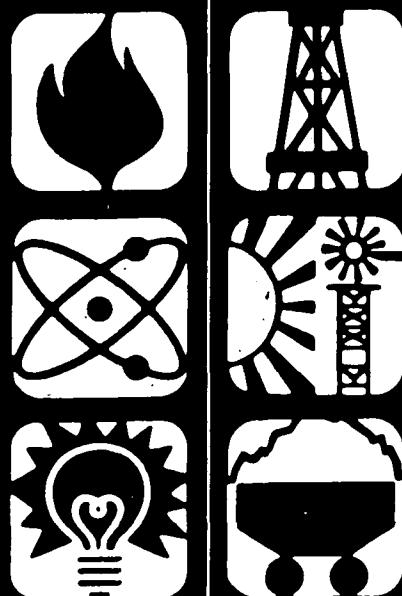


# Monthly Energy Review

Energy Information Administration  
Washington, D.C.

July 1985





## ***Monthly Energy Review***

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

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

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

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

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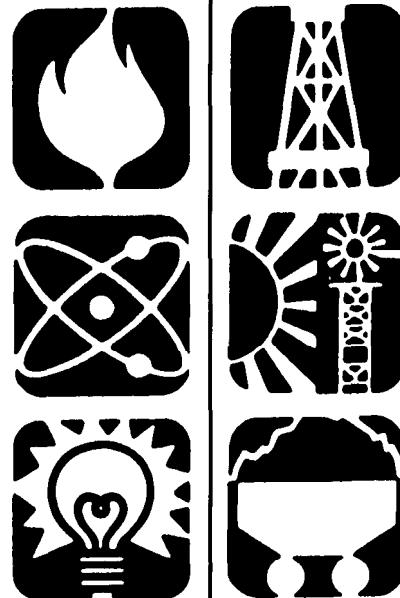
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# Monthly Energy Review

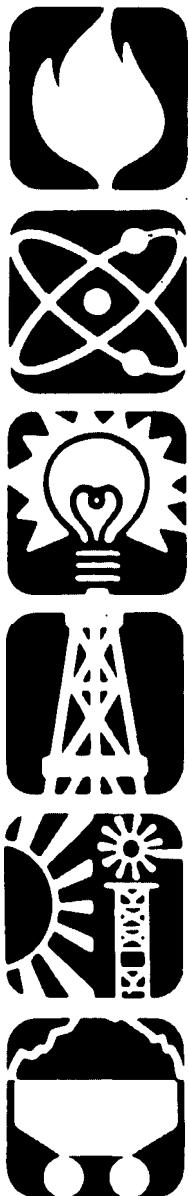
July 1985

**Energy Information Administration**  
Office of Energy Markets  
and End Use  
U.S. Department of Energy  
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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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## 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

## 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

# Part I Energy Summary

## Energy Summary

### January through July Summary

The United States produced 1.4 percent less energy during the first 7 months of 1985 than during the same period in 1984, while U.S. consumption was up 0.1 percent. Net imports of all energy were 16.7 percent lower, with net imports of petroleum 15.3 percent lower, than net imports during the first 7 months of 1984.

### Production

Energy production during July 1985 totaled 5.4 quadrillion Btu, a 3.3-percent decrease compared with the level of production during July 1984. Coal production was down 6.9 percent and natural gas production decreased 5.5 percent. Petroleum production was virtually unchanged compared with production in the previous July. Production of all other forms of energy combined increased 2.4 percent compared with production 1 year earlier.

### Energy Summary

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

	July			Cumulative January through July					
	1985	1984	Percent Change <sup>1</sup>	1985	1984	Daily Rate	1984	Daily Rate	
<b>Total Production</b>	<b>5.351</b>	<b>5.535</b>	<b>-3.3</b>	<b>38.046</b>	<b>0.179</b>	<b>38.761</b>	<b>0.182</b>	<b>-1.4</b>	
Petroleum <sup>2</sup>	1.796	1.798	-0.1	12.327	0.058	12.296	0.058	0.7	
Natural Gas (Dry)	1.389	1.470	-5.5	10.047	0.047	10.453	0.049	-3.4	
Coal	1.540	1.655	-6.9	11.328	0.053	11.686	0.055	-2.6	
Other <sup>3</sup>	0.626	0.612	2.4	4.344	0.020	4.326	0.020	0.9	
<b>Total Consumption</b>	<b>6.036</b>	<b>5.959</b>	<b>1.3</b>	<b>43.527</b>	<b>0.205</b>	<b>43.671</b>	<b>0.205</b>	<b>0.1</b>	
Petroleum <sup>2</sup>	2.602	2.599	0.1	17.903	0.084	18.223	0.086	-1.3	
Natural Gas <sup>4</sup>	1.158	1.184	-2.2	10.770	0.051	11.002	0.052	-1.6	
Coal	1.615	1.528	5.7	10.286	0.049	9.900	0.046	4.4	
Other <sup>5</sup>	0.662	0.648	2.0	4.568	0.022	4.546	0.021	1.0	
<b>Net Imports</b>	<b>0.659</b>	<b>0.743</b>	<b>-11.3</b>	<b>4.453</b>	<b>0.021</b>	<b>5.373</b>	<b>0.025</b>	<b>-16.7</b>	
Petroleum <sup>2</sup>	0.757	0.870	-13.0	4.987	0.024	5.919	0.028	-15.3	
Natural Gas	0.055	0.051	8.0	0.540	0.003	0.463	0.002	17.1	
Coal <sup>6</sup>	(0.189)	(0.215)	(-12.1)	(1.298)	(0.006)	(1.229)	(0.006)	(6.1)	
Other <sup>5</sup>	0.035	0.037	-4.5	0.224	0.001	0.220	0.001	2.1	

<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 refined petroleum products and natural gas plant liquids.

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

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

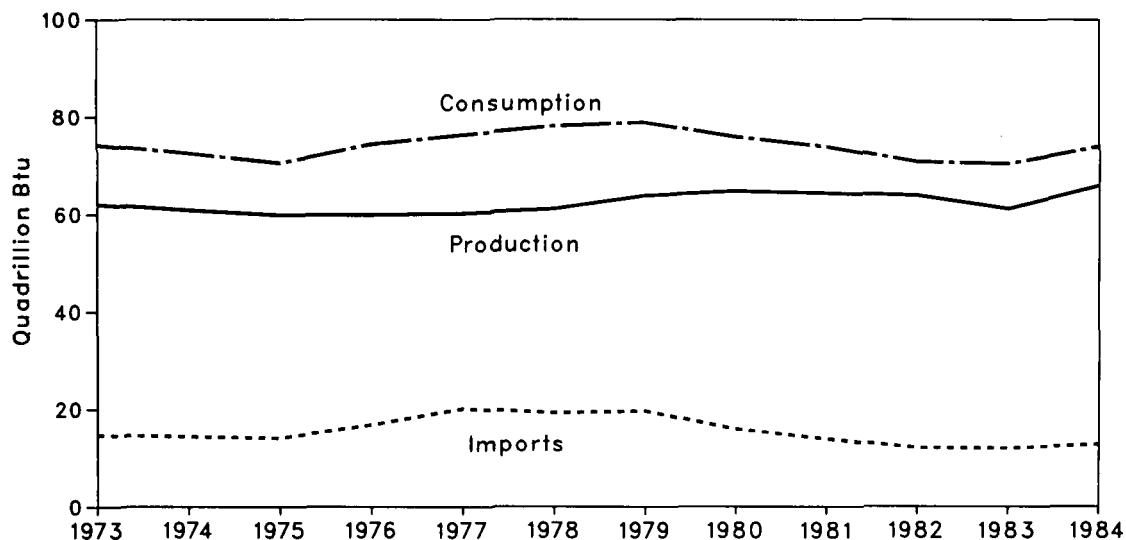
<sup>9</sup> Other is net imports of electricity and coal coke.

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

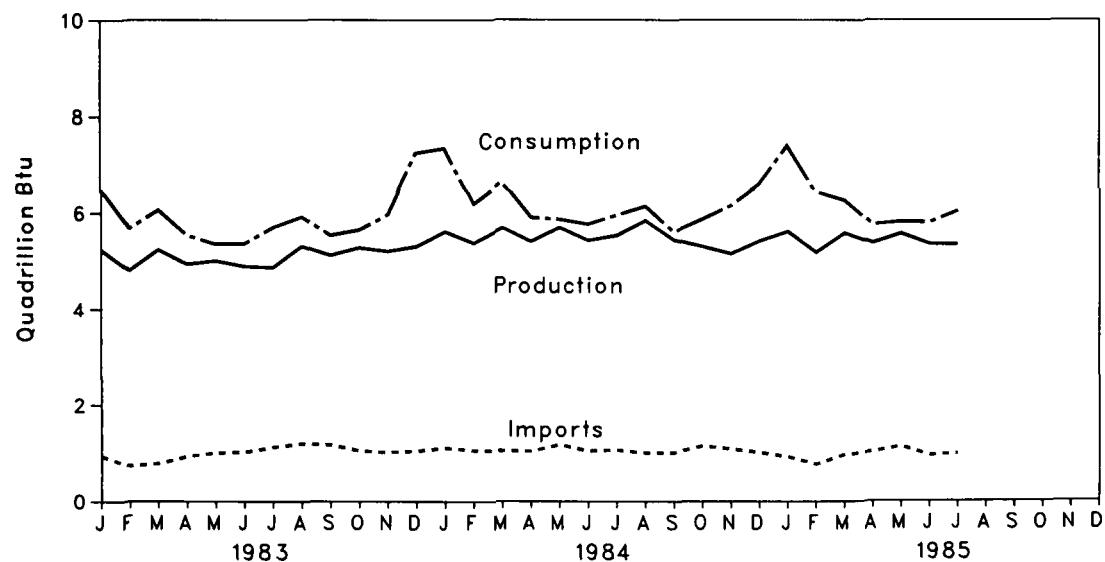
# Energy Summary

## 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>12</sup> ) Btu						
1973	Total	62.067	74.288	14.730	2.051	12.680
1974	Total	60.841	72.548	14.412	2.223	12.190
1975	Total	59.865	70.551	14.111	2.359	11.752
1976	Total	59.896	74.366	16.837	2.189	14.648
1977	Total	60.222	76.292	20.090	2.072	18.018
1978	Total	61.106	78.091	19.254	1.931	17.323
1979	Total	63.810	78.900	19.616	2.871	16.745
1980	Total	64.764	75.955	15.971	3.724	12.247
1981	Total	64.424	73.989	13.974	4.329	9.644
1982	Total	63.892	70.842	12.093	4.636	7.457
1983	January	5.237	6.483	0.942	0.301	0.641
	February	4.803	5.685	0.732	0.264	0.468
	March	5.233	6.058	0.783	0.319	0.464
	April	4.933	5.533	0.931	0.314	0.617
	May	5.006	5.355	1.005	0.348	0.657
	June	4.889	5.364	1.018	0.334	0.684
	July	4.866	5.700	1.124	0.273	0.851
	August	5.312	5.922	1.199	0.348	0.852
	September	5.120	5.538	1.172	0.323	0.849
	October	5.280	5.648	1.051	0.325	0.726
	November	5.208	5.966	1.019	0.280	0.739
	December	5.308	7.246	1.047	0.290	0.758
	Total	61.196	70.497	12.024	3.719	8.306
1984	January	R5.614	7.343	1.107	0.248	0.859
	February	R5.382	6.191	1.058	0.221	0.837
	March	R5.692	6.636	1.052	0.316	0.736
	April	R5.408	5.907	1.039	0.327	0.712
	May	R5.698	5.866	1.174	0.365	0.809
	June	R5.432	5.769	1.044	0.367	0.677
	July	R5.535	5.959	1.069	0.327	0.743
	August	R5.847	6.139	1.008	0.359	0.649
	September	R5.441	5.609	1.009	0.355	0.654
	October	R5.308	5.875	1.148	0.296	0.852
	November	R5.157	6.152	1.090	0.271	0.819
	December	R5.419	6.588	1.017	0.361	0.657
	Total	R65.934	74.033	12.816	3.812	9.004
1985	January	5.618	7.402	0.929	0.307	0.622
	February	5.187	6.439	0.772	0.307	0.465
	March	5.588	6.263	0.968	0.311	0.657
	April	R5.380	R5.765	1.029	0.332	0.698
	May	R5.568	R5.817	1.133	0.388	0.745
	June	R5.354	R5.804	0.951	0.343	0.608
	July	5.351	6.036	0.986	0.327	0.659
	Year to Date	38.046	43.527	6.768	2.316	4.453

<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.

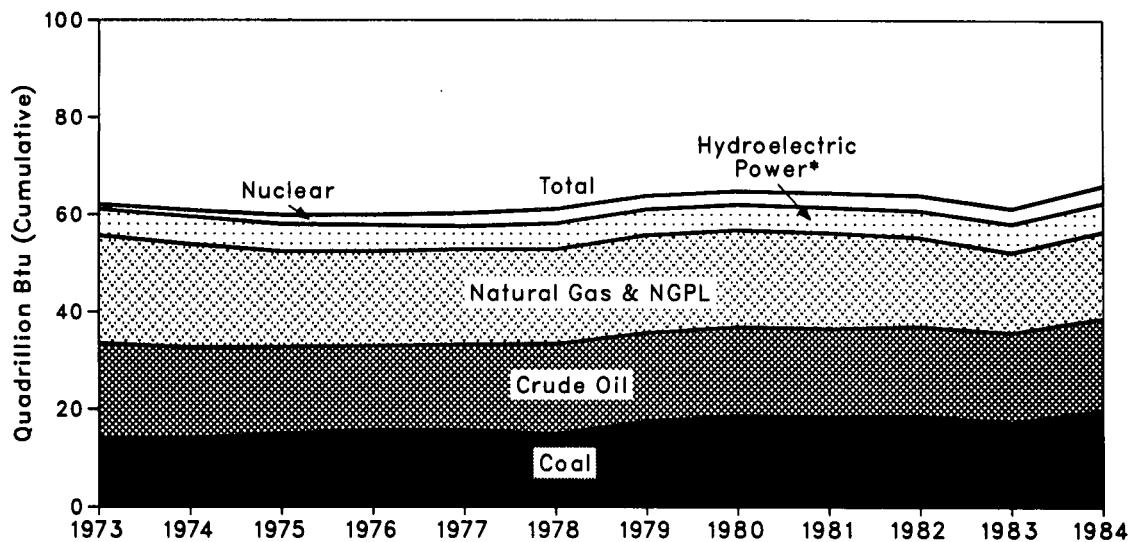
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

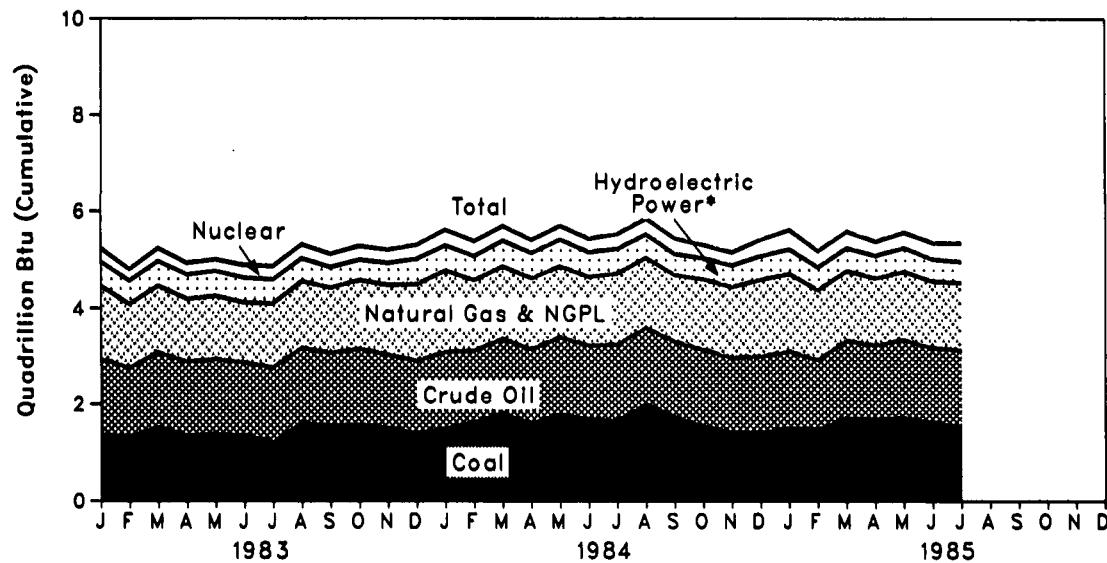
# Energy Summary

## 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>12</sup> ) Btu										
1973	Total	14.000	19.493	2.569	22.187	2.861	0.910	0.046	62.067	
1974	Total	14.080	18.575	2.471	21.210	3.177	1.272	0.056	60.841	
1975	Total	14.995	17.729	2.374	19.640	3.155	1.900	0.072	59.885	
1976	Total	15.859	17.262	2.327	19.480	2.976	2.111	0.081	59.896	
1977	Total	15.758	17.454	2.327	19.565	2.333	2.702	0.082	60.222	
1978	Total	14.912	18.434	2.245	19.485	2.937	3.024	0.068	61.106	
1979	Total	17.549	18.104	2.286	20.076	2.931	2.776	0.089	63.810	
1980	Total	18.600	18.249	2.254	19.907	2.900	2.739	0.114	64.764	
1981	Total	18.379	18.146	2.307	19.699	2.758	3.008	0.127	64.424	
1982	Total	18.641	18.309	2.191	18.255	3.256	3.131	0.108	63.892	
1983	January	1.384	1.564	0.188	1.509	0.308	0.273	0.011	5.237	5.237
	February	1.338	1.422	0.169	1.329	0.295	0.242	0.008	4.803	10.040
	March	1.520	1.564	0.183	1.376	0.319	0.261	0.009	5.233	15.274
	April	1.364	1.527	0.173	1.300	0.316	0.244	0.009	4.933	20.207
	May	1.394	1.552	0.178	1.305	0.329	0.240	0.007	5.006	25.213
	June	1.363	1.508	0.175	1.245	0.324	0.263	0.009	4.889	30.102
	July	1.218	1.553	0.183	1.325	0.297	0.279	0.012	4.866	34.968
	August	1.617	1.561	0.186	1.375	0.272	0.286	0.015	5.312	40.280
	September	1.551	1.528	0.184	1.340	0.229	0.273	0.014	5.120	45.400
	October	1.583	1.577	0.191	1.415	0.219	0.281	0.015	5.280	50.680
	November	1.515	1.526	0.189	1.432	0.260	0.273	0.013	5.208	55.888
	December	1.405	1.510	0.184	1.577	0.333	0.287	0.011	5.308	61.196
	Total	17.252	18.392	2.184	16.530	3.502	3.203	0.133	61.196	
1984	January	R1.503	1.594	0.193	1.679	0.314	0.320	0.011	R5.614	R5.614
	February	R1.630	1.493	0.188	1.455	0.294	0.310	0.013	R5.382	R10.997
	March	R1.804	1.559	0.196	1.499	0.321	0.298	0.015	R5.692	R16.689
	April	R1.610	1.542	0.192	1.469	0.316	0.264	0.014	R5.408	22.097
	May	R1.794	1.610	0.198	1.464	0.336	0.282	0.014	R5.698	R27.794
	June	R1.691	1.540	0.192	1.417	0.304	0.276	0.013	R5.432	R33.227
	July	R1.655	1.598	0.201	1.470	0.290	0.308	0.013	R5.535	R38.761
	August	R2.010	1.584	0.201	1.450	0.265	0.322	0.016	R5.847	R44.608
	September	R1.748	1.565	0.197	1.378	0.221	0.318	0.015	R5.441	R50.049
	October	R1.544	1.601	0.202	1.454	0.220	0.270	0.016	R5.308	R55.358
	November	R1.425	1.562	0.199	1.452	0.235	0.268	0.016	R5.157	R60.515
	December	R1.412	1.600	0.202	1.578	0.272	0.337	0.018	R5.419	R65.934
	Total	R19.824	18.648	2.362	17.765	3.387	3.573	0.174	R65.934	
1985	January	1.510	1.605	0.202	1.598	0.290	0.395	0.018	5.618	5.618
	February	1.490	1.450	0.181	1.442	0.273	0.338	0.016	5.187	10.805
	March	1.726	1.605	0.198	1.442	0.260	0.339	0.018	5.588	16.393
	April	R1.699	1.539	0.190	1.391	0.258	0.289	0.015	R5.380	R21.773
	May	R1.739	1.613	0.197	1.411	0.279	0.313	0.016	R5.568	R27.341
	June	R1.625	1.560	0.192	1.373	0.252	0.336	0.016	R5.354	R32.695
	July	1.540	1.601	0.195	1.389	0.225	0.384	0.018	5.351	38.046
	Year to Date	11.328	10.972	1.355	10.047	1.637	2.391	0.116	38.046	

<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.

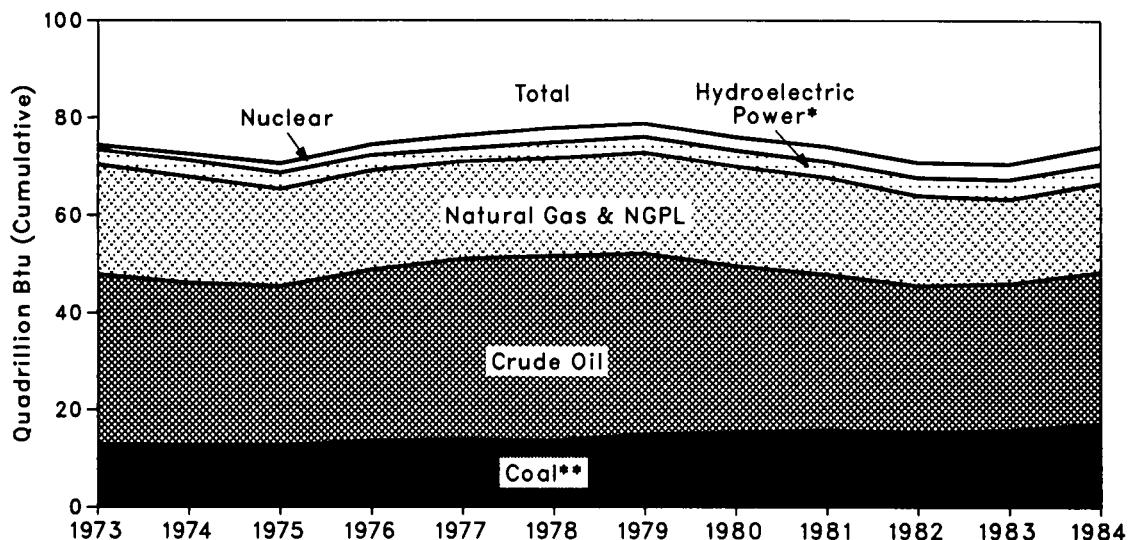
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

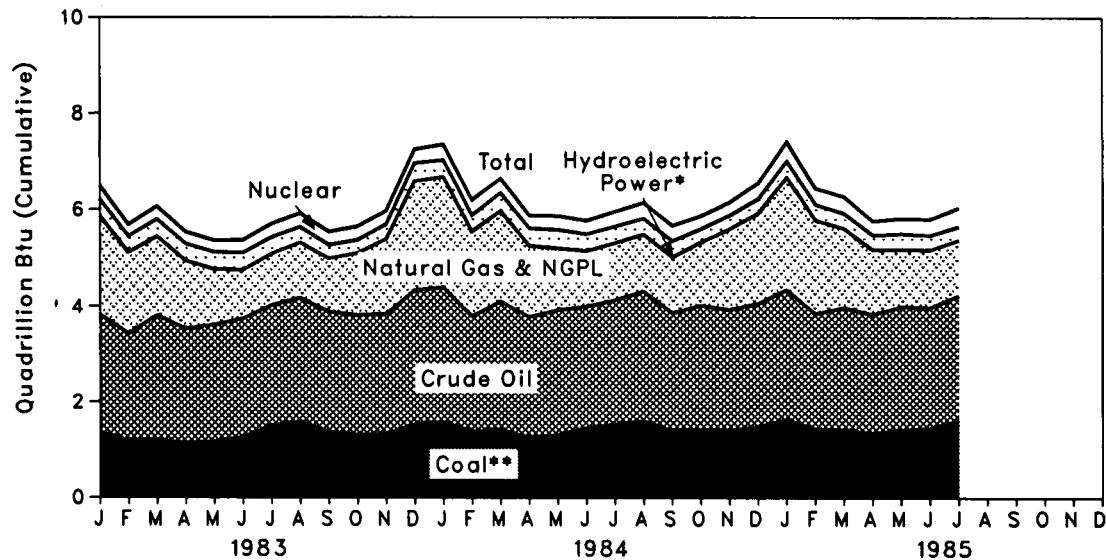
# Energy Summary

## Consumption of Energy by Source

Yearly



Monthly



\*Includes other.

\*\*Includes net imports of coal coke.

# Energy Summary

## Consumption of Energy by Source

		Coal	Natural Gas <sup>1</sup>	Petro-leum	Hydro-electric Power <sup>2</sup>	Nuclear Electric Power	Net Imports of Coal Coke <sup>3</sup>	Other <sup>4</sup>	Total	Year to Date
Quadrillion (10 <sup>12</sup> ) Btu										
1973	Total	12.978	22.512	34.840	3.010	0.910	(0.008)	0.046	74.288	
1974	Total	12.668	21.732	33.455	3.309	1.272	0.056	0.056	72.548	
1975	Total	12.668	19.948	32.731	3.219	1.900	0.014	0.072	70.551	
1976	Total	13.589	20.345	35.175	3.066	2.111	0.000	0.081	74.366	
1977	Total	13.925	19.931	37.122	2.515	2.702	0.015	0.082	76.292	
1978	Total	13.767	20.000	37.965	3.141	3.024	0.125	0.068	78.091	
1979	Total	15.042	20.666	37.123	3.141	2.776	0.063	0.089	78.900	
1980	Total	15.426	20.391	34.202	3.118	2.739	(0.035)	0.114	75.955	
1981	Total	15.908	19.926	31.931	3.105	3.008	(0.016)	0.127	73.989	
1982	Total	15.324	18.507	30.232	3.561	3.131	(0.022)	0.108	70.842	
1983	January	1.360	2.036	2.467	0.337	0.273	(0.001)	0.011	6.483	6.483
	February	1.180	1.693	2.239	0.323	0.242	(0.001)	0.008	5.685	12.168
	March	1.196	1.640	2.604	0.348	0.261	(0.001)	0.009	6.058	18.226
	April	1.140	1.416	2.383	0.344	0.244	(0.002)	0.009	5.533	23.759
	May	1.173	1.153	2.431	0.352	0.240	(0.002)	0.007	5.355	29.113
	June	1.257	1.004	2.480	0.351	0.263	(0.001)	0.009	5.364	34.478
	July	1.500	1.066	2.517	0.328	0.279	(0.002)	0.012	5.700	40.178
	August	1.574	1.146	2.594	0.307	0.286	(0.001)	0.015	5.922	46.100
	September	1.367	1.104	2.515	0.266	0.273	(0.001)	0.014	5.538	51.638
	October	1.305	1.285	2.507	0.256	0.281	(0.001)	0.015	5.648	57.285
	November	1.326	1.550	2.514	0.292	0.273	(0.001)	0.013	5.966	63.252
	December	1.523	2.259	2.803	0.366	0.287	(0.003)	0.011	7.246	70.497
	Total	15.900	17.352	30.054	3.871	3.203	(0.016)	0.133	70.497	
1984	January	1.561	2.288	2.817	0.346	0.320	0.001	0.011	7.343	7.343
	February	1.367	1.755	2.421	0.323	0.310	0.002	0.013	6.191	13.534
	March	1.411	1.871	2.691	0.350	0.298	(0.001)	0.015	6.636	20.170
	April	1.279	1.476	2.526	0.347	0.264	0.000	0.014	5.907	26.077
	May	1.306	1.277	2.619	0.368	0.282	(0.001)	0.014	5.866	31.943
	June	1.448	1.151	2.549	0.335	0.276	(0.002)	0.013	5.769	37.712
	July	1.528	1.184	2.599	0.328	0.308	(0.001)	0.013	5.959	43.671
	August	1.596	1.193	2.702	0.311	0.322	(0.002)	0.016	6.139	49.809
	September	1.392	1.153	2.474	0.258	0.318	0.000	0.015	5.609	55.418
	October	1.403	1.308	2.619	0.262	0.270	(0.003)	0.016	5.875	61.293
	November	1.402	1.664	2.536	0.268	0.268	(0.003)	0.016	6.152	67.445
	December	1.479	1.872	2.578	0.305	0.337	(0.001)	0.018	6.588	74.033
	Total	17.172	18.192	31.132	3.802	3.573	(0.011)	0.174	74.033	
1985	January	1.627	2.332	2.707	0.323	0.395	0.000	0.018	7.402	7.402
	February	1.430	1.930	2.420	0.306	0.336	0.001	0.016	6.439	13.841
	March	1.408	1.636	2.569	0.293	0.339	0.000	0.018	6.263	20.104
	April	R1.343	1.337	2.490	0.290	0.289	0.001	0.015	R5.765	R25.869
	May	R1.409	1.184	2.592	0.307	0.313	(0.003)	0.016	R5.817	R31.686
	June	R1.454	1.193	2.523	0.284	0.336	(0.002)	0.016	R5.804	R37.490
	July	1.615	1.158	2.602	0.262	0.384	(0.002)	0.018	6.036	43.527
	Year to Date	10.286	10.770	17.903	2.066	2.391	(0.004)	0.116	43.527	

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

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

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

<sup>4</sup>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.

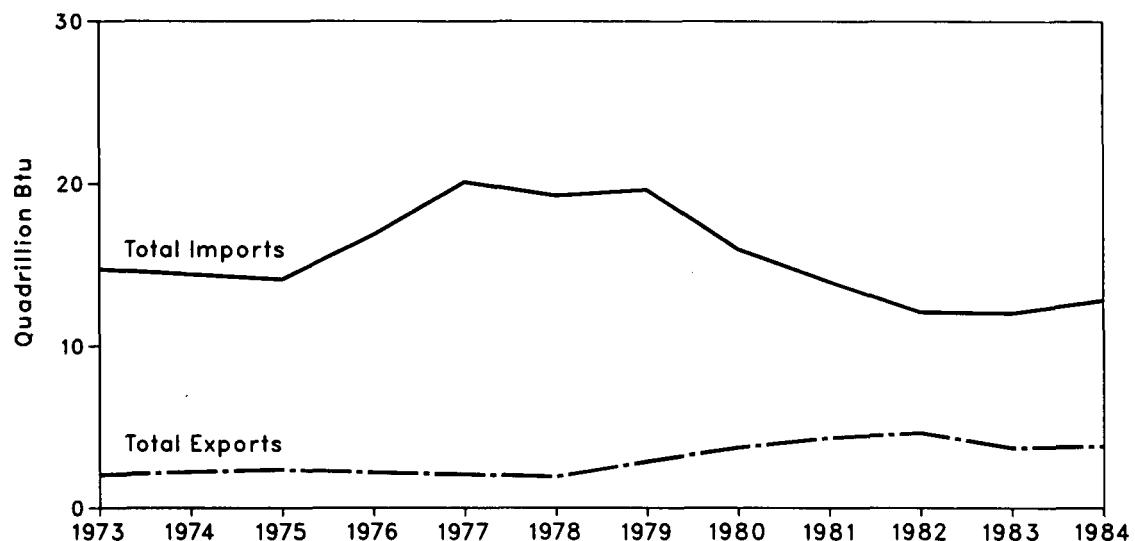
• Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

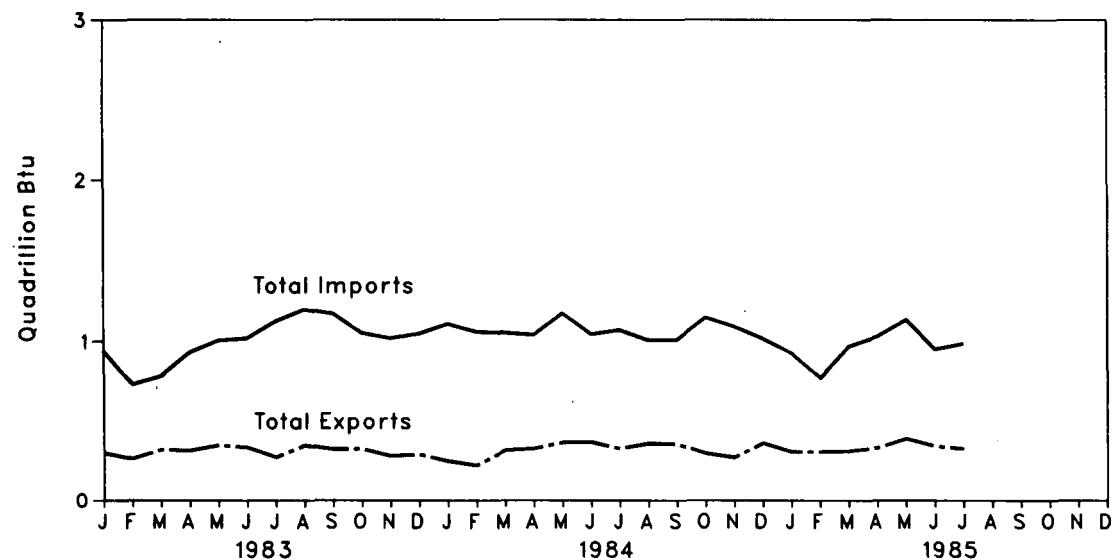
# Energy Summary

## Energy Imports and Exports

Yearly



Monthly



# Energy Summary

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

		Coal	Crude Oil <sup>2</sup>	Refined Petroleum Products <sup>3</sup>	Natural Gas	Electricity	Coal Coke	Total	Year to Date
Quadrillion (10 <sup>18</sup> ) Btu									
1973	Total	(1.422)	6.883	6.097	0.981	0.148	(0.008)	12.680	
1974	Total	(1.568)	7.389	5.273	0.907	0.133	0.056	12.190	
1975	Total	(1.738)	8.708	3.800	0.904	0.064	0.014	11.752	
1976	Total	(1.567)	11.221	3.982	0.922	0.089	0.000	14.648	
1977	Total	(1.401)	13.921	4.321	0.981	0.182	0.015	18.018	
1978	Total	(1.004)	13.125	3.932	0.941	0.204	0.125	17.323	
1979	Total	(1.702)	13.328	3.603	1.243	0.211	0.063	16.745	
1980	Total	(2.391)	10.586	2.912	0.957	0.217	(0.035)	12.247	
1981	Total	(2.918)	8.854	2.522	0.855	0.347	(0.016)	9.644	
1982	Total	(2.768)	6.917	2.128	0.896	0.306	(0.022)	7.457	
1983	January	(0.116)	0.514	0.105	0.110	0.028	(0.001)	0.641	0.641
	February	(0.113)	0.327	0.134	0.092	0.029	(0.001)	0.468	1.108
	March	(0.162)	0.382	0.134	0.083	0.028	(0.001)	0.464	1.572
	April	(0.157)	0.530	0.148	0.071	0.028	(0.002)	0.617	2.190
	May	(0.180)	0.556	0.202	0.057	0.023	(0.002)	0.657	2.847
	June	(0.188)	0.600	0.188	0.057	0.028	(0.001)	0.684	3.531
	July	(0.159)	0.673	0.252	0.054	0.032	(0.002)	0.851	4.382
	August	(0.217)	0.732	0.252	0.051	0.034	(0.001)	0.852	5.233
	September	(0.195)	0.705	0.239	0.065	0.037	(0.001)	0.849	6.082
	October	(0.209)	0.597	0.241	0.061	0.037	(0.001)	0.726	6.809
	November	(0.153)	0.551	0.233	0.077	0.032	(0.001)	0.739	7.548
	December	(0.162)	0.563	0.222	0.105	0.032	(0.003)	0.758	8.306
	Total	(2.013)	6.731	2.351	0.883	0.369	(0.016)	8.306	
1984	January	(0.132)	0.524	0.340	0.094	0.033	0.001	0.859	0.859
	February	(0.109)	0.467	0.382	0.066	0.029	0.002	0.837	1.696
	March	(0.152)	0.584	0.211	0.065	0.029	(0.001)	0.736	2.432
	April	(0.200)	0.567	0.247	0.068	0.030	0.000	0.712	3.144
	May	(0.216)	0.672	0.258	0.063	0.033	(0.001)	0.809	3.953
	June	(0.206)	0.581	0.216	0.057	0.031	(0.002)	0.677	4.630
	July	(0.215)	0.639	0.231	0.051	0.038	(0.001)	0.743	5.373
	August	(0.214)	0.552	0.216	0.050	0.046	(0.002)	0.649	6.022
	September	(0.228)	0.556	0.236	0.053	0.038	0.000	0.654	6.677
	October	(0.173)	0.652	0.272	0.064	0.041	(0.003)	0.852	7.529
	November	(0.109)	0.591	0.225	0.081	0.033	(0.003)	0.819	8.348
	December	(0.169)	0.533	0.169	0.091	0.033	(0.001)	0.657	9.004
	Total	(2.122)	6.918	3.003	0.803	0.414	(0.011)	9.004	
1985	January	(0.151)	0.462	0.176	0.101	E0.033	0.000	0.622	0.622
	February	(0.157)	0.311	0.180	0.096	E0.033	0.001	0.465	1.087
	March	(0.174)	0.473	0.238	0.087	E0.033	0.000	0.657	1.744
	April	(0.182)	0.553	0.221	0.072	E0.033	0.001	0.698	2.441
	May	(0.240)	0.627	0.267	0.067	E0.027	(0.003)	0.745	3.186
	June	(0.206)	0.515	0.207	0.062	E0.032	(0.002)	0.608	3.794
	July	(0.189)	0.548	0.209	0.055	E0.037	(0.002)	0.659	4.453
	Year to Date	(1.298)	3.489	1.498	0.540	E0.228	(0.004)	4.453	

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

E=Estimated value.

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

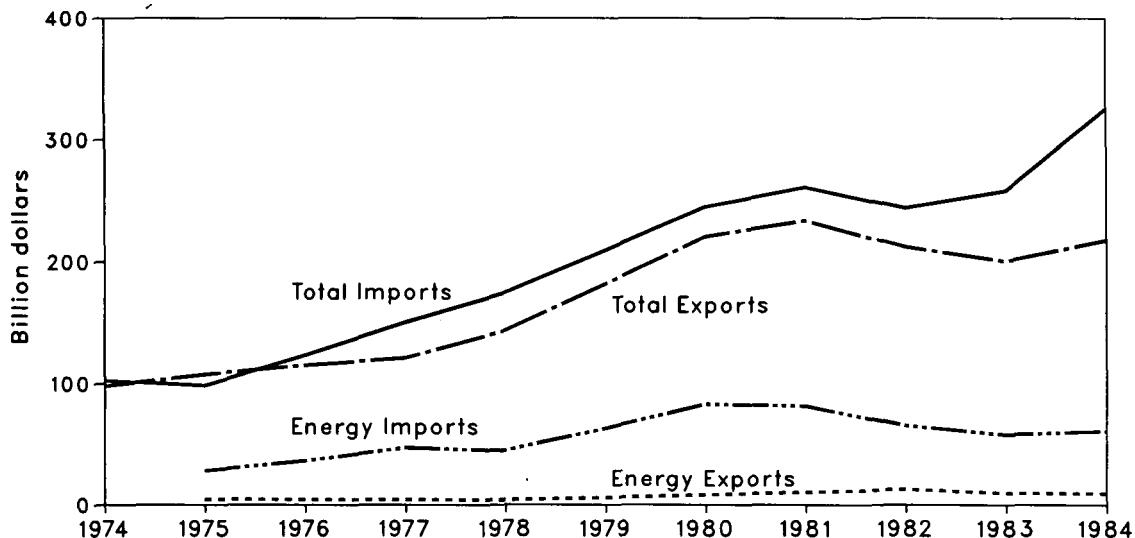
• Totals may not equal sum of components due to independent rounding.

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

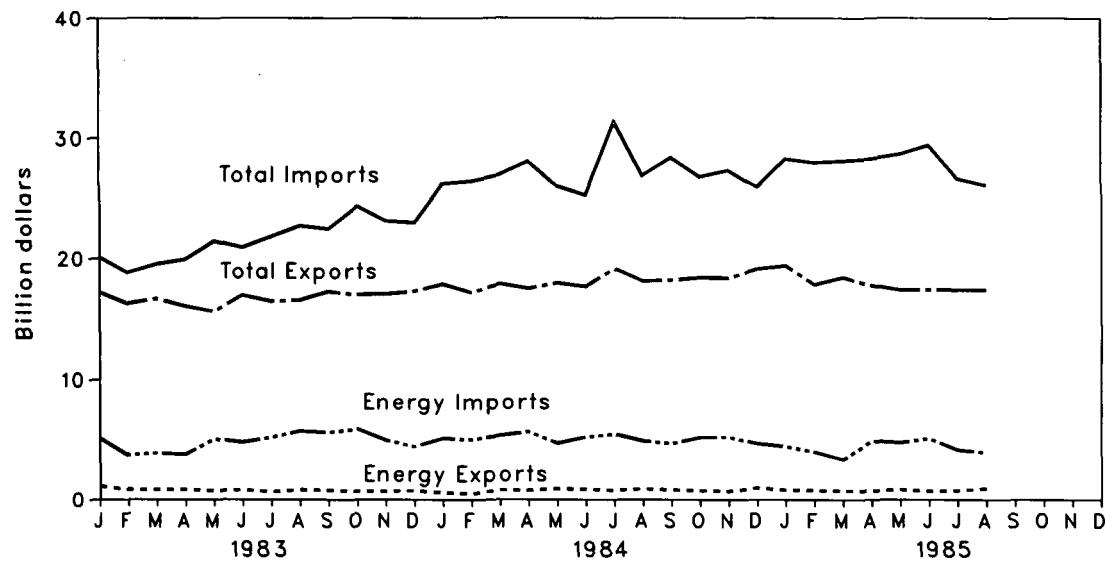
# Energy Summary

## Merchandise Trade Value

Yearly



Monthly



# Energy Summary

## Merchandise Trade Value

		Exports			Imports			Trade Balance			
		Energy	All Other		Energy	All Other		Energy	All Other		
				Total			Total			Total	
Million dollars											
1974	Total	NA	NA	98,092	NA	NA	102,559	NA	NA	-4,467	
1975	Total	4,470	103,182	107,652	28,325	70,178	98,503	-23,855	33,004	9,149	
1976	Total	4,226	110,997	115,223	36,384	87,093	123,477	-32,158	23,904	-8,254	
1977	Total	4,184	117,048	121,232	47,153	103,237	150,390	-42,969	13,811	-29,158	
1978	Total	3,882	139,799	143,681	44,763	129,994	174,757	-40,881	9,805	-31,076	
1979	Total	5,875	176,185	181,860	63,077	146,381	209,458	-57,402	29,803	-27,599	
1980	Total	7,982	212,644	220,826	82,924	161,947	244,871	-74,942	50,898	-24,244	
1981	Total	10,279	223,398	233,877	81,360	179,822	260,982	-71,081	43,776	-27,305	
1982	Total	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	20,921	-31,759	
1983	January	1,142	16,090	17,232	5,142	14,985	20,127	-4,000	1,105	-2,895	
	February	833	15,479	16,312	3,704	15,100	18,804	-2,871	378	-2,493	
	March	822	15,868	16,690	3,865	15,663	19,528	-3,043	206	-2,837	
	April	850	15,245	16,095	3,763	16,151	19,914	-2,913	-906	-3,819	
	May	750	14,905	15,655	5,033	16,413	21,446	-4,283	-1,508	-5,791	
	June	791	16,168	16,959	4,767	16,149	20,916	-3,976	19	-3,957	
	July	644	15,842	16,486	5,164	16,664	21,828	-4,520	-821	-5,341	
	August	824	15,758	16,582	5,703	17,011	22,714	-4,879	-1,253	-6,132	
	September	778	16,479	17,257	5,571	16,880	22,451	-4,793	-402	-5,195	
	October	699	16,334	17,033	5,872	18,461	24,333	-5,173	-2,127	-7,300	
	November	689	16,374	17,063	4,951	18,164	23,115	-4,262	-1,790	-6,052	
	December	739	16,559	17,298	4,417	18,559	22,976	-3,678	-2,000	-5,678	
	Total	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562	
1984	January	582	17,307	17,889	5,089	21,116	26,205	-4,507	-3,809	-8,316	
	February	502	16,706	17,208	5,006	21,414	26,420	-4,504	-4,708	-9,212	
	March	790	17,116	17,906	5,323	21,625	26,948	-4,533	-4,510	-9,043	
	April	759	16,761	17,520	5,629	22,445	28,074	-4,870	-5,683	-10,553	
	May	901	17,077	17,978	4,696	21,316	26,012	-3,795	-4,239	-8,034	
	June	872	16,833	17,705	5,206	20,070	25,276	-4,334	-3,237	-7,571	
	July	765	18,389	19,154	5,434	25,900	31,334	-4,669	-7,511	-12,180	
	August	878	17,245	18,123	4,886	21,980	26,866	-4,008	-4,735	-8,743	
	September	820	17,390	18,210	4,663	23,746	28,409	-3,843	-6,357	-10,200	
	October	757	17,654	18,411	5,168	21,615	26,783	-4,411	-3,961	-8,372	
	November	712	17,683	18,395	5,207	22,124	27,331	-4,495	-4,442	-8,937	
	December	973	18,169	19,142	4,672	21,261	25,933	-3,699	-3,092	-6,791	
	Total	9,311	208,554	217,865	60,980	264,746	325,726	-51,669	-56,192	-107,861	
1985	January	804	18,597	19,401	4,434	23,863	28,297	-3,630	-5,266	-8,896	
	February	786	17,067	17,853	3,989	23,996	27,985	-3,203	-6,928	-10,131	
	March	754	17,692	18,446	3,351	24,778	28,129	-2,597	-7,086	-9,683	
	April	738	17,041	17,779	4,876	23,419	28,295	-4,138	-6,378	-10,516	
	May	837	16,577	17,414	4,748	23,937	28,685	-3,911	-7,360	-11,271	
	June	708	16,730	17,438	5,088	24,337	29,425	-4,380	-7,607	-11,987	
	July	760	16,652	17,412	4,146	22,484	26,630	-3,386	-5,833	-9,219	
	August	934	16,489	17,423	3,937	22,146	26,083	-3,003	-5,657	-8,660	
	Year to Date	6,321	136,846	143,167	34,569	188,960	223,529	-28,248	-52,114	-80,362	

NA=Not available.

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

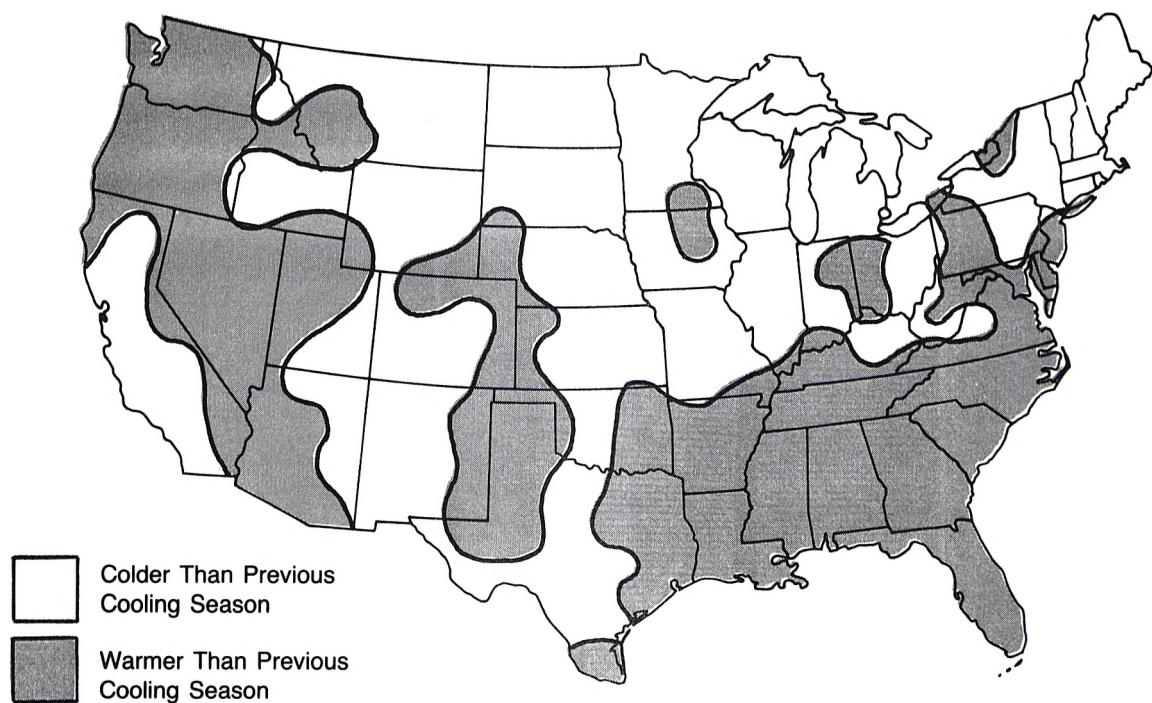
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.

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

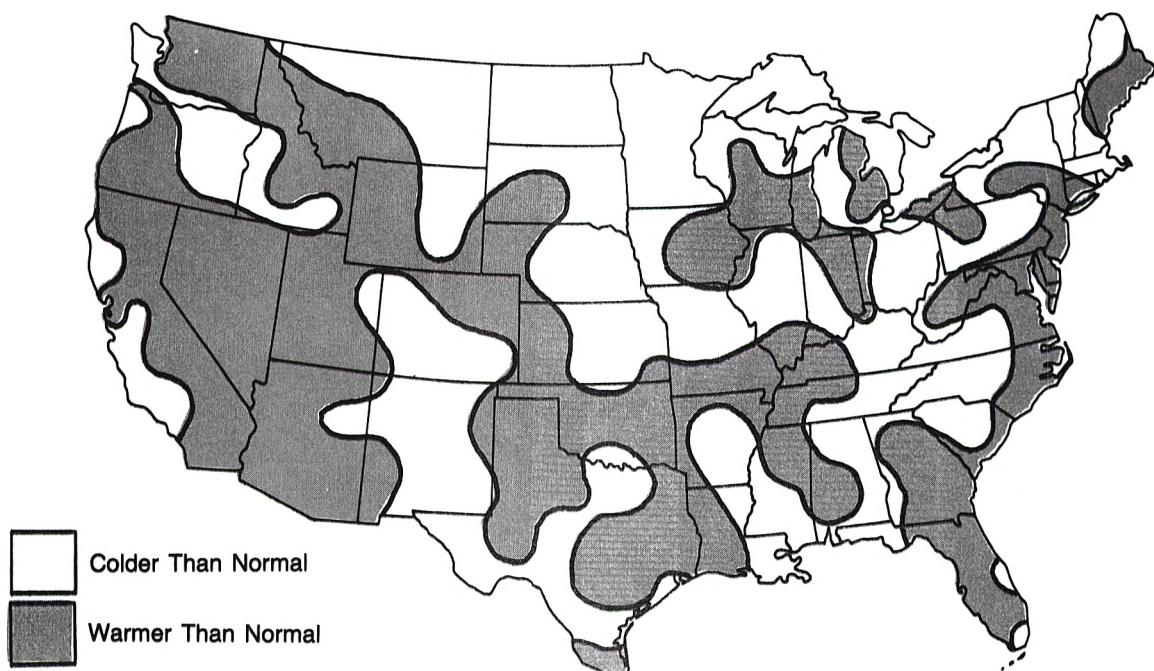
## Energy Summary

Cooling Degree-Days Accumulated from January 1, 1985 through September 28, 1985

Departure from Previous Cooling Season



Departure from Normal



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

# Energy Summary

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

Census Divisions	September 1 through September 30			Cumulative January 1 through September 30						
				Percent Change						
	Normal <sup>2</sup>	1984	1985	Normal to 1985	1984 to 1985	Normal <sup>2</sup>	1984	1985	Normal to 1985	1984 to 1985
New England CT, ME, MA, NH, RI, VT	26	25	48	84.6	92.0	424	513	391	-7.8	-23.8
Middle Atlantic NJ, NY, PA	87	50	110	26.4	120.0	712	664	665	-6.6	0.2
Eastern North Central IL, IN, MI, OH, WI	85	72	127	49.4	76.4	752	724	669	-11.0	-7.6
Western North Central IA, KS, MN, MO, NE, ND, SD	97	104	130	34.0	25.0	980	975	835	-14.8	-14.4
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	261	212	249	-4.6	17.5	1,692	1,561	1,705	0.8	9.2
Eastern South Central AL, KY, MS, TN	230	179	200	-13.0	11.7	1,541	1,342	1,462	-5.1	8.9
Western South Central AR, LA, OK, TX	354	321	360	1.7	12.1	2,297	2,220	2,312	0.7	4.1
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	138	155	111	-19.6	-28.4	1,008	1,071	1,100	9.1	2.7
Pacific Coast CA, OR, WA	112	210	51	-54.5	-75.7	580	784	578	-0.3	-26.3
U.S. Average <sup>3</sup>	156	147	158	1.3	7.5	1,103	1,083	1,070	-3.0	-1.2

<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> Excludes Alaska and Hawaii.

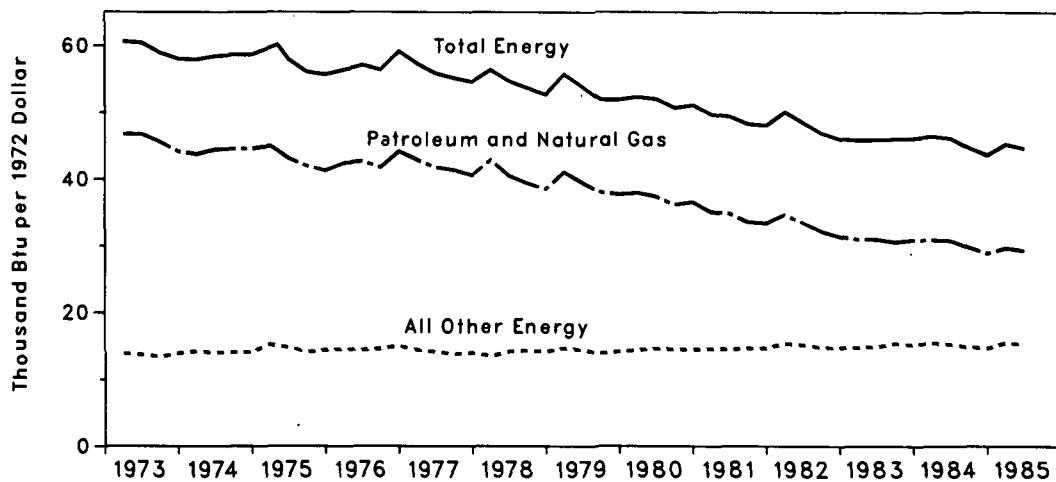
Source: • See Note 6 on the last page of this section.

# 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)		
			Total Energy	Petroleum and Natural Gas	All Other Energy
			Trillion Quadrillion Btu	1972 dollars	Thousand Btu per 1972 dollar
1973	Year	74.288	1.254	59.2	45.7
1974	Year	72.548	1.246	58.2	44.3
1975	Year	70.551	1.232	57.3	42.8
1976	Year	74.366	1.298	57.3	42.8
1977	Year	76.292	1.370	55.7	41.6
1978	Year	78.091	1.439	54.3	40.3
1979	Year	78.900	1.479	53.3	39.1
1980	Year	75.955	1.475	51.5	37.0
1981	Year	73.989	1.512	48.9	34.3
1982	Year	70.842	1.480	47.9	32.9
1983	1st Quarter <sup>1</sup>	68.231	1.491	45.8	31.0
	2nd Quarter <sup>1</sup>	70.000	1.525	45.9	31.0
	3rd Quarter <sup>1</sup>	71.250	1.550	46.0	30.6
	4th Quarter <sup>1</sup>	72.453	1.573	46.1	30.9
	Year	70.497	1.535	45.9	30.9
1984	1st Quarter <sup>1</sup>	74.720	1.611	46.4	30.9
	2nd Quarter <sup>1</sup>	75.513	1.639	46.1	30.8
	3rd Quarter <sup>1</sup>	73.530	1.645	44.7	29.8
	4th Quarter <sup>1</sup>	72.396	1.662	43.6	28.9
	Year	74.033	1.639	45.2	30.1
1985	1st Quarter <sup>1</sup>	75.145	1.664	45.2	29.7
	2nd Quarter <sup>1</sup>	R74.556	R1.671	R44.6	29.3
					R15.3

## 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.

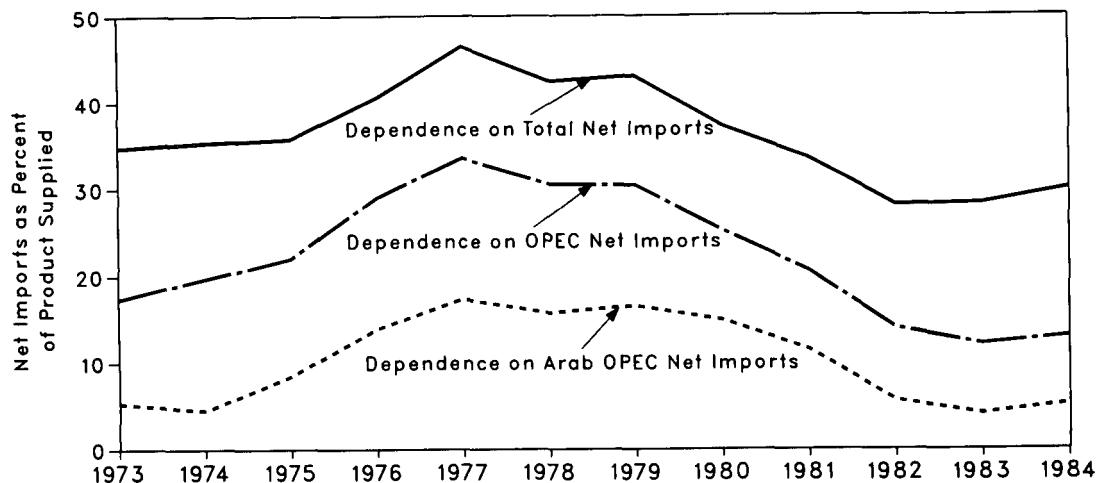
Sources: • See the last page of this section.

# Energy Summary

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

		Net Imports <sup>a</sup>			Net Imports as Percent of U.S. Petroleum Products Supplied			
		From Arab OPEC <sup>b</sup> Countries	From All OPEC <sup>c</sup> Countries	From All Countries	Petroleum Products Supplied	From Arab OPEC <sup>b</sup> Countries	From All OPEC <sup>c</sup> Countries	From All Countries
<b>Annual Rate</b>		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	1st Quarter	351	1,174	3,079	15,026	2.3	7.8	20.5
	2nd Quarter	444	1,708	4,237	14,825	3.0	11.5	28.6
	3rd Quarter	860	2,501	5,370	15,333	5.6	16.3	35.0
	4th Quarter	857	1,972	4,536	15,732	5.4	12.5	28.8
	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	327	1,364	3,564	15,807	2.1	8.6	22.5
	2nd Quarter	536	1,837	4,567	15,452	3.5	11.9	29.6

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



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

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

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

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

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

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

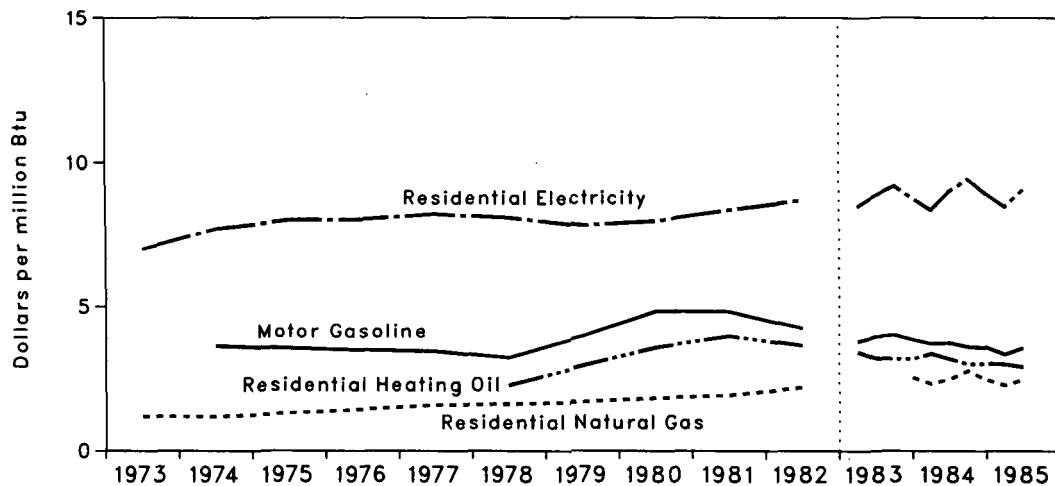
Sources: • See the last page of this section.

# Energy 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	1st Quarter	47.1	3.77	47.3	3.41	NA	NA	2.89	8.47
	2nd Quarter	49.3	3.94	44.2	3.19	NA	NA	3.03	8.88
	3rd Quarter	50.0	4.00	43.9	3.17	NA	NA	3.14	9.20
	4th Quarter	47.9	3.83	43.9	3.17	260.9	2.53	2.99	8.76
	Average	48.6	3.89	45.3	3.27	254.5	2.47	3.01	8.82
1984	1st Quarter	46.1	3.69	46.4	3.35	239.2	2.32	2.85	8.35
	2nd Quarter	46.5	3.72	43.9	3.17	255.7	2.48	3.08	9.03
	3rd Quarter	44.9	3.59	41.6	3.00	286.9	2.78	3.22	9.44
	4th Quarter	44.5	3.56	41.7	3.01	253.5	2.46	3.04	8.91
	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	234.1	2.27	2.89	8.47
	2nd Quarter	44.4	3.55	40.2	2.90	253.2	2.46	3.10	9.09

## 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.

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

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

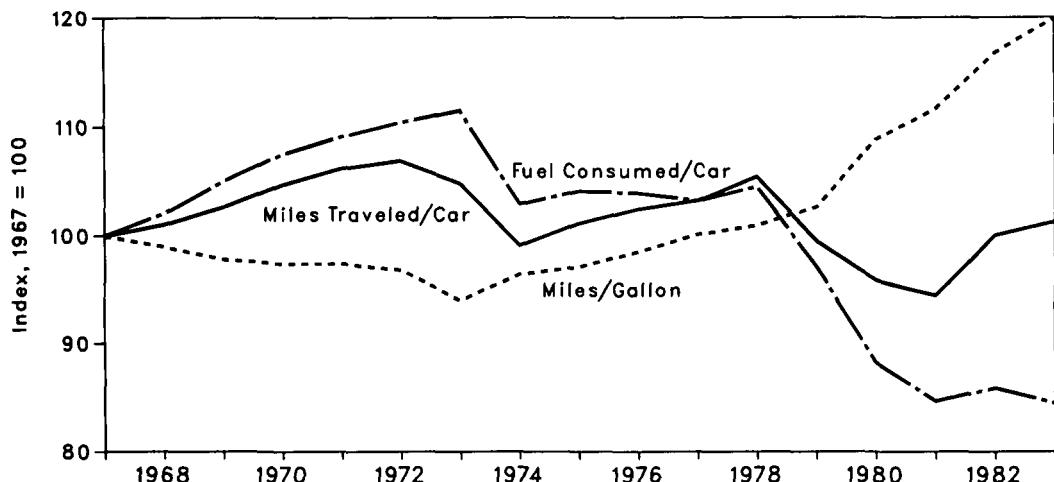
Sources: • See the last page of this section.

## Energy 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	708	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6
1980	603	88.2	9,135	95.8	15.15	108.8
1981	579	84.6	9,002	94.4	15.54	111.6
1982	587	85.8	9,533	100.0	16.25	116.7
1983†	577	84.4	9,641	101.2	16.70	119.9

U.S. Passenger Car Efficiency Index



†Preliminary data.

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

## Notes and Sources for the Energy Summary Section

### 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), refined 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), refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For further information on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.

**4. Energy Exports:** Energy exports include coal, crude oil, refined petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For more information on electricity, see the note and sources for imports and exports of electricity in Note 7 of the Notes and Sources for the Consumption Section.

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

tion. 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 1982: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1983 forward: EIA, *Petroleum Statement, 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:** • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

# Part 2 Consumption

## Consumption

Total U.S. energy consumption in July 1985 was 6.0 quadrillion Btu, 1.3 percent above the July 1984 level. Petroleum products accounted for 43.1 percent of the energy consumed in July 1985, while coal accounted for 26.8 percent and natural gas accounted for 19.2 percent.

The transportation sector used 65.4 percent of the petroleum products consumed in July 1985 and the industrial sector used 25.2 percent. Of natural gas consumed, the industrial sector used 46.7 percent; the electric utilities, 29.8 percent; and the residential and commercial sector, 20.5 percent. Most of the coal used (84.4 percent) was consumed by electric utilities. The residential and commercial sector used 65.7 percent of total electricity sales, while the industrial sector used 34.2 percent.

Residential and commercial sector consumption was 2.0 quadrillion Btu in July 1985, up 2.9 percent from the level in July 1984. This sector consumed 33.4 percent of the July 1985 total, up from its 32.9-percent share in July 1984.

Industrial sector consumption was 2.3 quadrillion Btu in July 1985, virtually unchanged from the July 1984 level. The industrial sector accounted for 37.6 percent of the July 1985 total consumption, down from the industrial sector's 38.1-percent share in July 1984.

Transportation sector consumption of energy was 1.7 quadrillion Btu in July 1985, up 1.0 percent from the July 1984 level. This sector consumed 28.8 percent of the July 1985 total, slightly below the sector's 28.9-percent share in July 1984.

The electric utilities consumption of energy was an estimated 2.5 quadrillion Btu in July 1985, 2.6 percent higher than in July 1984. Coal contributed 55.4 percent of the energy consumed by electric utilities in July 1985, while nuclear electric power contributed 15.6 percent; natural gas, 14.0 percent; hydroelectric power, 10.5 percent; petroleum products, 3.7 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, 0.7 percent.

## Consumption Summary for July 1985

(Quadrillion (10<sup>12</sup>) Btu)

Energy Source	Sector				
	Residential and Commercial	Industrial	Transportation	Electric Utilities	Total
Coal	0.012	0.234	0.000	1.363	1.615
Natural Gas <sup>1</sup>	0.237	0.541	0.034	0.345	1.158
Petroleum Products	0.154	0.655	1.703	0.090	2.602
Hydroelectric Power	0.000	0.003	0.000	0.259	0.262
Nuclear Electric Power	0.000	0.000	0.000	0.384	0.384
Net Imports of Coal Coke	0.000	(0.002)	0.000	0.000	(0.002)
Other <sup>2</sup>	0.000	0.000	0.000	0.018	0.018
<b>Primary Consumption</b>	<b>0.403</b>	<b>1.431</b>	<b>1.737</b>	<b>2.459</b>	<b>6.036</b>
Electricity	0.457	0.238	0.001	(0.696)	
<b>Net Energy Consumption</b>	<b>0.860</b>	<b>1.669</b>	<b>1.738</b>		<b>4.273</b>
Electrical System Energy Losses	1.158	0.603	0.002	(1.763)	1.763
<b>Total Energy Consumption</b>	<b>2.018</b>	<b>2.272</b>	<b>1.740</b>		<b>6.036</b>

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

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

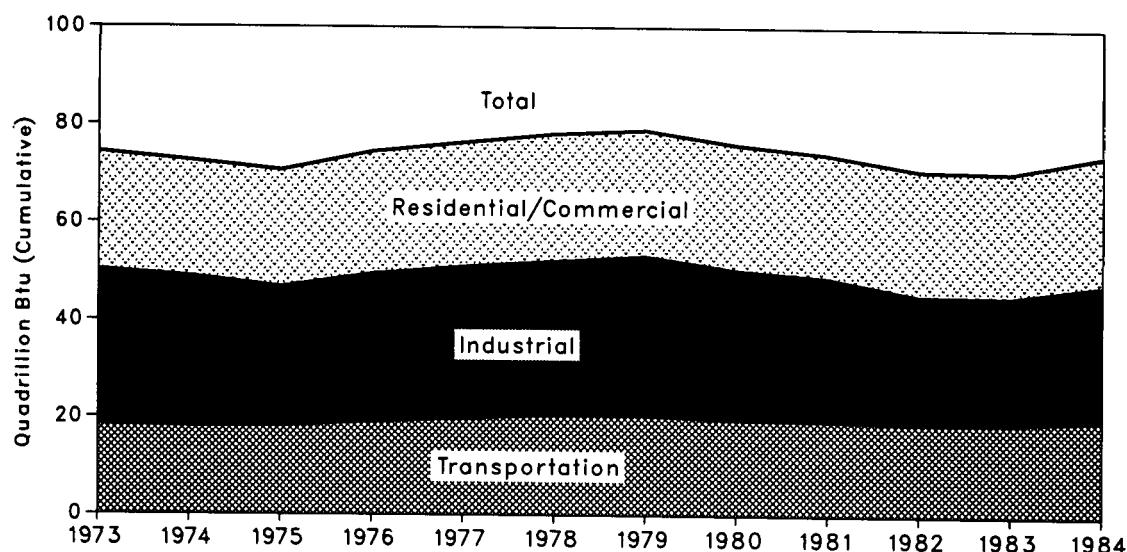
Notes: • Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors.

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

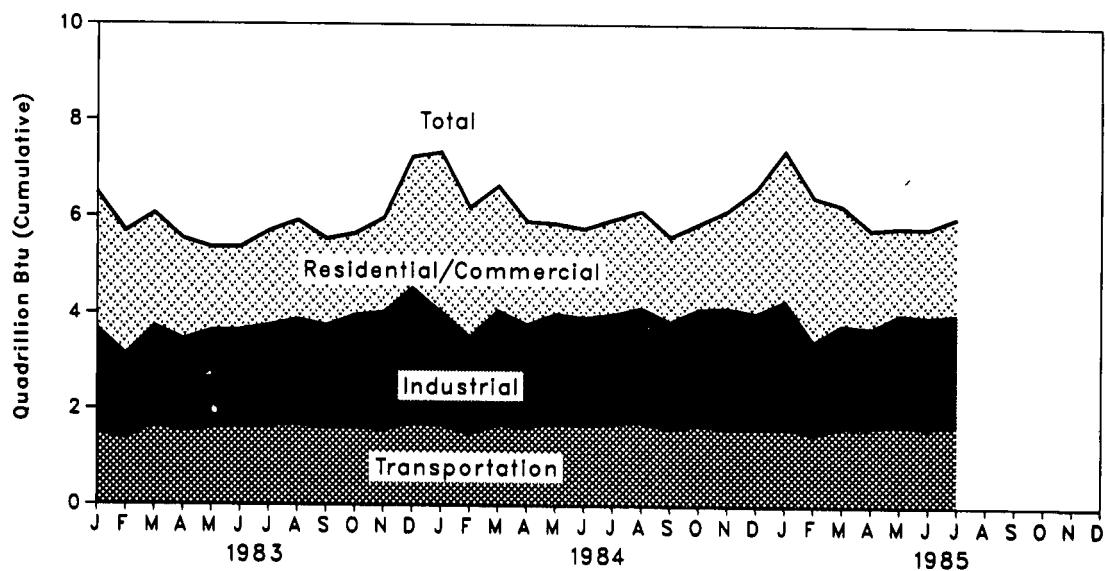
# Consumption

## 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>16</sup> ) Btu					
1973	Total	24.147	31.538	18.596	74.288
1974	Total	23.729	30.699	18.113	72.548
1975	Total	23.902	28.409	18.240	70.551
1976	Total	25.020	30.245	19.093	74.366
1977	Total	25.386	31.090	19.808	76.292
1978	Total	26.085	31.415	20.589	78.091
1979	Total	25.809	32.625	20.464	78.900
1980	Total	25.656	30.606	19.693	75.955
1981	Total	25.244	29.252	19.495	73.989
1982	Total	25.632	26.140	19.066	70.842
1983	January	2.820	2.156	1.506	6.483
	February	2.556	1.751	1.379	5.685
	March	2.351	2.046	1.660	6.058
	April	2.088	1.907	1.541	5.533
	May	1.733	2.021	1.603	5.355
	June	1.723	2.000	1.639	5.364
	July	1.957	2.091	1.648	5.700
	August	2.048	2.193	1.676	5.922
	September	1.798	2.141	1.598	5.538
	October	1.692	2.342	1.616	5.648
	November	1.944	2.459	1.566	5.966
	December	2.731	2.801	1.714	7.246
	Total	25.441	25.908	19.146	70.497
1984	January	3.310	2.366	1.666	7.343
	February	2.695	1.997	1.500	6.191
	March	2.572	2.391	1.673	6.636
	April	2.141	2.134	1.637	5.907
	May	1.874	2.279	1.717	5.866
	June	1.846	2.247	1.673	5.769
	July	1.961	2.271	1.723	5.959
	August	2.002	2.393	1.738	6.139
	September	1.767	2.233	1.608	5.609
	October	1.767	2.419	1.687	5.875
	November	2.016	2.515	1.619	6.152
	December	2.567	2.392	1.629	6.588
	Total	26.617	27.637	19.870	74.033
1985	January	3.111	2.634	1.652	7.402
	February	3.001	1.924	1.511	6.439
	March	2.476	2.131	1.655	6.263
	April	R2.053	R2.062	1.652	R5.785
	May	R1.800	R2.299	1.717	R5.817
	June	R1.836	R2.313	1.651	R5.804
	July	2.018	2.272	1.740	6.036
	Year to Date	16.295	16.637	11.578	43.527

R=Revised data.

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

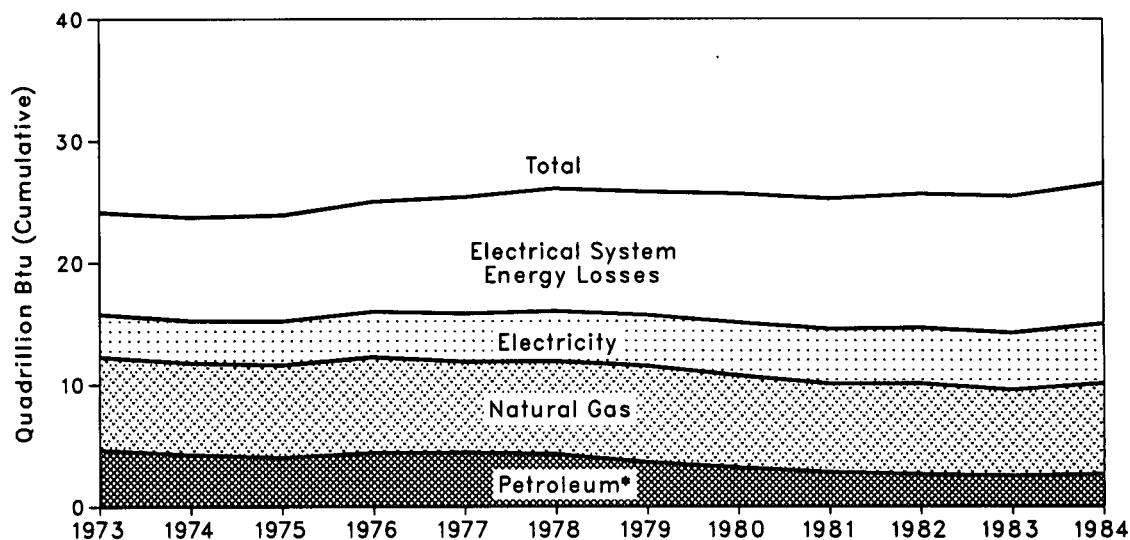
• Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors after 1981.

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

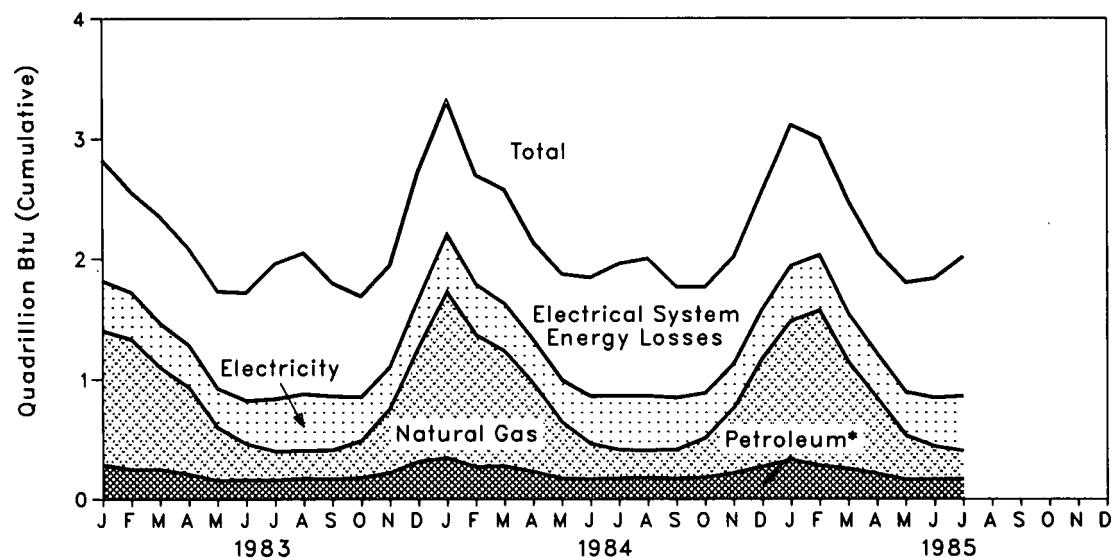
## Consumption

### 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>12</sup> ) Btu								
1973	Total	0.259	7.626	4.391	3.495	8.377	24.147	
1974	Total	0.260	7.518	3.996	3.475	8.480	23.729	
1975	Total	0.212	7.581	3.805	3.604	8.700	23.902	
1976	Total	0.206	7.866	4.181	3.747	9.021	25.020	
1977	Total	0.207	7.461	4.206	3.955	9.556	25.386	
1978	Total	0.215	7.624	4.070	4.116	10.061	26.085	
1979	Total	0.188	7.891	3.448	4.184	10.100	25.809	
1980	Total	0.147	7.539	3.035	4.355	10.580	25.656	
1981	Total	0.171	7.242	2.634	4.497	10.700	25.244	
1982	Total	0.189	7.433	2.449	4.566	10.993	25.632	
1983	January	0.021	1.118	0.266	0.413	1.003	2.820	2.820
	February	0.018	1.087	0.231	0.390	0.831	2.556	5.376
	March	0.013	0.852	0.236	0.365	0.885	2.351	7.727
	April	0.018	0.727	0.190	0.351	0.801	2.088	9.815
	May	0.011	0.441	0.144	0.327	0.810	1.733	11.548
	June	0.009	0.300	0.152	0.359	0.903	1.723	13.271
	July	0.014	0.241	0.144	0.435	1.123	1.957	15.228
	August	0.013	0.233	0.159	0.472	1.171	2.048	17.276
	September	0.018	0.240	0.150	0.450	0.940	1.798	19.074
	October	0.019	0.307	0.159	0.366	0.841	1.692	20.766
	November	0.020	0.531	0.202	0.350	0.841	1.944	22.709
	December	0.025	0.949	0.290	0.402	1.065	2.731	25.441
	<b>Total</b>	<b>0.197</b>	<b>7.025</b>	<b>2.322</b>	<b>4.681</b>	<b>11.215</b>	<b>25.441</b>	
1984	January	0.024	1.384	0.320	0.476	1.106	3.310	3.310
	February	0.021	1.104	0.247	0.418	0.904	2.695	6.005
	March	0.015	0.961	0.261	0.394	0.942	2.572	8.578
	April	0.022	0.742	0.207	0.360	0.810	2.141	10.719
	May	0.013	0.470	0.159	0.355	0.877	1.874	12.593
	June	0.010	0.294	0.159	0.395	0.987	1.846	14.439
	July	0.016	0.237	0.158	0.449	1.100	1.961	16.399
	August	0.015	0.227	0.164	0.456	1.140	2.002	18.401
	September	0.020	0.240	0.152	0.433	0.921	1.767	20.168
	October	0.016	0.327	0.165	0.377	0.881	1.767	21.934
	November	0.017	0.542	0.200	0.372	0.885	2.016	23.951
	December	0.022	0.903	0.250	0.410	0.982	2.567	26.517
	<b>Total</b>	<b>0.213</b>	<b>7.431</b>	<b>2.443</b>	<b>4.895</b>	<b>11.535</b>	<b>26.517</b>	
1985	January	0.019	1.157	0.309	0.457	1.169	3.111	3.111
	February	0.017	1.293	0.263	0.458	0.971	3.001	6.112
	March	0.012	0.893	0.242	0.400	0.929	2.476	8.588
	April	R0.018	0.632	0.194	0.371	0.840	R2.053	R10.641
	May	R0.011	0.365	0.153	0.366	0.906	R1.800	R12.441
	June	R0.009	0.273	0.158	0.405	0.991	R1.836	R14.277
	July	0.012	0.237	0.154	0.457	1.158	2.018	16.295
	<b>Year to Date</b>	<b>0.097</b>	<b>4.850</b>	<b>1.473</b>	<b>2.913</b>	<b>6.963</b>	<b>16.295</b>	

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

R=Revised data.

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

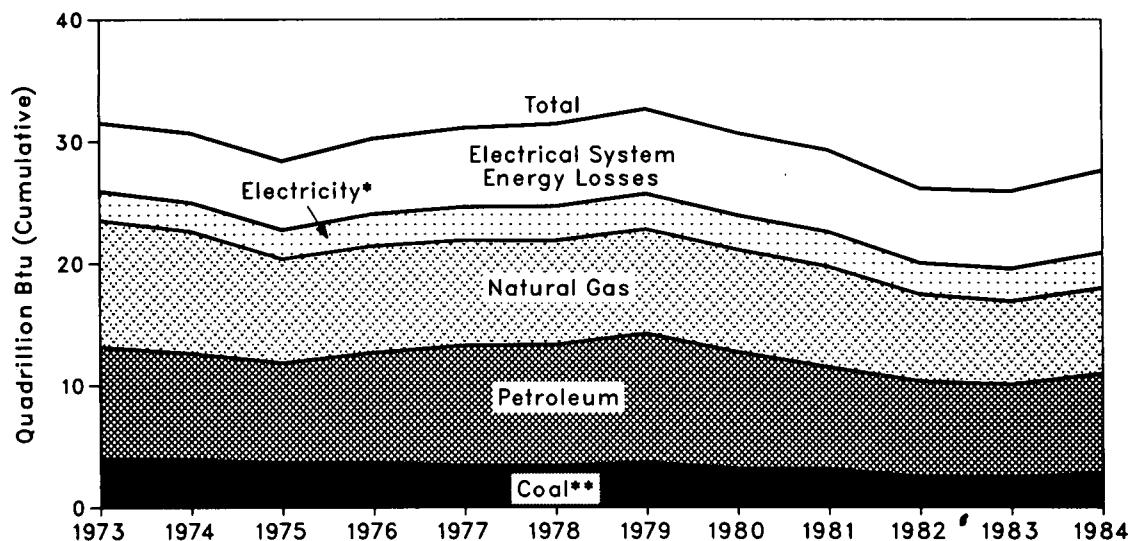
• Totals may not equal sum of components due to independent rounding.

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

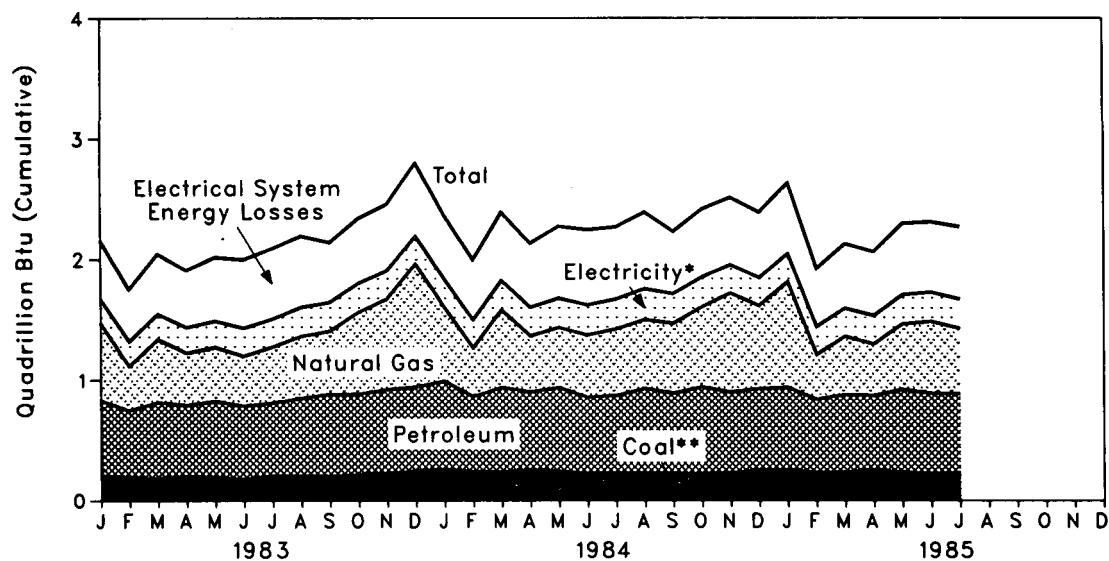
# Consumption

## Consumption of Energy by the 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>	Petro-leum	Hydro-electric Power	Net Imports of Coal Coke	Electricity	Electrical System Energy Losses	Total	Year to Date
Quadrillion (10 <sup>12</sup> ) Btu										
1973	Total	4.059	10.388	9.113	0.035	(0.008)	2.341	5.611	31.538	
1974	Total	3.872	10.003	8.698	0.033	0.056	2.337	5.700	30.699	
1975	Total	3.669	8.532	8.151	0.032	0.014	2.346	5.665	28.409	
1976	Total	3.663	8.761	9.018	0.033	0.000	2.573	6.198	30.245	
1977	Total	3.456	8.636	9.786	0.033	0.015	2.682	6.484	31.090	
1978	Total	3.315	8.539	9.890	0.032	0.125	2.761	6.755	31.415	
1979	Total	3.594	8.549	10.576	0.034	0.063	2.873	6.936	32.625	
1980	Total	3.156	8.394	9.524	0.033	(0.035)	2.781	6.752	30.606	
1981	Total	3.158	8.257	8.295	0.033	(0.016)	2.817	6.707	29.252	
1982	Total	2.552	7.118	7.798	0.033	(0.022)	2.542	6.121	26.140	
1983	January	0.211	0.645	0.620	0.003	(0.001)	0.198	0.480	2.156	2.156
	February	0.196	0.374	0.548	0.003	(0.001)	0.201	0.430	1.751	3.907
	March	0.187	0.527	0.626	0.003	(0.001)	0.206	0.498	2.046	5.953
	April	0.205	0.438	0.586	0.003	(0.002)	0.207	0.471	1.907	7.860
	May	0.198	0.452	0.625	0.003	(0.002)	0.214	0.529	2.021	9.881
	June	0.182	0.420	0.601	0.003	(0.001)	0.226	0.568	2.000	11.881
	July	0.206	0.470	0.602	0.003	(0.002)	0.227	0.585	2.091	13.972
	August	0.209	0.518	0.638	0.002	(0.001)	0.238	0.590	2.193	16.165
	September	0.203	0.524	0.679	0.002	(0.001)	0.238	0.496	2.141	18.306
	October	0.217	0.681	0.666	0.002	(0.001)	0.235	0.541	2.342	20.648
	November	0.227	0.752	0.695	0.002	(0.001)	0.230	0.553	2.459	23.107
	December	0.249	1.019	0.696	0.002	(0.003)	0.229	0.607	2.801	25.908
	Total	2.490	6.821	7.583	0.033	(0.016)	2.648	6.349	25.908	
1984	January	0.258	0.615	0.732	0.003	0.001	0.228	0.529	2.366	2.366
	February	0.238	0.406	0.621	0.003	0.002	0.230	0.497	1.997	4.363
	March	0.240	0.643	0.701	0.003	(0.001)	0.238	0.568	2.391	6.754
	April	0.255	0.464	0.647	0.003	0.000	0.236	0.530	2.134	8.888
	May	0.246	0.497	0.693	0.003	(0.001)	0.241	0.597	2.279	11.167
	June	0.226	0.517	0.632	0.003	(0.002)	0.249	0.622	2.247	13.414
	July	0.228	0.553	0.643	0.003	(0.001)	0.245	0.600	2.271	15.685
	August	0.231	0.570	0.701	0.002	(0.002)	0.254	0.636	2.393	18.079
	September	0.224	0.579	0.667	0.002	0.000	0.243	0.518	2.233	20.312
	October	0.223	0.665	0.723	0.002	(0.003)	0.242	0.566	2.419	22.730
	November	0.233	0.821	0.669	0.002	(0.003)	0.234	0.557	2.515	25.245
	December	0.257	0.691	0.671	0.002	(0.001)	0.227	0.545	2.392	27.637
	Total	2.860	7.022	8.100	0.033	(0.011)	2.868	6.766	27.637	
1985	January	0.254	0.875	0.685	0.003	0.000	0.229	0.587	2.634	2.634
	February	0.234	0.374	0.603	0.003	0.001	0.227	0.482	1.924	4.559
	March	0.235	0.483	0.645	0.003	0.000	0.230	0.534	2.131	6.689
	April	R0.250	0.426	0.621	0.003	0.001	0.234	0.529	R2.062	R8.752
	May	R0.241	0.542	0.684	0.003	(0.003)	0.239	0.593	R2.299	R11.051
	June	R0.222	0.595	0.670	0.003	(0.002)	0.239	0.585	R2.313	R13.364
	July	0.234	0.541	0.655	0.003	(0.002)	0.238	0.603	2.272	15.637
	Year to Date	1.670	3.836	4.564	0.021	(0.004)	1.637	3.913	15.637	

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

R=Revised data.

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

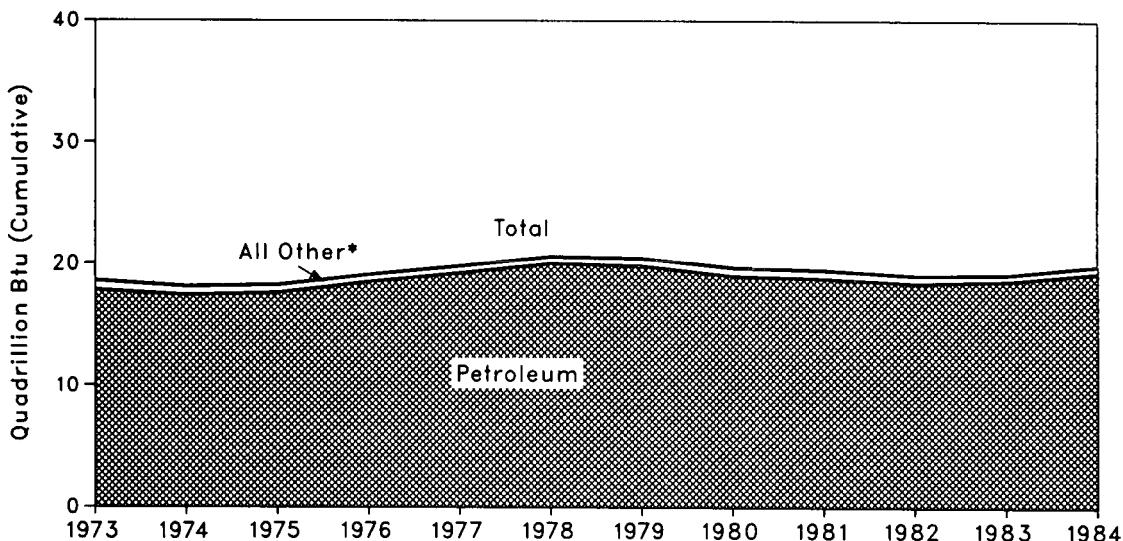
• Totals may not equal sum of components due to independent rounding.

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

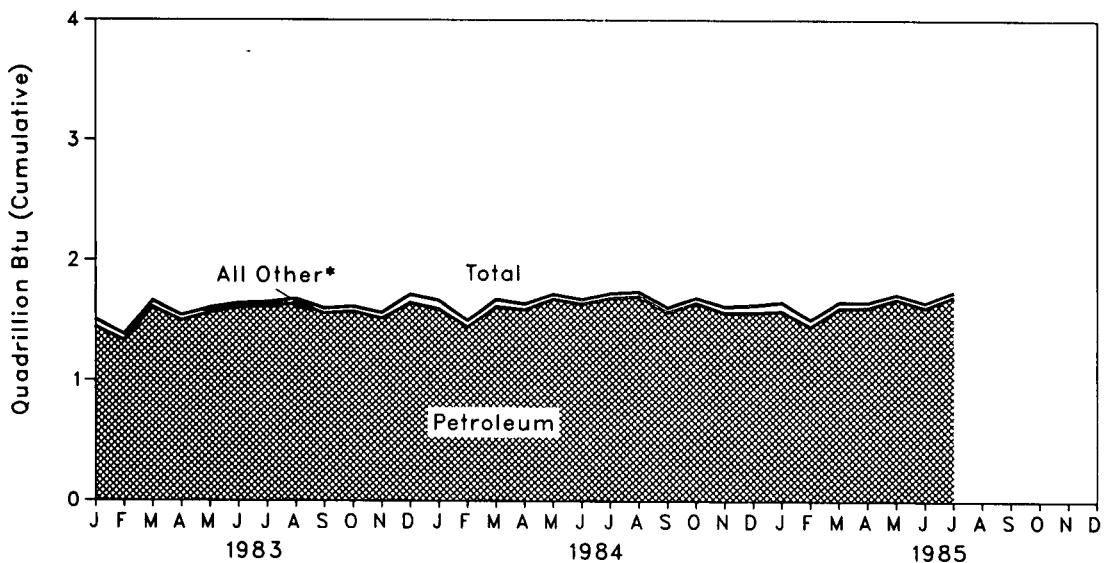
## Consumption

### 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>18</sup> ) Btu								
1973	Total	0.003	0.743	17.821	0.009	0.020	18.596	
1974	Total	0.002	0.685	17.396	0.009	0.022	18.113	
1975	Total	0.001	0.595	17.610	0.010	0.025	18.240	
1976	Total	(*)	0.559	18.499	0.010	0.025	19.093	
1977	Total	(*)	0.543	19.230	0.010	0.025	19.808	
1978	Total	(*)	0.539	20.019	0.009	0.022	20.589	
1979	Total	(*)	0.612	19.817	0.010	0.025	20.464	
1980	Total	(*)	0.648	19.009	0.011	0.026	19.693	
1981	Total	(*)	0.657	18.800	0.011	0.026	19.495	
1982	Total	(*)	0.613	18.417	0.011	0.026	19.066	
1983	January	(*)	0.059	1.444	0.001	0.002	1.506	1.506
	February	(*)	0.049	1.327	0.001	0.002	1.379	2.885
	March	(*)	0.047	1.609	0.001	0.002	1.660	4.545
	April	(*)	0.041	1.497	0.001	0.002	1.541	6.086
	May	(*)	0.034	1.566	0.001	0.002	1.603	7.688
	June	(*)	0.029	1.607	0.001	0.002	1.639	9.327
	July	(*)	0.031	1.614	0.001	0.002	1.648	10.975
	August	(*)	0.033	1.640	0.001	0.002	1.676	12.651
	September	(*)	0.032	1.563	0.001	0.002	1.598	14.249
	October	(*)	0.037	1.576	0.001	0.002	1.616	15.866
	November	(*)	0.045	1.517	0.001	0.002	1.566	17.431
	December	(*)	0.066	1.645	0.001	0.002	1.714	19.146
	Total	(*)	0.504	18.605	0.011	0.026	19.146	
1984	January	(*)	0.067	1.596	0.001	0.002	1.666	1.666
	February	(*)	0.052	1.445	0.001	0.002	1.500	3.166
	March	(*)	0.055	1.615	0.001	0.002	1.673	4.839
	April	(*)	0.043	1.591	0.001	0.002	1.637	6.475
	May	(*)	0.037	1.677	0.001	0.002	1.717	8.192
	June	(*)	0.033	1.637	0.001	0.002	1.673	9.866
	July	(*)	0.034	1.686	0.001	0.002	1.723	11.589
	August	(*)	0.035	1.700	0.001	0.002	1.738	13.327
	September	(*)	0.034	1.572	0.001	0.002	1.608	14.935
	October	(*)	0.038	1.646	0.001	0.002	1.687	16.622
	November	(*)	0.048	1.568	0.001	0.002	1.619	18.241
	December	(*)	0.055	1.571	0.001	0.002	1.629	19.870
	Total	(*)	0.531	19.303	0.011	0.026	19.870	
1985	January	(*)	0.068	1.581	0.001	0.002	1.652	1.652
	February	(*)	0.056	1.452	0.001	0.002	1.511	3.163
	March	(*)	0.047	1.605	0.001	0.002	1.655	4.818
	April	(*)	0.039	1.610	0.001	0.002	1.652	6.470
	May	(*)	0.034	1.680	0.001	0.002	1.717	8.187
	June	(*)	0.035	1.612	0.001	0.002	1.651	9.838
	July	(*)	0.034	1.703	0.001	0.002	1.740	11.578
	Year to Date	(*)	0.313	11.242	0.007	0.016	11.578	

<sup>1</sup>Includes 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.

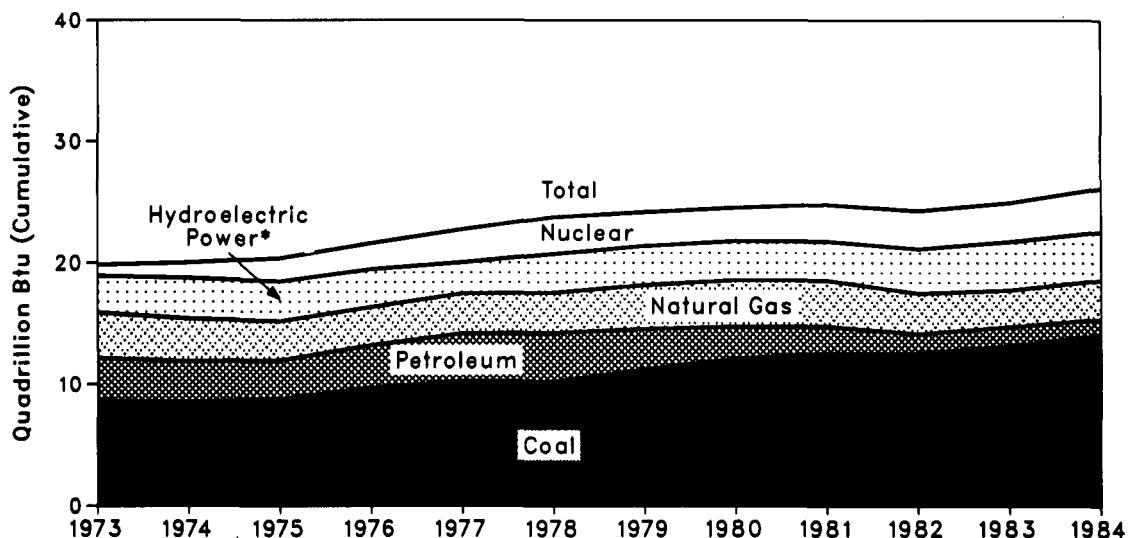
• Totals may not equal sum of components due to independent rounding.

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

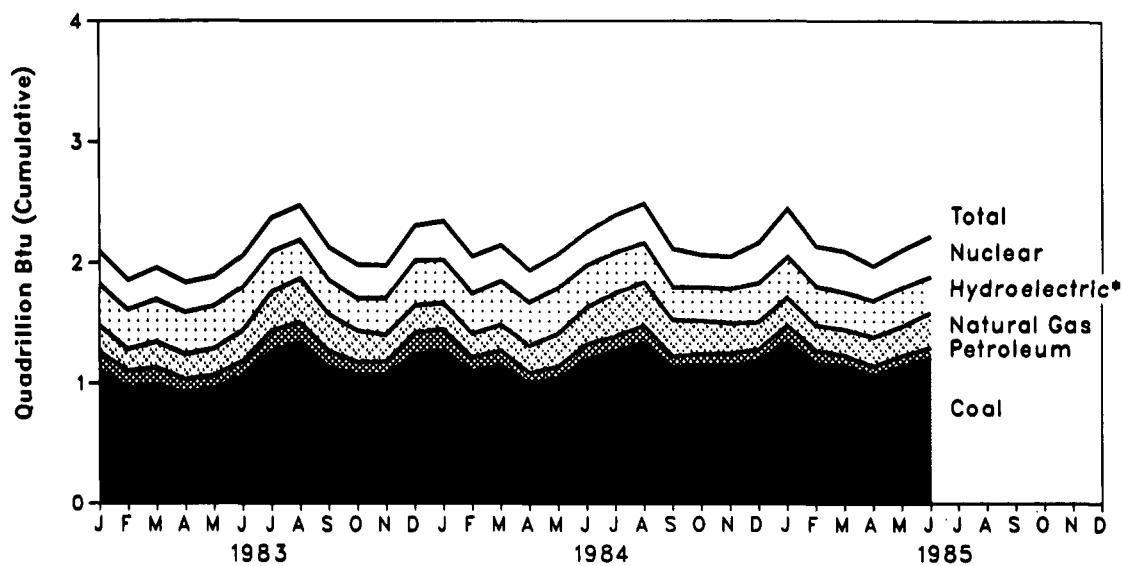
# Consumption

## Energy Input at Electric Utilities

Yearly



Monthly



\*Includes other.

# Consumption

## Energy Input at Electric Utilities

		Coal	Natural Gas <sup>1</sup>	Petro-leum <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									
1973	Total	8.658	3.748	3.515	2.975	0.910	0.046	19.852	
1974	Total	8.534	3.519	3.365	3.276	1.272	0.056	20.022	
1975	Total	8.786	3.240	3.166	3.187	1.900	0.072	20.350	
1976	Total	9.720	3.152	3.477	3.032	2.111	0.081	21.574	
1977	Total	10.262	3.284	3.901	2.482	2.702	0.082	22.713	
1978	Total	10.238	3.297	3.987	3.110	3.024	0.068	23.724	
1979	Total	11.260	3.613	3.283	3.107	2.776	0.089	24.128	
1980	Total	12.123	3.810	2.634	3.085	2.739	0.114	24.505	
1981	Total	12.583	3.768	2.202	3.072	3.008	0.127	24.760	
1982	Total	12.582	3.342	1.568	3.528	3.131	0.108	24.259	
1983	January	1.128	0.215	0.137	0.334	0.273	0.011	2.097	2.097
	February	0.967	0.182	0.134	0.321	0.242	0.008	1.855	3.952
	March	0.996	0.214	0.133	0.345	0.261	0.009	1.958	5.909
	April	0.921	0.209	0.110	0.341	0.244	0.009	1.833	7.743
	May	0.965	0.225	0.097	0.349	0.240	0.007	1.883	9.626
	June	1.064	0.255	0.119	0.348	0.263	0.009	2.059	11.685
	July	1.276	0.324	0.156	0.325	0.279	0.012	2.373	14.058
	August	1.348	0.363	0.158	0.304	0.286	0.015	2.474	16.531
	September	1.146	0.307	0.123	0.264	0.273	0.014	2.127	18.658
	October	1.071	0.259	0.106	0.253	0.281	0.015	1.986	20.644
	November	1.082	0.221	0.099	0.290	0.273	0.013	1.977	22.621
	December	1.249	0.225	0.171	0.363	0.287	0.011	2.307	24.929
	Total	13.213	2.998	1.544	3.838	3.203	0.133	24.929	
1984	January	1.278	0.221	0.169	0.343	0.320	0.011	2.342	2.342
	February	1.109	0.193	0.108	0.320	0.310	0.013	2.052	4.394
	March	1.157	0.212	0.115	0.347	0.298	0.015	2.144	6.539
	April	1.009	0.227	0.081	0.344	0.264	0.014	1.938	8.477
	May	1.050	0.272	0.090	0.365	0.282	0.014	2.074	10.551
	June	1.208	0.306	0.121	0.332	0.276	0.013	2.257	12.808
	July	1.280	0.359	0.111	0.325	0.308	0.013	2.397	15.205
	August	1.345	0.360	0.137	0.309	0.322	0.016	2.489	17.694
	September	1.146	0.299	0.083	0.256	0.318	0.015	2.118	19.812
	October	1.161	0.278	0.084	0.259	0.270	0.016	2.070	21.882
	November	1.150	0.252	0.100	0.266	0.268	0.016	2.052	23.934
	December	1.200	0.224	0.086	0.303	0.337	0.018	2.166	26.100
	Total	14.094	3.205	1.286	3.769	3.573	0.174	26.100	
1985	January	1.350	0.232	0.132	0.320	0.395	0.018	2.446	2.446
	February	1.177	0.207	0.101	0.304	0.336	0.016	2.140	4.586
	March	1.160	0.212	0.077	0.290	0.339	0.018	2.096	6.682
	April	1.079	0.240	0.066	0.287	0.289	0.015	1.976	8.658
	May	1.157	0.243	0.075	0.303	0.313	0.016	2.107	10.765
	June	1.219	0.289	0.082	0.281	0.336	0.016	2.224	12.988
	July	1.363	0.345	0.090	0.259	0.384	0.018	2.459	15.448
	Year to Date	8.504	1.769	0.624	2.044	2.391	0.116	15.448	

<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.

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

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

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

## Notes and Sources for the Consumption Section

**1. Total Energy Consumed:** Total energy consumed includes coal, natural gas (including supplemental gaseous fuels), refined petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, electricity generated from nuclear power, and electricity produced from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems. Data do not include geothermal, wood, waste, wind, photovoltaic, or solar thermal energy sources except that consumed by electric utilities.

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

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

**3. Conversion Factors:** See the Conversion Factors section of this publication.

**4. Coal:** Coal is anthracite, bituminous coal, (including 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 and 1982: EIA, *Natural Gas Annual*.
- 1983 forward: EIA, *Natural Gas Monthly*.
- Electric utilities consumption—1973 through 1976: FPC Form 4, "Monthly Power Plant Report."
- 1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report."
- 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report."

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

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

- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981 through 1983: EIA, *Petroleum Supply Annual*.
- 1984 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 1983.*

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

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

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

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

### 6. Petroleum (continued):

#### • Distillate Fuel (continued)

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

- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1983 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and
- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

##### — *Non-Electric Utility Sectors, Monthly Estimates Through 1983.*

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

##### — *Non-Electric Utility Sectors, 1984 Forward.*

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1983.

#### • 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-172) as follows:

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

commercial, and industrial in proportion to the 1979 shares;

— Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Deliveries for 1983 are used as estimates for 1984 forward. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and

— Industrial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Deliveries for 1983 are used as estimates for 1984 forward. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to "all other uses."

#### • Liquefied Petroleum Gases (LPG)

— 1973 through 1982: the annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:

- Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to 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 52 percent transportation and 48 percent industrial in 1982.
- LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and for use in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

The source of the sales data is EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.

— 1983 forward: Because the collection of data under Form EIA-174 was discontinued after data year 1982, the 1982 annual end-use shares based on the 1982 sales data are applied for all succeeding periods to estimate LPG end-use consumption.

• Lubricants—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 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 1983.** The aggregate non-electric utility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility sectors in proportion to the amount of residual fuel delivered to end users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" ("Deliveries") reports (based primarily on data collected by Form EIA-172) as follows:
    - Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1983. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1983 are the sum of deliveries for industrial, oil company, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years.
  - **Non-Electric Utility Sectors, Monthly Estimates Through 1983.** Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute since January 1981.

- Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
- Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.

#### — **Non-Electric Utility Sectors, 1984 Forward.**

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1983.

- **Road Oil**—All product supplied is assigned to the industrial sector.
- **All Other Petroleum Products**—The product supplied of all remaining petroleum products is assigned to the 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:

#### Sources:

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

**9. Net Imports of Coal Coke:** Net imports means imports minus exports, and the parentheses indicate that exports are greater than imports.

#### Sources:

- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals," chapter.
- 1976 through 1980: EIA, *Energy Data Report*, "Coke and Coal Chemicals," annual.
- 1981: EIA, *Energy Data Report*, "Coke Plant Report," quarterly.
- 1982 forward: EIA, *Quarterly Coal Report*.

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

**Sources:** same as Note 8 above, for Nuclear Electric Power.

**11. Electricity:** Sales of electricity represent consumption. From the sources cited below the following electricity sales categories are available: residential, commercial, industrial, and other. For the end-use estimates in this section, the "other" category (which is primarily sales for use in 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 kilowatthour.

#### Sources of sales data:

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

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

# Part 3 Petroleum

## Petroleum\*

Domestic crude oil production during September 1985 was estimated to be 8.9 million barrels per day, 0.2 percent lower than the August 1985 rate, and 1.3 percent lower than the rate in September 1984.

Total petroleum imports averaged 4.7 million barrels per day in September 1985, 1.1 percent more than the August 1985 rate but 9.9 percent less than the September 1984 rate.

In September 1985, 15.3 million barrels per day of petroleum products were supplied for domestic use, 4.5 percent below the level in August 1985 but 0.4 percent above the level of the previous September. Motor gasoline accounted for 43.7 percent of the total; distillate fuel oil, 17.3 percent; and residual fuel oil, 7.1 percent.

Motor gasoline supplied during September 1985 averaged 6.7 million barrels per day, 7.5 percent below the rate in August 1985 but 1.6 percent above the rate in the previous September. Stocks of motor gasoline totaled 222

million barrels at the end of September 1985, 1 million barrels below the level at the end of August 1985 and 12 million barrels below the stocks level 1 year earlier.

In September 1985, 2.7 million barrels of distillate fuel oil were supplied per day, 0.3 percent higher than the August 1985 rate but the same rate as in September 1984. Distillate fuel oil stocks at the end of September 1985 were 115 million barrels, 1 million barrels higher than the stocks level in the previous month but 28 million barrels lower than the September 1984 ending stocks level.

Residual fuel oil supplied in September 1985 averaged 1.1 million barrels per day, 5.8 percent lower than in August 1985 and 7.5 percent lower than the September 1984 rate. Residual fuel oil stocks measured 43 million barrels at the end of September 1985, 6 million barrels higher than the level in the previous month, but 4 million barrels less than the ending stocks in September 1984.

\*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 1985. 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>		Ending Stocks <sup>3</sup>	
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>6</sup> and Petroleum Products
								Million barrels
					Thousand barrels per day			
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	1,074
1975	Average	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	1,392
1981	Average	10,230	8,572	1,609	-290	-130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	1,430
1983	January	10,331	8,697	1,580	-499	772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	Average	10,299	8,688	1,559	-214	234	15,231	
1984	January	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
	Average	10,554	8,879	1,630	-199	-81	15,726	
1985	January	10,612	8,929	1,642	18	1,443	16,142	1,510
	February	10,598	8,928	1,629	281	1,232	15,975	1,467
	March	10,588	8,927	1,615	-165	426	15,321	1,459
	April	10,481	8,842	1,600	-534	46	15,345	1,474
	May	10,619	8,969	1,607	-696	-386	15,460	1,508
	June	10,622	8,965	1,614	296	-378	15,551	1,510
	July	10,537	8,904	1,591	300	-449	15,517	1,515
	August	10,597	8,895	1,612	R170	R542	R16,039	R1,493
	September	NA	8,874	NA	86	21	15,313	1,493
	Average	NA	8,915	NA	-30	271	15,628	

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

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

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

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

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

<sup>6</sup>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>†</sup> and Petroleum Products Overview (continued)

		Imports			Exports			Net Imports <sup>‡</sup>
		Total	Crude Oil <sup>†</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	January	4,438	2,964	1,474	973	117	856	3,464
	February	3,726	2,267	1,459	865	262	603	2,861
	March	3,690	2,290	1,400	801	174	627	2,889
	April	4,727	3,118	1,609	809	88	721	3,918
	May	5,089	3,360	1,729	848	280	568	4,241
	June	5,326	3,577	1,749	774	144	630	4,552
	July	5,741	3,871	1,870	571	145	426	5,170
	August	6,159	4,227	1,933	663	172	491	5,496
	September	6,129	4,210	1,919	684	177	507	5,445
	October	5,258	3,446	1,812	576	140	436	4,682
	November	5,210	3,337	1,873	679	186	494	4,531
	December	5,033	3,213	1,820	639	95	544	4,394
	Average	5,051	3,329	1,722	739	164	575	4,312
1984	January	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
	Average	5,437	3,426	2,011	722	181	541	4,715
1985	January	4,376	2,700	1,676	792	144	647	3,584
	February	3,921	2,126	1,795	857	221	636	3,064
	March	4,689	2,808	1,881	694	189	505	3,996
	April	5,252	3,401	1,851	764	236	528	4,488
	May	5,718	3,724	1,994	705	250	455	5,012
	June	4,877	3,175	1,702	692	226	467	4,185
	July	4,921	3,189	1,732	675	154	521	4,246
	August	R4,682	R3,110	R1,572	749	241	508	3,934
	September	4,733	3,225	1,507	NA	NA	NA	NA
	Average	4,804	3,059	1,746	NA	NA	NA	NA

Footnotes continued.

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

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

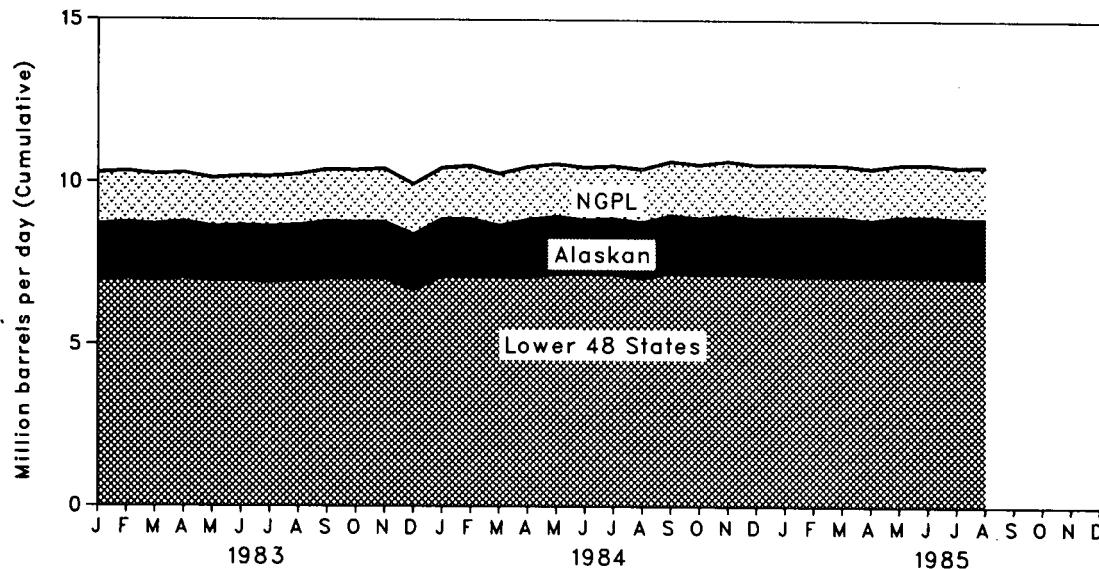
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

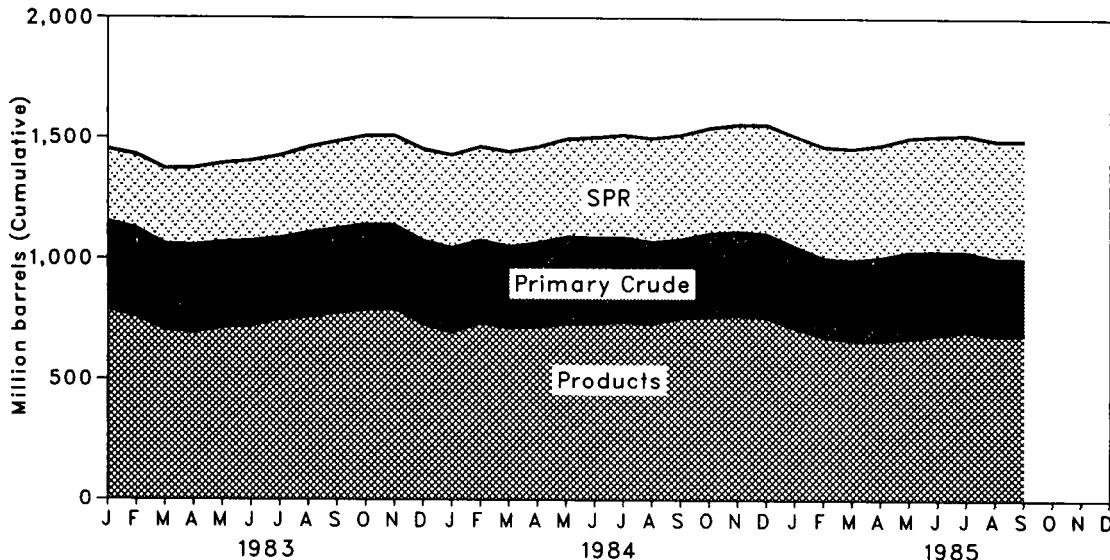
# Petroleum

## Overview

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



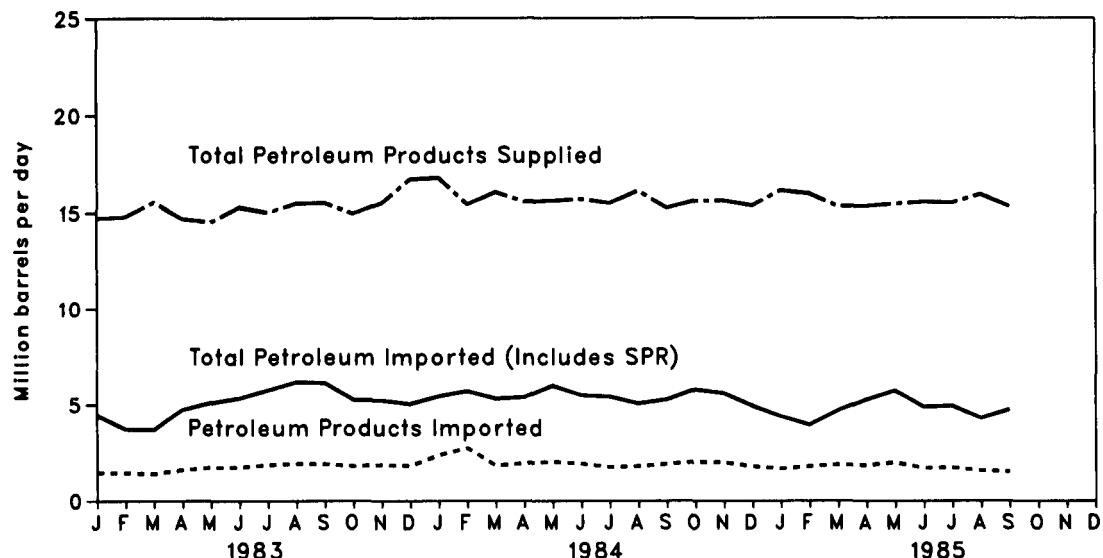
### Ending Stocks



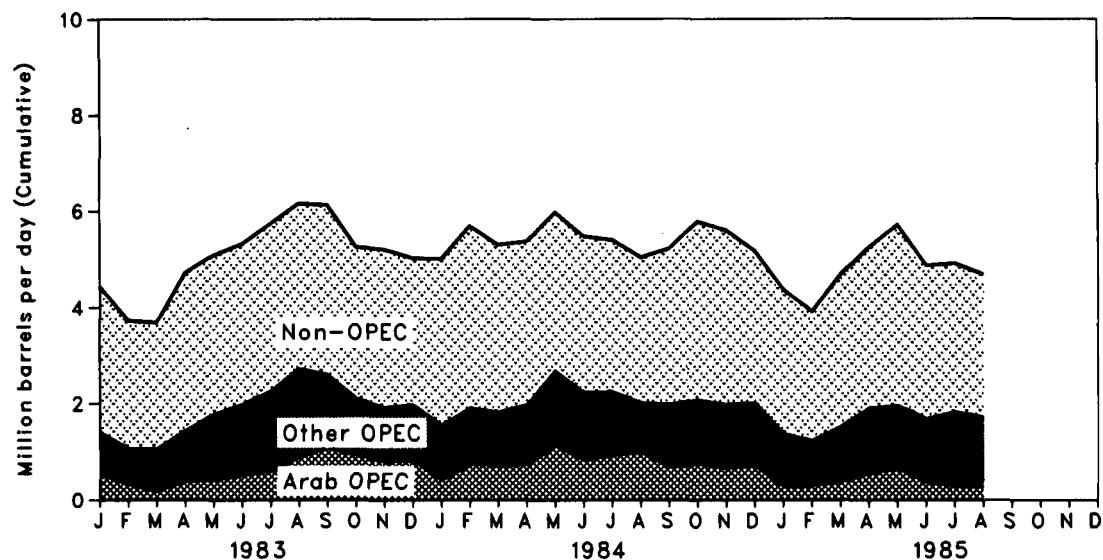
# Petroleum

## Overview

### Products Supplied and Imports



### Petroleum Imports by Source



# Petroleum

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

Supply								
	Field Production		Imports		Stock Withdrawal <sup>2</sup>			
	Total Domestic	Alaskan	Total	SPR <sup>3</sup>	Other	SPR <sup>3</sup>	Other	Unaccounted for Crude Oil
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	181	4,105	4,105		-17	17
1976	Average	8,132	173	5,287	5,287		-39	77
1977	Average	8,245	484	6,615	21	6,594	-20	-150
1978	Average	8,707	1,229	6,358	162	6,195	-163	84
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52
1981	Average	8,572	1,609	4,396	258	4,141	-338	46
1982	Average	8,649	1,696	3,488	165	3,323	-174	38
1983	January	8,697	1,732	2,964	219	2,746	-219	-280
	February	8,758	1,717	2,267	197	2,070	-197	-123
	March	8,700	1,732	2,290	201	2,089	-184	267
	April	8,776	1,721	3,118	205	2,913	-197	-205
	May	8,631	1,662	3,360	289	3,071	-293	278
	June	8,667	1,687	3,577	190	3,387	-188	66
	July	8,636	1,715	3,871	274	3,597	-264	497
	August	8,679	1,697	4,227	350	3,876	-358	-438
	September	8,784	1,738	4,210	309	3,901	-307	68
	October	8,771	1,733	3,446	202	3,244	-201	-73
	November	8,770	1,720	3,337	171	3,166	-135	250
	December	8,397	1,711	3,213	193	3,020	-252	-78
	Average	8,688	1,714	3,329	234	3,096	-234	20
1984	January	8,868	1,752	3,055	200	2,855	-173	-155
	February	8,874	1,749	2,950	85	2,866	-96	293
	March	8,672	1,570	3,470	148	3,322	-147	122
	April	8,862	1,770	3,417	170	3,248	-170	-307
	May	8,955	1,764	3,942	246	3,696	-245	-432
	June	8,852	1,659	3,546	309	3,237	-309	205
	July	8,885	1,695	3,646	329	3,317	-328	159
	August	8,809	1,722	3,248	180	3,068	-179	429
	September	8,893	1,761	3,342	53	3,289	-53	314
	October	8,906	1,732	3,751	187	3,565	-186	-573
	November	8,979	1,781	3,583	219	3,364	-207	-29
	December	8,897	1,720	3,136	229	2,907	-241	-50
	Average	8,879	1,722	3,426	187	3,229	-195	-4
1985	January	8,929	1,788	2,700	223	2,478	-223	241
	February	8,928	1,787	2,126	98	2,028	-97	378
	March	8,927	1,786	2,808	48	2,760	-48	-117
	April	8,842	1,699	3,401	108	3,293	-111	-423
	May	8,969	1,827	3,724	222	3,501	-225	-471
	June	8,965	1,828	3,175	155	3,020	-155	451
	July	8,904	1,802	3,189	226	2,963	-225	525
	August	8,895	1,801	R3,110	R116	R2,995	R-116	R286
	September <sup>4</sup>	8,874	1,801	3,225	75	3,151	-75	161
	Average	8,915	1,791	3,059	142	2,917	-142	112
								NA

<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>a</sup>	Crude Losses	Refinery Inputs	Exports	Product Supplied <sup>b</sup>	Total	SPR <sup>c</sup>
Thousand barrels per day								
1973	Average	-19	13	12,431	2	NA	242	242
1974	Average	-15	13	12,133	3	NA	265	265
1975	Average	-17	13	12,442	6	NA	271	271
1976	Average	-18	15	13,416	8	NA	285	285
1977	Average	-14	16	14,602	50	NA	348	7
1978	Average	-14	16	14,739	158	NA	376	67
1979	Average	-13	16	14,648	235	NA	430	91
1980	Average	-13	15	13,481	287	NA	466	108
1981	Average	-58	5	12,470	228	NA	594	230
1982	Average	-59	3	11,774	236	NA	644	294
1983	January	NA	2	11,143	117	71	660	301
	February	NA	3	10,633	262	71	669	306
	March	NA	2	10,859	174	70	667	312
	April	NA	2	11,433	88	68	679	318
	May	NA	1	11,800	280	63	679	327
	June	NA	(s)	12,284	144	64	683	332
	July	NA	2	12,360	145	65	676	341
	August	NA	1	12,152	172	64	700	352
	September	NA	1	12,482	177	66	708	361
	October	NA	1	11,782	140	63	716	367
	November	NA	2	12,004	186	64	713	371
	December	NA	1	11,234	95	67	723	379
	Average	NA	2	11,685	164	66		
1984	January	NA	1	11,587	153	64	733	384
	February	NA	1	12,157	185	65	727	387
	March	NA	2	11,926	236	62	728	392
	April	NA	1	11,891	172	64	742	397
	May	NA	2	12,247	219	62	763	404
	June	NA	2	12,255	222	61	767	414
	July	NA	2	12,028	108	60	772	424
	August	NA	1	12,346	190	63	764	429
	September	NA	3	12,271	162	66	756	431
	October	NA	1	11,978	141	69	780	437
	November	NA	(s)	12,108	202	62	787	443
	December	NA	(s)	11,755	185	64	796	451
	Average	NA	2	12,044	181	64		
1985	January	NA	1	11,456	144	69	793	457
	February	NA	1	11,393	221	66	786	460
	March	NA	1	11,404	189	69	791	462
	April	NA	(s)	11,817	236	67	807	465
	May	NA	1	12,141	250	62	828	472
	June	NA	1	12,355	226	56	819	477
	July	NA	1	12,477	154	55	810	484
	August	NA	(s)	R12,073	241	55	R805	487
	September	NA	NA	12,014	NA	NA	804	489
	Average	NA	NA	11,907	NA	NA		

Footnotes continued.

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

<sup>b</sup>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	138	184	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	2,983
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	January	207	0	282	47	255	43	186	337	54	1,412	537
	February	115	0	214	9	217	0	92	393	28	1,068	338
	March	63	0	103	0	138	0	121	440	201	1,066	183
	April	227	0	162	(s)	210	0	186	523	125	1,432	389
	May	286	0	122	12	405	37	385	455	69	1,771	420
	June	300	0	188	40	466	38	467	335	138	1,973	528
	July	283	0	182	64	464	112	525	434	187	2,251	606
	August	378	0	448	52	433	213	464	511	230	2,728	903
	September	423	0	587	21	501	86	324	432	221	2,595	1,084
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	184	0	545	56	302	21	215	452	135	1,910	807
	December	144	0	569	45	294	9	329	415	163	1,969	826
	Average	240	0	337	30	338	48	302	422	144	1,882	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
	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	January	95	0	106	60	274	0	262	481	89	1,367	289
	February	174	0	108	0	232	0	131	524	64	1,233	307
	March	252	0	85	52	283	0	180	575	84	1,512	390
	April	286	8	186	70	313	0	280	669	86	1,899	561
	May	281	0	49	128	211	0	381	549	354	1,953	669
	June	178	5	26	81	439	0	357	444	152	1,682	379
	July	136	10	44	13	389	42	376	559	248	1,817	298
	August	135	0	46	17	377	85	194	563	290	1,707	280
	Average	192	3	81	53	315	16	272	546	173	1,650	397

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

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

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

Footnotes continued on following page.

# Petroleum

## Crude Oil and Petroleum Product Imports (continued)

### Imports from Non-OPEC Sources<sup>a</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	January	68	534	849	228	73	314	40	299	621	3,026	4,438
	February	92	586	722	183	81	193	50	192	558	2,658	3,726
	March	86	488	775	187	78	240	43	162	565	2,624	3,690
	April	174	454	981	216	85	421	20	183	759	3,295	4,727
	May	135	518	944	153	108	484	42	235	699	3,318	5,089
	June	137	586	830	173	120	440	48	262	757	3,353	5,326
	July	69	634	849	198	107	369	37	364	864	3,490	5,741
	August	144	542	906	197	90	461	40	313	738	3,431	6,159
	September	148	533	849	261	82	475	33	307	845	3,534	6,129
	October	171	532	771	172	106	414	48	357	580	3,151	5,258
	November	148	556	726	144	110	334	55	427	801	3,300	5,210
	December	127	604	710	153	113	429	22	278	628	3,063	5,033
	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
	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	January	90	610	765	125	113	345	32	235	695	3,009	4,376
	February	37	730	649	39	119	150	50	213	702	2,688	3,921
	March	32	900	921	52	137	141	29	235	730	3,177	4,689
	April	0	880	950	18	107	214	42	205	937	3,353	5,252
	May	66	796	959	22	126	419	37	252	1,088	3,765	5,718
	June	21	716	712	30	92	481	23	271	848	3,195	4,877
	July	36	610	813	26	133	323	14	236	912	3,104	4,921
	August	19	679	859	18	121	336	28	241	673	2,975	4,682
	Average	38	740	831	41	119	302	32	236	824	3,163	4,813

### Footnotes continued.

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

(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.

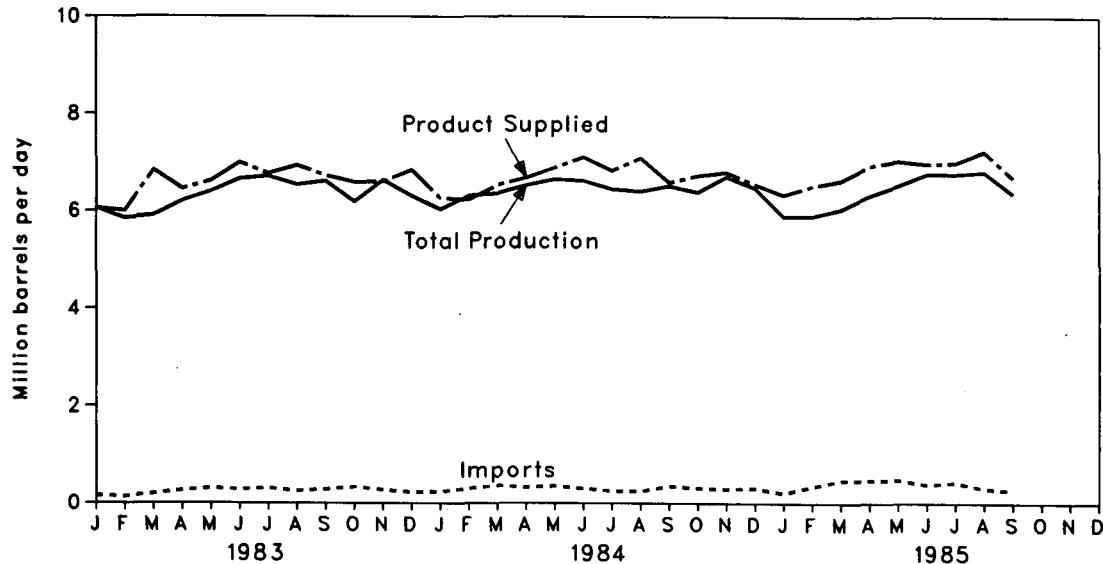
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

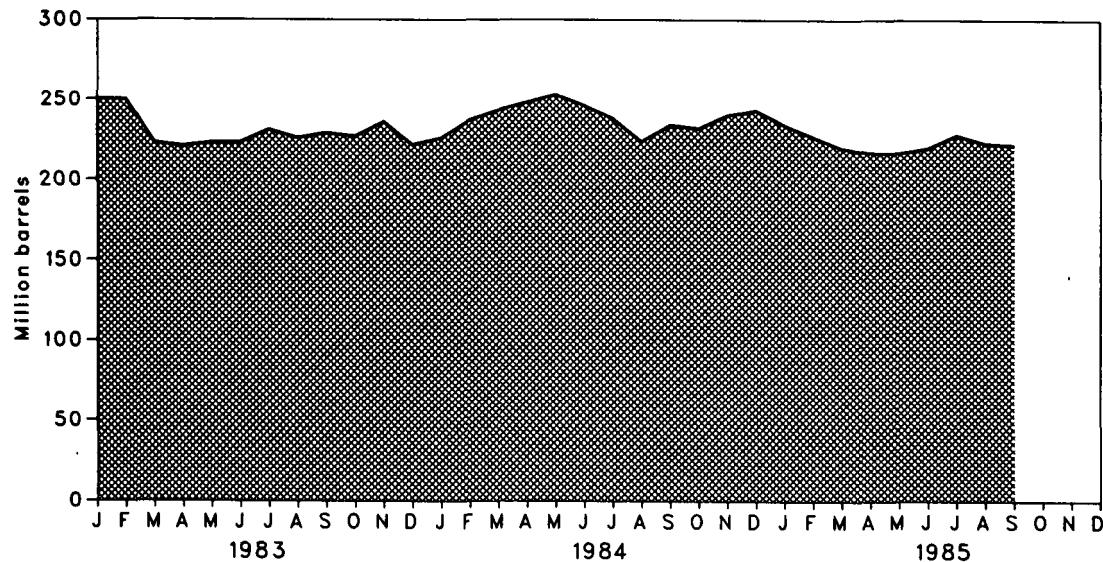
## Petroleum

## **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>3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>4</sup>	Finished Motor Gasoline
					Total	Unleaded <sup>4</sup>	Unleaded Percent of Total		
Thousand barrels per day									
1973	Average	6,535	134	9	4	6,674		209	
1974	Average	6,360	204	-24	2	6,537		*218	
1975	Average	6,520	184	-28	2	6,675		235	
1976	Average	6,841	131	10	3	6,978		231	
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	*261
1981	Average <sup>5</sup>	6,405	157	*28	2	6,588	3,264	49.5	253
1982	Average	6,338	197	25	20	6,539	3,409	52.1	*235
1983	January	6,065	153	-167	(s)	6,051	3,364	55.6	250
	February	5,848	128	24	(s)	6,000	3,264	54.4	250
	March	5,906	186	768	23	6,836	3,622	53.0	223
	April	6,201	255	-3	1	6,452	3,492	54.1	221
	May	6,397	305	-83	1	6,617	3,558	53.8	223
	June	6,655	277	84	22	6,994	3,792	54.2	223
	July	6,707	302	-225	18	6,765	3,746	55.4	231
	August	6,537	250	161	13	6,936	3,836	55.3	226
	September	6,611	279	-149	14	6,727	3,691	54.9	229
	October	6,188	330	72	2	6,588	3,711	56.3	227
	November	6,634	269	-298	2	6,603	3,692	55.9	236
	December	6,308	224	339	25	6,846	3,966	57.9	222
	Average	6,340	247	45	10	6,622	3,647	55.1	186
1984	January	6,036	231	-1	1	6,265	3,605	57.5	226
	February	6,317	299	-383	2	6,231	3,585	57.5	237
	March	6,359	355	-176	9	6,528	3,750	57.4	243
	April	6,525	319	-167	(s)	6,676	3,857	57.8	248
	May	6,650	346	-105	(s)	6,890	4,004	58.1	253
	June	6,619	296	209	17	7,107	4,214	59.3	246
	July	6,450	247	142	9	6,830	4,057	59.4	238
	August	6,405	242	447	1	7,093	4,283	60.4	224
	September	6,516	349	-275	2	6,588	3,973	60.3	234
	October	6,388	308	34	1	6,729	4,093	60.8	232
	November	6,709	286	-183	11	6,800	4,245	62.4	240
	December	6,478	308	-215	16	6,555	4,168	63.6	243
	Average	6,453	299	-54	6	6,693	3,987	59.6	205
1985	January	5,889	204	245	2	6,336	4,026	63.5	234
	February	5,900	347	277	2	6,521	4,048	62.1	227
	March	6,041	473	118	3	6,629	4,189	63.2	220
	April	6,322	475	145	11	6,931	4,377	63.1	217
	May	6,533	487	25	8	7,036	4,422	62.8	217
	June	6,766	384	-168	7	6,975	4,456	63.9	220
	July	6,763	426	-174	18	6,997	4,536	64.8	228
	August	R6,810	R302	R129	4	R7,236	4,753	65.7	R223
	September†	6,362	260	84	NA	6,693	NA	NA	222
	Average	6,380	373	74	NA	6,820	NA	NA	R188

<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.

<sup>†</sup>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.

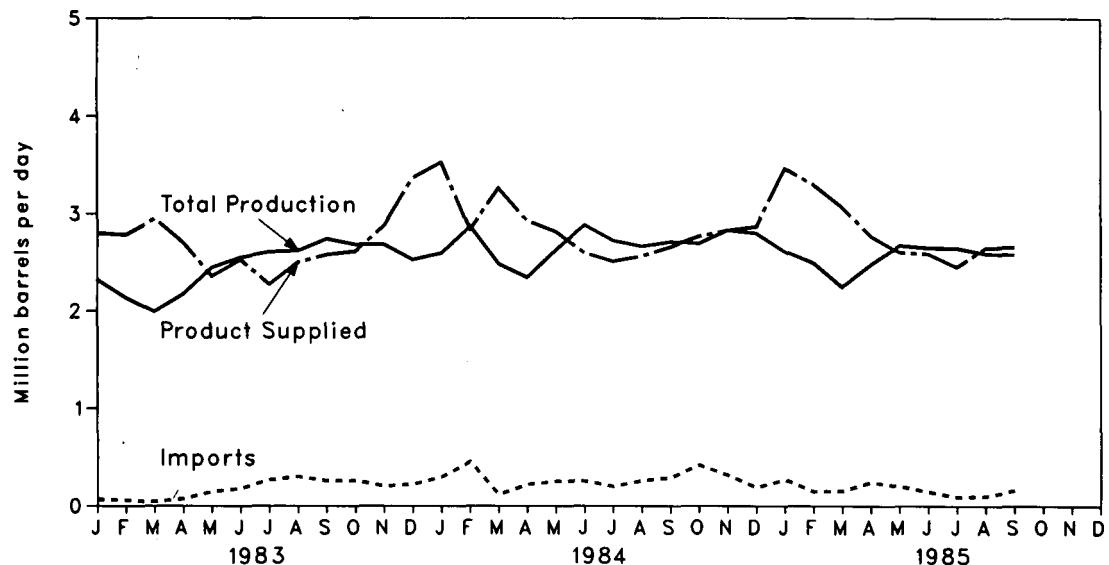
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

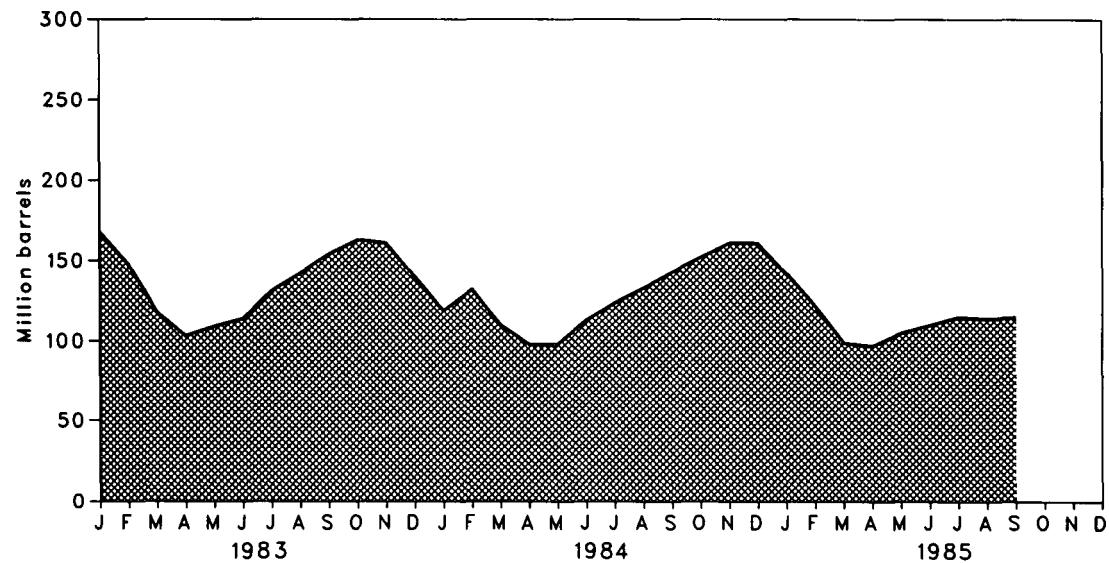
# Petroleum

## **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> Million barrels
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>4</sup>	
		Thousand barrels per day						
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,689	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	3,187	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>5</sup>	2,613	173	-38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	179
1983	January	2,321	68	-580	NA	173	2,797	168
	February	2,135	59	691	NA	105	2,780	148
	March	1,993	42	971	NA	59	2,947	118
	April	2,171	73	500	NA	47	2,697	103
	May	2,444	147	-186	NA	50	2,354	109
	June	2,546	179	-161	NA	40	2,524	114
	July	2,604	267	-546	NA	55	2,270	131
	August	2,615	301	-379	NA	43	2,495	142
	September	2,739	259	-386	NA	37	2,575	154
	October	2,681	260	-276	NA	55	2,611	163
	November	2,680	203	45	NA	54	2,874	161
	December	2,522	221	676	NA	54	3,365	140
	Average	2,456	174	124	NA	64	2,690	
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
	Average	2,681	272	-57	NA	51	2,845	
1985	January	2,608	271	624	NA	41	3,462	142
	February	2,491	148	724	NA	64	3,299	122
	March	2,244	153	715	NA	44	3,069	99-
	April	2,474	244	75	NA	27	2,767	97
	May	2,670	203	-243	NA	31	2,600	105
	June	2,645	147	-177	NA	30	2,584	110
	July	2,644	95	-177	NA	112	2,450	115
	August	R2,587	R101	R58	NA	100	R2,646	R114
	September <sup>6</sup>	2,576	162	-5	NA	NA	2,654	115
	Average	2,549	170	173	NA	NA	2,834	

<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>5</sup>Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.

<sup>6</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.

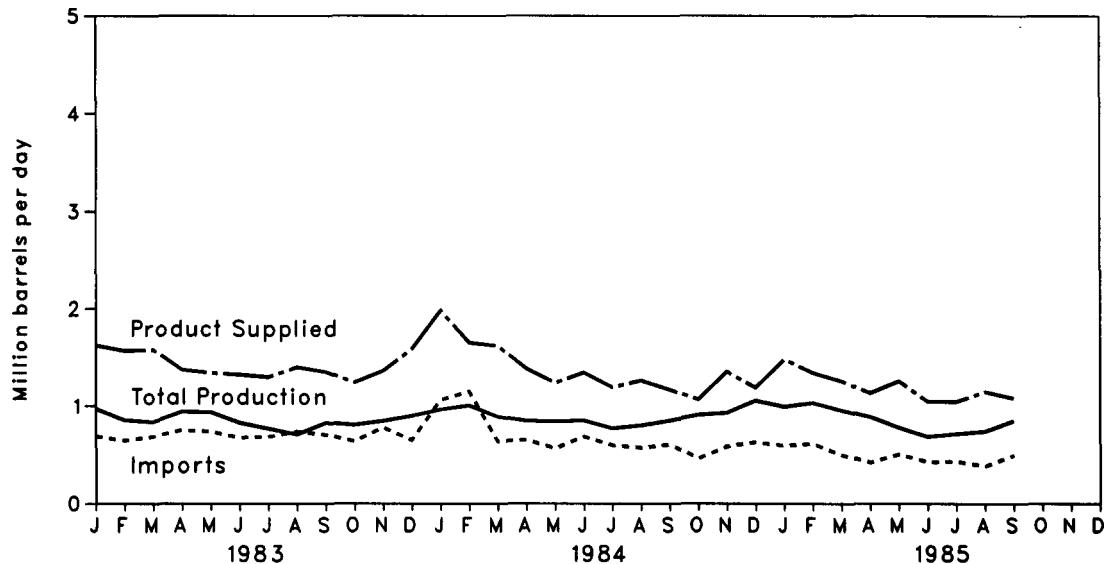
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

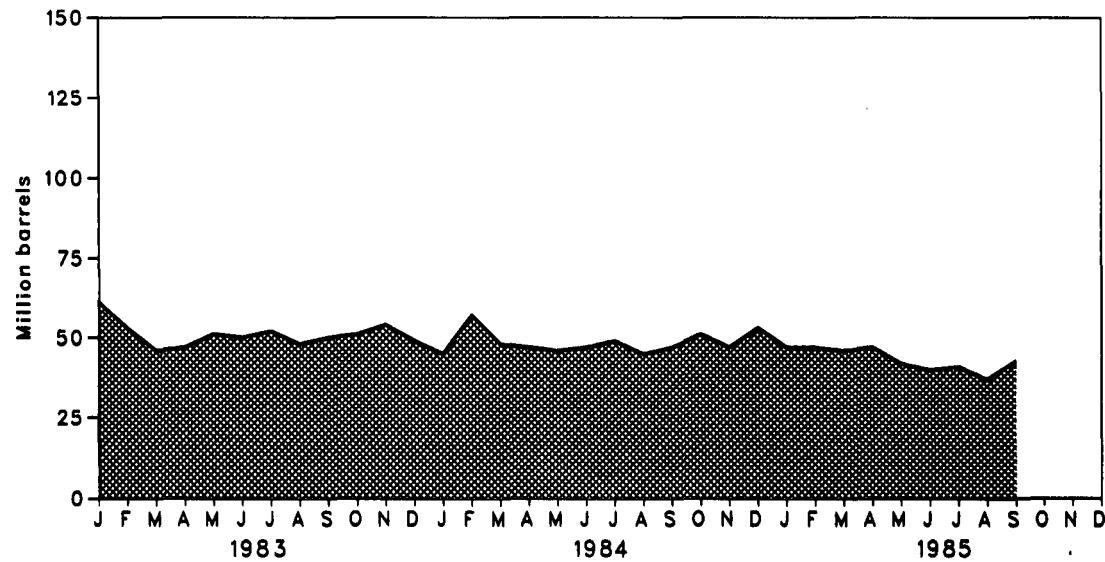
## Petroleum

## **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> Million barrels
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	
		Thousand barrels per day					
1973	Average	971	1,853	5	17	23	2,822 53
1974	Average	1,070	1,587	-17	13	14	2,639 60
1975	Average	1,235	1,223	-2	15	15	2,462 74
1976	Average	1,377	1,413	5	17	12	2,801 72
1977	Average	1,754	1,359	-48	13	6	3,071 90
1978	Average	1,667	1,355	-1	13	13	3,023 90
1979	Average	1,687	1,151	-15	12	9	2,826 96
1980	Average	1,580	939	10	12	33	2,508 92
1981	Average <sup>b</sup>	1,321	800	-37	48	118	2,088 78
1982	Average	1,070	776	32	48	209	1,716 66
1983	January	972	691	258	NA	294	1,626 61
	February	857	647	257	NA	191	1,570 53
	March	835	686	227	NA	169	1,579 46
	April	941	753	-10	NA	310	1,374 47
	May	936	738	-141	NA	190	1,342 51
	June	828	677	36	NA	218	1,323 50
	July	769	684	-64	NA	90	1,299 52
	August	710	739	115	NA	165	1,400 48
	September	826	706	-47	NA	134	1,351 50
	October	807	638	-50	NA	153	1,243 51
	November	845	780	-97	NA	167	1,362 54
	December	897	649	182	NA	141	1,587 49
	Average	852	699	55	NA	185	1,421
1984	January	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	991	594	208	NA	312	1,481 47
	February	1,031	614	-7	NA	295	1,343 47
	March	954	496	22	NA	216	1,256 46
	April	888	422	-11	NA	167	1,133 47
	May	780	505	156	NA	185	1,255 42
	June	886	426	53	NA	118	1,047 40
	July	714	431	-20	NA	83	1,042 41
	August	R741	R386	R125	NA	106	R1,146 R37
	September <sup>c</sup>	849	497	-170	NA	NA	1,080 43
	Average	847	485	41	NA	NA	1,198

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

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

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

<sup>f</sup>Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.

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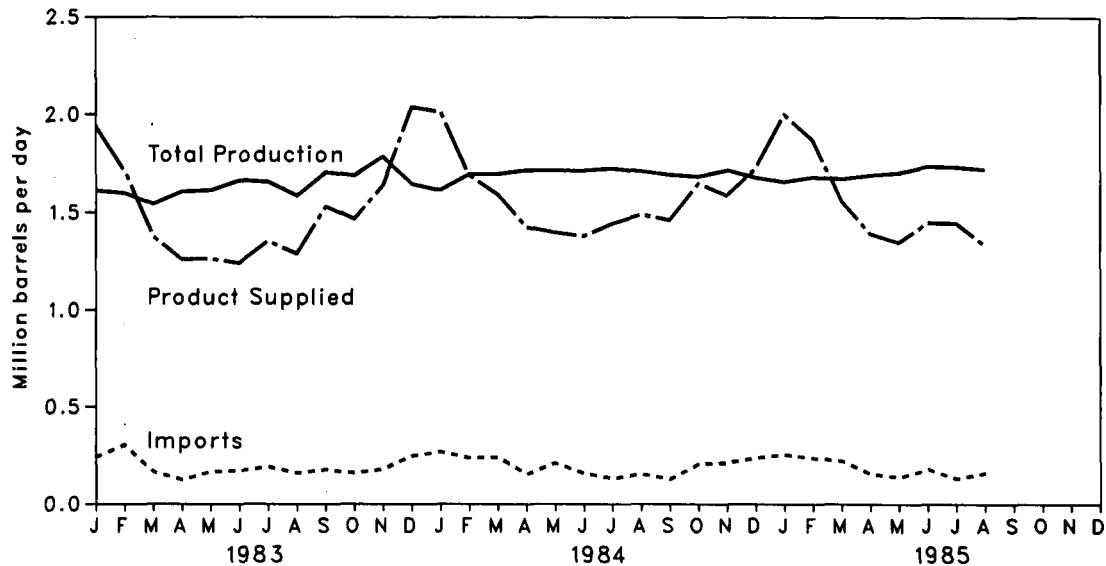
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Sources: • See the last page of this section.

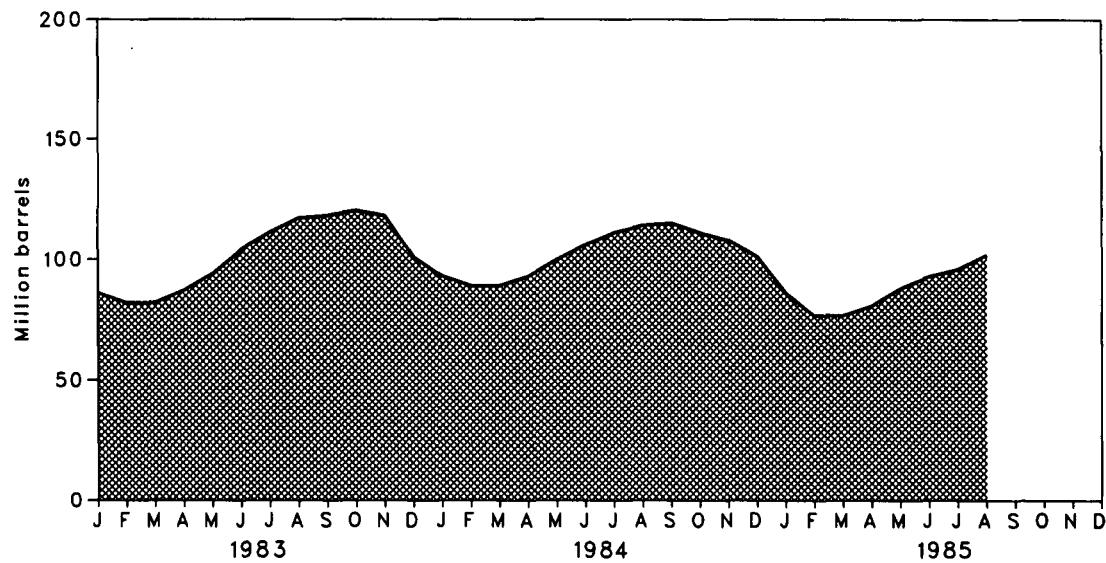
# Petroleum

## 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> Million barrels
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels per day						
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	January	1,611	240	-520	313	118	1,939	86
	February	1,600	305	128	244	76	1,713	82
	March	1,543	166	-9	197	127	1,377	82
	April	1,607	124	-156	198	116	1,260	87
	May	1,613	167	-225	207	84	1,263	94
	June	1,664	172	-334	203	59	1,241	104
	July	1,656	191	-221	217	55	1,354	111
	August	1,586	160	-199	229	29	1,289	117
	September	1,705	178	-30	236	86	1,531	118
	October	1,688	160	-81	268	32	1,467	120
	November	1,785	180	70	362	33	1,640	118
	December	1,645	247	575	363	66	2,038	101
	Average	1,642	190	4	253	73	1,509	
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	1,658	255	466	309	70	2,001	86
	February	1,682	237	338	313	72	1,872	77
	March	1,672	223	-13	270	52	1,560	77
	April	1,691	156	-115	260	78	1,394	81
	May	1,703	138	-217	235	40	1,349	88
	June	1,736	181	-173	244	51	1,449	93
	July	1,733	131	-107	243	68	1,447	96
	August	1,721	161	-103	267	80	1,432	99
	Average	1,700	185	7	267	64	1,560	

<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.

\*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.

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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> Million barrels
	Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Product Supplied	
	Thousand barrels per day						
1973 Average	3,693	502	-9	750	166	3,270	208
1974 Average	3,558	432	-28	665	174	3,123	218
1975 Average	3,424	277	-2	537	160	3,002	219
1976 Average	3,643	206	-5	524	175	3,145	220
1977 Average	3,912	205	-27	514	165	3,410	230
1978 Average	4,046	166	14	492	167	3,568	225
1979 Average	4,153	195	-37	352	209	3,749	238
1980 Average	3,956	210	-23	311	198	3,634	247
1981 Average	3,739	226	-46	723	199	3,088	282
1982 Average	3,453	334	80	787	211	2,869	253
1983 January	3,194	322	-419	588	271	2,239	271
February	3,229	321	12	673	232	2,658	270
March	3,381	319	-147	572	249	2,732	275
April	3,299	404	-24	592	247	2,840	276
May	3,405	374	35	705	242	2,866	275
June	3,610	444	96	717	292	3,144	272
July	3,636	425	148	735	209	3,265	267
August	3,695	482	30	668	242	3,297	266
September	3,792	497	-6	788	236	3,255	266
October	3,578	424	-107	711	195	2,990	270
November	3,568	441	95	912	238	2,957	267
December	3,123	479	361	883	257	2,823	256
Average	3,460	411	6	712	242	2,923	
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	352	-102	494	223	2,792	243
February	3,385	449	-99	658	204	2,874	246
March	3,436	536	-415	627	190	2,739	259
April	3,570	553	-49	776	245	3,054	260
May	3,677	661	-106	883	191	3,158	264
June	3,927	564	87	878	261	3,439	261
July	3,998	649	31	910	241	3,525	260
August	4,078	622	335	1,292	218	3,523	250
Average	3,669	550	-40	817	222	3,140	

<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.

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

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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 1984: EIA, *Petroleum Supply Annual*.
- January 1985 through August 1985: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- September 1985: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1985 through September 1985: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

# Part 4 Natural Gas

## Natural Gas

Total dry natural gas production in the United States during August 1985 was an estimated 1.3 trillion cubic feet. This was 5.9 percent less than in August 1984.

Consumption of natural and supplemental gas in August 1985 was an estimated 1.1 trillion cubic feet. This was 1.4 percent lower than in August 1984.

Deliveries to industrial consumers, the principal end users of natural gas, during July 1985 (latest data available) were an estimated 443 billion cubic feet. This was 1.3 percent lower than in July 1984.

Imports of natural gas in August 1985 were an estimated 60 billion cubic feet, 11.1 percent higher than in the previous August. No liquefied natural gas (LNG) was imported from Algeria in August 1985.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of August 1985 totaled 2,833 billion cubic feet. This was 3.4 percent above stocks available a year earlier. Net injections into storage during August 1985 were 227 billion cubic feet, 19.8 percent lower 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 Repressing <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	January	1,688	125	20	7	1,536	72	1,464
	February	1,488	111	17	7	1,353	64	1,289
	March	1,552	125	18	8	1,401	66	1,335
	April	1,470	123	16	8	1,323	62	1,261
	May	1,467	114	17	9	1,328	62	1,266
	June	1,415	121	19	7	1,268	60	1,208
	July	1,502	128	18	8	1,348	63	1,285
	August	1,555	127	20	8	1,400	66	1,334
	September	1,514	123	19	8	1,364	64	1,300
	October	1,591	125	18	8	1,440	68	1,372
	November	1,602	117	19	9	1,457	68	1,389
	December	1,753	119	21	8	1,605	75	1,530
	Total	18,597	1,458	222	95	16,822	790	16,033
1984	January	1,858	119	22	7	1,709	80	1,629
	February	1,621	115	19	6	1,481	70	1,411
	March	1,666	112	21	7	1,526	72	1,454
	April	1,642	120	19	7	1,495	70	1,425
	May	1,644	127	20	7	1,490	70	1,420
	June	1,593	124	20	8	1,442	68	1,374
	July	1,649	126	19	8	1,496	70	1,426
	August	1,628	127	19	8	1,475	69	1,406
	September	1,547	121	15	7	1,403	66	1,337
	October	1,634	128	18	7	1,480	70	1,410
	November	1,626	124	16	8	1,477	69	1,408
	December	1,764	131	21	7	1,606	75	1,531
	Total	19,872	1,474	229	87	18,082	849	17,231
1985	January	1,777	124	20	7	1,626	76	1,550
	February	1,614	122	18	6	1,468	69	1,399
	March	1,629	137	19	6	1,468	69	1,399
	April	1,576	136	18	6	1,416	67	1,349
	May	1,591	130	18	6	1,437	68	1,369
	June	1,552	130	18	6	1,398	66	1,332
	July	1,569	132	18	6	1,413	66	1,347
	August	1,540	128	18	6	1,388	65	1,323
	Year to Date	12,848	1,039	147	49	11,614	546	11,068

<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 1983 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	With-drawals from Storage <sup>1</sup>	Supple-mental Gaseous Fuels <sup>2</sup>	Imports <sup>3</sup>	Total Supply/Disposition <sup>4</sup>	Additions to Storage <sup>1</sup>	Exports <sup>3</sup>	Consump-tion <sup>5</sup>
		Billion cubic feet							
1973	Total	21,731	1,533	NA	1,033	24,297	1,974	77	22,049
1974	Total	20,713	1,701	NA	959	23,373	1,784	77	21,223
1975	Total	19,236	1,780	NA	953	21,949	2,104	73	19,538
1976	Total	19,098	1,921	NA	984	21,983	1,756	65	19,946
1977	Total	19,163	1,750	NA	1,011	21,924	2,307	58	19,521
1978	Total	19,122	2,158	NA	968	22,245	2,278	53	19,627
1979	Total	19,863	2,047	NA	1,253	22,984	2,295	58	20,241
1980	Total	19,403	1,972	155	985	22,515	1,949	49	19,877
1981	Total	19,181	1,930	176	904	22,191	2,228	59	19,404
1982	Total	17,758	2,184	145	933	21,000	2,472	52	18,001
1983	January	1,484	474	15	112	2,065	28	5	1,975
	February	1,289	341	13	95	1,738	39	5	1,642
	March	1,335	280	12	86	1,713	63	5	1,591
	April	1,261	171	11	74	1,517	88	5	1,373
	May	1,266	43	9	61	1,379	205	5	1,118
	June	1,208	23	8	59	1,298	273	3	974
	July	1,285	28	8	58	1,377	287	5	1,034
	August	1,334	37	9	56	1,438	285	6	1,112
	September	1,300	28	9	67	1,404	277	4	1,071
	October	1,372	42	10	64	1,488	183	4	1,246
	November	1,389	169	12	80	1,650	86	5	1,503
	December	1,530	634	17	107	2,288	31	5	2,191
	Total	16,033	2,270	132	920	19,354	1,822	55	16,835
1984	January	1,629	563	17	97	2,306	54	5	2,219
	February	1,411	300	13	69	1,793	62	5	1,702
	March	1,454	359	14	69	1,898	50	6	1,815
	April	1,425	99	11	71	1,606	145	5	1,432
	May	1,420	30	10	66	1,526	258	5	1,239
	June	1,374	28	9	59	1,468	325	3	1,116
	July	1,426	28	9	55	1,518	341	5	1,148
	August	1,406	30	9	54	1,499	313	5	1,157
	September	1,337	30	9	57	1,433	287	5	1,118
	October	1,410	55	10	67	1,542	244	5	1,269
	November	1,408	221	12	84	1,725	82	5	1,614
	December	1,531	302	14	94	1,941	94	5	1,816
	Total	17,231	2,042	137	843	20,253	2,255	55	17,645
1985	January	1,550	658	17	104	2,329	35	5	2,262
	February	1,399	438	14	98	1,949	49	4	1,872
	March	1,399	208	12	89	1,708	93	4	1,587
	April	1,349	99	13	75	1,536	211	5	1,297
	May	1,369	18	12	70	1,469	293	5	1,148
	June	1,332	34	12	65	1,443	258	5	1,157
	July	1,347	50	13	60	1,470	318	6	1,123
	August	1,323	48	13	60	1,444	275	5	1,141
	Year to Date	11,068	1,553	106	621	13,348	1,532	39	11,587
									190

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

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

<sup>3</sup>Data for 1978 through 1982 do not include intratank 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 1983 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									
	Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial <sup>2</sup>	Industrial	Electric Utilities	Total	Total Consumption	
Billion cubic feet									
1973 Total	1,496	728	4,879	2,597	8,689	3,660	19,825	22,049	
1974 Total	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223	
1975 Total	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538	
1976 Total	1,634	548	5,051	2,668	6,984	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	January	89	57	718	366	537	208	1,829	1,975
	February	79	48	694	360	284	177	1,515	1,642
	March	81	46	541	285	430	208	1,464	1,591
	April	77	40	464	241	348	203	1,256	1,373
	May	77	33	277	151	362	218	1,008	1,118
	June	74	28	181	110	333	248	872	974
	July	78	30	134	100	378	314	926	1,034
	August	81	32	123	103	421	352	999	1,112
	September	79	31	128	105	429	299	961	1,071
	October	84	36	179	119	577	251	1,126	1,246
	November	85	44	330	185	645	214	1,374	1,503
	December	93	64	612	308	896	218	2,034	2,191
	Total	978	490	4,381	2,433	5,643	2,911	15,367	16,835
1984	January	99	65	902	440	498	215	2,055	2,219
	February	86	50	714	357	308	187	1,566	1,702
	March	89	53	618	314	535	206	1,673	1,815
	April	87	42	474	246	363	220	1,303	1,432
	May	87	36	293	163	395	265	1,116	1,239
	June	84	32	174	111	417	298	1,000	1,116
	July	87	33	131	99	449	349	1,028	1,148
	August	86	34	120	100	467	350	1,037	1,157
	September	82	33	129	104	479	291	1,003	1,118
	October	86	37	186	131	559	270	1,146	1,269
	November	86	47	329	197	710	245	1,481	1,614
	December	93	53	577	299	577	217	1,670	1,816
	Total	1,052	515	4,647	2,559	5,757	3,111	16,078	17,645
1985	January	94	66	748	374	755	225	2,102	2,262
	February	85	54	843	411	278	201	1,733	1,872
	March	85	46	573	293	384	206	1,456	1,587
	April	82	38	405	208	331	233	1,177	1,297
	May	83	33	221	133	442	236	1,032	1,148
	June	81	34	161	104	496	281	1,042	1,157
	July	82	33	132	98	443	335	1,008	1,123
	Year to Date	592	304	3,083	1,621	3,129	1,717	9,550	10,446

<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 1983 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 January	3,813	2,644	6,457	462	21.2	24	449	-424
February	3,811	2,356	6,167	569	31.9	36	325	-289
March	3,812	2,148	5,959	544	33.9	59	266	-207
April	3,818	2,074	5,893	398	23.8	82	160	-78
May	3,818	2,222	6,041	188	9.3	191	40	151
June	3,819	2,454	6,272	85	3.6	255	22	234
July	3,826	2,696	6,522	-8	-0.3	268	25	243
August	3,823	2,908	6,732	-89	-3.0	247	35	212
September	3,823	3,141	6,964	-110	-3.4	258	26	232
October	3,825	3,270	7,095	-94	-2.8	171	40	131
November	3,841	3,175	7,015	-134	-4.1	80	158	-78
December	3,847	2,595	6,442	-476	-15.5	29	597	-567
<b>Total</b>						<b>1,700</b>	<b>2,142</b>	<b>-442</b>
1984 January	3,847	2,091	5,937	-553	-20.9	54	563	-509
February	3,828	1,876	5,704	-480	-20.4	62	300	-238
March	3,824	1,572	5,396	-575	-26.8	50	359	-308
April	3,822	1,620	5,442	-454	-21.9	145	99	46
May	3,827	1,843	5,670	-379	-17.1	258	30	227
June	3,828	2,141	5,969	-313	-12.7	325	26	299
July	3,829	2,456	6,285	-240	-8.9	341	28	313
August	3,829	2,739	6,568	-169	-5.8	313	30	283
September	3,829	2,996	6,825	-144	-4.6	287	30	257
October	3,837	3,177	7,014	-92	-2.8	244	55	189
November	3,901	3,017	6,918	-158	-5.0	82	221	-139
December	3,831	2,878	6,710	283	10.9	94	302	-208
<b>Total</b>						<b>2,255</b>	<b>2,042</b>	<b>214</b>
1985 January	3,842	2,245	6,087	154	7.4	35	658	-623
February	3,842	1,856	5,698	-20	-1.1	49	438	-389
March	3,836	1,746	5,582	174	11.0	93	208	-116
April	3,831	1,862	5,693	242	14.9	211	99	112
May	3,837	2,131	5,968	288	15.6	293	18	274
June	3,839	2,351	6,190	210	9.8	258	34	224
July	3,849	2,606	6,455	150	6.1	318	50	268
August	3,849	2,833	6,683	94	3.4	275	48	227

<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; and 1984—8,043. Current total capacity is 8,087.

<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.

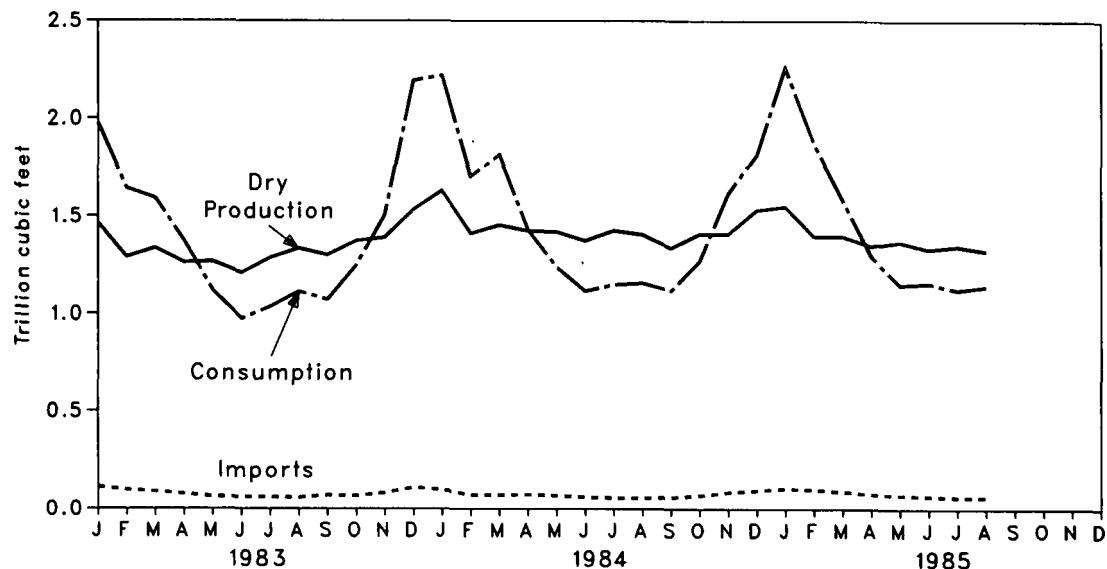
• Data for 1978 through 1983 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

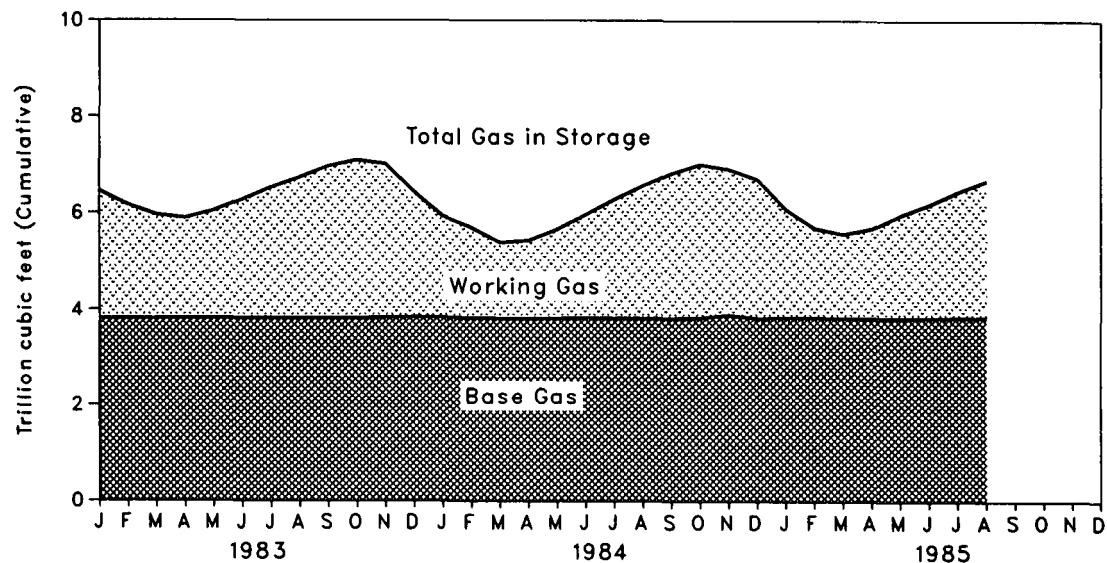
# Natural Gas

## 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 1983*. These data are not available for periods prior to 1980. For 1983, of the 31 producing States, 20 reported data on nonhydrocarbon gases removed. These 20 States accounted for 56 percent of total 1983 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 38 percent of the 1983 total production, did not include all or most of the nonhydrocarbon gases removed on leases. No estimates are made for the two States not reporting nonhydrocarbon gases removed. For further information, see the EIA *Natural Gas Monthly*.

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

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

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

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

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

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

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

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

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

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

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

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

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

Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a 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 quantities lost; the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; metering inaccuracies; differences between billing cycle and calendar period time frames; the effect of variations in company accounting and billing practices; and imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of 167 billion cubic feet (Bcf) in the "Unaccounted for" category in 1983, as compared to 1982 figures, reflects unusually large differences resulting from the use of the annual billing cycle (nominally December 15, 1982, through December 15, 1983) for consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 333-Bcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was only partially reflected in 1983 consumption data. For underground storage data, see Table F2 in the June 1984 *Natural Gas Monthly*, which was published in August 1984.

**8. Natural Gas Storage:** Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. This difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

All monthly data concerning underground storage are collected from the essentially identical Forms FPC-8 and EIA-191. Monthly data are revised after publication of the EIA *Underground Natural Gas Storage in the United States* for that heating year (April through March). In addition, injection and withdrawal data from the FPC-8/EIA-191 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 1983 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 1983: Energy Information Administration (EIA), *Natural Gas Annual 1983*; January 1984 forward: State reports to the Interstate Oil Compact Commission, data from the U.S. Minerals Management Service, and EIA estimates for States that do not report monthly data on a regular or timely basis.

**Extraction Loss, Consumption, and Unaccounted For:** 1973 through 1983: EIA, *Natural Gas Annual 1983*; January 1984 forward: EIA computations.

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

**Supplemental Gaseous Fuels:** 1980 through 1983: EIA, *Natural Gas Annual 1983*; January 1984 forward: EIA computations.

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

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

• 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."

# Part 5

## Oil and Gas Development

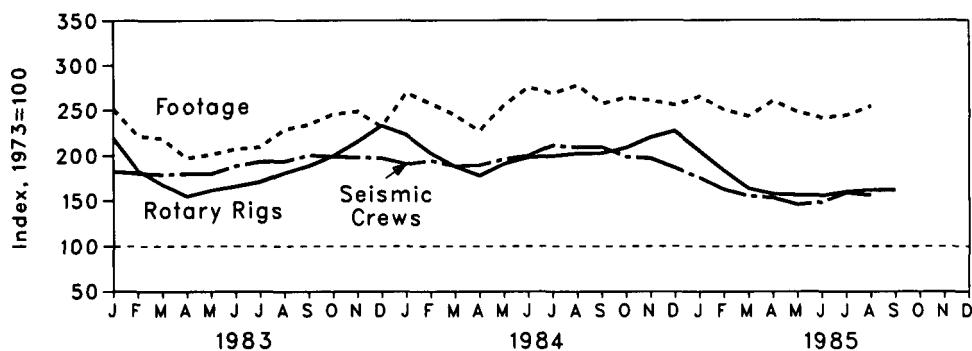
### Oil and Gas Resource Development

The 390 crews engaged in seismic exploration in August 1985 were 25.4 percent fewer than those in August 1984. The 49 marine vessels working in August 1985 were 7.5 percent fewer and the 341 land crews were 27.4 percent fewer than those working in August 1984.

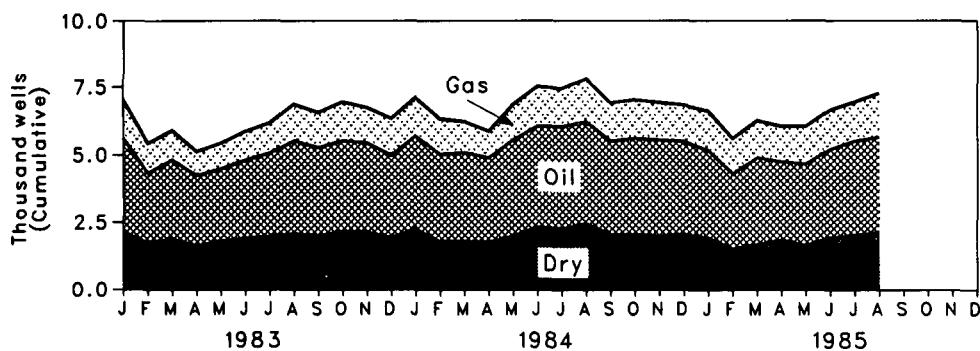
The September 1985 rotary rig count of 1,930 was 20.2 percent less than the September 1984 count of 2,420. The 197 rigs operating offshore in September 1985 were 7.9 percent fewer and the 1,733 rigs onshore were 21.4 percent fewer than those in September 1984.

Exploratory and development well completions during August 1985 were an estimated 7,280, 6.8 percent less than the 7,810 wells estimated in August 1984. Oil well completions in August 1985 were an estimated 3,530, 6.1 percent fewer than the 3,760 oil well completions in the previous August. The 1,620 gas well completions in August 1985 were 1.9 percent more than the August 1984 number of 1,590. Total footage drilled in August 1985 was 30.2 million feet, a decrease of 8.3 percent compared with the 32.9 million feet drilled in August 1984.

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			Rotary Rigs in Operation <sup>1</sup>		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Monthly 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	1,629	1,658
1977	Average	27	281	308	167	1,634	2,001
1978	Average	25	327	352	185	2,074	2,259
1979	Average	30	370	400	207	1,970	2,177
1980	Average	37	493	530	231	2,678	2,909
1981	Average	44	637	681	256	3,714	3,970
1982	Average	57	531	588	243	2,862	3,105
1983	January	49	407	456	218	2,404	2,622
	February	47	404	451	216	1,976	2,192
	March	45	402	447	210	1,793	2,003
	April	39	410	449	213	1,633	1,846
	May	39	410	449	209	1,717	1,926
	June	43	428	471	202	1,777	1,979
	July	46	437	483	178	1,861	2,039
	August	49	435	484	181	1,975	2,156
	September	57	444	501	175	2,077	2,252
	October	50	448	498	177	2,205	2,382
	November	49	446	495	159	2,413	2,572
	December	48	445	493	210	2,570	2,780
	Average	47	428	473	196	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	2,289	2,492
	November	49	444	493	232	2,397	2,629
	December	52	414	466	242	2,471	2,713
	Average	49	445	494	213	2,215	2,428
1985	January	46	393	439	242	2,210	2,452
	February	46	360	406	233	1,955	2,188
	March	48	340	388	223	1,732	1,955
	April	47	336	383	210	1,667	1,877
	May	41	323	364	200	1,665	1,865
	June	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	NA	NA	NA	197	1,733	1,930
	Average <sup>2</sup>	46	346	392	212	1,785	1,996

<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.

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

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

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

# Oil and Gas Resource Development

## Exploratory and Development Wells and Footage Drilled

### Exploratory and Development Well Completions<sup>1</sup>

		Oil	Gas	Dry	Total	Total Footage <sup>1</sup>
		Thousand wells				Million feet
1973	Total	10.25	6.97	10.47	27.69	139.42
1974	Total	13.66	7.17	12.20	33.03	153.79
1975	Total	16.98	8.17	13.74	38.89	181.05
1976	Total	17.70	9.44	13.80	40.94	187.29
1977	Total	18.70	12.12	15.04	45.86	215.70
1978	Total	19.06	14.40	16.59	50.05	238.39
1979	Total	20.70	15.17	16.04	51.91	243.69
1980	Total	32.24	17.19	20.30	69.73	312.03
1981	Total	42.91	19.97	27.25	90.13	409.13
1982	Total	38.82	18.80	25.97	83.59	375.77
1983	January	3.47	1.44	2.13	7.04	29.74
	February	2.59	1.10	1.74	5.43	23.72
	March	2.93	1.09	1.88	5.90	25.93
	April	2.61	0.89	1.62	5.12	22.60
	May	2.69	0.95	1.79	5.43	23.82
	June	2.91	1.06	1.89	5.86	23.76
	July	3.09	1.11	1.97	6.17	24.79
	August	R3.43	1.35	R2.09	6.87	R27.08
	September	3.28	1.29	1.99	6.56	26.81
	October	3.36	1.43	2.16	6.95	29.07
	November	3.31	1.30	2.13	6.74	28.49
	December	3.06	1.36	1.92	6.34	27.44
	Total	R36.73	14.37	R23.31	74.41	R313.25
1984	January	3.45	1.41	2.25	7.11	31.90
	February	3.24	1.31	1.78	6.33	28.50
	March	3.31	1.14	1.78	6.23	28.98
	April	3.14	0.98	1.75	5.87	26.03
	May	3.56	1.31	1.99	6.86	30.25
	June	3.73	1.47	2.32	7.52	31.53
	July	3.78	1.41	2.26	7.45	31.79
	August	R3.76	R1.59	R2.46	R7.81	R32.87
	September	3.46	1.41	2.05	6.92	29.47
	October	3.56	1.42	2.05	7.03	31.24
	November	3.58	1.38	1.97	6.93	29.87
	December	3.44	1.34	2.06	6.84	30.29
	Total	R42.01	R16.17	R24.72	R82.90	R362.72
1985	January	3.25	1.45	1.92	6.62	31.38
	February	R2.78	R1.31	R1.52	R5.61	R26.79
	March	3.23	1.37	1.67	6.27	R28.83
	April	2.91	1.30	1.84	6.05	29.83
	May	3.03	1.39	1.64	6.06	R29.37
	June	3.28	1.45	1.93	6.66	27.70
	July	3.49	1.44	2.03	6.96	28.93
	August	3.53	1.62	2.13	7.28	30.15
	Year to Date	25.50	11.33	14.68	51.51	232.98

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

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

R=Revised data.

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

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

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

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

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

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

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

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

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

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

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

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

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

		Previous Series					New Series				
		Exploratory and Development Wells Drilled <sup>1</sup>					Exploratory and Development Well Completions <sup>1, 2</sup>				
		Oil	Gas	Dry	Total	Total Footage	Oil	Gas	Dry	Total	Total Footage
		Number of wells		Thousand feet		Thousand wells		Million feet			
1973	Total	9,850	6,370	10,270	26,490	135,849	10.25	6.97	10.47	27.69	139.42
1974	Total	12,748	7,224	11,642	31,614	150,087	13.68	7.17	12.20	33.03	153.79
1975	Total	16,396	7,575	13,231	37,202	174,230	16.98	8.17	13.74	38.89	181.05
1976	Total	17,067	9,103	13,577	39,747	181,681	17.70	9.44	13.80	40.94	187.29
1977	Total	18,908	11,386	14,678	44,972	210,742	18.70	12.12	15.04	45.86	215.70
1978	Total	17,749	13,048	16,181	46,978	226,605	19.08	14.40	16.59	50.05	238.39
1979	Total	19,369	14,672	15,714	49,755	238,402	20.70	15.17	16.04	51.91	243.69
1980	Total	26,994	15,694	18,074	60,762	283,989	32.24	17.19	20.30	69.73	312.03
1981	Total	37,639	17,859	22,946	78,444	360,655	42.91	19.97	27.25	90.13	409.13
1982	Total	40,209	18,890	26,486	85,585	394,777	38.82	18.80	25.97	83.59	375.77
1983	January	2,373	887	1,637	4,897	20,874	3.47	1.44	2.13	7.04	29.74
	February	2,882	1,182	2,209	6,273	27,639	2.59	1.10	1.74	5.43	23.72
	March	3,428	1,605	2,630	7,663	34,201	2.93	1.09	1.88	5.90	25.93
	April	3,027	1,391	1,972	6,390	27,340	2.61	0.89	1.62	5.12	22.60
	May	3,177	1,740	1,828	6,745	28,474	2.69	0.95	1.79	5.43	23.82
	June	3,517	1,238	2,105	6,860	28,045	2.91	1.06	1.89	5.86	23.76
	July	2,687	1,122	1,638	5,447	22,925	3.09	1.11	1.97	6.17	24.79
	August	2,636	1,080	1,533	5,249	22,611	R3.43	1.35	R2.09	6.87	R27.08
	September	3,734	1,278	2,012	7,024	30,312	3.28	1.29	1.99	6.56	26.81
	October	2,969	1,217	1,706	5,892	24,832	3.36	1.43	2.16	6.95	29.07
	November	3,237	1,142	1,991	6,370	26,787	3.31	1.30	2.13	6.74	28.49
	December	3,484	1,686	2,210	7,380	30,967	3.06	1.36	1.92	6.34	27.44
	Total	37,151	15,568	23,471	76,190	325,007	R36.73	14.37	R23.31	74.41	R313.25
1984	January	*3,257	*1,053	*1,998	*6,308	*227,861	3.45	1.41	2.25	7.11	31.90
	February	3,211	1,396	2,110	6,717	27,383	3.24	1.31	1.78	6.33	28.50
	March	4,090	1,369	2,940	8,399	34,147	3.31	1.14	1.78	6.23	28.98
	April	2,826	1,158	1,686	5,670	26,212	3.14	0.98	1.75	5.87	26.03
	May	3,132	1,151	1,637	5,920	26,384	3.56	1.31	1.99	6.86	30.25
	June	3,714	1,361	2,291	7,366	32,130	3.73	1.47	2.32	7.52	31.53
	July	2,626	1,136	1,828	5,590	25,418	3.78	1.41	2.26	7.45	31.79
	August	3,967	1,420	2,123	7,510	31,580	R3.76	R1.59	R2.46	R7.81	R32.87
	September	3,944	1,336	2,894	8,174	32,889	3.46	1.41	2.05	6.92	29.47
	October	3,437	1,238	2,056	6,731	28,083	3.56	1.42	2.05	7.03	31.24
	November	3,134	1,064	1,691	5,889	24,269	3.58	1.38	1.97	6.93	29.87
	December	3,724	1,956	1,931	7,611	31,473	3.44	1.34	2.06	6.84	30.29
	Total	41,062	15,638	25,185	81,885	347,829	R42.01	R16.17	R24.72	R82.90	R362.72
1985	January	2,440	1,054	1,479	4,973	22,319	3.25	1.45	1.92	6.62	31.38
	February	3,128	1,150	1,867	6,145	27,250	R2.78	R1.31	R1.52	R5.61	R26.79
	March	3,965	1,422	2,921	8,308	37,424	3.23	1.37	1.67	6.27	R28.83
	April	3,431	1,615	1,980	7,026	33,142	2.91	1.30	1.84	6.05	29.83
	May	4,167	1,998	2,102	8,267	36,816	3.03	1.39	1.64	6.06	R29.37
	June	2,884	1,449	1,947	6,280	28,254	3.28	1.45	1.93	6.66	27.70
	July	3,269	1,546	1,718	6,533	27,784	3.49	1.44	2.03	6.96	28.93
	August	3,486	1,459	2,280	7,225	32,233	3.53	1.62	2.13	7.28	30.15

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

<sup>2</sup>Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), (4,4,5), and (4,4,5). In 1984, weekly data are aggregated into months differently to more closely represent the actual number of weeks in the calendar months—(5,4,5), (4,4,5), (4,5,4), and (4,4,5). Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

R=Revised data.

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

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

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

# Part 6 Coal

## Coal

Coal production in August 1985 was 80.3 million short tons, 11.6 percent less than the record-high monthly production of 90.8 million short tons produced in August 1984. The final 1984 coal production total was a record 895.9 million short tons, comprised of 352.1 million short tons from underground mines and 543.9 million short tons from surface mines. Coal was produced in 26 States. The three leading States were Kentucky (159.5 million short tons), West Virginia (131.0 million short tons), and Wyoming (130.9 million short tons).

Electric utility coal consumption in July 1985 totaled 64.3 million short tons, 6.5 percent more than consumption in July 1984.

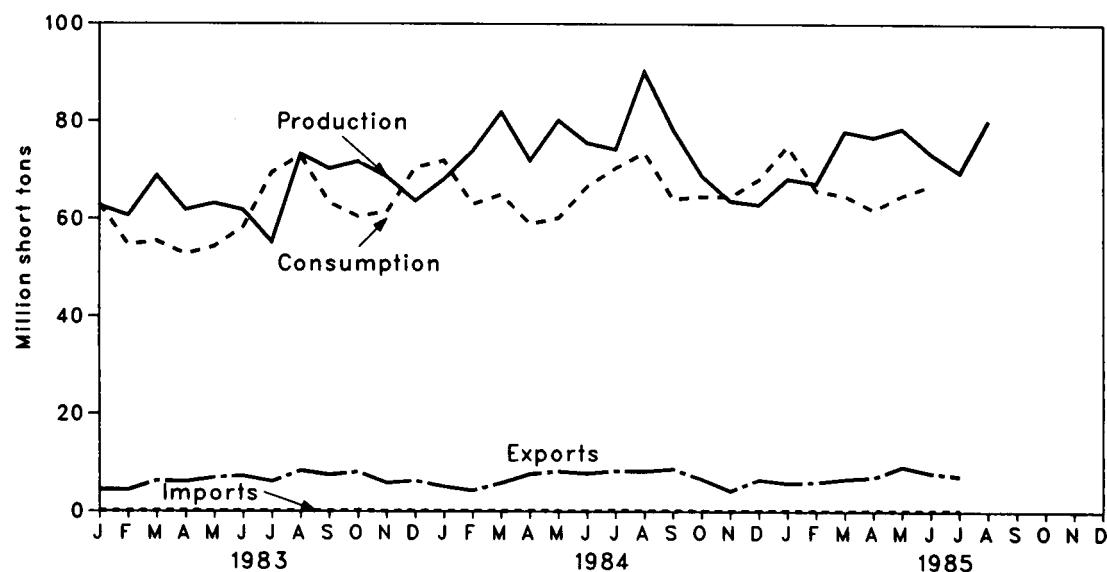
Electric utility coal stocks of 165.9 million short tons at the end of July 1985 were 5.2 million short tons (3.0 percent) below the level 1 year earlier.

Exports of coal in July 1985 totaled 7.3 million short tons, 12.1 percent less than the 8.3 million short tons exported in July 1984. Imports of coal in July 1985 totaled 177,000 short tons, 16,000 short tons less than the amount imported in July 1984.

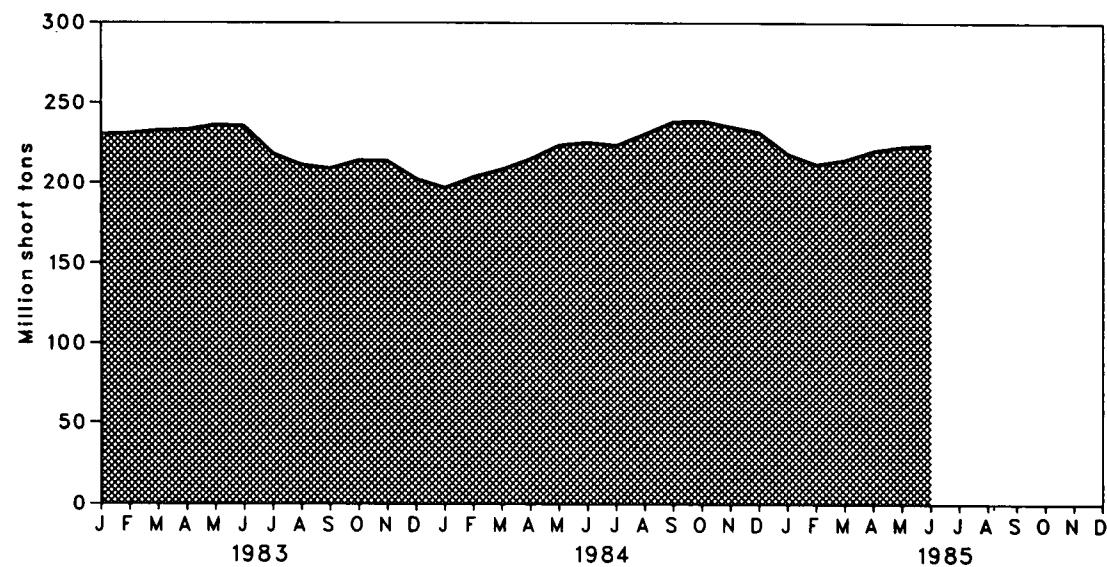
# Coal

## 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	January	62,731	63,019	78	4,471	229,713
	February	60,654	54,692	71	4,382	230,413
	March	68,896	55,434	120	6,291	232,182
	April	61,837	52,816	144	6,115	232,567
	May	63,210	54,327	102	6,952	235,445
	June	61,797	58,237	133	7,279	234,794
	July	55,213	69,478	87	6,140	218,145
	August	73,291	72,947	115	8,380	211,153
	September	70,312	63,317	97	7,525	208,993
	October	71,754	60,454	190	8,131	213,975
	November	68,684	61,411	32	5,838	213,651
	December	63,713	70,541	102	6,269	202,584
	Total	782,091	736,672	1,271	77,772	
1984	January	R67,921	71,919	81	5,062	196,985
	February	R73,670	62,994	140	4,251	203,771
	March	R81,524	65,028	55	5,813	208,548
	April	R72,751	58,946	148	7,688	215,023
	May	R81,073	60,164	72	8,221	223,262
	June	R76,402	66,707	49	7,828	224,905
	July	R74,785	70,422	193	8,318	223,118
	August	R90,823	73,558	147	8,235	230,224
	September	R78,984	64,133	95	8,710	237,720
	October	R69,785	64,664	104	6,641	238,350
	November	R64,388	64,613	68	4,190	234,702
	December	R63,815	68,147	134	6,526	231,300
	Total	R895,921	791,296	1,286	81,483	
1985	January†	68,259	74,978	126	5,817	217,975
	February†	67,319	65,881	101	6,030	211,804
	March†	77,989	64,892	103	6,696	214,517
	April†	R76,783	61,900	203	7,065	219,944
	May†	R78,574	64,911	159	9,231	222,580
	June†	R73,436	66,985	138	7,913	223,423
	July†	69,595	NA	177	7,314	NA
	August†	80,289	NA	NA	NA	NA
	Year to Date*	592,245	399,548	1,006	50,065	

The data series for total coal stocks replaces the series for total consumer stocks previously shown in this table. The total consumer stocks series will continue to be shown in the last table of this section.

\*Includes Puerto Rico.

†Excludes shipments of anthracite to U.S. Armed Forces overseas (347,000 short tons in 1982, 341,000 short tons in 1983, and 298,000 short tons in 1984).

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				Total
		Electric Utilities	Coke Plants	Other Industrial Including Transportation	Residential and Commercial	
				Thousand short tons		
1973	Total	389,212	94,101	68,154	11,117	562,584
1974	Total	391,811	90,191	64,983	11,417	558,402
1975	Total	405,962	83,598	63,670	9,410	562,641
1976	Total	448,371	84,704	61,799	8,916	603,790
1977	Total	477,126	77,739	61,472	8,954	625,291
1978	Total	481,235	71,394	63,085	9,511	625,225
1979	Total	527,051	77,368	67,717	8,388	680,524
1980	Total	569,274	66,657	60,347	6,451	702,729
1981	Total	596,797	61,014	67,395	7,421	732,627
1982	Total	593,666	40,908	64,097	8,240	706,911
1983	January	53,351	2,813	5,970	884	63,019
	February	45,772	2,742	5,405	773	54,692
	March	47,110	2,567	5,206	551	55,434
	April	43,589	3,206	5,254	767	52,816
	May	45,691	3,151	5,023	463	54,327
	June	50,338	2,734	4,798	367	58,237
	July	60,390	3,269	5,220	599	69,478
	August	63,767	3,252	5,362	566	72,947
	September	54,212	3,196	5,156	752	63,317
	October	50,689	3,307	5,659	799	60,454
	November	51,185	3,335	6,046	845	61,411
	December	59,117	3,461	6,880	1,082	70,541
	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
	Total	664,399	44,022	73,745	9,130	791,298
1985	January†	63,629	3,463	7,063	823	74,978
	February†	55,463	3,282	6,416	720	65,881
	March†	54,690	3,511	6,178	513	64,892
	April†	50,854	3,851	6,432	764	61,900
	May†	54,523	3,778	6,149	461	64,911
	June†	57,462	3,284	5,874	365	66,985
	July†	64,274	NA	NA	NA	NA
	Year to Date*	400,896	21,169	38,112	3,645	399,548

\*See Note 2 on the last page of this section.

†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		
		Electric Utilities	Coke Plants	Other Industrial	Total <sup>1</sup>			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	January	178,604	4,338	8,960	191,902	37,811		229,713
	February	179,101	4,034	8,439	191,574	38,839		230,413
	March	180,671	3,728	7,916	192,315	39,867		232,182
	April	181,371	4,089	7,942	193,402	39,165		232,567
	May	184,567	4,450	7,965	196,982	38,463		235,445
	June	184,236	4,812	7,985	197,033	37,761		234,794
	July	168,566	4,489	8,167	181,222	36,923		218,145
	August	162,557	4,165	8,345	175,067	36,086		211,153
	September	161,384	3,842	8,518	173,743	35,249		208,993
	October	166,574	4,010	8,582	179,166	34,809		213,975
	November	166,457	4,178	8,645	179,281	34,370		213,651
	December	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	8,478	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	181,000	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	163,151	10,541	14,327	208,019	29,701		237,720
	October	184,779	9,083	13,324	207,186	31,164		238,360
	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†	167,524	5,583	10,423	183,530	34,445		217,975
	February†	162,476	4,999	9,529	177,004	34,800		211,804
	March†	166,313	4,415	8,635	179,363	35,155		214,517
	April†	171,651	4,472	8,688	184,811	35,133		219,944
	May†	174,198	4,530	8,740	187,468	35,112		222,580
	June†	174,953	4,587	8,793	188,333	35,090		223,423
	July†	165,910	NA	NA	NA	NA		NA

The data series showing stocks held by producers and distributors and total coal stocks have been added to this table.

<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).

# Part 7

## Electric Utilities

### Electric Utilities

During July 1985, electric utilities generated 226,712 billion kilowatthours of electricity, 2.5 percent above the July 1984 generation level. Coal-fired generation totaled 128.9 billion kilowatthours, 6.4 percent above the July 1984 level. Nuclear generation totaled 35.2 billion kilowatthours, 24.4 percent above the July 1984 level. Natural gas-fired generation was 32.2 billion kilowatthours in July 1985, 3.4 percent below the July 1984 level. Hydroelectric generation was 21.3 billion kilowatthours, 22.6 percent below the level 1 year earlier. Petroleum-fired generation totaled 8.3 billion kilowatthours, 20.3 percent below the July 1984 level.

Sales of electricity to all ultimate consumers in the United States in July 1985 were 204.0 billion kilowatthours, 0.1 percent above July 1984 sales. Sales to residential consumers during July 1985 were 71.0 billion kilowatt-hours, slightly above the level of sales during the same month in 1984. Commercial sales were 56.1 billion kilowatthours, 4.1 percent more than the amount sold to commercial

consumers in July 1984. Sales to industrial consumers totaled 69.8 billion kilowatthours in July 1985, 2.9 percent less than the 1984 figure. In July 1985, other sales totaled 7.1 billion kilowatthours, 1.9 percent above the July 1984 level.

Electric utility petroleum consumption (excluding petroleum coke) during July 1985 was 14.3 million barrels, 19.0 percent below the July 1984 level. Coal consumption during July 1985 was 64.3 million short tons, 6.5 percent above the July 1984 rate. During July 1985, electric utilities consumed 335.2 billion cubic feet of natural gas, 3.9 percent below the July 1984 consumption level.

On July 31, 1985, utility stocks of anthracite, bituminous coal, and lignite totaled 165.9 million short tons. These stockpiles were 3.0 percent below the level of July 31, 1984. Petroleum stocks (excluding petroleum coke) on July 31, 1985, totaled 77.1 million barrels, 11.0 percent below the level on the same date in 1984.

# 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	January	108,164	12,880	19,721	25,073	29,235	506	195,579
	February	92,692	12,586	16,659	22,198	27,950	395	172,479
	March	95,598	12,556	19,686	23,890	30,302	455	182,488
	April	88,114	10,337	19,174	22,335	29,989	424	170,372
	May	91,296	9,050	20,445	22,051	31,194	356	174,392
	June	101,512	11,139	23,091	24,152	30,692	462	191,048
	July	121,560	14,710	29,615	25,602	28,113	565	220,165
	August	129,313	14,731	33,147	26,201	25,828	738	229,957
	September	108,868	11,299	28,040	25,007	21,712	678	195,604
	October	101,951	9,941	23,783	25,797	20,747	712	182,931
	November	103,225	9,229	20,169	25,010	24,678	637	182,949
	December	117,131	16,041	20,567	26,361	31,691	528	212,319
	Total	1,259,424	144,499	274,098	293,677	332,130	6,456	2,310,285
1984	January	120,850	15,939	20,245	29,313	29,737	547	216,632
	February	104,706	10,053	17,827	28,436	27,900	643	189,564
	March	111,158	10,806	19,645	27,345	30,435	719	200,107
	April	97,542	7,450	21,197	24,231	29,970	695	181,084
	May	100,139	8,422	25,304	25,867	31,814	673	192,217
	June	115,426	11,152	28,345	25,299	28,773	654	209,648
	July	121,094	10,397	33,327	28,284	27,495	648	221,245
	August	127,744	12,836	33,292	29,493	25,137	794	229,296
	September	108,862	7,713	27,839	29,146	20,911	728	195,198
	October	110,801	7,874	25,783	24,774	20,887	819	190,936
	November	109,759	9,232	23,728	24,575	22,259	827	190,380
	December	113,601	7,935	20,863	30,872	25,834	892	199,996
	Total	1,341,681	119,808	297,394	327,634	321,150	8,638	2,416,304
1985	January	129,066	12,076	22,001	36,186	27,498	906	227,733
	February	111,994	9,264	19,370	30,809	25,880	803	198,121
	March	111,223	7,116	19,813	31,041	24,583	930	194,707
	April	104,706	6,015	22,409	26,458	24,370	783	184,740
	May	111,384	6,858	22,465	28,697	26,415	816	196,635
	June	115,276	7,575	26,714	30,837	23,834	788	205,025
	July	128,880	8,289	32,191	35,184	21,283	885	226,712
	Year to Date	812,529	57,193	164,964	219,214	173,864	5,910	1,433,673

<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						
1973	Total	579,231	388,266	686,085	59,328	1,712,910
1974	Total	578,184	384,826	684,875	58,039	1,705,924
1975	Total	588,140	403,049	687,680	68,222	1,747,091
1976	Total	606,452	425,094	754,069	69,631	1,855,246
1977	Total	645,239	446,514	786,037	70,571	1,948,361
1978	Total	674,466	461,163	809,078	73,215	2,017,922
1979	Total	682,819	473,307	841,903	73,070	2,071,099
1980	Total	717,495	488,156	815,067	73,732	2,094,449
1981	Total	722,265	514,338	825,742	84,756	2,147,101
1982	Total	729,519	526,397	744,949	85,575	2,086,440
1983	January	69,967	44,019	57,938	7,252	179,176
	February	65,039	42,475	59,032	6,919	173,465
	March	58,912	41,518	60,261	6,893	167,584
	April	56,284	40,679	60,548	6,296	163,807
	May	49,669	40,305	62,729	6,216	158,919
	June	54,138	45,086	66,152	6,228	171,604
	July	69,965	51,013	66,424	6,752	194,153
	August	78,374	53,245	69,611	6,885	208,115
	September	73,197	52,147	69,618	6,960	201,922
	October	55,374	45,517	68,924	6,492	176,307
	November	53,704	42,666	67,544	6,560	170,474
	December	66,326	45,119	67,217	6,765	185,428
	Total	750,948	543,788	775,999	80,219	2,150,955
1984	January	83,295	49,243	66,709	7,289	206,537
	February	69,818	46,293	67,445	6,690	190,246
	March	63,656	45,252	69,684	6,902	185,475
	April	56,373	43,052	69,048	6,339	174,813
	May	53,519	44,150	70,774	6,559	175,003
	June	59,955	49,454	73,037	6,714	189,160
	July	71,020	53,922	71,843	7,006	203,791
	August	73,138	53,603	74,534	7,089	208,364
	September	67,456	52,854	71,275	6,780	198,365
	October	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
	Total	777,654	578,281	840,588	81,849	2,278,372
1985	January	77,242	49,634	67,220	7,270	201,365
	February	78,011	49,406	66,582	7,046	201,045
	March	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	60,612	51,582	70,141	6,861	189,196
	July†	71,027	56,109	69,761	7,136	204,034
	Year to Date	459,740	346,898	479,726	49,139	1,335,503

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

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

†Initial estimates.

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

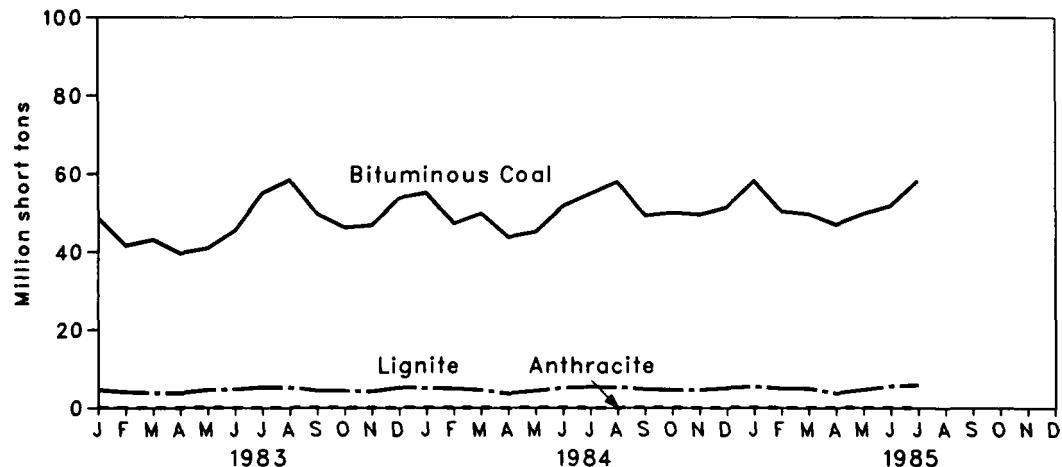
• Totals may not equal sum of components due to independent rounding.

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."

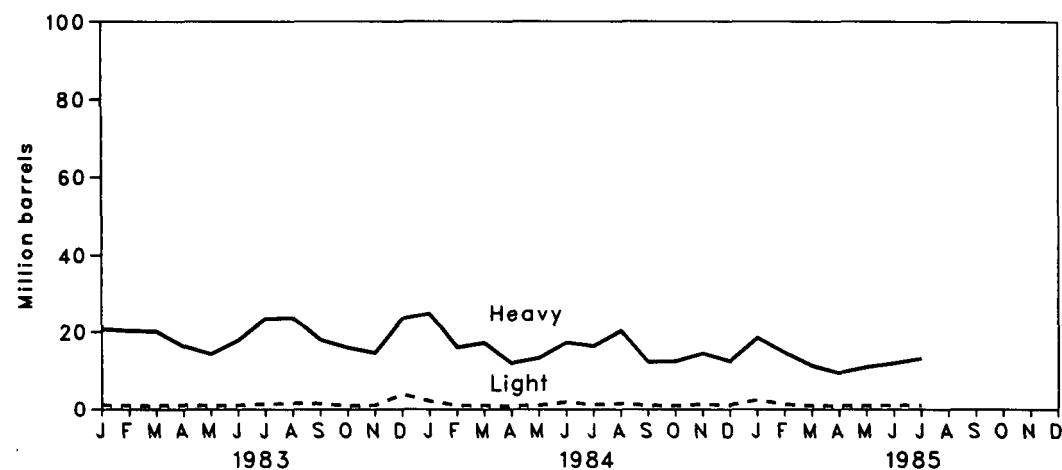
## **Electric Utilities**

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

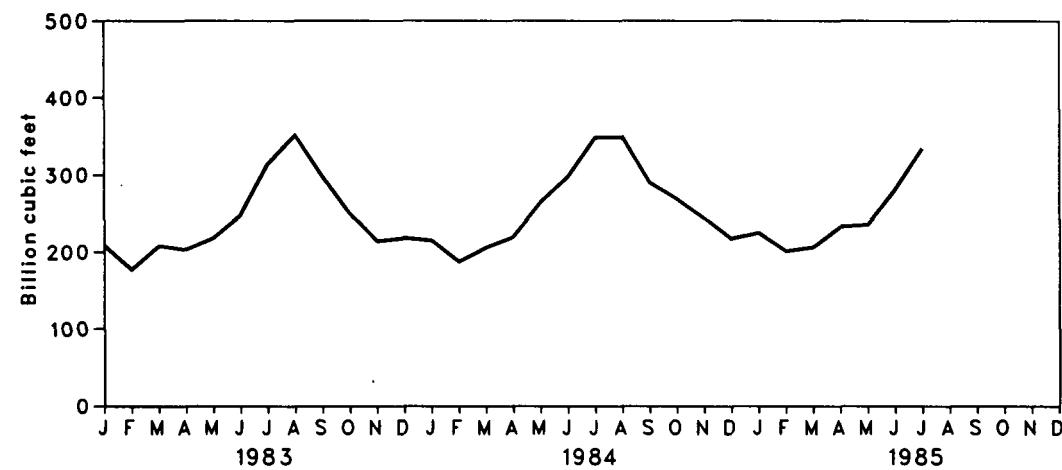
## **Coal Consumption**



## 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	Million cubic feet
			Thousand short tons	Thousand barrels								
1973	Total	1,443	376,975	10,794	389,212	(*)	(*)	560,248	507	3,660,172		
1974	Total	1,498	378,643	11,670	391,811	(*)	(*)	536,274	625	3,443,428		
1975	Total	1,480	388,523	15,960	405,962	(*)	(*)	506,128	70	3,157,669		
1976	Total	1,350	425,205	21,817	448,371	(*)	(*)	555,920	68	3,080,868		
1977	Total	1,425	451,051	24,650	477,126	(*)	(*)	623,705	98	3,191,200		
1978	Total	1,064	448,763	31,407	481,235	(*)	(*)	635,839	398	3,188,363		
1979	Total	1,046	488,129	37,876	527,051	(*)	(*)	523,297	268	3,490,523		
1980	Total	951	526,680	41,642	569,274	391,163	29,051	420,214	179	3,681,595		
1981	Total	1,221	550,784	44,792	596,797	329,798	21,313	351,111	139	3,640,154		
1982	Total	1,075	543,346	49,245	593,666	234,434	15,337	249,771	149	3,225,518		
1983	January	73	48,695	4,583	53,351	20,728	1,110	21,838	17	208,341		
	February	73	41,668	4,032	45,772	20,305	984	21,289	19	176,965		
	March	75	43,165	3,870	47,110	20,174	945	21,119	16	208,013		
	April	92	39,716	3,781	43,589	16,374	1,054	17,429	24	202,917		
	May	104	41,002	4,585	45,691	14,360	937	15,297	30	218,184		
	June	88	45,560	4,690	50,338	17,892	1,020	18,912	23	247,825		
	July	89	55,082	5,219	60,390	23,383	1,433	24,815	25	314,357		
	August	92	58,475	5,200	63,767	23,622	1,543	25,165	24	352,031		
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,517		
	October	91	46,263	4,335	50,689	15,993	870	16,863	22	251,151		
	November	86	46,883	4,216	51,185	14,690	1,075	15,766	17	214,275		
	December	88	53,854	5,176	59,117	23,440	4,034	27,474	21	218,191		
	Total	1,036	570,108	54,067	625,211	228,984	16,512	245,497	261	2,910,767		
1984	January	98	55,142	4,985	60,225	24,745	2,176	26,921	24	215,027		
	February	75	47,279	4,904	52,257	16,091	1,018	17,108	21	187,259		
	March	69	49,921	4,543	54,534	17,274	1,016	18,290	18	206,171		
	April	83	43,779	3,703	47,565	11,971	831	12,802	22	220,005		
	May	99	45,115	4,294	49,507	13,327	1,010	14,337	23	264,522		
	June	102	51,757	5,112	56,971	17,363	1,927	19,289	23	297,560		
	July	100	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		
	Total	1,070	606,339	56,990	664,399	189,289	15,190	204,479	252	3,112,342		
1985	January	88	58,139	5,402	63,629	18,574	2,478	21,052	18	224,873		
	February	70	50,453	4,940	55,463	14,729	1,315	16,044	17	201,160		
	March	78	49,699	4,913	54,690	11,323	970	12,294	16	206,247		
	April	92	47,024	3,738	50,854	9,561	905	10,466	16	233,201		
	May	98	49,818	4,607	54,523	11,046	959	12,004	13	235,626		
	June	90	51,812	5,561	57,462	12,005	1,090	13,095	21	280,722		
	July	92	58,350	5,833	64,274	13,238	1,109	14,347	20	335,185		
	Year to Date	609	365,294	34,994	400,896	90,476	8,826	99,301	121	1,717,014		

<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.

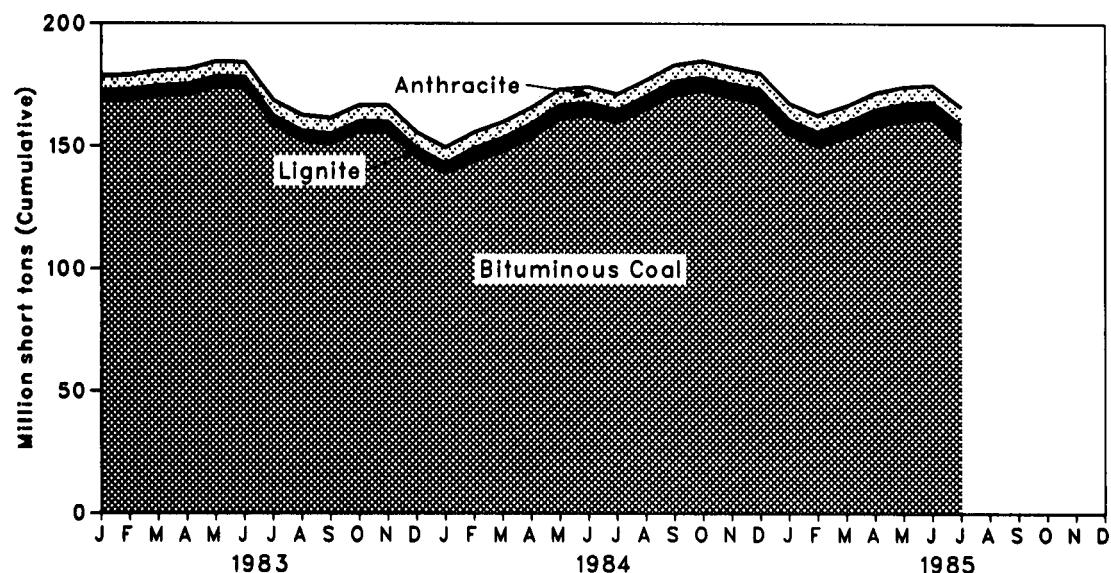
• Totals may not equal sum of components due to independent rounding.

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."

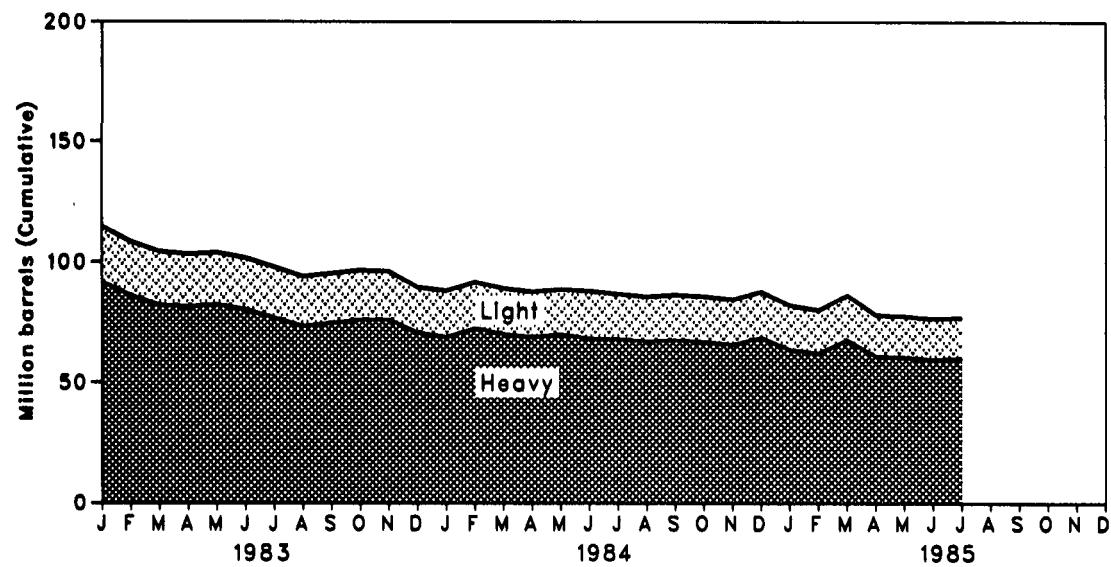
## Electric Utilities

### 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
			Year	Thousand short tons						
1973	Year	1,066	84,941	961	86,967	(*)	(*)	89,216	312	
1974	Year	930	81,712	867	83,509	(*)	(*)	112,917	35	
1975	Year	982	107,927	1,815	110,724	(*)	(*)	125,257	31	
1976	Year	1,000	114,130	2,306	117,436	(*)	(*)	121,696	32	
1977	Year	2,321	128,210	2,688	133,219	(*)	(*)	144,031	44	
1978	Year	2,178	123,020	3,027	128,225	(*)	(*)	118,788	198	
1979	Year	3,274	152,981	3,459	159,714	(*)	(*)	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	January	6,107	168,287	4,210	178,604	91,523	23,183	114,706	54	
	February	6,104	168,635	4,362	179,101	85,847	22,665	108,512	53	
	March	6,143	170,327	4,201	180,671	81,957	22,387	104,344	54	
	April	6,120	170,815	4,436	181,371	81,243	21,967	103,211	47	
	May	6,145	173,969	4,453	184,567	82,091	21,758	103,849	44	
	June	6,230	173,483	4,524	184,236	80,197	21,471	101,667	52	
	July	6,299	158,701	3,566	168,566	76,881	21,101	97,982	50	
	August	6,380	152,140	4,038	162,557	73,266	20,763	94,029	45	
	September	6,435	150,778	4,171	161,384	74,560	20,698	95,256	47	
	October	6,506	156,012	4,056	166,574	75,949	20,568	96,517	53	
	November	6,531	155,931	3,995	166,457	75,930	20,271	96,201	63	
	December	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55	
1984	January	6,500	139,026	3,877	149,403	68,679	19,369	88,048	43	
	February	6,510	143,731	5,352	155,593	72,339	19,227	91,568	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	87,908	51	
	July	6,530	159,683	4,883	171,095	67,856	18,840	86,698	50	
	August	6,583	164,987	5,358	176,928	66,836	18,795	85,632	47	
	September	6,628	170,987	5,536	183,151	67,370	18,921	86,291	49	
	October	6,674	172,553	5,552	184,779	66,717	18,965	85,682	49	
	November	6,715	169,788	5,627	182,130	65,548	18,875	84,423	43	
	December	6,710	167,118	5,899	179,727	68,503	19,116	87,619	50	
1985	January	6,719	154,999	5,808	167,524	63,546	18,511	82,057	57	
	February	6,736	150,023	6,717	162,476	62,072	18,073	80,145	50	
	March	6,782	153,697	5,834	166,313	62,558	18,652	81,209	43	
	April	6,836	158,174	6,641	171,651	60,889	17,356	78,245	31	
	May	6,905	160,326	6,967	174,198	60,530	17,226	77,756	33	
	June	6,991	161,003	6,959	174,953	59,613	17,093	76,706	33	
	July	7,045	151,815	7,049	165,910	60,116	17,030	77,146	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.

\*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	401,963	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	January	21,373	465	21,838	101,394	13,312	114,706
	February	20,885	404	21,289	95,459	13,053	108,512
	March	20,728	392	21,119	91,394	12,750	104,344
	April	16,997	432	17,429	90,667	12,544	103,211
	May	14,968	330	15,297	91,360	12,489	103,849
	June	18,437	475	18,912	89,283	12,384	101,667
	July	23,927	888	24,815	85,891	12,091	97,982
	August	24,166	999	25,165	82,307	11,722	94,029
	September	18,532	996	19,529	83,511	11,745	95,256
	October	16,518	345	16,863	84,873	11,644	96,517
	November	15,336	430	15,766	84,804	11,397	96,201
	December	25,978	1,496	27,474	78,285	11,090	89,375
	Total	237,845	7,852	245,497			
1984	January	25,838	1,082	26,921	76,756	11,292	88,048
	February	16,662	447	17,108	80,404	11,163	91,566
	March	17,881	410	18,290	78,014	11,028	89,042
	April	12,495	306	12,802	76,721	10,899	87,620
	May	13,896	441	14,337	77,699	10,886	88,584
	June	17,997	1,293	19,289	76,126	11,780	87,906
	July	17,085	627	17,712	75,788	10,908	86,696
	August	20,957	902	21,859	74,832	10,799	85,632
	September	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
	Total	197,050	7,429	204,479			
1985	January	19,842	1,210	21,052	71,522	10,535	82,057
	February	15,576	467	16,044	70,051	10,094	80,145
	March	11,957	337	12,294	70,364	10,845	81,209
	April	10,127	338	10,466	68,641	9,604	78,245
	May	11,601	403	12,004	68,249	9,507	77,756
	June	12,495	601	13,095	67,468	9,238	76,706
	July	13,840	507	14,347	67,816	9,330	77,146
	Year to Date	95,438	3,863	99,301			

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

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

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

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

# Part 8

# Nuclear

## Nuclear

In July 1985, U.S. nuclear power plants generated a total of 35.2 billion net kilowatthours of electricity while achieving an average capacity factor of 62.0 percent. This generation represents an increase of 24.4 percent compared with July 1984 generation. Nuclear power supplied 15.5 percent of the electricity generated in July 1985, compared with 12.8 percent in July of the previous year.

On July 1, Grand Gulf-1, a 1,108-net-megawatt-electric boiling-water reactor operated by Mississippi Power and Light, went into commercial operation. On July 3, the low-power license for Shoreham-1, an 809-net-megawatt-electric boiling-water reactor operated by Long Island Lighting Company, was amended to permit low-power testing. Previously, Shoreham-1 had been restricted to fuel loading and cold criticality testing. On July 15, Fermi-2, a 1,093-net-megawatt-electric boiling-water reactor operated by Detroit Edison, received a full-power license, allowing power ascension for eventual commercial operation. The license issued to Fermi-2, however, temporarily restricts power ascension to 58 percent. Fermi-2 had received a low-power license on March 20 and had achieved initial criticality on June 21. The Public Service Company of Indiana, the principal partner in the Marble Hill nuclear power station project, has notified the Nuclear

Regulatory Commission that the project has been canceled and has requested that the construction permit for the project be withdrawn. Accordingly, Marble Hill units 1 and 2, representing a combined capacity of 2,260 net megawatts, have been deleted from the nuclear generating unit status table.

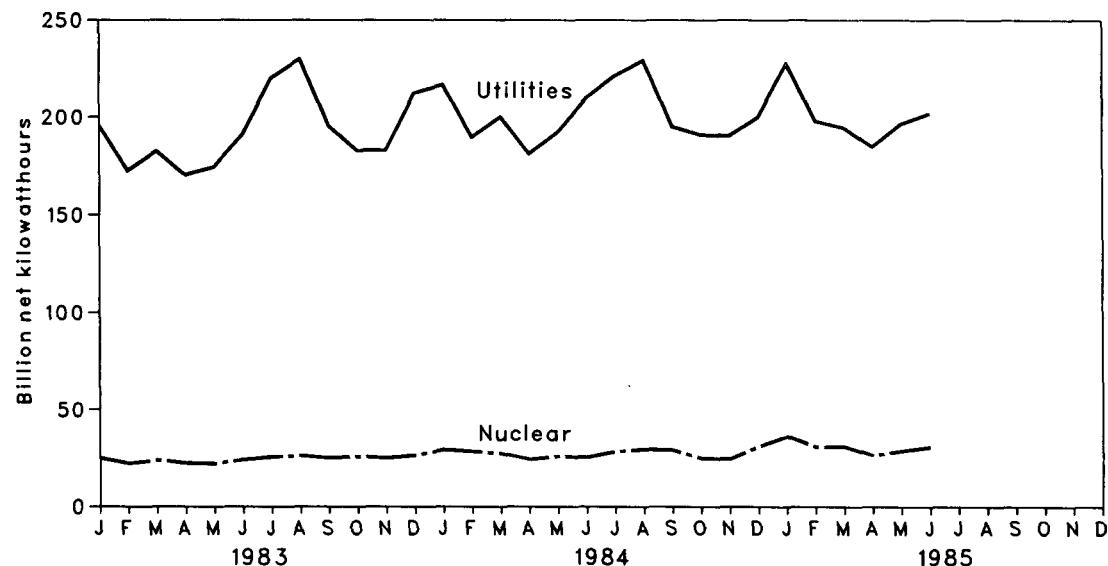
There were 92 operable U.S. nuclear power generating units as of July 31, 1985, with a collective net generating capacity of 76.3 million kilowatts. Of the 92 operable units, 5 were in power ascension (Byron-1, Fermi-2, Palo Verde-1, Waterford-3, and Wolf Creek-1), and 17 units generated no electricity or operated substantially below capacity (Arnold, Browns Ferry-1, Browns Ferry-2, Browns Ferry-3, Brunswick-1, Byron-1, Calvert Cliffs-1, Cook-1, Cooper, Crystal River-3, Davis-Besse, Fort St. Vrain, Indian Point-3, LaSalle-2, Rancho Seco, Three Mile Island-1, and Turkey Point-3). Three units had licenses from the Nuclear Regulatory Commission authorizing fuel-loading and low-power testing (Diablo Canyon-2, Limerick-1, and Shoreham).

As of July 31, 1985, there were 130 domestic nuclear power generating units in all stages of planning, construction, or operation, with an aggregate design capacity of 121 million net kilowatts.

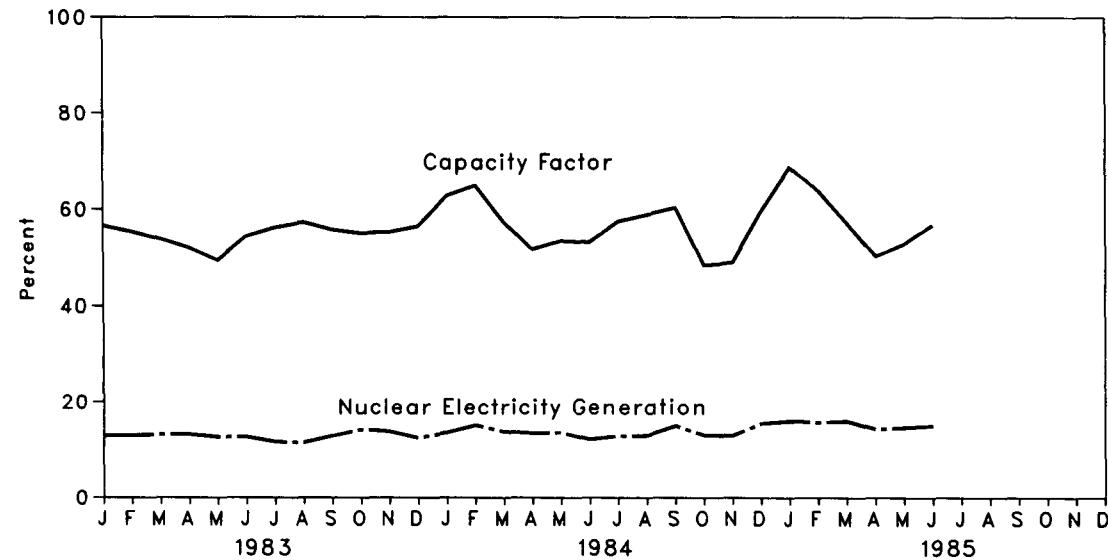
## Nuclear

### 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	Maximum Dependable Capacity of Operable Reactors <sup>1,3</sup>	Capacity Factor <sup>4</sup>
				Million net kilowatthours	Percent	
1973	Year	39	83,479	4.5	22,900	52.9
1974	Year	48	113,976	6.1	31,710	48.3
1975	Year	54	172,505	9.0	33,312	59.7
1976	Year	60	191,104	9.4	43,277	57.8
1977	Year	65	250,883	11.8	46,046	64.1
1978	Year	70	276,403	12.5	49,629	65.7
1979	Year	68	255,155	11.4	49,326	58.7
1980	Year	70	251,116	11.0	51,059	57.1
1981	Year	74	272,674	11.9	55,534	58.4
1982	Year	77	282,773	12.6	59,552	57.2
1983	January	77	25,073	12.8	59,532	56.6
	February	77	22,198	12.9	59,632	55.4
	March	77	23,890	13.1	59,632	53.9
	April	77	22,335	13.1	59,658	52.1
	May	78	22,051	12.6	59,883	49.5
	June	79	24,152	12.6	61,686	54.4
	July	79	25,602	11.6	61,230	56.2
	August	79	26,201	11.4	61,440	57.3
	September	80	25,007	12.8	62,227	55.8
	October	80	25,797	14.1	62,876	55.1
	November	80	25,010	13.7	62,809	55.3
	December	80	26,361	12.4	62,809	56.5
	Year	80	293,677	12.7	62,809	54.8
1984	January	80	29,313	13.5	62,772	62.8
	February	80	28,436	15.0	62,942	64.9
	March	81	27,345	13.7	64,036	57.4
	April	82	24,231	13.4	65,049	51.8
	May	82	25,867	13.5	64,986	53.5
	June	83	25,299	12.1	66,091	53.2
	July	83	28,284	12.8	66,091	57.5
	August	84	29,493	12.9	67,341	58.9
	September	84	29,146	14.9	67,066	60.4
	October	85	24,774	13.0	68,497	48.5
	November	86	24,575	12.9	69,534	49.1
	December	86	30,872	15.4	69,522	59.7
	Year	86	327,634	13.6	69,522	56.5
1985	January	87	36,186	15.9	70,667	68.8
	February	88	30,809	15.6	71,841	63.8
	March	89	31,041	15.9	72,931	57.2
	April	89	26,458	14.3	72,911	50.4
	May	89	28,697	14.6	72,920	52.9
	June	91	30,837	15.0	75,262	56.9
	July	92	35,184	15.0	†76,272	†62.0

<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 maximum dependable capacity (MDC) is used. When a reactor has not operated long enough to permit determination of a net MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced to reflect the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. For the definitions of net MDC and net DER, see Note 3 on the last page of this section.

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

†Preliminary data.

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

Sources: • See the last page of this section.

# Nuclear

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

		Licensed for Operation		Construction Permits				Total Design Capacity <sup>4</sup>	Million net kilowatts
		Operable <sup>2</sup>	In Startup <sup>3</sup>	Granted	Pending	On Order	Announced		
1973	Year	39	3	51	58	48	20	219	212
1974	Year	48	5	58	80	28	16	235	234
1975	Year	54	2	69	73	19	19	236	236
1976	Year	60	1	72	66	16	19	234	236
1977	Year	65	1	80	52	13	9	220	220
1978	Year	70	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	January	77	2	60	3	2	0	144	135
	February	77	2	60	3	2	0	144	135
	March	77	3	59	3	2	0	144	135
	April	77	4	57	3	2	0	143	134
	May	78	3	57	3	2	0	143	134
	June	79	2	57	3	2	0	143	134
	July	79	2	57	3	2	0	143	134
	August	79	2	57	3	2	0	143	134
	September	80	1	57	3	2	0	143	134
	October	80	1	56	2	2	0	141	133
	November	80	1	56	0	2	0	139	131
	December	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	35	0	2	0	132	123
	May	89	6	35	0	2	0	132	123
	June	91	4	35	0	2	0	132	123
	July	92	3	33	0	2	0	130	121

<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 have not had the operational experience needed to determine a net maximum dependable capacity (MDC). See Note 3 on the last page of this section.

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

Sources: • See the last page of this section.

## Notes and Sources for the Nuclear Section

### Notes

**1. Operable Reactors:** Units that have received Operating Licenses, completed low-power testing, and are authorized to operate at full power (i.e., in receipt of a Full Power Amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N reactor operated by the Department of Energy (DOE). The Hanford-N reactor, with a net capacity of 860 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net capacity of 60 MWe) operated by DOE, was included prior to retirement from service on October 1, 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, each of which has been inoperative for at least 4 years prior to January 1, 1984, are deleted from entries subsequent to their removal from service: Peach Bottom-1 (net capacity of 40 MWe) and Indian Point-1 (net capacity of 265 MWe), both out of service since November 1974; Humboldt Bay (net capacity of 65 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden-1 (net capacity of 200 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island-2 (net capacity of 906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. A sister unit, Three Mile Island-1 (net capacity of 819 MWe), continues to be listed as "Operable" because it could, in theory, return to service once the restraining order imposed by the NRC is lifted.

**2. In Startup:** Units that have received Operating Licenses authorizing fuel loading and low-power testing but have not received a Full Power Amendment from the NRC. Without the amendment, these units cannot distribute electricity commercially.

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

(a) **Net Maximum Dependable Capacity (MDC):**—The gross electrical output measured at the output terminals of the turbine generator(s) during the most restrictive seasonal conditions (usually summer) less the station service load. The typical station service load for a nuclear plant is about 5

percent of its gross generation.

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

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

### Sources

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

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

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

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

**Maximum Dependable Capacity:** Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors."

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

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

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

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

# Part 9 Price

## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$24.00 per barrel in July 1985. This was 0.1 percent below the previous month's level and 8.1 percent below the level in July 1984.

During July 1985, the composite refiner acquisition cost of crude oil was \$26.61 per barrel, 0.3 percent below the previous month's average of \$26.69. The cost of imported crude oil decreased \$0.81 per barrel from the June 1985 level to \$26.46 per barrel in July. This was 8.8 percent below the July 1984 average. The cost of domestic crude oil in July 1985 was \$26.67, an increase of \$0.17 from the June 1985 average. For the first time since May 1983, the cost of imported crude dropped below that of domestic crude oil.

### Motor Gasoline

The national city average retail price of leaded regular gasoline at all types of stations was \$1.14 per gallon in August 1985, 1.0 percent lower than the price in July 1985. The price of unleaded regular gasoline at all types of stations was \$1.23 per gallon in August, 1.0 percent lower than the price in the previous month. The price of unleaded premium gasoline averaged \$1.36 per gallon in August, 0.6 percent lower than during July 1985.

### Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end users (utilities, industry, and other ultimate consumers) in July 1985 was \$0.57 per gallon, 1.6 percent above the previous month's price but 18.1 percent below the July 1984 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in July 1985 was \$0.54 per gallon, 2.7 percent above the June 1985 average but 17.2 percent below the July 1984 average.

### Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end users in July 1985 was \$1.20 per gallon, 1.2 percent below the

price in the previous month and 3.3 percent below the price in July 1984. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in July 1985 was \$0.78 per gallon, down 0.5 percent from the previous month's price and down 7.0 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 1985 was \$0.98 per gallon. This was 2.7 percent below the price in June 1985 and 6.4 percent below the July 1984 price. The average price for resale was \$0.70 per gallon in July 1985, 11.5 percent below the price in July 1984.

### Natural Gas

In June 1985, the average wellhead price of marketed natural gas production was \$2.58 per thousand cubic feet, \$0.01 lower than in May 1985 and \$0.06 (2.3 percent) below the June 1984 price. The average price of natural gas delivered to electric utility plants was \$3.60 per thousand cubic feet in June 1985, the same as in the previous month but \$0.16 (4.3 percent) below the June 1984 price. The average price of natural gas used by residential consumers in July 1985 was \$7.08 per thousand cubic feet, \$0.02 (0.3 percent) less than the July 1984 price.

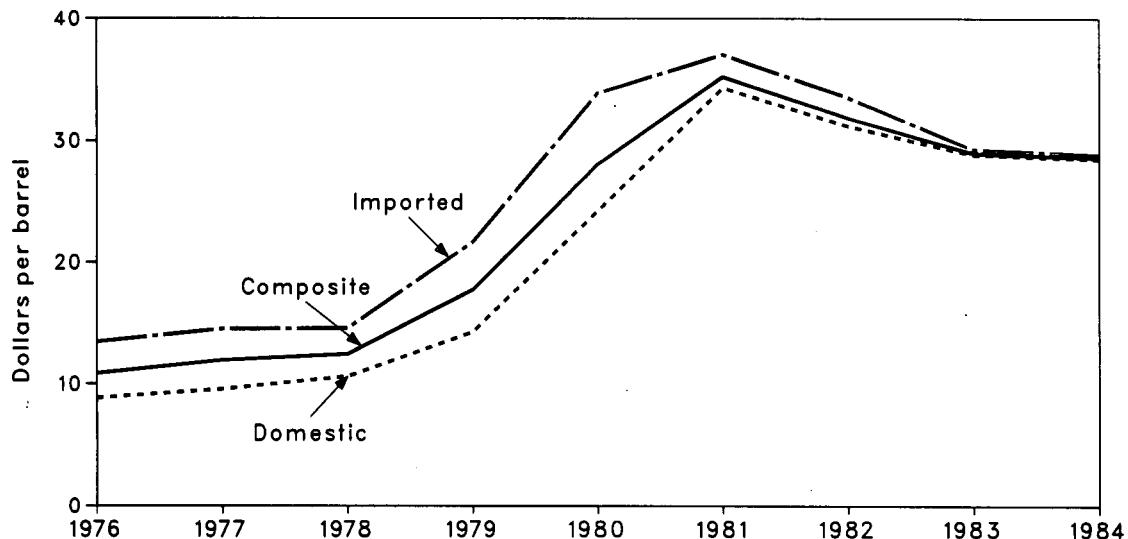
### Electricity

The average retail price of electricity sold by selected privately owned utilities to residential consumers in July 1985 was 8.24 cents per kilowatthour, an increase of 1.1 percent from the June 1985 price and 3.0 percent above the July 1984 price. The average price of electricity sold to commercial consumers was 7.64 cents per kilowatthour in July 1985, a 0.5-percent increase from the previous month's price and up 1.7 percent from the July 1984 price. The average electricity price to industrial users during July 1985 was 5.36 cents per kilowatthour, an increase of 2.3 percent from the previous month's price and 2.9 percent more than during July 1984.

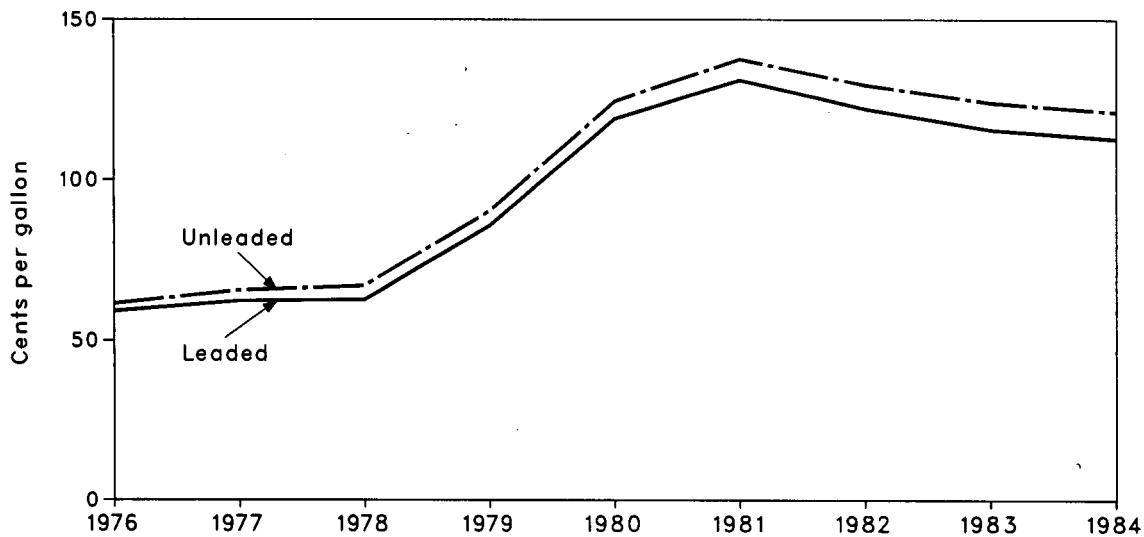
## Price

### 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
1977	Average	8.57	13.24	14.31	9.55	14.53
1978	Average	9.00	13.30	14.38	10.61	14.57
1979	Average	12.64	20.19	21.65	14.27	21.67
1980	Average	21.59	32.27	33.95	24.23	33.89
1981	Average	31.77	35.10	36.52	34.33	37.05
1982	Average	28.52	32.11	33.18	31.22	33.55
1983	January	27.22	29.47	30.62	30.55	31.40
	February	26.41	27.79	29.08	29.16	30.76
	March	26.08	26.88	27.84	28.69	28.43
	April	25.85	27.18	28.24	28.45	28.33
	May	26.08	27.36	28.55	28.68	28.53
	June	25.98	27.71	29.00	28.67	29.23
	July	25.86	27.84	28.99	28.74	28.76
	August	26.03	27.89	29.22	28.58	29.50
	September	26.08	27.88	29.24	28.69	29.54
	October	26.04	27.84	29.08	28.88	29.67
	November	26.09	27.75	28.93	28.76	29.09
	December	25.88	27.50	28.58	28.62	29.30
	Average	26.19	27.73	28.93	28.87	29.30
1984	January	25.93	27.56	28.49	28.62	28.80
	February	26.06	27.78	28.89	28.76	28.91
	March	26.05	27.70	28.69	28.75	28.95
	April	25.93	27.84	28.91	28.63	29.11
	May	26.00	27.87	28.94	28.65	29.26
	June	26.09	27.78	28.89	28.58	29.19
	July	26.11	27.19	28.32	28.70	29.00
	August	26.02	27.29	28.20	28.59	28.92
	September	25.97	27.14	28.14	28.56	28.70
	October	25.92	27.15	28.18	28.46	28.79
	November	25.44	26.91	27.88	28.10	28.74
	December	25.05	26.69	27.69	27.95	28.02
	Average	25.88	27.44	28.46	28.53	28.88
1985	January	24.28	26.10	26.95	26.89	27.51
	February	23.63	25.90	26.82	26.39	27.05
	March	23.88	26.32	27.14	26.61	27.23
	April	24.15	26.58	27.47	26.79	27.61
	May	24.18	R26.25	R27.13	26.90	27.62
	June	R24.03	R†25.90	R†26.69	26.50	27.27
	July	†24.00	†25.34	†26.12	26.67	26.46

<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								
<b>1976</b>	<b>Average</b>	<b>13.05</b>	<b>12.76</b>	<b>11.61</b>	<b>NA</b>	<b>13.08</b>	<b>11.69</b>	<b>NA</b>
<b>1977</b>	<b>Average</b>	<b>14.36</b>	<b>13.57</b>	<b>12.67</b>	<b>13.42</b>	<b>14.44</b>	<b>12.37</b>	<b>NA</b>
<b>1978</b>	<b>Average</b>	<b>14.10</b>	<b>13.64</b>	<b>12.65</b>	<b>13.24</b>	<b>14.04</b>	<b>12.70</b>	<b>13.82</b>
<b>1979</b>	<b>Average</b>	<b>20.65</b>	<b>19.35</b>	<b>23.71</b>	<b>20.29</b>	<b>21.80</b>	<b>17.63</b>	<b>21.20</b>
<b>1980</b>	<b>Average</b>	<b>36.57</b>	<b>32.37</b>	<b>(<sup>2</sup>)</b>	<b>31.11</b>	<b>35.82</b>	<b>28.53</b>	<b>34.58</b>
<b>1981</b>	<b>Average</b>	<b>39.09</b>	<b>35.93</b>	<b>(<sup>2</sup>)</b>	<b>33.13</b>	<b>38.53</b>	<b>32.48</b>	<b>36.08</b>
<b>1982</b>	<b>Average</b>	<b>34.23</b>	<b>35.27</b>	<b>30.93</b>	<b>28.07</b>	<b>35.13</b>	<b>33.50</b>	<b>33.46</b>
<b>1983</b>	January	W	34.71	W	26.90	W	W	32.77
	February	W	33.74	W	25.69	W	W	30.95
	March	31.07	29.69	W	24.53	29.52	30.03	29.16
	April	29.37	29.57	W	24.18	29.63	W	30.07
	May	29.54	29.31	W	24.60	29.72	W	29.61
	June	29.80	29.59	W	24.13	29.57	W	28.92
	July	30.15	29.73	28.41	24.92	29.81	27.91	30.00
	August	30.32	29.60	28.19	25.15	29.92	27.83	29.88
	September	30.33	29.77	28.03	25.10	29.59	27.73	30.33
	October	29.98	29.81	28.29	25.72	30.23	28.24	29.73
	November	29.75	30.34	W	25.76	29.99	28.22	29.42
	December	W	29.77	28.30	26.20	29.60	27.18	29.05
	<b>Average</b>	<b>30.06</b>	<b>29.93</b>	<b>28.25</b>	<b>25.19</b>	<b>29.78</b>	<b>28.03</b>	<b>29.84</b>
<b>1984</b>	January	27.60	29.89	W	26.22	29.80	27.76	29.29
	February	28.56	29.09	W	26.04	29.98	26.72	29.70
	March	28.69	W	NA	26.30	29.89	28.39	29.95
	April	28.90	29.50	W	26.07	29.93	28.17	29.85
	May	28.98	29.44	W	26.36	29.67	27.43	29.93
	June	28.52	29.35	NA	26.58	29.34	W	29.67
	July	27.43	29.21	W	26.62	29.22	W	28.91
	August	26.97	W	W	26.71	29.02	W	28.13
	September	26.90	28.83	NA	26.34	29.24	27.99	27.99
	October	27.42	28.93	NA	26.44	28.40	W	28.50
	November	26.50	28.68	NA	26.53	28.32	NA	27.61
	December	25.13	28.03	NA	26.43	28.11	NA	27.85
	<b>Average</b>	<b>28.04</b>	<b>29.10</b>	<b>26.93</b>	<b>26.37</b>	<b>29.39</b>	<b>27.60</b>	<b>28.90</b>
<b>1985</b>	January	25.47	27.43	NA	26.10	27.22	W	W
	February	W	27.62	NA	26.00	27.41	W	W
	March	26.50	27.01	W	26.31	28.20	NA	W
	April	27.47	27.50	W	26.33	27.95	NA	28.09
	May	W	27.44	W	26.24	27.77	NA	27.41
	June†	W	R27.33	W	24.75	R27.09	NA	26.65
	July†	W	27.40	W	24.26	27.83	NA	26.55
								R24.25
								23.13

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

\*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										
1975	Average	12.72	12.72	13.79	12.21	NA	12.62	12.30	NA	11.65
1976	Average	13.81	13.57	13.82	12.82	NA	13.80	13.04	NA	11.80
1977	Average	15.20	14.21	14.63	13.80	13.75	15.25	13.61	NA	13.13
1978	Average	14.91	14.50	14.64	13.88	13.54	14.86	13.92	NA	12.83
1979	Average	21.90	20.43	20.69	25.02	20.86	22.96	19.15	22.16	18.18
1980	Average	37.90	30.47	33.92	(*)	31.80	37.05	30.02	35.88	25.86
1981	Average	40.49	32.16	37.57	(*)	33.78	39.70	34.19	37.24	29.87
1982	Average	35.28	26.92	36.75	32.40	28.64	36.17	35.00	34.28	24.82
1983	January	33.20	27.62	36.12	W	27.50	W	W	33.48	23.20
	February	32.17	26.19	35.07	W	26.15	32.24	W	33.33	23.36
	March	31.24	24.78	31.17	W	25.06	30.49	31.63	29.92	21.48
	April	30.55	24.35	31.14	W	24.65	30.63	W	30.84	21.45
	May	30.48	24.32	30.82	W	25.17	30.75	W	30.60	21.24
	June	30.88	24.88	31.40	29.10	24.81	30.56	W	30.02	22.07
	July	31.36	25.45	31.46	30.06	25.34	30.91	29.53	30.86	21.30
	August	31.85	25.45	31.65	29.57	25.80	31.21	29.39	30.83	22.82
	September	31.78	25.71	31.27	29.31	25.66	30.70	29.53	31.39	23.12
	October	30.97	26.01	31.14	29.73	26.44	31.16	29.98	30.79	24.75
	November	30.96	25.83	31.30	W	26.29	31.02	29.88	30.33	24.68
	December	30.23	26.69	31.12	28.57	26.88	30.57	28.83	30.00	24.91
	Average	31.26	25.63	31.57	29.81	25.78	30.84	29.76	30.87	22.94
1984	January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
	February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
	March	30.31	26.01	30.81	NA	26.92	30.93	30.20	30.98	24.75
	April	29.81	26.10	31.02	W	26.68	31.08	29.95	30.73	24.86
	May	29.96	27.12	30.80	W	26.92	30.96	28.95	30.75	24.93
	June	29.62	26.00	31.21	NA	27.24	31.05	29.90	30.43	25.29
	July	28.63	27.16	30.26	W	26.98	30.07	W	29.54	25.24
	August	28.16	26.95	30.59	W	26.99	29.99	W	28.93	24.95
	September	27.94	27.03	30.05	W	26.66	30.60	29.75	28.81	25.29
	October	28.42	26.82	30.11	W	26.80	29.47	28.57	29.27	25.49
	November	28.12	26.33	30.03	W	26.78	29.45	NA	28.39	25.35
	December	27.07	26.50	30.12	NA	26.86	29.32	NA	28.55	25.24
	Average	29.08	26.59	30.64	28.67	26.87	30.50	29.50	29.60	25.15
1985	January	26.28	24.99	29.26	NA	26.46	28.70	W	W	25.18
	February	26.06	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	R26.33	28.98	W	26.56	28.69	NA	27.98	25.26
	June†	W	R27.46	R28.95	W	25.16	R27.81	NA	27.42	R25.06
	July†	27.35	25.97	28.97	W	24.56	28.48	NA	27.27	23.81

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

\*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	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October	117.2	125.5	139.5	123.9
	November	115.6	124.1	138.4	122.4
	December	114.6	123.1	137.6	121.5
	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
	Average	112.9	121.2	136.6	119.8
1985	January	106.0	114.8	130.4	114.5
	February	104.1	113.1	129.0	112.8
	March	107.1	115.9	131.0	115.5
	April	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

<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					
1978	Average	29.3	31.4	24.5	27.5	26.3	29.8
1979	Average	45.0	46.8	36.6	38.9	39.9	43.6
1980	Average	60.8	67.5	47.9	52.3	52.8	60.7
1981	Average	74.8	82.9	62.2	67.3	66.3	75.6
1982	Average	69.5	74.7	57.2	61.1	61.2	67.6
1983	January	65.0	70.5	57.0	60.1	60.3	64.2
	February	63.0	66.0	55.7	58.5	58.5	62.0
	March	60.0	66.2	55.9	57.0	57.7	60.9
	April	60.1	64.3	56.5	58.7	57.7	61.0
	May	62.6	66.9	57.8	59.7	59.2	63.2
	June	63.2	69.2	58.5	60.1	60.2	64.7
	July	65.2	70.4	60.5	61.4	62.2	65.9
	August	66.7	71.6	62.0	63.2	63.8	67.7
	September	67.0	72.6	63.3	65.3	64.6	69.0
	October	68.8	72.1	62.6	64.9	64.7	68.7
	November	66.5	70.7	62.2	64.4	63.6	67.4
	December	67.3	72.0	60.2	63.1	62.3	67.2
	Average	64.3	69.5	59.1	61.1	60.9	65.1
1984	January	71.0	73.6	62.3	64.6	64.8	69.0
	February	71.4	75.1	65.7	65.8	67.5	70.4
	March	70.5	73.1	61.9	64.7	64.5	68.5
	April	69.2	73.1	64.7	66.5	66.2	69.1
	May	68.3	72.7	65.0	67.4	66.0	69.5
	June	69.8	73.2	66.1	68.9	67.2	71.0
	July	66.8	71.5	64.0	66.7	65.0	69.0
	August	65.6	69.5	62.7	65.0	63.6	67.1
	September	65.9	70.0	63.8	64.9	64.5	67.5
	October	66.8	70.8	64.3	65.8	65.1	67.8
	November	66.8	70.4	63.6	65.8	64.6	67.9
	December	67.5	70.5	63.3	65.6	64.6	67.7
	Average	68.5	72.0	63.9	65.9	65.4	68.7
1985	January	67.6	71.1	63.3	66.5	64.7	68.4
	February	67.6	71.2	63.4	66.3	65.0	68.7
	March	66.2	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	52.7	54.6	53.8	56.5

<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.

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

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

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

## Price

### Refiner and Gas Plant Operator Sales Prices of Petroleum Products 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								
1978	Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1979	Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
1980	Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1981	Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
1982	Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
1983	January	88.5	124.8	91.8	94.2	85.7	85.5	47.0
	February	85.4	123.7	89.9	90.0	80.1	80.7	46.7
	March	82.9	121.2	84.5	83.1	76.0	75.2	47.4
	April	86.5	120.0	82.9	84.2	78.9	76.8	50.0
	May	90.4	120.2	84.3	87.7	80.9	80.2	50.5
	June	91.5	115.0	84.1	84.6	80.9	80.3	50.9
	July	92.3	115.2	84.8	85.2	81.7	80.8	50.7
	August	91.5	114.7	85.4	86.7	83.4	81.7	49.8
	September	90.2	113.7	86.3	91.9	85.1	83.5	50.1
	October	88.1	118.9	86.4	90.8	83.5	83.0	49.9
	November	86.6	118.7	84.4	90.4	82.6	82.0	47.3
	December	83.8	118.8	83.6	88.6	80.7	80.1	45.4
	Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
1984	January	83.2	116.7	86.4	95.9	87.5	82.6	47.7
	February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
	March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
	April	86.9	116.8	84.2	90.7	82.8	80.8	44.6
	May	86.6	117.1	84.3	90.9	83.2	81.9	44.4
	June	84.5	116.8	84.2	88.1	82.4	81.9	44.1
	July	81.7	117.2	82.8	87.6	79.4	79.3	42.3
	August	81.1	116.7	81.0	86.0	77.8	77.7	43.2
	September	82.8	116.8	81.7	88.8	80.0	78.4	44.8
	October	83.6	116.4	82.9	88.9	80.8	80.0	46.1
	November	81.9	114.8	81.4	88.0	79.4	79.0	45.6
	December	78.0	114.0	80.1	86.4	77.1	77.0	43.0
	Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
1985	January	75.2	114.5	79.5	85.8	75.7	74.9	40.0
	February	76.3	114.0	79.3	86.5	75.2	74.1	39.4
	March	81.0	113.6	78.6	85.7	76.4	75.6	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	75.1	76.9	70.3	72.3	36.3

<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.

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

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

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

## Price

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

		Finished Motor Gasoline <sup>a</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								
1978	Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1979	Average	71.3	68.9	54.7	58.5	51.6	58.5	35.7
1980	Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1981	Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
1982	Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
1983	January	97.1	129.2	84.5	104.5	100.9	89.2	72.7
	February	92.5	127.2	92.6	101.4	97.0	84.0	71.7
	March	89.8	126.6	90.6	97.1	93.0	78.0	68.1
	April	94.7	125.2	88.8	93.4	89.1	78.8	68.6
	May	96.6	125.4	87.8	93.8	89.5	81.8	72.2
	June	97.8	125.6	86.3	90.0	87.3	81.5	67.3
	July	98.8	125.1	85.6	89.0	85.1	82.0	66.4
	August	98.4	125.9	85.5	90.8	86.1	83.0	68.9
	September	96.9	124.2	86.1	92.7	88.0	84.8	74.9
	October	95.4	124.7	86.0	98.9	89.0	84.2	69.6
	November	93.9	124.5	85.8	100.0	90.1	83.5	72.8
	December	92.4	124.4	85.5	98.8	92.1	82.2	76.4
	Average	95.4	125.6	87.8	98.1	91.6	82.6	70.9
1984	January	90.6	123.9	85.8	106.8	97.7	84.4	76.8
	February	90.2	123.7	86.5	117.9	104.6	87.4	78.3
	March	90.7	123.8	85.6	111.3	94.7	83.2	78.4
	April	92.9	124.4	85.1	105.8	91.9	82.4	78.5
	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	70.8
	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	81.8	74.1
	November	89.9	119.3	82.4	108.1	87.7	80.7	73.8
	December	88.0	121.9	82.2	101.4	88.1	79.4	70.0
	Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
1985	January	84.6	121.7	81.4	106.0	87.0	77.6	78.8
	February	83.6	121.1	80.9	103.7	86.1	76.7	76.1
	March	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	R78.6	88.2	77.8	77.2	66.8
	July†	95.4	120.2	78.2	86.0	72.4	74.5	62.9

<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.

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

†Preliminary data. R=Revised data.

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

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

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

## Price

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

		CT	ME	MA	NH	RI	VT	DE	DC	MD	NJ	NY	PA	VA
Cents per gallon, excluding tax														
1978	Average	50.1	48.6	48.8	50.3	50.7	50.8	47.8	50.7	49.2	49.6	50.1	48.8	49.1
1979	Average	72.0	68.8	70.9	72.5	72.8	72.5	68.2	74.2	70.1	71.0	71.2	69.8	70.4
1980	Average	98.0	96.3	97.8	100.4	101.1	101.5	95.4	102.6	97.9	97.9	98.2	96.4	98.5
1981	Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4	121.4	121.5	123.2	118.1	120.5
1982	Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5	117.1	117.4	120.5	113.7	117.7
1983	January	119.5	109.0	116.3	111.6	116.2	121.5	110.5	122.8	115.4	115.7	120.6	113.7	116.0
	February	115.8	103.7	113.2	105.5	112.2	116.9	108.2	119.7	112.6	110.4	117.6	109.6	112.0
	March	108.3	97.4	105.4	100.8	106.8	109.6	103.9	115.3	108.2	104.6	110.2	104.0	106.9
	April	104.5	99.5	104.4	100.9	108.8	110.6	103.0	113.1	107.9	104.4	106.9	101.8	106.7
	May	105.9	101.6	107.0	102.6	109.6	111.2	104.6	112.9	108.6	105.5	108.2	103.3	107.2
	June	104.3	102.6	105.9	101.2	112.0	112.8	107.3	114.7	108.3	104.6	110.5	102.2	106.8
	July	104.2	102.6	105.3	104.3	109.1	112.3	107.8	112.8	107.2	104.5	109.9	101.3	107.4
	August	103.8	105.6	105.4	103.5	107.9	111.7	102.5	113.3	107.0	105.5	110.0	101.6	107.7
	September	103.8	103.8	106.2	104.0	108.1	111.0	103.5	113.9	108.1	106.1	110.5	102.8	108.1
	October	104.3	102.9	105.6	103.1	108.0	109.4	103.5	113.4	108.7	105.4	110.3	103.3	104.8
	November	104.1	101.8	106.1	101.5	108.7	109.8	103.7	113.5	108.8	104.6	110.2	103.7	104.9
	December	105.6	102.2	108.1	103.7	109.4	110.0	105.5	114.7	109.2	106.7	110.9	104.6	105.2
	Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0	110.3	107.9	112.1	105.8	108.7
1984	January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0	115.6	114.1	118.3	112.9	111.4
	February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6	121.9	119.5	124.3	117.4	117.5
	March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6	116.2	113.5	117.0	110.9	112.6
	April	113.4	103.3	112.4	107.7	110.7	113.3	109.9	119.9	115.6	110.6	116.0	107.8	110.8
	May	112.5	102.7	112.5	108.8	111.4	112.2	109.0	119.5	113.0	109.1	114.5	105.8	111.1
	June	110.6	103.7	110.5	104.5	110.8	112.8	107.2	116.3	109.9	107.1	115.0	103.3	108.7
	July	107.4	102.5	107.3	101.9	109.3	108.6	103.7	116.5	109.0	104.9	112.8	99.7	107.2
	August	104.7	98.0	105.5	98.6	106.0	108.0	103.7	109.8	105.2	103.6	110.2	99.6	105.2
	September	105.4	99.1	106.0	101.0	105.9	106.9	102.1	109.9	106.7	104.3	109.3	100.9	105.9
	October	106.2	101.9	106.9	102.2	107.4	108.0	103.5	111.8	107.5	105.7	111.9	101.5	106.7
	November	107.2	100.6	107.2	102.7	106.5	107.5	103.3	111.9	108.2	105.2	111.7	102.9	107.1
	December	106.4	97.9	107.0	103.1	107.1	106.4	102.8	112.9	107.1	104.9	111.3	103.2	107.7
	Average	112.1	103.9	111.6	108.4	111.4	111.9	109.6	118.7	113.5	111.0	115.5	107.9	110.5
1985	January	106.9	97.9	107.2	101.3	108.1	106.9	103.8	112.1	107.5	105.0	111.3	102.9	106.2
	February	107.2	98.5	107.1	102.7	106.9	107.3	104.0	117.1	108.6	105.7	112.0	103.2	106.8
	March	106.8	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	R103.5	R95.4	R101.1	R94.4	R98.6	103.7	R96.4	R107.1	R104.4	R99.6	108.1	R95.0	R104.4
	July†	100.2	91.3	98.4	90.9	97.3	100.7	96.4	106.8	101.2	97.3	103.9	92.1	99.7

<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													
1978	Average	46.2	46.5	48.5	47.9	47.8	47.4	44.7	43.6	53.2	45.8	48.6	49.0
1979	Average	65.1	68.8	72.7	70.9	72.4	68.6	67.3	62.1	68.2	68.0	69.7	70.4
1980	Average	92.2	95.8	99.6	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	97.4
1981	Average	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4
1982	Average	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6	116.0
1983	January	105.6	103.8	105.7	110.6	107.8	107.9	108.5	109.1	114.6	113.6	117.7	115.0
	February	104.7	99.5	102.8	108.5	101.6	104.4	104.5	104.8	NA	107.8	114.3	111.6
	March	99.2	96.6	95.7	103.7	96.5	98.2	96.8	99.6	110.7	101.4	109.0	105.1
	April	97.5	97.7	96.8	102.5	100.5	95.8	97.1	99.0	106.6	99.1	106.0	103.5
	May	96.1	100.3	98.2	102.7	101.9	96.5	98.7	99.2	106.0	99.0	105.5	104.8
	June	97.3	100.2	98.2	110.7	102.4	96.1	98.7	98.7	105.0	99.4	105.4	106.0
	July	94.9	99.6	99.4	105.3	102.6	97.3	99.0	99.3	105.8	97.8	105.2	105.0
	August	96.1	100.7	98.9	102.2	104.4	95.2	99.2	98.1	105.1	98.7	104.0	104.9
	September	100.7	102.5	101.4	103.9	103.7	101.2	100.7	98.9	106.2	100.5	105.6	105.7
	October	100.6	101.0	101.5	105.8	104.8	100.2	101.8	99.5	106.1	101.4	106.3	106.0
	November	100.5	100.8	100.7	105.4	104.4	101.0	100.4	99.5	105.5	102.1	106.4	106.0
	December	101.5	99.6	101.1	106.8	104.2	102.1	100.5	100.3	105.5	101.8	106.1	106.7
	Average	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	107.8
1984	January	108.5	104.7	106.0	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
	February	109.9	105.9	107.3	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
	March	104.9	102.3	100.6	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
	April	101.6	100.3	103.4	104.8	103.9	101.9	101.4	96.2	107.3	100.6	105.0	109.8
	May	98.9	102.3	102.4	105.2	105.3	103.1	101.0	98.1	107.2	99.5	104.2	108.4
	June	99.5	101.6	105.9	103.3	104.2	101.7	100.5	93.8	107.8	98.2	103.3	107.2
	July	96.2	99.4	101.4	102.6	105.1	101.8	100.5	93.1	107.2	97.1	100.4	104.8
	August	96.6	98.9	100.3	101.8	104.5	99.5	100.0	97.4	107.3	94.9	99.7	103.3
	September	96.9	98.6	100.7	103.2	103.5	100.1	98.8	98.4	105.0	95.9	100.4	103.6
	October	98.3	97.1	100.9	103.0	103.0	101.2	100.7	99.4	107.8	96.5	100.9	104.9
	November	99.6	95.8	102.3	103.5	103.1	100.8	101.0	97.9	107.8	97.6	101.3	105.3
	December	99.2	94.4	100.9	103.2	102.8	99.3	99.0	98.8	107.5	97.4	100.5	104.8
	Average	102.1	100.1	103.1	105.0	104.1	102.1	101.0	98.5	106.9	99.3	102.6	109.1
1985	January	98.6	95.2	98.6	102.1	99.5	98.3	97.3	96.8	108.6	96.1	100.6	104.9
	February	98.3	94.4	97.8	101.0	99.8	98.7	96.1	96.9	107.6	96.6	99.8	105.3
	March	98.1	94.5	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	R90.7	R92.1	R97.5	R98.2	R104.3	R97.1	94.2	R95.9	R107.4	R95.5	R99.1	100.8
	July†	90.2	89.8	93.2	99.0	100.5	92.9	93.8	94.7	108.1	95.3	97.7	98.1

Footnotes continued.

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

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

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

# Price

## National Average Natural Gas Prices—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	January	2.66	5.03	3.06	4.38	3.57	5.86
	February	2.66	5.09	3.15	4.41	3.41	5.87
	March	2.58	5.01	3.01	4.24	3.45	6.00
	April	2.53	4.58	2.90	4.44	3.35	6.06
	May	2.53	4.40	2.98	4.24	3.55	6.22
	June	2.59	4.41	2.95	4.22	3.58	6.20
	July	2.52	4.31	2.96	4.28	3.72	6.21
	August	2.58	3.93	2.90	4.23	3.75	6.18
	September	2.67	4.02	2.87	4.08	3.70	6.19
	October	2.58	4.03	2.86	4.22	3.62	6.10
	November	2.60	4.26	2.84	4.26	3.54	6.04
	December	2.61	4.33	2.73	4.12	3.49	6.06
	Average	2.59	4.51	2.93	4.26	3.58	6.06
1984	January	2.65	4.40	2.80	4.25	3.55	5.98
	February	2.70	4.37	2.82	3.97	3.61	6.01
	March	2.61	4.40	2.80	4.18	3.52	5.98
	April	2.59	4.23	2.95	4.11	3.57	6.00
	May	2.61	4.15	2.86	4.17	3.75	6.19
	June	2.64	4.25	2.89	4.06	3.76	6.13
	July	2.62	4.15	2.95	4.04	3.89	6.17
	August	2.63	4.12	2.95	4.07	3.80	6.20
	September	2.56	4.34	2.84	4.10	3.83	6.26
	October	2.57	4.19	2.96	4.06	3.75	6.25
	November	2.56	3.43	3.13	4.26	3.72	6.12
	December	2.51	3.34	2.95	4.22	3.69	6.09
	Average	2.60	4.08	2.91	4.13	3.72	6.06
1985	January	2.63	3.21	2.89	4.19	3.77	6.19
	February	2.70	3.08	2.87	4.15	3.72	6.12
	March	2.61	3.29	2.90	4.00	3.79	6.16
	April	2.60	3.39	2.86	3.96	3.76	6.14
	May	2.59	3.32	2.89	R3.84	3.60	NA
	June	2.58	3.40	3.00	3.86	3.60	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. Concurrent publication of both previous and current data series will continue until 3 months overlap of industrial data has occurred.

<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 6 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 9 in the Notes and Sources for this section.

<sup>5</sup>The increase from the previous month was primarily the result of the expiration of large, long-term, low-priced intrastate contracts in Texas.

R=Revised data. NA=Not available.

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

• Data for 1973 through December 1983 are final. All other data are preliminary unless otherwise indicated.

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

# Price

## National Average Natural Gas Prices—Current Series

	Wellhead	Major Interstate Pipeline Companies			City Gate	Delivered to Consumers <sup>1</sup>				
		Imports	Purchases from Producers			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	January	2.66	5.03	3.06	NA	NA	NA	NA	3.57	NA
	February	2.66	5.09	3.15	NA	NA	NA	NA	3.41	NA
	March	2.58	5.01	3.01	NA	NA	NA	NA	3.45	NA
	April	2.53	4.58	2.90	NA	NA	NA	NA	3.35	NA
	May	2.53	4.40	2.98	NA	NA	NA	NA	3.55	NA
	June	2.59	4.41	2.95	NA	NA	NA	NA	3.58	NA
	July	2.52	4.31	2.96	NA	NA	NA	NA	3.72	NA
	August	2.58	3.93	2.90	NA	NA	NA	NA	3.75	NA
	September	2.67	4.02	2.87	NA	NA	NA	NA	3.70	NA
	October	2.58	4.03	2.86	3.97	6.70	5.62	NA	3.62	NA
	November	2.60	4.26	2.84	3.91	6.30	5.67	NA	3.54	NA
	December	2.61	4.33	2.73	3.88	5.94	5.62	NA	3.49	NA
	Average	2.59	4.51	2.93	NA	6.06	5.59	4.18	3.58	4.82
1984	January	2.65	4.40	2.80	3.91	5.79	5.50	NA	3.55	NA
	February	2.70	4.37	2.82	3.99	5.84	5.56	NA	3.61	NA
	March	2.61	4.40	2.80	3.89	5.91	5.69	NA	3.52	NA
	April	2.59	4.23	2.95	3.93	5.95	5.53	NA	3.57	NA
	May	2.61	4.15	2.86	3.97	6.26	5.60	NA	3.75	NA
	June	2.64	4.25	2.89	3.97	6.76	5.66	NA	3.76	NA
	July	2.62	4.15	2.95	3.99	7.10	5.63	NA	3.89	NA
	August	2.63	4.12	2.95	3.64	7.23	5.48	NA	3.80	NA
	September	2.56	4.34	2.84	3.96	7.17	5.56	NA	3.83	NA
	October	2.57	4.19	2.96	3.92	6.79	5.56	NA	3.75	NA
	November	2.56	3.43	3.13	3.89	6.30	5.56	NA	3.72	NA
	December	2.51	3.34	2.95	3.95	6.04	5.58	NA	3.69	NA
	Average	2.60	4.08	2.91	3.92	6.12	5.57	NA	3.72	NA
1985	January	2.63	3.21	2.89	3.86	5.97	5.61	NA	3.77	NA
	February	2.70	3.08	2.87	3.90	5.85	5.53	NA	3.72	NA
	March	2.61	3.29	2.90	3.93	5.96	5.59	NA	3.79	NA
	April	2.60	3.39	2.86	3.89	6.08	5.63	NA	3.76	NA
	May	2.59	3.32	2.89	3.85	6.49	5.56	NA	3.60	NA
	June	2.58	3.40	3.00	3.89	6.89	5.63	NA	3.60	NA
	July	NA	NA	NA	3.75	7.08	5.44	NA	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 for 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 9 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.

<sup>5</sup>The increase from the previous month was primarily the result of the expiration of large, long-term, low-priced intrastate contracts in Texas. NA=Not available.

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

• Data for 1973 through December 1983 are final. All other data are preliminary unless otherwise indicated.

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

# Price

## Electricity

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

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

		Coal	Heavy Oil <sup>a</sup>	Natural Gas <sup>b</sup>	All Fossil Fuels <sup>c</sup>	Residential	Commercial	Industrial	Other	Total <sup>d</sup>	Cents per million Btu	Cents per kilowatthour
1973	Average	40.5	78.5	33.8	47.6	2.54	2.41	1.25	2.10	1.96		
1974	Average	70.9	189.0	48.2	91.4	3.10	3.04	1.69	2.75	2.49		
1975	Average	81.4	200.5	75.2	104.4	3.51	3.45	2.07	3.08	2.92		
1976	Average	84.8	195.2	103.4	111.9	3.73	3.69	2.21	3.27	3.09		
1977	Average	94.7	219.8	129.1	129.7	4.05	4.09	2.50	3.51	3.42		
1978	Average	111.6	212.5	142.2	141.1	4.31	4.36	2.79	3.62	3.69		
1979	Average	122.4	298.8	174.9	163.9	4.64	4.68	3.05	3.96	3.99		
1980	Average	135.1	426.7	219.9	192.8	5.36	5.48	3.69	4.76	4.73		
1981	Average	153.2	533.4	280.5	225.6	6.20	6.29	4.29	5.28	5.46		
1982	Average	164.7	483.2	337.6	224.9	6.86	6.86	4.95	5.92	6.13		
1983	January	2166.8	2448.9	2347.1	216.7	6.65	6.78	5.03	5.91	6.13		
	February	167.8	441.4	331.9	213.9	6.73	6.86	4.96	5.97	6.12		
	March	168.1	426.0	336.1	215.5	6.93	6.93	5.07	6.16	6.23		
	April	168.5	431.6	326.1	215.8	6.91	6.86	4.92	6.15	6.12		
	May	165.0	446.6	344.3	216.6	7.20	7.04	4.89	6.60	6.21		
	June	167.3	453.6	347.2	220.9	7.41	7.13	4.96	6.62	6.35		
	July	165.3	467.0	361.1	237.4	7.50	7.13	5.11	6.24	6.53		
	August	164.3	470.4	363.2	230.1	7.52	7.06	5.01	6.37	6.51		
	September	163.9	482.8	358.1	226.4	7.55	7.15	5.00	6.58	6.52		
	October	164.6	479.6	350.1	219.8	7.50	7.19	5.01	6.66	6.41		
	November	163.6	472.2	340.5	212.2	7.25	7.13	4.83	6.63	6.23		
	December	162.2	468.7	338.7	219.2	6.97	6.91	4.81	6.40	6.14		
	Average	165.6	457.8	347.4	220.6	7.18	7.01	4.97	6.36	6.29		
1984	January	161.6	488.9	343.7	221.0	6.77	6.81	4.86	6.33	6.14		
	February	164.9	496.3	347.5	217.4	6.97	7.01	4.86	6.51	6.19		
	March	163.4	484.0	339.8	208.4	7.18	7.14	4.88	6.68	6.27		
	April	165.7	494.1	344.4	210.6	7.33	7.25	4.88	6.73	6.30		
	May	168.6	486.9	360.4	220.3	7.59	7.30	4.92	6.85	6.40		
	June	169.1	488.3	360.9	223.2	7.90	7.48	5.09	6.78	6.65		
	July	168.2	474.6	373.1	231.3	8.00	7.51	5.21	6.97	6.83		
	August	167.2	459.6	365.6	223.5	8.06	7.51	5.15	6.75	6.82		
	September	167.4	472.5	368.0	217.5	8.06	7.64	5.25	7.05	6.88		
	October	168.7	474.1	361.4	218.8	7.95	7.63	5.13	6.86	6.71		
	November	166.6	470.6	357.2	216.8	7.62	7.43	5.06	6.99	6.54		
	December	165.0	480.4	355.4	218.7	7.34	7.30	5.07	6.70	6.48		
	Average	166.4	481.2	358.3	219.2	7.56	7.33	5.03	6.76	6.52		
1985	January	164.0	472.7	364.2	218.8	7.28	7.25	5.12	6.80	6.52		
	February	167.3	482.4	358.1	218.4	7.19	7.21	5.12	6.77	6.47		
	March	167.5	458.9	365.1	210.2	7.48	7.36	5.13	7.01	6.55		
	April	167.7	453.0	361.7	210.7	7.73	7.44	5.09	6.95	6.58		
	May	166.8	405.2	346.2	206.2	7.98	7.55	5.08	7.09	6.66		
	June	165.1	384.8	345.0	208.1	8.15	7.60	5.24	7.07	6.86		
	July†	NA	NA	NA	NA	8.24	7.64	5.36	7.13	7.02		

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

<sup>2</sup>Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.

<sup>3</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>4</sup>See Note 7 in the Notes and Sources for this section.

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

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

<sup>c</sup>Initial estimates. NA=Not available.

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

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

## Notes and Sources for the Price Section

### Notes

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. The monthly national average price of residential natural gas is based on data from the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) for natural gas (piped) and on data from Form EIA-176. Initial monthly estimates are obtained by multiplying the annual average price of residential natural gas collected on Form EIA-176 by the ratio of monthly values of the natural gas CPI-U for consecutive months. When a subsequent year's annual average price becomes available, the initial monthly estimates are adjusted to this annual average.
7. Heavy fuel oil prices include fuel oils No. 4, No. 5, and No. 6, and topped crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (No. 2 fuel oil, kerosene, and jet fuel) prices.
8. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous annual data series have been generated for 1978–1980, and monthly series for 1981 and 1982, by estimating the prices that would have been published had the EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment for product and sales type matching, and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale, and between retail and end user. The resale category continues to include sales among resellers. However, bulk sales to utility, industrial, and commercial accounts previously included in 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.
9. 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.

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

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

### Sources

**Petroleum and Petroleum Products:** • Actual domestic average wellhead prices—Economic Regulatory 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 98, "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."

# Part 10 International

## International

### Crude Oil Production

World crude oil production during July 1985 was 51.6 million barrels per day, up 0.7 million from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during July 1985 averaged 14.7 million barrels per day, up 0.6 million from the level during the previous month. Production by the Arab members of OPEC during July 1985 averaged 8.1 million barrels per day, up 0.4 million from the June 1985 level. During July 1985, production increased in Saudi Arabia by 320,000 barrels per day, in the United Arab Emirates by 55,000, in Iraq by 50,000, and in both Kuwait and Qatar by 20,000 barrels per day. Production decreased in Libya during July 1985 by 70,000 barrels per day, while production in Algeria remained the same. Among non-Arab OPEC countries during the month, production increased in Indonesia by 250,000 barrels per day but decreased in Nigeria by 100,000 barrels per day. Production in Iran and Venezuela remained the same as during the previous month.

Of the non-OPEC nations during July 1985, production increased in the United Kingdom and Mexico by 100,000 and 65,000 barrels per day, respectively. The level of production decreased in the United States by 61,000 barrels per day, while production in Canada remained the same as during the previous month.

### Petroleum Consumption

Preliminary petroleum consumption data for July 1985 were available for France, Italy, and the United States. Consumption in the United States and France increased by 19,000 and 5,000 barrels per day, respectively, compared

with levels 1 year earlier, while consumption in Italy decreased by 90,000 barrels per day compared with the July 1984 level.

### Petroleum Stocks

Preliminary data for July 1985 indicate that petroleum stock levels were lower compared with July 1984 levels in three of the five countries reporting. Petroleum stocks were down in Italy by 13.5 percent, in West Germany by 8.2 percent, and in Japan by 3.7 percent. The United Kingdom and the United States reported increases in petroleum stocks of 4.2 percent and 0.1 percent, respectively.

Petroleum stocks for all Organization for Economic Cooperation and Development members were 3,142 million barrels on March 31, 1985 (latest data available), a decrease of 33 million barrels (1.0 percent) compared with stocks held on March 31, 1984.

### Nuclear Electricity Production

In July 1985, the 20 non-Communist nations with significant nuclear power capacity generated 98.5 gross terawatthours (billion kilowatt-hours) of nuclear-based electricity. This generation represents an increase of 19.2 percent compared with July 1984 generation. The United States accounted for 36.4 gross terawatthours (37.0 percent) of total nuclear generation in July 1985.

With the addition of Fermi-2 in the United States, there were 288 operable nuclear power generating units in non-Communist countries as of July 31, 1985, with a collective gross generating capacity of 214.8 gigawatts (million kilowatts). In July 1985, the 92 operable U.S. units accounted for 81.4 gross gigawatts (37.9 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	January	R685	850	780	R1,130	255	4,950	R1,062	R9,712	R1,188	R2,716
	February	R585	850	895	R925	200	3,510	R1,062	R8,027	R984	R2,414
	March	R585	900	965	R925	170	3,910	R1,037	R8,492	R1,144	R2,213
	April	R685	950	880	R1,030	260	3,930	R1,147	R8,882	R1,358	R2,012
	May	R585	1,000	1,030	R1,130	275	4,725	R1,177	R9,922	R1,358	R2,313
	June	R685	1,000	920	R1,130	300	4,620	R1,182	R9,837	R1,358	R2,514
	July	R685	1,050	1,086	R1,130	300	5,536	R1,177	R10,964	R1,445	R2,816
	August	R685	1,100	1,181	R1,130	265	5,931	R1,187	R11,479	R1,445	R2,514
	September	R685	1,050	1,376	R1,180	310	6,026	R1,187	R11,814	R1,425	R2,716
	October	R685	1,100	1,305	R1,180	320	6,005	R1,167	R11,762	R1,474	R2,414
	November	R685	1,150	1,265	R1,180	460	5,915	R1,197	R11,852	R1,513	R2,313
	December	R685	1,050	1,075	R1,180	420	5,825	R1,197	R11,432	R1,396	R2,313
	Average	R660	1,005	1,064	R1,105	295	5,086	R1,149	R10,364	R1,343	R2,440
1984	January	650	1,100	1,080	1,100	445	5,130	1,200	10,705	1,470	2,200
	February	600	1,000	1,240	1,100	315	5,040	1,200	10,495	1,575	2,300
	March	600	1,200	1,293	1,100	440	4,843	1,205	10,681	1,560	2,400
	April	600	1,200	1,250	1,200	400	5,150	1,205	11,005	1,570	2,200
	May	650	1,200	1,200	1,200	400	5,000	1,200	10,850	1,470	1,700
	June	700	1,200	1,200	1,250	500	5,450	1,225	11,525	1,520	2,200
	July	650	1,200	1,110	1,100	430	5,010	1,090	10,590	1,390	2,400
	August	650	1,300	1,220	1,000	400	4,520	990	10,080	1,410	1,800
	September	650	1,300	1,183	1,000	480	4,133	1,110	9,856	1,400	1,900
	October	650	1,200	1,129	1,000	380	4,129	1,060	9,548	1,430	2,100
	November	650	1,300	990	1,000	280	3,990	1,060	9,270	1,350	2,400
	December	600	1,300	990	1,000	260	3,590	1,210	8,950	1,450	2,500
	Average	638	1,209	1,157	1,087	394	4,663	1,146	10,294	1,466	2,175
1985	January	600	1,300	1,110	1,000	270	3,510	1,100	8,890	1,310	1,900
	February	650	1,300	1,125	1,000	290	4,025	1,160	9,550	1,330	2,100
	March	690	1,250	1,085	1,000	315	3,835	1,215	9,390	1,300	2,200
	April	650	1,350	970	1,000	260	3,470	1,215	8,915	1,300	2,300
	May	650	1,300	940	1,100	290	2,590	1,160	8,030	1,200	2,000
	June	600	1,350	920	980	300	2,420	1,100	7,670	1,050	2,200
	July	600	1,400	940	910	320	2,740	1,155	8,065	1,300	2,200
	Average	634	1,321	1,012	999	292	3,219	1,158	8,635	1,255	2,128

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In July 1985, total production in this region amounted to approximately 280,000 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.

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>b</sup>	World
Thousand barrels per day												
1973	Average	2,054	3,366	30,989	1,800	465	2	9,208	1,090	8,465	3,655	55,674
1974	Average	2,255	2,976	30,729	1,684	571	2	8,774	1,315	9,000	3,777	55,052
1975	Average	1,783	2,346	27,155	1,439	705	12	8,375	1,490	9,625	4,079	52,080
1976	Average	2,067	2,294	30,738	1,295	831	245	8,132	1,670	10,143	4,258	57,312
1977	Average	2,085	2,238	31,298	1,320	981	768	8,245	1,874	10,682	4,517	59,685
1978	Average	1,897	2,166	29,805	1,313	1,209	1,082	8,707	2,082	11,185	4,674	60,057
1979	Average	2,302	2,356	30,928	1,496	1,461	1,568	8,552	2,122	11,460	4,948	62,535
1980	Average	2,055	2,168	26,891	1,435	1,936	1,622	8,597	2,114	11,773	5,170	59,538
1981	Average	1,433	2,102	22,646	1,285	2,313	1,811	8,572	2,012	R11,907	R5,355	R55,901
1982	Average	1,295	1,895	18,868	R1,271	2,748	2,065	8,649	2,045	R11,967	R5,639	R53,252
1983	January	880	R2,098	R16,985	R1,205	R2,983	2,135	8,697	2,085	R12,400	R6,003	R52,493
	February	675	R1,791	R14,277	R1,333	R2,298	2,315	8,758	2,110	R12,400	R6,104	R49,595
	March	905	R2,093	R15,218	R1,366	R2,418	2,265	8,700	2,110	R12,400	R6,039	R50,516
	April	1,150	R1,726	R15,524	R1,234	R2,673	2,170	8,776	2,120	R11,990	R6,200	R50,687
	May	1,625	R1,695	R17,284	R1,293	R2,798	2,235	8,631	2,120	R11,895	R6,180	R52,436
	June	1,535	R1,700	R17,345	R1,475	R2,778	2,045	8,667	2,120	R11,895	R6,280	52,605
	July	1,710	R1,705	R19,051	R1,450	R2,688	2,280	8,636	2,120	R11,895	R6,273	R54,393
	August	1,300	R1,741	R18,895	R1,392	R2,778	2,290	8,679	2,130	R11,895	R6,177	R54,236
	September	1,220	R1,736	R19,297	R1,406	R2,738	2,385	8,784	2,130	R11,895	R6,243	R54,878
	October	1,290	R1,750	R19,091	R1,362	R2,663	2,355	8,771	2,130	R11,895	R6,357	R54,624
	November	1,245	R1,781	R19,090	R1,387	R2,733	2,490	8,770	2,130	R11,895	R6,489	R54,984
	December	1,310	R1,786	R18,638	R1,372	R2,693	2,530	8,397	2,130	R11,895	R6,524	R54,179
	Average	1,241	R1,801	R17,583	R1,356	R2,689	2,291	8,688	2,120	R12,027	R6,239	R52,993
1984	January	1,365	1,840	17,980	1,365	2,670	2,525	8,868	2,200	R11,950	R6,643	R54,201
	February	1,565	1,815	18,140	1,445	2,755	2,600	8,874	2,200	R11,950	R6,629	R54,593
	March	1,560	1,815	18,416	1,475	2,710	2,480	8,672	2,200	R11,800	R6,563	R54,316
	April	1,300	1,815	18,300	1,430	2,770	2,475	8,862	2,225	R11,800	R6,649	R54,511
	May	1,300	1,840	17,570	1,415	2,800	2,439	8,955	2,225	R11,950	R6,724	R54,078
	June	1,400	1,805	18,870	1,470	2,820	2,350	8,852	2,225	R11,950	R6,834	R55,371
	July	1,200	1,860	17,860	1,515	2,845	2,470	8,885	2,305	R11,920	R6,838	R54,638
	August	1,150	1,820	16,670	1,435	2,680	2,300	8,809	2,305	R11,920	R6,846	R52,965
	September	1,400	1,850	16,826	1,330	2,705	2,435	8,993	2,335	R11,840	R6,957	R53,421
	October	1,600	1,800	16,893	1,450	2,675	2,615	8,906	2,335	R11,840	R7,118	R53,832
	November	1,600	1,725	16,760	1,460	2,745	2,605	8,979	2,335	R11,800	R7,170	R53,854
	December	1,600	1,770	16,685	1,445	2,830	2,645	8,897	2,335	R11,800	R7,211	R53,848
	Average	1,419	1,813	R17,576	1,436	2,750	2,495	8,879	2,269	R11,878	R6,847	R54,130
1985	January	1,400	1,670	15,580	1,450	2,635	2,780	8,929	2,390	11,700	7,214	52,678
	February	1,690	1,680	16,770	1,450	2,685	2,650	8,928	2,390	11,700	7,253	53,826
	March	1,700	1,670	16,690	1,500	2,810	2,600	8,927	2,390	11,700	7,327	53,944
	April	1,600	1,670	16,215	1,465	2,825	2,635	8,842	2,390	11,700	7,404	53,476
	May	1,450	1,670	14,780	1,475	2,790	2,545	8,969	2,400	11,750	7,373	52,082
	June	1,100	1,670	14,090	R1,450	2,555	2,450	8,965	2,400	11,750	R7,246	R50,906
	July	1,000	1,670	14,665	1,450	2,620	2,550	8,904	2,450	11,750	7,236	51,625
	Average	1,417	1,671	15,528	1,463	2,703	2,601	8,924	2,402	11,722	7,294	52,636

Footnotes continued.

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

R=Revised data.

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

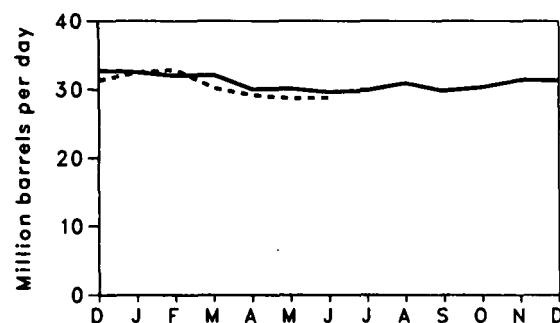
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • See the last page of this section.

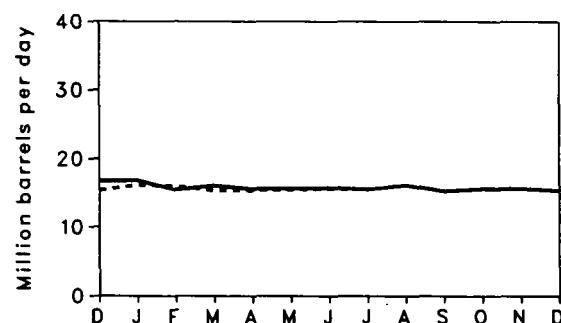
## International

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

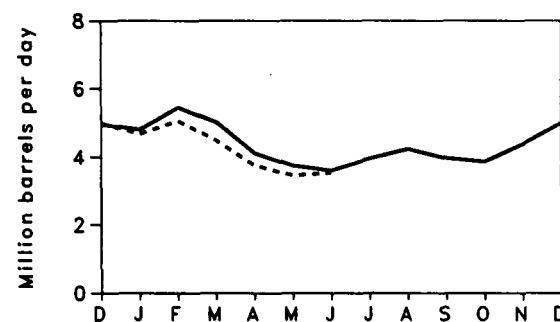
Total IEA



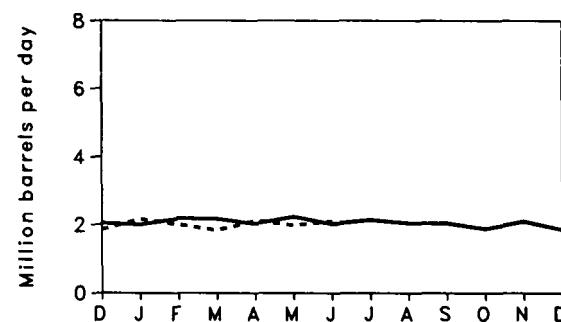
United States



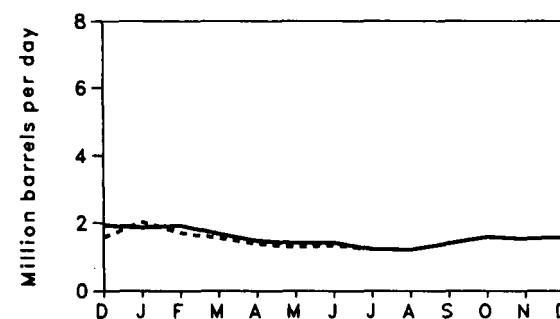
Japan



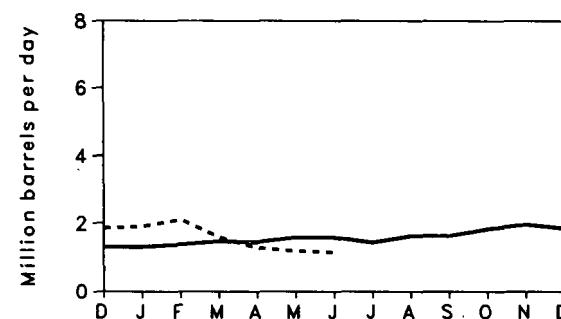
West Germany



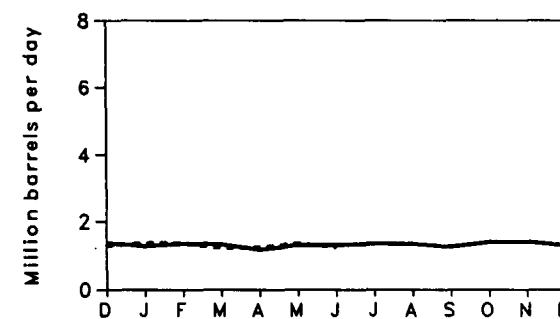
France



United Kingdom



Canada



Italy



— 1984    - - - 1985

## International

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

		Canada	France <sup>2</sup>	Italy <sup>3</sup>	Japan <sup>4</sup>	United Kingdom	United States	West Germany	Other IEA <sup>5</sup>	Total IEA <sup>6</sup>
Thousand barrels per day										
1973	Average	1,597	2,219	1,525	5,000	1,958	17,308	2,693	4,069	34,150
1974	Average	1,630	2,094	1,521	4,872	1,829	16,653	2,408	4,047	32,960
1975	Average	1,595	1,925	1,468	4,568	1,633	16,322	2,319	3,905	31,810
1976	Average	1,647	2,075	1,503	4,786	1,601	17,461	2,507	4,265	33,770
1977	Average	1,661	1,973	1,476	5,015	1,655	18,431	2,478	4,214	34,930
1978	Average	1,701	2,077	1,551	5,115	1,683	18,847	2,596	4,387	35,880
1979	Average	1,766	2,107	1,607	5,173	1,690	18,513	2,664	4,487	35,900
1980	Average	1,730	1,965	1,602	4,680	1,420	17,056	2,360	4,152	33,000
1981	Average	1,615	1,745	1,705	4,445	1,325	16,058	2,120	4,032	31,300
1982	Average	1,450	1,645	1,614	4,196	1,337	15,296	2,045	3,962	29,900
1983	January	1,260	1,685	1,675	4,410	1,260	14,722	1,875	3,998	29,200
	February	1,430	1,985	1,865	4,950	1,415	14,792	2,060	4,288	30,800
	March	1,305	1,685	1,605	4,625	1,430	15,541	2,180	4,314	31,000
	April	1,190	1,785	1,415	3,850	1,300	14,692	1,940	3,913	28,300
	May	1,320	1,500	1,470	3,460	1,230	14,505	2,010	3,805	27,800
	June	1,360	1,405	1,475	4,040	1,255	15,289	2,060	4,121	29,600
	July	1,265	1,210	1,365	3,745	1,160	15,019	1,785	3,861	28,200
	August	1,440	1,350	1,315	3,990	1,220	15,480	1,920	4,035	29,400
	September	1,380	1,415	1,590	4,040	1,300	15,506	2,040	4,144	30,000
	October	1,360	1,495	1,625	3,900	1,280	14,962	2,090	4,083	29,300
	November	1,460	1,800	1,840	4,290	1,340	15,500	2,055	4,215	30,700
	December	1,400	1,930	1,880	4,960	1,300	16,726	2,050	4,484	32,800
	Average	1,345	1,600	1,590	4,185	1,290	15,231	2,005	4,054	29,700
1984	January	1,300	1,860	1,800	4,800	1,310	16,801	2,000	4,489	32,500
	February	1,370	1,915	1,750	5,450	1,380	15,437	2,180	4,433	32,000
	March	1,350	1,680	1,660	5,020	1,470	16,050	2,170	4,380	32,100
	April	1,200	1,475	1,550	4,110	1,450	15,568	2,030	4,092	30,000
	May	1,329	1,410	1,435	3,740	1,590	15,620	2,230	4,156	30,100
	June	1,330	1,420	1,295	3,590	1,585	15,709	2,020	4,071	29,600
	July	1,370	1,225	1,350	3,950	1,440	15,498	2,140	4,152	29,900
	August	1,365	1,210	1,270	4,230	1,630	16,116	2,050	4,239	30,900
	September	1,280	1,400	1,525	3,960	1,635	15,247	2,040	4,113	29,800
	October	1,415	1,590	1,500	3,860	1,830	15,616	1,880	4,199	30,300
	November	1,420	1,530	1,560	4,375	1,965	15,627	2,095	4,358	31,400
	December	1,320	1,580	1,560	4,995	1,855	15,375	1,855	4,340	31,300
	Average	1,338	1,523	1,520	4,338	1,595	15,726	2,057	4,226	30,800
1985	January	1,390	2,025	1,765	4,670	1,905	16,142	2,165	4,463	32,500
	February	1,390	1,710	1,810	5,060	2,110	15,975	2,005	4,550	32,900
	March	1,245	1,560	1,575	4,480	1,600	15,321	1,840	4,139	30,200
	April	1,270	1,390	1,370	3,755	1,280	15,345	2,110	4,070	29,200
	May	1,380	1,290	1,255	3,450	1,190	15,460	1,985	3,980	28,700
	June	1,270	R1,340	R1,205	3,525	1,150	15,551	2,105	3,994	28,800
	July	NA	1,230	1,260	NA	NA	15,517	NA	NA	NA
	Average <sup>7</sup>	1,324	1,505	1,460	4,147	1,533	15,612	2,035	4,195	30,357

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

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

<sup>3</sup>Principal products only prior to 1981.

<sup>4</sup>Excludes liquefied petroleum gases and condensate.

<sup>5</sup>Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.

<sup>6</sup>The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.

<sup>7</sup>Average of available data.

R=Revised data. NA=Not available.

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

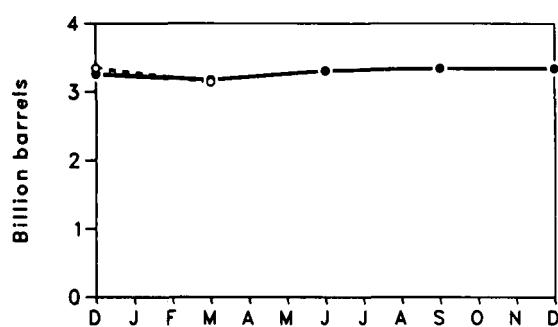
• Data for 1983 through 1985 are preliminary.

Sources: • See the last page of this section.

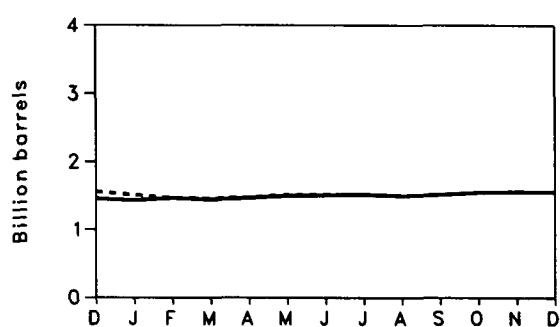
## International

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

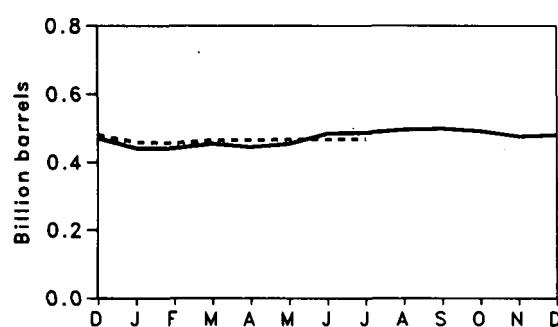
Total OECD



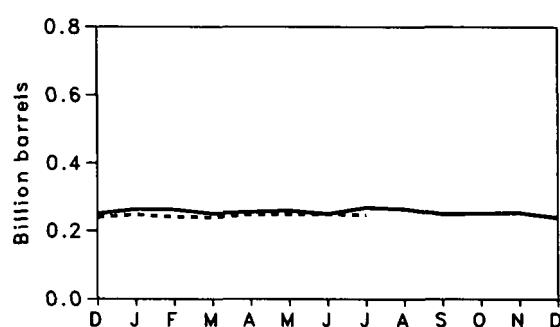
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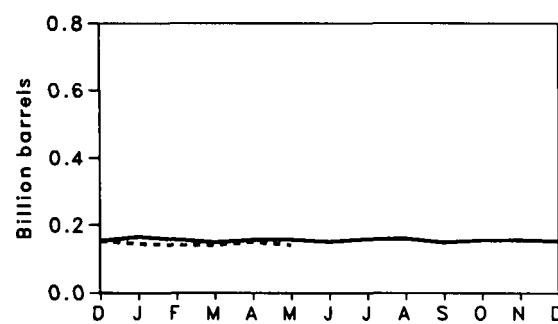
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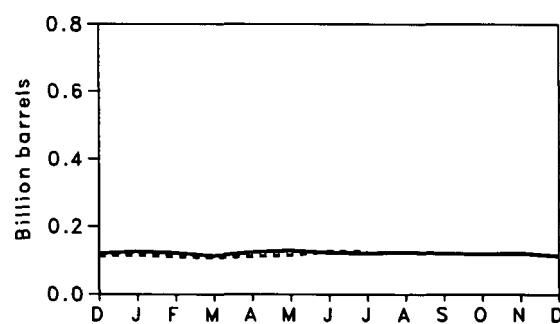
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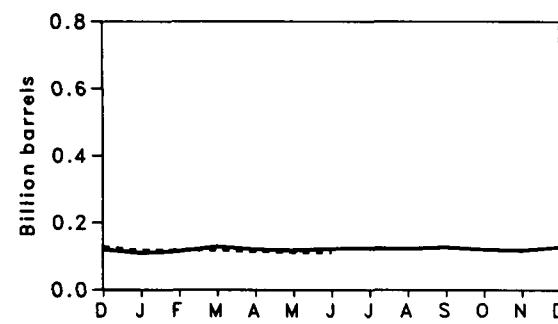
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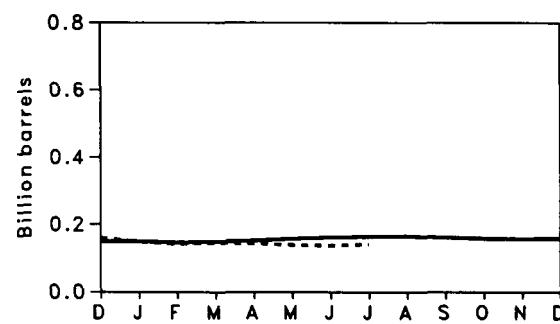
United Kingdom



Canada



Italy



•—• 1984      ◦---◦ 1985

## International

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

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD <sup>2</sup>	Total OECD <sup>3</sup>
Million barrels										
1973	Year	149	203	NA	303	156	1,008	NA	NA	NA
1974	Year	164	240	169	370	161	1,074	215	NA	NA
1975	Year	167	239	143	375	164	1,133	190	NA	NA
1976	Year	156	231	142	394	165	1,112	214	NA	NA
1977	Year	167	239	161	409	148	1,312	225	524	3,185
1978	Year	144	201	154	413	157	1,278	238	512	3,097
1979	Year	150	226	163	460	169	1,341	272	594	3,375
1980	Year	164	243	170	495	168	1,392	319	636	3,587
1981	Year	161	214	167	482	143	1,484	297	583	3,531
1982	Year	136	193	179	468	125	1,430	272	557	3,360
1983	January	136	206	170	473	125	1,452	274	NA	NA
	February	133	187	163	450	121	1,430	274	NA	NA
	March	135	162	155	456	120	1,372	262	539	3,201
	April	123	158	151	422	120	1,374	255	NA	NA
	May	125	164	152	437	123	1,394	274	NA	NA
	June	113	158	159	460	116	1,405	261	531	3,203
	July	110	174	151	436	119	1,426	270	NA	NA
	August	110	183	161	433	121	1,460	274	NA	NA
	September	125	165	160	452	125	1,485	263	549	3,324
	October	111	170	157	441	129	1,508	267	NA	NA
	November	105	162	150	440	124	1,510	267	NA	NA
	December	120	153	149	471	119	1,454	250	542	3,258
1984	January	109	165	149	441	125	1,429	264	NA	NA
	February	114	157	146	441	121	1,463	263	NA	NA
	March	128	149	148	454	112	1,444	251	489	3,175
	April	120	156	151	444	123	1,462	256	NA	NA
	May	117	157	157	454	128	1,496	260	NA	NA
	June	122	151	161	484	122	1,503	250	518	3,311
	July	123	159	163	486	120	1,513	269	NA	NA
	August	122	160	165	495	123	1,498	265	NA	NA
	September	126	149	161	498	119	1,513	250	532	3,348
	October	120	155	158	491	118	1,544	252	NA	NA
	November	117	156	157	476	120	1,556	254	NA	NA
	December	127	153	159	480	112	1,556	240	520	3,347
1985	January	117	145	149	459	115	1,510	248	NA	NA
	February	118	141	142	456	110	1,467	242	NA	NA
	March	118	140	145	465	107	1,459	240	468	3,142
	April	115	150	143	465	110	1,474	248	NA	NA
	May	112	141	139	467	115	1,508	249	NA	NA
	June	112	NA	137	467	125	1,510	250	NA	NA
	July	NA	NA	141	468	125	1,515	247	NA	NA

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

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

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

NA=Not available.

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

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

• 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: • See the last page of this section.

# 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											
1973 Total	0	0	0	18.3	0	11.6	1.9	3.1	9.4	1.1	0.5
1974 Total	1.0	0.1	0	15.4	0	14.7	2.5	3.4	18.1	3.3	0.6
1975 Total	2.5	6.8	0	13.2	0	18.3	2.5	3.8	22.2	3.3	0.5
1976 Total	2.6	10.0	0	18.0	0	15.8	3.2	3.8	36.7	3.9	0.5
1977 Total	1.6	11.9	0	26.8	2.7	17.9	2.8	3.4	28.1	3.7	0.3
1978 Total	2.9	12.5	0	32.9	3.3	30.5	2.3	4.4	53.2	4.1	0.2
1979 Total	2.7	11.4	0	38.4	6.7	39.9	3.2	2.6	62.0	3.5	(s)
1980 Total	2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2	0.1
1981 Total	2.8	12.8	0	43.3	14.5	105.2	3.1	2.7	86.0	3.7	0.2
1982 Total	1.9	15.6	0.1	42.6	16.5	108.9	2.2	6.8	104.5	3.9	0.1
1983 January	0.2	1.9	0	4.3	1.7	13.8	0.2	0.2	8.0	0.4	(s)
February	0.2	1.4	0	4.5	1.5	10.9	0.1	0.1	6.8	(s)	(s)
March	0.2	0.7	(s)	4.6	1.6	11.3	0.2	0.1	7.9	(s)	(s)
April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2	(s)
May	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3	(s)
June	0.3	2.5	0	4.4	1.0	9.3	0.3	0.7	9.1	0.4	(s)
July	0.3	2.5	0	4.8	1.3	11.0	0.2	0.7	9.6	0.4	0
August	0.3	2.4	0	3.8	1.6	12.1	0.3	0.5	10.5	0.4	(s)
September	0.5	2.2	0	4.4	1.5	12.4	0.3	0.6	10.1	0.4	(s)
October	0.3	2.2	0	4.7	1.4	13.0	0.3	0.6	10.3	0.4	(s)
November	0.4	2.0	(s)	4.3	1.5	13.4	0.2	0.7	9.1	0.4	(s)
December	0.4	2.1	0.1	5.0	1.7	16.8	0.3	0.7	10.1	0.4	(s)
Total	3.4	24.1	0.2	53.0	17.4	144.2	2.9	5.8	109.1	3.6	0.2
1984 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	0.4	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	0.0	3.7	1.3	13.1	0.4	0.3	9.9	0.4	(s)
July	0.4	2.4	0.0	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	0	2.6	0.4	4.7	1.7	17.8	0.3	0.8	R11.9	0.4	(s)
December	0.1	2.6	0.4	5.1	1.7	20.9	0.2	0.8	R12.8	0.4	(s)
Total	4.5	27.7	2.0	54.0	18.5	191.2	4.1	6.9	R126.9	3.7	0.3
1985 January	0.2	2.5	0.4	5.7	1.7	21.9	0.2	0.8	R12.2	0.4	(s)
February	0.4	1.7	0.3	5.0	1.6	19.2	0.2	0.7	R10.5	0.3	(s)
March	0.5	2.0	0.3	5.9	1.8	20.6	0.4	0.8	R11.8	0.2	0.0
April	0.4	2.2	0.1	5.2	1.6	17.7	0.6	0.7	R11.4	(s)	0.0
May	0.4	2.8	0.2	2.4	1.2	15.9	0.5	0.7	R12.6	0.2	0.0
June	0.4	2.7	0.4	4.2	1.2	13.6	0.4	0.6	R12.0	0.4	(s)
July	0.5	2.2	0.3	5.7	1.4	16.1	0.4	0.6	11.9	0.4	0.1
Year to Date	2.8	18.0	2.0	34.1	10.5	125.0	2.8	5.0	82.3	2.0	0.1

<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.

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	United Taiwan	West Kingdom <sup>2</sup>	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	28.0	11.9	100.7	88.0	188.7
1974	Total	0	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
1975	Total	0	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.7	334.4
1976	Total	0	0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.8	389.1
1977	Total	0	0.1	6.5	19.9	8.1	0.1	38.1	35.8	207.8	263.3	471.0
1978	Total	0	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
1979	Total	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	354.4	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	January	0	0.5	1.0	4.2	1.5	1.5	4.3	6.5	50.0	27.4	77.4
	February	0	0.4	0.9	3.7	1.4	0.8	4.3	5.6	42.7	23.8	66.6
	March	0	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	25.0	71.7
	April	0	0.4	0.8	3.3	1.5	1.7	4.3	4.0	43.1	23.4	66.5
	May	0	0.2	0.4	2.4	1.2	2.0	3.4	2.9	40.6	23.9	64.5
	June	0	0.7	0.6	2.4	0.5	2.0	3.9	4.2	42.4	25.7	67.8
	July	0	0.7	0.6	1.6	1.2	1.6	3.4	5.1	44.9	27.3	72.2
	August	0	1.1	1.0	2.7	1.0	1.4	3.7	4.6	47.3	27.9	75.4
	September	0	1.1	1.0	3.0	1.4	1.2	4.4	6.0	50.2	26.4	76.7
	October	0	0.8	1.1	3.6	1.5	1.6	3.7	7.6	53.0	27.6	80.8
	November	0	1.2	1.1	4.5	1.4	1.6	3.9	7.1	52.8	26.6	79.3
	December	0	1.3	1.4	5.0	1.5	1.7	5.5	6.2	59.8	28.6	88.6
	Total	0	9.0	10.7	40.4	15.5	18.9	50.0	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	7.4	59.7	29.4	89.1
	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	6.4	54.5	24.7	79.2
	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	78.7
	July	0.5	0.7	2.5	2.4	1.3	2.4	3.7	6.2	53.2	29.3	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	8.2	61.0	30.3	91.2
	October	0.7	1.3	1.8	5.0	1.5	2.0	4.1	8.8	63.6	28.8	90.4
	November	0.4	1.3	1.9	4.5	1.5	1.8	4.4	9.8	66.1	R26.2	R92.3
	December	0.5	0.9	2.2	5.4	1.9	2.3	6.3	10.4	74.7	R32.0	R107.0
	Total	4.0	11.8	23.0	51.3	18.3	24.6	54.1	92.4	716.9	R343.8	R1,081.0
1985	January	0.3	1.0	2.2	5.4	2.2	2.4	5.7	10.8	75.8	R38.0	R114.0
	February	0.0	1.1	1.9	5.0	2.0	2.1	5.6	10.1	67.6	R32.4	R100.4
	March	0.0	1.4	2.8	5.6	2.2	2.5	6.6	11.7	76.6	R32.4	R109.5
	April	0.0	1.2	2.4	4.5	2.2	2.7	5.1	10.6	67.8	R28.2	R98.7
	May	0.0	1.4	2.3	3.9	1.9	2.8	4.7	9.3	62.5	R31.6	R94.9
	June	0.2	1.1	3.1	2.6	1.2	2.6	5.1	9.6	61.1	R30.6	R91.8
	July	0.7	0.9	2.2	3.1	1.3	1.8	4.1	8.4	62.1	36.4	98.5
	Year to Date	1.1	8.1	16.9	30.1	13.1	18.8	38.8	70.6	476.2	229.6	705.8

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: • See the last page of this section.

## Notes and Sources for the International Section

### Notes

1. The 21 signatory nations of the International Energy Agency (IEA) are Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Australia and Portugal joined the IEA as new members in 1979 and 1980, respectively. In an effort to maintain comparability within this time series, consumption data for these two countries have been incorporated into the IEA total for all years.
2. The members of the Organization for Economic Cooperation and Development (OECD) are Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Total OECD includes the U.S. Territories.

### Sources

- Crude Oil Production:** • 1973-1984 annual data (except the United States): Energy Information Administration (EIA), *1984 International Energy Annual*.  
• 1973-1985 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly*.  
• 1983-1985 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.  
• 1983-1985 monthly data for World: Sum of data for all countries using above sources.
- Petroleum Consumption:** • Central Intelligence Agency, "International Energy Statistical Review" (except the United States).  
• U.S. data: EIA, *Petroleum Supply Monthly*.  
• International Energy Agency totals for latest months are EIA estimates.
- Petroleum Stocks:** • U.S. data: EIA, *Petroleum Supply Monthly*.  
• Other OECD data: OECD, *Quarterly Oil Statistics*; Comite Professionnel du Petrole, *Bulletin Mensuel*.  
• Total OECD data: Sum of data for all OECD member countries using above sources.
- Nuclear Electricity Generation and Capacities:**  
• *Nucleonics Week*.

# Conversion Factors

## 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 ( $U_3O_8$ )	contains	0.769 metric tons of uranium
1 short ton ( $UF_4$ )	contains	0.613 metric tons of uranium
1 metric ton ( $UF_4$ )	contains	0.676 metric tons of uranium

### Price Indexes, 1972 = 100.0

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

‡=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 Refined 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.....	3.874
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, 1973-1978

	Units	1973	1974	1975	1976	1977	1978
<b>Coal</b>							
Production	Million Btu/short ton	23.389	23.081	22.907	22.862	22.602	22.252
Consumption	Million Btu/short ton	23.071	22.685	22.510	22.499	22.268	22.022
Non-electric utility users	Million Btu/short ton	24.919	24.823	24.777	24.890	24.721	24.512
Electric utilities	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.60	26.70	26.56	26.60	26.55	26.48
<b>Anthracite</b>							
Production	Million Btu/short ton	23.17	22.56	22.39	22.77	23.18	23.52
Consumption	Million Btu/short ton	22.71	21.95	21.74	22.15	22.69	22.97
Non-electric utility users	Million Btu/short ton	24.34	23.75	23.65	23.84	24.99	25.17
Electric utilities	Million Btu/short ton	17.92	17.20	17.06	17.53	17.24	17.10
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
<b>Bituminous coal and lignite</b>							
Production	Million Btu/short ton	23.391	23.087	22.911	22.863	22.597	22.242
Consumption	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014
Residential and commercial	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175
Electric utilities	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501
<b>Coal coke, imports and exports</b>	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
<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	5.817	5.827	5.821	5.808	5.810	5.802
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	5.897	5.884	5.858	5.856	5.834	5.839
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808
<b>Petroleum products<sup>2</sup></b>							
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382
Industrial	Million Btu/barrel	5.565	5.537	5.527	5.535	5.552	5.546
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407
Electric utilities	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251
Imports	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814
LPG consumption average <sup>3</sup>	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669
<b>Natural gas plant liquids</b>							
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925
<b>Natural gas</b>							
Production, dry	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Production, wet	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088
Consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Non-electric utility users	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016
Electric utilities	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013

### Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation <sup>4</sup> ...	Btu/kilowatthour	10,389	10,442	10,406	10,373	10,435	10,361
Nuclear power plant generation	Btu/kilowatthour	10,903	11,161	11,013	11,047	10,769	10,941
Geothermal energy power plant generation	Btu/kilowatthour	21,674	21,674	21,611	21,611	21,611	21,611
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> LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.

<sup>4</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, 1979-1985

	Units	1979	1980	1981	1982	1983	1984-1985‡
<b>Coal</b>							
Production .....	Million Btu/short ton	22.466	22.418	22.312	22.242	22.059	22.127
Consumption .....	Million Btu/short ton	22.103	21.946	21.712	21.669	21.574	21.694
Non-electric utility users.....	Million Btu/short ton	24.640	24.751	24.506	24.211	24.110	24.230
Electric utilities.....	Million Btu/short ton	21.364	21.295	21.085	21.194	21.133	21.213
Imports.....	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00
Exports .....	Million Btu/short ton	26.55	26.38	26.16	26.22	26.29	26.44
<b>Anthracite</b>							
Production .....	Million Btu/short ton	23.59	23.35	23.69	23.69	23.24	23.24
Consumption .....	Million Btu/short ton	22.70	22.16	22.10	23.00	22.41	22.54
Non-electric utility users.....	Million Btu/short ton	25.20	23.74	25.12	25.37	25.59	25.41
Electric utilities.....	Million Btu/short ton	17.45	17.65	18.17	18.16	16.52	17.28
Imports and exports .....	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40
<b>Bituminous coal and lignite</b>							
Production .....	Million Btu/short ton	22.459	22.411	22.302	22.234	22.053	22.122
Consumption .....	Million Btu/short ton	22.100	21.950	21.712	21.671	21.581	21.698
Residential and commercial.....	Million Btu/short ton	21.884	22.488	22.191	22.373	22.934	22.902
Coke plants .....	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial & transportation.....	Million Btu/short ton	22.436	22.690	22.572	22.694	22.679	22.763
Electric utilities.....	Million Btu/short ton	21.372	21.301	21.091	21.200	21.141	21.219
Imports.....	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000
Exports .....	Million Btu/short ton	26.570	26.404	26.176	26.231	26.300	26.445
<b>Coal coke, imports and exports</b> .....	Million Btu/short ton	24.80	24.80	24.80	24.80	24.80	24.80
<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	5.810	5.812	5.818	5.826	5.825	5.823
Exports .....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800
<b>Crude oil and petroleum products</b>							
Imports.....	Million Btu/barrel	5.810	5.796	5.775	5.775	5.774	5.763
Exports .....	Million Btu/barrel	5.832	5.820	5.821	5.820	5.800	5.853
<b>Petroleum products<sup>2</sup></b>							
Consumption .....	Million Btu/barrel	5.494	5.479	5.448	5.415	5.406	5.409
Residential and commercial.....	Million Btu/barrel	5.471	5.468	5.409	5.392	5.363	5.267
Industrial .....	Million Btu/barrel	5.416	5.376	5.310	5.262	5.279	5.305
Transportation.....	Million Btu/barrel	5.430	5.440	5.434	5.423	5.416	5.424
Electric utilities.....	Million Btu/barrel	6.258	6.254	6.258	6.258	6.255	6.251
Imports.....	Million Btu/barrel	5.811	5.748	5.659	5.664	5.677	5.659
Exports .....	Million Btu/barrel	5.864	5.841	5.837	5.829	5.800	5.871
LPG consumption average <sup>3</sup> .....	Million Btu/barrel	3.680	3.674	3.643	3.615	3.614	3.599
<b>Natural gas plant liquids</b>							
Production .....	Million Btu/barrel	3.955	3.914	3.930	3.872	3.839	3.960
<b>Natural gas</b>							
Production, dry.....	Btu/cubic foot	1,021	1,026	1,027	1,028	1,031	1,031
Production, wet.....	Btu/cubic foot	1,092	1,098	1,103	1,107	1,115	1,115
Consumption .....	Btu/cubic foot	1,021	1,026	1,027	1,028	1,031	1,031
Non-electric utility users.....	Btu/cubic foot	1,018	1,024	1,025	1,026	1,031	1,031
Electric utilities.....	Btu/cubic foot	1,035	1,035	1,035	1,036	1,030	1,030
Imports.....	Btu/cubic foot	1,037	1,022	1,014	1,018	1,024	1,024
Exports .....	Btu/cubic foot	1,013	1,013	1,011	1,011	1,010	1,010

### Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation <sup>4</sup> ....	Btu/kilowatthour	10,353	10,388	10,453	10,423	10,445‡	10,445
Nuclear power plant generation .....	Btu/kilowatthour	10,879	10,908	11,030	11,073	10,905‡	10,905
Geothermal energy power plant generation.....	Btu/kilowatthour	21,545	21,639	21,639	21,629‡	21,290‡	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> LPG consumption average is the annual weighted average of the LPG product supplied components: ethane, propane, butane, butane-propane mixture, ethane-propane mixture, and isobutane. It is obtained by using heat content values shown on the first page of this section.

<sup>4</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.

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

# Thermal Conversion Factor Source Documentation

## Approximate Heat Content of Refined Petroleum Products

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Thermal Conversion Factor Source Documentation (continued)

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

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

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

**Residual Fuel 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 natural gasoline (see "Natural Gasoline") and first published in the *Annual Report to Congress, Volume 2, 1981*.

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

## Approximate Heat Content of Fuels

### Coal and Coal Coke

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

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

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

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

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

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

**Bituminous Coal and Lignite, Consumption.** • 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal

## **Thermal Conversion Factor Source Documentation (continued)**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Thermal Conversion Factor Source Documentation (continued)

### Natural Gas

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

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

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

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

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

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

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

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

### Petroleum

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

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

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

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

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

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

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

## **Thermal Conversion Factor Source Documentation (continued)**

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

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

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

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

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

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

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

## **Approximate Heat Rates for Electricity**

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

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

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

means for producing electricity. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. • 1973 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

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

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

**Wind Energy (Consumed by Electric Utilities).** • 1983 forward: Assumed by EIA to be the fossil fuel steam-electric power plant factor.

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

# Glossary

## Glossary

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

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

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

**British Thermal Unit (Btu).** The amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit ( $^{\circ}$ F) at or near 39.2  $^{\circ}$ F. One Btu is equivalent to about 252 calories. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

**Butane.** A normally gaseous, colorless, paraffinic hydrocarbon ( $C_4H_{10}$ ) extracted from natural gas and refinery gas streams. Included are isobutane, a branch-chain configuration of  $(CH_3)_2CH$  with a boiling point of 10.9  $^{\circ}$ F and normal butane, a straight-chain configuration of  $C_4H_{10}$  with a boiling point of 31.1  $^{\circ}$ F. Butane is used primarily for blending into motor gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

**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.

**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  $^{\circ}$ F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

**Degree-Days, Heating.** The number of degrees per day that the daily average temperature is below 65  $^{\circ}$ 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 climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and these products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted

## Glossary (continued)

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.

**Distillate Fuel Oil.** Light fuel oils distilled during the refining process. Included are products known as No. 1, No. 2, and No. 4 fuel oils; and No. 1, No. 2, and No. 4 diesel fuels that conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

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

**Ethane.** A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon ( $C_2H_6$ ) with a boiling point of -127.48 °F extracted from natural gas and refinery gas streams. Ethane is used primarily as petrochemical feedstock for production of chemicals and plastic materials.

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

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

**Isobutane.** See "Butane."

**Landed Cost of Imported Crude Oil.** Includes the purchase price at the foreign port (or U.S. land border), transportation and insurance costs, wharfage and demurrage, brokerage fees, import fees and duties, and license (ticket) fees. Averages are based

on major importers, which account for an estimated 90 to 95 percent total crude oil imports. Coverage includes the United States and its territories.

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

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

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

**Motor Gasoline, Finished.** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Excludes blendstock until blending has been completed and excludes alcohol that is to be used in the blending of gasohol.

**Motor Gasoline, Premium Grade.** Finished motor gasoline that has an antiknock designation of 3 or more for unleaded motor gasoline and 4 or more for leaded motor gasoline.

**Motor Gasoline, Regular Grade.** Motor gasoline that has an antiknock designation of 2 or less for unleaded motor gasoline and 3 or less for leaded motor gasoline.

**Motor Gasoline, Total.** This includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the 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

## Glossary (continued)

Processors Association and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

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

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

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

**Petroleum Coke.** A residue that is the final product of the cracking process in petroleum refining. It consists of aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells, and similar products. This product is reported as marketable or catalyst coke.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 °F end-point, other oils over 400 °F end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

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

**Propane.** A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon ( $C_3H_8$ ) with a boiling point

of -43.67 °F. It is extracted from natural gas and refinery gas streams. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

**Refined Petroleum Product Supplied.** Total refined petroleum product supplied is the sum of all refined petroleum products supplied. For each product, the amount supplied is calculated by adding production, imports, and crude oil burned directly; and subtracting exports and changes in primary stocks (net withdrawals is a plus quantity and net additions is a minus quantity).

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

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

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

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

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

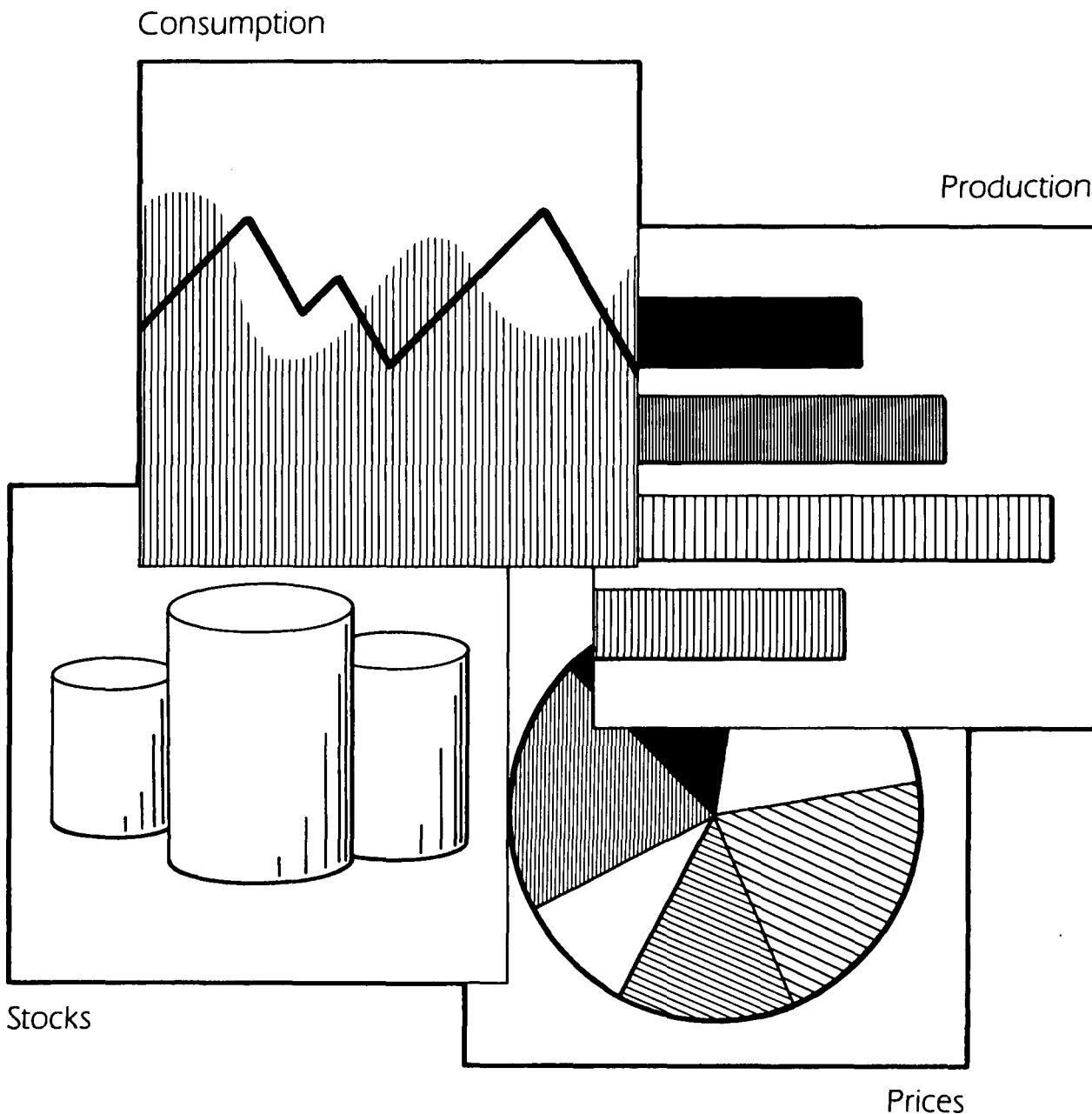
**Synthetic Natural Gas (SNG).** A product resulting from the manufacture, conversion, or reforming of hydrocarbons that may be easily substituted for, or interchanged with, pipeline-quality natural gas.

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



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