>4.329</b>	<b>9.644</b>
<b>1982</b>	<b>Total</b>	<b>63.890</b>	<b>70.840</b>	<b>12.093</b>	<b>4.636</b>	<b>7.457</b>
<b>1983</b>	<b>Total</b>	<b>61.194</b>	<b>70.495</b>	<b>12.024</b>	<b>3.719</b>	<b>8.306</b>
<b>1984</b>	January	5.606	7.360	1.101	0.247	0.854
	February	5.376	6.206	1.052	0.221	0.831
	March	5.682	6.648	1.047	0.315	0.732
	April	5.397	5.908	1.034	0.327	0.708
	May	5.687	5.868	1.169	0.365	0.804
	June	5.423	5.770	1.040	0.367	0.673
	July	5.525	5.948	1.065	0.326	0.739
	August	5.835	6.129	1.004	0.359	0.645
	September	5.434	5.608	1.005	0.355	0.650
	October	5.298	5.866	1.143	0.295	0.848
	November	5.147	6.161	1.084	0.271	0.814
	December	5.405	6.593	1.012	0.360	0.652
	<b>Total</b>	<b>65.814</b>	<b>74.064</b>	<b>12.757</b>	<b>3.808</b>	<b>8.949</b>
<b>1985</b>	January	R5.561	R7.339	0.926	0.305	0.621
	February	R5.191	6.417	0.756	0.306	0.450
	March	R5.599	6.258	0.970	0.317	0.653
	April	R5.362	R5.720	1.034	0.332	0.702
	May	R5.508	5.738	1.145	0.381	0.764
	June	R5.265	R5.687	0.960	0.342	0.618
	July	R5.275	5.936	0.994	0.328	0.666
	August	R5.459	6.042	0.958	0.420	0.539
	September	R5.267	5.594	0.964	0.364	0.600
	October	R5.491	5.947	1.029	0.365	0.664
	November	R5.217	R6.050	1.170	0.406	0.764
	December	R5.585	R7.225	1.189	0.368	0.821
	<b>Total</b>	<b>R64.782</b>	<b>R73.953</b>	<b>12.095</b>	<b>4.234</b>	<b>7.861</b>
<b>1986</b>	January	5.735	R6.997	1.096	0.318	0.778
	February	5.203	6.239	0.858	0.284	0.574
	March	R5.583	R6.345	0.923	0.301	0.622
	April	R5.342	5.769	1.005	0.374	0.631
	May	R5.395	5.802	1.163	0.367	0.797
	June	R5.252	5.796	1.260	0.312	0.948
	July	5.221	6.137	1.298	0.328	0.969
	<b>Year to Date</b>	<b>37.731</b>	<b>43.084</b>	<b>7.604</b>	<b>2.284</b>	<b>5.320</b>

<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.

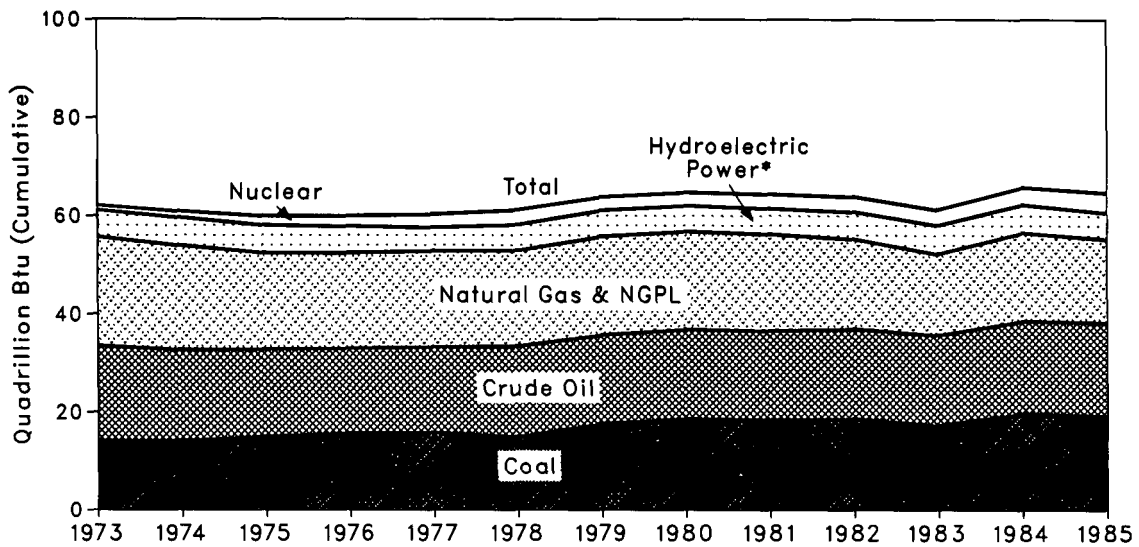
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

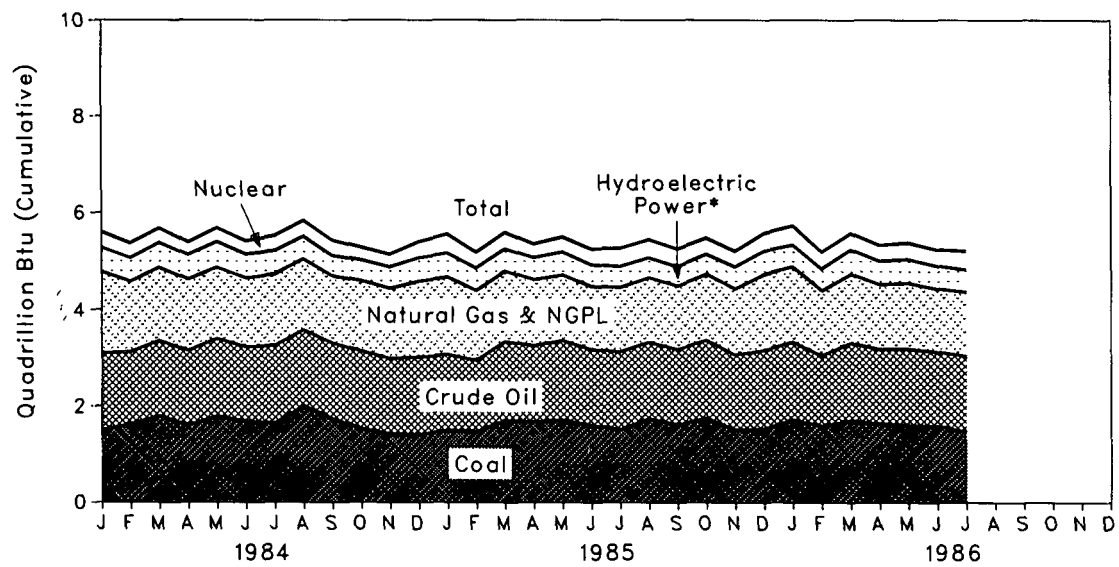
# Energy Summary

## Production of Energy by Source

### Yearly



### Monthly



\*Includes other.

# Energy Summary

## Production of Energy by Source

		Coal	Crude Oil <sup>1</sup>	NGPL <sup>2</sup>	Natural Gas (Dry)	Hydro-electric Power <sup>3</sup>	Nuclear Electric Power	Other <sup>4</sup>	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu										
1973	Total	13.993	19.493	2.569	22.187	2.861	0.910	0.046	62.060	
1974	Total	14.074	18.575	2.471	21.210	3.177	1.272	0.056	60.835	
1975	Total	14.990	17.729	2.374	19.640	3.155	1.900	0.072	59.860	
1976	Total	15.654	17.262	2.327	19.480	2.976	2.111	0.081	59.891	
1977	Total	15.755	17.454	2.327	19.565	2.333	2.702	0.082	60.219	
1978	Total	14.910	18.434	2.245	19.485	2.937	3.024	0.068	61.103	
1979	Total	17.539	18.104	2.286	20.076	2.931	2.776	0.089	63.800	
1980	Total	18.597	18.249	2.254	19.907	2.900	2.739	0.114	64.761	
1981	Total	18.377	18.146	2.307	19.699	2.758	3.008	0.127	64.422	
1982	Total	18.639	18.309	2.191	18.255	3.256	3.131	0.108	63.890	
1983	Total	17.250	18.392	2.184	16.530	3.502	3.203	0.133	61.194	
1984	January	1.495	1.594	0.186	1.695	0.307	0.318	0.011	5.606	5.606
	February	1.622	1.493	0.181	1.472	0.287	0.308	0.013	5.376	10.982
	March	1.795	1.559	0.189	1.515	0.314	0.296	0.015	5.682	16.664
	April	1.601	1.542	0.185	1.483	0.309	0.263	0.014	5.397	22.061
	May	1.785	1.610	0.191	1.478	0.328	0.280	0.014	5.687	27.748
	June	1.682	1.540	0.184	1.432	0.297	0.274	0.013	5.423	33.172
	July	1.646	1.598	0.193	1.485	0.284	0.307	0.013	5.525	38.696
	August	1.999	1.584	0.193	1.463	0.259	0.320	0.016	5.835	44.531
	September	1.739	1.565	0.190	1.394	0.216	0.316	0.015	5.434	49.965
	October	1.536	1.601	0.195	1.465	0.215	0.269	0.016	5.298	55.263
	November	1.417	1.562	0.192	1.463	0.230	0.266	0.016	5.147	60.409
	December	1.405	1.600	0.195	1.587	0.266	0.335	0.018	5.405	65.814
	<b>Total</b>	<b>19.723</b>	<b>18.848</b>	<b>2.274</b>	<b>17.931</b>	<b>3.312</b>	<b>3.553</b>	<b>0.174</b>	<b>65.814</b>	
1985	January	R1.493	1.571	0.192	1.610	0.284	0.392	0.018	R5.561	R5.561
	February	R1.471	1.466	0.173	1.465	0.267	0.334	0.016	R5.191	R10.752
	March	R1.701	1.635	0.189	1.465	0.254	0.337	0.018	R5.599	R16.351
	April	R1.674	1.574	0.181	1.378	0.252	0.287	0.016	R5.362	R21.713
	May	R1.715	1.642	0.188	1.363	0.273	0.311	0.016	R5.508	R27.221
	June	R1.602	1.570	0.182	1.315	0.247	0.334	0.016	R5.265	R32.487
	July	R1.514	1.609	0.185	1.348	0.220	0.382	0.018	R5.275	R37.762
	August	R1.742	1.583	0.188	1.344	0.206	0.377	0.018	R5.459	R43.221
	September	R1.618	1.558	0.180	1.326	0.194	0.374	0.018	R5.267	R48.488
	October	R1.753	1.613	0.190	1.373	0.207	0.338	0.017	R5.491	R53.979
	November	R1.515	1.549	0.190	1.379	0.237	0.327	0.021	R5.217	R59.197
	December	R1.531	1.624	0.198	1.583	0.261	0.366	0.022	R5.585	R64.782
	<b>Total</b>	<b>R19.329</b>	<b>18.992</b>	<b>2.235</b>	<b>16.950</b>	<b>2.903</b>	<b>4.160</b>	<b>0.213</b>	<b>R64.782</b>	
1986	January	1.718	1.608	0.203	1.565	0.226	0.393	0.023	5.735	5.735
	February	R1.595	1.452	0.182	1.359	0.241	0.355	0.019	5.203	R10.938
	March	R1.702	1.607	0.191	1.437	0.292	0.334	0.020	R5.583	R16.521
	April	R1.645	1.534	0.178	1.353	0.284	0.330	0.018	R5.342	R21.864
	May	R1.606	1.583	0.188	1.371	0.282	0.346	0.018	R5.395	R27.258
	June	R1.596	1.530	0.177	1.318	0.271	0.340	0.020	R5.252	R32.510
	July	1.471	1.571	0.184	1.336	0.249	0.389	0.021	5.221	37.731
	<b>Year to Date</b>	<b>11.334</b>	<b>10.884</b>	<b>1.303</b>	<b>9.739</b>	<b>1.845</b>	<b>2.487</b>	<b>0.139</b>	<b>37.731</b>	

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

<sup>2</sup>Natural gas plant liquids.

<sup>3</sup>Includes industrial and utility production of hydroelectric power.

<sup>4</sup>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.

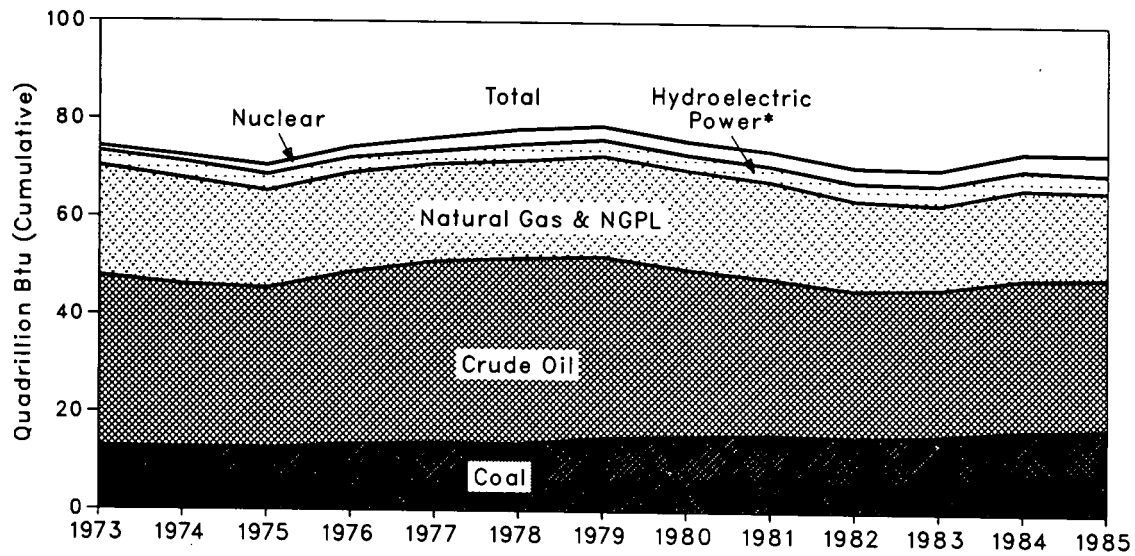
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

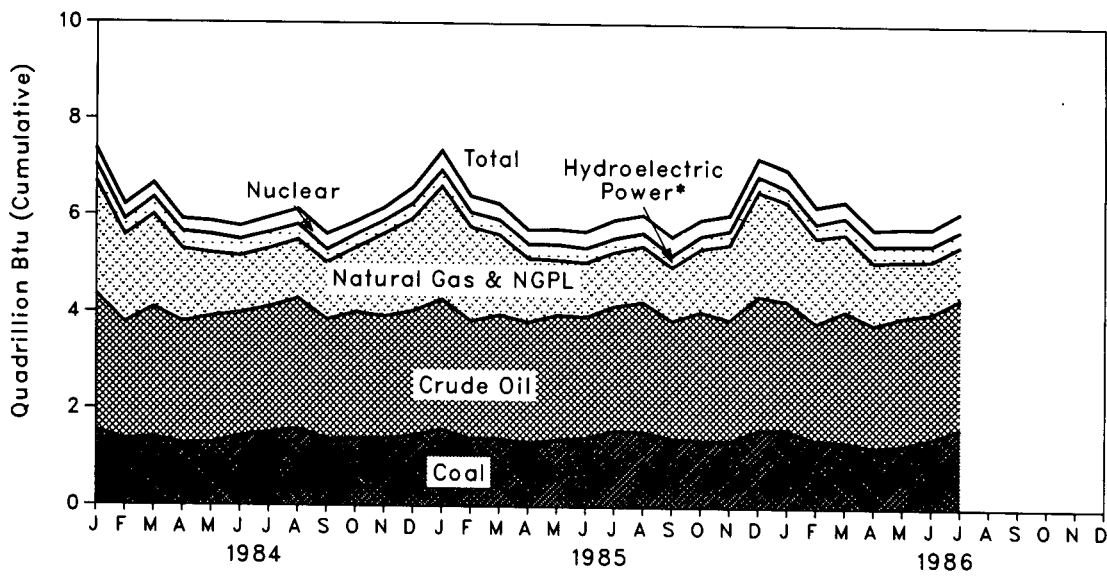
# Energy Summary

## Consumption of Energy by Source

### Yearly



### Monthly



\*Includes other.

# Energy Summary

## Consumption of Energy by Source

		Coal	Natural Gas <sup>1</sup>	Petroleum	Hydro-electric Power <sup>2</sup>	Nuclear Electric Power	Other <sup>3</sup>	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu									
1973	Total	12.971	22.512	34.840	3.010	0.910	0.039	74.282	
1974	Total	12.663	21.732	33.455	3.309	1.272	0.112	72.543	
1975	Total	12.663	19.948	32.731	3.219	1.900	0.086	70.546	
1976	Total	13.584	20.345	35.175	3.066	2.111	0.081	74.362	
1977	Total	13.922	19.931	37.122	2.515	2.702	0.097	76.289	
1978	Total	13.765	20.000	37.965	3.141	3.024	0.193	78.088	
1979	Total	15.039	20.666	37.123	3.141	2.776	0.152	78.898	
1980	Total	15.423	20.391	34.202	3.118	2.739	0.079	75.952	
1981	Total	15.908	19.926	31.931	3.105	3.008	0.111	73.989	
1982	Total	15.322	18.507	30.232	3.561	3.131	0.086	70.840	
1983	Total	15.898	17.352	30.054	3.871	3.203	0.118	70.495	
1984	January	1.552	2.330	2.810	0.338	0.318	0.012	7.360	7.360
	February	1.359	1.793	2.415	0.315	0.308	0.015	6.206	13.566
	March	1.403	1.908	2.684	0.342	0.296	0.014	6.648	20.214
	April	1.272	1.501	2.520	0.339	0.263	0.014	5.908	26.122
	May	1.298	1.303	2.612	0.360	0.280	0.013	5.868	31.990
	June	1.439	1.175	2.542	0.328	0.274	0.011	5.770	37.760
	July	1.519	1.197	2.592	0.321	0.307	0.012	5.948	43.708
	August	1.587	1.208	2.695	0.304	0.320	0.014	6.129	49.837
	September	1.384	1.173	2.468	0.253	0.316	0.014	5.608	55.444
	October	1.395	1.322	2.612	0.256	0.269	0.013	5.866	61.310
	November	1.394	1.695	2.529	0.262	0.266	0.014	6.161	67.471
	December	1.470	1.901	2.571	0.298	0.335	0.017	6.593	74.064
	<b>Total</b>	<b>17.074</b>	<b>18.507</b>	<b>31.051</b>	<b>3.717</b>	<b>3.553</b>	<b>0.163</b>	<b>74.064</b>	
1985	January	1.591	2.334	2.690	0.314	0.392	0.018	R7.339	R7.339
	February	R1.403	1.939	2.432	0.291	0.334	0.017	6.417	R13.756
	March	1.398	1.647	2.567	0.292	0.337	0.018	6.258	R20.014
	April	1.320	1.316	2.500	0.281	0.287	0.016	R5.720	R25.734
	May	1.385	1.133	2.589	0.307	0.311	0.013	5.738	R31.472
	June	R1.431	1.123	2.502	0.283	0.334	0.014	R5.687	R37.159
	July	1.585	1.112	2.577	0.264	0.382	0.016	5.936	R43.095
	August	R1.562	1.151	2.682	0.253	0.377	0.017	6.042	R49.137
	September	1.425	1.108	2.440	0.231	0.374	0.015	5.594	R54.730
	October	1.390	1.299	2.663	0.241	0.338	0.016	5.947	R60.677
	November	R1.386	1.544	2.505	0.270	0.327	0.018	R6.050	R66.728
	December	R1.607	2.162	2.774	0.295	0.366	0.021	R7.225	R73.953
	<b>Total</b>	<b>R17.482</b>	<b>17.868</b>	<b>30.922</b>	<b>3.321</b>	<b>4.160</b>	<b>0.199</b>	<b>R73.953</b>	
1986	January	R1.619	2.044	2.659	0.260	0.393	0.023	R6.997	R6.997
	February	R1.406	1.762	2.422	0.275	0.355	0.019	6.239	R13.236
	March	1.377	1.585	2.703	0.328	0.334	0.019	R6.345	R19.581
	April	1.258	1.300	2.544	0.318	0.330	0.018	5.769	R25.350
	May	R1.315	1.163	2.647	0.314	0.346	0.016	5.802	R31.151
	June	1.457	1.093	2.585	0.301	0.340	0.020	5.796	R36.947
	July	1.665	1.093	2.685	0.286	0.389	0.019	6.137	43.084
	<b>Year to Date</b>	<b>10.098</b>	<b>10.040</b>	<b>18.246</b>	<b>2.081</b>	<b>2.487</b>	<b>0.134</b>	<b>43.084</b>	

<sup>1</sup>Includes supplemental gaseous fuels.

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

<sup>3</sup>Other is net imports of coal coke and 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.

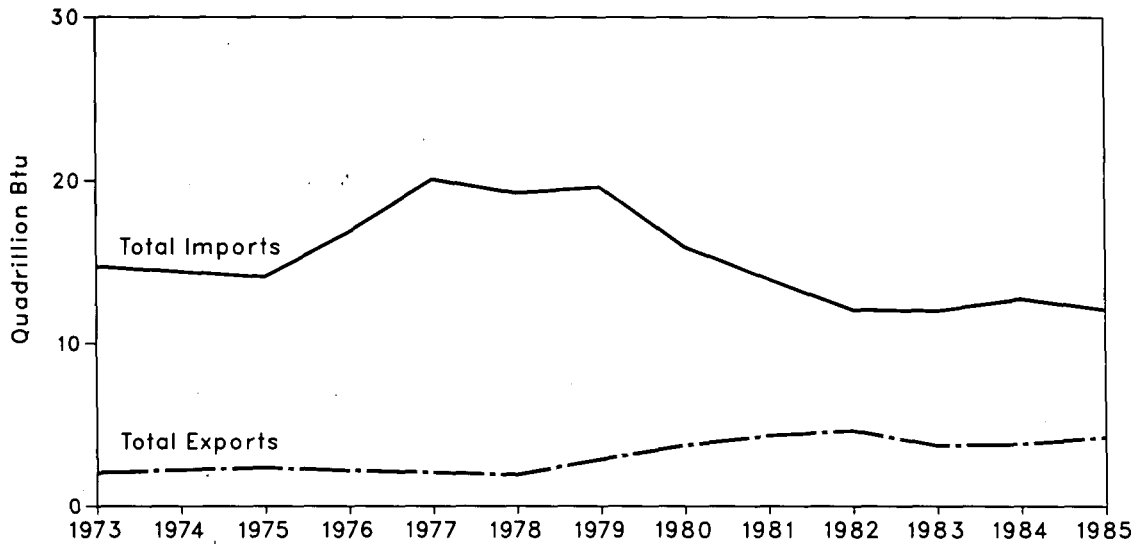
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

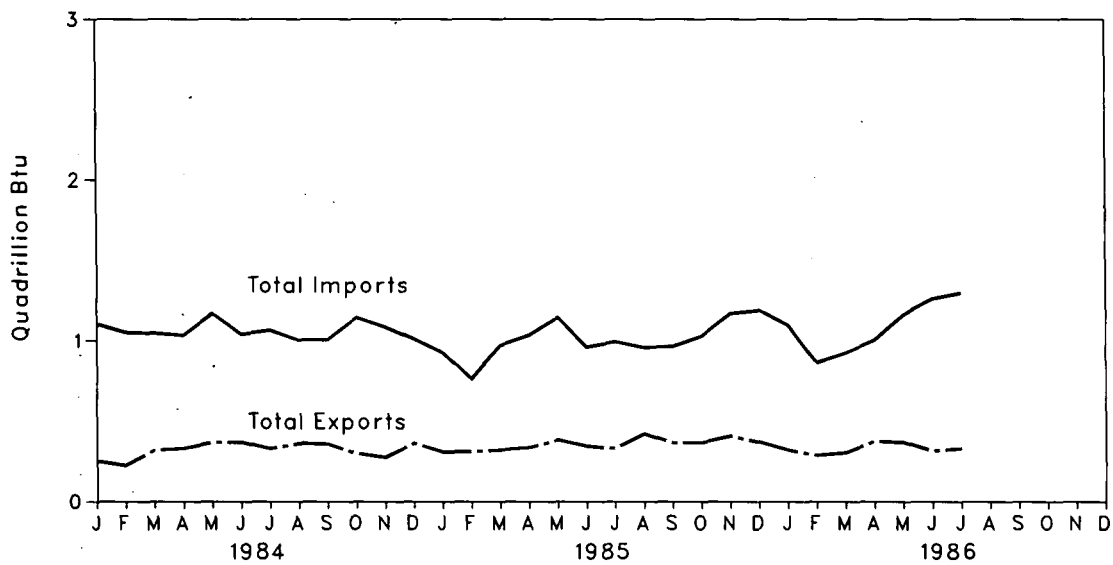
# Energy Summary

## Energy Imports and Exports

Yearly



Monthly



# Energy Summary

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

		Coal	Crude Oil <sup>2</sup>	Petro-leum Products <sup>3</sup>	Natural Gas	Electric-ity	Coal Coke	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu									
1973	Total	(1.422)	6.883	6.097	0.981	0.148	(0.007)	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	Total	(2.013)	6.731	2.351	0.883	0.369	(0.016)	8.306	
1984	January	(0.132)	0.524	0.336	0.092	0.032	0.001	0.854	0.854
	February	(0.109)	0.467	0.379	0.064	0.028	0.002	0.831	1.685
	March	(0.152)	0.584	0.209	0.063	0.029	(0.001)	0.732	2.417
	April	(0.199)	0.567	0.244	0.066	0.030	0.000	0.708	3.124
	May	(0.215)	0.672	0.255	0.061	0.032	(0.001)	0.804	3.929
	June	(0.205)	0.581	0.213	0.056	0.031	(0.002)	0.673	4.602
	July	(0.215)	0.639	0.228	0.050	0.037	(0.001)	0.739	5.341
	August	(0.214)	0.552	0.214	0.049	0.045	(0.002)	0.645	5.986
	September	(0.228)	0.556	0.233	0.052	0.037	0.000	0.650	6.636
	October	(0.173)	0.652	0.269	0.062	0.040	(0.003)	0.848	7.483
	November	(0.109)	0.591	0.223	0.079	0.033	(0.003)	0.814	8.297
	December	(0.169)	0.533	0.167	0.089	0.032	(0.001)	0.652	8.949
	<b>Total</b>	<b>(2.119)</b>	<b>6.918</b>	<b>2.970</b>	<b>0.787</b>	<b>0.405</b>	<b>(0.011)</b>	<b>8.949</b>	
1985	January	(0.150)	0.465	0.177	0.099	0.029	0.000	0.621	0.621
	February	(0.156)	0.308	0.178	0.094	0.024	0.001	0.450	1.071
	March	(0.174)	0.470	0.235	0.084	0.037	0.000	0.653	1.724
	April	(0.181)	0.554	0.228	0.071	0.029	0.001	0.702	2.426
	May	(0.239)	0.629	0.271	0.071	0.033	(0.003)	0.764	3.190
	June	(0.205)	0.519	0.210	0.060	0.036	(0.002)	0.618	3.808
	July	(0.188)	0.551	0.208	0.053	0.043	(0.002)	0.666	4.474
	August	(0.268)	0.520	0.185	0.056	0.046	(0.001)	0.539	5.013
	September	(0.208)	0.519	0.196	0.058	0.038	(0.003)	0.600	5.612
	October	(0.227)	0.563	0.223	0.071	0.035	(0.001)	0.664	6.276
	November	(0.211)	0.650	0.223	0.072	0.033	(0.003)	0.764	7.041
	December	(0.183)	0.633	0.237	0.101	0.033	(0.001)	0.821	7.861
	<b>Total</b>	<b>(2.389)</b>	<b>6.381</b>	<b>2.570</b>	<b>0.894</b>	<b>0.418</b>	<b>(0.013)</b>	<b>7.861</b>	
1986	January	(0.152)	0.573	0.230	0.093	E0.034	0.000	0.778	0.778
	February	(0.131)	0.464	0.138	0.068	E0.034	0.000	0.574	1.352
	March	(0.159)	0.504	0.193	0.049	E0.035	(0.001)	0.622	1.974
	April	(0.213)	0.633	0.140	0.039	E0.033	0.000	0.631	2.606
	May	(0.221)	0.711	0.232	0.044	E0.033	(0.003)	0.797	3.402
	June	(0.188)	0.776	0.289	0.041	E0.030	0.000	0.948	4.350
	July	(0.200)	0.829	0.266	0.040	E0.037	(0.002)	0.969	5.320
	<b>Year to Date</b>	<b>(1.263)</b>	<b>4.490</b>	<b>1.487</b>	<b>0.376</b>	<b>E0.236</b>	<b>(0.006)</b>	<b>5.320</b>	

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

<sup>2</sup>Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

<sup>3</sup>Includes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

E=Estimated value.

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

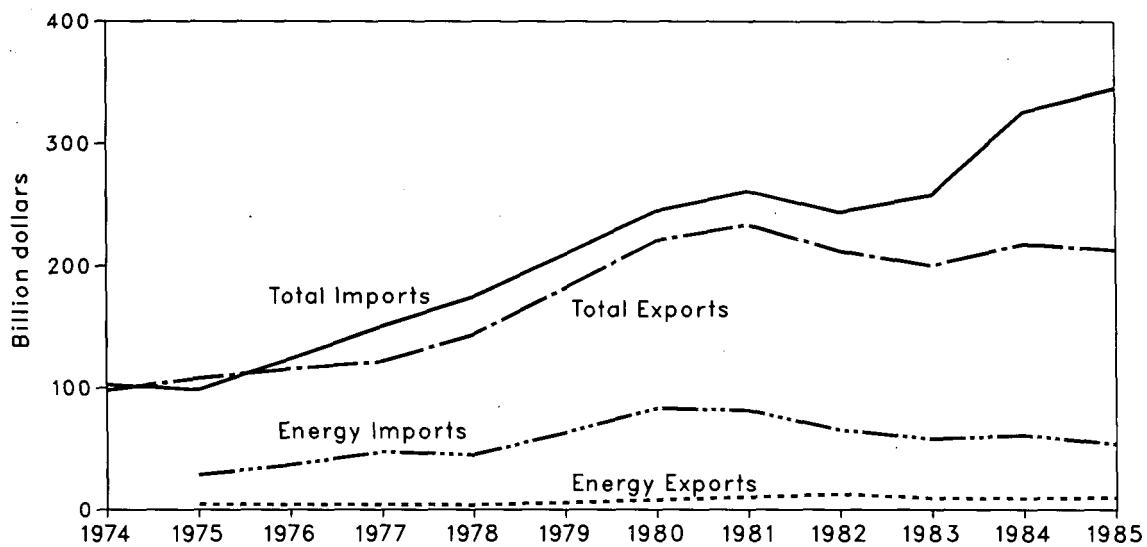
• Totals may not equal sum of components due to independent rounding.

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

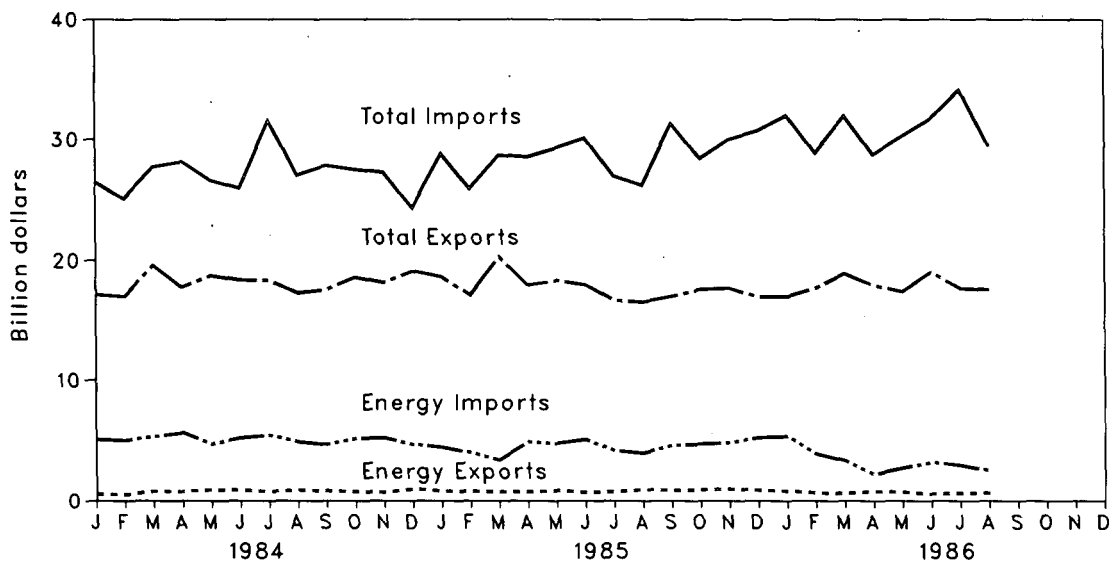
# Energy Summary

## Merchandise Trade Value

Yearly



Monthly





# Energy Summary

## Merchandise Trade Value

		Exports			Imports			Trade Balance		
		Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total
Million dollars										
<b>1974</b>	<b>Total</b>	NA	NA	98,092	NA	NA	102,559	NA	NA	-4,467
<b>1975</b>	<b>Total</b>	4,470	103,182	107,652	28,325	70,178	98,503	-23,855	33,004	9,149
<b>1976</b>	<b>Total</b>	4,226	110,997	115,223	36,384	87,093	123,477	-32,158	23,904	-8,254
<b>1977</b>	<b>Total</b>	4,184	117,048	121,232	47,153	103,237	150,390	-42,969	13,811	-29,158
<b>1978</b>	<b>Total</b>	3,882	139,799	143,681	44,763	129,994	174,757	-40,881	9,805	-31,076
<b>1979</b>	<b>Total</b>	5,675	176,185	181,860	63,077	146,381	209,458	-57,402	29,803	-27,599
<b>1980</b>	<b>Total</b>	7,982	212,644	220,626	82,924	161,947	244,871	-74,942	50,698	-24,244
<b>1981</b>	<b>Total</b>	10,279	223,398	233,677	81,360	179,622	260,982	-71,081	43,776	-27,305
<b>1982</b>	<b>Total</b>	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	20,921	-31,759
<b>1983</b>	<b>Total</b>	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562
<b>1984</b>	January	582	16,584	17,166	5,089	21,408	26,497	-4,507	-4,824	-9,331
	February	502	16,513	17,015	5,006	20,112	25,118	-4,504	-3,599	-8,103
	March	790	18,818	19,608	5,323	22,408	27,731	-4,533	-3,590	-8,123
	April	759	17,024	17,783	5,629	22,531	28,160	-4,870	-5,507	-10,377
	May	901	17,837	18,738	4,696	21,911	26,607	-3,795	-4,075	-7,870
	June	872	17,509	18,381	5,206	20,758	25,964	-4,334	-3,249	-7,583
	July	765	17,598	18,363	5,434	26,131	31,565	-4,669	-8,533	-13,202
	August	878	16,434	17,312	4,886	22,157	27,043	-4,008	-5,723	-9,731
	September	820	16,781	17,601	4,663	23,190	27,853	-3,843	-6,409	-10,252
	October	757	17,855	18,612	5,168	22,362	27,530	-4,411	-4,508	-8,919
	November	712	17,463	18,175	5,207	22,089	27,296	-4,495	-4,626	-9,121
	December	973	18,163	19,136	4,672	19,691	24,363	-3,699	-1,528	-5,227
	<b>Total</b>	<b>9,311</b>	<b>208,577</b>	<b>217,888</b>	<b>60,980</b>	<b>264,746</b>	<b>325,726</b>	<b>-51,669</b>	<b>-56,169</b>	<b>-107,838</b>
<b>1985</b>	January	804	17,869	18,673	4,434	24,402	28,836	-3,630	-6,533	-10,163
	February	786	16,357	17,143	3,989	21,952	25,941	-3,203	-5,595	-8,798
	March	754	19,576	20,330	3,351	25,374	28,725	-2,597	-5,798	-8,395
	April	738	17,235	17,973	4,876	23,696	28,572	-4,138	-6,461	-10,599
	May	837	17,500	18,337	4,748	24,554	29,302	-3,911	-7,054	-10,965
	June	708	17,304	18,012	5,088	25,048	30,136	-4,380	-7,744	-12,124
	July	760	15,967	16,727	4,146	22,854	27,000	-3,386	-6,888	-10,274
	August	934	15,650	16,584	3,937	22,310	26,247	-3,003	-6,660	-9,663
	September	868	16,166	17,034	4,597	26,752	31,349	-3,729	-10,586	-14,315
	October	903	16,715	17,618	4,699	23,730	28,429	-3,796	-7,015	-10,811
	November	991	16,730	17,721	4,824	25,186	30,010	-3,833	-8,457	-12,290
	December	888	16,106	16,994	5,228	25,500	30,728	-4,340	-9,394	-13,734
	<b>Total</b>	<b>9,971</b>	<b>203,175</b>	<b>213,146</b>	<b>53,917</b>	<b>291,359</b>	<b>345,276</b>	<b>-43,946</b>	<b>-88,183</b>	<b>-132,129</b>
<b>1986</b>	January	812	16,194	17,006	5,344	26,661	32,005	-4,532	-10,467	-14,999
	February	676	17,059	17,735	3,874	25,041	28,895	-3,198	-7,963	-11,161
	March	622	18,291	18,913	3,331	28,641	31,972	-2,709	-10,350	-13,059
	April	791	17,174	17,965	2,176	26,586	28,762	-1,385	-9,412	-10,797
	May	728	16,703	17,431	2,700	27,572	30,272	-1,972	-10,870	-12,842
	June	584	18,486	19,070	3,185	28,579	31,764	-2,601	-10,093	-12,694
	July	653	17,054	17,707	2,933	31,188	34,121	-2,280	-14,134	-16,414
	August	661	16,943	17,604	2,511	26,965	29,476	-1,850	-10,021	-11,871
	<b>Year to Date</b>	<b>5,526</b>	<b>137,905</b>	<b>143,431</b>	<b>26,054</b>	<b>221,212</b>	<b>247,266</b>	<b>-20,528</b>	<b>-83,308</b>	<b>-103,836</b>

NA=Not available.

Notes: • In accordance with current Bureau of the Census procedures, monthly data are not adjusted for seasonal variations.

• 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.

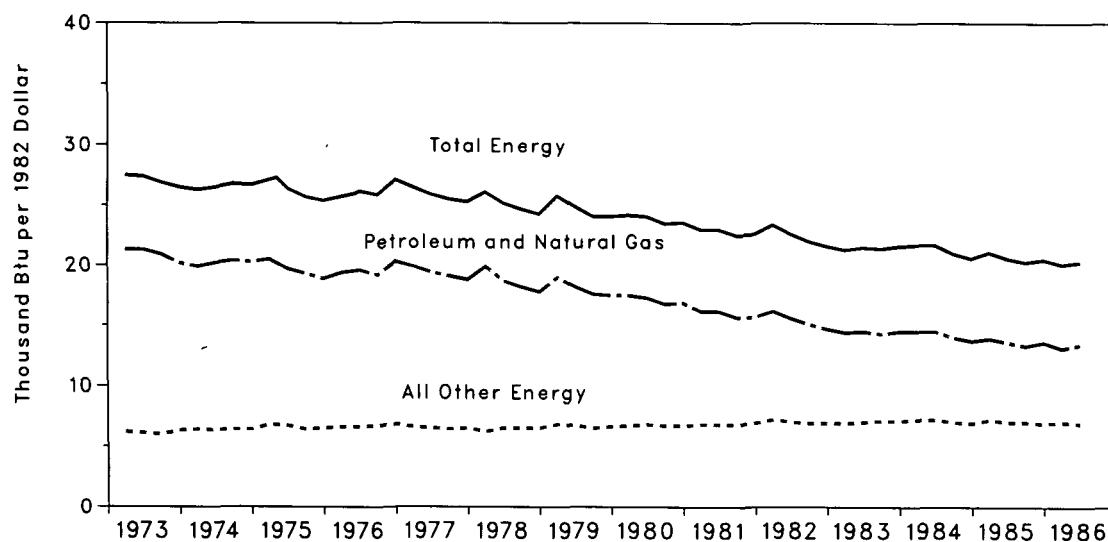
Additional Notes and Sources: • See the last page of this section.

# Energy Summary

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

	Annual Rate of Energy Consumption	Gross National Product (GNP)	Energy Consumption per Dollar of GNP (Seasonally Adjusted)					
			Quadrillion Btu	Trillion 1982 dollars	Thousand Btu per 1982 dollar	Total Energy	Petroleum and Natural Gas	All Other Energy
<b>1973</b>	<b>Year</b>	<b>74.282</b>	<b>2.744</b>	<b>27.1</b>	<b>20.9</b>	<b>6.2</b>		
<b>1974</b>	<b>Year</b>	<b>72.543</b>	<b>2.729</b>	<b>26.6</b>	<b>20.2</b>	<b>6.4</b>		
<b>1975</b>	<b>Year</b>	<b>70.546</b>	<b>2.695</b>	<b>26.2</b>	<b>19.6</b>	<b>6.6</b>		
<b>1976</b>	<b>Year</b>	<b>74.362</b>	<b>2.827</b>	<b>26.3</b>	<b>19.6</b>	<b>6.7</b>		
<b>1977</b>	<b>Year</b>	<b>76.289</b>	<b>2.959</b>	<b>25.8</b>	<b>19.3</b>	<b>6.5</b>		
<b>1978</b>	<b>Year</b>	<b>78.088</b>	<b>3.115</b>	<b>25.1</b>	<b>18.6</b>	<b>6.5</b>		
<b>1979</b>	<b>Year</b>	<b>78.898</b>	<b>3.192</b>	<b>24.7</b>	<b>18.1</b>	<b>6.6</b>		
<b>1980</b>	<b>Year</b>	<b>75.952</b>	<b>3.187</b>	<b>23.8</b>	<b>17.1</b>	<b>6.7</b>		
<b>1981</b>	<b>Year</b>	<b>73.989</b>	<b>3.249</b>	<b>22.8</b>	<b>16.0</b>	<b>6.8</b>		
<b>1982</b>	<b>Year</b>	<b>70.840</b>	<b>3.166</b>	<b>22.4</b>	<b>15.4</b>	<b>7.0</b>		
<b>1983</b>	<b>Year</b>	<b>70.495</b>	<b>3.279</b>	<b>21.5</b>	<b>14.5</b>	<b>7.0</b>		
<b>1984</b>	<b>1st Quarter<sup>1</sup></b>	<b>74.837</b>	<b>3.445</b>	<b>21.7</b>	<b>14.5</b>	<b>7.2</b>		
	<b>2nd Quarter<sup>1</sup></b>	<b>75.513</b>	<b>3.487</b>	<b>21.7</b>	<b>14.5</b>	<b>7.2</b>		
	<b>3rd Quarter<sup>1</sup></b>	<b>73.570</b>	<b>3.507</b>	<b>21.0</b>	<b>14.0</b>	<b>7.0</b>		
	<b>4th Quarter<sup>1</sup></b>	<b>72.361</b>	<b>3.520</b>	<b>20.6</b>	<b>13.7</b>	<b>6.9</b>		
	<b>Year</b>	<b>74.064</b>	<b>3.490</b>	<b>21.2</b>	<b>14.2</b>	<b>7.0</b>		
<b>1985</b>	<b>1st Quarter<sup>1</sup></b>	<b>R74.983</b>	<b>3.547</b>	<b>21.1</b>	<b>13.9</b>	<b>7.2</b>		
	<b>2nd Quarter<sup>1</sup></b>	<b>R73.566</b>	<b>3.568</b>	<b>20.6</b>	<b>13.6</b>	<b>7.0</b>		
	<b>3rd Quarter<sup>1</sup></b>	<b>R73.016</b>	<b>3.604</b>	<b>20.3</b>	<b>13.3</b>	<b>7.0</b>		
	<b>4th Quarter<sup>1</sup></b>	<b>R74.266</b>	<b>3.622</b>	<b>20.5</b>	<b>13.6</b>	<b>6.9</b>		
	<b>Year</b>	<b>R73.953</b>	<b>3.585</b>	<b>20.6</b>	<b>13.6</b>	<b>7.0</b>		
<b>1986</b>	<b>1st Quarter<sup>1</sup></b>	<b>R73.442</b>	<b>3.656</b>	<b>20.1</b>	<b>13.1</b>	<b>7.0</b>		
	<b>2nd Quarter<sup>1</sup></b>	<b>R74.408</b>	<b>R3.661</b>	<b>20.3</b>	<b>13.4</b>	<b>6.9</b>		

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



<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.

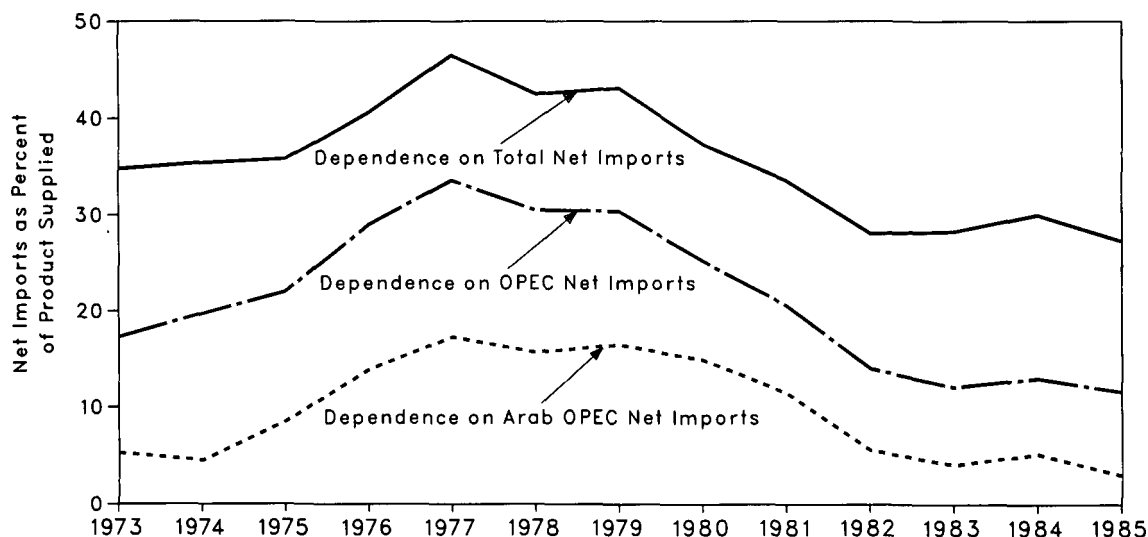
Sources: • See the last page of this section.

# Energy Summary

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

		Net Imports <sup>2</sup>			Net Imports as Percent of U.S. Petroleum Products Supplied			
		From Arab OPEC <sup>3</sup> Countries	From All OPEC <sup>4</sup> Countries	From All Countries	Petroleum Products Supplied	From Arab OPEC <sup>3</sup> Countries	From All OPEC <sup>4</sup> Countries	From All 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	19.7	35.4
1975	Average	1,382	3,599	5,846	16,322	8.5	22.0	35.8
1976	Average	2,423	5,063	7,090	17,461	13.9	29.0	40.6
1977	Average	3,184	6,190	8,565	18,431	17.3	33.6	46.5
1978	Average	2,962	5,747	8,002	18,847	15.7	30.5	42.5
1979	Average	3,054	5,633	7,985	18,513	16.5	30.4	43.1
1980	Average	2,549	4,293	6,365	17,056	14.9	25.2	37.3
1981	Average	1,844	3,315	5,401	16,058	11.5	20.6	33.6
1982	Average	852	2,136	4,298	15,296	5.6	14.0	28.1
1983	Average	630	1,843	4,312	15,231	4.1	12.1	28.3
1984	1st Quarter	769	1,878	4,802	16,110	4.8	11.7	29.8
	2nd Quarter	907	2,278	4,853	15,632	5.8	14.6	31.0
	3rd Quarter	877	2,080	4,590	15,625	5.6	13.3	29.4
	4th Quarter	715	1,912	4,618	15,538	4.6	12.3	29.7
	Average	817	2,037	4,715	15,726	5.2	13.0	30.0
1985	1st Quarter	331	1,371	3,570	15,859	2.1	8.6	22.5
	2nd Quarter	529	1,857	4,625	15,486	3.4	12.0	29.9
	3rd Quarter	288	1,780	4,135	15,536	1.9	11.5	26.6
	4th Quarter	730	2,266	4,803	16,025	4.6	14.1	30.0
	Average	470	1,821	4,286	15,726	3.0	11.6	27.3
1986	1st Quarter	843	2,038	4,083	16,055	5.3	12.7	25.4
	2nd Quarter	1,138	2,714	5,321	15,864	7.2	17.1	33.5

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



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

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

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

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

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

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

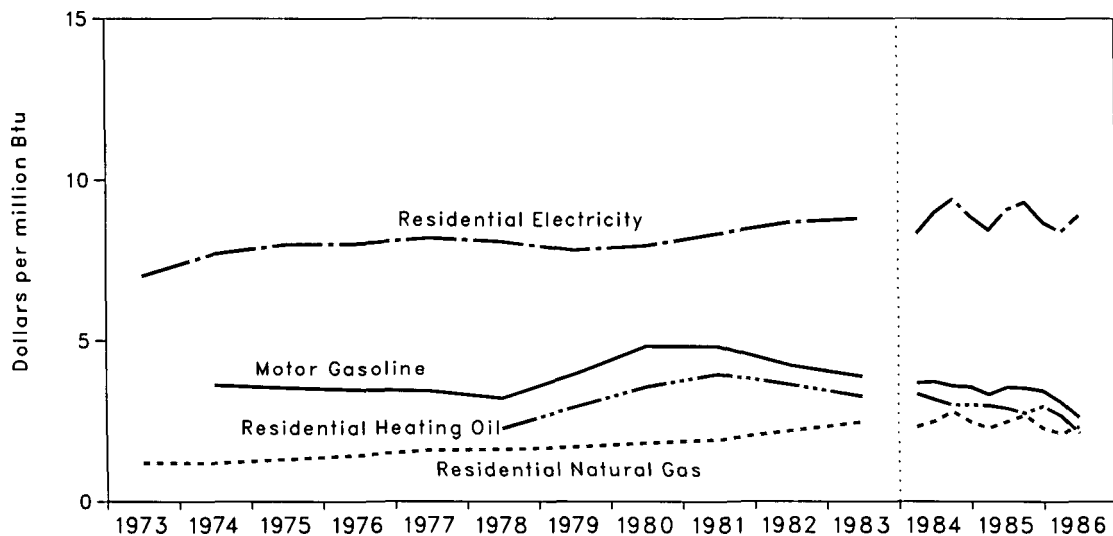
Sources: • See the last page of this section.

# Energy Summary

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

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		Cent/gal	\$/MMBtu	Cent/gal	\$/MMBtu	Cent/Mcf	\$/MMBtu	Cent/kWh	\$/MMBtu
1973	Average	NA	NA	NA	NA	121.4	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	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	239.2	2.32	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	256.1	2.49	3.07	9.00
	3rd Quarter	44.9	3.59	41.6	3.00	286.9	2.79	3.21	9.41
	4th Quarter	44.5	3.56	41.7	3.01	253.9	2.47	3.03	8.88
	Average	45.5	3.64	43.9	3.17	246.5	2.39	3.04	8.91
1985	1st Quarter	41.7	3.33	41.5	2.99	234.9	2.28	2.89	8.47
	2nd Quarter	44.4	3.55	40.2	2.90	255.5	2.48	3.10	9.09
	3rd Quarter	44.2	3.53	38.1	2.75	275.7	2.68	3.18	9.32
	4th Quarter	43.0	3.44	41.2	2.97	234.9	2.28	2.97	8.70
	Average	43.4	3.47	41.0	2.96	238.4	2.31	3.03	8.88
1986	1st Quarter	38.7	3.09	37.1	2.67	217.1	2.11	2.87	8.41
	2nd Quarter	32.7	2.61	29.6	2.13	239.1	2.32	3.04	8.91

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



<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.

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

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

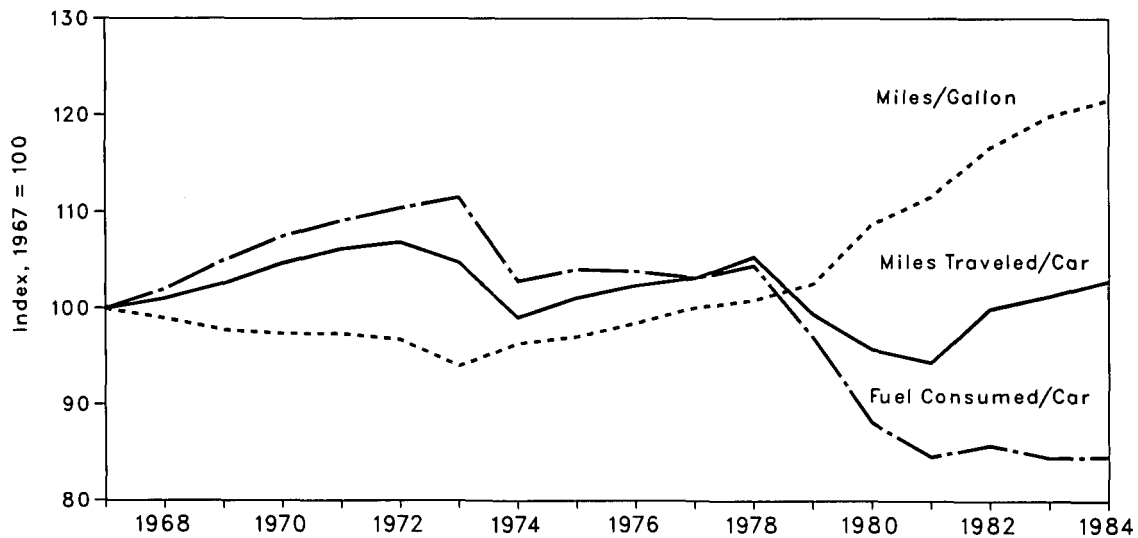
Sources: • See the last page of this section.

# Energy Summary

## Energy Indicator—U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6
1980	603	88.2	9,135	95.8	15.15	108.8
1981	579	84.6	9,002	94.4	15.54	111.6
1982	587	85.8	9,533	100.0	16.25	116.7
1983	578	84.5	9,654	101.3	16.70	119.9
1984†	579	84.6	9,809	102.9	16.94	121.6

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.

# Energy Summary

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

Census Divisions	September 1 through September 30					Cumulative January 1 through September 30				
	Normal <sup>2</sup>	1985	1986	Percent Change		Normal <sup>2</sup>	1985	1986	Percent Change	
				Normal to 1986	1985 to 1986				Normal to 1986	1985 to 1986
<b>New England</b> CT, ME, MA, NH, RI, VT	26	48	21	-19.2	-56.3	424	391	369	-13.0	-5.6
<b>Middle Atlantic</b> NJ, NY, PA	87	110	59	-32.2	-46.4	712	665	677	-4.9	-1.8
<b>Eastern North Central</b> IL, IN, MI, OH, WI	85	127	108	27.1	-15.0	752	669	755	0.4	12.9
<b>Western North Central</b> IA, KS, MN, MO, NE, ND, SD	97	130	115	18.6	-11.5	980	835	949	-3.2	13.7
<b>South Atlantic</b> DE, FL, GA, MD and DC, NC, SC, VA, WV	261	249	278	6.5	11.6	1,692	1,705	1,834	8.4	7.6
<b>Eastern South Central</b> AL, KY, MS, TN	230	200	287	24.8	43.5	1,541	1,462	1,687	9.5	15.4
<b>Western South Central</b> AR, LA, OK, TX	354	360	428	20.9	18.9	2,297	2,312	2,406	4.7	4.1
<b>Mountain</b> AZ, CO, ID, MT, NV, NM, UT, WY	138	111	119	-13.8	7.2	1,008	1,100	1,083	7.4	-1.5
<b>Pacific Coast</b> CA, OR, WA	112	51	52	-53.6	2.0	580	578	503	-13.3	-13.0
<b>U.S. Average<sup>4</sup></b>	<b>156</b>	<b>158</b>	<b>162</b>	<b>3.8</b>	<b>2.5</b>	<b>1,103</b>	<b>1,070</b>	<b>1,130</b>	<b>2.4</b>	<b>5.6</b>

<sup>1</sup>See Note 6 on the last page of this section for explanation of degree-days.

<sup>2</sup>Normal is based on calculations of data from 1951 through 1980.

<sup>3</sup>Percent change not meaningful.

<sup>4</sup>Excludes Alaska and Hawaii.

Source: • See Note 6 on the last page of this section.

# Notes and Sources for the Energy Summary Section

## Notes

**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), petroleum products supplied, electric utility and industrial production of hydroelectric power, net imports of electricity produced from hydroelectric power, net 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), 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 exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.

**4. Energy Exports:** Energy exports include coal, crude oil, 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 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. Statistics include nonmonetary gold and Department of Defense Military Program Grant-Aid shipments. "All Other" and "Total" columns include foreign exports (i.e., reexports). The "Energy" columns include mineral fuels, lubricants, and related material. "Imports" represent general imports (i.e., entries for immediate consumption, entries into customs bonded warehouses, and entries for the Strategic Petroleum Reserve). "Trade Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. The "All Other" columns are calculated by subtracting "Energy" from "Total."

**6. Degree-Days:** Degree-days are relative measurements of outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65 °F by convention. Heating degree-days are deviations of the mean daily

temperature below 65 °F. For example, if a weather station recorded a mean daily temperature of 78 °F, cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40 °F would report 25 heating degree-days (and 0 cooling degree-days).

There are 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 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 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 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 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1981-1984: EIA, *Petroleum Supply Annual*; 1985: EIA, *Petroleum Supply Monthly*.

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

• Leaded Regular Motor Gasoline—Bureau of Labor Statistics (BLS).

• 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—EIA, Annual data from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

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

## Consumption

Total U.S. energy consumption in July 1986 was 6.1 quadrillion Btu, 3.4 percent above the July 1985 level. Petroleum products accounted for 43.8 percent of the energy consumed in July 1986, while coal accounted for 27.1 percent, and natural gas accounted for 17.8 percent. The transportation sector used 67.2 percent of the petroleum products consumed in July 1986 and the industrial sector used 20.7 percent. Of natural gas consumed, the industrial sector used 48.1 percent; electric utilities, 28.5 percent; and the residential and commercial sector, 20.5 percent. Most of the coal used (85.6 percent) was consumed by electric utilities. The residential and commercial sector used 68.3 percent of total electricity sales, while the industrial sector used 31.6 percent.

Residential and commercial sector consumption was 2.2 quadrillion Btu in July 1986, up 8.0 percent from the July 1985 level. This sector consumed 35.2 percent of the July 1986 total, up from its 33.7-percent share in July 1985.

Industrial sector consumption was 2.1 quadrillion Btu in July 1986, down 2.8 percent from the July 1985 level. The industrial sector accounted for 34.7 percent of the July 1986 total consumption, down from the industrial sector's 36.9-percent share of July 1985 total consumption.

Transportation sector consumption of energy was 1.8 quadrillion Btu in July 1986, up 5.8 percent from the the July 1985 level. This sector consumed 30.0 percent of the July 1986 total, up from the sector's 29.3-percent share in July 1985.

The electric utilities consumption of energy was an estimated 2.6 quadrillion Btu in July 1986, 6.5 percent higher than in July 1985. Coal contributed 54.8 percent of the energy consumed by electric utilities in July 1986, while nuclear electric power contributed 14.9 percent; natural gas, 11.9 percent; hydroelectric power, 10.9 percent; petroleum products, 6.6 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.8 percent.

## Consumption Summary for July 1986 (Quadrillion (10<sup>15</sup>) Btu)

Energy Source	Sector				Total
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.012	0.223	0.000	1.426	1.665
Natural Gas <sup>1</sup>	0.224	0.526	0.032	0.311	1.093
Petroleum Products	0.151	0.556	1.805	0.173	2.685
Hydroelectric Power	0.000	0.003	0.000	0.283	0.286
Nuclear Electric Power	0.000	0.000	0.000	0.389	0.389
Net Imports of Coal Coke	0.000	(0.002)	0.000	0.000	(.002)
Other <sup>2</sup>	0.000	0.000	0.000	0.021	0.021
<b>Primary Consumption</b>	<b>0.386</b>	<b>1.306</b>	<b>1.837</b>	<b>2.604</b>	<b>6.137</b>
Electricity	0.508	0.235	0.001	(0.744)	
Net Energy Consumption	0.894	1.542	1.838		4.278
Electrical System Energy Losses	1.269	0.588	0.003	(1.859)	1.859
<b>Total Energy Consumption</b>	<b>2.163</b>	<b>2.130</b>	<b>1.840</b>		<b>6.137</b>

<sup>1</sup>Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.

<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 sector-specific conversion factors.

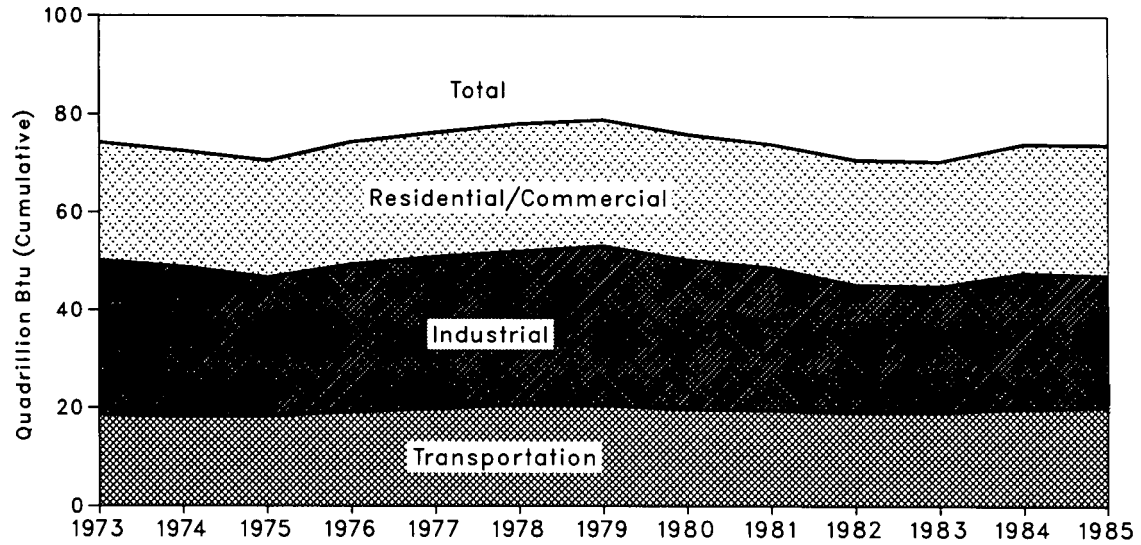
• Additional notes and sources are provided on the last four pages of this section.



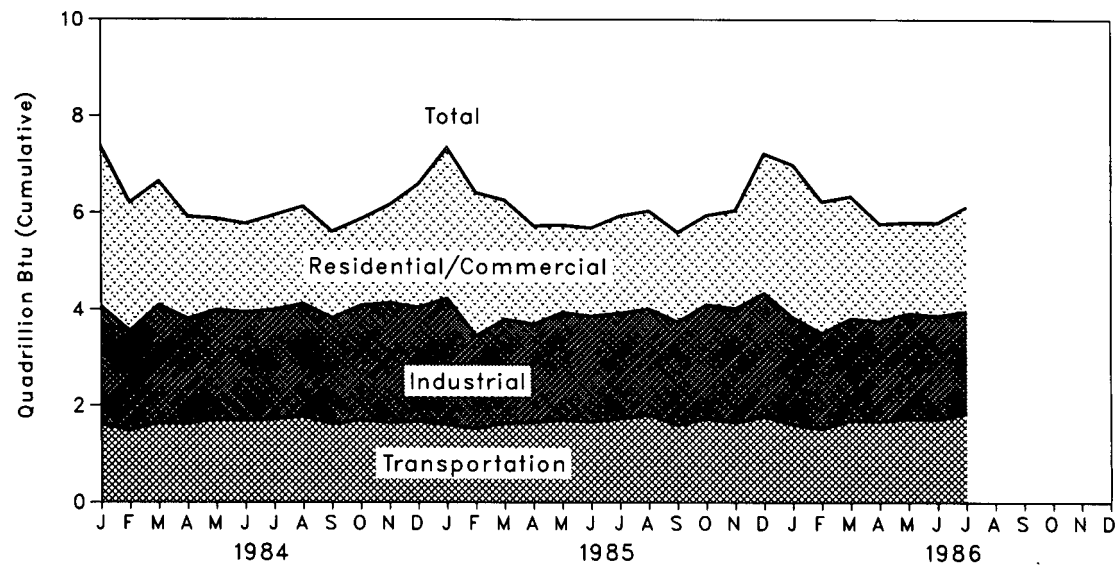
# Consumption

## Consumption of Energy by End-Use Sector

### Yearly



### Monthly



# Consumption

## Consumption of Energy by End-Use Sector

		Residential and Commercial	Industrial	Transportation	Total
Quadrillion (10 <sup>15</sup> ) Btu					
<b>1973</b>	<b>Total</b>	<b>24.142</b>	<b>31.537</b>	<b>18.596</b>	<b>74.282</b>
<b>1974</b>	<b>Total</b>	<b>23.726</b>	<b>30.697</b>	<b>18.113</b>	<b>72.543</b>
<b>1975</b>	<b>Total</b>	<b>23.899</b>	<b>28.407</b>	<b>18.240</b>	<b>70.546</b>
<b>1976</b>	<b>Total</b>	<b>25.018</b>	<b>30.243</b>	<b>19.093</b>	<b>74.362</b>
<b>1977</b>	<b>Total</b>	<b>25.384</b>	<b>31.089</b>	<b>19.808</b>	<b>76.289</b>
<b>1978</b>	<b>Total</b>	<b>26.084</b>	<b>31.414</b>	<b>20.589</b>	<b>78.088</b>
<b>1979</b>	<b>Total</b>	<b>25.808</b>	<b>32.624</b>	<b>20.464</b>	<b>78.898</b>
<b>1980</b>	<b>Total</b>	<b>25.655</b>	<b>30.605</b>	<b>19.693</b>	<b>75.952</b>
<b>1981</b>	<b>Total</b>	<b>25.241</b>	<b>29.251</b>	<b>19.495</b>	<b>73.989</b>
<b>1982</b>	<b>Total</b>	<b>25.630</b>	<b>26.140</b>	<b>19.066</b>	<b>70.840</b>
<b>1983</b>	<b>Total</b>	<b>25.615</b>	<b>25.746</b>	<b>19.132</b>	<b>70.495</b>
<b>1984</b>	January	3.298	2.450	1.610	7.360
	February	2.650	2.075	1.482	6.206
	March	2.555	2.450	1.644	6.648
	April	2.112	2.178	1.625	5.908
	May	1.879	2.285	1.708	5.868
	June	1.829	2.251	1.689	5.770
	July	1.948	2.279	1.718	5.948
	August	2.005	2.342	1.778	6.129
	September	1.784	2.210	1.614	5.608
	October	1.778	2.390	1.696	5.866
	November	2.023	2.490	1.646	6.161
	December	2.551	2.372	1.669	6.593
	<b>Total</b>	<b>26.411</b>	<b>27.773</b>	<b>19.878</b>	<b>74.064</b>
<b>1985</b>	January	3.106	2.623	1.607	R7.339
	February	R2.962	1.936	1.518	6.417
	March	2.462	2.158	1.639	6.258
	April	2.025	2.048	1.652	R5.720
	May	1.799	2.234	1.708	5.738
	June	1.821	2.198	1.667	R5.687
	July	R2.003	2.191	1.739	5.936
	August	R2.022	2.208	1.810	6.042
	September	1.847	2.149	1.599	5.594
	October	1.839	2.367	1.741	5.947
	November	2.023	2.375	1.653	R6.050
	December	2.882	2.561	1.781	R7.225
	<b>Total</b>	<b>R26.790</b>	<b>R27.047</b>	<b>20.114</b>	<b>R73.953</b>
<b>1986</b>	January	R3.154	2.229	1.612	R6.997
	February	2.718	2.001	1.520	6.239
	March	R2.523	2.122	1.701	R6.345
	April	R2.009	2.080	1.685	5.769
	May	1.879	2.189	1.737	5.802
	June	R1.912	2.159	1.722	5.796
	July	2.163	2.130	1.840	6.137
	<b>Year to Date</b>	<b>16.358</b>	<b>14.910</b>	<b>11.818</b>	<b>43.084</b>

R=Revised data.

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

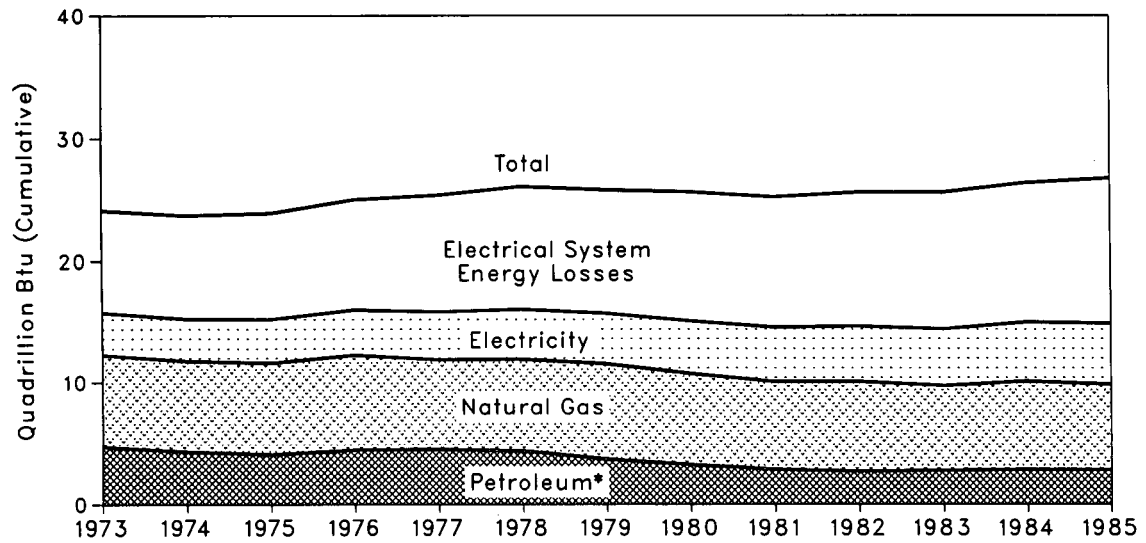
• Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors after 1981.

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

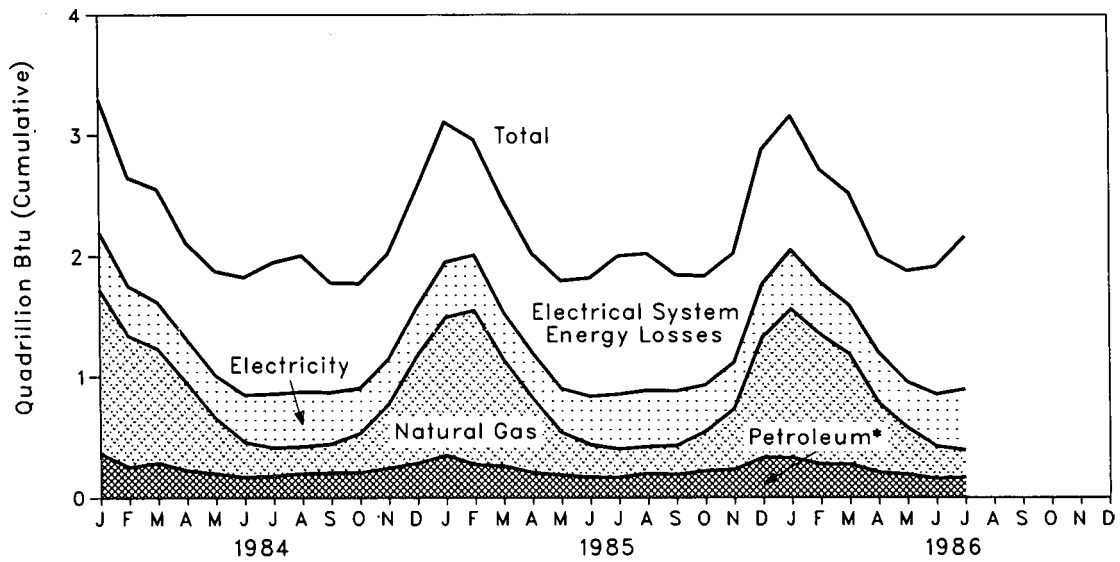
# Consumption

## Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



\*Includes coal.

# Consumption

## Consumption of Energy by the Residential and Commercial Sector

		Coal	Natural Gas <sup>1</sup>	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973</b>	<b>Total</b>	<b>0.254</b>	<b>7.626</b>	<b>4.391</b>	<b>3.495</b>	<b>8.377</b>	<b>24.142</b>	
<b>1974</b>	<b>Total</b>	<b>0.257</b>	<b>7.518</b>	<b>3.996</b>	<b>3.475</b>	<b>8.480</b>	<b>23.726</b>	
<b>1975</b>	<b>Total</b>	<b>0.209</b>	<b>7.581</b>	<b>3.805</b>	<b>3.604</b>	<b>8.700</b>	<b>23.899</b>	
<b>1976</b>	<b>Total</b>	<b>0.203</b>	<b>7.866</b>	<b>4.181</b>	<b>3.747</b>	<b>9.021</b>	<b>25.018</b>	
<b>1977</b>	<b>Total</b>	<b>0.205</b>	<b>7.461</b>	<b>4.206</b>	<b>3.955</b>	<b>9.556</b>	<b>25.384</b>	
<b>1978</b>	<b>Total</b>	<b>0.214</b>	<b>7.624</b>	<b>4.070</b>	<b>4.116</b>	<b>10.061</b>	<b>26.084</b>	
<b>1979</b>	<b>Total</b>	<b>0.187</b>	<b>7.891</b>	<b>3.448</b>	<b>4.184</b>	<b>10.100</b>	<b>25.808</b>	
<b>1980</b>	<b>Total</b>	<b>0.145</b>	<b>7.539</b>	<b>3.035</b>	<b>4.355</b>	<b>10.580</b>	<b>25.655</b>	
<b>1981</b>	<b>Total</b>	<b>0.168</b>	<b>7.242</b>	<b>2.634</b>	<b>4.497</b>	<b>10.700</b>	<b>25.241</b>	
<b>1982</b>	<b>Total</b>	<b>0.188</b>	<b>7.433</b>	<b>2.449</b>	<b>4.566</b>	<b>10.993</b>	<b>25.630</b>	
<b>1983</b>	<b>Total</b>	<b>0.196</b>	<b>7.025</b>	<b>2.499</b>	<b>4.680</b>	<b>11.214</b>	<b>25.615</b>	
<b>1984</b>	January	0.024	1.363	0.339	0.476	1.096	3.298	3.298
	February	0.021	1.086	0.230	0.418	0.895	2.650	5.947
	March	0.015	0.943	0.270	0.394	0.932	2.555	8.502
	April	0.022	0.727	0.201	0.360	0.802	2.112	10.614
	May	0.013	0.460	0.182	0.355	0.869	1.879	12.493
	June	0.010	0.286	0.158	0.395	0.979	1.829	14.322
	July	0.016	0.232	0.161	0.449	1.091	1.948	16.270
	August	0.015	0.222	0.181	0.456	1.131	2.005	18.275
	September	0.020	0.235	0.183	0.433	0.913	1.784	20.060
	October	0.016	0.320	0.190	0.377	0.874	1.778	21.838
	November	0.017	0.531	0.225	0.372	0.877	2.023	23.860
	December	0.022	0.886	0.261	0.410	0.973	2.551	26.411
	<b>Total</b>	<b>0.212</b>	<b>7.292</b>	<b>2.582</b>	<b>4.894</b>	<b>11.431</b>	<b>26.411</b>	
<b>1985</b>	January	0.019	1.148	0.329	0.457	R1.152	3.106	3.106
	February	0.017	1.281	0.254	0.458	0.952	R2.962	R6.068
	March	0.012	0.882	0.248	0.400	0.921	2.462	R8.530
	April	0.018	0.622	0.187	0.371	0.827	2.025	R10.555
	May	0.011	0.351	0.173	0.366	R0.898	1.799	R12.353
	June	0.008	0.266	0.158	0.405	0.984	1.821	R14.174
	July	0.012	0.233	0.153	0.457	R1.148	R2.003	R16.177
	August	0.011	0.219	0.186	0.470	R1.136	R2.022	R18.200
	September	0.015	0.235	0.174	0.457	0.966	1.847	R20.046
	October	0.017	0.323	0.202	0.389	0.908	1.839	R21.885
	November	R0.017	0.503	0.215	0.381	0.907	2.023	R23.908
	December	R0.022	0.999	0.307	0.445	R1.108	2.882	R26.790
	<b>Total</b>	<b>R0.179</b>	<b>7.063</b>	<b>2.584</b>	<b>5.055</b>	<b>R11.909</b>	<b>R26.790</b>	
<b>1986</b>	January	0.021	1.236	0.306	0.489	1.103	R3.154	R3.154
	February	0.018	1.077	0.257	0.436	R0.929	2.718	R5.872
	March	0.013	0.913	0.260	0.411	R0.926	R2.523	R8.395
	April	0.017	0.579	0.191	0.413	0.810	R2.009	R10.405
	May	0.010	0.387	0.180	0.379	0.923	1.879	R12.284
	June	0.008	0.263	0.148	0.435	R1.059	R1.912	R14.196
	July	0.012	0.224	0.151	0.508	1.269	2.163	16.358
	<b>Year to Date</b>	<b>0.098</b>	<b>4.678</b>	<b>1.492</b>	<b>3.071</b>	<b>7.019</b>	<b>16.358</b>	

<sup>1</sup>Includes supplemental gaseous fuels.

R=Revised data.

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

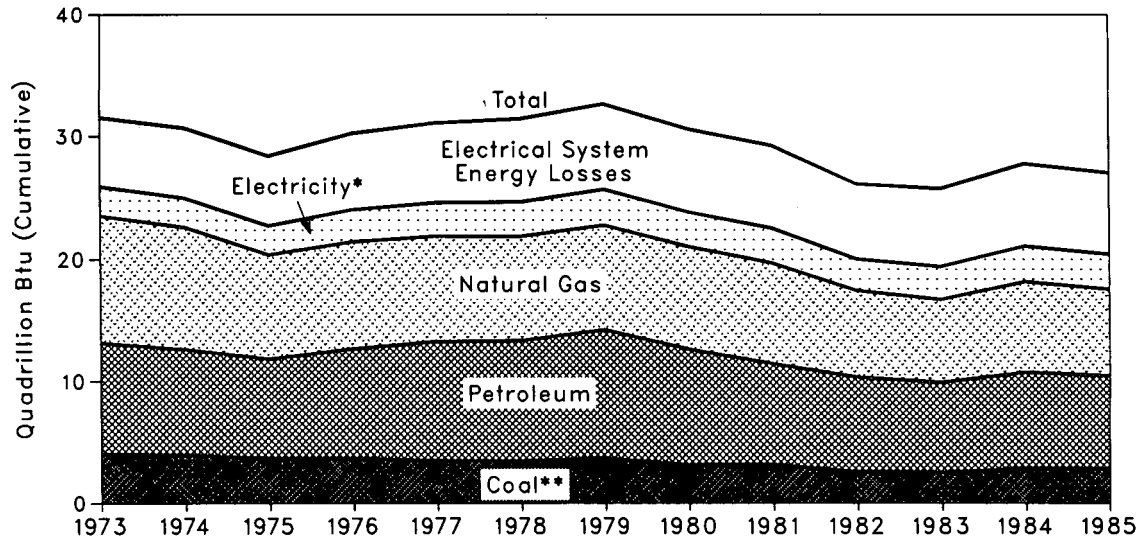
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Additional Notes and Sources: • See the last four pages of this section.

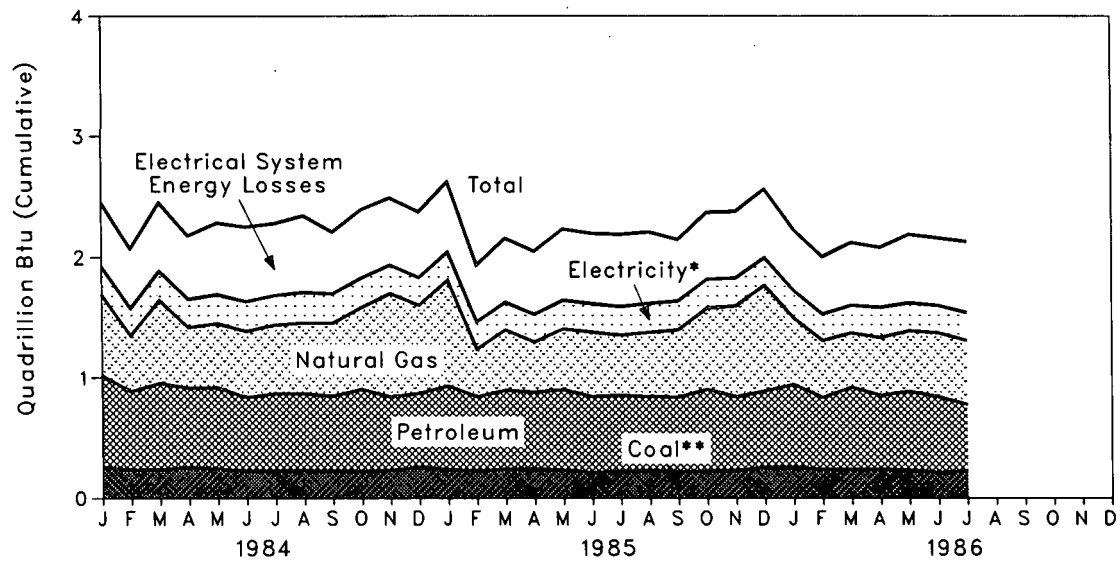
# Consumption

## Consumption of Energy by the Industrial Sector

Yearly



Monthly



\*Includes hydroelectric power.  
 \*\*Includes net imports of coal coke.

# Consumption

## Consumption of Energy by the Industrial Sector

		Coal	Natural Gas <sup>1</sup>	Petroleum	Hydro-electric Power	Net Imports of Coal Coke	Electricity	Electrical System Energy Losses	Total	Year to Date
		Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973</b>	<b>Total</b>	<b>4.057</b>	<b>10.388</b>	<b>9.113</b>	<b>0.035</b>	<b>(0.007)</b>	<b>2.341</b>	<b>5.611</b>	<b>31.537</b>	
<b>1974</b>	<b>Total</b>	<b>3.870</b>	<b>10.003</b>	<b>8.698</b>	<b>0.033</b>	<b>0.056</b>	<b>2.337</b>	<b>5.700</b>	<b>30.697</b>	
<b>1975</b>	<b>Total</b>	<b>3.667</b>	<b>8.532</b>	<b>8.151</b>	<b>0.032</b>	<b>0.014</b>	<b>2.346</b>	<b>5.665</b>	<b>28.407</b>	
<b>1976</b>	<b>Total</b>	<b>3.661</b>	<b>8.761</b>	<b>9.018</b>	<b>0.033</b>	<b>0.000</b>	<b>2.573</b>	<b>6.198</b>	<b>30.243</b>	
<b>1977</b>	<b>Total</b>	<b>3.454</b>	<b>8.636</b>	<b>9.786</b>	<b>0.033</b>	<b>0.015</b>	<b>2.682</b>	<b>6.484</b>	<b>31.089</b>	
<b>1978</b>	<b>Total</b>	<b>3.314</b>	<b>8.539</b>	<b>9.890</b>	<b>0.032</b>	<b>0.125</b>	<b>2.761</b>	<b>6.755</b>	<b>31.414</b>	
<b>1979</b>	<b>Total</b>	<b>3.593</b>	<b>8.549</b>	<b>10.576</b>	<b>0.034</b>	<b>0.063</b>	<b>2.873</b>	<b>6.936</b>	<b>32.624</b>	
<b>1980</b>	<b>Total</b>	<b>3.155</b>	<b>8.394</b>	<b>9.524</b>	<b>0.033</b>	<b>(0.035)</b>	<b>2.781</b>	<b>6.752</b>	<b>30.605</b>	
<b>1981</b>	<b>Total</b>	<b>3.157</b>	<b>8.257</b>	<b>8.295</b>	<b>0.033</b>	<b>(0.016)</b>	<b>2.817</b>	<b>6.707</b>	<b>29.251</b>	
<b>1982</b>	<b>Total</b>	<b>2.552</b>	<b>7.116</b>	<b>7.798</b>	<b>0.033</b>	<b>(0.022)</b>	<b>2.542</b>	<b>6.121</b>	<b>26.140</b>	
<b>1983</b>	<b>Total</b>	<b>2.490</b>	<b>6.821</b>	<b>7.421</b>	<b>0.033</b>	<b>(0.016)</b>	<b>2.648</b>	<b>6.349</b>	<b>25.746</b>	
<b>1984</b>	January	0.256	0.675	0.764	0.003	0.001	0.228	0.524	2.450	2.450
	February	0.237	0.460	0.651	0.003	0.002	0.230	0.493	2.075	4.525
	March	0.238	0.694	0.716	0.003	(0.001)	0.238	0.562	2.450	6.975
	April	0.253	0.502	0.660	0.003	0.000	0.236	0.525	2.178	9.153
	May	0.245	0.531	0.673	0.003	(0.001)	0.241	0.592	2.285	11.438
	June	0.225	0.546	0.613	0.003	(0.002)	0.249	0.617	2.251	13.688
	July	0.227	0.570	0.640	0.003	(0.001)	0.245	0.595	2.279	15.968
	August	0.230	0.588	0.638	0.002	(0.002)	0.254	0.631	2.342	18.310
	September	0.223	0.604	0.625	0.002	0.000	0.243	0.513	2.210	20.520
	October	0.222	0.683	0.683	0.002	(0.003)	0.242	0.561	2.390	22.910
	November	0.232	0.860	0.611	0.002	(0.003)	0.234	0.553	2.490	25.400
	December	0.255	0.734	0.615	0.002	(0.001)	0.227	0.540	2.372	27.773
	<b>Total</b>	<b>2.842</b>	<b>7.448</b>	<b>7.889</b>	<b>0.032</b>	<b>(0.011)</b>	<b>2.868</b>	<b>6.705</b>	<b>27.773</b>	
<b>1985</b>	January	0.236	0.881	0.694	0.003	0.000	0.229	0.579	2.623	2.623
	February	0.223	0.391	0.618	0.003	0.001	0.227	R0.472	1.936	4.559
	March	0.239	0.501	0.655	0.003	0.000	0.230	0.530	2.158	6.717
	April	R0.241	0.412	0.637	0.003	0.001	0.234	0.521	2.048	8.765
	May	R0.233	0.504	0.669	0.003	(0.003)	0.239	0.588	2.234	10.999
	June	0.213	0.533	0.631	0.003	(0.002)	0.239	0.581	2.198	13.198
	July	0.223	0.499	0.631	0.003	(0.002)	0.238	0.598	2.191	15.389
	August	0.226	0.531	0.617	0.002	(0.001)	0.244	0.589	2.208	R17.596
	September	0.219	0.556	0.622	0.002	(0.003)	0.241	0.510	2.149	19.745
	October	0.221	0.679	0.680	0.002	(0.001)	0.236	R0.550	2.367	22.112
	November	0.231	0.758	0.611	0.002	(0.003)	0.229	0.546	2.375	R24.486
	December	0.254	0.880	0.634	0.002	(0.001)	0.226	0.564	2.561	R27.047
	<b>Total</b>	<b>R2.760</b>	<b>7.126</b>	<b>7.700</b>	<b>0.032</b>	<b>(0.013)</b>	<b>2.813</b>	<b>R6.629</b>	<b>R27.047</b>	
<b>1986</b>	January	0.255	0.557	0.686	0.003	0.000	0.224	0.505	2.229	2.229
	February	R0.236	0.470	0.598	0.003	0.000	0.222	0.474	2.001	4.231
	March	0.236	0.449	0.684	0.003	(0.001)	0.231	R0.519	2.122	6.353
	April	0.239	0.478	0.612	0.003	0.000	0.253	0.495	2.080	8.432
	May	R0.231	0.502	0.657	0.003	(0.003)	0.232	0.566	2.189	10.621
	June	0.212	0.529	0.628	0.003	0.000	0.229	0.558	2.159	12.780
	July	0.223	0.526	0.556	0.003	(0.002)	0.235	0.588	2.130	14.910
	<b>Year to Date</b>	<b>1.631</b>	<b>3.513</b>	<b>4.420</b>	<b>0.021</b>	<b>(0.006)</b>	<b>1.626</b>	<b>3.704</b>	<b>14.910</b>	

<sup>1</sup>Includes supplemental gaseous fuels.

R=Revised data.

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

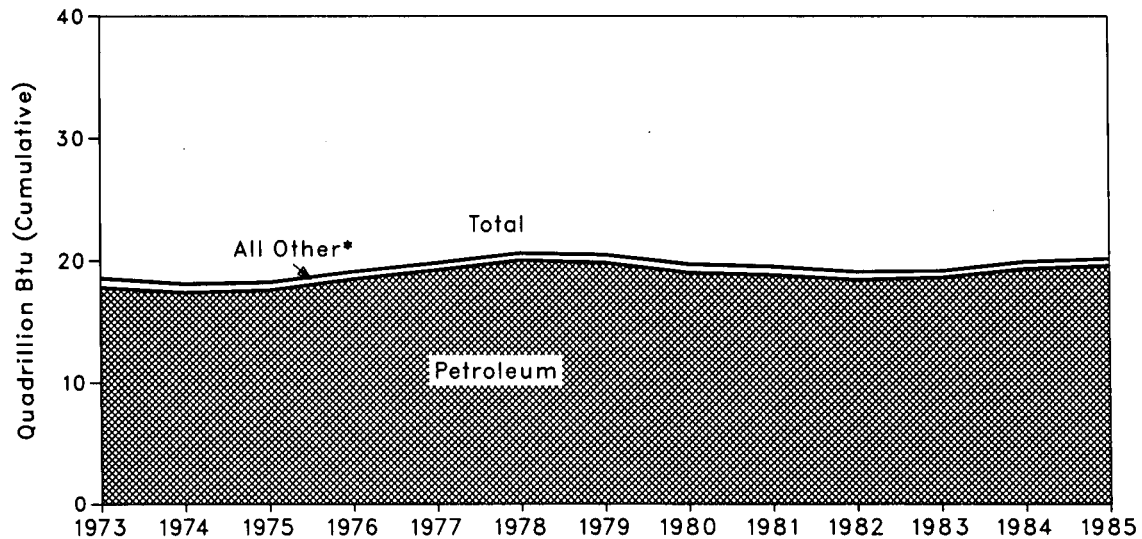
• Totals may not equal sum of components due to independent rounding.

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

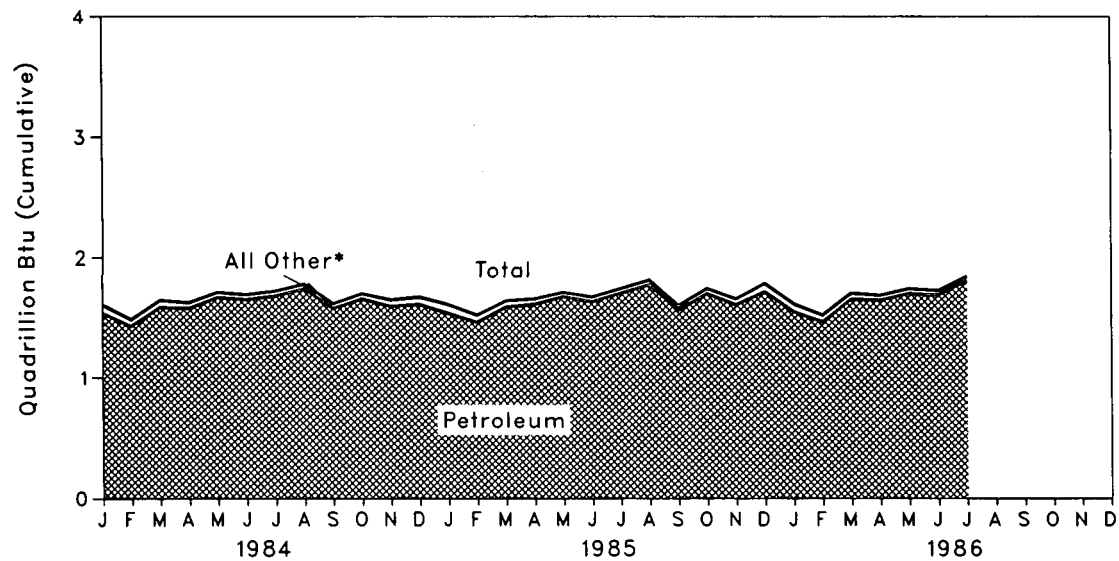
# Consumption

## Consumption of Energy by the Transportation Sector

### Yearly



### Monthly



\*Includes coal, natural gas, electricity, and electrical system energy losses.

# Consumption

## Consumption of Energy by the Transportation Sector

		Coal	Natural Gas <sup>1</sup>	Petroleum	Electricity	Electrical System Energy Losses	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu								
<b>1973</b>	<b>Total</b>	<b>0.003</b>	<b>0.743</b>	<b>17.821</b>	<b>0.009</b>	<b>0.020</b>	<b>18.596</b>	
<b>1974</b>	<b>Total</b>	<b>0.002</b>	<b>0.685</b>	<b>17.396</b>	<b>0.009</b>	<b>0.022</b>	<b>18.113</b>	
<b>1975</b>	<b>Total</b>	<b>0.001</b>	<b>0.595</b>	<b>17.610</b>	<b>0.010</b>	<b>0.025</b>	<b>18.240</b>	
<b>1976</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.559</b>	<b>18.499</b>	<b>0.010</b>	<b>0.025</b>	<b>19.093</b>	
<b>1977</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.543</b>	<b>19.230</b>	<b>0.010</b>	<b>0.025</b>	<b>19.808</b>	
<b>1978</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.539</b>	<b>20.019</b>	<b>0.009</b>	<b>0.022</b>	<b>20.589</b>	
<b>1979</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.612</b>	<b>19.817</b>	<b>0.010</b>	<b>0.025</b>	<b>20.464</b>	
<b>1980</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.648</b>	<b>19.009</b>	<b>0.011</b>	<b>0.026</b>	<b>19.693</b>	
<b>1981</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.657</b>	<b>18.800</b>	<b>0.011</b>	<b>0.026</b>	<b>19.495</b>	
<b>1982</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.613</b>	<b>18.417</b>	<b>0.011</b>	<b>0.026</b>	<b>19.066</b>	
<b>1983</b>	<b>Total</b>	( <sup>2</sup> )	<b>0.504</b>	<b>18.591</b>	<b>0.011</b>	<b>0.026</b>	<b>19.132</b>	
<b>1984</b>	January	( <sup>2</sup> )	0.069	1.538	0.001	0.002	1.610	1.610
	February	( <sup>2</sup> )	0.053	1.427	0.001	0.002	1.482	3.093
	March	( <sup>2</sup> )	0.057	1.584	0.001	0.002	1.644	4.737
	April	( <sup>2</sup> )	0.044	1.578	0.001	0.002	1.625	6.361
	May	( <sup>2</sup> )	0.038	1.667	0.001	0.002	1.708	8.070
	June	( <sup>2</sup> )	0.035	1.650	0.001	0.002	1.689	9.758
	July	( <sup>2</sup> )	0.035	1.679	0.001	0.002	1.718	11.476
	August	( <sup>2</sup> )	0.036	1.738	0.001	0.002	1.778	13.254
	September	( <sup>2</sup> )	0.034	1.577	0.001	0.002	1.614	14.867
	October	( <sup>2</sup> )	0.039	1.654	0.001	0.002	1.696	16.563
	November	( <sup>2</sup> )	0.049	1.593	0.001	0.002	1.646	18.209
	December	( <sup>2</sup> )	0.056	1.610	0.001	0.002	1.669	19.878
	<b>Total</b>	( <sup>2</sup> )	<b>0.545</b>	<b>19.295</b>	<b>0.011</b>	<b>0.027</b>	<b>19.878</b>	
<b>1985</b>	January	( <sup>2</sup> )	0.069	1.535	0.001	0.003	1.607	1.607
	February	( <sup>2</sup> )	0.057	1.459	0.001	0.002	1.518	3.126
	March	( <sup>2</sup> )	0.048	1.587	0.001	0.002	1.639	4.764
	April	( <sup>2</sup> )	0.039	1.610	0.001	0.002	1.652	6.417
	May	( <sup>2</sup> )	0.033	1.672	0.001	0.002	1.708	8.125
	June	( <sup>2</sup> )	0.033	1.631	0.001	0.002	1.667	9.792
	July	( <sup>2</sup> )	0.033	1.703	0.001	0.003	1.739	11.531
	August	( <sup>2</sup> )	0.034	1.772	0.001	0.002	1.810	13.341
	September	( <sup>2</sup> )	0.033	1.562	0.001	0.002	1.599	14.939
	October	( <sup>2</sup> )	0.038	1.699	0.001	0.002	1.741	16.680
	November	( <sup>2</sup> )	0.045	1.605	0.001	0.002	1.653	18.333
	December	( <sup>2</sup> )	0.064	1.713	0.001	0.003	1.781	20.114
	<b>Total</b>	( <sup>2</sup> )	<b>0.526</b>	<b>19.547</b>	<b>0.012</b>	<b>0.028</b>	<b>20.114</b>	
<b>1986</b>	January	( <sup>2</sup> )	0.060	1.549	0.001	0.002	1.612	1.612
	February	( <sup>2</sup> )	0.052	1.465	0.001	0.002	1.520	3.132
	March	( <sup>2</sup> )	0.046	1.652	0.001	0.002	1.701	4.833
	April	( <sup>2</sup> )	0.038	1.643	0.001	0.002	1.685	6.518
	May	( <sup>2</sup> )	0.034	1.700	0.001	0.002	1.737	8.255
	June	( <sup>2</sup> )	0.032	1.687	0.001	0.002	1.722	9.977
	July	( <sup>2</sup> )	0.032	1.805	0.001	0.003	1.840	11.818
	<b>Year to Date</b>	( <sup>2</sup> )	<b>0.294</b>	<b>11.501</b>	<b>0.007</b>	<b>0.016</b>	<b>11.818</b>	

<sup>1</sup>Pipeline fuel only, including supplemental gaseous fuels.

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

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

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

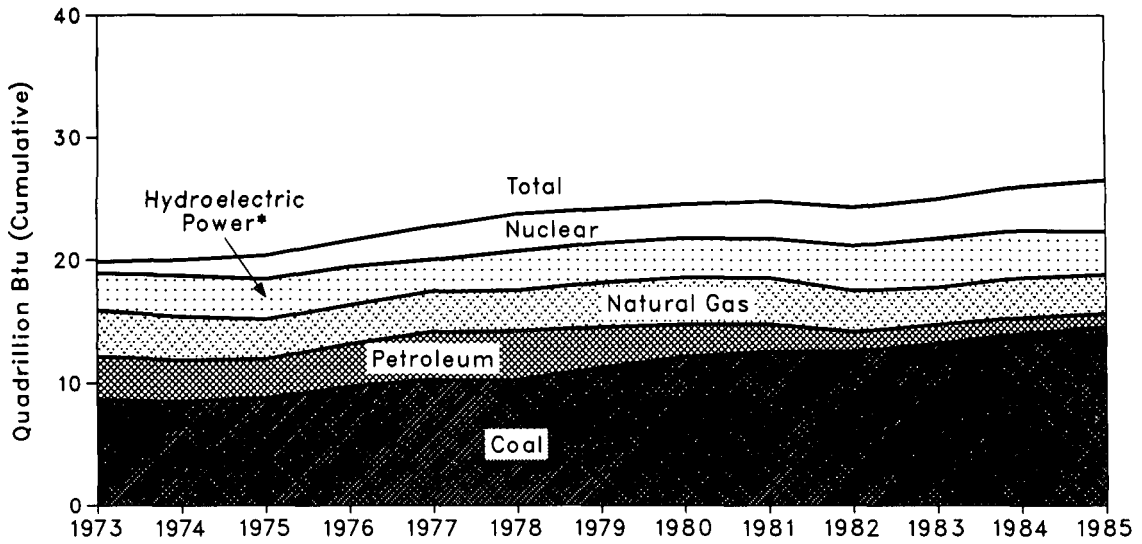
Additional Notes and Sources: • See the last four pages of this section.



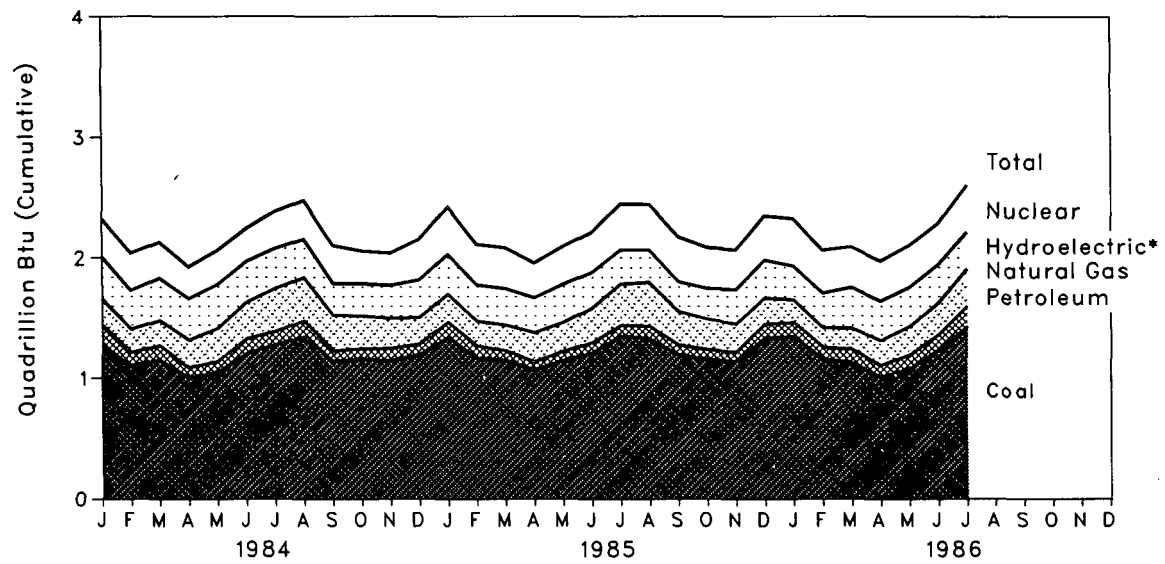
# Consumption

## Energy Input at Electric Utilities

### Yearly



### Monthly



\*Includes other.

# Consumption

## Energy Input at Electric Utilities

		Coal	Natural Gas <sup>1</sup>	Petroleum <sup>2</sup>	Hydro-electric Power <sup>3</sup>	Nuclear Electric Power	Other <sup>4</sup>	Total	Year to Date
Quadrillion (10 <sup>15</sup> ) Btu									
<b>1973</b>	<b>Total</b>	<b>8.658</b>	<b>3.748</b>	<b>3.515</b>	<b>2.975</b>	<b>0.910</b>	<b>0.046</b>	<b>19.852</b>	
<b>1974</b>	<b>Total</b>	<b>8.534</b>	<b>3.519</b>	<b>3.365</b>	<b>3.276</b>	<b>1.272</b>	<b>0.056</b>	<b>20.022</b>	
<b>1975</b>	<b>Total</b>	<b>8.786</b>	<b>3.240</b>	<b>3.166</b>	<b>3.187</b>	<b>1.900</b>	<b>0.072</b>	<b>20.350</b>	
<b>1976</b>	<b>Total</b>	<b>9.720</b>	<b>3.152</b>	<b>3.477</b>	<b>3.032</b>	<b>2.111</b>	<b>0.081</b>	<b>21.574</b>	
<b>1977</b>	<b>Total</b>	<b>10.282</b>	<b>3.284</b>	<b>3.901</b>	<b>2.482</b>	<b>2.702</b>	<b>0.082</b>	<b>22.713</b>	
<b>1978</b>	<b>Total</b>	<b>10.238</b>	<b>3.297</b>	<b>3.987</b>	<b>3.110</b>	<b>3.024</b>	<b>0.068</b>	<b>23.724</b>	
<b>1979</b>	<b>Total</b>	<b>11.260</b>	<b>3.613</b>	<b>3.283</b>	<b>3.107</b>	<b>2.776</b>	<b>0.089</b>	<b>24.128</b>	
<b>1980</b>	<b>Total</b>	<b>12.123</b>	<b>3.810</b>	<b>2.634</b>	<b>3.085</b>	<b>2.739</b>	<b>0.114</b>	<b>24.505</b>	
<b>1981</b>	<b>Total</b>	<b>12.583</b>	<b>3.768</b>	<b>2.202</b>	<b>3.072</b>	<b>3.008</b>	<b>0.127</b>	<b>24.760</b>	
<b>1982</b>	<b>Total</b>	<b>12.582</b>	<b>3.342</b>	<b>1.568</b>	<b>3.528</b>	<b>3.131</b>	<b>0.108</b>	<b>24.259</b>	
<b>1983</b>	<b>Total</b>	<b>13.213</b>	<b>2.998</b>	<b>1.544</b>	<b>3.838</b>	<b>3.203</b>	<b>0.133</b>	<b>24.929</b>	
<b>1984</b>	January	1.271	0.223	0.169	0.335	0.318	0.011	2.327	2.327
	February	1.103	0.194	0.108	0.313	0.308	0.013	2.039	4.365
	March	1.151	0.213	0.115	0.340	0.296	0.015	2.130	6.495
	April	1.004	0.228	0.081	0.336	0.263	0.014	1.925	8.420
	May	1.045	0.274	0.090	0.357	0.280	0.014	2.060	10.480
	June	1.202	0.308	0.121	0.325	0.274	0.013	2.243	12.723
	July	1.274	0.361	0.111	0.318	0.307	0.013	2.383	15.107
	August	1.338	0.362	0.137	0.302	0.320	0.016	2.475	17.582
	September	1.140	0.301	0.083	0.250	0.316	0.015	2.106	19.687
	October	1.155	0.279	0.084	0.254	0.269	0.016	2.057	21.745
	November	1.144	0.253	0.100	0.260	0.266	0.016	2.040	23.784
	December	1.193	0.225	0.086	0.296	0.335	0.018	2.153	25.937
	<b>Total</b>	<b>14.020</b>	<b>3.220</b>	<b>1.286</b>	<b>3.684</b>	<b>3.553</b>	<b>0.174</b>	<b>25.937</b>	
<b>1985</b>	January	R1.334	0.234	0.132	0.311	0.392	0.018	2.421	2.421
	February	R1.163	0.210	0.101	0.289	0.334	0.016	R2.112	R4.533
	March	R1.148	0.215	0.077	0.289	0.337	0.018	2.084	R6.617
	April	1.067	0.242	0.066	0.278	0.287	0.016	1.956	R8.572
	May	R1.144	0.244	0.075	0.303	0.311	0.016	2.095	R10.667
	June	1.208	0.292	0.083	0.280	0.334	0.016	R2.212	R12.879
	July	1.347	0.348	0.090	0.261	0.382	0.018	R2.445	R15.325
	August	R1.322	0.367	0.107	0.250	0.377	0.018	R2.442	R17.767
	September	R1.190	0.284	0.082	0.229	0.374	0.018	R2.177	R19.944
	October	R1.152	0.258	0.082	0.239	0.338	0.017	R2.087	R22.031
	November	R1.138	0.238	0.075	0.267	0.327	0.021	2.067	R24.098
	December	1.329	0.218	0.120	0.292	0.366	0.022	R2.347	R26.445
	<b>Total</b>	<b>R14.542</b>	<b>3.151</b>	<b>1.090</b>	<b>3.289</b>	<b>4.160</b>	<b>0.213</b>	<b>R26.445</b>	
<b>1986</b>	January	R1.342	0.190	0.119	0.257	0.393	0.023	R2.323	R2.323
	February	1.154	0.163	0.101	0.272	0.355	0.019	2.064	R4.387
	March	1.130	0.176	0.107	0.325	0.334	0.020	R2.091	R6.478
	April	R1.008	0.204	0.097	0.315	0.330	0.018	1.974	R8.452
	May	1.078	0.239	0.111	0.311	0.346	0.018	R2.103	R10.555
	June	R1.234	0.269	0.123	0.298	0.340	0.020	2.284	R12.839
	July	1.426	0.311	0.173	0.283	0.389	0.021	2.604	15.443
	<b>Year to Date</b>	<b>8.372</b>	<b>1.553</b>	<b>0.832</b>	<b>2.060</b>	<b>2.487</b>	<b>0.139</b>	<b>15.443</b>	

<sup>1</sup>Includes supplemental gaseous fuels.

<sup>2</sup>Includes petroleum products reported as "oil consumed in steam plants" through 1979 and "heavy oil" from 1980 forward, which are assumed to be residual fuel oil; petroleum products reported as "oil consumed in gas turbine and internal combustion engine plants" through 1979 and "light oil" from 1980 forward, which are assumed to be distillate fuel oil and kerosene; and petroleum coke.

<sup>3</sup>Includes net imports of electricity.

<sup>4</sup>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.

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), 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. Economic Sectors:** Energy use is assigned to the major economic sectors according to the following guidelines as closely as possible:
    - Residential and Commercial Sector—private household establishments (which consume energy primarily for space heating, water heating, air conditioning, lighting, refrigeration, cooking, and clothes drying); non-manufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public swimming pools are also included.
    - Industrial Sector—manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
    - Transportation Sector—private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.
    - Electric Utility Sector—privately and publicly owned establishments that generate electricity primarily for use by the public.
  - 3. Conversion Factors:** See the Conversion Factors section of this publication.
  - 4. Coal:** Coal is anthracite, bituminous coal, (including sub-bituminous coal), and lignite.

*Sources:*

    - 1973 through September 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
    - Electric Utilities—October 1977 forward: Energy Information Administration (EIA), EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
    - Other Industrial—October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report - Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly Fuel Consumption Report - Manufacturing Plants" and EIA Form 6, "Coal Distribution Report."
    - Coke Plants—October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Quarterly/Annual."
    - Residential and Commercial—October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."
  - 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*, "Natural Gas, Annual."
    - 1979: EIA, *Natural Gas Production and Consumption 1979*.
    - 1980 through 1984: EIA, *Natural Gas Annual*.
  - 1985 forward: EIA, *Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and EIA computations.*
  - 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*, "Petroleum Statement, Annual."
  - 1981 through 1984: EIA, *Petroleum Supply Annual*.
  - 1985 forward: EIA, *Petroleum Supply Monthly*.
- Specific petroleum products' end-use allocation procedures follow:
- **Aviation Gasoline**—All product supplied is assigned to the transportation sector.
  - **Asphalt**—All product supplied is assigned to the industrial sector.
  - **Distillate Fuel**
    - **Electric Utility Sector, All Periods.**  
Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus small amounts of kerosene deliveries through 1982) 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 1984.**  
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 1984. 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 1984 (cont'd).*

- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1984. 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 1984 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 1984.*

- Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980, the American Petroleum Institute for 1981 and 1982, and the Form EIA-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report," for 1983 and 1984.
- The transportation sector highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.
- Industrial sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

##### — *Non-Electric Utility Sectors, 1985 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 in 1984.

- **Jet Fuel**—Through 1982, small amounts of kerosene-type 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 allocated to the major end-use sectors in proportion to annual deliveries grouped into end-use sectors from EIA's "Deliveries of Fuel Oil and Kerosene" ("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 1984. Deliveries for 1984 are used as estimates for succeeding periods. 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 1984. Deliveries for 1984 are used as estimates for succeeding periods. 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 1984. Deliveries for 1984 are used as estimates for succeeding periods. 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)** —The annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption (i.e., product supplied) 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 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 60 percent transportation and 40 percent industrial in 1984.
- 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 fuel.

The sources of the annual sales data for creating annual end-use shares are:

- 1973 through 1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
- 1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption estimates because the collection of data under Form EIA-174 was discontinued after data year 1982.
- 1984: American Petroleum Institute (API), "1984 Sales of Natural Gas Liquids and Liquefied Refinery Gases" (October 1985) based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.
- Succeeding periods: The 1984 source is used to estimate succeeding periods.

- **Lubricants**—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 forward.

(Notes and Sources for the Consumption Section 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 aggregations of annual sales categories formed from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:
  - Commercial sales are the sum of sales for public non-highway use, miscellaneous use, and unclassified use;
  - Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*; and
  - Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.
- **Petroleum Coke**—The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining 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 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 1984.**  
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 1984. 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 1984 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 military uses for all years.
  - **Non-Electric Utility Sectors, Monthly Estimates Through 1984.**
    - Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 fuel oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980, the American Petroleum Institute for 1981 and 1982, and the Form EIA-782A, "Refiners/Gas Plant Operators' Monthly

- Petroleum Product Sales Report," for 1983 and 1984.
- 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, 1985 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 in 1984.
- **Road Oil**—All product supplied is assigned to the industrial sector.
- **All Other Petroleum Products**—The product supplied of all remaining petroleum products is assigned to the industrial sector.

**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 January 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).
- 1982 through 1984: DOE, Economic Regulatory Administration, ERA-781, "Annual Report of International Electric Import/Export Data."
- 1985 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 and Geothermal, Wood, Waste, Wind, Photovoltaic, and Solar Thermal Energy Sources Connected to Electric Utility Distribution Systems:

#### 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. 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 government 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 kilowatt-hour.

#### Sources of sales data:

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

**11. Electrical 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.

## Petroleum\*

Domestic crude oil production during September 1986 was estimated to be 8.7 million barrels per day, slightly lower than in the previous month, and 3.2 percent lower than the September 1985 rate. Crude oil production during the first three quarters of 1986 was estimated to be 8.8 million barrels per day, 1.7 percent less than the production average during the first three quarters of 1985.

Total petroleum imports averaged 6.7 million barrels per day in September 1986, 4.7 percent less than the August 1986 rate but 35.6 percent more than the September 1985 rate. Total petroleum imports during the first three quarters of 1986 averaged 5.9 million barrels per day, 22.3 percent more than the average imports during the first three quarters of 1985.

In September 1986, 15.6 million barrels per day of petroleum products were supplied for domestic use, 6.6 percent below the level in August 1986 but 3.3 percent above the level of the previous September. Motor gasoline accounted for 45.1 percent of the total; distillate fuel oil, 16.4 percent; and residual fuel oil, 8.1 percent. During the first three quarters of 1986, 16.0 million barrels per day of petroleum products were supplied, 2.5 percent more than the average of 15.6 million barrels per day in the first three quarters of 1985. Motor gasoline was 43.8 percent of the total products supplied during the first three quarters of 1986, while distillate fuel oil was 17.9 percent, and residual fuel oil was 8.7 percent of the total.

Motor gasoline supplied during September 1986 averaged 7.0 million barrels per day, 5.5 percent below the rate in August 1986 but 6.0

percent above the rate in the previous September. During the first three quarters of 1986, an average of 7.0 million barrels per day of motor gasoline were supplied, 2.7 percent more than during the first three quarters of 1985. Stocks of motor gasoline totaled 230 million barrels at the end of September 1986, 7 million barrels above the ending stocks levels of both the previous month and September of the previous year.

In September 1986, 2.6 million barrels of distillate fuel oil were supplied per day, 6.4 percent lower than the August 1986 rate and 0.9 percent lower than the September 1985 rate. An average of 2.9 million barrels per day of distillate fuel oil were supplied during the first three quarters of 1986, 1.1 percent more than during the first three quarters of 1985. Distillate fuel oil ending stocks for September 1986 were 150 million barrels, 12 million barrels higher than the ending stocks level of the previous month and 33 million barrels higher than the September 1985 ending stocks level.

Residual fuel oil supplied in September 1986 averaged 1.3 million barrels per day, 15.1 percent lower than the August 1986 rate but 23.0 percent higher than the September 1985 rate. The average of residual fuel oil supplied during the first three quarters of 1986 was 1.4 million barrels per day, 18.3 percent more than the first-three-quarters-1985 average. Residual fuel oil stocks measured 45 million barrels at the end of September 1986, 4 million barrels higher than the ending stocks level of the previous month and 2 million barrels higher than the stocks level 1 year earlier.

\*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 June 1986. The total import data above include imports into the Strategic Petroleum Reserve.

# Petroleum

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

	Field Production			Stock Withdrawal <sup>2</sup>		Petroleum Products Supplied	Ending Stocks <sup>3</sup>	
	Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Liquids	Crude Oil <sup>5</sup>	Petroleum Products		Crude Oil <sup>6</sup> and Petroleum Products	
	Thousand barrels per day							Million barrels
<b>1973</b>	<b>Average</b>	<b>10,975</b>	<b>9,208</b>	<b>1,738</b>	<b>11</b>	<b>-146</b>	<b>17,308</b>	<b>1,008</b>
<b>1974</b>	<b>Average</b>	<b>10,498</b>	<b>8,774</b>	<b>1,688</b>	<b>-62</b>	<b>-117</b>	<b>16,653</b>	<b>*1,074</b>
<b>1975</b>	<b>Average</b>	<b>10,045</b>	<b>8,375</b>	<b>1,633</b>	<b>*-17</b>	<b>*-145</b>	<b>16,322</b>	<b>1,133</b>
<b>1976</b>	<b>Average</b>	<b>9,774</b>	<b>8,132</b>	<b>1,603</b>	<b>-39</b>	<b>96</b>	<b>17,461</b>	<b>1,112</b>
<b>1977</b>	<b>Average</b>	<b>9,913</b>	<b>8,245</b>	<b>1,618</b>	<b>-170</b>	<b>-378</b>	<b>18,431</b>	<b>1,312</b>
<b>1978</b>	<b>Average</b>	<b>10,328</b>	<b>8,707</b>	<b>1,567</b>	<b>-78</b>	<b>172</b>	<b>18,847</b>	<b>1,278</b>
<b>1979</b>	<b>Average</b>	<b>10,179</b>	<b>8,552</b>	<b>1,584</b>	<b>-148</b>	<b>-25</b>	<b>18,513</b>	<b>1,341</b>
<b>1980</b>	<b>Average</b>	<b>10,214</b>	<b>8,597</b>	<b>1,573</b>	<b>-98</b>	<b>-42</b>	<b>17,056</b>	<b>*1,392</b>
<b>1981</b>	<b>Average</b>	<b>10,230</b>	<b>8,572</b>	<b>1,609</b>	<b>*-290</b>	<b>*130</b>	<b>16,058</b>	<b>1,484</b>
<b>1982</b>	<b>Average</b>	<b>10,252</b>	<b>8,649</b>	<b>1,550</b>	<b>-136</b>	<b>283</b>	<b>15,296</b>	<b>*1,430</b>
<b>1983</b>	<b>Average</b>	<b>10,299</b>	<b>8,688</b>	<b>1,559</b>	<b>*-214</b>	<b>*234</b>	<b>15,231</b>	<b>1,454</b>
<b>1984</b>	January	10,477	8,868	1,572	-328	1,115	16,801	1,429
	February	10,565	8,874	1,635	197	-1,374	15,437	1,463
	March	10,319	8,672	1,599	-25	641	16,050	1,444
	April	10,531	8,862	1,619	-476	-106	15,568	1,462
	May	10,623	8,955	1,614	-677	-434	15,620	1,496
	June	10,507	8,852	1,613	-104	-109	15,709	1,503
	July	10,587	8,885	1,634	-169	-169	15,498	1,513
	August	10,478	8,809	1,637	250	252	16,116	1,498
	September	10,692	8,993	1,660	260	-769	15,247	1,513
	October	10,608	8,906	1,649	-759	-246	15,616	1,544
	November	10,689	8,979	1,678	-236	-177	15,627	1,556
	December	10,578	8,897	1,649	-290	293	15,375	1,556
	<b>Average</b>	<b>10,554</b>	<b>8,879</b>	<b>1,630</b>	<b>-199</b>	<b>-81</b>	<b>15,726</b>	
<b>1985</b>	January	10,412	8,740	1,628	76	1,351	16,109	1,512
	February	10,692	9,025	1,623	425	1,347	16,121	1,462
	March	10,748	9,095	1,600	-309	403	15,373	1,460
	April	10,673	9,043	1,582	-520	56	15,472	1,473
	May	10,770	9,132	1,594	-700	-399	15,504	1,508
	June	10,664	9,022	1,597	264	-382	15,483	1,511
	July	10,550	8,949	1,568	326	-496	15,434	1,516
	August	10,485	8,803	1,594	159	568	16,060	1,494
	September	10,584	8,954	1,575	-34	-255	15,099	1,502
	October	10,637	8,970	1,610	98	124	15,944	1,496
	November	10,640	8,902	1,660	-295	-634	15,503	1,523
	December	10,777	9,030	1,680	-58	207	16,611	1,519
	<b>Average</b>	<b>10,636</b>	<b>8,971</b>	<b>1,609</b>	<b>-50</b>	<b>153</b>	<b>15,726</b>	
<b>1986</b>	January	10,716	8,942	1,721	-461	-228	15,923	1,538
	February	10,686	8,940	1,710	-35	847	16,056	1,515
	March	10,596	8,939	1,617	-338	1,178	16,188	1,489
	April	10,413	8,815	1,561	27	265	15,743	1,480
	May	10,462	8,805	1,594	264	-1,089	15,852	1,506
	June	10,406	8,792	1,555	50	-1,226	15,998	1,541
	July	10,354	8,737	1,558	-580	-615	16,075	1,578
	August	10,275	8,708	1,505	R243	R-417	R16,686	R1,584
	September <sup>7</sup>	NA	8,671	NA	-238	-1,266	15,590	1,602
	<b>Average</b>	<b>NA</b>	<b>8,816</b>	<b>NA</b>	<b>-120</b>	<b>-291</b>	<b>16,014</b>	

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

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

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

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

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

<sup>6</sup>Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>7</sup>Net imports equals imports minus exports.

<sup>8</sup>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 Oil<sup>1</sup> and Petroleum Products Overview (continued)

		Imports			Exports			Net Imports <sup>7</sup>
		Total	Crude Oil <sup>6</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand barrels per day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	471	235	236	7,985
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	January	5,430	3,055	2,375	575	153	422	4,855
	February	5,693	2,950	2,743	582	185	397	5,111
	March	5,301	3,470	1,832	840	236	605	4,461
	April	5,372	3,417	1,955	655	172	483	4,717
	May	5,979	3,942	2,036	766	219	548	5,212
	June	5,482	3,546	1,936	864	222	642	4,618
	July	5,407	3,646	1,761	536	108	429	4,871
	August	5,044	3,248	1,796	732	190	542	4,312
	September	5,252	3,342	1,909	664	162	502	4,588
	October	5,779	3,751	2,028	599	141	458	5,179
	November	5,587	3,583	2,004	854	202	652	4,733
	December	4,933	3,136	1,796	986	185	801	3,947
		<b>Average</b>	<b>5,437</b>	<b>3,426</b>	<b>2,011</b>	<b>722</b>	<b>181</b>	<b>541</b>
1985	January	4,415	2,717	1,698	792	144	647	3,623
	February	3,913	2,108	1,805	857	221	636	3,056
	March	4,673	2,786	1,887	694	189	505	3,979
	April	5,316	3,401	1,915	764	236	528	4,553
	May	5,776	3,730	2,046	705	250	455	5,071
	June	4,929	3,188	1,741	692	226	467	4,237
	July	4,950	3,203	1,747	675	154	521	4,274
	August	4,718	3,114	1,603	749	241	508	3,969
	September	4,970	3,155	1,816	806	188	618	4,164
	October	5,121	3,238	1,883	690	123	567	4,431
	November	6,116	3,999	2,118	1,036	286	750	5,080
	December	5,831	3,696	2,135	925	197	728	4,905
		<b>Average</b>	<b>5,067</b>	<b>3,201</b>	<b>1,866</b>	<b>781</b>	<b>204</b>	<b>577</b>
1986	January	5,386	3,329	2,057	853	159	694	4,533
	February	4,622	3,005	1,617	866	162	704	3,756
	March	4,638	3,000	1,637	710	212	498	3,927
	April	5,310	3,709	1,601	827	94	733	4,483
	May	6,016	4,029	1,987	715	98	616	5,301
	June	6,802	4,675	2,128	623	240	383	6,179
	July	6,784	4,648	2,136	638	65	573	6,145
	August	R7,075	R4,826	R2,249	865	233	632	6,210
	September†	6,740	4,832	1,908	NA	NA	NA	NA
		<b>Average</b>	<b>5,941</b>	<b>4,012</b>	<b>1,928</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

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.

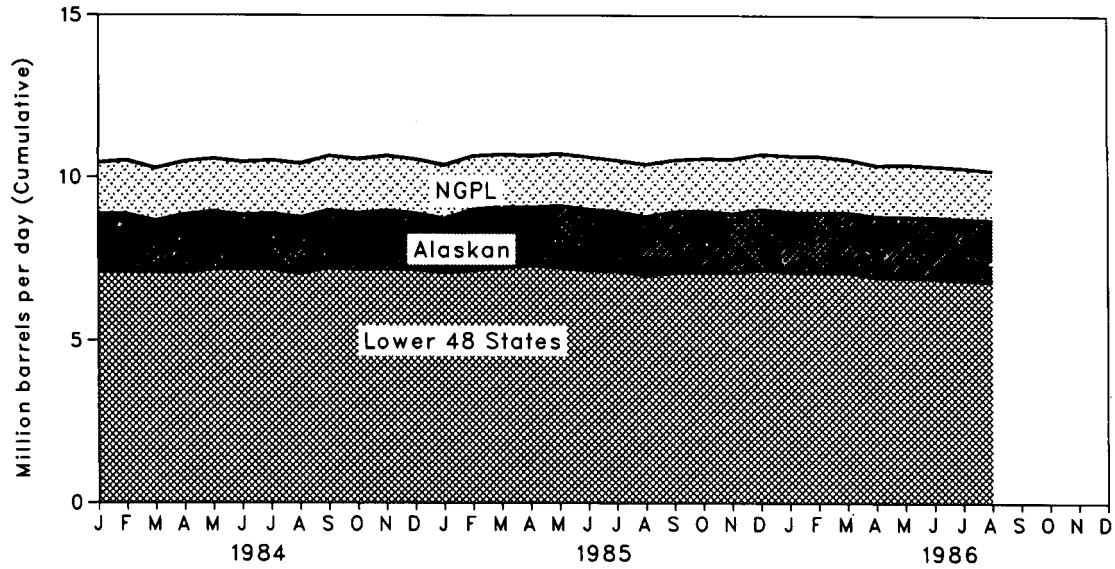
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

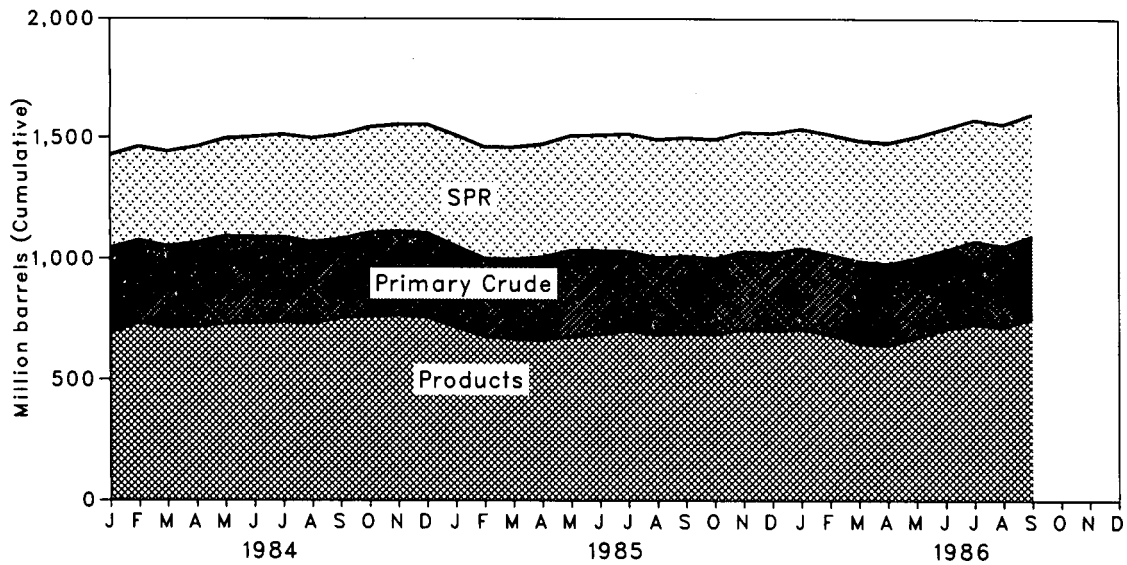
# Petroleum

## Overview

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



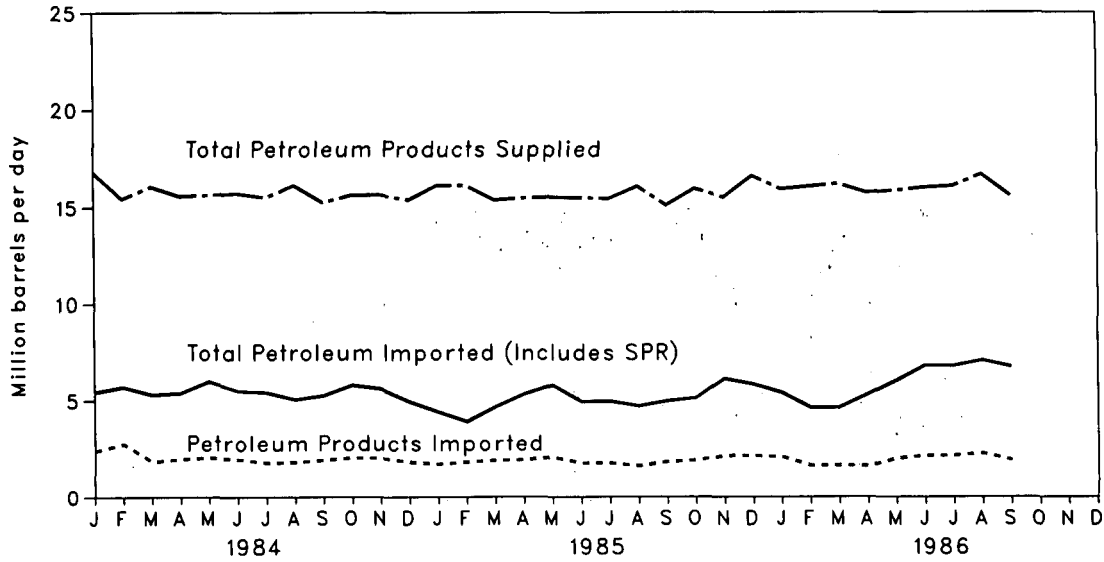
### Ending Stocks



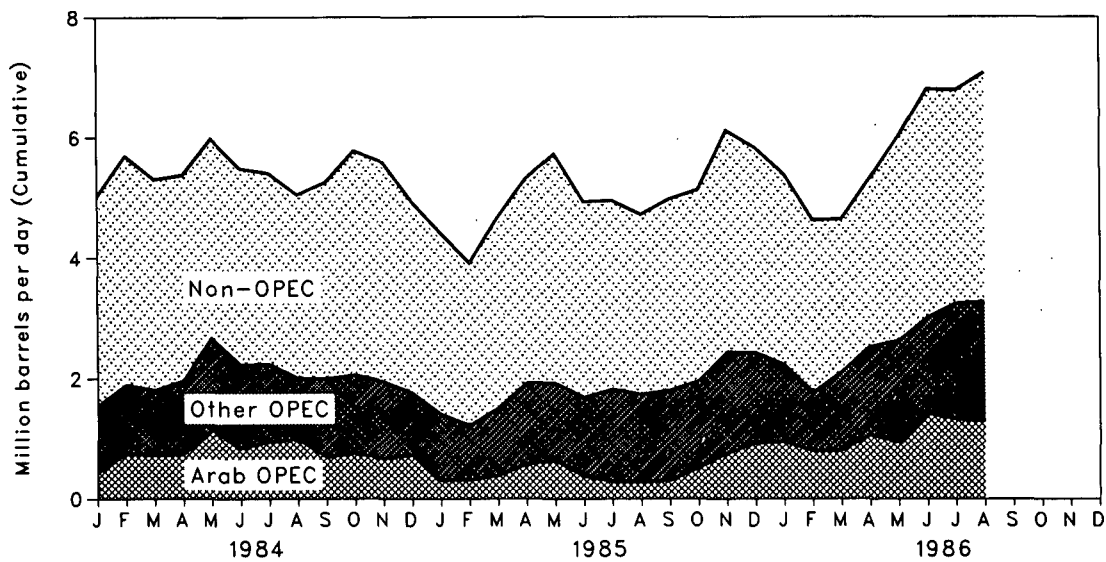
# Petroleum

## Overview

### Products Supplied and Imports



### Petroleum Imports by Source



# Petroleum

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

		Supply							Unaccounted for Crude Oil
		Field Production		Imports		Stock Withdrawal <sup>5</sup>			
		Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other	
Thousand barrels per day									
1973	Average	9,208	198	3,244		3,244		11	3
1974	Average	8,774	193	3,477		3,477		-62	-25
1975	Average	8,375	191	4,105		4,105		-17	17
1976	Average	8,132	173	5,287		5,287		-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
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	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	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	Average	8,688	1,714	3,329	234	3,096	-234	20	114
1984	January	8,868	1,752	3,055	200	2,855	-173	-155	211
	February	8,874	1,749	2,950	85	2,866	-96	293	386
	March	8,672	1,570	3,470	148	3,322	-147	122	110
	April	8,862	1,770	3,417	170	3,248	-170	-307	325
	May	8,955	1,764	3,942	246	3,696	-245	-432	309
	June	8,852	1,659	3,546	309	3,237	-309	205	246
	July	8,885	1,695	3,646	329	3,317	-328	159	-164
	August	8,809	1,722	3,248	180	3,068	-179	429	293
	September	8,993	1,761	3,342	53	3,289	-53	314	-94
	October	8,906	1,732	3,751	187	3,565	-186	-573	291
	November	8,979	1,781	3,583	219	3,364	-207	-29	47
	December	8,897	1,720	3,136	229	2,907	-241	-50	262
		Average	8,879	1,722	3,426	197	3,229	-195	-4
1985	January	8,740	1,647	2,717	223	2,494	-223	298	122
	February	9,025	1,877	2,108	98	2,010	-97	522	94
	March	9,095	1,866	2,786	48	2,738	-48	-262	59
	April	9,043	1,784	3,401	108	3,293	-111	-409	183
	May	9,132	1,888	3,730	222	3,508	-225	-475	247
	June	9,022	1,871	3,188	155	3,034	-155	419	100
	July	8,949	1,809	3,203	226	2,977	-225	551	177
	August	8,803	1,795	3,114	116	2,999	-116	274	267
	September	8,954	1,867	3,155	71	3,084	-71	37	93
	October	8,970	1,850	3,238	20	3,218	-20	119	81
	November	8,902	1,804	3,999	53	3,946	-53	-242	150
	December	9,030	1,852	3,696	74	3,621	-60	2	164
		Average	8,971	1,825	3,201	118	3,083	-117	67
1986	January	8,942	1,822	3,329	51	3,277	-35	-426	788
	February	8,940	1,823	3,005	24	2,981	-35	(s)	241
	March	8,939	1,824	3,000	59	2,941	-49	-289	316
	April	8,815	1,862	3,709	63	3,646	-63	90	79
	May	8,805	1,862	4,029	36	3,993	-35	300	308
	June	8,792	1,863	4,675	64	4,611	-64	114	36
	July	8,737	1,871	4,648	52	4,595	-52	-528	214
	August	8,708	1,871	R4,826	51	R4,775	-51	R293	-222
	September <sup>7</sup>	8,671	1,870	4,832	47	4,785	-47	-191	NA
		Average	8,816	1,852	4,012	50	3,963	-48	-72

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

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

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

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

<sup>5</sup>Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

<sup>6</sup>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.

# Petroleum

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

		Supply	Disposition			Ending Stocks <sup>2</sup>			
		Crude Used Directly <sup>3</sup>	Crude Losses	Refinery Inputs	Exports	Product Supplied <sup>4</sup>	Total	SPR <sup>4</sup>	Other Primary
		Thousand barrels per day					Million barrels		
1973	Average	-19	13	12,431	2		242		242
1974	Average	-15	13	12,133	3		265		265
1975	Average	-17	13	12,442	6		271		271
1976	Average	-18	15	13,416	8		285		285
1977	Average	-14	16	14,602	50		348	7	340
1978	Average	-14	16	14,739	158		376	67	309
1979	Average	-13	16	14,648	235		430	91	339
1980	Average	-13	15	13,481	287		*466	108	*358
1981	Average	-58	5	12,470	228		594	230	363
1982	Average	-59	3	11,774	236		*644	294	350
1983	Average	NA	2	11,685	164	66	723	379	344
1984	January	NA	1	11,587	153	64	733	384	349
	February	NA	1	12,157	185	65	727	387	340
	March	NA	2	11,926	236	62	728	392	336
	April	NA	1	11,891	172	64	742	397	346
	May	NA	2	12,247	219	62	763	404	359
	June	NA	2	12,255	222	61	767	414	353
	July	NA	2	12,028	108	60	772	424	348
	August	NA	1	12,346	190	63	764	429	335
	September	NA	3	12,271	162	66	756	431	325
	October	NA	1	11,978	141	69	780	437	343
	November	NA	(s)	12,108	202	62	787	443	344
	December	NA	(s)	11,755	185	64	796	451	345
	Average	NA	2	12,044	181	64			
1985	January	NA	1	11,445	144	63	794	457	336
	February	NA	1	11,367	221	63	782	460	322
	March	NA	1	11,372	189	69	791	462	330
	April	NA	1	11,805	236	67	807	465	342
	May	NA	1	12,094	250	65	829	472	357
	June	NA	1	12,292	226	56	821	477	344
	July	NA	1	12,445	154	55	811	484	327
	August	NA	(s)	12,045	241	55	806	487	318
	September	NA	(s)	11,925	188	55	807	489	317
	October	NA	(s)	12,209	123	55	804	490	314
	November	NA	(s)	12,410	286	59	812	491	321
	December	NA	1	12,570	197	63	814	493	321
	Average	NA	1	12,002	204	60			
1986	January	NA	3	12,375	159	62	826	494	332
	February	NA	(s)	11,921	162	68	827	495	332
	March	NA	1	11,648	212	56	838	497	341
	April	NA	1	12,483	94	51	837	499	338
	May	NA	(s)	13,259	98	49	829	500	329
	June	NA	(s)	13,260	240	52	827	502	325
	July	NA	(s)	12,902	65	51	845	503	R342
	August	NA	(s)	R13,274	233	48	R838	505	R333
	September†	NA	NA	13,138	NA	NA	843	506	337
	Average	NA	NA	12,701	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.

# Petroleum

## Crude Oil and Petroleum Product Imports

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

		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>2</sup>	Total OPEC	Total Arab OPEC <sup>3</sup>	
		Thousand barrels per day											
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915	
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752	
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383	
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424	
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185	
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963	
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056	
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551	
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848	
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854	
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632	
1984	January	242	0	477	114	289	0	243	549	51	1,965	842	
	February	369	7	324	33	267	0	244	478	174	1,896	751	
	March	285	0	310	112	283	67	269	358	127	1,811	723	
	April	280	0	320	95	226	0	288	593	158	1,962	735	
	May	471	0	329	240	479	0	289	627	242	2,677	1,146	
	June	302	0	411	46	415	0	243	640	171	2,227	838	
	July	332	0	429	112	384	0	204	539	242	2,241	946	
	August	404	0	438	82	281	0	114	475	216	2,009	993	
	September	359	0	159	113	333	17	160	715	147	2,002	688	
	October	333	0	287	114	421	0	208	585	115	2,062	754	
	November	298	0	183	124	424	24	163	564	173	1,954	668	
	December	204	0	224	211	314	12	166	459	174	1,765	723	
	<b>Average</b>	<b>323</b>	<b>1</b>	<b>325</b>	<b>117</b>	<b>343</b>	<b>10</b>	<b>216</b>	<b>548</b>	<b>166</b>	<b>2,049</b>	<b>819</b>	
1985	January	112	0	106	60	296	0	262	481	89	1,405	305	
	February	174	0	108	0	232	0	119	524	64	1,220	307	
	March	247	0	85	52	283	0	164	588	84	1,505	385	
	April	286	8	201	70	313	0	280	684	86	1,928	575	
	May	255	0	41	128	265	0	381	552	354	1,976	635	
	June	178	5	26	81	438	0	357	452	152	1,690	378	
	July	125	10	44	13	390	42	381	573	248	1,825	286	
	August	135	0	46	17	377	100	207	568	289	1,740	280	
	September	147	0	27	57	206	43	285	808	230	1,802	302	
	October	177	20	251	17	277	41	305	676	196	1,958	520	
	November	164	11	430	34	356	99	325	727	294	2,440	752	
	December	244	0	642	15	324	0	432	625	149	2,430	925	
	<b>Average</b>	<b>187</b>	<b>4</b>	<b>168</b>	<b>45</b>	<b>314</b>	<b>27</b>	<b>293</b>	<b>605</b>	<b>187</b>	<b>1,830</b>	<b>472</b>	
1986	January	183	0	664	11	285	0	241	629	216	2,229	944	
	February	161	0	600	0	277	(s)	199	464	64	1,766	788	
	March	260	0	482	0	163	0	328	762	117	2,112	798	
	April	275	0	722	0	282	0	311	802	139	2,532	1,061	
	May	190	0	564	32	326	0	383	874	266	2,635	944	
	June	319	0	704	83	353	0	362	755	439	3,014	1,418	
	July	296	0	713	59	519	66	542	720	330	3,244	R1,318	
	August	363	0	653	37	274	93	593	892	366	3,271	1,300	
		<b>Average</b>	<b>257</b>	<b>0</b>	<b>638</b>	<b>28</b>	<b>310</b>	<b>20</b>	<b>372</b>	<b>740</b>	<b>244</b>	<b>2,609</b>	<b>1,073</b>

<sup>1</sup>Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as 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.

# Petroleum

## Crude Oil and Petroleum Product Imports (continued)

		Imports from Non-OPEC Sources <sup>1</sup>										
		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non- OPEC	Total Non- OPEC	Total Imports
		Thousand barrels per 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	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	January	159	635	710	279	54	382	53	390	804	3,465	5,430
	February	156	620	748	289	77	344	58	418	1,087	3,797	5,693
	March	90	694	716	169	93	434	34	248	1,013	3,490	5,301
	April	95	705	869	207	91	282	37	257	869	3,410	5,372
	May	31	722	676	192	57	429	38	336	819	3,302	5,979
	June	52	506	754	234	104	345	53	268	939	3,255	5,482
	July	14	577	740	99	120	362	27	292	934	3,166	5,407
	August	57	547	640	206	98	388	34	236	829	3,035	5,044
	September	98	550	780	133	103	490	38	250	808	3,249	5,252
	October	151	682	827	112	122	486	37	321	979	3,717	5,779
	November	88	640	841	181	115	544	44	283	897	3,633	5,587
	December	75	675	686	161	98	337	46	235	855	3,168	4,933
		<b>Average</b>	<b>88</b>	<b>630</b>	<b>748</b>	<b>188</b>	<b>94</b>	<b>402</b>	<b>42</b>	<b>294</b>	<b>902</b>	<b>3,388</b>
1985	January	92	616	767	132	113	345	32	235	678	3,010	4,415
	February	37	730	652	52	119	151	50	213	689	2,693	3,913
	March	36	909	923	49	115	133	29	235	739	3,168	4,673
	April	4	890	950	18	107	213	42	205	959	3,388	5,316
	May	74	823	929	28	126	419	37	252	1,112	3,800	5,776
	June	24	720	726	30	92	481	23	271	872	3,240	4,929
	July	38	610	814	36	133	324	14	236	918	3,124	4,950
	August	11	664	859	18	121	336	28	241	699	2,978	4,718
	September	47	783	852	40	129	303	26	173	815	3,169	4,970
	October	35	825	745	5	99	352	21	260	821	3,163	5,121
	November	22	766	887	30	100	376	26	325	1,143	3,676	6,116
	December	54	902	676	44	96	273	12	314	1,029	3,400	5,831
		<b>Average</b>	<b>40</b>	<b>770</b>	<b>816</b>	<b>40</b>	<b>113</b>	<b>310</b>	<b>28</b>	<b>247</b>	<b>873</b>	<b>3,237</b>
1986	January	66	826	680	58	108	348	21	326	724	3,157	5,386
	February	15	688	571	11	85	218	20	309	939	2,855	4,622
	March	13	741	616	27	79	178	25	186	661	2,526	4,638
	April	5	775	693	13	111	188	23	209	762	2,779	5,310
	May	30	775	727	38	130	365	27	237	1,052	3,381	6,016
	June	24	735	879	17	167	568	30	233	1,135	3,788	6,802
	July	36	754	819	25	131	352	29	237	1,156	3,540	6,784
	August	35	793	738	12	133	583	7	214	1,289	3,804	7,075
		<b>Average</b>	<b>28</b>	<b>762</b>	<b>717</b>	<b>25</b>	<b>118</b>	<b>351</b>	<b>23</b>	<b>243</b>	<b>965</b>	<b>3,233</b>

Footnotes continued.

<sup>1</sup>Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as 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.

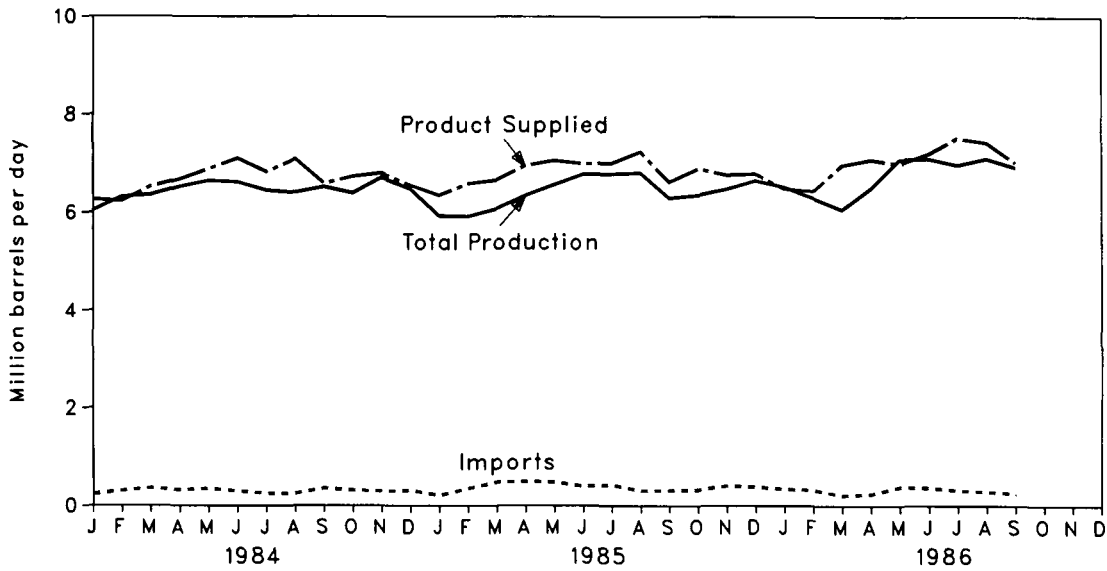
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

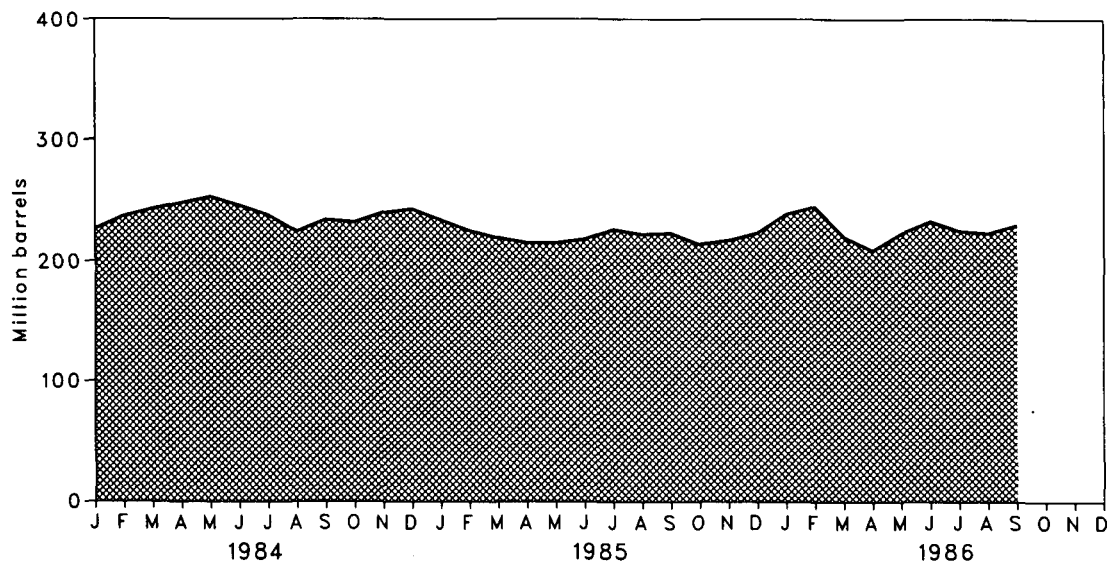
# Petroleum

## Finished Motor Gasoline Supply and Disposition

### Products Supplied, Total Production, and Imports



### Ending Stocks





# Petroleum

## Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>1</sup>		
		Total Production	Imports <sup>2</sup>	Stock Withdrawal <sup>2, 3</sup>	Exports	Product Supplied		Total Motor Gasoline <sup>5</sup>	Finished Motor Gasoline	
		Thousand barrels per day				Total	Unleaded <sup>4</sup>	Unleaded Percent of Total	Million barrels	
1973	Average	6,535	134	9	4	6,674			209	
1974	Average	6,360	204	-24	2	6,537			<sup>6</sup> 218	
1975	Average	6,520	184	<sup>6</sup> -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	<sup>6</sup> 261	
1981	Average <sup>7</sup>	6,405	157	<sup>6</sup> 28	2	6,588	3,264	49.5	253	
1982	Average	6,338	197	25	20	6,539	3,409	52.1	<sup>6</sup> 235	
1983	Average	6,340	247	<sup>4</sup> 45	10	6,622	3,647	55.1	222	186
1984	January	6,036	231	-1	1	6,265	3,605	57.5	226	186
	February	6,317	299	-383	2	6,231	3,585	57.5	237	197
	March	6,359	355	-176	9	6,528	3,750	57.4	243	202
	April	6,525	319	-167	(s)	6,676	3,857	57.8	248	207
	May	6,650	346	-105	(s)	6,890	4,004	58.1	253	210
	June	6,619	296	209	17	7,107	4,214	59.3	246	204
	July	6,450	247	142	9	6,830	4,057	59.4	238	200
	August	6,405	242	447	1	7,093	4,283	60.4	224	186
	September	6,516	349	-275	2	6,588	3,973	60.3	234	194
	October	6,388	308	34	1	6,729	4,093	60.8	232	193
	November	6,709	286	-183	11	6,800	4,245	62.4	240	199
	December	6,478	308	-215	16	6,555	4,168	63.6	243	205
	Average	6,453	299	-54	6	6,693	3,987	59.6		
1985	January	5,926	204	220	2	6,348	4,016	63.3	234	198
	February	5,914	348	327	2	6,587	4,126	62.6	225	189
	March	6,072	481	115	3	6,664	4,202	63.1	219	186
	April	6,344	494	128	11	6,956	4,396	63.2	215	182
	May	6,564	480	23	8	7,060	4,445	63.0	215	181
	June	6,780	396	-172	7	6,997	4,482	64.1	218	186
	July	6,788	426	-188	18	7,008	4,545	64.8	226	192
	August	6,814	305	127	4	7,242	4,755	65.7	222	188
	September	6,299	314	22	6	6,629	4,357	65.7	223	187
	October	6,356	324	235	19	6,897	4,485	65.0	214	180
	November	6,480	410	-104	17	6,770	4,477	66.1	217	183
	December	6,651	386	-227	18	6,792	4,561	67.1	223	190
	Average	6,419	381	41	10	6,831	4,406	64.5		
1986	January	6,522	341	-376	0	6,487	4,404	67.9	239	201
	February	6,297	325	-185	0	6,438	4,341	67.4	245	207
	March	6,060	211	699	0	6,970	4,706	67.5	220	185
	April	6,497	241	346	0	7,083	4,813	67.9	209	175
	May	7,088	388	-481	0	6,995	4,714	67.4	223	190
	June	7,102	368	-269	0	7,200	4,934	68.5	233	198
	July	6,974	317	228	0	7,519	R5,232	69.6	225	191
	August	R7,105	R287	R82	40	R7,434	5,131	69.0	R223	R188
	September†	6,931	258	-163	NA	7,026	NA	NA	230	191
	Average	6,734	304	-11	NA	7,022	NA	NA		

<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.

<sup>4</sup>Includes gasohol.

<sup>5</sup>Includes motor gasoline blending components.

<sup>6</sup>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.

<sup>7</sup>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.

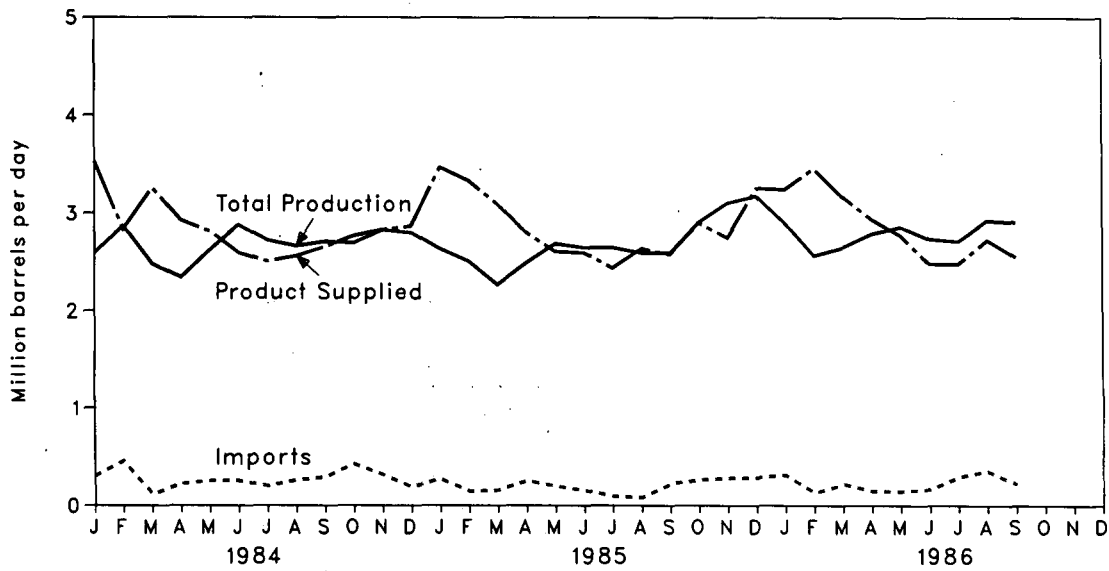
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

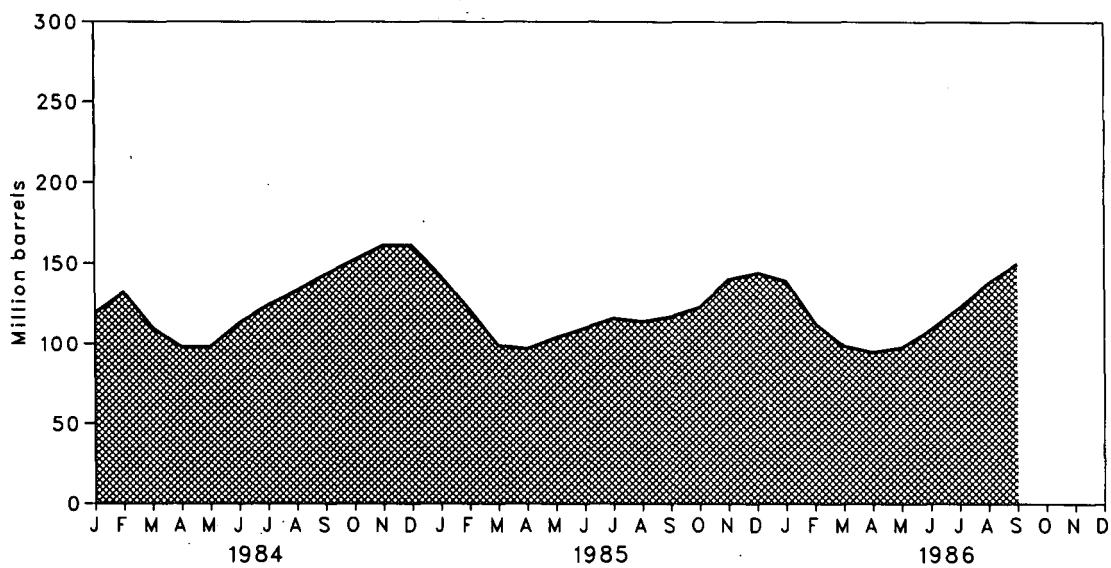
# Petroleum

## Distillate Fuel Oil Supply and Disposition

### Product Supplied, Total Production, and Imports



### Ending Stocks



# Petroleum

## Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>3</sup>	
		Thousand barrels per day						Million barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	200
1975	Average	2,654	155	40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	205
1981	Average <sup>4</sup>	2,613	173	38	10	5	2,929	192
1982	Average	2,606	93	35	10	74	2,671	179
1983	Average	2,456	174	124	NA	64	2,690	140
1984	January	2,591	299	676	NA	40	3,525	119
	February	2,867	454	-446	NA	41	2,834	132
	March	2,479	115	731	NA	66	3,259	110
	April	2,342	220	396	NA	32	2,926	98
	May	2,624	253	-15	NA	48	2,814	98
	June	2,880	256	-490	NA	53	2,593	113
	July	2,719	199	-373	NA	40	2,504	124
	August	2,661	259	-287	NA	74	2,559	133
	September	2,707	291	-321	NA	22	2,654	143
	October	2,691	421	-300	NA	47	2,765	152
	November	2,826	316	-291	NA	24	2,827	161
	December	2,798	190	-3	NA	120	2,865	161
		<b>Average</b>	<b>2,681</b>	<b>272</b>	<b>-57</b>	<b>NA</b>	<b>51</b>	<b>2,845</b>
1985	January	2,631	272	603	NA	41	3,465	142
	February	2,504	143	748	NA	64	3,330	121
	March	2,267	156	714	NA	44	3,093	99
	April	2,490	253	82	NA	27	2,798	97
	May	2,686	197	-245	NA	31	2,607	104
	June	2,647	152	-175	NA	30	2,594	110
	July	2,646	95	-193	NA	112	2,436	116
	August	2,592	81	62	NA	100	2,636	114
	September	2,594	222	-120	NA	121	2,575	117
	October	2,902	262	-195	NA	67	2,901	123
	November	3,102	280	-543	NA	92	2,747	140
	December	3,176	287	-128	NA	81	3,254	144
		<b>Average</b>	<b>2,687</b>	<b>200</b>	<b>48</b>	<b>NA</b>	<b>67</b>	<b>2,868</b>
1986	January	2,899	312	157	NA	126	3,243	139
	February	2,563	129	938	NA	176	3,455	113
	March	2,647	217	436	NA	131	3,168	99
	April	2,788	146	132	NA	128	2,939	95
	May	2,857	145	-81	NA	149	2,771	98
	June	2,735	165	-367	NA	53	2,480	109
	July	2,712	293	-452	NA	75	2,478	123
	August	R2,926	R355	R-491	NA	64	R2,726	R138
	September <sup>†</sup>	2,909	221	-517	NA	NA	2,552	150
		<b>Average</b>	<b>2,784</b>	<b>222</b>	<b>-35</b>	<b>NA</b>	<b>NA</b>	<b>2,864</b>

<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.

<sup>4</sup>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.

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

<sup>†</sup>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.

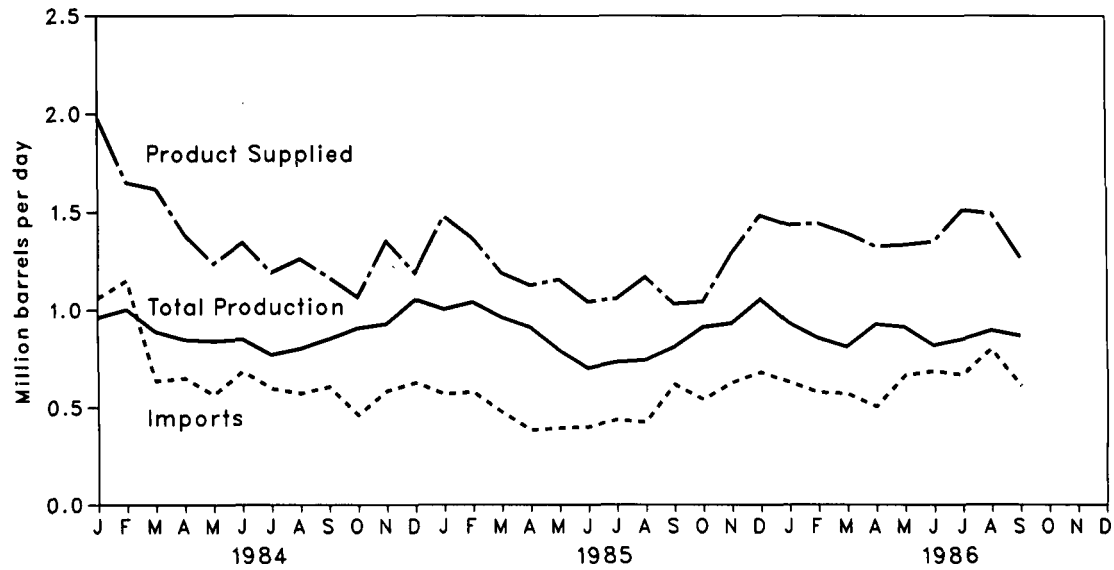
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

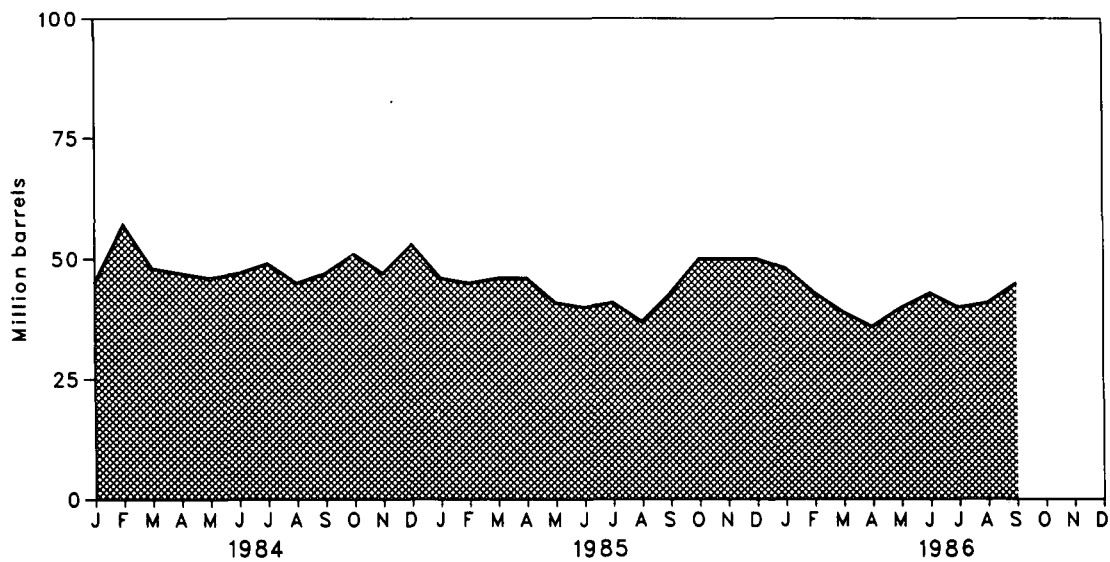
# Petroleum

## Residual Fuel Oil Supply and Disposition

### Product Supplied, Total Production, and Imports



### Ending Stocks



# Petroleum

## Residual Fuel Oil Supply and Disposition

		Supply			Disposition		Ending Stocks <sup>1</sup>	
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>3</sup>	
		Thousand barrels per day						Million barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	60
1975	Average	1,235	1,223	12	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	92
1981	Average <sup>4</sup>	1,321	800	37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	66
1983	Average	852	699	55	NA	185	1,421	49
1984	January	961	1,059	110	NA	151	1,979	45
	February	1,003	1,151	-416	NA	87	1,651	57
	March	889	636	298	NA	204	1,619	48
	April	847	651	15	NA	130	1,384	47
	May	840	565	32	NA	200	1,237	46
	June	849	685	-15	NA	176	1,344	47
	July	770	597	-76	NA	99	1,192	49
	August	800	572	149	NA	260	1,261	45
	September	850	606	-74	NA	214	1,168	47
	October	907	461	-127	NA	174	1,066	51
	November	928	585	125	NA	286	1,352	47
	December	1,053	627	-193	NA	299	1,189	53
		Average	891	681	-12	NA	190	1,369
1985	January	1,004	568	219	NA	312	1,480	46
	February	1,040	580	41	NA	295	1,366	45
	March	963	477	-35	NA	216	1,190	46
	April	912	383	-2	NA	167	1,126	46
	May	793	394	155	NA	185	1,156	41
	June	702	400	59	NA	118	1,043	40
	July	732	437	-29	NA	83	1,058	41
	August	742	424	108	NA	106	1,168	37
	September	808	617	-207	NA	188	1,031	43
	October	912	541	-228	NA	184	1,042	50
	November	932	627	5	NA	275	1,290	50
	December	1,055	681	-4	NA	250	1,483	50
		Average	882	510	7	NA	197	1,202
1986	January	933	629	83	NA	211	1,435	48
	February	856	577	193	NA	183	1,443	43
	March	810	571	125	NA	113	1,393	39
	April	927	504	96	NA	202	1,325	36
	May	913	665	-117	NA	129	1,333	40
	June	818	687	-114	NA	43	1,349	43
	July	850	668	82	NA	90	1,510	40
	August	R896	R799	R-26	NA	174	R1,493	R41
	September†	868	612	-150	NA	NA	1,268	45
		Average	875	636	18	NA	NA	1,395

<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 section.

<sup>4</sup>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.

<sup>5</sup>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.

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

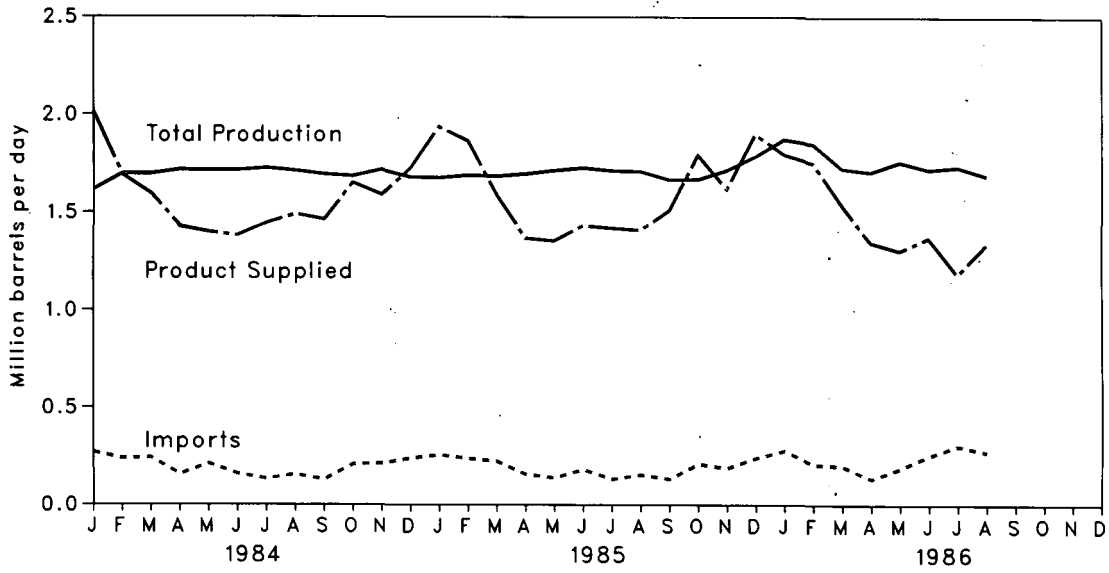
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

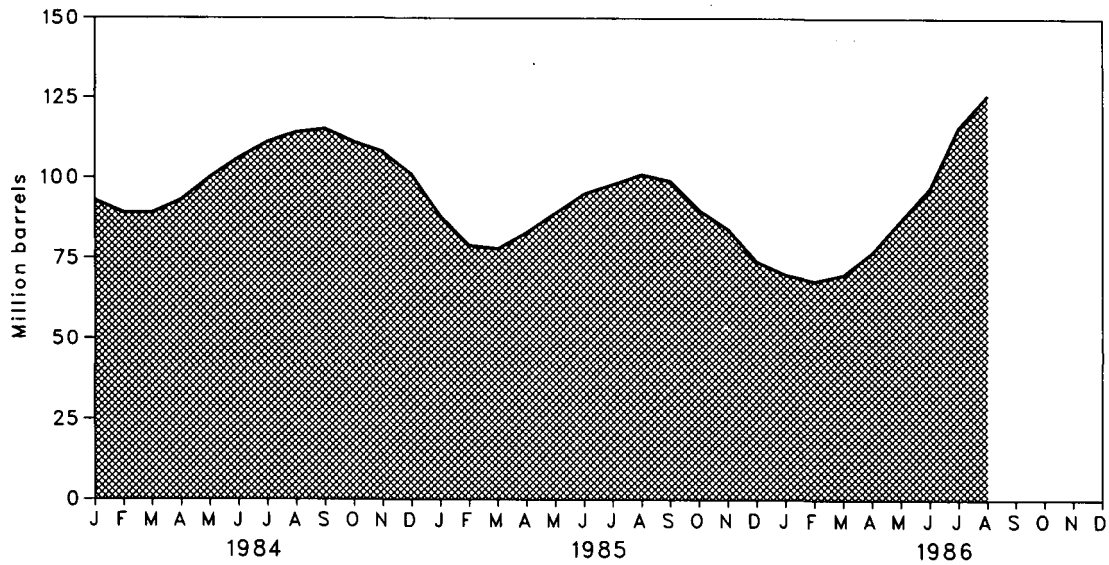
# Petroleum

## Liquefied Petroleum Gases Supply and Disposition

Product Supplied, Total Production, and Imports



Ending Stocks



# Petroleum

## Liquefied Petroleum Gases<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels per day						Million barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	113
1975	Average	1,527	112	-35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	120
1981	Average	1,571	244	-18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	94
1983	Average	1,642	190	4	253	73	1,509	101
1984	January	1,615	269	494	340	23	2,015	93
	February	1,696	237	122	324	41	1,690	89
	March	1,696	241	12	288	68	1,593	89
	April	1,716	155	-139	253	54	1,426	93
	May	1,714	211	-240	244	42	1,399	100
	June	1,714	158	-201	237	53	1,380	106
	July	1,725	132	-139	232	43	1,444	111
	August	1,711	154	-100	241	34	1,490	114
	September	1,693	128	-50	283	26	1,462	115
	October	1,684	207	138	322	56	1,650	111
	November	1,716	212	89	376	52	1,588	108
	December	1,679	237	239	349	82	1,724	101
	Average	1,697	195	19	291	48	1,572	
1985	January	1,676	255	399	322	70	1,937	88
	February	1,689	237	330	320	72	1,865	79
	March	1,684	223	29	297	52	1,588	78
	April	1,696	156	-143	262	78	1,368	83
	May	1,713	138	-219	239	40	1,353	89
	June	1,728	181	-175	250	51	1,432	95
	July	1,713	131	-107	249	68	1,420	98
	August	1,710	153	-98	277	80	1,409	101
	September	1,667	132	61	321	29	1,510	99
	October	1,669	209	304	340	47	1,794	90
	November	1,716	188	192	387	88	1,620	84
	December	1,786	239	337	386	75	1,901	74
	Average	1,704	187	75	304	62	1,599	
1986	January	1,874	277	75	382	47	1,797	70
	February	1,850	208	98	330	75	1,752	68
	March	1,726	199	-90	252	47	1,536	70
	April	1,708	134	-203	259	33	1,347	77
	May	1,759	189	-339	265	40	1,305	87
	June	1,721	253	-348	230	25	1,371	97
	July	1,734	303	-600	203	50	1,184	116
	August	1,689	271	-326	243	53	1,338	126
	Average	1,757	230	-220	270	46	1,451	

<sup>1</sup>Includes ethane, propane, normal butane, and isobutane.

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

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

<sup>4</sup>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.

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

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

Sources: • See the last page of this section.

# Petroleum

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

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels 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	218
1975	Average	3,424	277	-2	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	247
1981	Average	3,739	226	46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	253
1983	Average	3,460	411	6	712	242	2,923	256
1984	January	3,376	517	-163	570	207	2,953	253
	February	3,595	602	-250	754	225	2,966	261
	March	3,512	485	-227	527	258	2,988	268
	April	3,584	610	-211	623	268	3,092	274
	May	3,683	662	-105	764	257	3,218	277
	June	3,869	541	391	1,232	343	3,223	265
	July	3,864	587	277	1,022	238	3,467	257
	August	3,848	569	41	637	172	3,650	256
	September	3,759	536	-50	699	238	3,308	257
	October	3,585	632	10	709	180	3,336	257
	November	3,532	606	81	945	279	2,997	254
	December	3,379	434	464	1,016	284	2,977	240
	Average	3,632	565	23	791	245	3,183	
1985	January	3,258	400	-88	556	223	2,815	243
	February	3,422	498	-101	707	204	2,910	245
	March	3,464	550	-421	633	190	2,769	259
	April	3,618	628	-7	836	245	3,158	259
	May	3,721	837	-113	991	191	3,263	262
	June	3,924	612	80	995	261	3,360	260
	July	3,994	658	19	975	241	3,455	259
	August	4,087	640	372	1,328	218	3,549	248
	September	3,878	529	-10	823	274	3,299	248
	October	3,810	548	9	861	250	3,255	248
	November	3,772	612	-183	906	277	3,016	253
	December	3,658	542	226	1,006	305	3,118	246
	Average	3,721	588	-17	886	240	3,166	
1986	January	3,805	498	-165	925	311	2,899	252
	February	3,759	377	-197	768	270	2,901	258
	March	3,646	440	7	822	208	3,066	257
	April	3,658	576	-108	759	369	2,998	261
	May	3,970	600	-68	803	298	3,400	263
	June	4,138	655	-130	855	263	3,548	267
	July	4,093	555	128	1,084	357	3,334	R263
	August	4,177	537	345	1,112	301	3,647	252
	Average	3,908	531	-21	893	297	3,227	

<sup>1</sup>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.

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

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

<sup>4</sup>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.



## Notes and Sources for the Petroleum Section

### Notes

1. During 1981 the listing (frame) of operators of all facilities required to complete each monthly survey was updated. The refinery frame was found to be complete and accurate, although the frames for bulk terminals, pipelines, and crude oil stocks facilities were found to be outdated. A variety of sources (published directories, listings, and exploratory surveys) were researched for potential new respondents. As a result of this research, a significant number of respondents were added to the frames. The increase in the respondents for the frames affects the stocks of crude oil and petroleum products. For further details, see the Energy Information Administration (EIA), *Petroleum Supply Monthly*.

2. Research conducted by the EIA in the latter half of 1980 indicated changes had taken place in the petroleum industry that were not being adequately reflected in the EIA survey forms. First, the flows of unfinished oils and the redesignation of finished products were not being accurately described on the EIA survey forms. Second, a substantial amount of motor gasoline was being produced at non-refinery "downstream blending stations" but was not being reported. Although empirical information is not available to precisely measure the historical effects, estimates of the magnitude of the differences in the major series affected are shown in the EIA, *Petroleum Supply Monthly*. Beginning in January 1981, the EIA modified its survey forms, changed definitions of gasoline (motor and aviation), and added the non-refinery blenders previously not reported.

3. **Motor Gasoline:** Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately. For further details, see the EIA, *Petroleum Supply Monthly*.

4. **Distillate and Residual Fuel Oils:** The requirement to report crude oil burned on leases and pipelines as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils number typically exceeded the number for available supply of unfinished oils. This was assumed to be due to the redesignation of distillate and residual fuel oils received as such, but used as an unfinished oil input by the receiving refinery. This imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of this difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment. For further details, see the EIA, *Petroleum Supply Monthly*.

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—186.
- 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 1985: EIA, *Petroleum Supply Annual*.
- January 1986 through August 1986: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- September 1986: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1985 through September 1986: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

## Natural Gas

Total dry natural gas production in the United States during August 1986 was an estimated 1.3 trillion cubic feet, 0.4 percent less than in August 1985.

Consumption of natural and supplemental gas in August 1986 was an estimated 1.1 trillion cubic feet. This was 4.8 percent lower than in August 1985.

Deliveries to residential consumers during July 1986 (latest data available) were 128 billion cubic feet, 1.5 percent lower than in July 1985. Total deliveries to industrial consumers during July 1986 were an estimated 431 billion cubic feet, 6.9 percent higher than in July 1985.

Imports of natural gas in August 1986 were an estimated 47 billion cubic feet, 23.0 percent lower than in the previous August.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of August 1986 totaled 2,823 billion cubic feet. This was 0.3 percent below stocks available a year earlier. Net injections into storage during August 1986 were 261 billion cubic feet, 15.0 percent more than during the previous August.

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\*Gas available for withdrawal.

# Natural Gas

## Production Summary

		Gross Wet Gas Withdrawals <sup>1</sup>	Used for Repressuring <sup>2</sup>	Nonhydro- carbon Gas Removed <sup>3</sup>	Vented and Flared	Marketed Production (Wet) <sup>4</sup>	Extraction Loss <sup>5</sup>	Total Dry Gas Production <sup>6</sup>
Billion cubic feet								
1973	Total	24,067	1,171	NA	248	22,648	917	21,731
1974	Total	22,850	1,080	NA	169	21,601	887	20,713
1975	Total	21,104	861	NA	134	20,109	872	19,236
1976	Total	20,944	859	NA	132	19,952	854	19,098
1977	Total	21,097	935	NA	137	20,025	863	19,163
1978	Total	21,309	1,181	NA	153	19,974	852	19,122
1979	Total	21,883	1,245	NA	167	20,471	808	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	Total	18,597	1,458	222	95	16,822	790	16,033
1984	January	1,887	135	21	9	1,723	79	1,644
	February	1,650	127	17	8	1,497	69	1,428
	March	1,693	125	19	9	1,540	71	1,469
	April	1,666	132	18	9	1,507	69	1,438
	May	1,668	138	19	9	1,503	69	1,434
	June	1,619	135	18	9	1,456	67	1,389
	July	1,676	137	20	10	1,509	69	1,440
	August	1,653	137	19	9	1,487	68	1,419
	September	1,574	132	16	9	1,417	65	1,352
	October	1,661	143	19	9	1,490	69	1,421
	November	1,656	142	17	10	1,487	68	1,419
	December	1,789	146	21	8	1,613	74	1,539
	<b>Total</b>	<b>20,192</b>	<b>1,630</b>	<b>224</b>	<b>108</b>	<b>18,230</b>	<b>838</b>	<b>17,392</b>
1985	January	1,788	124	20	7	1,637	75	1,562
	February	1,635	122	18	6	1,489	68	1,421
	March	1,651	137	19	6	1,490	69	1,421
	April	1,563	137	18	6	1,401	64	1,337
	May	1,545	133	19	7	1,386	64	1,322
	June	1,487	126	17	6	1,336	61	1,275
	July	1,531	133	20	7	1,370	63	1,307
	August	1,520	127	19	7	1,367	63	1,304
	September	1,503	133	17	6	1,348	62	1,286
	October	1,553	132	19	6	1,396	64	1,332
	November	1,565	136	20	7	1,402	64	1,338
	December	1,782	144	23	6	1,609	74	1,535
	<b>Total</b>	<b>19,123</b>	<b>1,584</b>	<b>229</b>	<b>77</b>	<b>17,230</b>	<b>791</b>	<b>16,440</b>
1986	January	1,762	144	20	6	1,591	73	1,518
	February	1,540	134	18	6	1,382	64	1,318
	March	1,639	152	20	6	1,461	67	1,394
	April	1,532	133	18	6	1,375	63	1,312
	May	1,556	138	18	6	1,394	64	1,330
	June	1,498	134	18	6	1,340	62	1,278
	July	1,517	134	18	6	1,359	63	1,296
	August	1,521	135	18	6	1,362	63	1,299
	<b>Year to Date</b>	<b>12,565</b>	<b>1,104</b>	<b>148</b>	<b>48</b>	<b>11,264</b>	<b>519</b>	<b>10,745</b>

<sup>1</sup>Gas withdrawn from gas and oil wells.

<sup>2</sup>Gas returned to formations for repressuring, pressure maintenance, and cycling.

<sup>3</sup>For definitions and further explanations, see Notes on the last two pages of this section.

<sup>4</sup>Equal 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.

<sup>5</sup>Equal to marketed production (wet) minus extraction loss.

<sup>6</sup>May include unknown quantities of nonhydrocarbon gases.

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 1984 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

# Natural Gas

## Supply and Disposition of Natural Gas

		Supply				Disposition				
		Total Dry Gas Production	Withdrawals from Storage <sup>1</sup>	Supplemental 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>	Consumption <sup>2</sup>	Un-accounted for <sup>5</sup>
Billion cubic feet										
<b>1973</b>	<b>Total</b>	<b>21,731</b>	<b>1,533</b>	<b>NA</b>	<b>1,033</b>	<b>24,297</b>	<b>1,974</b>	<b>77</b>	<b>22,049</b>	<b>196</b>
<b>1974</b>	<b>Total</b>	<b>20,713</b>	<b>1,701</b>	<b>NA</b>	<b>959</b>	<b>23,373</b>	<b>1,784</b>	<b>77</b>	<b>21,223</b>	<b>289</b>
<b>1975</b>	<b>Total</b>	<b>19,236</b>	<b>1,760</b>	<b>NA</b>	<b>953</b>	<b>21,949</b>	<b>2,104</b>	<b>73</b>	<b>19,538</b>	<b>235</b>
<b>1976</b>	<b>Total</b>	<b>19,098</b>	<b>1,921</b>	<b>NA</b>	<b>964</b>	<b>21,983</b>	<b>1,756</b>	<b>65</b>	<b>19,946</b>	<b>216</b>
<b>1977</b>	<b>Total</b>	<b>19,163</b>	<b>1,750</b>	<b>NA</b>	<b>1,011</b>	<b>21,924</b>	<b>2,307</b>	<b>56</b>	<b>19,521</b>	<b>41</b>
<b>1978</b>	<b>Total</b>	<b>19,122</b>	<b>2,158</b>	<b>NA</b>	<b>966</b>	<b>22,245</b>	<b>2,278</b>	<b>53</b>	<b>19,627</b>	<b>287</b>
<b>1979</b>	<b>Total</b>	<b>19,663</b>	<b>2,047</b>	<b>NA</b>	<b>1,253</b>	<b>22,964</b>	<b>2,295</b>	<b>56</b>	<b>20,241</b>	<b>372</b>
<b>1980</b>	<b>Total</b>	<b>19,403</b>	<b>1,972</b>	<b>155</b>	<b>985</b>	<b>22,515</b>	<b>1,949</b>	<b>49</b>	<b>19,877</b>	<b>640</b>
<b>1981</b>	<b>Total</b>	<b>19,181</b>	<b>1,930</b>	<b>176</b>	<b>904</b>	<b>22,191</b>	<b>2,228</b>	<b>59</b>	<b>19,404</b>	<b>501</b>
<b>1982</b>	<b>Total</b>	<b>17,758</b>	<b>2,164</b>	<b>145</b>	<b>933</b>	<b>21,000</b>	<b>2,472</b>	<b>52</b>	<b>18,001</b>	<b>475</b>
<b>1983</b>	<b>Total</b>	<b>16,033</b>	<b>2,270</b>	<b>132</b>	<b>920</b>	<b>19,354</b>	<b>1,822</b>	<b>55</b>	<b>16,835</b>	<b>642</b>
<b>1984</b>	January	1,644	580	13	97	2,334	55	5	2,260	14
	February	1,428	310	10	69	1,817	61	5	1,739	12
	March	1,469	371	10	69	1,919	49	6	1,851	13
	April	1,438	102	8	71	1,619	147	5	1,456	11
	May	1,434	31	7	66	1,538	259	5	1,264	10
	June	1,389	28	7	59	1,483	329	3	1,140	11
	July	1,440	29	7	55	1,531	353	5	1,161	12
	August	1,419	31	8	54	1,512	324	5	1,172	11
	September	1,352	31	8	57	1,448	295	5	1,138	10
	October	1,421	48	8	67	1,544	247	5	1,282	10
	November	1,419	231	11	84	1,745	85	5	1,644	11
	December	1,539	309	13	94	1,955	94	5	1,844	12
	<b>Total</b>	<b>17,392</b>	<b>2,098</b>	<b>110</b>	<b>843</b>	<b>20,443</b>	<b>2,295</b>	<b>55</b>	<b>17,951</b>	<b>143</b>
<b>1985</b>	January	1,562	659	16	104	2,341	35	5	2,264	37
	February	1,421	437	11	99	1,968	48	5	1,881	34
	March	1,421	213	10	90	1,734	97	6	1,597	34
	April	1,337	94	13	76	1,520	207	5	1,276	32
	May	1,322	25	13	73	1,433	300	2	1,099	32
	June	1,275	33	12	65	1,385	260	5	1,089	31
	July	1,307	45	14	59	1,425	309	6	1,079	31
	August	1,304	50	14	61	1,429	277	5	1,116	31
	September	1,286	20	11	63	1,380	269	5	1,075	31
	October	1,332	74	14	76	1,496	199	5	1,260	32
	November	1,338	207	11	77	1,633	98	5	1,498	32
	December	1,535	532	13	106	2,186	47	5	2,097	37
	<b>Total</b>	<b>16,440</b>	<b>2,390</b>	<b>152</b>	<b>950</b>	<b>19,930</b>	<b>2,145</b>	<b>55</b>	<b>17,331</b>	<b>394</b>
<b>1986</b>	January	1,518	441	16	98	2,073	49	5	1,983	36
	February	1,318	400	14	73	1,805	59	5	1,709	32
	March	1,394	233	15	54	1,696	121	5	1,537	33
	April	1,312	81	12	43	1,448	152	4	1,261	31
	May	1,330	45	14	48	1,437	273	4	1,128	32
	June	1,278	29	13	46	1,366	270	5	1,060	31
	July	1,296	30	13	44	1,383	288	4	1,060	31
	August	1,299	27	13	47	1,386	288	5	1,062	31
	<b>Year to Date</b>	<b>10,745</b>	<b>86</b>	<b>110</b>	<b>453</b>	<b>12,594</b>	<b>1,500</b>	<b>37</b>	<b>10,800</b>	<b>257</b>

<sup>1</sup>Monthly and annual data for 1980 through 1984 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.

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 1984 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

# Natural Gas

## Natural Gas<sup>1</sup> Consumption

		Delivered to Consumers							Total Consumption
		Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial <sup>2</sup>	Industrial	Electric Utilities	Total	
		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	17,329	19,521
1978	Total	1,648	530	4,903	2,601	6,757	3,188	17,449	19,627
1979	Total	1,499	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	Total	978	490	4,381	2,433	5,643	2,911	15,367	16,835
1984	January	102	67	886	437	553	215	2,091	2,260
	February	88	51	700	354	359	187	1,600	1,739
	March	91	55	605	311	583	206	1,705	1,851
	April	89	43	463	243	398	220	1,324	1,456
	May	89	37	287	160	426	265	1,138	1,264
	June	86	34	170	108	444	298	1,020	1,140
	July	89	34	128	97	464	349	1,038	1,161
	August	88	35	118	98	483	350	1,049	1,172
	September	84	33	127	101	502	291	1,021	1,138
	October	88	38	183	128	575	270	1,156	1,282
	November	88	48	323	193	747	245	1,508	1,644
	December	95	54	566	294	618	217	1,695	1,844
	<b>Total</b>	<b>1,077</b>	<b>529</b>	<b>4,555</b>	<b>2,524</b>	<b>6,153</b>	<b>3,111</b>	<b>16,345</b>	<b>17,951</b>
1985	January	97	67	744	371	759	226	2,100	2,264
	February	88	55	836	408	291	203	1,738	1,881
	March	88	47	567	289	399	207	1,462	1,597
	April	83	38	398	206	317	234	1,155	1,276
	May	82	32	213	128	408	236	985	1,099
	June	79	32	157	101	438	282	978	1,089
	July	81	32	130	96	403	337	966	1,079
	August	81	33	119	94	434	355	1,002	1,116
	September	80	32	129	99	460	275	963	1,075
	October	83	37	189	125	576	250	1,140	1,260
	November	83	44	306	182	653	230	1,371	1,498
	December	94	62	640	330	761	210	1,941	2,097
	<b>Total</b>	<b>1,019</b>	<b>511</b>	<b>4,428</b>	<b>2,429</b>	<b>5,899</b>	<b>3,044</b>	<b>15,801</b>	<b>17,331</b>
1986	January	94	58	805	395	447	184	1,831	1,983
	February	82	50	698	348	372	157	1,575	1,709
	March	86	45	592	294	350	170	1,406	1,537
	April	81	37	371	191	384	197	1,143	1,261
	May	82	33	242	134	406	231	1,013	1,128
	June	79	31	157	98	435	260	950	1,060
	July	80	31	128	89	431	301	949	1,060
	<b>Year to Date</b>	<b>584</b>	<b>285</b>	<b>2,993</b>	<b>1,549</b>	<b>2,825</b>	<b>1,501</b>	<b>8,867</b>	<b>9,738</b>

<sup>1</sup>Includes supplemental gaseous fuels.

<sup>2</sup>Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.

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 1984 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

# Natural Gas

## Underground Natural Gas Storage—All Operators

		Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
		Base Gas	Working Gas	Total <sup>1</sup>	Volume	Percent	Injections	Withdrawals	Net <sup>2</sup>
Volumes in billion cubic feet									
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	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	2,399	2,094	306
1983	Total	3,847	2,595	6,442	-476	-15.5	1,700	2,142	-442
1984	January	3,847	2,091	5,937	-553	-20.9	54	571	-517
	February	3,828	1,876	5,704	-480	-20.4	60	305	-244
	March	3,824	1,572	5,396	-575	-26.8	48	365	-317
	April	3,822	1,620	5,442	-454	-21.9	144	100	44
	May	3,827	1,843	5,670	-379	-17.1	254	30	244
	June	3,828	2,141	5,969	-313	-12.7	323	27	296
	July	3,829	2,456	6,285	-239	-8.9	346	28	317
	August	3,829	2,740	6,569	-168	-5.8	318	30	288
	September	3,829	2,996	6,825	-144	-4.6	289	30	259
	October	3,837	3,175	7,011	-95	-2.9	242	47	195
	November	3,900	3,015	6,915	-160	-5.0	83	227	-145
	December	3,830	2,876	6,706	281	10.8	92	304	-213
	Total						2,252	2,064	188
1985	January	3,841	2,242	6,083	151	7.2	35	659	-623
	February	3,841	1,853	5,694	-23	-1.2	48	437	-389
	March	3,835	1,743	5,578	171	10.8	97	213	-116
	April	3,831	1,859	5,691	239	14.8	207	94	113
	May	3,837	2,129	5,965	286	15.5	300	25	275
	June	3,839	2,351	6,191	211	9.8	260	33	227
	July	3,849	2,605	6,454	149	6.1	309	45	264
	August	3,849	2,832	6,681	92	3.4	277	50	227
	September	3,849	3,081	6,930	85	2.8	269	20	249
	October	3,851	3,204	7,055	29	0.9	199	74	125
	November	3,847	3,086	6,933	71	2.4	98	207	-110
	December	3,842	2,606	6,447	-270	-9.4	47	532	-485
	Total						2,145	2,390	-244
1986	January	3,842	2,213	6,055	-29	-1.3	49	441	-392
	February	3,842	1,872	5,714	18	1.0	59	400	-341
	March	3,838	1,764	5,601	21	1.2	121	233	-112
	April	3,834	1,838	5,673	-21	-1.1	152	81	71
	May	3,830	2,070	5,900	-59	-2.8	273	45	227
	June	3,829	2,312	6,141	-39	-1.7	270	29	242
	July	3,841	2,558	6,400	-47	-1.8	288	30	258
	August	3,838	2,823	6,661	-9	-0.3	288	27	261

<sup>1</sup>Total 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; 1984—8,043; and 1985—8,087. Current total capacity is 8,130.

<sup>2</sup>Positive 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.

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

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

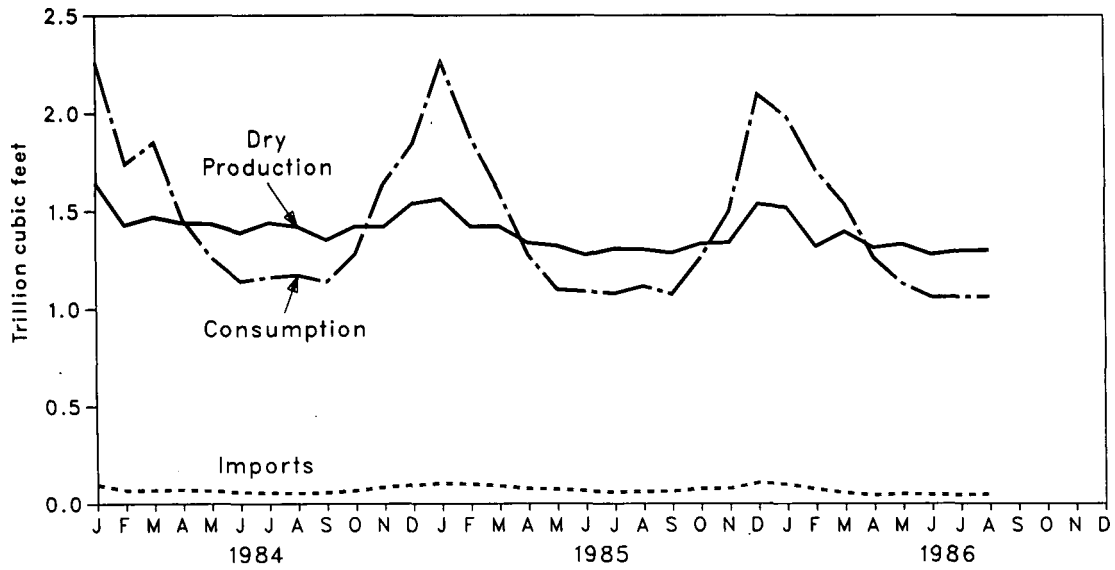
• Data for 1978 through 1984 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

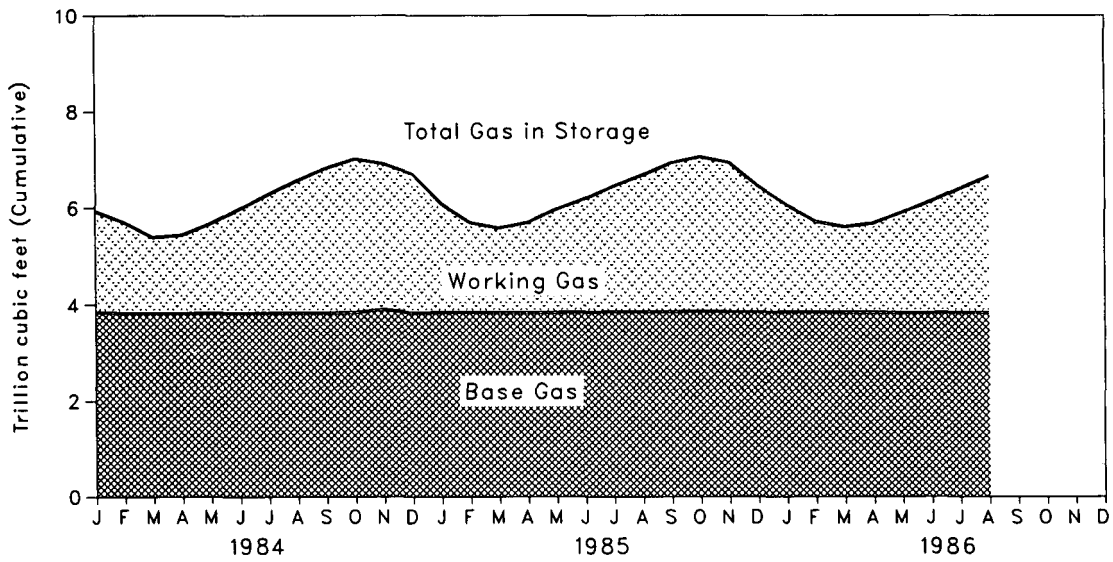
# Natural Gas

## 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 nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the Energy Information Administration (EIA) *Natural Gas Annual 1984*. These data are not available for periods prior to 1980. For 1984, of the 32 producing States, 24 reported data on nonhydrocarbon gases removed. These 24 States accounted for 57 percent of total 1984 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 39 percent of the 1984 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 two States and computed for seven 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 1984*.

**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 Gas Annual*.

**Final monthly data.** The difference between annual production data published in the EIA *Natural Gas Annual 1984* 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 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 1984*. 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 monthly 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 year.

**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 the following: (1) quantities lost; (2) the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; (3) metering inaccuracies; (4) differences between billing cycle and calendar period time frames; (5) the effect of variations in company accounting and billing practices; and (6) imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of almost 0.2 trillion cubic feet (Tcf) in the "Unaccounted for" category in 1983 followed by a decline of 0.5 trillion cubic feet in 1984 reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15, through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf 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 reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 *Natural Gas Monthly*, which was published in July 1985.

**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 survey 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 1984 include both underground and liquefied natural gas (LNG) storage. Underground storage data are taken from the FPC-8/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 and applying it to annual LNG data.



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

### Sources

**Production:** 1973 through 1984: Energy Information Administration (EIA), *Natural Gas Annual 1984*; January 1985 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 1984: EIA, *Natural Gas Annual 1984*; January 1985 forward: EIA computations.

**Withdrawals from and Additions to Storage:** 1973 through 1984: EIA, *Natural Gas Annual 1984*; January 1985 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."

**Supplemental Gaseous Fuels:** 1980 through 1984: EIA, *Natural Gas Annual 1984*; January 1985 forward: EIA computations.

**Imports and Exports:** 1973 through 1984: Form FPC-14, "Imports and Exports of Natural Gas"; January 1985 forward: EIA computations.

**End-Use Consumption:** • All data except electric utility—1973 through 1984: EIA, *Natural Gas Annual, 1984*; January 1985 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and EIA computations.

• 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, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

## Oil and Gas Resource Development

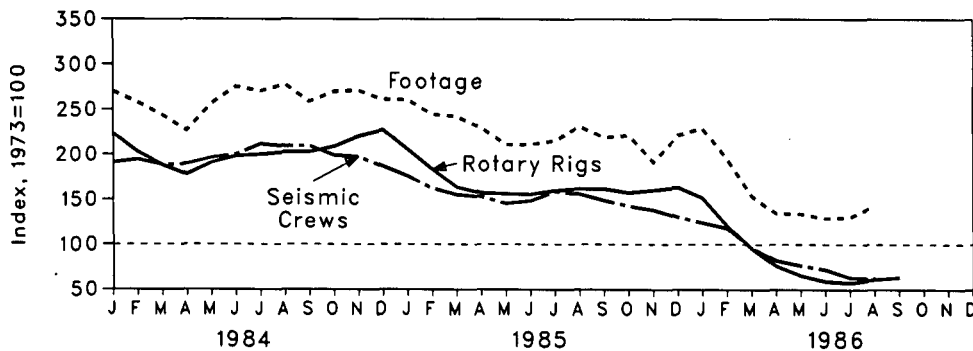
In August 1986, the 156 crews engaged in seismic exploration were 60.0 percent fewer than the 390 crews in August 1985. August 1986 was the 13th consecutive month that the number of crews declined. The decline, however, was only two crews, one land and one marine. The 19 marine vessels in August 1986 were 61.2 percent fewer than the 49 vessels in August 1986, and the 137 land crews were 59.8 percent fewer than the 341 crews working in August 1985.

The September 1986 rotary rig count of 755 was 60.9 percent less than the 1,930 rigs active in September 1985. The 74 rigs operating offshore in September 1986 were 62.4 percent fewer than the 197 rigs operating offshore in September 1985.

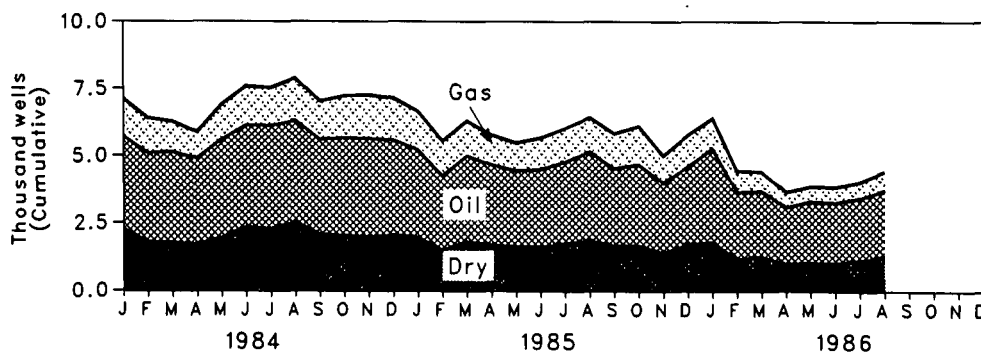
The 681 rigs operating onshore were 60.7 percent fewer than the 1,733 rigs operating onshore in September 1985.

Exploratory and development well completions during August 1986 were an estimated 4,420, 31.4 percent less than the 6,440 completions estimated in August 1985. Oil well completions were an estimated 2,440, 25.2 percent lower than the 3,260 oil well completions in the previous August. The 690 gas well completions in August 1986 were 46.1 percent lower than the August 1985 number of 1,280. Total footage drilled in August 1986 was 17.0 million feet, a decrease of 37.9 percent compared with the 27.4 million feet drilled in August 1985.

Seismic Crews and Rotary Rigs in Operation, and Footage Drilled



Exploratory and Development Well Completions



# Oil and Gas Resource Development

## Seismic Crews and Rotary Rigs

		Crews Engaged in Seismic Exploration <sup>1</sup>			Rotary Rigs in Operation <sup>1</sup>		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Weekly average		
1973	Average	23	227	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	Average	47	426	473	199	2,033	2,232
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	206	2,180	2,386
	August	53	470	523	216	2,201	2,417
	September	52	472	524	214	2,206	2,420
	October	48	449	497	223	2,269	2,492
	November	49	444	493	232	2,397	2,629
	December	52	414	466	242	2,471	2,713
		<b>Average</b>	<b>49</b>	<b>445</b>	<b>494</b>	<b>213</b>	<b>2,215</b>
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	47	324	371	203	1,653	1,858
	July	47	350	397	194	1,715	1,909
	August	49	341	390	197	1,734	1,931
	September	49	323	372	197	1,733	1,930
	October	45	312	357	195	1,684	1,879
	November	41	305	346	187	1,725	1,912
	December	39	287	326	190	1,760	1,950
		<b>Average</b>	<b>45</b>	<b>333</b>	<b>378</b>	<b>206</b>	<b>1,774</b>
1986	January	39	271	310	175	1,635	1,810
	February	39	256	295	164	1,280	1,444
	March	28	212	240	132	1,007	1,139
	April	20	185	205	112	794	906
	May	19	172	191	94	687	781
	June	18	162	180	73	632	705
	July	20	138	158	65	621	686
	August	19	137	156	65	665	730
	September	NA	NA	NA	74	681	755
		<b>Average<sup>2</sup></b>	<b>25</b>	<b>192</b>	<b>217</b>	<b>107</b>	<b>796</b>

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

<sup>2</sup>Average of available data.

NA=Not available.

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

Sources: • See the last page of this section.

# Oil and Gas Resource Development

## Exploratory and Development Wells and Footage Drilled

		Exploratory and Development Well Completions <sup>1</sup>				Total Footage <sup>1</sup>
		Oil	Gas	Dry	Total	Total Footage <sup>1</sup>
		Thousand wells				Million feet
<b>1973</b>	<b>Total</b>	<b>10.25</b>	<b>6.97</b>	<b>10.47</b>	<b>27.69</b>	<b>139.42</b>
<b>1974</b>	<b>Total</b>	<b>13.66</b>	<b>7.17</b>	<b>12.20</b>	<b>33.03</b>	<b>153.79</b>
<b>1975</b>	<b>Total</b>	<b>16.98</b>	<b>8.17</b>	<b>13.74</b>	<b>38.89</b>	<b>181.05</b>
<b>1976</b>	<b>Total</b>	<b>17.70</b>	<b>9.44</b>	<b>13.80</b>	<b>40.94</b>	<b>187.29</b>
<b>1977</b>	<b>Total</b>	<b>18.70</b>	<b>12.12</b>	<b>15.04</b>	<b>45.86</b>	<b>215.70</b>
<b>1978</b>	<b>Total</b>	<b>19.06</b>	<b>14.40</b>	<b>16.59</b>	<b>50.05</b>	<b>238.39</b>
<b>1979</b>	<b>Total</b>	<b>20.70</b>	<b>15.17</b>	<b>16.04</b>	<b>51.91</b>	<b>243.69</b>
<b>1980</b>	<b>Total</b>	<b>32.24</b>	<b>17.19</b>	<b>20.30</b>	<b>69.73</b>	<b>312.03</b>
<b>1981</b>	<b>Total</b>	<b>42.91</b>	<b>19.97</b>	<b>27.25</b>	<b>90.13</b>	<b>409.13</b>
<b>1982</b>	<b>Total</b>	<b>38.82</b>	<b>18.80</b>	<b>25.97</b>	<b>83.59</b>	<b>375.77</b>
<b>1983</b>	<b>Total</b>	<b>36.70</b>	<b>14.34</b>	<b>23.30</b>	<b>74.35</b>	<b>312.90</b>
<b>1984</b>	January	3.44	1.39	2.29	7.12	31.97
	February	3.28	1.31	1.81	6.40	28.58
	March	3.34	1.14	1.80	6.28	28.91
	April	3.17	0.99	1.72	5.88	25.98
	May	3.62	1.32	1.97	6.92	30.36
	June	3.77	1.46	2.36	7.59	31.67
	July	3.83	1.41	2.29	7.54	32.00
	August	R3.77	R1.58	R2.53	R7.87	R32.90
	September	3.52	1.42	R2.09	R7.03	R29.66
	October	3.61	1.57	2.05	7.23	31.93
	November	3.65	1.63	1.99	7.27	31.07
	December	3.51	1.57	2.07	7.15	30.94
	<b>Total</b>	<b>R42.51</b>	<b>R16.80</b>	<b>R24.98</b>	<b>R84.28</b>	<b>R365.97</b>
<b>1985</b>	January	3.24	1.43	1.98	6.64	30.88
	February	2.73	1.30	1.52	5.56	26.17
	March	3.16	1.30	1.84	6.30	28.70
	April	2.95	1.11	1.72	5.77	26.34
	May	2.79	1.04	1.65	5.48	24.95
	June	2.85	1.18	1.64	5.67	24.18
	July	3.01	1.25	1.77	6.03	25.50
	August	R3.26	R1.28	R1.89	R6.44	R27.35
	September	2.83	1.30	1.70	5.83	25.09
	October	2.98	1.43	1.70	6.10	26.18
	November	2.57	R1.01	1.43	R5.00	R21.92
	December	2.85	1.18	1.75	5.78	26.21
	<b>Total</b>	<b>R35.22</b>	<b>R14.80</b>	<b>R20.59</b>	<b>R70.61</b>	<b>R313.49</b>
<b>1986</b>	January	3.45	1.13	1.82	6.40	27.12
	February	R2.46	R0.80	R1.19	R4.44	R20.80
	March	2.41	R0.73	1.28	R4.42	R19.42
	April	2.08	0.56	1.02	3.66	15.42
	May	2.25	0.56	1.06	3.86	15.87
	June	2.23	R0.58	1.04	R3.86	R14.77
	July	2.29	0.60	1.15	4.04	15.40
	August	2.44	0.69	1.29	4.42	16.98
	<b>Year to Date</b>	<b>19.61</b>	<b>5.64</b>	<b>9.86</b>	<b>35.10</b>	<b>145.78</b>

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

R = Revised data.

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

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

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

Source: • See the last page of this section.

## Notes and Sources for the Oil and Gas Resource Development Section

### Notes

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 were 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 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 process 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 are oil, gas, and dry. By convention, wells with both oil and gas zones are categorized as oil. Well classes 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).

Additional information may be obtained from "Estimating Well Completions," the feature article published in the March 1985 *Monthly Energy Review*.

### 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."
- Wells and Footage Drilled: EIA computations based on well reports submitted to the American Petroleum Institute by Petroleum Information Corporation.

## Coal

The final 1985 coal production totaled 883.6 million short tons. This was the second-largest annual coal production, only 1.4 percent below the record 895.9 million short tons produced in 1984. Underground mines, in 1985, produced 350.8 million short tons and surface mines produced 532.8 million short tons. The high level of production reflects the continuing rise in coal consumption at power plants and an increase in coal exports.

Of the 27 coal-producing States in 1985, the principal producers were Kentucky, (152.3 million short tons), Wyoming (140.7 million short tons), and West Virginia (127.8 million short tons). Together, these three States accounted for 47.6 percent of the 1985 production.

In 1985, Louisiana and California began commercial production of lignite for use as fuel. In Louisiana, lignite was mined for the State's first lignite-fueled power plant. In California, lignite was mined and stockpiled for a cogeneration plant under construction. Previously, California lignite was used only as a source of montan wax.

Coal production in August 1986 totaled 74.5 million short tons, 5.1 million short tons (6.5 percent) below the 79.6 million short tons produced in August 1985.

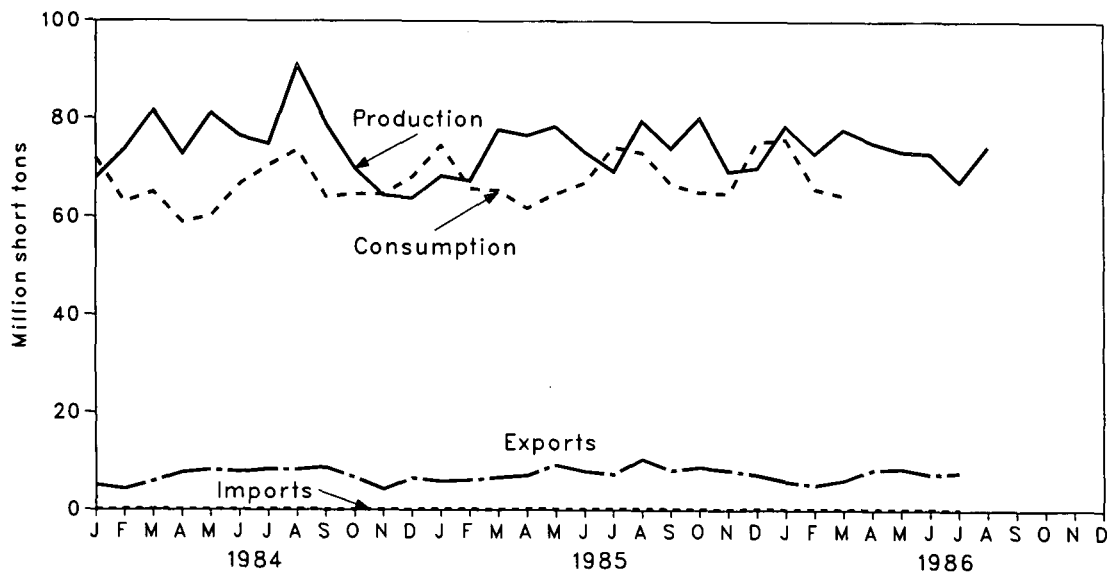
Electric utility coal consumption in July 1986 totaled 68.0 million short tons, 5.9 percent more than the 64.3 million short tons for July 1985. Electric utility coal stocks of 150.1 million short tons at the end of July were 15.8 million short tons (9.5 percent) below the level 1 year earlier.

Exports of coal in July 1986 totaled 7.8 million short tons, 6.4 percent more than the 7.3 million short tons exported during July 1985. Coal imports of 182,000 short tons in July 1986 were 5,000 short tons (2.8 percent) more than the 177,000 short tons imported in July 1985.

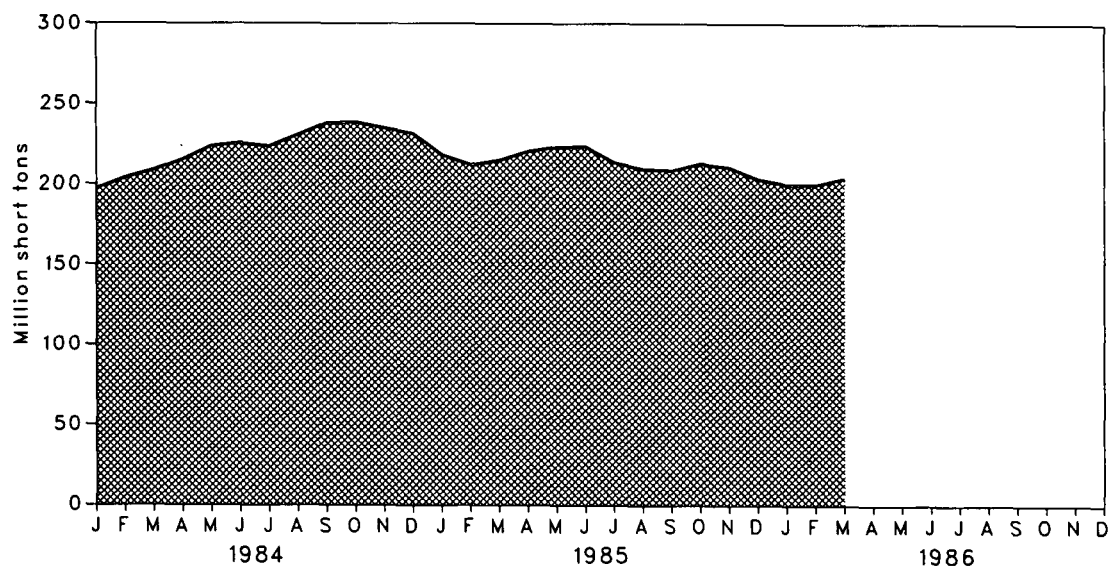
# Coal

## Overview

### Production, Consumption, Imports, and Exports



### Stocks at End of Period



# Coal

## Overview

		Production	Consumption	Imports <sup>1</sup>	Exports <sup>2</sup>	Stocks <sup>3</sup>
Thousand short tons						
1973	Total	598,568	562,584	127	53,587	NA
1974	Total	610,023	558,402	2,080	60,661	NA
1975	Total	654,641	562,641	940	66,309	NA
1976	Total	684,913	603,790	1,203	60,021	NA
1977	Total	697,205	625,291	1,647	54,312	NA
1978	Total	670,164	625,225	2,953	40,714	NA
1979	Total	781,134	680,524	2,059	66,042	202,472
1980	Total	829,700	702,729	1,194	91,742	228,407
1981	Total	823,775	732,627	1,043	112,541	209,423
1982	Total	838,112	706,911	742	106,277	232,038
1983	Total	782,091	736,672	1,271	77,772	202,584
1984	January	67,921	71,919	81	5,062	196,985
	February	73,670	62,994	140	4,251	203,771
	March	81,524	65,028	55	5,813	208,548
	April	72,751	58,946	148	7,688	215,023
	May	81,073	60,164	72	8,221	223,262
	June	76,402	66,707	49	7,828	224,905
	July	74,785	70,422	193	8,318	223,118
	August	90,823	73,558	147	8,235	230,224
	September	78,984	64,133	95	8,710	237,720
	October	69,785	64,664	104	6,641	238,350
	November	64,388	64,613	68	4,190	234,702
	December	63,815	68,147	134	6,526	231,300
		<b>Total</b>	<b>895,921</b>	<b>791,296</b>	<b>1,286</b>	<b>81,483</b>
1985	January	R68,261	74,434	126	5,817	218,131
	February	R67,233	65,654	101	6,030	212,036
	March	R77,744	65,397	103	6,696	214,825
	April	R76,541	61,754	203	7,065	220,230
	May	R78,382	64,796	159	9,231	222,798
	June	R73,237	66,979	138	7,913	223,210
	July	R69,228	74,162	177	7,314	213,600
	August	R79,622	73,101	264	10,422	209,554
	September	R73,977	66,673	182	8,095	208,827
	October	R80,158	65,033	128	8,744	212,920
	November	R69,268	64,865	111	8,134	210,656
	December	R69,989	75,202	260	7,220	203,367
		<b>Total</b>	<b>R883,638</b>	<b>818,049</b>	<b>1,952</b>	<b>92,680</b>
1986	January†	78,543	75,765	154	5,935	199,950
	February†	72,929	65,814	209	5,158	199,882
	March†	77,829	64,422	122	6,152	203,984
	April†	R75,195	NA	214	8,302	NA
	May†	R73,432	NA	172	8,545	NA
	June†	R72,967	NA	190	7,323	NA
	July†	67,257	NA	182	7,780	NA
	August†	74,475	NA	NA	NA	NA
		<b>Year to Date*</b>	<b>592,626</b>	<b>206,000</b>	<b>1,243</b>	<b>49,194</b>

<sup>1</sup>Includes Puerto Rico.

<sup>2</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (218,000 short tons in 1982, 341,000 short tons in 1983, 298,000 short tons in 1984, and 240,000 short tons in 1985).

<sup>3</sup>Stocks held by electric utilities, coke plants, general industry, and coal producers and distributors at the end of period. Excludes stocks held at retail dealers for consumption by the residential and commercial sector.

\*Total of available data.

†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<sup>1</sup>

		Industrial				
		Electric Utilities	Coke Plants	Other Industrial 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	Total	625,211	37,033	65,980	8,448	736,672
1984	January	60,225	3,791	6,858	1,045	71,919
	February	52,257	3,592	6,230	915	62,994
	March	54,534	3,843	5,999	652	65,028
	April	47,565	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
	<b>Total</b>	<b>664,399</b>	<b>44,022</b>	<b>73,745</b>	<b>9,130</b>	<b>791,296</b>
1985	January	63,645	3,463	6,496	830	74,434
	February	55,491	3,282	6,155	726	65,654
	March	54,784	3,511	6,584	518	65,397
	April	50,903	3,851	6,236	764	61,754
	May	54,595	3,778	5,962	461	64,796
	June	57,634	3,284	5,696	365	66,979
	July	64,252	3,437	5,950	523	74,162
	August	63,076	3,420	6,111	494	73,101
	September	56,780	3,361	5,876	656	66,673
	October	54,969	3,165	6,183	716	65,033
	November	54,311	3,192	6,605	758	64,865
	December	63,402	3,314	7,517	969	75,202
	<b>Total</b>	<b>693,841</b>	<b>41,056</b>	<b>75,372</b>	<b>7,779</b>	<b>818,049</b>
1986	January†	64,032	3,508	7,323	902	75,765
	February†	55,049	3,324	6,652	789	65,814
	March†	53,898	3,555	6,406	563	64,422
	April†	48,114	NA	NA	NA	NA
	May†	51,420	NA	NA	NA	NA
	June†	58,892	NA	NA	NA	NA
	July†	68,021	NA	NA	NA	NA
	<b>Year to Date<sup>2</sup></b>	<b>399,426</b>	<b>10,387</b>	<b>20,381</b>	<b>2,254</b>	<b>206,000</b>

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

<sup>2</sup>Total of available data.

†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 at End of Period

		Consumer				Producers and Distributors	Total <sup>1</sup>
		Electric Utilities	Coke Plants	Other Industrial	Total <sup>1</sup>		
		Thousand short tons					
1973	Year	86,967	6,998	10,370	104,335	NA	NA
1974	Year	83,509	6,209	6,605	96,323	NA	NA
1975	Year	110,724	8,797	8,529	128,050	NA	NA
1976	Year	117,436	9,902	7,100	134,438	NA	NA
1977	Year	133,219	12,816	11,063	157,098	NA	NA
1978	Year	128,225	8,278	9,048	145,551	NA	NA
1979	Year	159,714	10,155	11,777	181,646	20,826	202,472
1980	Year	183,010	9,067	11,951	204,028	24,379	228,407
1981	Year	168,893	6,475	9,906	185,274	24,149	209,423
1982	Year	181,132	4,642	9,479	195,254	36,784	232,038
1983	Year	155,598	4,346	8,710	168,654	33,931	202,584
1984	January	149,403	4,947	8,593	162,943	34,042	196,985
	February	155,593	5,548	8,476	169,617	34,154	203,771
	March	159,775	6,149	8,359	174,283	34,265	208,548
	April	165,592	7,171	9,137	181,900	33,123	215,023
	May	173,171	8,194	9,915	191,280	31,982	223,262
	June	174,155	9,217	10,693	194,065	30,841	224,905
	July	171,095	9,658	11,904	192,657	30,461	223,118
	August	176,928	10,099	13,116	200,143	30,081	230,224
	September	183,151	10,541	14,327	208,019	29,701	237,720
	October	184,779	9,083	13,324	207,186	31,164	238,350
	November	182,130	7,625	12,320	202,075	32,627	234,702
	December	179,727	6,166	11,317	197,211	34,090	231,300
1985	January	167,592	5,583	10,439	183,614	34,517	218,131
	February	162,531	4,999	9,562	177,092	34,944	212,036
	March	166,355	4,415	8,684	179,454	35,371	214,825
	April	171,695	4,472	8,750	184,917	35,313	220,230
	May	174,198	4,530	8,815	187,543	35,255	222,798
	June	174,545	4,587	8,881	188,013	35,197	223,210
	July	165,903	4,171	9,184	179,258	34,342	213,600
	August	162,825	3,754	9,488	176,067	33,487	209,554
	September	163,065	3,338	9,791	176,195	32,632	208,827
	October	166,749	3,365	10,007	180,121	32,799	212,920
	November	164,075	3,393	10,222	177,690	32,966	210,656
	December	156,376	3,420	10,438	170,234	33,133	203,367
1986	January†	152,078	3,302	9,900	165,280	34,670	199,950
	February†	151,157	3,185	9,332	163,674	36,208	199,882
	March†	154,409	3,067	8,763	166,239	37,745	203,984
	April†	161,076	NA	NA	NA	NA	NA
	May†	164,667	NA	NA	NA	NA	NA
	June†	162,899	NA	NA	NA	NA	NA
	July†	150,089	NA	NA	NA	NA	NA

<sup>1</sup>Excludes stocks held at retail dealers for consumption by the residential and commercial sector.

†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.

# 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 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 tonnage for the week is divided by the ratio of quarterly production 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 State-level 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 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 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 temper-

ature 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 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 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 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.

Prior to 1980, monthly and quarterly stock data for the residential and commercial sector were taken directly from reported data. Monthly and quarterly stock data are not available for the residential and commercial sector after December 1979.

Quarterly stocks at producers and distributors are taken directly from reported data. Monthly data are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks.

**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* (except Residential and Commercial Consumption and Stocks and Producers and Distributors Stocks);

- 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."

- Residential and Commercial Consumption and Stocks—1973 through 1976: Bureau of Mines, *Minerals Yearbook*; January 1977 through September 1977: Bureau of Mines, Form 6-1400-M, "Monthly Coal Report, Retail Dealers—Upper Lake Docks"; October 1977 through December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers—Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report," (stock data are not collected).
- Producers and Distributors Stocks—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).

## Electric Utilities

During July 1986, electric utilities generated 242.7 billion kilowatthours of electricity, 7.0 percent above the July 1985 generation level. Coal-fired generation totaled 136.7 billion kilowatthours, 6.0 percent above the July 1985 level. Nuclear generation totaled 35.9 billion kilowatthours, 2.0 percent above the July 1985 level. Natural gas-fired generation was 28.7 billion kilowatthours, 10.8 percent below the level 1 year earlier. Hydroelectric generation was 24.1 billion kilowatthours in July 1986, 13.1 percent above the July 1985 level. Petroleum-fired generation totaled 16.3 billion kilowatthours, 96.6 percent above the July 1985 level.

Sales of electricity to all ultimate consumers in the United States in July 1986 were 218.2 billion kilowatthours, 6.9 percent above July 1985 sales. Sales to residential consumers during July 1986 were 80.5 billion kilowatthours, 13.4 percent above the level of sales during the same month in 1985. Commercial sales were 61.1 billion kilowatthours, 8.9 percent more than the amount sold to

commercial consumers in July 1985. Sales to industrial consumers totaled 69.0 billion kilowatthours in July 1986, 1.1 percent less than the 1985 figure. In July 1986, other sales totaled 7.6 billion kilowatthours, 5.9 percent above the July 1985 level.

Electric utility petroleum consumption (excluding petroleum coke) during July 1986 was 27.6 million barrels, 92.1 percent above the July 1985 level. Coal consumption during July 1986 was 68.0 million short tons, 5.9 percent above the July 1985 rate. During July 1986, electric utilities consumed 300.9 billion cubic feet of natural gas, 10.6 percent below the July 1985 consumption level.

On July 31, 1986, utility stocks of all types of coal totaled 150.1 million short tons. These stockpiles were 9.5 percent below the level of July 31, 1985. Petroleum stocks (excluding petroleum coke) on July 31, 1986, totaled 71.0 million barrels, 8.0 percent below the level on the same date in 1985.

# Electric Utilities

## Net Electricity Generation by Primary Energy Source

		Coal	Petroleum <sup>1</sup>	Natural Gas <sup>2</sup>	Nuclear Electric Power	Hydro-electric Power	Other <sup>3</sup>	Total
Million kilowatthours								
1973	Total	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974	Total	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975	Total	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976	Total	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977	Total	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978	Total	975,742	365,060	305,391	276,403	280,419	3,315	2,206,331
1979	Total	1,075,037	303,525	329,485	255,155	279,783	4,387	2,247,372
1980	Total	1,161,562	245,994	346,240	251,116	276,021	5,506	2,286,439
1981	Total	1,203,203	206,421	345,777	272,674	260,684	6,054	2,294,812
1982	Total	1,192,004	146,797	305,260	282,773	309,213	5,164	2,241,211
1983	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
	<b>Total</b>	<b>1,341,681</b>	<b>119,808</b>	<b>297,394</b>	<b>327,634</b>	<b>321,150</b>	<b>8,638</b>	<b>2,416,304</b>
1985	January	129,092	12,077	22,051	36,186	27,543	906	227,856
	February	112,037	9,270	19,417	30,812	25,902	803	198,242
	March	111,391	7,120	19,848	31,041	24,640	930	194,970
	April	104,790	6,017	22,425	26,458	24,403	783	184,877
	May	111,515	6,859	22,481	28,697	26,421	816	196,790
	June	115,583	7,576	26,740	30,837	23,839	788	205,363
	July	128,880	8,289	32,191	35,184	21,293	885	226,722
	August	126,550	9,858	33,915	34,812	19,981	934	226,050
	September	114,630	7,435	26,273	34,508	18,767	887	202,499
	October	111,053	7,514	24,120	31,205	20,048	849	194,789
	November	108,815	7,008	22,453	30,166	22,954	1,031	192,427
	December	127,792	11,177	20,031	33,782	25,359	1,113	219,255
	<b>Total</b>	<b>1,402,128</b>	<b>100,202</b>	<b>291,946</b>	<b>383,691</b>	<b>281,149</b>	<b>10,724</b>	<b>2,469,841</b>
1986	January	130,017	11,088	17,473	36,219	21,815	1,123	217,735
	February	110,999	9,513	14,925	32,721	23,319	956	192,433
	March	110,390	10,070	16,149	30,773	28,346	984	196,711
	April	100,141	9,228	18,880	30,477	27,562	891	187,180
	May	105,889	10,438	21,947	31,924	27,244	904	198,346
	June	120,154	11,563	24,766	31,334	26,230	974	215,022
	July	136,654	16,296	28,711	35,894	24,073	1,045	242,673
	<b>Year to Date</b>	<b>814,244</b>	<b>78,197</b>	<b>142,850</b>	<b>229,341</b>	<b>178,590</b>	<b>6,878</b>	<b>1,450,101</b>

<sup>1</sup>Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

<sup>2</sup>Includes supplemental gaseous fuels.

<sup>3</sup>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.

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

# Electric Utilities

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

		Residential	Commercial	Industrial	Other <sup>2</sup>	Total
Million kilowatthours						
<b>1973</b>	<b>Total</b>	<b>579,231</b>	<b>388,266</b>	<b>686,085</b>	<b>59,328</b>	<b>1,712,910</b>
<b>1974</b>	<b>Total</b>	<b>578,184</b>	<b>384,826</b>	<b>684,875</b>	<b>58,039</b>	<b>1,705,924</b>
<b>1975</b>	<b>Total</b>	<b>588,140</b>	<b>403,049</b>	<b>687,680</b>	<b>68,222</b>	<b>1,747,091</b>
<b>1976</b>	<b>Total</b>	<b>606,452</b>	<b>425,094</b>	<b>754,069</b>	<b>69,631</b>	<b>1,855,246</b>
<b>1977</b>	<b>Total</b>	<b>645,239</b>	<b>446,514</b>	<b>786,037</b>	<b>70,571</b>	<b>1,948,361</b>
<b>1978</b>	<b>Total</b>	<b>674,466</b>	<b>461,163</b>	<b>809,078</b>	<b>73,215</b>	<b>2,017,922</b>
<b>1979</b>	<b>Total</b>	<b>682,819</b>	<b>473,307</b>	<b>841,903</b>	<b>73,070</b>	<b>2,071,099</b>
<b>1980</b>	<b>Total</b>	<b>717,495</b>	<b>488,156</b>	<b>815,067</b>	<b>73,732</b>	<b>2,094,449</b>
<b>1981</b>	<b>Total</b>	<b>722,265</b>	<b>514,338</b>	<b>R825,743</b>	<b>84,756</b>	<b>R2,147,103</b>
<b>1982</b>	<b>Total</b>	<b>729,519</b>	<b>526,397</b>	<b>744,949</b>	<b>85,575</b>	<b>2,086,440</b>
<b>1983</b>	<b>Total</b>	<b>750,948</b>	<b>543,788</b>	<b>775,999</b>	<b>80,219</b>	<b>2,150,955</b>
<b>1984</b>	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	45,232	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	55,965	48,061	70,945	6,732	181,702
	November	56,543	45,937	68,688	6,840	178,008
	December	66,915	46,481	66,606	6,908	186,910
	<b>Total</b>	<b>777,654</b>	<b>578,281</b>	<b>840,588</b>	<b>81,849</b>	<b>2,278,372</b>
<b>1985</b>	January	77,242	49,634	67,219	7,270	201,364
	February	78,011	49,406	66,582	7,046	201,045
	March	63,981	46,629	67,437	6,875	184,922
	April	56,025	45,826	68,445	7,049	177,345
	May	52,842	47,711	70,140	6,903	177,596
	June	60,652	51,521	70,091	6,848	189,112
	July	70,966	56,128	69,760	7,135	203,989
	August	73,693	57,041	71,402	7,277	209,414
	September	71,064	55,960	70,744	7,263	205,030
	October	57,515	49,978	69,158	6,903	183,554
	November	56,794	47,843	67,164	7,264	179,065
	December	72,192	51,289	66,383	7,243	197,107
	<b>Total</b>	<b>790,977</b>	<b>608,968</b>	<b>824,523</b>	<b>85,075</b>	<b>2,309,543</b>
<b>1986<sup>3</sup></b>	January	82,956	53,376	65,548	7,222	209,102
	February	70,820	50,371	65,116	6,856	193,162
	March	65,576	48,452	67,607	6,848	188,483
	April	62,434	51,138	74,040	7,843	195,455
	May	54,808	49,201	68,083	7,261	179,353
	June	63,843	56,947	67,083	6,874	194,747
	July†	80,495	61,130	68,979	7,554	218,158
	<b>Year to Date</b>	<b>480,932</b>	<b>370,614</b>	<b>476,456</b>	<b>50,459</b>	<b>1,378,461</b>

<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.

<sup>3</sup>Beginning with January 1986, monthly electricity sales estimates are based on a new sample and new expansion factors from data reported on Form EIA 861, "Annual Electric Utility Report."

†Initial estimates. R=Revised data.

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

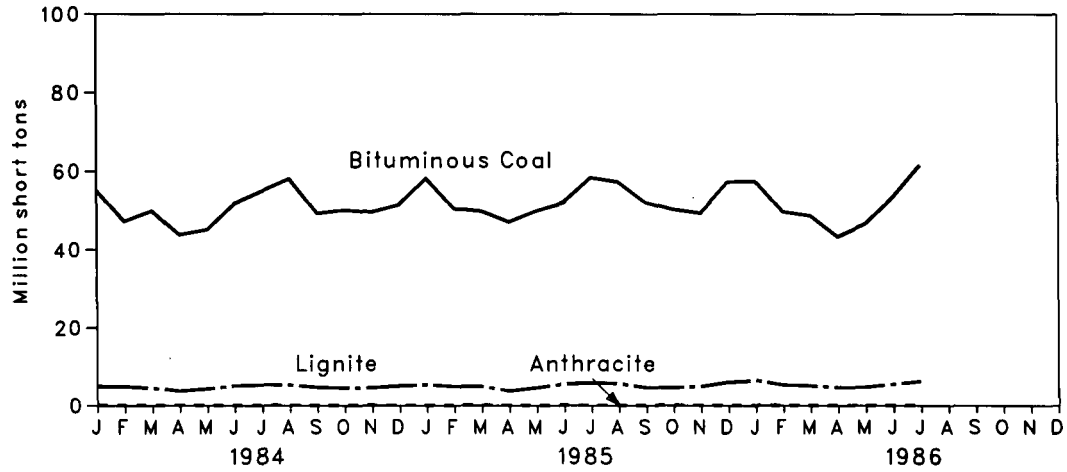
• Totals may not equal sum of components due to independent rounding.

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."

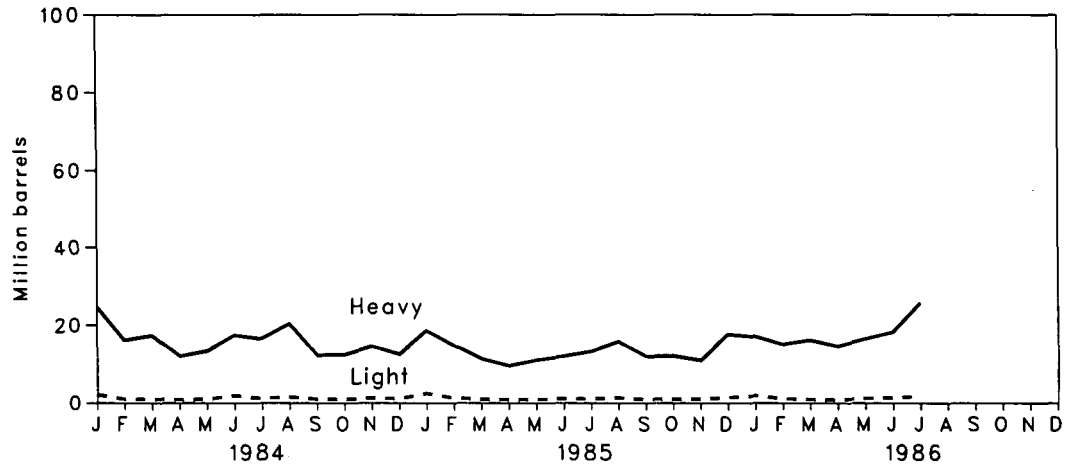
# Electric Utilities

## Primary Energy Consumed to Produce Electricity

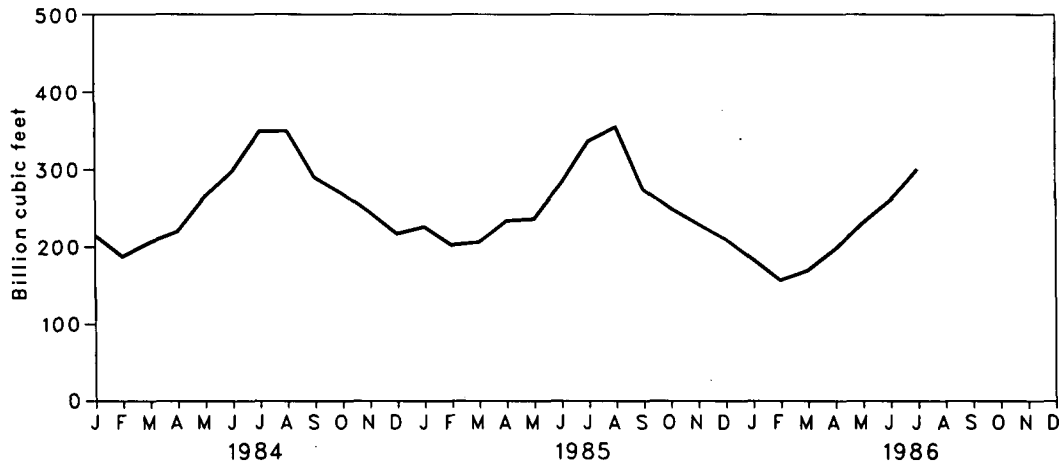
### Coal Consumption



### Petroleum Consumption



### Natural Gas Consumption



# Electric Utilities

## Primary Energy Consumed to Produce Electricity

	Coal				Petroleum				Natural Gas <sup>1</sup>
	Anthracite	Bituminous Coal	Lignite	Total	Heavy <sup>2</sup>	Light <sup>3</sup>	Total Liquids	Petroleum Coke	
	Thousand short tons				Thousand barrels				Thousand short tons
<b>1973 Total</b>	1,443	376,975	10,794	389,212	(*)	(*)	560,248	507	3,660,172
<b>1974 Total</b>	1,498	378,643	11,670	391,811	(*)	(*)	536,274	625	3,443,428
<b>1975 Total</b>	1,480	388,523	15,960	405,962	(*)	(*)	506,128	70	3,157,669
<b>1976 Total</b>	1,350	425,205	21,817	448,371	(*)	(*)	555,920	68	3,080,868
<b>1977 Total</b>	1,425	451,051	24,650	477,126	(*)	(*)	623,705	98	3,191,200
<b>1978 Total</b>	1,064	448,763	31,407	481,235	(*)	(*)	635,839	398	3,188,363
<b>1979 Total</b>	1,046	488,129	37,876	527,051	(*)	(*)	523,297	268	3,490,523
<b>1980 Total</b>	951	526,680	41,642	569,274	391,163	29,051	420,214	179	3,681,595
<b>1981 Total</b>	1,221	550,784	44,792	596,797	329,798	21,313	351,111	139	3,640,154
<b>1982 Total</b>	1,075	543,346	49,245	593,666	234,434	15,337	249,771	149	3,225,518
<b>1983 Total</b>	1,036	570,108	54,067	625,211	228,984	16,512	245,497	261	2,910,767
<b>1984</b>									
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	54,928	5,331	60,359	16,453	1,259	17,712	22	348,848
August	97	58,026	5,273	63,396	20,337	1,522	21,859	20	349,878
September	81	49,288	4,675	54,045	12,235	996	13,231	21	290,595
October	83	50,091	4,578	54,753	12,450	965	13,415	19	269,629
November	91	49,595	4,543	54,229	14,543	1,326	15,870	17	244,637
December	93	51,418	5,050	56,560	12,499	1,146	13,645	20	217,210
<b>Total</b>	<b>1,070</b>	<b>606,339</b>	<b>56,990</b>	<b>664,399</b>	<b>189,289</b>	<b>15,190</b>	<b>204,479</b>	<b>252</b>	<b>3,111,342</b>
<b>1985</b>									
January	88	58,155	5,402	63,645	18,574	2,482	21,056	18	226,276
February	70	50,481	4,940	55,491	14,729	1,333	16,062	17	202,546
March	78	49,793	4,913	54,784	11,323	980	12,303	16	207,286
April	92	47,072	3,738	50,903	9,561	911	10,471	16	233,819
May	98	49,890	4,607	54,595	11,046	962	12,008	13	236,220
June	90	51,984	5,561	57,634	12,005	1,111	13,116	21	281,939
July	92	58,327	5,833	64,252	13,238	1,109	14,347	20	336,535
August	96	57,304	5,676	63,076	15,730	1,338	17,067	19	354,653
September	74	52,031	4,675	56,780	11,994	979	12,972	24	274,868
October	85	50,265	4,619	54,969	12,060	969	13,029	23	249,579
November	83	49,315	4,913	54,311	10,925	1,021	11,946	23	229,943
December	86	57,270	6,046	63,402	17,595	1,440	19,035	20	210,417
<b>Total</b>	<b>1,033</b>	<b>631,885</b>	<b>60,923</b>	<b>693,841</b>	<b>158,779</b>	<b>14,635</b>	<b>173,414</b>	<b>231</b>	<b>3,044,083</b>
<b>1986</b>									
January	67	57,483	6,482	64,032	17,037	1,905	18,942	15	184,025
February	50	49,673	5,325	55,049	14,978	1,100	16,077	15	157,070
March	88	48,691	5,119	53,898	16,090	954	17,044	23	169,698
April	84	43,345	4,684	48,114	14,538	893	15,431	23	197,459
May	68	46,629	4,723	51,420	16,386	1,207	17,593	25	231,265
June	64	53,332	5,496	58,892	18,173	1,390	19,564	24	260,174
July	67	61,669	6,285	68,021	25,839	1,727	27,567	26	300,877
<b>Year to Date</b>	<b>489</b>	<b>360,824</b>	<b>38,114</b>	<b>399,426</b>	<b>123,041</b>	<b>9,177</b>	<b>132,218</b>	<b>152</b>	<b>1,500,567</b>

<sup>1</sup>Includes supplemental gaseous fuels.

<sup>2</sup>Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

<sup>3</sup>Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

\*Prior to 1980, petroleum consumption data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.

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

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

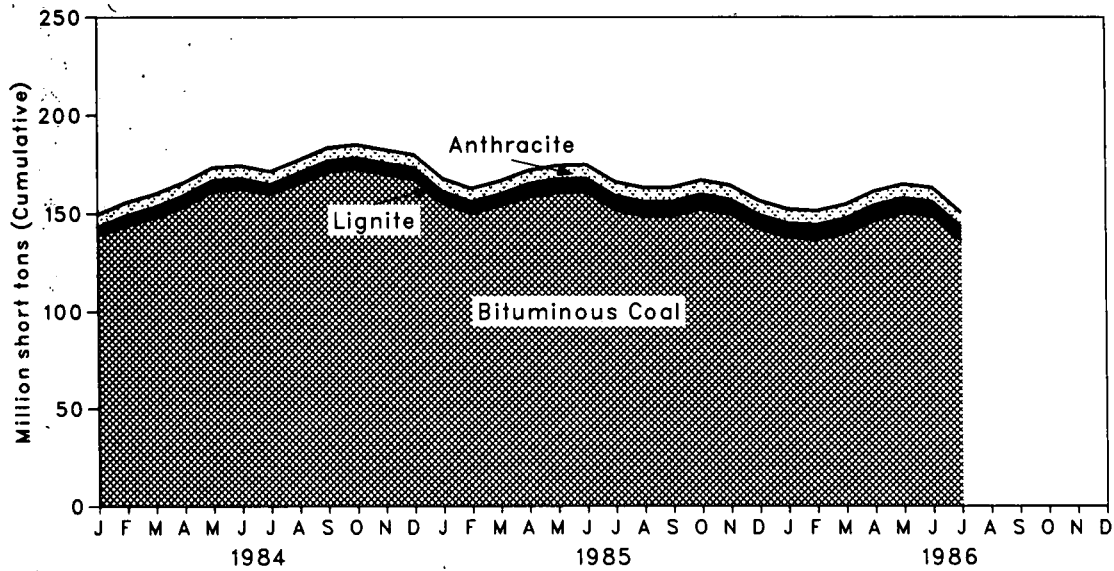
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; • October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; • 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."



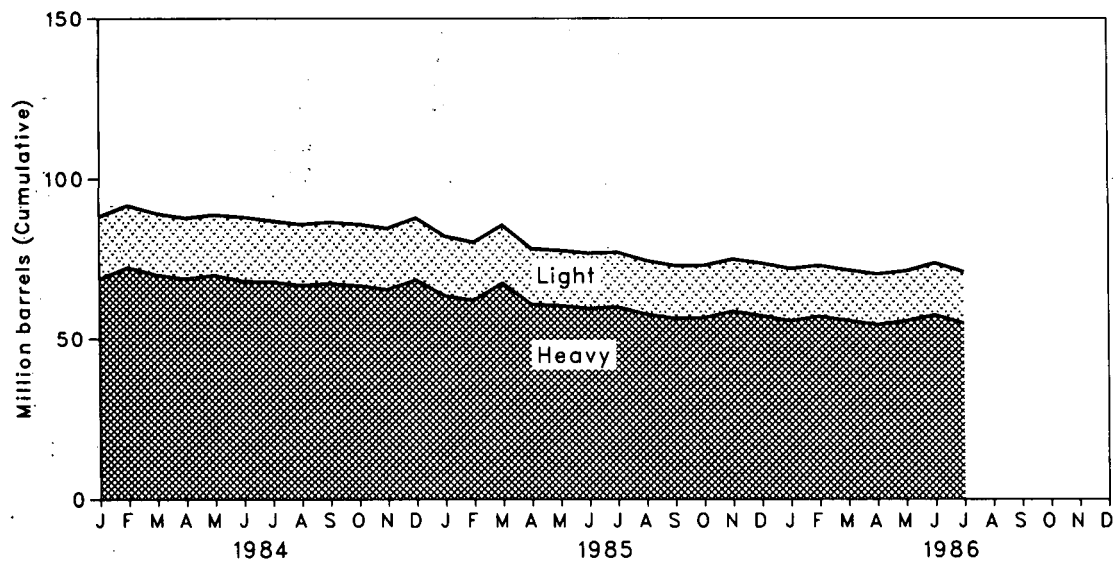
# Electric Utilities

## Coal and Petroleum Stocks at End of Period

### Coal Stocks



### Petroleum Stocks



# Electric Utilities

## Coal and Petroleum Stocks at End of Period

		Coal				Petroleum			
		Anthracite	Bituminous Coal	Lignite	Total	Heavy <sup>1</sup>	Light <sup>2</sup>	Total Liquids	Petroleum Coke
		Thousand short tons				Thousand barrels			Thousand short tons
1973	Year	1,066	84,941	961	86,967	( <sup>3</sup> )	( <sup>3</sup> )	89,216	312
1974	Year	930	81,712	867	83,509	( <sup>3</sup> )	( <sup>3</sup> )	112,917	35
1975	Year	982	107,927	1,815	110,724	( <sup>3</sup> )	( <sup>3</sup> )	125,257	31
1976	Year	1,000	114,130	2,306	117,436	( <sup>3</sup> )	( <sup>3</sup> )	121,696	32
1977	Year	2,321	128,210	2,688	133,219	( <sup>3</sup> )	( <sup>3</sup> )	144,031	44
1978	Year	2,178	123,020	3,027	128,225	( <sup>3</sup> )	( <sup>3</sup> )	118,788	198
1979	Year	3,274	152,981	3,459	159,714	( <sup>3</sup> )	( <sup>3</sup> )	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	102,042	26,094	128,136	42
1982	Year	6,080	170,480	4,573	181,132	95,515	23,369	118,884	41
1983	Year	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	6,515	153,300	5,777	165,592	68,771	18,849	87,620	47
	May	6,532	161,067	5,573	173,171	69,890	18,695	88,584	51
	June	6,541	162,426	5,188	174,155	68,098	19,807	87,906	51
	July	6,530	159,683	4,883	171,095	67,856	18,840	86,696	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	155,067	5,806	167,592	63,546	18,518	82,064	57
	February	6,736	150,077	5,717	162,531	62,094	18,088	80,182	50
	March	6,782	153,739	5,834	166,355	62,558	17,837	80,395	43
	April	6,836	158,218	6,641	171,695	60,889	17,398	78,286	31
	May	6,905	160,326	6,967	174,198	60,530	17,236	77,765	33
	June	6,991	160,595	6,959	174,545	59,629	17,218	76,846	33
	July	7,045	151,809	7,049	165,903	60,116	17,034	77,151	43
	August	7,109	148,698	7,018	162,825	57,820	16,699	74,519	42
	September	7,185	148,637	7,243	163,065	56,487	16,442	72,930	40
	October	7,258	151,999	7,492	166,749	56,676	16,292	72,968	43
	November	7,223	149,579	7,272	164,075	58,720	16,250	74,970	47
	December	7,189	142,144	7,043	156,376	57,304	16,386	73,689	49
1986	January	7,182	137,699	7,196	152,078	55,757	16,254	72,011	52
	February	7,172	136,487	7,498	151,157	57,143	15,834	72,976	50
	March	7,146	139,529	7,734	154,409	55,811	15,731	71,542	36
	April	7,127	146,152	7,797	161,076	54,556	15,768	70,324	28
	May	7,133	150,164	7,370	164,667	55,658	15,632	71,290	34
	June	7,148	148,675	7,075	162,899	57,542	16,224	73,766	36
	July	7,158	135,916	7,016	150,089	54,956	16,058	71,014	43

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

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

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

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

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

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

# Electric Utilities

## Petroleum Consumption and Stocks by Prime Mover Type

		Petroleum Consumption			Petroleum Stocks at End of Period		
		Steam Plants	GT/IC <sup>1</sup>	Total Liquids	Steam Plants	GT/IC <sup>1</sup>	Total Liquids
		Thousand barrels					
1973	Total	513,190	47,058	560,248	79,121	10,095	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	401,863	18,351	420,214	117,227	18,147	135,374
1981	Total	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	Total	237,845	7,652	245,497	78,285	11,090	89,375
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	12,795	436	13,231	75,588	10,703	86,291
	October	13,019	396	13,415	74,906	10,775	85,682
	November	15,177	692	15,870	73,833	10,590	84,423
	December	13,247	398	13,645	76,836	10,784	87,619
	<b>Total</b>	<b>197,050</b>	<b>7,429</b>	<b>204,479</b>			
1985	January	19,846	1,210	21,056	71,528	10,536	82,064
	February	15,595	467	16,062	70,088	10,094	80,182
	March	11,966	337	12,303	70,385	10,010	80,395
	April	10,133	338	10,471	68,651	9,636	78,286
	May	11,604	403	12,008	68,249	9,516	77,765
	June	12,516	601	13,116	67,529	9,317	76,846
	July	13,840	507	14,347	67,816	9,334	77,151
	August	16,272	795	17,067	65,307	9,212	74,519
	September	12,485	488	12,972	63,701	9,229	72,930
	October	12,646	383	13,029	63,908	9,059	72,968
	November	11,584	362	11,946	66,103	8,867	74,970
	December	18,355	680	19,035	64,704	8,985	73,689
	<b>Total</b>	<b>166,842</b>	<b>6,572</b>	<b>173,414</b>			
1986	January	17,915	1,027	18,942	63,224	8,787	72,011
	February	15,536	541	16,077	64,313	8,663	72,976
	March	16,611	433	17,044	62,825	8,717	71,542
	April	14,982	449	15,431	61,758	8,566	70,324
	May	16,933	660	17,593	63,135	8,155	71,290
	June	18,796	768	19,564	65,046	8,720	73,766
	July	26,373	1,193	27,567	62,256	8,759	71,014
	<b>Year to Date</b>	<b>127,147</b>	<b>5,071</b>	<b>132,218</b>			

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

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

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

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

## Nuclear

In July 1986, U.S. nuclear generating units produced a total of 35.9 billion net kilowatt-hours of electricity while achieving an average capacity factor of 57.4 percent. This generation represents an increase of 2.0 percent compared with July 1985 generation. Nuclear power supplied 14.8 percent of the electricity generated in July 1986 compared with 15.5 percent in July 1985.

On July 25, 1986, a full-power amendment to the operating license for Hope Creek 1 was issued by the Nuclear Regulatory Commission. Hope Creek 1, which is operated in New Jersey by Public Service Electric and Gas, is a 1,053-net-megawatt-electric boiling-water reactor. An operating license had been issued for Hope Creek 1 in April 1986. In July 1986, the Nuclear Regulatory Commission received notification from Consumers Power Company of its intent to cancel two of its units under construction: Midland 1 and Midland 2. In the notification, Consumers Power Company requested withdrawal of the construction permit for the Midland project. Cancellation plans had been announced by the utility in July 1984. Construction on the project is 84 percent complete. The cancellation of the two units represents a reduction of 1,310 net megawatts in domestic nuclear capacity under construction (492 for Midland 1 and 818 for Midland 2). Twenty-five units remain under construction in the United States.

With the addition of Hope Creek 1, there were 99 operable U.S. nuclear power generating

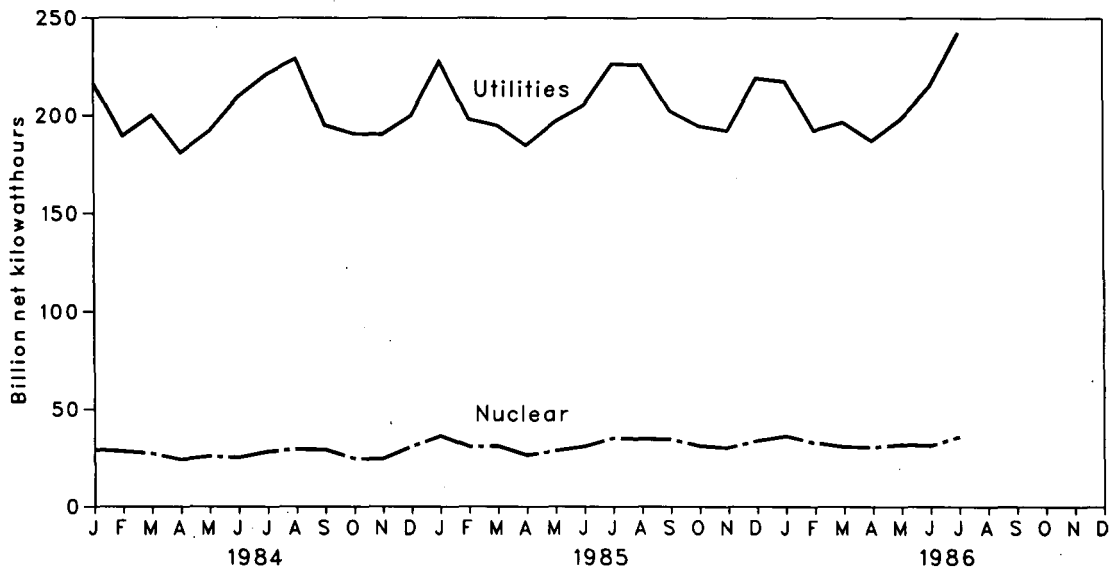
units as of July 31, 1986, with a collective net summer capability of 84.1 million net kilowatts. Two additional units had licenses from the Nuclear Regulatory Commission authorizing fuel-loading and low-power testing (Perry 1 and Shoreham). According to the Nuclear Regulatory Commission operating license hearing schedule, seven additional units could receive licenses in 1986. Of the 99 operable units, 5 were in power ascension (Catawba 2, Fermi 2, Hope Creek 1, Palo Verde 2, and River Bend 1), and 20 units generated no electricity or operated substantially below capability (Arkansas Nuclear 1, Browns Ferry 1, Browns Ferry 2, Browns Ferry 3, Beaver Valley 1, Byron 1, Davis-Besse, Dresden 3, Fort Saint Vrain, Indian Point 3, LaSalle 1, LaSalle 2, McGuire 1, Oyster Creek, Pilgrim, Rancho Seco, San Onofre 1, Sequoyah 1, Sequoyah 2, and Turkey Point 4). Five of these 20 units operating substantially below capability were out of service at least part of the month of July for maintenance and refueling. Another 5 of these 20 units remained shut down as part of an administrative outage by the utility, Tennessee Valley Authority, to confirm qualifications of safety systems (Browns Ferry 1, Browns Ferry 2, Browns Ferry 3, Sequoyah 1, and Sequoyah 2).

As of July 31, 1986, there were 128 domestic nuclear power generating units in all stages of planning, construction, or operation, with an aggregate design capacity of 119 million net kilowatts.

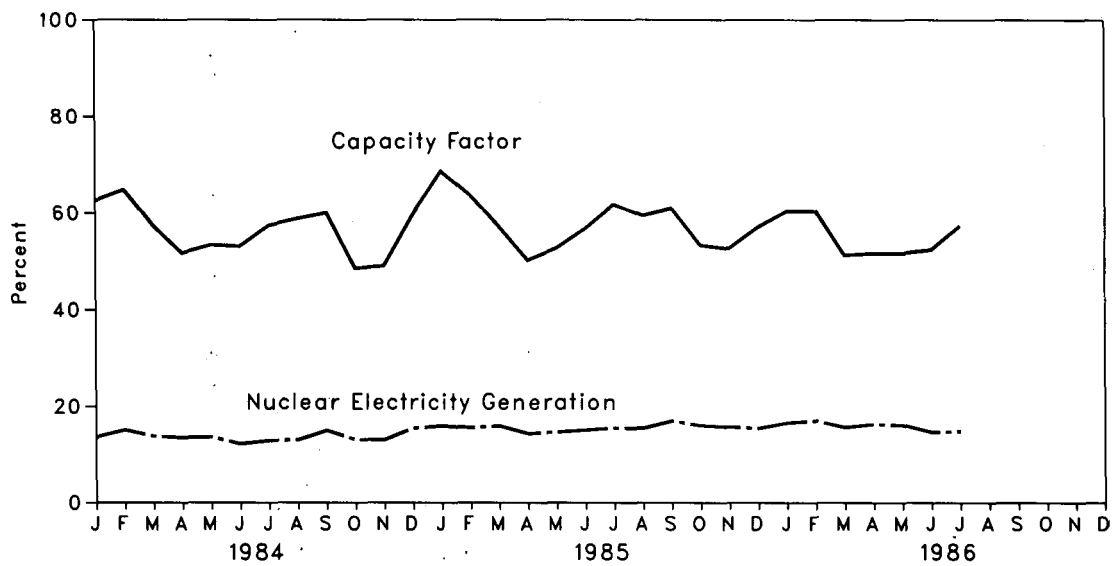
# Nuclear

## 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 Reactors <sup>1 2</sup>	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Net Summer Capability of Operable Reactors <sup>3</sup>	Capacity Factor <sup>4</sup>
				Million net kilowatthours		
1973	Year	39	83,479	4.5	22.615	53.7
1974	Year	48	113,976	6.1	31.803	47.9
1975	Year	54	172,505	9.0	37.161	56.0
1976	Year	61	191,104	9.4	43.657	54.9
1977	Year	65	250,883	11.8	46.202	63.4
1978	Year	70	276,403	12.5	50.709	64.7
1979	Year	68	255,155	11.4	49.630	58.5
1980	Year	70	251,116	11.0	51.668	56.4
1981	Year	74	272,674	11.9	55.914	58.4
1982	Year	77	282,773	12.6	59.927	56.7
1983	Year	80	293,677	12.7	63.009	54.4
1984	January	80	29,313	13.5	63.009	62.5
	February	80	28,436	15.0	63.009	64.8
	March	81	27,345	13.7	64.057	57.4
	April	82	24,231	13.4	65.157	51.7
	May	82	25,867	13.5	65.157	53.4
	June	83	25,299	12.1	66.207	53.1
	July	83	28,284	12.8	66.207	57.4
	August	84	29,493	12.9	67.446	58.8
	September	84	29,146	14.9	67.446	60.0
	October	85	24,774	13.0	68.566	48.6
	November	86	24,575	12.9	69.652	49.0
	December	86	30,872	15.4	69.652	59.6
	Year		327,634	13.6		56.3
1985	January	87	36,186	15.9	70.784	68.7
	February	88	30,812	15.5	71.904	63.8
	March	89	31,041	15.9	72.994	57.2
	April	89	26,458	14.3	72.994	50.3
	May	89	28,697	14.6	72.994	52.8
	June	91	30,837	15.0	75.390	56.8
	July	92	35,184	15.5	76.469	61.8
	August	94	34,812	15.4	78.590	59.5
	September	94	34,508	17.0	78.590	61.0
	October	94	31,205	16.0	78.590	53.4
	November	95	30,166	15.7	79.509	52.7
	December	95	33,782	15.4	79.509	57.1
	Year		383,691	15.5		57.9
1986	January	96	36,219	16.6	80.652	60.4
	February	96	32,721	17.0	80.652	60.4
	March	96	30,773	15.6	80.652	51.3
	April	97	30,477	16.3	81.911	51.7
	May	98	31,924	16.1	83.063	51.7
	June	98	31,334	14.6	83.063	52.4
	July	99	35,894	14.8	84.116	57.4

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

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

<sup>3</sup>When possible, net summer capability is used. When a reactor has not operated long enough to permit determination of a net summer capability, an estimation is made based on the net design electrical rating. For the definitions of net summer capability and net design electrical rating, see Note 3 on the last page of this section.

<sup>4</sup>For an explanation of the method of calculating the capacity factor, see Note 4 on the last page of this section.

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

Sources: • See the last page of this section.

# Nuclear

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

	Licensed for Operation		Construction Permits		On Order	Announced	Total	Total Design Capacity <sup>4</sup>	
	Operable <sup>2</sup>	In Startup <sup>3</sup>	Granted	Pending					
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	61	0	72	66	16	19	234	236
1977	Year	65	1	80	52	13	9	220	220
1978	Year	70	0	90	32	9	4	205	204
1979	Year	68	0	91	21	3	0	183	179
1980	Year	70	2	82	12	3	0	169	163
1981	Year	74	0	75	11	3	0	163	157
1982	Year	77	2	60	3	2	0	144	135
1983	Year	80	3	53	0	2	0	138	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	3	48	0	2	0	136	128
	August	84	2	44	0	2	0	132	123
	September	84	2	44	0	2	0	132	123
	October	85	3	42	0	2	0	132	123
	November	86	2	42	0	2	0	132	123
	December	86	6	38	0	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	33	0	2	0	130	121
	May	89	6	33	0	2	0	130	121
	June	91	4	33	0	2	0	130	121
	July	92	3	33	0	2	0	130	121
	August	94	2	32	0	2	0	130	121
	September	94	2	32	0	2	0	130	121
	October	94	2	32	0	2	0	130	121
	November	95	2	31	0	2	0	130	121
	December	95	3	30	0	2	0	130	121
1986	January	96	2	30	0	2	0	130	121
	February	96	3	29	0	2	0	130	121
	March	96	4	28	0	2	0	130	121
	April	97	4	27	0	2	0	130	121
	May	98	3	27	0	2	0	130	121
	June	98	3	27	0	2	0	130	121
	July	99	2	25	0	2	0	128	119

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

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

<sup>3</sup>See Note 2 on the last page of this section for the definition.

<sup>4</sup>Net design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability. See Note 3 on the last page of this section.

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

Sources: • See the last page of this section.

## Notes and Sources for the Nuclear Section

### Notes

**1. Operable Reactors:** For 1973 through 1979, units are defined as operable based upon the date they first produced electricity. For 1980 and following, operable units are defined as those units that have received an operating license, completed low-power testing, and received a full power amendment from the Nuclear Regulatory Commission (NRC). This distinction arises because the full power amendment date has no direct analogue for full years prior to 1980. Fermi-2 (net summer capability of 1,079 MWe), is included, although currently the unit is restricted by the NRC from providing electric power to the grid. The Hanford-N reactor, operated by the Department of Energy (DOE), with a net summer capability of 850 megawatts electric (MWe) is included as an operable reactor, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net summer capability of 55 MWe) operated by DOE, was included prior to retirement from service on October 1, 1982, except for the interval from March 1974 through 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 are deleted from entries subsequent to their removal from service: Peach Bottom 1 (net summer capability of 36 MWe) and Indian Point 1 (net summer capability of 253 MWe), both out of service since November 1974; Humboldt Bay (net summer capability of 60 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden 1 (net summer capability of 189 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island 2 (net summer capability of 890 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979.

**2. In Startup:** Units that have received an operating license 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 Summer Capability**—The steady hourly output which generating equipment is expected to supply to system load exclusive of auxiliary power, as demonstrated by test at

the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of 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 monthly net summer capability. 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 Reactors."

**Electricity Generation:** • 1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report."

• October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report."

• 1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

**Net Summer Capability:** Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

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

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

• July 1982 forward—Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and various trade journals.

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



## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$9.39 per barrel in July 1986, 13.4 percent below the previous month's price and 60.9 percent below the average in July 1985.

During July 1986, the refiner acquisition cost of imported crude oil decreased \$1.35 per barrel from the June 1986 level to \$10.90 per barrel in July, 58.8 percent below the July 1985 level. The cost of domestic crude oil in July 1986 was \$11.82, a decrease of 55.7 percent from the July 1985 average.

### Motor Gasoline

The national city average retail price of leaded regular gasoline at all types of stations was 78 cents per gallon in August 1986, 5.4 percent lower than the price in July 1986. The price of unleaded regular gasoline was 84 cents per gallon in August 1986, 5.3 percent lower than the price in the previous month. The price of unleaded premium gasoline averaged 99.9 cents per gallon in August 1986, 4.4 percent lower than during July 1986.

### Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users in July 1986 was 26 cents per gallon, 13.1 percent below the previous month's price and 54.1 percent below the July 1985 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in July 1986 was 22 cents per gallon, 16.4 percent below the June 1986 average and 59.4 percent below the July 1985 average.

### Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end users in July 1986 was 94 cents per gallon, 2.9 percent below the price in the previous month and 21.6 percent below the price in July 1985. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in July 1986 was 43 cents per gallon, down 10.0 percent from the previous month's price and down 44.5 percent from the price 1 year earlier.

### No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in July 1986 was 66 cents per gallon. This was 9.2 percent below the price in June 1986 and 32.4 percent below the July 1985 price. The average price for resale was 35 cents per gallon in July 1986, 13.0 percent below the price in the previous month and 50.5 percent below the price in July 1985.

### Natural Gas

In June 1986 the average wellhead price of marketed natural gas production was \$1.78 per thousand cubic feet, 2.2 percent lower than in May 1986 and 31.5 percent below the June 1985 price. The average price of natural gas delivered to electric utility plants was \$2.28 per thousand cubic feet in June 1986, 36.7 percent below the June 1985 price. The average price of natural gas used by residential consumers in July 1986 was \$6.88 per thousand cubic feet, 2.8 percent less than the July 1985 price. The average price of natural gas used by industrial consumers in July 1986 was \$2.80 per thousand cubic feet, 25.5 percent less than the July 1985 price.

### Electricity

Beginning with January 1986, there are new series of national average price estimates based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

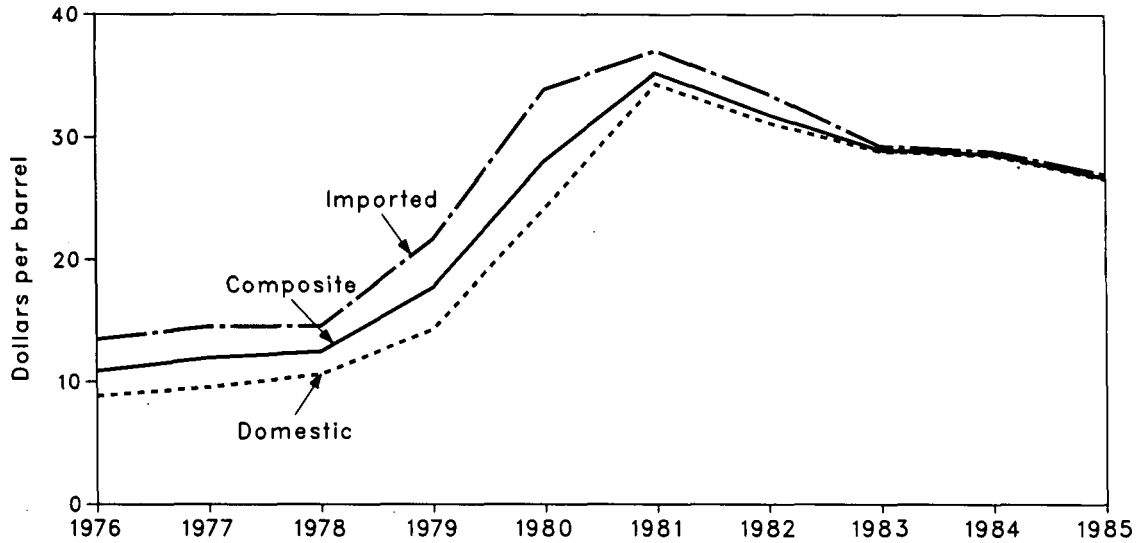
The national retail price of electricity to residential consumers in July 1986 was 7.77 cents per kilowatthour, 4.7 percent\* above the June 1986 price. The price of electricity to commercial consumers averaged 7.08 cents per kilowatthour in July 1986, 2.4 percent below the June 1986 price. The average electricity price to industrial users during July 1986 was 5.08 cents per kilowatthour, 5.1 percent above the June 1986 price. The July national retail price of electricity to other consumers was 6.77 cents per kilowatthour, 0.9 percent above the June 1986 price.

\*Percentages in this paragraph are based on unrounded numbers not shown in following tables.

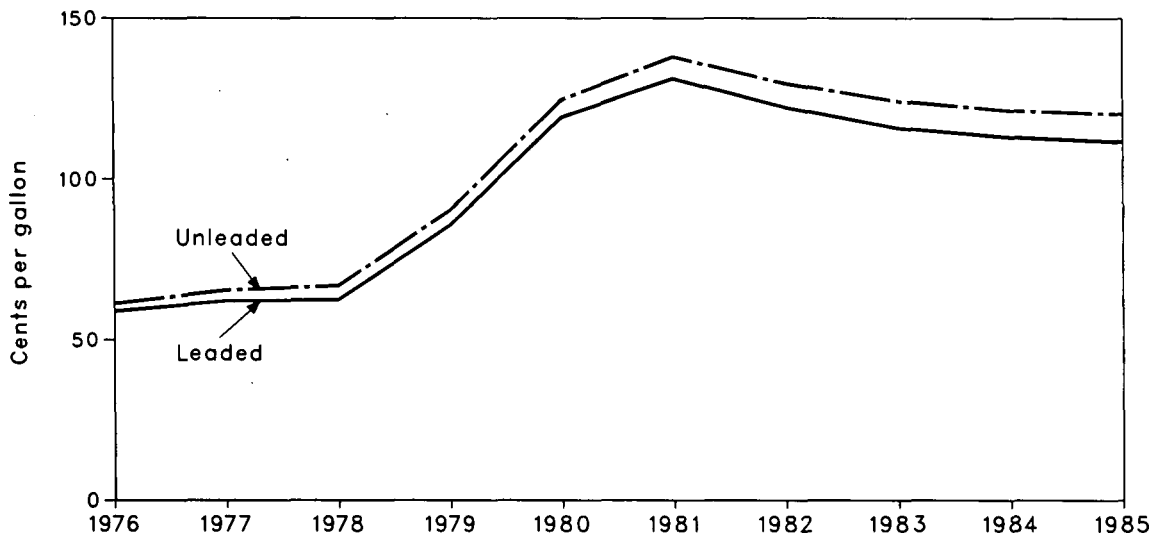
# Price

## Selected Petroleum Series

### Refiner Acquisition Cost of Crude Oil



### Regular Motor Gasoline Prices (Including Tax)



# Price

## Crude Oil Price Summary

		Actual Domestic Average Wellhead Price <sup>1</sup>	Average FOB Cost of Crude Oil Imports <sup>2</sup>	Average Landed Cost of Crude Oil Imports <sup>3</sup>	Refiner Acquisition Cost of Crude Oil <sup>4</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	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
		<b>Average</b>	<b>25.88</b>	<b>27.44</b>	<b>28.46</b>	<b>28.53</b>	<b>28.88</b>
1985	January	24.28	26.10	26.95	26.89	27.51	27.02
	February	23.63	25.90	26.82	26.39	27.05	26.53
	March	23.88	26.32	27.14	26.61	27.23	26.77
	April	24.15	26.58	27.47	26.79	27.61	27.04
	May	24.18	26.25	27.13	26.90	27.62	27.11
	June	24.03	25.69	26.47	26.50	27.27	26.69
	July	24.00	25.41	26.20	26.67	26.46	26.61
	August	23.92	25.48	26.22	26.45	26.62	26.50
	September	23.93	25.43	26.46	26.39	26.59	26.44
	October	24.06	25.76	26.73	26.59	26.80	26.65
	November	24.31	25.66	26.63	26.72	27.12	26.85
	December	24.53	24.03	25.11	26.91	26.60	26.82
		<b>Average</b>	<b>24.08</b>	<b>25.77</b>	<b>26.60</b>	<b>26.65</b>	<b>27.03</b>
1986	January	23.38	21.45	22.76	25.94	24.92	25.64
	February	17.84	15.17	16.28	20.42	18.02	19.81
	March	12.78	12.56	13.52	15.11	14.21	14.87
	April	10.83	11.58	12.46	13.06	13.14	13.08
	May	10.90	R10.94	R12.15	12.99	13.17	13.05
	June	10.84	R†10.84	R†11.91	R13.11	R12.25	R12.82
	July†	9.39	9.42	10.61	11.82	10.90	11.50

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

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

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

<sup>4</sup>See Note 4 in the Notes and Sources for this section.

†Preliminary 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 Possessions.

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	( <sup>2</sup> )	31.11	35.82	28.53	34.58	24.78
1981	Average	39.09	35.93	( <sup>2</sup> )	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	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	26.50	27.01	W	26.31	28.20	NA	W	24.93
	April	27.47	27.50	W	26.33	27.95	NA	28.09	24.49
	May	W	27.44	W	26.24	27.77	NA	27.41	24.52
	June	W	27.06	W	24.75	27.09	NA	26.65	24.32
	July	W	27.44	W	24.25	27.95	NA	26.58	23.13
	August	NA	26.60	W	24.69	27.82	NA	26.98	22.58
	September	W	25.29	W	24.59	27.97	W	27.67	22.49
	October	W	26.95	W	24.78	28.30	W	28.22	22.81
	November	W	27.24	W	24.37	28.67	W	28.65	23.06
	December	W	27.49	W	23.22	29.19	18.48	28.04	22.78
	Average	26.71	27.11	W	25.17	28.03	22.04	27.66	23.61
1986	January	W	26.68	NA	19.81	26.18	12.60	25.15	21.40
	February	W	W	W	14.24	19.93	W	18.31	12.56
	March	W	13.32	W	11.55	15.77	12.07	W	10.40
	April	W	10.77	W	10.22	14.61	12.13	11.78	10.48
	May	12.17	R11.36	W	10.47	13.64	8.03	13.25	10.90
	June†	W	R11.81	W	R9.77	R12.82	W	12.91	R9.55
	July†	W	9.91	NA	8.42	10.79	NA	10.17	7.55

<sup>1</sup>The Free on Board (FOB) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 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

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

		Algeria	Canada	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
Dollars per barrel										
<b>1975</b>	<b>Average</b>	12.72	12.72	13.79	12.21	NA	12.62	12.30	NA	11.65
<b>1976</b>	<b>Average</b>	13.81	13.57	13.82	12.82	NA	13.80	13.04	NA	11.80
<b>1977</b>	<b>Average</b>	15.20	14.21	14.63	13.80	13.75	15.25	13.61	NA	13.13
<b>1978</b>	<b>Average</b>	14.91	14.50	14.64	13.88	13.54	14.86	13.92	NA	12.83
<b>1979</b>	<b>Average</b>	21.90	20.43	20.69	25.02	20.86	22.96	19.15	22.16	18.18
<b>1980</b>	<b>Average</b>	37.90	30.47	33.92	( <sup>2</sup> )	31.80	37.05	30.02	35.88	25.86
<b>1981</b>	<b>Average</b>	40.49	32.16	37.57	( <sup>2</sup> )	33.78	39.70	34.19	37.24	29.87
<b>1982</b>	<b>Average</b>	35.28	26.92	36.75	32.40	28.64	36.17	35.00	34.28	24.82
<b>1983</b>	<b>Average</b>	31.26	25.63	31.57	29.81	25.78	30.84	29.76	30.87	22.94
<b>1984</b>	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
	<b>Average</b>	<b>29.08</b>	<b>26.59</b>	<b>30.64</b>	<b>28.67</b>	<b>26.87</b>	<b>30.50</b>	<b>29.50</b>	<b>29.60</b>	<b>25.15</b>
<b>1985</b>	January	26.28	24.99	29.26	NA	26.46	28.70	W	W	25.18
	February	26.06	24.00	28.73	NA	26.37	28.55	W	W	25.37
	March	27.09	25.13	28.40	W	26.60	29.42	NA	W	25.69
	April	28.28	26.16	29.02	W	26.60	28.99	W	28.57	25.44
	May	W	26.33	28.98	W	26.56	28.69	NA	27.98	25.26
	June	W	26.34	28.73	24.55	25.16	27.81	NA	27.42	25.13
	July	27.35	25.96	28.95	W	24.54	28.56	W	27.28	23.81
	August	W	26.05	28.01	25.70	24.85	28.54	NA	27.69	23.45
	September	W	25.88	26.79	26.47	24.92	28.75	W	28.22	23.29
	October	W	25.82	28.47	26.59	25.12	29.06	26.69	29.00	23.55
	November	W	25.74	29.00	W	24.70	29.61	24.72	29.39	23.78
	December	W	25.48	28.82	W	23.58	30.38	21.07	28.75	23.53
	<b>Average</b>	<b>27.35</b>	<b>25.68</b>	<b>28.65</b>	<b>25.73</b>	<b>25.50</b>	<b>28.95</b>	<b>24.63</b>	<b>28.34</b>	<b>24.42</b>
<b>1986</b>	January	W	23.92	28.44	NA	20.17	27.83	14.41	25.38	22.21
	February	W	17.31	W	W	14.58	21.43	14.08	18.62	13.27
	March	W	13.02	14.94	W	11.87	16.57	13.66	W	11.01
	April	W	11.57	12.29	W	10.53	15.21	13.64	12.46	11.19
	May	13.05	12.04	R12.80	W	10.81	14.55	R10.57	14.17	11.58
	June†	W	R12.71	R13.18	W	R10.10	R14.35	R10.45	13.65	R10.27
	July†	W	11.20	11.68	W	8.74	11.93	10.00	11.71	8.27

<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 Types <sup>2</sup>
Cents per gallon, 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	Average	115.7	124.1	138.3	122.5
1984	January	113.1	121.6	136.9	120.0
	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
	<b>Average</b>	<b>112.9</b>	<b>121.2</b>	<b>136.6</b>	<b>119.8</b>
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	111.9	120.5	134.0	119.9
	May	114.4	123.1	136.0	122.3
	June	115.3	124.1	137.1	123.3
	July	115.4	124.2	136.7	123.3
	August	114.3	122.9	135.9	122.2
	September	112.9	121.6	134.9	120.9
	October	111.7	120.4	134.2	119.8
	November	112.3	120.7	133.9	120.1
	December	112.3	120.8	134.4	120.3
	<b>Average</b>	<b>111.5</b>	<b>120.2</b>	<b>134.0</b>	<b>119.6</b>
1986	January	110.7	119.4	133.6	119.0
	February	103.4	112.0	128.2	111.9
	March	89.4	98.1	116.0	98.3
	April	81.5	88.8	106.1	89.5
	May	85.2	92.3	107.5	92.7
	June	88.5	95.5	110.0	95.8
	July	82.2	89.0	104.5	89.5
	August	77.8	84.3	99.9	84.8

<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		Residual Fuel Oil Sulfur Content Greater Than 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 gallon, excluding tax							
<b>1978</b>	<b>Average</b>	<b>29.3</b>	<b>31.4</b>	<b>24.5</b>	<b>27.5</b>	<b>26.3</b>	<b>29.8</b>
<b>1979</b>	<b>Average</b>	<b>45.0</b>	<b>46.8</b>	<b>36.6</b>	<b>38.9</b>	<b>39.9</b>	<b>43.6</b>
<b>1980</b>	<b>Average</b>	<b>60.8</b>	<b>67.5</b>	<b>47.9</b>	<b>52.3</b>	<b>52.8</b>	<b>60.7</b>
<b>1981</b>	<b>Average</b>	<b>74.8</b>	<b>82.9</b>	<b>62.2</b>	<b>67.3</b>	<b>66.3</b>	<b>75.6</b>
<b>1982</b>	<b>Average</b>	<b>69.5</b>	<b>74.7</b>	<b>57.2</b>	<b>61.1</b>	<b>61.2</b>	<b>67.6</b>
<b>1983</b>	<b>Average</b>	<b>64.3</b>	<b>69.5</b>	<b>59.1</b>	<b>61.1</b>	<b>60.9</b>	<b>65.1</b>
<b>1984</b>	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
	<b>Average</b>	<b>68.5</b>	<b>72.0</b>	<b>63.9</b>	<b>65.9</b>	<b>65.4</b>	<b>68.7</b>
<b>1985</b>	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	70.1	60.8	65.0	62.4	67.2
	April	63.0	67.5	58.7	61.9	60.2	64.1
	May	58.1	61.2	53.4	58.0	54.9	59.5
	June	54.9	59.9	50.6	52.8	52.4	55.6
	July	56.4	58.9	52.8	54.6	53.9	56.4
	August	55.1	57.7	52.1	53.7	53.2	55.8
	September	60.1	62.8	53.1	54.8	56.1	58.6
	October	60.1	63.6	52.3	53.8	54.9	58.3
	November	57.8	61.7	50.7	52.8	53.6	56.8
	December	60.7	62.6	52.2	54.4	55.0	58.2
	<b>Average</b>	<b>60.9</b>	<b>64.5</b>	<b>55.9</b>	<b>58.4</b>	<b>57.6</b>	<b>61.1</b>
<b>1986</b>	January	57.1	62.0	49.5	52.9	51.7	57.1
	February	43.9	49.0	36.3	42.7	38.7	45.8
	March	37.6	42.7	28.3	35.7	31.6	39.0
	April	31.7	36.8	25.8	30.1	28.0	33.0
	May	30.5	35.0	23.5	26.8	26.5	30.1
	June	30.1	32.3	R22.9	26.8	26.2	29.8
	July†	23.8	27.4	20.3	24.4	21.9	25.9

<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.

†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 6 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 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 per gallon, excluding tax								
<b>1978</b>	<b>Average</b>	<b>43.4</b>	<b>53.7</b>	<b>38.6</b>	<b>40.4</b>	<b>36.9</b>	<b>36.5</b>	<b>23.7</b>
<b>1979</b>	<b>Average</b>	<b>63.7</b>	<b>72.1</b>	<b>66.0</b>	<b>62.4</b>	<b>56.9</b>	<b>57.4</b>	<b>29.1</b>
<b>1980</b>	<b>Average</b>	<b>94.1</b>	<b>112.8</b>	<b>86.8</b>	<b>86.4</b>	<b>80.3</b>	<b>80.1</b>	<b>41.5</b>
<b>1981</b>	<b>Average</b>	<b>106.4</b>	<b>125.0</b>	<b>101.2</b>	<b>106.6</b>	<b>97.6</b>	<b>97.2</b>	<b>46.6</b>
<b>1982</b>	<b>Average</b>	<b>97.3</b>	<b>122.8</b>	<b>95.3</b>	<b>101.8</b>	<b>91.4</b>	<b>91.4</b>	<b>42.7</b>
<b>1983</b>	<b>Average</b>	<b>88.2</b>	<b>117.8</b>	<b>85.4</b>	<b>89.2</b>	<b>81.5</b>	<b>80.8</b>	<b>48.4</b>
<b>1984</b>	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
	<b>Average</b>	<b>83.2</b>	<b>116.5</b>	<b>83.0</b>	<b>91.6</b>	<b>82.1</b>	<b>80.3</b>	<b>45.0</b>
<b>1985</b>	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	38.0
	April	86.0	112.6	79.5	84.7	79.3	79.1	37.9
	May	87.5	113.2	78.1	80.4	76.5	78.9	38.1
	June	87.7	113.7	76.0	75.9	72.9	75.5	37.1
	July	87.3	113.6	75.2	76.9	70.3	72.3	36.3
	August	85.0	113.3	76.8	79.7	72.0	72.5	36.5
	September	83.2	113.0	79.2	85.9	77.0	76.3	37.6
	October	83.1	113.0	81.5	90.1	81.7	80.5	39.7
	November	84.7	112.6	83.6	93.6	84.9	84.3	43.0
	December	83.0	108.1	83.1	92.7	83.2	82.1	46.9
	<b>Average</b>	<b>83.5</b>	<b>112.9</b>	<b>79.4</b>	<b>87.4</b>	<b>77.6</b>	<b>77.2</b>	<b>39.7</b>
<b>1986</b>	January	76.7	109.8	77.0	83.8	73.7	73.3	43.9
	February	65.0	108.9	68.0	67.2	56.4	56.0	35.4
	March	52.4	102.2	58.1	60.9	51.9	47.4	29.2
	April	51.8	98.5	49.4	52.6	45.9	46.3	27.3
	May	57.9	95.6	46.7	50.4	45.2	44.1	28.5
	June	R54.5	R92.2	R44.5	50.1	R40.0	39.6	28.3
	July†	45.8	86.9	39.9	40.7	34.8	34.0	25.3

<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 6 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, excluding tax								
<b>1978</b>	<b>Average</b>	<b>48.4</b>	<b>51.6</b>	<b>38.7</b>	<b>42.1</b>	<b>40.0</b>	<b>37.7</b>	<b>33.5</b>
<b>1979</b>	<b>Average</b>	<b>71.3</b>	<b>68.9</b>	<b>54.7</b>	<b>58.5</b>	<b>51.6</b>	<b>58.5</b>	<b>35.7</b>
<b>1980</b>	<b>Average</b>	<b>103.5</b>	<b>108.4</b>	<b>86.8</b>	<b>90.2</b>	<b>78.8</b>	<b>81.8</b>	<b>48.2</b>
<b>1981</b>	<b>Average</b>	<b>114.7</b>	<b>130.3</b>	<b>102.4</b>	<b>112.3</b>	<b>91.4</b>	<b>99.5</b>	<b>56.5</b>
<b>1982</b>	<b>Average</b>	<b>106.0</b>	<b>131.2</b>	<b>96.3</b>	<b>108.9</b>	<b>90.5</b>	<b>94.2</b>	<b>59.2</b>
<b>1983</b>	<b>Average</b>	<b>95.4</b>	<b>125.5</b>	<b>87.8</b>	<b>96.1</b>	<b>91.6</b>	<b>82.6</b>	<b>70.9</b>
<b>1984</b>	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
	<b>Average</b>	<b>90.7</b>	<b>123.4</b>	<b>84.2</b>	<b>103.6</b>	<b>91.6</b>	<b>82.3</b>	<b>73.7</b>
<b>1985</b>	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	87.1	121.4	80.4	103.1	86.0	77.0	74.6
	April	92.4	121.2	80.1	101.0	85.8	79.9	75.7
	May	94.4	121.9	79.5	94.1	82.2	79.7	70.5
	June	95.2	121.7	78.6	88.2	77.8	77.2	66.8
	July	95.4	120.2	78.2	86.0	72.4	74.5	62.9
	August	94.0	118.9	77.7	89.9	74.4	73.8	62.9
	September	91.9	119.5	78.1	96.0	81.1	78.1	63.8
	October	90.8	118.9	78.8	100.4	85.2	81.6	69.7
	November	91.7	118.3	80.1	106.7	91.3	85.4	72.2
	December	91.9	117.0	80.9	111.5	92.3	85.6	75.2
	<b>Average</b>	<b>91.2</b>	<b>120.1</b>	<b>79.5</b>	<b>103.0</b>	<b>84.8</b>	<b>78.9</b>	<b>71.6</b>
<b>1986</b>	January	89.1	116.2	80.5	105.4	87.1	78.1	77.8
	February	80.3	117.2	77.9	93.4	69.9	61.5	71.4
	March	65.2	111.5	69.0	85.0	63.0	51.2	75.1
	April	59.1	102.9	57.3	79.4	55.0	48.5	75.9
	May	63.8	102.2	51.9	67.2	50.0	46.4	73.1
	June	64.7	97.0	48.2	49.3	44.4	R42.0	R73.5
	July†	57.8	94.2	43.4	48.2	38.4	36.5	70.2

<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 6 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>

		CT	ME	MA	NH	RI	VT	DE	DC	MD	NJ	NY	PA	VA
		Cents per gallon, excluding tax												
<b>1978</b>	<b>Average</b>	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
<b>1979</b>	<b>Average</b>	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
<b>1980</b>	<b>Average</b>	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
<b>1981</b>	<b>Average</b>	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
<b>1982</b>	<b>Average</b>	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
<b>1983</b>	<b>Average</b>	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
<b>1984</b>	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
		<b>Average</b>	<b>112.1</b>	<b>103.9</b>	<b>111.6</b>	<b>108.4</b>	<b>111.4</b>	<b>111.9</b>	<b>109.6</b>	<b>118.7</b>	<b>113.5</b>	<b>111.0</b>	<b>115.5</b>	<b>107.9</b>
<b>1985</b>	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	100.6	107.3	103.3	106.2	107.9	104.6	115.9	108.3	105.1	111.3	102.1	105.8
	April	107.0	101.5	106.6	102.2	106.9	106.4	105.1	113.9	109.7	105.2	110.7	100.9	103.8
	May	106.2	99.4	104.5	99.9	102.1	105.4	100.7	112.4	108.1	103.4	109.7	99.8	103.9
	June	103.5	95.4	101.1	94.4	98.6	103.7	96.4	107.1	104.4	99.6	108.1	95.0	104.4
	July	100.2	91.4	98.3	90.9	97.5	101.6	96.2	107.3	101.2	97.4	105.0	92.1	99.6
	August	99.5	91.0	96.1	91.7	95.9	101.5	97.5	105.5	98.9	97.3	105.0	92.5	99.2
	September	100.5	94.0	100.7	97.5	101.0	104.9	98.8	107.1	103.2	101.4	104.5	96.6	102.2
	October	106.4	99.4	104.7	102.3	104.4	106.9	102.7	109.9	106.3	103.4	107.0	98.6	105.8
	November	111.4	103.7	110.5	107.7	111.6	111.2	107.1	114.5	111.8	109.3	114.3	105.7	107.5
	December	114.3	105.6	110.7	109.1	111.1	113.1	110.7	117.0	112.6	111.9	115.0	108.9	110.1
		<b>Average</b>	<b>108.0</b>	<b>99.7</b>	<b>106.9</b>	<b>102.5</b>	<b>106.7</b>	<b>107.8</b>	<b>104.7</b>	<b>114.2</b>	<b>108.7</b>	<b>105.9</b>	<b>111.2</b>	<b>102.2</b>
<b>1986</b>	January	111.6	101.1	105.9	103.2	101.9	109.0	102.3	116.3	112.2	107.7	111.4	104.7	107.0
	February	99.5	90.9	90.6	88.5	93.5	100.2	93.9	105.4	99.9	98.3	102.6	95.3	98.2
	March	93.4	86.5	85.9	84.2	84.6	95.6	87.1	97.6	93.9	91.7	96.3	86.9	90.9
	April	86.2	77.9	76.7	74.4	72.1	89.0	77.1	93.2	88.6	84.0	87.5	77.9	84.2
	May	80.8	74.5	74.2	70.6	76.6	84.7	74.2	87.9	85.0	80.1	85.1	72.6	74.6
	June	77.7	68.5	68.8	65.4	72.6	78.9	73.7	81.7	79.7	75.6	81.3	66.0	74.4
	July†	69.1	61.5	64.1	62.9	68.7	71.0	67.2	78.5	75.6	73.6	72.7	64.0	67.7

<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	MI	MN	OH	WI	ID	AK	OR	WA	U.S. Average
		Cents per gallon, excluding tax											
<b>1978</b>	<b>Average</b>	46.2	46.5	48.5	47.9	47.8	47.4	44.7	43.6	53.2	45.8	48.6	49.0
<b>1979</b>	<b>Average</b>	65.1	68.8	72.7	70.9	72.4	68.6	67.3	62.1	68.2	68.0	69.7	70.4
<b>1980</b>	<b>Average</b>	92.2	95.8	99.6	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	97.4
<b>1981</b>	<b>Average</b>	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4
<b>1982</b>	<b>Average</b>	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6	116.0
<b>1983</b>	<b>Average</b>	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	107.8
<b>1984</b>	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
		<b>Average</b>	<b>102.1</b>	<b>100.1</b>	<b>103.1</b>	<b>105.0</b>	<b>104.1</b>	<b>102.1</b>	<b>101.0</b>	<b>98.5</b>	<b>106.9</b>	<b>99.3</b>	<b>102.6</b>
<b>1985</b>	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	96.3	101.3	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0
	April	96.4	96.7	98.6	98.2	101.4	99.9	97.6	96.1	NA	96.5	99.2	105.0
	May	93.8	96.4	101.5	96.8	103.8	99.9	99.6	96.8	106.8	96.7	98.1	103.5
	June	90.7	92.1	97.5	98.2	104.3	97.1	94.2	95.9	107.4	95.5	99.1	100.8
	July	90.2	90.0	93.2	99.4	100.5	92.9	93.0	94.9	108.1	95.3	97.5	98.0
	August	88.6	90.8	93.1	96.8	101.0	91.8	93.0	94.5	107.1	93.0	97.1	97.2
	September	96.2	95.6	95.4	99.2	98.6	95.8	94.9	94.3	109.2	93.9	97.6	99.7
	October	98.7	100.1	101.1	101.7	101.1	98.0	99.1	97.2	108.8	94.1	100.0	103.0
	November	105.0	104.0	105.2	103.5	105.6	104.4	102.0	98.0	106.2	99.1	104.4	108.6
	December	104.8	103.4	105.4	107.3	105.2	105.9	103.2	98.8	106.7	102.4	106.1	110.4
		<b>Average</b>	<b>98.1</b>	<b>97.5</b>	<b>99.3</b>	<b>101.8</b>	<b>102.0</b>	<b>99.8</b>	<b>98.3</b>	<b>97.1</b>	<b>108.1</b>	<b>97.0</b>	<b>101.1</b>
<b>1986</b>	January	100.1	97.6	99.8	102.6	100.5	100.7	96.4	97.1	106.8	100.1	104.5	106.4
	February	87.8	83.1	84.9	91.9	86.3	91.9	83.9	90.9	104.9	83.7	90.4	95.8
	March	79.7	74.7	75.5	80.5	80.1	80.8	76.0	76.5	113.6	66.9	75.3	88.7
	April	70.8	68.6	73.9	74.6	76.3	78.2	74.0	69.8	95.6	62.5	74.9	80.7
	May	67.4	72.9	67.2	72.3	79.4	75.2	71.8	74.7	94.3	64.1	71.1	77.4
	June	63.4	67.3	66.5	R65.3	74.5	69.1	R69.2	R66.8	R89.3	60.0	R65.2	R72.9
	July†	53.8	69.8	60.2	65.8	62.6	62.3	61.9	70.2	84.5	54.3	60.3	66.2

Footnotes continued.

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

Note: • Prices prior to January 1983 are Energy Information Administration estimates. See Note 6 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—Previous Series

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies <sup>1</sup>	Purchased by Electric Plants <sup>1, 2</sup>	Residential Price <sup>1, 3</sup>
Dollars per thousand cubic feet <sup>4</sup>							
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
1981	Average	1.98	4.84	2.15	3.11	2.91	4.29
1982	Average	2.46	4.94	2.72	3.73	3.49	5.17
1983	Average	2.59	4.51	2.93	4.26	3.58	6.06
1984	January	2.67	4.40	2.80	4.25	3.49	5.98
	February	2.71	4.37	2.82	3.97	3.55	6.01
	March	2.67	4.40	2.80	4.18	3.47	5.98
	April	2.64	4.23	2.95	4.11	3.53	6.00
	May	2.67	4.15	2.86	4.17	3.72	6.19
	June	2.70	4.25	2.89	4.06	3.73	6.13
	July	2.68	4.15	2.95	4.04	3.86	6.17
	August	2.69	4.12	2.95	4.07	3.76	6.20
	September	2.62	4.34	2.84	4.10	3.80	6.26
	October	2.63	4.19	2.96	4.06	3.72	6.25
	November	2.61	3.43	3.13	4.26	3.67	6.12
	December	2.57	3.34	2.95	4.22	3.64	6.09
		Average	2.66	4.08	2.91	4.13	3.68
1985	January	2.63	3.21	2.89	4.19	3.79	6.19
	February	2.71	3.08	2.87	3.82	3.73	6.12
	March	2.64	3.29	2.90	4.00	3.80	6.16
	April	2.67	3.39	2.86	3.96	3.76	6.14
	May	2.56	3.32	2.89	3.84	3.61	NA
	June	2.60	3.40	3.00	3.86	3.60	NA
	July	2.54	3.41	2.82	3.83	3.60	NA
	August	2.50	3.28	2.69	3.75	3.49	NA
	September	2.45	3.28	2.76	3.80	3.43	NA
	October	2.40	3.16	2.68	3.99	3.41	NA
	November	2.38	2.88	2.62	3.92	3.43	NA
	December	2.31	2.79	2.67	3.91	3.35	NA
		Average	2.53	3.18	2.81	3.91	3.58
1986	January	2.23	2.81	2.64	3.95	3.26	NA
	February	2.11	2.79	2.60	3.77	2.91	NA
	March	2.02	3.05	2.48	3.67	2.65	NA
	April	R1.86	3.14	2.37	3.37	2.48	NA
	May	R1.82	2.75	2.47	3.28	2.41	NA
	June	1.78	2.56	2.48	2.89	2.28	NA

**Previous Data Series.** The residential and industrial price series shown on this page are being replaced by the series shown on the following page.

<sup>1</sup>Includes supplemental gaseous fuels.

<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 greater.

<sup>3</sup>Monthly residential prices are Energy Information Administration calculations. See Note 7 in the Notes and Sources for this section for estimation procedures.

<sup>4</sup>Prices shown on this page are intended to include all taxes. See Note 8 in the Notes and Sources for this section.

R=Revised data. NA=Not available.

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

• Data for 1973 through December 1984 are final. All other data are preliminary unless otherwise indicated.

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

# Price

## National Average Natural Gas Prices—Current Series

		Major Interstate Pipeline Companies				Delivered to Consumers <sup>1</sup>				
		Wellhead	Imports	Purchases from Producers	City Gate	Residential	Commercial	Industrial	Electric Utilities <sup>2</sup>	Average
Dollars per thousand cubic feet <sup>3</sup>										
1973	Average	0.22	NA	NA	NA	1.29	0.94	0.50	0.38	0.73
1974	Average	0.30	NA	NA	NA	1.43	1.07	0.67	0.51	0.89
1975	Average	0.45	NA	NA	NA	1.71	1.35	0.96	0.77	1.19
1976	Average	0.58	NA	NA	NA	1.98	1.64	1.24	1.06	1.47
1977	Average	0.79	NA	NA	NA	2.35	2.04	1.50	1.32	1.78
1978	Average	0.91	2.21	0.83	NA	2.56	2.23	1.70	1.48	1.98
1979	Average	1.18	2.60	1.22	NA	2.98	2.73	1.99	1.81	2.34
1980	Average	1.59	4.42	1.63	NA	3.68	3.39	2.56	2.27	2.91
1981	Average	1.98	4.84	2.15	NA	4.29	4.00	3.14	2.89	3.51
1982	Average	2.46	4.94	2.72	NA	5.17	4.82	3.87	3.48	4.32
1983	Average	2.59	4.51	2.93	NA	6.06	5.59	4.18	3.58	4.82
1984	January	2.67	4.40	2.80	3.94	5.78	5.49	4.31	3.49	5.07
	February	2.71	4.37	2.82	4.02	5.84	5.54	4.29	3.55	5.05
	March	2.67	4.40	2.80	3.91	5.92	5.57	4.29	3.47	5.00
	April	2.64	4.23	2.95	3.96	5.96	5.52	4.19	3.53	4.87
	May	2.67	4.15	2.86	3.98	6.27	5.60	4.21	3.72	4.76
	June	2.70	4.25	2.89	4.02	6.76	5.67	4.11	3.73	4.58
	July	2.68	4.15	2.95	4.06	7.11	5.60	4.14	3.86	4.55
	August	2.69	4.12	2.95	3.69	7.23	5.47	4.15	3.76	4.49
	September	2.62	4.34	2.84	4.02	7.17	5.53	4.24	3.80	4.61
	October	2.63	4.19	2.96	3.99	6.80	5.54	4.17	3.72	4.68
	November	2.61	3.43	3.13	3.92	6.31	5.56	4.21	3.67	4.84
	December	2.57	3.34	2.95	3.97	6.05	5.60	4.25	3.64	5.06
	<b>Average</b>	<b>2.66</b>	<b>4.08</b>	<b>2.91</b>	<b>3.95</b>	<b>6.12</b>	<b>5.55</b>	<b>4.22</b>	<b>3.68</b>	<b>4.85</b>
1985	January	2.63	3.21	2.89	3.89	5.98	5.63	4.28	3.79	5.20
	February	2.71	3.08	2.87	3.94	5.87	5.55	4.34	3.73	5.22
	March	2.64	3.29	2.90	3.97	6.00	5.60	4.25	3.80	5.13
	April	2.67	3.39	2.86	3.90	6.11	5.66	4.11	3.76	4.97
	May	2.56	3.32	2.89	3.88	6.59	5.58	3.99	3.61	4.72
	June	2.60	3.40	3.00	3.86	6.96	5.61	3.91	3.60	4.57
	July	2.54	3.41	2.82	3.69	7.08	5.44	3.76	3.60	4.37
	August	2.50	3.28	2.69	3.70	7.21	5.42	3.82	3.49	4.31
	September	2.45	3.28	2.76	3.68	7.07	5.36	3.86	3.43	4.39
	October	2.40	3.16	2.68	3.58	6.52	5.29	3.78	3.41	4.43
	November	2.38	2.88	2.62	3.46	6.13	5.37	3.81	3.43	4.63
	December	2.31	2.79	2.67	3.45	5.71	5.25	3.79	3.35	4.79
	<b>Average</b>	<b>2.53</b>	<b>3.18</b>	<b>2.81</b>	<b>3.75</b>	<b>6.13</b>	<b>5.50</b>	<b>3.99</b>	<b>3.58</b>	<b>4.81</b>
1986	January	2.23	2.81	2.64	3.52	5.63	5.30	3.78	3.26	4.86
	February	2.11	2.79	2.60	3.52	5.67	5.29	3.75	2.91	4.84
	March	2.02	3.05	2.48	3.50	5.70	5.29	3.50	2.65	4.66
	April	R1.86	3.14	2.37	3.33	5.88	5.26	3.27	2.48	4.35
	May	R1.82	2.75	2.47	3.15	6.15	5.20	3.00	2.41	3.98
	June	1.78	2.56	2.48	3.11	6.65	5.14	2.96	2.28	3.73
	July	NA	NA	NA	3.06	6.88	5.06	2.80	NA	NA

**Current Data Series.** The residential and industrial price series shown on this page are replacing the series shown on the preceding page. The city gate commercial and consumer average price series are new. See the last page of this section for a listing of the sources of all data series.

<sup>1</sup>Includes supplemental gaseous fuels.

<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 greater.

<sup>3</sup>Prices shown on this page are intended to include all taxes. See Note 8 in the Notes and Sources for this section.

<sup>4</sup>The decline from the previous month was primarily the result of refunds in the form of reduced charges.

R=Revised data. NA=Not available.

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

• Data for 1973 through December 1984 are final. All other data are preliminary unless otherwise indicated.

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

# Price

## Average Retail Electricity Prices<sup>1</sup>

		Residential		Commercial		Industrial		Other		Total <sup>3</sup>	
		Old Series <sup>2</sup>	New Series	Old Series <sup>2</sup>	New Series	Old Series <sup>2</sup>	New Series	Old Series <sup>2</sup>	New Series	Old Series <sup>2</sup>	New Series
Cents per kilowatthour											
1973	Average	2.54		2.41		1.25		2.10		1.96	
1974	Average	3.10		3.04		1.69		2.75		2.49	
1975	Average	3.51		3.45		2.07		3.08		2.92	
1976	Average	3.73		3.69		2.21		3.27		3.09	
1977	Average	4.05		4.09		2.50		3.51		3.42	
1978	Average	4.31		4.36		2.79		3.62		3.69	
1979	Average	4.64		4.68		3.05		3.96		3.99	
1980	Average	5.36		5.48		3.69		4.76		4.73	
1981	Average	6.20		6.29		4.29		5.28		5.46	
1982	Average	6.86		6.86		4.95		5.92		6.13	
1983	Average	7.18		7.02		4.96		6.38		6.30	
1984	January	6.76		6.79		4.86		6.34		6.13	
	February	6.96		6.99		4.85		6.53		6.19	
	March	7.16		7.12		4.88		6.69		6.26	
	April	7.32		7.23		4.87		6.74		6.30	
	May	7.58		7.28		4.92		6.86		6.39	
	June	7.89		7.48		5.10		6.79		6.66	
	July	7.99		7.51		5.22		6.99		6.83	
	August	8.05		7.51		5.16		6.77		6.83	
	September	8.05		7.64		5.26		7.07		6.89	
	October	7.95		7.63		5.14		6.88		6.71	
	November	7.61		7.42		5.06		7.00		6.53	
	December	7.33		7.28		5.07		6.72		6.47	
		Average	7.54		7.33		5.04		6.78		6.52
1985	January	7.28		7.25		5.12		6.80		6.52	
	February	7.19		7.21		5.12		6.77		6.47	
	March	7.48		7.36		5.13		7.01		6.55	
	April	7.73		7.44		5.09		6.95		6.58	
	May	7.98		7.55		5.08		7.09		6.66	
	June	8.15		7.60		5.24		7.07		6.86	
	July	8.24		7.64		5.36		7.13		7.02	
	August	8.18		7.55		5.20		7.01		6.92	
	September	8.18		7.62		5.24		7.08		6.95	
	October	8.05		7.65		5.19		6.98		6.80	
	November	7.73		7.49		5.10		6.91		6.63	
	December	7.44		7.29		5.10		6.73		6.56	
		Average	7.79		7.48		5.17		6.96		6.72
1986*	January	7.34	7.02	7.29	7.05	5.16	4.97	7.00	6.38	6.60	6.34
	February	7.54	7.12	7.41	7.16	5.12	4.94	7.05	6.72	6.64	6.36
	March	7.59	7.23	7.47	7.22	5.12	4.94	7.29	6.75	6.63	6.37
	April	7.79	7.41	7.45	7.21	5.01	4.83	7.25	7.04	6.60	6.36
	May	7.82	7.43	7.39	7.11	5.05	4.87	7.22	6.85	6.59	6.33
	June	8.11	7.42	7.56	7.26	5.02	4.84	7.21	6.71	6.81	6.45
	July†	8.20	7.77	7.49	7.08	5.32	5.08	7.19	6.77	7.01	6.67

<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 1979 cover 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.

<sup>3</sup>Average price for total sales to ultimate consumers.

\*See Note 9 in the Notes and Sources for this section.

†The residential price reflects unbilled sales for eight utilities. Major unbilled residential sales were reported in the West South Central Census Division.

‡Initial estimates.

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

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

# Price

## Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants<sup>1</sup>

		Coal	Heavy Oil <sup>2</sup>	Natural Gas <sup>3</sup>	All Fossil Fuels <sup>2</sup>
Cents per million Btu					
<b>1973</b>	<b>Average</b>	<b>40.5</b>	<b>78.5</b>	<b>33.8</b>	<b>47.6</b>
<b>1974</b>	<b>Average</b>	<b>70.9</b>	<b>189.0</b>	<b>48.2</b>	<b>91.4</b>
<b>1975</b>	<b>Average</b>	<b>81.4</b>	<b>200.5</b>	<b>75.2</b>	<b>104.4</b>
<b>1976</b>	<b>Average</b>	<b>84.8</b>	<b>195.2</b>	<b>103.4</b>	<b>111.9</b>
<b>1977</b>	<b>Average</b>	<b>94.7</b>	<b>219.8</b>	<b>129.1</b>	<b>129.7</b>
<b>1978</b>	<b>Average</b>	<b>111.6</b>	<b>212.5</b>	<b>142.2</b>	<b>141.1</b>
<b>1979</b>	<b>Average</b>	<b>122.4</b>	<b>298.8</b>	<b>174.9</b>	<b>163.9</b>
<b>1980</b>	<b>Average</b>	<b>135.1</b>	<b>426.7</b>	<b>219.9</b>	<b>192.8</b>
<b>1981</b>	<b>Average</b>	<b>153.2</b>	<b>533.4</b>	<b>280.5</b>	<b>225.6</b>
<b>1982</b>	<b>Average</b>	<b>164.7</b>	<b>483.2</b>	<b>337.6</b>	<b>224.9</b>
<b>1983</b>	<b>Average</b>	<b>165.6</b>	<b>457.8</b>	<b>347.4</b>	<b>220.6</b>
<b>1984</b>	January	161.6	488.9	343.7	221.0
	February	164.9	496.3	347.5	217.4
	March	163.4	484.0	339.8	208.4
	April	165.7	494.1	344.4	210.6
	May	168.6	486.9	360.4	220.3
	June	169.1	488.3	360.9	223.2
	July	168.2	474.6	373.1	231.3
	August	167.2	459.6	365.6	223.5
	September	167.4	472.5	368.0	217.5
	October	168.7	474.1	361.4	218.8
	November	166.6	470.6	357.2	216.8
	December	165.0	480.4	355.4	218.7
	<b>Average</b>	<b>166.4</b>	<b>481.2</b>	<b>358.3</b>	<b>219.2</b>
<b>1985</b>	January	164.1	472.0	364.4	218.7
	February	167.0	482.4	358.1	218.1
	March	167.1	458.8	364.9	209.5
	April	167.6	452.1	361.6	210.6
	May	166.8	403.1	346.1	206.3
	June	165.0	384.9	344.8	208.1
	July	164.2	392.8	344.0	217.4
	August	164.0	380.5	334.8	211.1
	September	163.2	419.0	328.7	204.9
	October	163.5	415.8	330.4	204.3
	November	163.6	397.2	329.3	204.5
	December	161.0	424.3	320.9	202.9
	<b>Average</b>	<b>164.8</b>	<b>424.4</b>	<b>343.1</b>	<b>209.6</b>
<b>1986</b>	January	159.5	392.6	313.5	194.7
	February	161.1	302.3	281.0	185.4
	March	161.7	266.5	255.8	179.8
	April	163.6	229.7	237.8	177.7
	May	162.3	218.9	235.1	177.7
	June	159.2	214.4	221.4	174.1

<sup>1</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.

<sup>2</sup>See Note 10 in the Notes and Sources for this section.

<sup>3</sup>Includes supplemental gaseous fuels.

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

1. The actual domestic average price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices.

2. 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 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. 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 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.

7. 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.

8. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all U.S., State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on consumers' bills are sometimes excluded by the reporting utilities.

9. Beginning with January 1986, national average price estimates are based on a statistically derived sample of both publicly and privately owned electric utilities. Prior to that time, national average price estimates were based on a sample of only privately owned electric utilities. Respondents to Form EIA-826, "Electric Utility Company Monthly Statement," consist of a sample of 187 electric utilities that were statistically chosen using stratification techniques. The respondents were chosen from more than 3,000 electric utilities reporting on Form EIA-861, "Annual Electric Utility Report." This schema differs from the cut-off sample used prior to January 1986. Data are shown for both the old and new series. Publication of both series will continue until sufficient information exists to estimate historical data based on the new series.

10. 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.



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

### Sources

**Petroleum and Petroleum Products:** • Actual domestic average wellhead prices—Economic Regulatory Administration (ERA), January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report"; February 1976 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 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 Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA-782B, "Resellers/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 data.

• All other petroleum products—January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum 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—Previous Series:** • Average wellhead price—Annual data through 1982 from EIA, *Natural Gas Annual, 1973 through 1983*. Annual data for 1983 and 1984 from Form EIA-627, "Annual Quantity and Value of Natural Gas Report" and the U.S. Minerals Management Service. 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 Sales".

• Electric plant data—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Residential Price—Annual data through 1983 from EIA, *Natural Gas Annual, 1973 through 1983*. Annual data for 1984 from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." 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.

**Natural Gas—Current Series:** • Average wellhead—Annual data through 1982 from EIA, *Natural Gas Annual, 1973 through 1983*. Annual data for 1983 and 1984 from Form EIA-627, "Annual Quantity and Value of Natural Gas Report" and the U.S. Minerals Management Service. 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 and Purchases from Producers by Major Interstate Pipeline Companies—FERC Form 11, "Interstate Pipeline Company Purchases, and Industrial Sales".

• City Gate—EIA, October 1983 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

• Residential, Commercial, Industrial and Consumer Average—Annual data from EIA, Form EIA-176 "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

• Electric Utilities—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

**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."

## International

### Crude Oil Production

World crude oil production in July 1986 was 57.5 million barrels per day, up 1.3 million from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during July 1986 averaged 20.5 million barrels per day, up 0.8 million from the level during the previous month. Production by the Arab members of OPEC during July 1986 averaged 13.1 million barrels per day, up 0.7 million from the June 1986 level. During July 1986, production increased in Saudi Arabia by 550,000 barrels per day, in Kuwait by 150,000, and in Iraq by 20,000 barrels per day. Production decreased in Libya and Qatar by 50,000 and 20,000 barrels per day, respectively, while production in Algeria and the United Arab Emirates remained the same as during the previous month. Among non-Arab OPEC countries, production increased in Nigeria and Venezuela each by 60,000 barrels per day. Production in Indonesia decreased by 5,000 barrels per day, while production in Iran remained the same as in the previous month.

Of the non-OPEC nations during July 1986, production increased in the United Kingdom by 410,000 barrels per day and in Canada by 35,000 barrels per day. The level of production decreased in the United States and in Mexico by 55,000 and 10,000 barrels per day, respectively, during the month.

### Petroleum Consumption

In June 1986 consumption in all OECD countries was 33.6 million barrels per day, 4.3 percent higher compared with the level in June 1985. Consumption was higher in Canada by 15.4 percent, in the United States by 3.3 percent, and slightly higher in Japan compared with levels 1 year earlier. Consumption in all European OECD countries combined in June 1986 was 11.5 million barrels per day, 8.0 percent higher compared with the level in the previous June. Consumption was higher in West Germany by 21.6 percent and in the United Kingdom by 10.6

percent, but down in Italy by 3.4 percent and in France by 1.5 percent compared with levels 1 year earlier.

### Petroleum Stocks

For all OECD countries, petroleum stocks at the end of June 1986 were 3.3 billion barrels, 1.4 percent higher than at the end of June 1985. Stocks were higher in the United States by 2.0 percent and in Japan by 0.8 percent, but lower in Canada by 10.1 percent than the levels 1 year earlier. Ending stock levels in all European OECD countries for June 1986 were 1.1 billion barrels, 1.8 percent higher than in June 1985. Stocks were up in Italy by 7.0 percent, but down in West Germany by 4.6 percent, and in France by 0.8 percent compared with levels 1 year earlier. Stocks were unchanged in the United Kingdom compared with the level in June 1985.

### Nuclear Electricity Production

In July 1986, the 20 non-Communist nations with nuclear power capacity generated 105.3 gross terawatt-hours (billion kilowatt-hours) of nuclear-based electricity. This generation represents an increase of 5.1 percent compared with July 1985 generation. The United States accounted for 35.3 gross terawatt-hours (33.5 percent) of total nuclear generation in July 1986.

In the United Kingdom, the Central Electricity Generating Board started pre-commercial operation of Dungeness B-2 beginning December 29, 1985. Dungeness B-2 is a 660-gross-megawatt-electric advanced gas-cooled reactor. With the addition to the list of operable units of Dungeness B-2 and Hope Creek 1 in the United States, there were 312 operable nuclear power generating units in non-Communist countries as of July 31, 1986, according to *Nucleonics Week* information, with a collective gross generating capacity of 241.0 gigawatts. In July 1986, the 99 operable U.S. units accounted for 89.6 gross gigawatts (37.2 percent) of total non-Communist nuclear generating capacity.

# International

## Crude Oil Production for Major Petroleum Producing Countries

		Algeria	Iraq	Kuwait <sup>1</sup>	Libya	Qatar	Saudi Arabia <sup>1</sup>	United Arab Emirates	Arab Members of OPEC <sup>2</sup>	Indonesia	Iran
Thousand barrels per day											
1973	Average	1,097	2,018	3,020	2,175	570	7,596	1,533	18,009	1,339	5,861
1974	Average	1,009	1,971	2,546	1,521	518	8,480	1,679	17,724	1,375	6,022
1975	Average	983	2,262	2,084	1,480	438	7,075	1,664	15,986	1,307	5,350
1976	Average	1,075	2,415	2,145	1,933	497	8,577	1,936	18,578	1,504	5,883
1977	Average	1,152	2,348	1,969	2,063	445	9,245	1,999	19,221	1,686	5,663
1978	Average	1,161	2,563	2,131	1,983	487	8,301	1,831	18,457	1,635	5,242
1979	Average	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168
1980	Average	1,012	2,514	1,656	1,787	472	9,900	1,709	19,050	1,577	1,662
1981	Average	805	1,000	1,125	1,140	405	9,815	1,474	15,764	1,605	1,380
1982	Average	710	1,012	823	1,150	330	6,483	1,250	11,758	1,339	2,214
1983	Average	660	1,005	1,064	1,105	295	5,086	1,149	10,364	1,343	2,440
1984	January	650	1,100	1,080	1,100	445	5,130	1,200	10,705	R1,415	2,200
	February	600	1,000	1,240	1,100	315	5,040	1,200	10,495	R1,515	2,300
	March	600	1,200	1,293	1,100	440	4,843	1,205	10,681	R1,505	2,400
	April	600	1,200	1,250	1,200	400	5,150	1,205	11,005	R1,512	2,200
	May	650	1,200	1,200	1,200	400	5,000	1,200	10,850	R1,415	1,700
	June	700	1,200	1,200	1,250	500	5,450	1,225	11,525	R1,465	2,200
	July	650	1,200	1,110	1,100	430	5,010	1,090	10,590	R1,340	2,400
	August	650	1,300	1,220	1,000	400	4,520	990	10,080	R1,360	1,800
	September	650	1,300	1,183	1,000	480	4,133	1,110	9,856	R1,350	1,900
	October	650	1,200	1,129	1,000	380	4,129	1,060	9,548	R1,375	2,100
	November	650	1,300	990	1,000	280	3,990	1,060	9,270	R1,300	2,400
	December	600	1,300	990	1,000	260	3,590	1,210	8,950	R1,395	2,500
		<b>Average</b>	<b>638</b>	<b>1,209</b>	<b>1,157</b>	<b>1,087</b>	<b>394</b>	<b>4,663</b>	<b>1,146</b>	<b>10,294</b>	<b>R1,412</b>
1985	January	R640	1,250	1,110	1,000	270	3,510	1,100	R8,880	1,310	1,900
	February	R660	1,250	1,125	1,000	290	4,025	1,160	R9,510	1,330	2,100
	March	690	1,200	1,085	1,000	315	3,835	1,215	9,340	1,300	2,200
	April	650	1,370	970	1,000	260	3,470	1,215	8,935	1,300	2,300
	May	650	1,300	940	1,100	290	2,590	1,160	8,030	1,200	2,000
	June	600	1,370	920	980	300	2,420	1,100	7,690	1,050	2,200
	July	600	1,450	940	910	320	2,740	1,155	8,115	1,300	2,200
	August	600	1,400	940	910	320	2,340	1,200	7,710	1,300	2,400
	September	650	1,600	980	1,100	295	2,980	1,285	8,890	1,200	2,200
	October	650	1,650	1,055	1,200	320	3,910	1,255	10,040	1,260	2,300
	November	680	1,700	1,050	1,200	300	4,200	1,250	10,380	1,300	2,200
	December	650	1,650	1,080	1,300	335	4,680	1,225	10,920	1,250	2,400
		<b>Average</b>	<b>R643</b>	<b>1,433</b>	<b>1,016</b>	<b>1,059</b>	<b>301</b>	<b>3,388</b>	<b>1,193</b>	<b>R9,033</b>	<b>1,258</b>
1986	January	650	1,650	1,115	1,100	360	4,465	1,215	10,555	1,420	2,100
	February	550	1,650	1,315	900	325	4,715	1,415	10,870	1,300	2,000
	March	600	1,650	1,515	900	350	4,115	1,365	10,495	1,300	1,800
	April	600	1,500	1,520	900	200	4,720	1,315	10,755	1,340	2,000
	May	600	1,700	1,510	1,100	360	4,360	1,465	11,095	1,425	2,100
	June	600	1,800	1,650	1,200	420	5,250	1,565	12,485	1,350	2,200
	July	600	1,820	1,800	1,150	400	5,800	1,565	13,135	1,345	2,200
		<b>Average</b>	<b>601</b>	<b>1,682</b>	<b>1,491</b>	<b>1,038</b>	<b>346</b>	<b>4,774</b>	<b>1,415</b>	<b>11,345</b>	<b>1,355</b>

Revisions reflect data published in the EIA *International Energy Annual 1985*.

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In July 1986, total production in this region amounted to approximately 400,000 barrels per day.

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

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

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

R=Revised data.

Footnotes continued on following page.

# International

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

		Nigeria	Vene- zuela	Total OPEC <sup>a</sup>	Canada	Mexico	United Kingdom	United States	China	USSR	Other <sup>d</sup>	World
Thousand barrels per day												
1973	Average	2,054	3,366	30,989	1,800	465	2	9,208	1,090	R8,329	R3,690	R55,573
1974	Average	2,255	2,976	30,729	1,684	571	2	8,774	1,315	R8,856	R3,838	R55,769
1975	Average	1,783	2,346	27,155	1,439	705	12	8,375	1,490	R9,472	R4,116	R52,764
1976	Average	2,067	2,294	30,738	1,295	831	245	8,132	1,670	R9,985	R4,297	R57,193
1977	Average	2,085	2,238	31,298	1,320	981	768	8,245	1,874	R10,485	R4,551	R59,522
1978	Average	1,897	R2,165	29,805	1,313	1,209	1,082	8,707	2,082	R10,950	R4,720	R59,868
1979	Average	2,302	2,356	30,928	1,496	1,461	1,568	8,552	2,122	R11,187	R5,039	R62,353
1980	Average	2,055	2,168	26,891	1,435	1,936	1,622	8,597	2,114	R11,460	5,170	R59,225
1981	Average	1,433	2,102	22,646	1,285	2,313	1,811	8,572	2,012	R11,552	5,355	R55,546
1982	Average	1,295	1,895	18,868	1,271	2,748	2,065	8,649	2,045	R11,615	5,639	R52,900
1983	Average	1,241	1,801	17,583	1,356	2,689	2,291	8,688	2,120	R11,684	R6,243	R52,654
1984	January	R1,335	R1,825	R17,885	R1,370	R2,700	R2,510	8,868	R2,225	R11,650	R6,695	R53,903
	February	R1,530	R1,800	R18,035	1,445	R2,785	R2,585	8,874	R2,225	R11,650	R6,684	R54,283
	March	R1,525	R1,800	R18,316	1,475	R2,740	R2,465	8,672	R2,225	R11,500	R6,616	R54,009
	April	R1,270	R1,800	R18,202	1,430	R2,800	R2,460	8,862	R2,250	R11,500	R6,702	R54,206
	May	R1,270	R1,825	R17,475	1,415	R2,830	R2,425	8,955	R2,250	R11,645	R6,797	R53,792
	June	R1,370	R1,790	R18,770	1,470	R2,850	R2,335	8,852	R2,250	R11,645	R6,867	R55,039
	July	R1,175	R1,845	R17,775	1,515	R2,875	R2,455	8,885	R2,330	R11,620	R6,896	R54,351
	August	R1,125	R1,805	R16,585	1,435	R2,710	R2,285	8,809	R2,330	R11,620	R6,904	R52,678
	September	R1,370	R1,835	R16,736	1,330	R2,735	R2,420	8,993	R2,365	R11,540	R7,015	R53,134
	October	R1,565	R1,785	R16,793	R1,460	R2,705	R2,600	8,906	R2,365	R11,540	R7,176	R53,545
	November	R1,565	R1,710	R16,665	1,460	R2,775	R2,590	8,979	R2,365	R11,500	R7,228	R53,562
	December	R1,565	R1,755	R16,585	1,445	R2,860	R2,630	8,897	R2,365	R11,500	R7,269	R53,551
	Average	R1,388	R1,798	R17,481	R1,438	R2,780	R2,480	8,879	R2,296	R11,576	R6,904	R53,834
1985	January	1,400	1,670	R15,570	1,450	2,635	R2,755	8,740	2,450	R11,150	R7,255	R52,005
	February	1,690	R1,675	R16,725	1,450	2,685	R2,625	9,025	2,450	R11,150	R7,294	R53,404
	March	1,700	1,680	16,650	1,500	2,810	R2,575	9,095	2,450	R11,150	R7,367	R53,597
	April	1,600	R1,675	R16,240	1,465	2,825	R2,610	9,043	2,480	R11,150	R7,447	R53,260
	May	1,450	R1,685	R14,795	1,475	2,790	R2,520	9,132	2,480	R11,190	R7,412	R51,794
	June	1,100	1,670	14,110	1,450	2,555	R2,430	9,022	2,480	R11,130	R7,179	R50,356
	July	1,000	1,670	14,715	1,430	2,620	R2,365	8,949	2,490	R11,250	R7,511	R51,330
	August	1,200	1,670	14,710	1,450	2,795	R2,195	8,803	2,490	R11,290	R7,502	R51,235
	September	1,450	1,670	R15,855	1,450	2,815	R2,575	8,954	2,490	R11,350	R7,595	R53,084
	October	1,700	1,670	17,420	1,450	2,750	R2,645	8,970	2,500	R11,390	R7,593	R54,718
	November	1,760	R1,675	R17,765	1,450	2,795	R2,655	8,902	2,500	R11,400	R7,661	R55,128
	December	1,620	R1,680	R18,320	1,553	R2,740	R2,420	9,030	2,500	R11,390	R7,633	R55,586
	Average	1,471	R1,674	R16,068	1,465	R2,735	R2,530	8,971	2,480	R11,250	R7,455	R52,954
1986	January	1,200	1,670	17,395	1,540	2,510	2,666	8,942	2,500	R11,325	R7,656	R54,534
	February	1,400	1,670	17,690	1,475	2,125	2,725	8,940	2,500	R11,325	R7,788	R54,568
	March	1,600	1,670	17,325	1,480	2,220	2,710	8,939	2,500	R11,345	R7,695	R54,214
	April	1,700	1,670	17,925	1,475	2,360	2,580	8,815	2,500	R11,355	R7,271	R54,281
	May	1,600	1,670	18,350	1,425	2,525	2,545	8,805	2,500	R11,365	R7,726	R55,241
	June	1,540	1,690	19,735	1,400	2,545	2,198	8,792	2,500	R11,365	R7,673	R56,208
	July	1,600	1,750	20,500	1,435	2,535	2,608	8,737	2,500	11,365	7,780	57,460
	Average	1,521	1,685	18,424	1,461	2,406	2,576	8,852	2,500	11,350	7,655	55,224

Revisions reflect data published in the EIA *International Energy Annual 1985*.

Footnotes continued.

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

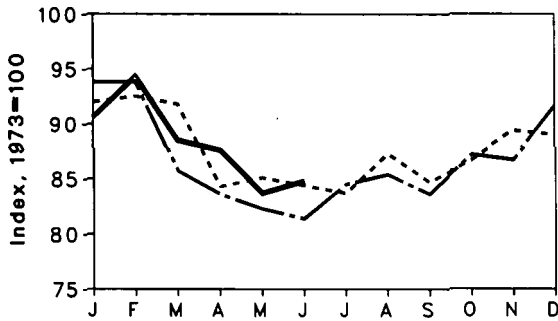
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • 1973-1984 annual data (except the United States): Energy Information Administration (EIA), *International Energy Annual 1985*. • 1973-1985 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly*. • 1983-1985 monthly data (except United States 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.

# International

## Petroleum Consumption for OECD Countries

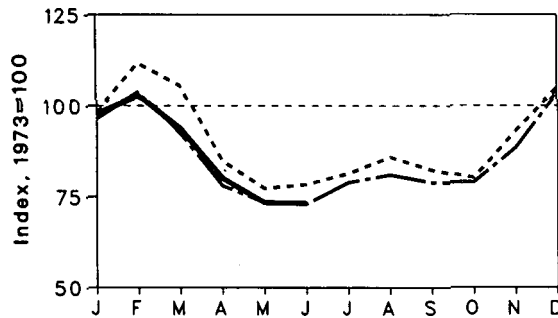
Total OECD



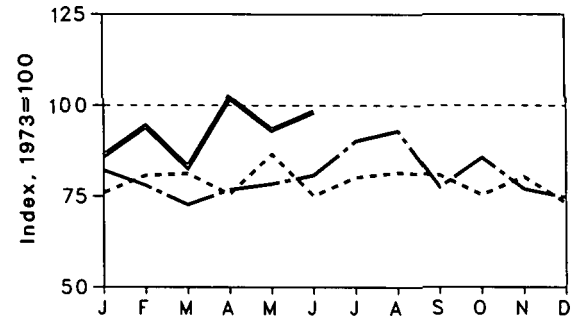
United States



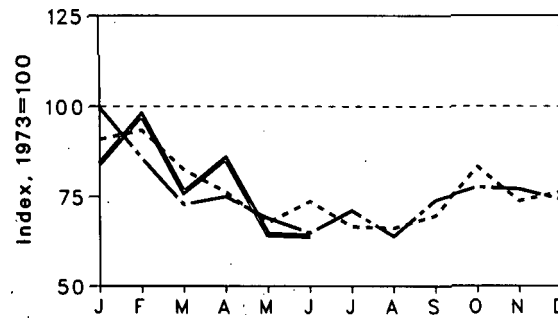
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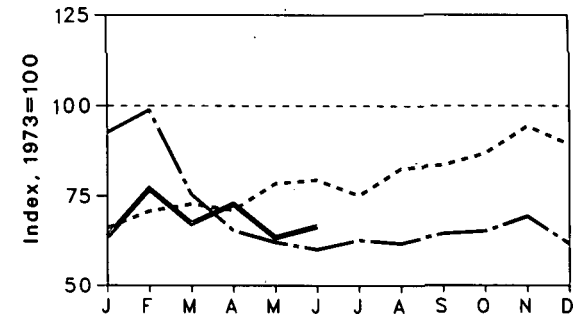
West Germany



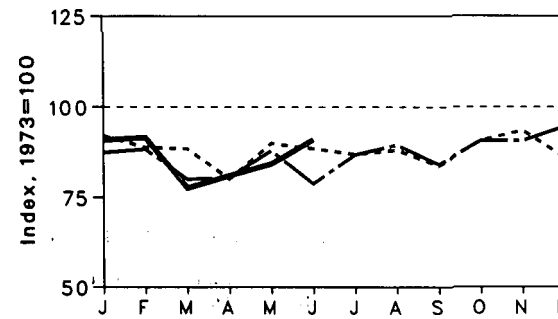
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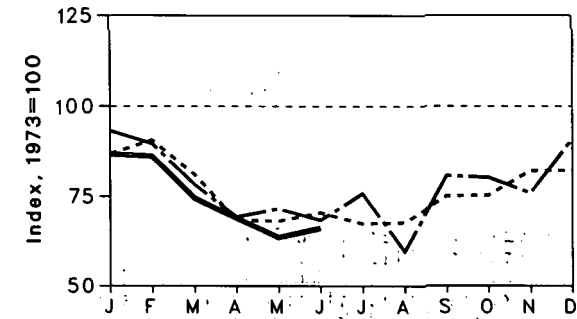
United Kingdom



Canada



Italy



----- 1984      - - - - - 1985      \_\_\_\_\_ 1986

# International

## Petroleum Consumption for OECD Countries<sup>1</sup>

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe <sup>2</sup>	Other OECD <sup>3</sup>	Total OECD <sup>1</sup>
Thousand barrels per day											
<b>1973</b>	<b>Average</b>	1,707	2,422	2,147	5,071	2,301	17,308	2,915	14,521	975	39,582
<b>1974</b>	<b>Average</b>	1,740	2,260	2,090	4,960	2,138	16,653	2,612	13,708	1,017	38,078
<b>1975</b>	<b>Average</b>	1,694	2,136	1,583	4,502	1,872	16,322	2,515	12,656	915	36,089
<b>1976</b>	<b>Average</b>	1,743	2,280	1,801	4,771	1,856	17,461	2,708	13,509	1,024	38,508
<b>1977</b>	<b>Average</b>	1,751	2,235	1,973	5,231	1,880	18,431	2,837	13,847	1,079	40,339
<b>1978</b>	<b>Average</b>	1,737	2,169	2,176	5,142	1,850	18,847	3,048	14,017	1,070	40,813
<b>1979</b>	<b>Average</b>	1,857	2,385	2,003	5,480	1,930	18,513	3,073	14,723	1,045	41,618
<b>1980</b>	<b>Average</b>	1,947	2,256	1,876	4,960	1,725	17,056	2,707	13,511	1,126	38,600
<b>1981</b>	<b>Average</b>	1,836	2,023	1,906	4,848	1,590	16,058	2,449	12,473	1,087	36,302
<b>1982</b>	<b>Average</b>	1,616	1,940	1,782	4,554	1,587	15,296	2,324	12,092	1,132	34,690
<b>1983</b>	<b>Average</b>	1,490	1,911	1,730	4,368	1,520	15,231	2,290	11,808	1,008	R33,905
<b>1984</b>	January	1,571	2,199	1,865	4,976	1,522	16,801	2,215	12,130	R934	R36,411
	February	1,517	2,262	1,945	5,662	1,630	15,437	2,352	12,935	R1,063	R36,613
	March	1,510	1,999	1,742	5,356	1,674	16,050	2,367	12,409	R1,028	R36,352
	April	1,366	1,848	1,468	4,300	1,635	15,568	2,203	11,295	R834	R33,363
	May	1,535	1,642	1,462	3,918	1,807	15,620	2,525	11,605	R994	R33,672
	June	1,511	1,785	1,514	3,975	1,828	15,709	2,191	11,293	R910	R33,398
	July	1,483	1,615	1,448	4,130	1,731	15,498	2,337	11,014	R986	R33,112
	August	1,505	1,607	1,454	4,355	1,900	16,116	2,377	11,423	R1,162	R34,561
	September	1,427	1,688	1,612	4,171	1,924	15,247	2,354	11,660	R1,010	R33,516
	October	1,549	2,018	1,617	4,069	1,996	15,616	2,198	12,001	R1,079	R34,315
	November	1,594	1,788	1,763	4,722	2,173	15,627	2,344	12,327	R1,132	R35,402
	December	1,470	1,851	1,766	5,324	2,057	15,375	2,133	11,960	R1,115	R35,244
		<b>Average</b>	<b>1,503</b>	<b>1,857</b>	<b>1,637</b>	<b>4,577</b>	<b>1,824</b>	<b>15,726</b>	<b>2,300</b>	<b>11,834</b>	<b>R1,021</b>
<b>1985</b>	January	1,491	2,411	2,001	4,887	2,130	16,109	2,393	13,592	1,031	37,111
	February	1,508	2,075	1,923	5,262	2,274	16,121	2,274	13,168	1,078	37,138
	March	1,364	1,763	1,682	4,680	1,738	15,373	2,120	11,434	1,069	33,921
	April	1,372	R1,817	1,487	3,962	1,507	15,472	2,238	R11,136	1,146	R33,088
	May	1,501	R1,671	1,537	3,721	1,432	15,504	2,284	R10,739	1,094	R32,559
	June	1,344	R1,575	1,469	3,701	1,385	15,483	2,356	R10,617	1,058	R32,203
	July	1,483	R1,723	1,627	4,003	1,445	15,434	2,630	R11,451	1,091	R33,462
	August	1,527	R1,551	1,281	4,109	1,425	16,060	2,708	R11,099	1,015	R33,810
	September	1,435	R1,792	1,733	4,002	1,487	15,099	2,259	R11,485	1,075	R33,096
	October	1,546	R1,882	1,723	4,008	1,503	15,944	2,499	R12,042	R971	R34,511
	November	1,546	R1,867	1,629	4,487	1,596	15,503	2,245	R11,694	1,088	R34,317
	December	1,614	R1,798	1,951	5,259	1,423	16,611	2,176	R11,704	R1,071	R36,259
		<b>Average</b>	<b>1,478</b>	<b>R1,826</b>	<b>1,669</b>	<b>4,336</b>	<b>1,608</b>	<b>15,726</b>	<b>2,350</b>	<b>R11,673</b>	<b>1,065</b>
<b>1986</b>	January	R1,551	2,036	1,861	4,961	1,468	15,923	2,509	R12,397	1,016	R35,847
	February	1,561	2,365	1,848	5,215	1,772	16,056	2,746	13,406	1,079	R37,317
	March	1,322	1,846	1,603	4,747	1,551	16,188	2,419	R11,720	1,063	R35,041
	April	1,382	2,070	1,480	4,061	1,676	15,743	2,976	12,637	R840	34,663
	May	R1,438	R1,563	1,364	3,721	1,462	15,852	2,715	R11,180	932	R33,124
	June	1,551	1,552	1,419	3,713	1,532	15,998	2,865	11,465	858	33,584
		<b>Average</b>	<b>1,466</b>	<b>1,899</b>	<b>1,593</b>	<b>4,395</b>	<b>1,573</b>	<b>15,959</b>	<b>2,702</b>	<b>12,114</b>	<b>964</b>

Revisions reflect data published in the EIA *International Energy Annual 1985*.

<sup>1</sup>Organization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States; as well as "Total OECD Europe" and "Other OECD."

<sup>2</sup>"Total OECD Europe" includes France, Italy, the United Kingdom, and West Germany; as well as Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and Turkey.

<sup>3</sup>"Other OECD" includes Australia, New Zealand, and the U.S. Territories.

R=Revised data.

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

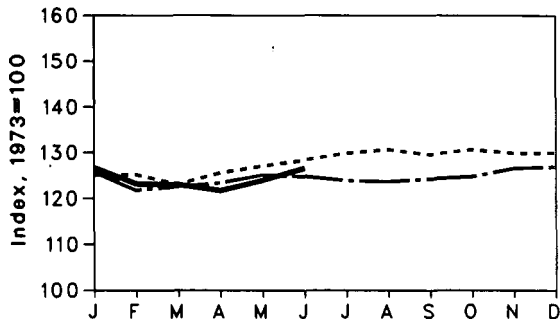
• Data for 1984 through 1986 are preliminary.

Sources: • U.S. data: EIA, *Petroleum Supply Monthly*. • OECD data: OECD, *Quarterly Oil Statistics, Monthly Oil Statistics*.

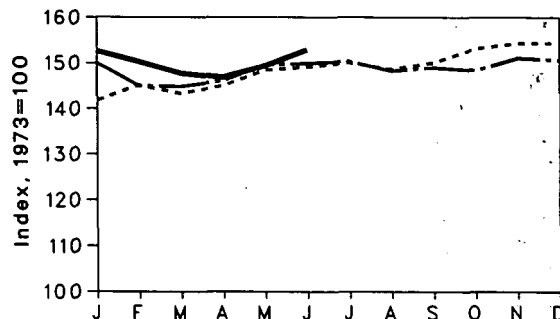
# International

## Petroleum Stocks for OECD Countries at End of Period

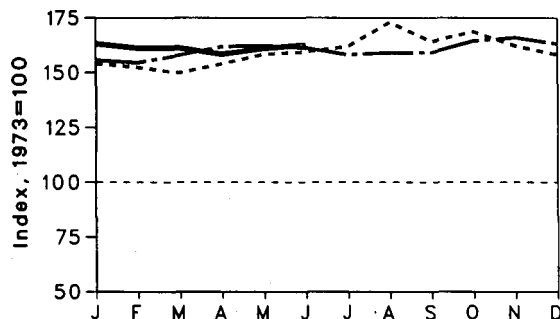
Total OECD



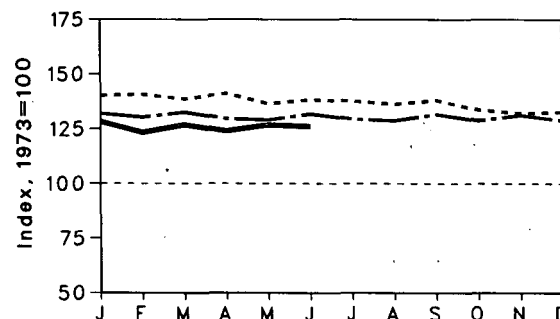
United States



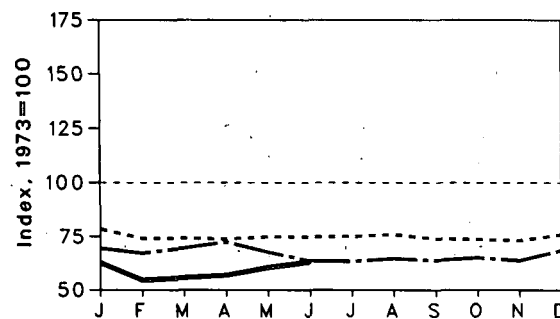
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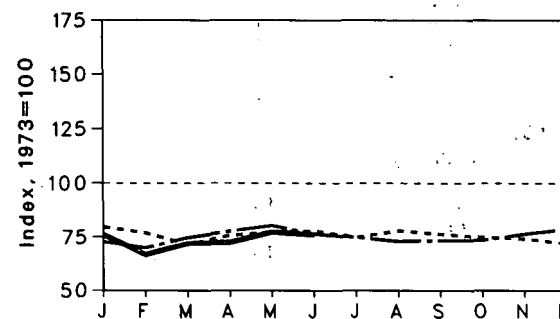
West Germany



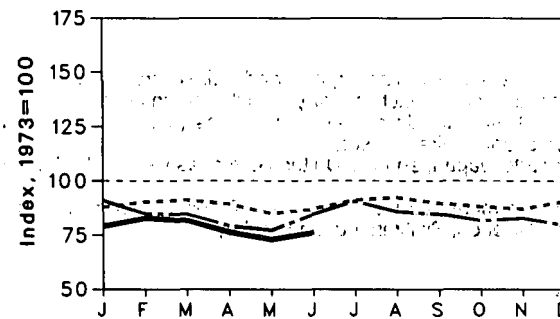
France



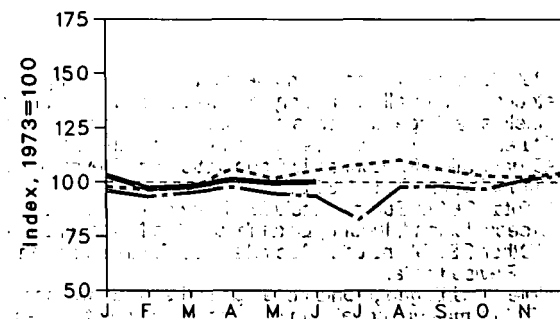
United Kingdom



Canada



Italy



# International

## Petroleum Stocks<sup>1</sup> for OECD Countries<sup>2</sup> at End of Period

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe <sup>3</sup>	Other OECD <sup>4</sup>	Total OECD <sup>2</sup>
Million barrels											
1973	Year	140	201	152	303	156	1,008	181	1,070	67	2,588
1974	Year	145	249	167	370	161	1,074	213	1,227	64	2,880
1975	Year	174	225	143	375	165	1,133	187	1,154	67	2,903
1976	Year	153	234	143	380	165	1,112	208	1,205	68	2,918
1977	Year	167	239	161	409	148	1,312	225	1,268	68	3,224
1978	Year	144	201	154	413	157	1,278	238	1,219	68	3,122
1979	Year	150	226	163	460	169	1,341	272	1,353	75	3,379
1980	Year	164	243	170	495	168	1,392	319	1,464	72	3,587
1981	Year	161	214	167	482	143	1,484	297	1,337	67	3,531
1982	Year	136	193	179	484	125	1,430	272	1,258	68	3,376
1983	Year	120	153	149	471	119	1,454	250	1,145	68	3,258
1984	January	123	158	149	467	124	1,429	254	1,150	68	3,237
	February	127	149	147	462	120	1,463	255	1,119	69	3,240
	March	128	149	148	454	112	1,444	251	1,092	68	3,185
	April	125	148	161	467	118	1,462	256	1,130	67	3,251
	May	119	151	155	480	121	1,496	247	1,129	65	3,289
	June	122	151	161	484	122	1,503	250	1,149	66	3,324
	July	128	151	164	491	117	1,513	249	1,161	69	3,362
	August	130	153	168	524	122	1,498	247	1,163	68	3,383
	September	126	149	161	498	119	1,513	250	1,150	68	3,355
	October	124	148	156	511	117	1,544	242	1,137	67	3,382
	November	122	147	155	492	116	1,556	239	1,126	65	3,362
	December	127	153	159	480	113	1,556	240	1,132	69	3,364
1985	January	128	140	146	472	114	1,512	239	1,071	70	3,253
	February	119	135	142	468	109	1,462	236	1,032	71	3,153
	March	118	140	145	479	117	1,460	240	1,051	65	3,173
	April	111	146	148	491	121	1,473	235	1,053	67	3,194
	May	108	136	144	492	125	1,508	234	1,063	65	3,237
	June	119	128	142	489	119	1,511	239	1,048	64	3,231
	July	127	128	126	480	117	1,516	234	1,022	62	3,207
	August	120	130	149	482	114	1,494	233	1,042	62	3,200
	September	119	R129	149	483	115	1,502	238	R1,052	62	R3,218
	October	114	131	147	498	115	1,496	233	1,056	65	3,230
	November	116	128	154	503	119	1,523	237	1,071	65	3,278
	December	111	138	157	495	123	1,519	233	1,093	67	3,285
1986	January	111	127	157	495	118	1,538	232	1,070	66	3,280
	February	116	110	148	489	104	1,515	223	1,002	67	3,189
	March	114	112	149	489	113	1,489	229	1,023	70	3,184
	April	107	114	154	480	113	1,480	224	1,016	67	3,150
	May	102	R122	151	488	121	1,506	230	R1,053	61	R3,210
	June	107	127	152	493	119	1,541	228	1,067	68	3,276

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

<sup>2</sup>Organization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States; as well as "Total OECD Europe" and "Other OECD."

<sup>3</sup>"Total OECD Europe" includes France, Italy, the United Kingdom, and West Germany; as well as Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and Turkey.

<sup>4</sup>"Other OECD" includes Australia, New Zealand, and the U.S. Territories.

R = Revised data.

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.

Sources: • U.S. data: EIA, *Petroleum Supply Monthly*. • OECD data: OECD, *Quarterly Oil Statistics*, *Monthly Oil Statistics*.



# International

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

	Argentina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Netherlands	Pakistan	
Billion gross kilowatthours												
<b>1973</b>	<b>Total</b>	0	0	0	15.3	0	14.7	2.5	3.1	9.4	1.1	0.5
<b>1974</b>	<b>Total</b>	1.0	0.1	0	15.4	0	14.7	1.9	3.4	18.9	3.3	0.6
<b>1975</b>	<b>Total</b>	2.5	6.8	0	13.2	0	18.3	2.5	3.8	21.3	3.3	0.5
<b>1976</b>	<b>Total</b>	2.6	10.0	0	18.0	0	15.8	3.2	3.8	36.6	3.9	0.5
<b>1977</b>	<b>Total</b>	1.6	11.9	0	26.6	2.7	17.9	2.8	3.4	28.2	3.7	0.3
<b>1978</b>	<b>Total</b>	2.9	12.5	0	33.0	3.3	30.6	2.3	4.5	53.1	4.1	0.2
<b>1979</b>	<b>Total</b>	2.7	11.4	0	38.4	6.7	39.9	3.2	2.6	62.0	3.5	(s)
<b>1980</b>	<b>Total</b>	2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2	0.1
<b>1981</b>	<b>Total</b>	2.8	12.8	0	43.3	14.5	105.2	3.1	2.7	86.0	3.7	0.2
<b>1982</b>	<b>Total</b>	1.9	15.6	0.1	42.6	16.5	108.9	2.2	6.8	104.5	3.9	0.1
<b>1983</b>	<b>Total</b>	3.4	24.1	0.2	53.0	17.4	144.2	2.9	5.8	109.1	3.6	0.2
<b>1984</b>	January	0.7	2.7	(s)	5.0	1.7	18.0	0.3	0.4	10.1	0.3	(s)
	February	0.4	2.3	0.2	4.6	1.6	17.1	0.4	0.6	9.2	0.4	0
	March	0.6	1.9	0.1	5.1	1.7	17.8	0.3	0.7	8.8	0.2	0
	April	0.5	2.4	(s)	4.3	1.6	15.4	0.3	0.3	8.9	0.2	(s)
	May	0.5	2.0	0.1	3.6	1.2	14.2	0.5	0.3	10.5	0.4	(s)
	June	0.4	2.6	0	3.7	1.3	13.1	0.4	0.3	9.9	0.4	(s)
	July	0.4	2.4	0	4.4	1.4	13.1	0.5	0.3	10.6	0.2	(s)
	August	0.3	1.9	(s)	4.7	1.4	13.2	0.4	0.8	11.0	0.3	(s)
	September	0.4	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	(s)	2.6	0.4	4.7	1.7	17.8	0.3	0.8	11.9	0.4	(s)
	December	0.1	2.6	0.4	5.1	1.7	20.9	0.2	0.8	13.2	0.4	(s)
	<b>Total</b>	<b>4.5</b>	<b>27.7</b>	<b>2.1</b>	<b>53.8</b>	<b>18.5</b>	<b>191.2</b>	<b>4.1</b>	<b>6.9</b>	<b>127.2</b>	<b>3.8</b>	<b>0.3</b>
<b>1985</b>	January	0.2	2.5	0.4	5.7	1.7	21.9	0.2	0.8	12.2	0.4	(s)
	February	0.4	1.7	0.3	5.0	1.6	19.2	0.2	0.7	10.7	0.3	(s)
	March	0.5	2.0	0.3	5.9	1.8	20.6	0.4	0.8	12.0	0.2	0
	April	0.4	2.2	0.1	5.2	1.6	17.7	0.6	0.7	11.8	(s)	0
	May	0.4	2.8	0.2	2.4	1.2	15.9	0.5	0.7	13.1	0.2	0
	June	0.4	2.8	0.4	4.2	1.2	13.6	0.4	0.6	12.6	0.4	(s)
	July	0.5	2.5	0.3	5.7	1.4	16.1	0.4	0.6	12.5	0.4	0.1
	August	0.5	3.2	0.1	6.0	1.5	15.4	0.2	0.5	12.9	0.4	(s)
	September	0.5	3.3	0.3	5.4	1.6	17.2	0.3	0.3	12.8	0.4	0
	October	0.6	3.9	0.4	5.1	1.7	20.0	0.4	0.3	13.9	0.4	(s)
	November	0.7	3.9	0.3	5.8	1.7	22.1	0.4	0.3	13.1	0.4	0.1
	December	0.7	3.9	0.3	6.5	1.7	24.4	0.4	0.6	14.7	0.4	0.1
	<b>Total</b>	<b>5.8</b>	<b>34.5</b>	<b>3.4</b>	<b>62.9</b>	<b>18.8</b>	<b>224.0</b>	<b>4.5</b>	<b>7.0</b>	<b>152.0</b>	<b>3.9</b>	<b>0.3</b>
<b>1986</b>	January	0.6	3.8	(s)	R6.5	R1.8	25.6	0.5	0.9	15.0	0.4	(s)
	February	0.6	2.8	0	6.2	1.6	22.8	0.4	0.5	13.5	0.1	(s)
	March	0.5	3.6	0	7.0	1.8	23.6	0.5	0.9	14.5	0.3	(s)
	April	0.5	3.7	0	6.0	1.7	21.0	0.3	0.9	12.4	0.4	(s)
	May	0.7	3.2	0	5.7	1.4	15.2	0.4	0.7	12.8	0.4	(s)
	June	R0.4	2.9	0	5.4	1.1	16.7	R0.4	0.9	15.0	0.4	(s)
	July	0.4	3.0	0	5.3	1.3	18.8	0.5	0.9	15.2	0.4	(s)
	<b>Year to Date</b>	<b>3.7</b>	<b>22.9</b>	<b>(s)</b>	<b>42.1</b>	<b>10.7</b>	<b>143.8</b>	<b>3.0</b>	<b>5.7</b>	<b>98.4</b>	<b>2.3</b>	<b>0.3</b>

<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.

# International

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

		South Africa	South Korea	Spain	Sweden	Switzer- land	Taiwan	United Kingdom <sup>2</sup>	West Germany	Non- Communist World Excluding U.S.	United States	Total Non- Communist World
Billion gross kilowatthours												
1973	Total	0	0	6.5	2.1	6.2	0	28.2	11.9	101.4	87.8	189.3
1974	Total	0	0	7.2	2.3	7.0	0	33.8	12.0	121.7	124.3	246.0
1975	Total	0	0	7.5	12.0	7.7	0	30.5	21.7	151.8	182.3	334.1
1976	Total	0	0	7.6	16.0	7.9	0	36.8	24.5	187.1	201.8	388.9
1977	Total	0	0.1	6.5	19.9	8.1	0.1	38.1	36.0	207.8	264.2	472.0
1978	Total	0	2.3	7.6	23.8	8.3	2.7	36.6	35.7	263.5	292.4	555.9
1979	Total	0	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	354.3	265.4	619.8
1981	Total	0	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	Total	0	9.0	10.7	40.4	15.5	18.9	49.6	65.8	573.9	313.6	887.5
1984	January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	61.8	30.8	92.6
	February	0	1.2	1.5	5.0	1.4	1.8	4.6	6.8	59.1	29.4	88.5
	March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	60.6	28.6	89.2
	April	0.1	0.9	1.3	4.5	1.5	1.8	4.2	7.7	55.8	24.7	80.5
	May	0.1	0.8	1.9	3.3	1.3	1.4	4.3	7.2	53.6	27.3	80.9
	June	0.3	0.7	2.2	2.8	0.6	1.8	4.7	7.1	52.3	26.4	78.8
	July	0.5	0.7	2.5	2.4	1.3	2.7	3.7	6.2	53.2	29.4	82.6
	August	0.7	0.9	2.3	3.5	1.0	2.4	3.6	6.3	54.7	31.8	86.5
	September	0.7	0.9	2.6	4.2	1.4	2.6	4.9	8.1	60.8	30.3	91.1
	October	0.7	1.3	1.8	5.0	1.5	2.0	4.1	8.5	63.5	26.8	90.3
	November	0.5	1.3	1.9	4.5	1.5	1.8	4.4	9.9	66.3	26.2	92.4
	December	0.6	0.9	2.2	5.4	1.9	2.3	6.3	10.8	75.9	32.0	107.9
	<b>Total</b>	<b>4.2</b>	<b>11.8</b>	<b>23.1</b>	<b>51.3</b>	<b>16.3</b>	<b>24.3</b>	<b>54.1</b>	<b>92.6</b>	<b>717.7</b>	<b>343.8</b>	<b>1,061.5</b>
1985	January	0.3	1.1	2.2	5.4	2.2	2.4	5.7	10.8	76.1	38.0	114.1
	February	0	1.2	1.9	5.0	2.0	2.1	5.6	10.1	68.2	32.4	100.5
	March	0	1.5	2.8	5.6	2.2	2.5	6.6	11.7	77.4	32.5	109.9
	April	0	1.3	2.4	4.5	2.2	2.7	5.1	10.6	69.0	28.3	97.3
	May	0	1.5	2.3	3.9	1.9	2.8	4.7	9.3	63.8	31.8	95.6
	June	0.1	1.2	3.1	2.6	1.2	2.6	5.1	9.6	62.0	31.0	93.0
	July	0.8	1.1	2.2	3.1	1.3	2.2	4.1	8.4	63.7	36.4	100.2
	August	0.8	1.2	2.1	4.3	1.0	2.2	3.8	9.5	65.5	36.8	102.3
	September	1.0	1.3	2.1	4.7	1.7	2.6	4.9	10.3	70.7	35.9	106.6
	October	1.1	1.4	2.1	5.4	2.2	2.6	4.3	11.3	77.2	32.1	109.3
	November	0.8	1.7	2.1	7.0	2.2	1.7	3.7	11.7	79.6	31.7	111.3
	December	0.9	1.9	2.6	6.9	2.2	2.5	6.0	12.3	89.0	35.7	124.6
	<b>Total</b>	<b>5.7</b>	<b>16.5</b>	<b>28.0</b>	<b>58.6</b>	<b>22.4</b>	<b>28.7</b>	<b>59.6</b>	<b>125.7</b>	<b>862.2</b>	<b>402.6</b>	<b>1,264.8</b>
1986	January	R1.0	2.0	3.1	6.8	2.3	2.9	R4.8	12.0	R90.0	R38.1	R128.1
	February	0.6	1.7	2.5	6.4	2.1	2.1	R5.3	10.4	R79.7	34.1	R113.8
	March	0.7	1.5	2.4	7.2	2.3	2.2	6.4	10.7	86.0	R31.2	117.2
	April	0.7	1.6	3.0	6.7	2.2	2.0	4.2	9.6	76.8	32.2	109.0
	May	0.7	2.4	3.6	4.8	2.1	2.0	4.4	9.5	R70.1	33.6	103.7
	June	0.2	2.2	3.9	4.1	1.2	1.6	5.1	9.0	R70.4	R32.9	R103.3
	July	0.6	2.0	3.1	3.8	0.9	1.8	4.1	7.9	70.0	35.3	105.3
	<b>Year to Date</b>	<b>4.5</b>	<b>13.4</b>	<b>21.8</b>	<b>39.8</b>	<b>13.1</b>	<b>14.6</b>	<b>34.2</b>	<b>69.0</b>	<b>543.1</b>	<b>237.4</b>	<b>780.4</b>

Footnotes continued.

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: • *Nucleonics Week* (New York: McGraw-Hill Publishing Company).

## 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)

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

#### Conversion Factors for Uranium

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

### Price Indices

	Gross National Product Implicit Price Deflator (1982=100)	Consumer Price Index, All Urban Consumers, All Items (1972=100)
1972	46.5	100.0
1973	49.5	106.2
1974	54.0	117.9
1975	59.3	128.7
1976	63.1	136.1
1977	67.3	144.9
1978	72.2	155.9
1979	78.6	173.5
1980	85.7	197.0
1981	94.0	217.4
1982	100.0	230.7
1983	103.9	238.1
1984	108.1	248.3
1985†	111.7	248.3

† = 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.

### Approximate Heat Content of Petroleum Products

	Million Btu per Barrel
Asphalt.....	6.636
Aviation gasoline.....	5.048
Butane.....	4.326
Butane-propane mixture <sup>1</sup> .....	4.130
Distillate fuel oil.....	5.825
Ethane.....	3.082
Ethane-propane mixture <sup>2</sup> .....	3.308
Isobutane.....	3.974
Jet fuel—kerosene type.....	5.670
Jet fuel—naphtha type.....	5.355
Kerosene.....	5.670
Lubricants.....	6.065
Motor gasoline.....	5.253
Natural gasoline.....	4.620
Pentanes Plus.....	4.620
Petrochemical feedstocks	
Naphtha 400° F or less.....	5.248
Other oils over 400° F.....	5.825
Still gas.....	6.000
Petroleum coke.....	6.024
Plant condensate.....	5.418
Propane.....	3.836
Residual fuel oil.....	6.287
Road oil.....	6.636
Special naphtha.....	5.248
Still gas.....	6.000
Unfinished oils.....	5.825
Unfractionated stream.....	5.418
Wax.....	5.537
Miscellaneous.....	5.796

<sup>1</sup> 60 percent butane and 40 percent propane.

<sup>2</sup> 70 percent ethane and 30 percent propane.

## Conversion Factors (continued)

### Approximate Heat Content of Fuels, 1973-1979

	Units	1973	1974	1975	1976	1977	1978	1979
<b>Coal</b>								
Production.....	Million Btu/short ton	23.376	23.072	22.897	22.855	22.597	22.248	22.454
Consumption.....	Million Btu/short ton	23.057	22.677	22.506	22.498	22.265	22.017	22.100
Non-electric utility users.....	Million Btu/short ton	24.878	24.783	24.745	24.861	24.701	24.496	24.626
Electric utilities.....	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275	21.364
Imports.....	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	Million Btu/short ton	26.596	26.700	26.562	26.601	26.548	26.478	26.548
<b>Anthracite</b>								
Production.....	Million Btu/short ton	22.132	21.711	21.582	22.045	22.661	23.079	23.170
Consumption.....	Million Btu/short ton	21.464	20.919	20.762	21.254	22.066	22.398	22.069
Non-electric utility users.....	Million Btu/short ton	22.674	22.330	22.272	22.618	24.101	24.388	24.272
Electric utilities.....	Million Btu/short ton	17.920	17.200	17.064	17.526	17.244	17.104	17.454
Imports and exports.....	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400	25.400
<b>Bituminous coal and lignite</b>								
Production.....	Million Btu/short ton	23.391	23.087	22.910	22.863	22.597	22.242	22.449
Consumption.....	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014	22.100
Residential and commercial.....	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078	21.884
Coke plants.....	Million Btu/short ton	26.800	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	22.436
Electric utilities.....	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284	21.372
Imports.....	Million Btu/short ton	25.000	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	26.570
Coal coke, imports and exports.....	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800	24.800
<b>Crude oil<sup>1</sup></b>								
Production.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports.....	Million Btu/barrel	5.817	5.827	5.821	5.808	5.810	5.802	5.810
Exports.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
<b>Crude oil and petroleum products</b>								
Imports.....	Million Btu/barrel	5.897	5.884	5.858	5.856	5.834	5.839	5.810
Exports.....	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808	5.832
<b>Petroleum products<sup>2</sup></b>								
Consumption.....	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519	5.494
Residential and commercial.....	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382	5.471
Industrial.....	Million Btu/barrel	5.565	5.537	5.527	5.535	5.552	5.546	5.416
Transportation.....	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407	5.430
Electric utilities.....	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251	6.258
Imports.....	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955	5.811
Exports.....	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814	5.864
LPG consumption.....	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669	3.680
<b>Natural gas plant liquids</b>								
Production.....	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925	3.955
<b>Natural gas</b>								
Production, dry.....	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Production, wet.....	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092
Consumption.....	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Non-electric utility users.....	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018
Electric utilities.....	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,035
Imports.....	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037
Exports.....	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013

### Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation <sup>3</sup> .....	Btu/kilowatthour	10,389	10,442	10,406	10,373	10,435	10,361	10,353
Nuclear power plant generation.....	Btu/kilowatthour	10,903	11,161	11,013	11,047	10,769	10,941	10,879
Geothermal energy power plant generation.....	Btu/kilowatthour	21,674	21,674	21,611	21,611	21,611	21,611	21,545
Electricity consumption.....	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412	3,412

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

<sup>2</sup> Weighted averages of the products<sup>3</sup> included in each category are calculated using heat content values shown on the first page of this section.

<sup>3</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.

Sources: • See "Thermal Conversion Factor Source Documentation" on the following pages.

## Conversion Factors (continued)

### Approximate Heat Content of Fuels, 1980-1985

	Units	1980	1981	1982	1983	1984	1985-86†
<b>Coal</b>							
Production.....	Million Btu/short ton	22.415	22.309	22.240	22.056	22.014	R21.874
Consumption.....	Million Btu/short ton	21.947	21.714	21.675	21.581	21.577	R21.370
Non-electric utility users.....	Million Btu/short ton	24.731	24.477	24.194	24.093	24.069	R23.664
Electric utilities.....	Million Btu/short ton	21.295	21.085	21.194	21.133	21.101	R20.959
Imports.....	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	Million Btu/short ton	26.384	26.160	26.223	26.291	26.402	26.307
<b>Anthracite</b>							
Production.....	Million Btu/short ton	22.869	23.291	23.289	22.734	23.107	R22.428
Consumption.....	Million Btu/short ton	21.405	22.080	22.485	21.583	22.322	R20.817
Non-electric utility users.....	Million Btu/short ton	22.719	23.749	24.530	24.536	25.128	R23.031
Electric utilities.....	Million Btu/short ton	17.652	18.168	18.160	16.516	17.018	R16.784
Imports and exports.....	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400
<b>Bituminous coal and lignite</b>							
Production.....	Million Btu/short ton	22.411	22.302	22.234	22.053	22.009	R21.871
Consumption.....	Million Btu/short ton	21.950	21.712	21.671	21.581	21.574	R21.372
Residential and commercial.....	Million Btu/short ton	22.488	22.191	22.373	22.934	22.880	R23.072
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	22.690	22.572	22.694	22.679	22.524	R22.012
Electric utilities.....	Million Btu/short ton	21.301	21.091	21.200	21.141	21.108	R20.965
Imports.....	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	Million Btu/short ton	26.404	26.176	26.231	26.300	26.410	26.320
Coal coke, imports and exports.....	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800
<b>Crude oil<sup>1</sup></b>							
Production.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
Imports.....	Million Btu/barrel	5.812	5.818	5.826	5.825	5.823	5.832
Exports.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
<b>Crude oil and petroleum products</b>							
Imports.....	Million Btu/barrel	5.796	5.775	5.775	5.774	5.745	5.736
Exports.....	Million Btu/barrel	5.820	5.821	5.820	5.800	5.850	5.814
<b>Petroleum products<sup>2</sup></b>							
Consumption.....	Million Btu/barrel	5.479	5.448	5.415	5.406	5.395	5.387
Residential and commercial.....	Million Btu/barrel	5.468	5.409	5.392	5.286	5.261	5.252
Industrial.....	Million Btu/barrel	5.376	5.310	5.262	5.273	5.256	5.250
Transportation.....	Million Btu/barrel	5.440	5.434	5.423	5.416	5.423	5.419
Electric utilities.....	Million Btu/barrel	6.254	6.258	6.258	6.255	6.251	6.247
Imports.....	Million Btu/barrel	5.748	5.659	5.664	5.677	5.613	5.572
Exports.....	Million Btu/barrel	5.841	5.837	5.829	5.800	5.867	5.819
LPG consumption.....	Million Btu/barrel	3.674	3.643	3.615	3.614	3.599	3.603
<b>Natural gas plant liquids</b>							
Production.....	Million Btu/barrel	3.914	3.930	3.872	3.839	3.812	3.805
<b>Natural gas</b>							
Production, dry.....	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,031
Production, wet.....	Btu/cubic foot	1,098	1,103	1,107	1,115	1,109	1,109
Consumption.....	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,031
Non-electric utility users.....	Btu/cubic foot	1,024	1,025	1,026	1,031	1,030	1,030
Electric utilities.....	Btu/cubic foot	1,035	1,035	1,036	1,030	1,035	1,035
Imports.....	Btu/cubic foot	1,022	1,014	1,018	1,024	1,005	1,005
Exports.....	Btu/cubic foot	1,013	1,011	1,011	1,010	1,010	1,010

### Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation <sup>3</sup> ...	Btu/kilowatthour	10,388	10,453	10,423	10,445	10,211	10,211
Nuclear power plant generation.....	Btu/kilowatthour	10,908	11,030	11,073	10,905	10,843	10,843
Geothermal energy power plant generation.....	Btu/kilowatthour	21,639	21,639	21,629	21,290	21,303	21,303
Electricity consumption.....	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412

<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.

<sup>3</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 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 in the *California Oil World and Petroleum Industry, First Issue, April 1942*.

**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 in the *California Oil World and Petroleum Industry, First Issue, April 1942*.

**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 in the *California Oil World and Petroleum Industry, First Issue, April 1942*.

**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*.

**Pentanes Plus.** • 1984 forward: EIA assumed the thermal conversion factor to be 4.620 million Btu per barrel or equal to that for natural gasoline. See "Natural Gasoline."

**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."

## Thermal Conversion Factor Source Documentation (continued)

**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 in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Residual Fuel Oil.** • 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 plant condensate (see "Plant Condensate") 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

### 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

## Thermal Conversion Factor Source Documentation (continued)

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."

**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 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.** • 1973–1984: 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*. • 1985 forward: Estimated by EIA.

**Petroleum Products, Consumption by Industrial Users.** • 1973–1984: 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*. • 1985 forward: Estimated by EIA.

**Petroleum Products, Consumption by Residential and Commercial Users.** • 1973–1984: 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 documented in the *State Energy Data Report*. • 1985 forward: Estimated by EIA.

**Petroleum Products, Consumption by Transportation Users.** • 1973–1984: 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*. • 1985 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.

**Petroleum Products, Liquefied Petroleum Gases (LPG) Consumption.** • 1973 forward: Calculated annually by EIA as the average of the thermal conversion factors of each liquefied petroleum gas consumed weighted by the quantity of each liquefied petroleum gas consumed.

### 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 received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from FERC Form 423 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.



## Thermal Conversion Factor Source Documentation (continued)

**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 Production, Dry.** • 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 Production, Wet.** • 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.

### Coal and Coal Coke

**Anthracite, Consumption.** • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of anthracite consumed by electric utilities and non-electric utilities by the total quantity of anthracite consumed.

**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 dividing the heat content of anthracite production less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of non-electric utility anthracite consumption less the quantity of anthracite stock changes, losses, and unaccounted for.

**Anthracite, Imports and Exports.** • 1973 forward: EIA assumed the anthracite imports and exports to be freshly mined anthracite having an estimated heat content of 25.400 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 heat content of 25.400 million Btu per short ton) and the heat content of anthracite recovered from culm banks and river dredging (estimated to have an average heat content of 17.500 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 26.800 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 annually 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 annually 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 coal-producing district was applied to the volume of deliveries to residential and commercial users from

## Thermal Conversion Factor Source Documentation (continued)

each coal-producing district, and the 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 27,000 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25,000 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 25,000 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 annually 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 annually 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 annually 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 annually 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 annually 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 annually 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 24,800 million Btu per short ton.

## Approximate Heat Rates for Electricity

**Fossil Fuel Steam-Electric Power Plant Generation.** There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind photovoltaic, or solar thermal electric energy sources. EIA has selected a rate that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants. By using this factor, it is possible to evaluate fossil fuel requirements for replacing these sources during periods of interruption such as drought. The heat content of a kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatt-hour. • 1973 forward: The weighted annual average heat rate for 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*.

**Geothermal Energy Power Plant Generation.** • 1973-1981: Calculated annually 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 annually by EIA based on an informal survey of relevant plants.

**Nuclear Power Plant Generation.** • 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.

## Glossary

**Anthracite.** A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. It is often referred to as hard coal. 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.

**Base Gas.** The total volume of natural gas in underground storage reservoirs that will maintain the required rate of delivery during an output cycle.

**Bituminous Coal.** Coal that is high in carbonaceous matter having a volatility greater than anthracite and a calorific value greater than lignite. In the United States, it is often referred to as soft coal. In this report, "bituminous coal" includes subbituminous coal and conforms to ASTM Specification D388 for bituminous coal and subbituminous coal. It is used for electricity generation, coke production, and space heating.

**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 International Steam Table 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, paraffinic hydrocarbon (C<sub>4</sub>H<sub>10</sub>) extracted from natural gas or refinery gas streams. It includes isobutane (a branch-chain configuration) and normal butane (a straight-chain configuration) and is covered by ASTM Specification 1835 and Natural Gas Processors Specifications for commercial butane. It is used primarily for blending into high-octane gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

**Butylene.** A normally gaseous, olefinic hydrocarbon (C<sub>4</sub>H<sub>8</sub>) recovered from refinery processes. Quantities are included with "normal butane" data.

**City Gate Price of Natural Gas.** Price of natural gas at the point it is transferred from a pipeline to a local distribution company.

**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.

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

**Crude Oil Wellhead Price.** 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.

**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

## Glossary (continued)

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 degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatologically 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 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.

**Development Well.** A well drilled within a proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**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, conforming to ASTM Specifications D396 and D975, respectively. 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.

**Dry Hole.** An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

**Electrical System Energy Losses.** The amount of energy lost during generation, transmission, and distribution of electricity, including plant use and unaccounted for electrical energy.

**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.

**Electricity Sales.** The gross electricity output measured at the generator terminals, minus power plant

use and transmission and distribution losses. Included in each end-use sector are the following: commercial sales of electricity to businesses that generally require less than 1,000 kilowatts of service; industrial sales of electricity to businesses that generally require more than 1,000 kilowatts of service; residential sales of electricity to residences for household purposes; "other" sales of electricity to government, railways, street lighting authorities, and sales not elsewhere included.

**Electric Utility.** A corporation, person, agency, authority, or other entity that owns or operates facilities for the generation, transmission, distribution, or sale of electricity, primarily for use by the public.

**Ethane.** A normally gaseous, paraffinic hydrocarbon (C<sub>2</sub>H<sub>6</sub>) extracted from natural gas or refinery gas streams. It is used primarily as petrochemical feedstock for eventual production of chemicals and plastic materials.

**Ethylene.** A normally gaseous, olefinic hydrocarbon (C<sub>2</sub>H<sub>4</sub>) recovered from refinery processes. Quantities are included with "ethane" data.

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

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

**FOB (Free on Board) Price of Imported Crude Oil.** The FOB price is the price actually charged at the producing country's port of loading. The reported price includes deductions for any rebates and discounts and additions of premiums where applicable, and should be the actual price paid with no adjustments for credit terms.

**Fossil Fuel Steam-Electric Power Plant.** An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

**Gas Well.** A well completed for the production of natural gas from one or more gas zones or reservoirs. Such wells have no completions for the production of crude oil.

**Geothermal Energy (As Used at Electric Utilities).** Hot water or steam, extracted from geothermal reservoirs in the earth's crust, which is supplied to steam

## Glossary (continued)

turbines at electric utilities that drive generators to produce electricity.

**Gross National Product (GNP).** The total value of goods and services produced by the Nation's economy, before deduction of depreciation charges and other allowances for capital consumption. It includes the total purchases of goods and services by private consumers and government, gross private domestic capital investment, and net foreign trade.

**Hydroelectric Power.** Electricity generated by an electric power plant whose turbines are driven by falling water.

**Imports.** Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories (see "Petroleum Imports").

**Isobutane.** See "Butane."

**Landed Cost of Imported Crude Oil.** The price of imported crude oil at the port of discharge. It includes the purchase price at the foreign port plus charges for transporting and insuring the crude oil from the purchase point to the port of discharge. It does not include import tariffs or fees, wharfage charges, or demurrage costs.

**Lease and Plant Fuel.** Natural gas used in lease operations, as gas processing plant fuel, and as net used for gas lift.

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

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

**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 that has not been blended into finished motor gasoline and alcohol that has not been blended into gasohol.

**Motor Gasoline, Leaded Premium.** A gasoline having an antiknock index of 93 with the use of lead additives or which contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. Includes gasohol.

**Motor Gasoline, Leaded Regular.** A gasoline having an antiknock index of 89 with the use of lead additives or which contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon.

**Motor Gasoline, Total.** Includes finished leaded motor gasoline (premium and regular), finished unleaded motor gasoline (premium and regular), motor gasoline blending components, and gasohol.

**Motor Gasoline, Unleaded Premium.** A gasoline having an antiknock index of 90 containing not more than 0.05 grams of lead per gallon and not more than 0.005 grams of phosphorus per gallon. Includes gasohol.

**Motor Gasoline, Unleaded Regular.** A gasoline having an antiknock index of 87 containing not more than 0.05 grams of lead per gallon and not more than 0.005 grams of phosphorus per gallon.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the 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 produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel, oil, and miscellaneous products).

**Natural Gas Wellhead Price.** The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced

## Glossary (continued)

as reported by the appropriate agencies of individual producing States and the U.S. Geological Survey. The price includes all costs prior to shipment from the lease including gathering and compression costs in addition to State production, severance, and similar charges.

**Net Electricity Generation.** Gross generation less electricity consumed at the generating plant for station use. Electricity required for pumping at pumped-storage plants is regarded as plant use and is deducted from gross generation.

**Normal Butane.** See "Butane."

**Nuclear Power.** Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

**Oil Well.** A well completed for the production of crude oil from one or more oil zones or reservoirs.

**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, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

**Petroleum Coke.** A solid 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 Imports.** Imports of petroleum into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, other U.S. territories and possessions, and the U.S. Foreign Trade Zones. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

**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 end-point, other oils over 400 °F end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Products Supplied.** Total petroleum products supplied is the sum of the product supplied for each petroleum product, crude oil, unfinished oils, and gasoline blending components. For each of these, except crude oil, product supplied is calculated by adding refinery production, natural gas plant liquids production, new supply of other liquids, imports, and stock withdrawals; and subtracting stock additions, refinery inputs, and exports. Crude oil product supplied is the sum of crude oil burned on leases and at pipeline pump stations as reported on Form EIA-813.

**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 petroleum 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.

**Photovoltaic and Solar Thermal Energy (As Used at Electric Utilities).** Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

**Propane.** A normally gaseous, paraffinic, hydrocarbon (C<sub>3</sub>H<sub>8</sub>). It is extracted from natural gas or refinery gas streams and includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation. Industrial uses of propane include use as a petrochemical feedstock.

**Propylene.** A normally gaseous, olefinic hydrocarbon (C<sub>3</sub>H<sub>6</sub>) recovered from refinery processes. Quantities are included with "propane" data.

**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.

## Glossary (continued)

**Residual Fuel Oil.** The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. Included are No. 5 and No. 6 fuel oils that conform to ASTM Specification D396, Navy Special fuel oil, and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and for 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.

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

**Subbituminous Coal.** A dull, black coal of rank intermediate between lignite and bituminous coal. It conforms to ASTM Specification D388 for subbituminous coal and is used almost exclusively for electric power generation. In this report, quantities are included with "bituminous coal" data.

**Supplemental Gaseous Fuels.** Consists primarily of synthetic natural gas, propane-air, and refinery (still) 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 input of crude oil, exports of crude oil, crude oil burned as fuel, and crude oil losses.

**United States.** Unless otherwise noted, "United States" in this publication means the 50 States and the District of Columbia. U.S. exports include shipments to U.S. Territories, and imports include receipts from U.S. Territories.

**Wind Energy (As Used at Electric Utilities).** The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blade rotating from a hub) that drive generators to produce electricity.

**Wood and Waste (As Used at Electric Utilities).** Wood energy (see "Wood Energy"), garbage, bagasse, sewerage gas and other industrial, agricultural, and urban refuse used to generate electricity.

**Wood Energy.** Wood and wood products used as fuel. Included are round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.

**Working Gas.** The total volume of gas in a storage reservoir that is in excess of the base gas.

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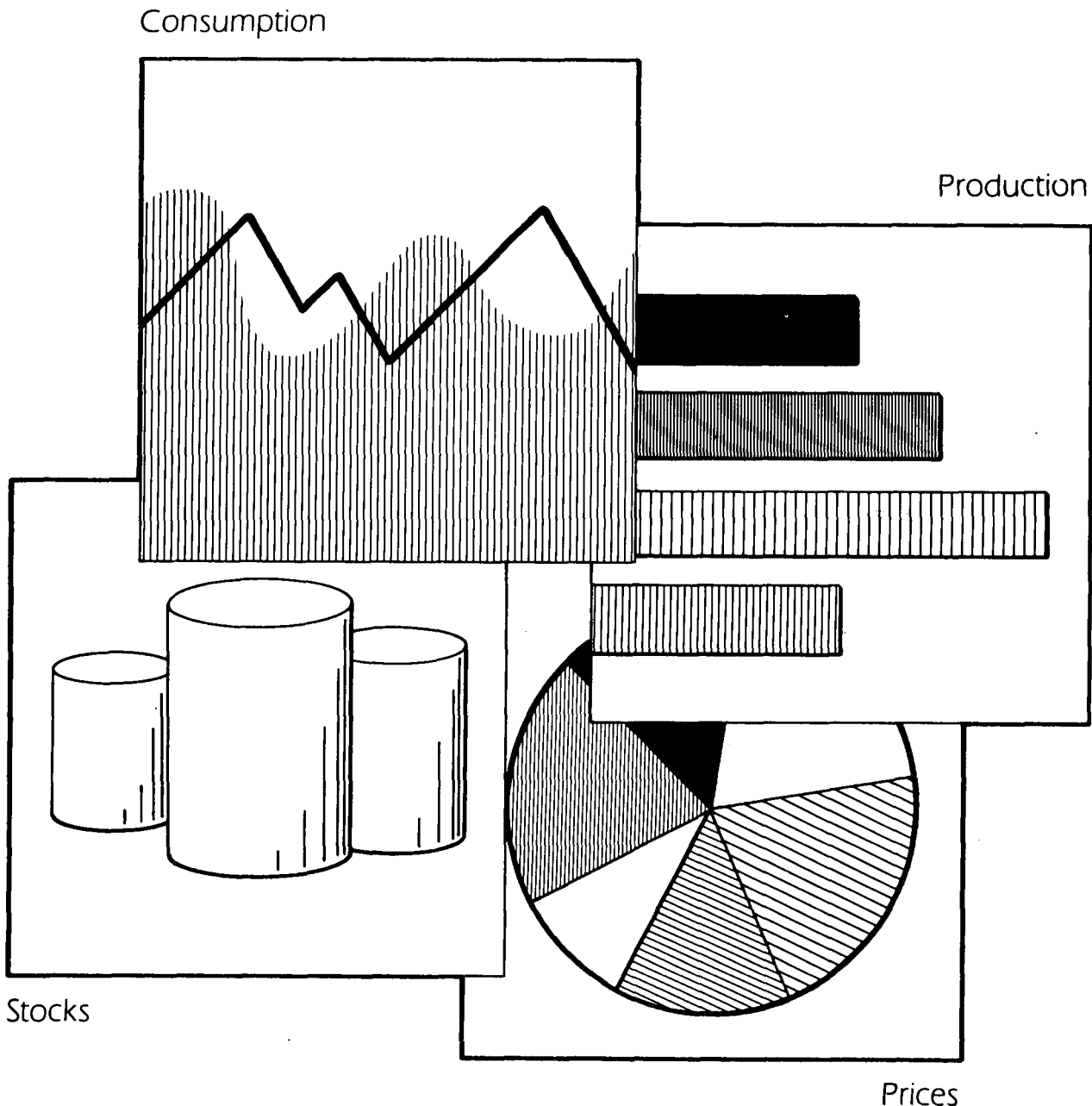
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