

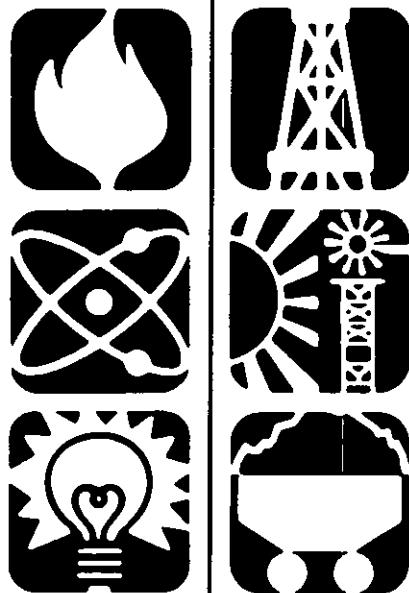
# Monthly Energy Review

December 1983 [4]

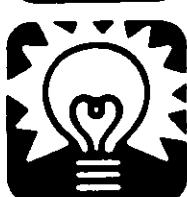
December 1983 Data  
Published March 1984

Energy Information Administration  
Washington, D.C.

1983 Annual Data and Summaries



See Special Notice Inside



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

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

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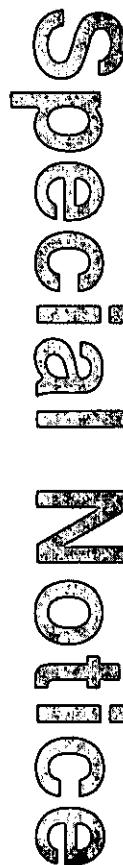
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Released for printing: March 26, 1984

## **Publications Date Change**

The Energy Information Administration (EIA) is undertaking a program to make the dates of its periodicals consistent and explicit. Beginning in January 1984, issues of all EIA periodicals will be dated according to the bulk of the data in them, NOT (as in the past) the date of publication. The data date will be displayed prominently on covers, title pages, and spines. The publication date will be less prominently displayed.

Some monthly periodicals will have to have more than one December issue (designated December 1983 [1], December 1983 [2], etc.). Once the bulk of the data in these periodicals is vintage January 1984, the periodical will be dated January 1984. In the case of the *Monthly Energy Review*, for example, there will be four "December 1983" issues; the January 1984 issue will be published in April. Other monthly periodicals will follow similar procedures.



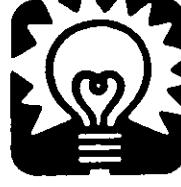
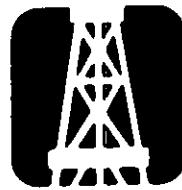
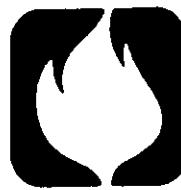


# Monthly Energy Review

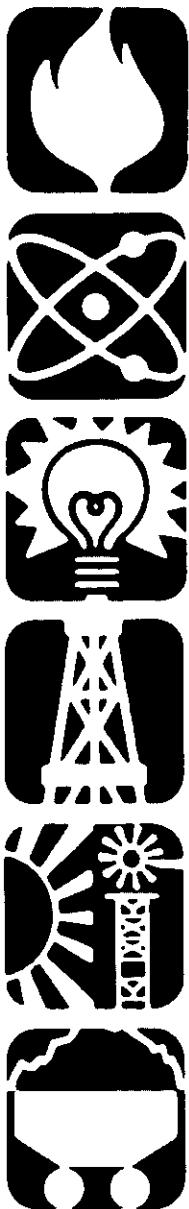
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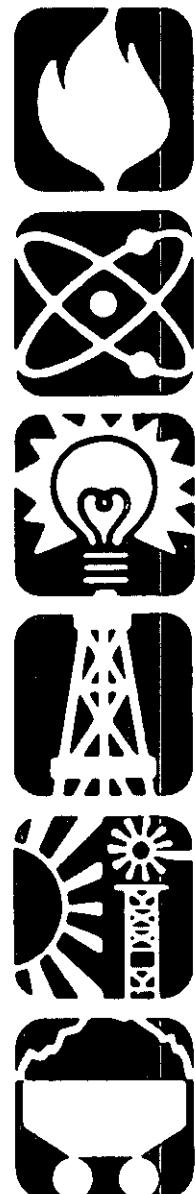
The *Monthly Energy Review* is prepared in the Statistics Branch of the Office of Energy Markets and End Use, Energy Information Administration, under the direction of Katherine E. Seiferlein (202) 252-5692.

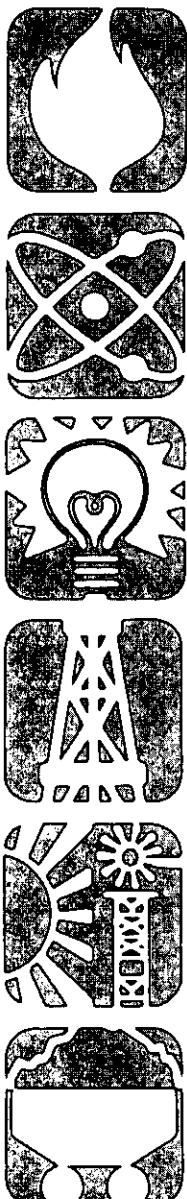
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## Articles

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

Energy Consumption .....	March 1975
Nuclear Power .....	April 1975
The Price of Crude Oil.....	June 1975
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Propane, A National Energy Resource.....	September 1975
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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

# Part I Executive Summary

## Overview

### Production

Energy production during December 1983 totaled 5.3 quadrillion Btu, a 2.5-percent\* increase compared to the level of production during December 1982. While petroleum production fell 0.5 percent, coal production increased 2.9 percent, and natural gas production was up 2.3 percent. Production of all other forms of energy combined increased 11.3 percent compared to production 1 year earlier.

### Consumption

Energy consumption during December 1983 totaled 7.2 quadrillion Btu, 13.7 percent above the level of consumption during De-

cember 1982. Natural gas consumption increased 22.4 percent, coal consumption was up 15.2 percent, and petroleum consumption increased 7.7 percent. Consumption of all other forms of energy combined increased 10.8 percent compared to consumption during December 1982.

### Net Imports

Net imports of energy during December 1983 totaled 0.7 quadrillion Btu, 15.3 percent above the level of imports during December 1982. Net imports of petroleum increased 16.1 percent, while net imports of natural gas decreased 3.8 percent. Net exports of coal were up 3.3 percent compared to the level in December 1982.

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

## Energy Summary

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

	December			Cumulative January through December				
	1983	1982	Percent Change	1983	Daily Rate	1982	Daily Rate	Percent Change <sup>1</sup>
<b>Total Production</b>	<b>5.333</b>	<b>5.202</b>	<b>+2.5</b>	<b>61.019</b>	<b>0.167</b>	<b>63.851</b>	<b>0.175</b>	<b>-4.4</b>
Petroleum <sup>2</sup>	1.732	1.741	-0.5	20.527	0.056	20.500	0.056	+0.1
Natural Gas	1.523	1.489	+2.3	16.344	0.045	18.255	0.050	-10.5
Coal	1.442	1.401	+2.9	17.286	0.047	18.603	0.051	-7.1
Other <sup>3</sup>	0.635	0.570	+11.3	6.862	0.019	6.493	0.018	+5.7
<b>Total Consumption</b>	<b>7.150</b>	<b>6.287</b>	<b>+13.7</b>	<b>70.454</b>	<b>0.193</b>	<b>70.822</b>	<b>0.194</b>	<b>-0.5</b>
Petroleum <sup>4</sup>	2.799	2.600	+7.7	29.983	0.082	30.232	0.083	-0.8
Natural Gas	2.189	1.788	+22.4	17.430	0.048	18.507	0.051	-5.8
Coal	1.501	1.303	+15.2	15.850	0.043	15.291	0.042	+3.7
Other <sup>5</sup>	0.661	0.597	+10.8	7.191	0.020	6.792	0.019	+5.9
<b>Net Imports</b>	<b>0.743</b>	<b>0.645</b>	<b>+15.3</b>	<b>8.160</b>	<b>0.022</b>	<b>7.473</b>	<b>0.020</b>	<b>+9.2</b>
Petroleum <sup>6</sup>	0.776	0.669	+16.1	8.938	0.024	9.046	0.025	-1.2
Natural Gas	0.103	0.107	-3.8	0.905	0.002	0.896	0.002	+1.0
Coal <sup>7</sup>	(0.162)	(0.157)	(+3.3)	(2.013)	(0.006)	(2.768)	(0.008)	(-27.3)
Other <sup>8</sup>	0.026	0.027	-0.6	0.329	0.001	0.299	0.001	+10.0

<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, nuclear, and geothermal power and electricity produced from wood and waste.

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

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

<sup>6</sup> Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.

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

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

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

## 1983 Year-End Summary

Annual figures for 1983 U.S. energy production and consumption declined compared to their levels in 1982. Total energy produced during 1983 was 4.4 percent\* less than the level of production in 1982. Total energy consumed was down 0.5 percent. In contrast, net imports for the year rose for the first time since 1977, increasing 9.2 percent from the level of net imports in 1982.

U.S. energy production in 1983 totaled 61.0 quadrillion Btu (167 trillion Btu per day), compared to 63.9 quadrillion Btu (175 trillion Btu per day) in 1982 (Figure 1). The decrease was attributed to declines of 10.5 and 7.1 percent in the production of natural gas and coal, respectively. The daily rate of production of petroleum (crude oil, lease condensate, and natural gas plant liquids) increased only 0.1 percent. Energy produced from hydroelectric power increased 7.3 percent and energy produced from nuclear power increased 3.3 percent in comparison to 1982 levels.

U.S. energy consumption in 1983 totaled 70.5 quadrillion Btu (193 trillion Btu per day), compared to 70.8 quadrillion (194 trillion Btu per day) in 1982 (Figure 2). Energy consumption fell each year after reaching the peak level of 216 trillion Btu per day in 1979. During 1983, consumption of natural gas dropped 5.8 percent and consumption of petroleum decreased 0.8 percent. In contrast, consumption of coal was up 3.7 percent, and consumption of all other forms of energy combined was up 5.9 percent.

U.S. net imports of energy totaled 8.2 quadrillion Btu in 1983. The rate of net imports for the year was 22 trillion Btu per day, up from 20 trillion Btu per day a year ago, but less than half of the peak rate of 49 trillion Btu per day recorded in 1977 (Figure 3). Net imports of petroleum in 1983 declined 1.2 percent compared to 1982. By comparison, net imports of petroleum in 1982 were 20.5 percent below the level for 1981, and that level was 15.4 percent below the level for 1980. Not only did the rate of decline of net imports of petroleum slow during 1983, but the level of net imports of natural gas rose 1.0 percent and the level of net exports of coal decreased 27.3 percent compared to the levels of 1982. All three factors contributed to the first annual increase in net imports of energy since 1977.

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

Figure 1. U.S. Energy Production

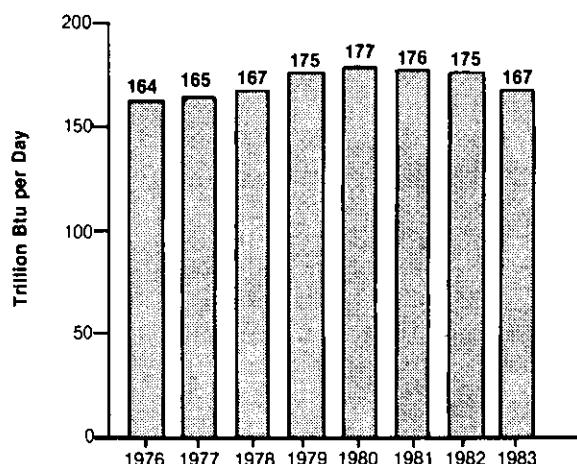


Figure 2. U.S. Energy Consumption

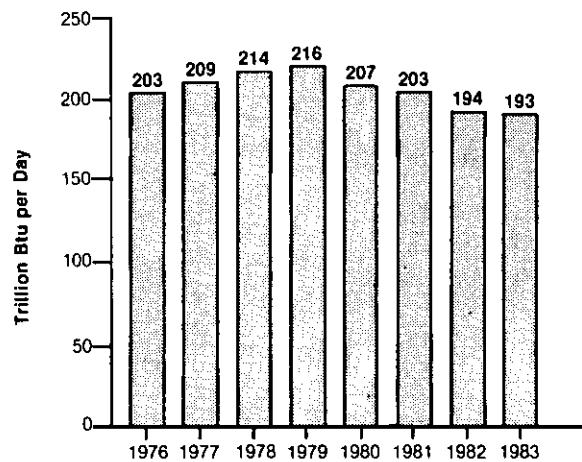
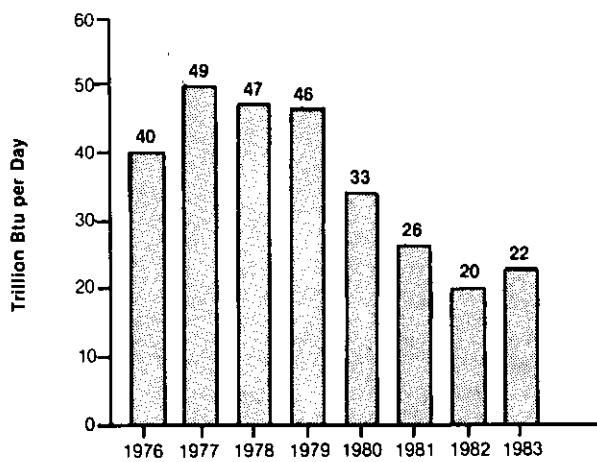


Figure 3. U.S. Energy Imports (Net)



# Executive Summary

## Production of Energy by Source—Quarterly Summary

		Crude Oil <sup>1</sup>	Natural Gas (Dry) <sup>2</sup>	Hydro- electric Power <sup>3</sup>	Nuclear Electric Power	Other <sup>4</sup>	Total Energy Produced		
Quadrillion (10 <sup>12</sup> ) Btu									
1973	TOTAL	R13.926	19.493	2.569	22.187	2.861	0.910	0.046	R61.993
1974	TOTAL	R14.010	18.575	2.471	21.210	3.177	1.272	0.056	R60.770
1975	TOTAL	R14.931	17.729	2.374	19.640	3.155	1.900	0.072	R59.801
1976	1st Qtr	R3.856	4.345	0.582	4.991	0.809	0.491	0.021	R15.095
	2nd Qtr	R4.077	4.275	0.578	4.821	0.789	0.427	0.019	R14.986
	3rd Qtr	R3.660	4.338	0.582	4.761	0.736	0.589	0.021	R14.687
	4th Qtr	R4.057	4.305	0.585	4.907	0.642	0.603	0.019	R15.118
	TOTAL	R15.649	17.262	2.327	19.480	2.976	2.111	0.081	R59.886
1977	1st Qtr	R3.643	4.188	0.571	5.046	0.589	0.672	0.021	R14.730
	2nd Qtr	R4.220	4.279	0.586	4.869	0.577	0.667	0.020	R15.218
	3rd Qtr	R4.009	4.426	0.579	4.804	0.528	0.691	0.020	R15.058
	4th Qtr	R3.807	4.560	0.592	4.847	0.639	0.671	0.021	R15.136
	TOTAL	R15.679	17.454	2.327	19.565	2.333	2.702	0.082	R60.142
1978	1st Qtr	R1.948	4.431	0.555	5.014	0.753	0.767	0.019	R13.488
	2nd Qtr	R4.401	4.658	0.563	4.834	0.829	0.658	0.013	R15.957
	3rd Qtr	R3.987	4.680	0.561	4.807	0.710	0.796	0.018	R15.560
	4th Qtr	R4.520	4.664	0.567	4.830	0.644	0.802	0.018	R16.045
	TOTAL	R14.856	18.434	2.245	19.485	2.937	3.024	0.068	R61.049
1979	1st Qtr	R4.015	4.455	0.550	5.084	0.756	R0.849	0.020	R15.729
	2nd Qtr	R4.569	4.502	0.570	4.953	0.831	R0.539	0.021	R15.984
	3rd Qtr	R4.248	4.524	0.571	4.889	0.660	R0.727	0.023	R15.641
	4th Qtr	R4.652	4.623	0.595	5.151	0.684	R0.661	0.025	R16.391
	TOTAL	R17.483	18.104	2.286	20.076	2.931	R2.776	0.089	R63.744
1980	1st Qtr	R4.606	4.588	0.578	R5.287	0.746	0.644	0.024	R16.473
	2nd Qtr	R4.739	4.552	0.571	R4.885	0.864	0.605	0.028	R16.244
	3rd Qtr	R4.437	4.549	0.547	R4.706	0.666	0.752	0.031	R15.688
	4th Qtr	R4.762	4.559	0.558	R5.029	0.624	0.738	0.032	R16.302
	TOTAL	R18.544	18.249	2.254	R19.907	2.900	2.739	0.114	R64.708
1981	1st Qtr	R4.787	4.481	0.581	R4.995	R0.678	R0.743	0.033	R16.298
	2nd Qtr	R3.025	4.519	0.570	R4.942	R0.754	R0.679	0.031	R14.519
	3rd Qtr	R5.220	4.569	0.575	R4.881	R0.683	R0.821	0.033	R16.782
	4th Qtr	R5.300	4.577	0.581	R4.880	R0.644	R0.765	0.030	R16.777
	TOTAL	R18.331	18.146	2.307	R19.699	R2.758	R3.008	0.127	R64.376
1982	1st Qtr	R4.933	4.502	R0.547	R4.916	R0.883	R0.756	0.023	R16.560
	2nd Qtr	R4.804	4.561	R0.537	R4.572	R0.888	R0.743	0.025	R16.128
	3rd Qtr	R4.470	4.623	R0.541	R4.385	R0.752	R0.835	0.030	R15.637
	4th Qtr	R4.396	4.624	R0.566	R4.382	R0.748	R0.781	0.030	R15.527
	TOTAL	R18.603	18.309	R2.191	R18.255	R3.271	R3.115	0.108	R63.851
1983	1st Qtr	R4.207	4.519	R0.555	R4.186	R0.925	R0.784	0.028	R15.206
	2nd Qtr	R4.095	4.582	R0.527	R3.826	R0.972	R0.755	0.026	R14.783
	3rd Qtr	R4.364	4.618	R0.556	R4.010	R0.799	R0.837	0.042	R15.226
	4th Qtr	4.619	4.605	0.565	4.322	0.814	0.840	0.039	15.804
	TOTAL	17.286	18.324	2.202	16.344	3.510	3.217	0.135	61.019

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

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

R=Revised data.

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

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

• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at electric utilities.

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

# Executive Summary

## Consumption of Energy by Source—Quarterly Summary

		Coal <sup>1</sup>	Natural Gas (Dry)	Petroleum	Hydro-electric Power <sup>2</sup>	Nuclear Electric Power	Net Imports of Coal Coke <sup>3</sup>	Other <sup>4</sup>	Total Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu									
1973	TOTAL	R12.903	22.512	34.840	3.010	0.910	(0.008)	0.046	R74.212
1974	TOTAL	R12.598	21.732	33.455	3.309	1.272	0.059	0.056	R72.479
1975	TOTAL	R12.601	19.948	32.731	3.219	1.900	0.014	0.072	R70.485
1976	1st Qtr	R3.352	6.069	8.929	0.831	0.491	(0.005)	0.021	R19.689
	2nd Qtr	R3.198	4.363	8.257	0.812	0.427	(0.007)	0.019	R17.068
	3rd Qtr	R3.417	4.071	8.453	0.759	0.589	0.002	0.021	R17.312
	4th Qtr	R3.553	5.843	9.536	0.664	0.603	0.010	0.019	R20.228
	TOTAL	R13.519	20.345	35.175	3.066	2.111	0.000	0.081	R74.297
1977	1st Qtr	R3.499	6.063	9.772	0.634	0.672	(0.004)	0.021	R20.657
	2nd Qtr	R3.289	4.238	8.800	0.623	0.667	(0.002)	0.020	R17.636
	3rd Qtr	R3.604	4.202	9.019	0.574	0.691	0.010	0.020	R18.121
	4th Qtr	R3.456	5.428	9.531	0.684	0.671	0.011	0.021	R19.801
	TOTAL	R13.848	19.931	37.122	2.515	2.702	0.015	0.082	R76.215
1978	1st Qtr	R3.138	6.561	9.971	0.804	0.767	0.008	0.019	R21.268
	2nd Qtr	R3.256	4.247	9.081	0.880	0.658	0.047	0.013	R18.182
	3rd Qtr	R3.712	3.926	9.178	0.762	0.796	0.040	0.018	R18.433
	4th Qtr	R3.604	5.265	9.735	0.696	0.802	0.037	0.018	R20.157
	TOTAL	R13.710	20.000	37.965	3.141	3.024	0.131	0.068	R78.039
1979	1st Qtr	R3.755	6.648	10.072	0.808	R0.849	0.009	0.020	R22.160
	2nd Qtr	R3.559	4.423	8.837	0.883	R0.539	0.026	0.021	R18.288
	3rd Qtr	R3.861	4.085	8.879	0.713	R0.727	0.025	0.023	R18.313
	4th Qtr	R3.809	5.510	9.337	0.737	R0.661	0.005	0.025	R20.084
	TOTAL	R14.983	20.666	37.123	3.141	R2.776	0.066	0.089	R78.845
1980	1st Qtr	R3.982	6.606	9.143	0.800	0.644	(0.001)	0.024	R21.199
	2nd Qtr	R3.534	4.255	8.177	0.919	0.605	(0.015)	0.028	R17.504
	3rd Qtr	R4.007	3.977	8.123	0.721	0.752	(0.012)	0.031	R17.598
	4th Qtr	R3.849	5.553	8.759	0.678	0.738	(0.010)	0.032	R19.599
	TOTAL	R15.373	20.391	34.202	3.118	2.739	(0.037)	0.114	R75.900
1981	1st Qtr	R4.056	6.237	8.391	R0.763	R0.743	(0.004)	0.033	R20.219
	2nd Qtr	R3.666	4.337	7.732	R0.841	R0.679	(0.006)	0.031	R17.280
	3rd Qtr	R4.178	3.997	7.785	R0.770	R0.821	(0.001)	0.033	R17.583
	4th Qtr	R3.959	5.355	8.023	R0.731	R0.765	(0.006)	0.030	R18.858
	TOTAL	R15.860	19.926	31.931	R3.105	R3.008	(0.017)	0.127	R73.940
1982	1st Qtr	R4.038	R6.396	R7.745	R0.962	R0.756	(0.004)	0.023	R19.916
	2nd Qtr	R3.549	R3.841	R7.535	R0.968	R0.743	(0.007)	0.025	R16.653
	3rd Qtr	R3.982	R3.532	R7.419	R0.833	R0.835	(0.008)	0.030	R16.624
	4th Qtr	R3.722	R4.738	R7.532	R0.829	R0.781	(0.004)	0.030	R17.629
	TOTAL	R15.291	R18.507	R30.232	R3.592	R3.115	(0.023)	0.108	R70.822
1983	1st Qtr	R3.730	R5.373	R7.311	R1.011	R0.784	(0.003)	0.028	R18.234
	2nd Qtr	R3.564	R3.639	R7.269	R1.058	R0.755	(0.005)	0.026	R16.306
	3rd Qtr	R4.453	R3.395	R7.577	R0.886	R0.837	(0.003)	0.042	R17.186
	4th Qtr	4.104	5.022	7.827	0.901	0.840	(0.005)	0.039	18.728
	TOTAL	15.850	17.430	29.983	3.856	3.217	(0.016)	0.135	70.454

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

R=Revised data.

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

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

• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at electric utilities.

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

# Executive Summary

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

		Coal <sup>2</sup>	Crude Oil <sup>3</sup>	Refined Petroleum Products <sup>4</sup>	Natural Gas (Dry)	Electricity	Coal Coke	Total Net Imports
Quadrillion (10 <sup>12</sup> ) Btu								
1973	TOTAL	R(1.422)	6.883	6.097	0.981	0.148	(0.008)	R12.679
1974	TOTAL	R(1.568)	7.389	5.273	0.907	0.133	0.059	R12.192
1975	TOTAL	R(1.738)	8.708	3.800	0.904	0.064	0.014	R11.753
1976	1st Qtr	R(0.281)	2.389	1.088	0.237	0.022	(0.005)	R3.450
	2nd Qtr	R(0.475)	2.656	0.855	0.234	0.022	(0.007)	R3.285
	3rd Qtr	R(0.392)	3.064	0.980	0.211	0.022	0.002	R3.888
	4th Qtr	R(0.419)	3.112	1.059	0.240	0.022	0.010	R4.025
	TOTAL	R(1.587)	11.221	3.982	0.922	0.089	0.000	R14.648
1977	1st Qtr	R(0.227)	3.403	1.432	0.274	0.045	(0.004)	R4.924
	2nd Qtr	R(0.455)	3.628	0.881	0.241	0.045	(0.002)	R4.339
	3rd Qtr	R(0.380)	3.513	1.043	0.213	0.046	0.010	R4.445
	4th Qtr	R(0.339)	3.377	0.965	0.253	0.046	0.011	R4.311
	TOTAL	R(1.401)	13.921	4.321	0.981	0.182	0.015	R18.019
1978	1st Qtr	R(0.036)	3.138	1.112	0.241	0.050	0.008	4.512
	2nd Qtr	R(0.306)	3.063	0.891	0.214	0.051	0.047	R3.961
	3rd Qtr	R(0.264)	3.422	0.942	0.209	0.052	0.040	R4.401
	4th Qtr	R(0.398)	3.502	0.987	0.276	0.052	0.037	R4.455
	TOTAL	R(1.004)	13.125	3.932	0.941	0.204	0.131	R17.329
1979	1st Qtr	R(0.277)	3.311	1.051	0.307	0.052	0.009	R4.454
	2nd Qtr	R(0.452)	3.252	0.787	0.307	0.052	0.026	R3.973
	3rd Qtr	R(0.455)	3.417	0.826	0.295	0.053	0.025	R4.161
	4th Qtr	R(0.517)	3.348	0.939	0.333	0.053	0.005	R4.161
	TOTAL	R(1.702)	13.328	3.603	1.243	0.211	0.066	R16.748
1980	1st Qtr	(0.363)	3.021	0.902	0.326	0.054	(0.001)	3.940
	2nd Qtr	(0.652)	2.696	0.625	0.203	0.054	(0.015)	R2.912
	3rd Qtr	(0.678)	2.446	0.626	0.174	0.055	(0.012)	2.611
	4th Qtr	(0.698)	2.423	0.760	0.254	0.055	(0.010)	2.783
	TOTAL	R(2.391)	10.586	2.912	0.957	0.217	(0.037)	12.246
1981	1st Qtr	(0.578)	2.368	0.729	0.244	R0.086	(0.004)	R2.846
	2nd Qtr	(0.529)	2.127	0.552	0.185	R0.087	(0.006)	R2.415
	3rd Qtr	(0.883)	2.239	0.628	0.184	R0.088	(0.001)	R2.254
	4th Qtr	(0.929)	2.119	0.613	0.242	R0.088	(0.006)	R2.128
	TOTAL	(2.918)	8.854	2.522	0.855	R0.347	(0.017)	R9.643
1982	1st Qtr	R(0.668)	R1.524	R0.569	R0.257	R0.079	(0.004)	R1.757
	2nd Qtr	R(0.826)	R1.672	R0.466	0.190	R0.080	(0.007)	R1.575
	3rd Qtr	R(0.655)	R1.970	R0.536	0.181	R0.081	(0.008)	R2.106
	4th Qtr	R(0.619)	R1.751	R0.557	R0.268	R0.081	(0.004)	R2.034
	TOTAL	R(2.768)	R6.917	R2.128	R0.896	R0.322	(0.023)	R7.473
1983	1st Qtr	R(0.392)	R1.208	R0.358	R0.303	R0.085	(0.003)	R1.560
	2nd Qtr	R(0.525)	R1.656	R0.516	0.192	R0.086	(0.005)	R1.920
	3rd Qtr	R(0.572)	R2.102	R0.710	R0.168	R0.087	(0.003)	R2.492
	4th Qtr	(0.524)	1.707	0.682	0.241	0.087	(0.005)	2.188
	TOTAL	(2.013)	6.673	2.266	0.905	0.346	(0.016)	8.160

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

R=Revised data.

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

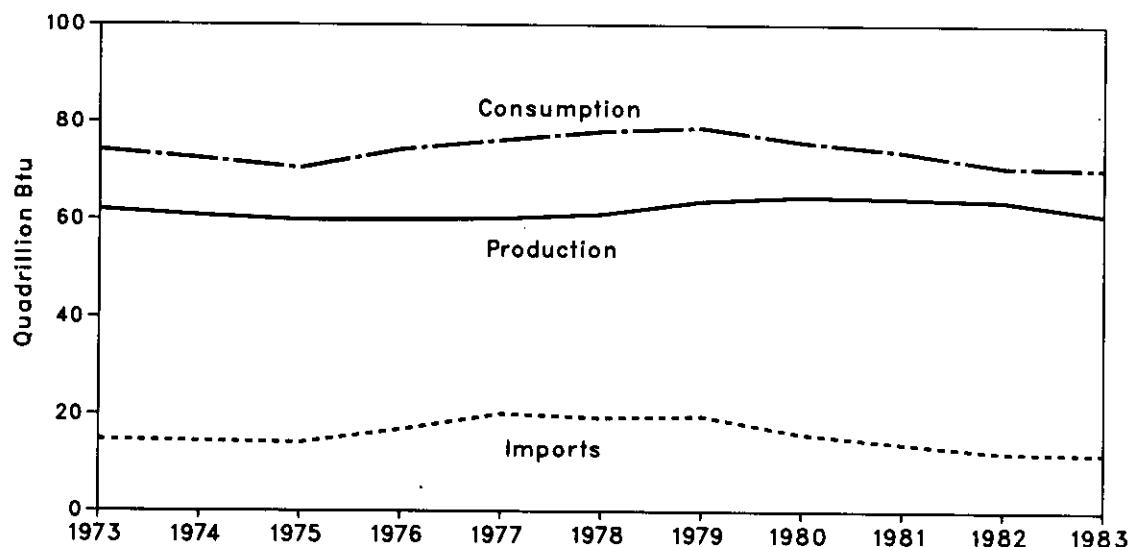
• Totals may not equal sum of components due to independent rounding.

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

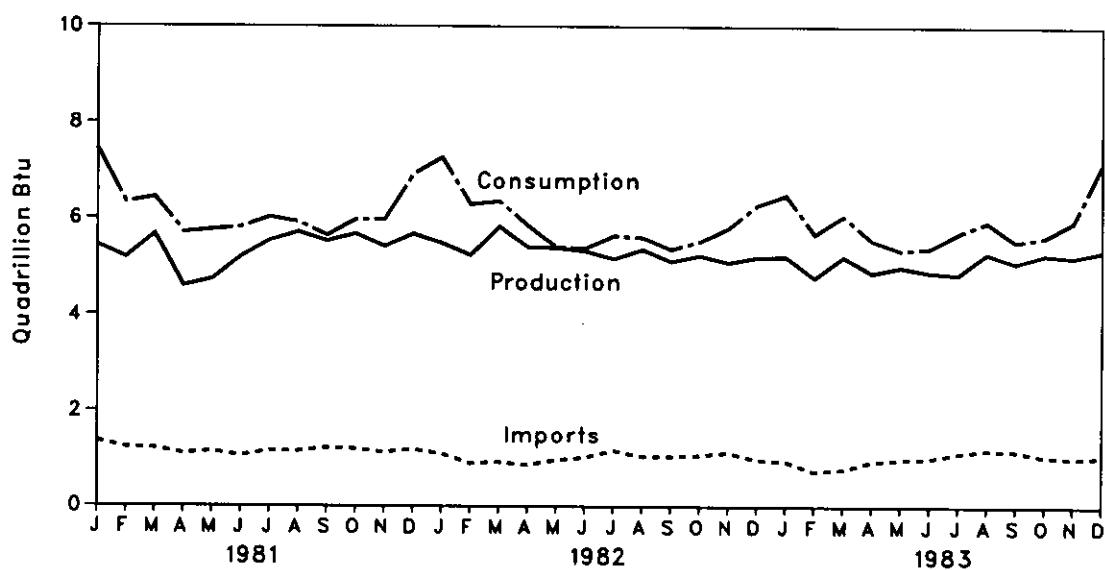
# Executive Summary

## Energy Summary

Yearly



Monthly



# Executive Summary

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

		Energy Production <sup>2</sup>	Energy Consumption <sup>2</sup>	Energy Imports <sup>2</sup>	Energy Exports
Quadrillion (10 <sup>12</sup> ) Btu					
1973	TOTAL	R61.993	R74.212	14.732	R2.053
1974	TOTAL	R60.770	R72.479	14.417	R2.224
1975	TOTAL	R59.801	R70.485	14.113	R2.361
1976	TOTAL	R59.886	R74.297	16.838	R2.190
1977	TOTAL	R60.142	R76.215	20.092	R2.073
1978	TOTAL	R61.049	R78.039	19.261	R1.932
1979	TOTAL	R63.744	R78.845	19.620	R2.872
1980	TOTAL	R64.708	R75.900	15.972	3.726
1981	January	R5.443	R7.455	R1.349	R0.262
	February	R5.182	R6.328	R1.213	R0.279
	March	R5.673	R6.436	R1.196	R0.371
	April	R4.595	R5.705	R1.087	R0.327
	May	R4.730	R5.761	R1.134	R0.275
	June	R5.195	R5.813	R1.043	R0.247
	July	R5.538	R6.018	R1.143	R0.394
	August	R5.713	R5.919	R1.135	R0.421
	September	R5.531	R5.646	R1.204	R0.413
	October	R5.682	R5.969	R1.182	R0.467
	November	R5.415	R5.972	R1.112	R0.442
	December	R5.680	R6.917	R1.175	R0.432
	TOTAL	R64.376	R73.940	R13.974	R4.331
1982	January	R5.489	R7.263	R1.088	R0.319
	February	R5.236	R6.293	R0.892	R0.377
	March	R5.835	R6.360	R0.916	R0.443
	April	R5.408	R5.854	R0.861	R0.427
	May	R5.395	R5.414	R0.962	R0.420
	June	R5.325	R5.386	R1.016	R0.416
	July	R5.165	R5.649	R1.156	R0.386
	August	R5.362	R5.612	R1.036	R0.359
	September	R5.109	R5.363	R1.036	R0.377
	October	R5.236	R5.534	R1.061	R0.439
	November	R5.090	R5.808	R1.119	R0.352
	December	R5.202	R6.287	R0.968	R0.323
	TOTAL	R63.851	R70.822	R12.110	R4.637
1983	January	R5.215	R6.493	R0.939	R0.303
	February	R4.779	R5.684	R0.731	R0.265
	March	R5.212	R6.057	R0.777	R0.319
	April	R4.884	R5.559	R0.934	R0.312
	May	R5.003	R5.351	R0.976	R0.344
	June	R4.896	R5.396	R1.000	R0.335
	July	R4.854	R5.713	R1.110	R0.275
	August	R5.286	R5.936	R1.175	R0.348
	September	R5.086	R5.537	R1.155	R0.326
	October	R5.262	R5.633	R1.044	R0.326
	November	R5.209	R5.945	R1.008	R0.281
	December	5.333	7.150	1.035	0.291
	TOTAL	61.019	70.454	11.884	3.725

Revisions result primarily from reestimated Btu conversion factors for coal.

<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.

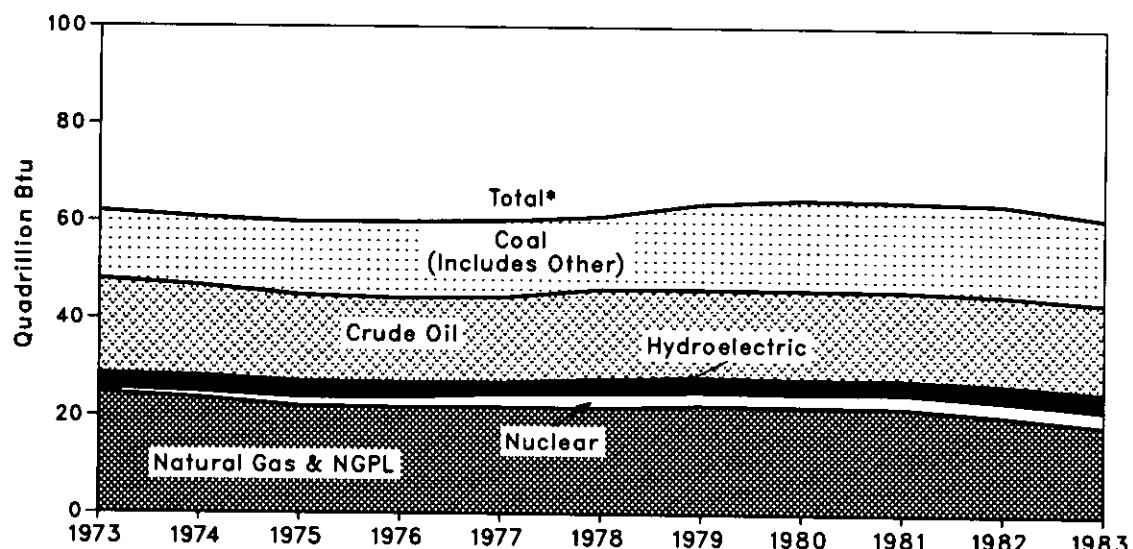
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Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

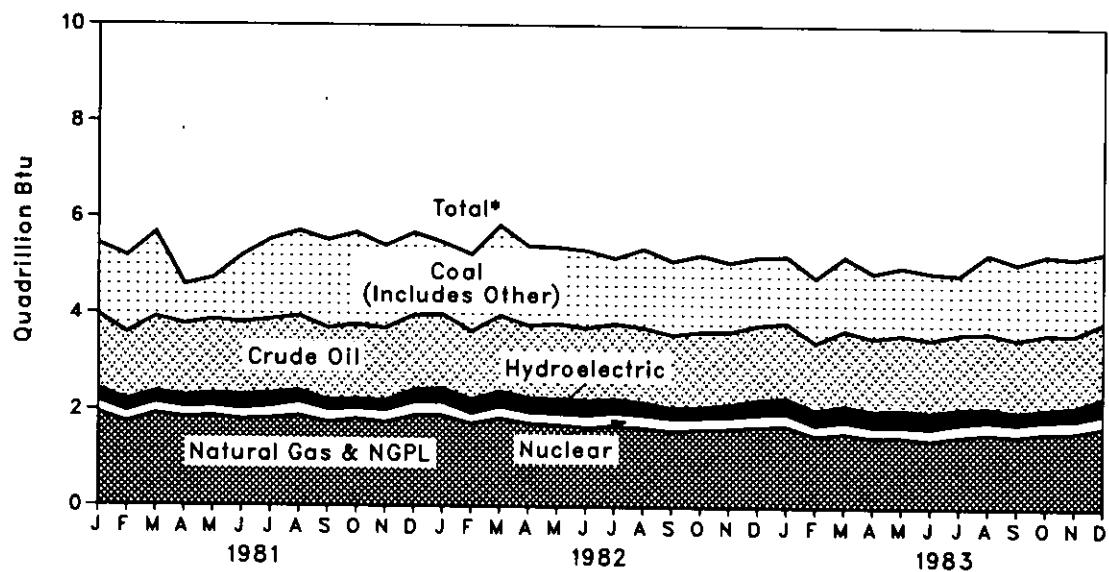
# Executive Summary

## Production of Energy by Source

Yearly



Monthly



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

# Executive Summary

## Production of Energy by Source

		Crude Oil <sup>1</sup>	Natural Gas (Dry)	Hydro- electric Power <sup>2</sup>	Nuclear Electric Power	Other <sup>3</sup>	Total Energy Produced	Yearly Cumulative Energy Produced
Quadrillion (10 <sup>12</sup> ) Btu								
1973	TOTAL	R13.926	19.493	2.569	22.187	2.861	0.910	0.046
1974	TOTAL	R14.010	18.575	2.471	21.210	3.177	1.272	0.056
1975	TOTAL	R14.931	17.729	2.374	19.640	3.155	1.900	0.072
1976	TOTAL	R15.649	17.262	2.327	19.480	2.976	2.111	0.081
1977	TOTAL	R15.679	17.454	2.327	19.565	2.333	2.702	0.082
1978	TOTAL	R14.856	18.434	2.245	19.485	2.937	3.024	0.068
1979	TOTAL	R17.483	18.104	2.286	20.076	2.931	R2.776	0.089
1980	TOTAL	R18.544	18.249	2.254	R19.907	2.900	2.739	0.114
1981	January	R1.467	1.535	0.201	R1.729	R0.237	R0.262	0.011
	February	R1.578	1.397	0.182	R1.553	R0.223	R0.238	0.010
	March	R1.742	1.549	0.198	R1.713	R0.218	R0.243	0.011
	April	R0.807	1.489	0.188	R1.652	R0.220	R0.228	0.010
	May	R0.848	1.529	0.194	R1.676	R0.255	R0.218	0.010
	June	R1.370	1.501	0.188	R1.613	R0.279	R0.233	0.010
	July	R1.648	1.528	0.189	R1.641	R0.266	R0.255	0.011
	August	R1.753	1.543	0.197	R1.683	R0.228	R0.297	0.011
	September	R1.818	1.497	0.190	R1.557	R0.189	R0.269	0.011
	October	R1.897	1.540	0.195	R1.622	R0.191	R0.227	0.011
	November	R1.704	1.494	0.192	R1.563	R0.201	R0.251	0.010
	December	R1.699	1.544	0.194	R1.696	R0.252	R0.287	0.010
	TOTAL	R18.331	18.146	2.307	R19.699	R2.758	R3.008	0.127
1982	January	R1.490	1.530	R0.189	R1.703	R0.285	R0.283	0.009
	February	R1.580	1.413	R0.169	R1.562	R0.282	R0.222	0.008
	March	R1.863	1.558	R0.189	R1.651	R0.316	R0.251	0.007
	April	R1.633	1.495	R0.179	R1.558	R0.296	R0.240	0.007
	May	R1.579	1.561	R0.182	R1.530	R0.296	R0.238	0.008
	June	R1.592	1.504	R0.175	R1.483	R0.296	R0.265	0.010
	July	R1.344	1.557	R0.182	R1.504	R0.289	R0.281	0.010
	August	R1.618	1.552	R0.183	R1.471	R0.253	R0.275	0.010
	September	R1.508	1.514	R0.176	R1.410	R0.211	R0.280	0.010
	October	R1.573	1.565	R0.184	R1.439	R0.209	R0.256	0.011
	November	R1.422	1.513	R0.187	R1.455	R0.246	R0.256	0.011
	December	R1.401	1.546	R0.195	R1.489	R0.293	R0.269	0.009
	TOTAL	R18.603	18.309	R2.191	R18.255	R3.271	R3.115	0.108
1983	January	R1.368	1.552	R0.200	R1.499	R0.310	R0.276	0.011
	February	R1.332	1.406	R0.171	R1.321	R0.295	R0.245	0.008
	March	R1.508	1.560	R0.185	R1.366	R0.320	R0.263	0.010
	April	R1.335	1.511	R0.174	R1.291	R0.317	R0.246	0.009
	May	R1.387	1.561	R0.177	R1.297	R0.330	R0.243	0.007
	June	R1.373	1.510	R0.175	R1.238	R0.325	R0.266	0.010
	July	R1.210	1.555	R0.184	R1.316	R0.296	R0.282	0.012
	August	R1.607	1.556	R0.187	R1.366	R0.273	R0.282	0.016
	September	R1.548	1.508	R0.185	R1.328	R0.230	R0.274	0.014
	October	R1.612	1.556	R0.192	R1.392	R0.219	R0.276	0.015
	November	R1.565	1.501	R0.189	R1.406	R0.261	R0.275	0.013
	December	1.442	1.548	0.183	1.523	0.334	0.290	0.011
	TOTAL	17.286	18.324	2.202	16.344	3.510	3.217	0.135
								61.019

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

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

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

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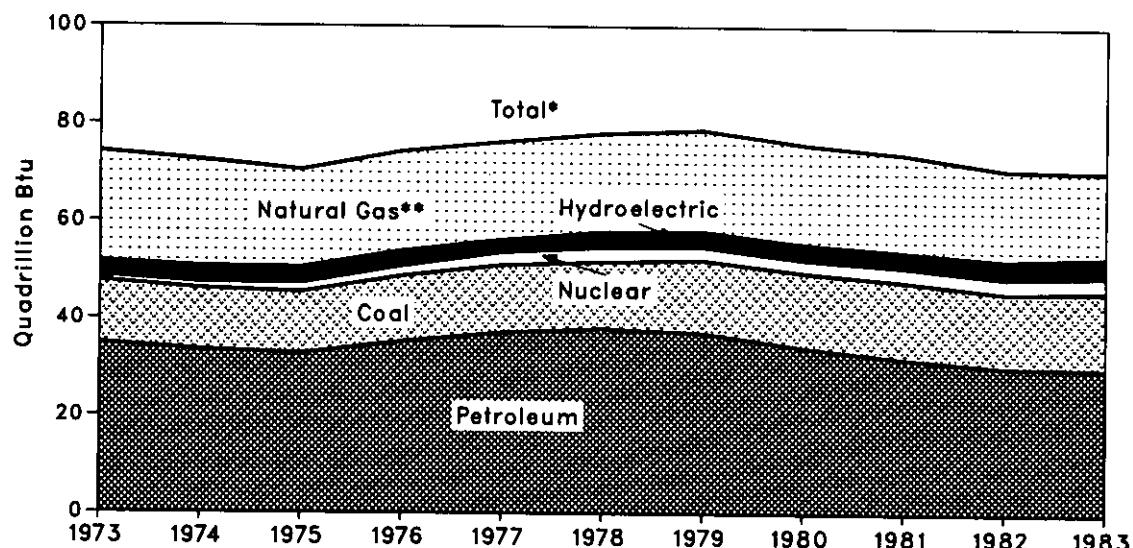
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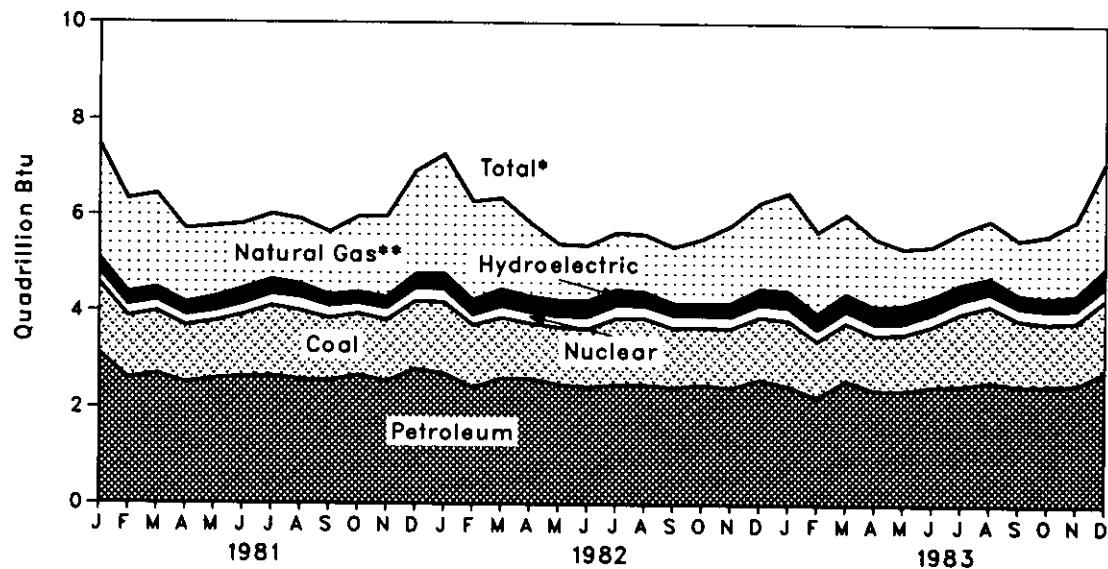
# Executive Summary

## Consumption of Energy by Source

Yearly



Monthly



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

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

# Executive Summary

## Consumption of Energy by Source

			Natural Gas (Dry)	Petro- leum	Hydro- electric Power <sup>2</sup>	Nuclear Electric Power	Net Imports of Coal Coke <sup>3</sup>	Other <sup>4</sup>	Total Energy Con- sumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu										
1973	TOTAL	R12.903	22.512	34.840	3.010	0.910	(0.008)	0.046	R74.212	
1974	TOTAL	R12.596	21.732	33.455	3.309	1.272	0.059	0.056	R72.479	
1975	TOTAL	R12.601	19.948	32.731	3.219	1.900	0.014	0.072	R70.485	
1976	TOTAL	R13.519	20.345	35.175	3.066	2.111	0.000	0.081	R74.297	
1977	TOTAL	R13.848	19.931	37.122	2.515	2.702	0.015	0.082	R76.215	
1978	TOTAL	R13.710	20.000	37.965	3.141	3.024	0.131	0.068	R78.039	
1979	TOTAL	R14.983	20.666	37.123	3.141	R2.776	0.066	0.089	R78.845	
1980	TOTAL	R15.373	20.391	34.202	3.118	2.739	(0.037)	0.114	R75.900	
1981	January	R1.463	2.341	3.113	R0.266	R0.262	0.000	0.011	R7.455	R7.455
	February	R1.293	1.946	2.592	R0.250	R0.238	(0.001)	0.010	R6.328	R13.783
	March	R1.300	1.950	2.686	R0.247	R0.243	(0.003)	0.011	R6.436	R20.219
	April	R1.183	1.528	2.509	R0.248	R0.228	(0.001)	0.010	R5.705	R25.924
	May	R1.191	1.465	2.593	R0.285	R0.218	0.000	0.010	R5.761	R31.685
	June	R1.292	1.344	2.631	R0.308	R0.233	(0.004)	0.010	R5.813	R37.499
	July	R1.459	1.349	2.649	R0.295	R0.255	0.000	0.011	R6.018	R43.517
	August	R1.426	1.348	2.578	R0.258	R0.297	0.000	0.011	R5.919	R49.436
	September	R1.293	1.299	2.559	R0.217	R0.269	(0.002)	0.011	R5.646	R55.082
	October	R1.281	1.560	2.672	R0.221	R0.227	(0.003)	0.011	R5.969	R61.050
	November	R1.271	1.663	2.548	R0.229	R0.251	0.000	0.010	R5.972	R67.022
	December	R1.408	2.132	2.803	R0.282	R0.287	(0.003)	0.010	R6.917	R73.940
	<b>TOTAL</b>	<b>R15.860</b>	<b>19.926</b>	<b>31.931</b>	<b>R3.105</b>	<b>R3.008</b>	<b>(0.017)</b>	<b>0.127</b>	<b>R73.940</b>	
1982	January	R1.486	R2.467	R2.707	R0.312	R0.283	0.000	0.009	R7.263	R7.263
	February	R1.292	R2.040	R2.426	R0.307	R0.222	(0.001)	0.008	R6.293	R13.556
	March	R1.260	R1.889	R2.612	R0.343	R0.251	(0.002)	0.007	R6.360	R19.916
	April	R1.152	R1.527	R2.607	R0.322	R0.240	(0.001)	0.007	R5.854	R25.770
	May	R1.186	R1.168	R2.492	R0.324	R0.238	(0.003)	0.008	R5.414	R31.183
	June	R1.210	R1.146	R2.436	R0.322	R0.265	(0.004)	0.010	R5.386	R36.569
	July	R1.381	R1.177	R2.488	R0.316	R0.281	(0.003)	0.010	R5.649	R42.218
	August	R1.374	R1.183	R2.491	R0.280	R0.275	(0.001)	0.010	R5.612	R47.831
	September	R1.227	R1.172	R2.440	R0.237	R0.280	(0.003)	0.010	R5.363	R53.193
	October	R1.190	R1.348	R2.494	R0.236	R0.256	(0.001)	0.011	R5.534	R58.727
	November	R1.229	R1.603	R2.438	R0.273	R0.256	(0.002)	0.011	R5.808	R64.535
	December	R1.303	R1.788	R2.600	R0.320	R0.269	(0.001)	0.009	R6.287	R70.822
	<b>TOTAL</b>	<b>R15.291</b>	<b>R18.507</b>	<b>R30.232</b>	<b>R3.592</b>	<b>R3.115</b>	<b>(0.023)</b>	<b>0.108</b>	<b>R70.822</b>	
1983	January	R1.360	R2.031	R2.476	R0.339	R0.276	(0.001)	0.011	R6.493	R6.493
	February	R1.176	R1.696	R2.238	R0.322	R0.245	(0.001)	0.008	R5.684	R12.176
	March	R1.193	R1.646	R2.597	R0.350	R0.263	(0.001)	0.010	R6.057	R18.234
	April	R1.137	R1.425	R2.399	R0.345	R0.246	(0.002)	0.009	R5.559	R23.792
	May	R1.171	R1.182	R2.390	R0.359	R0.243	(0.002)	0.007	R5.351	R29.143
	June	R1.256	R1.032	R2.480	R0.353	R0.266	(0.001)	0.010	R5.396	R34.539
	July	R1.501	R1.094	R2.501	R0.326	R0.282	(0.002)	0.012	R5.713	R40.253
	August	R1.584	R1.176	R2.577	R0.302	R0.282	(0.001)	0.016	R5.936	R46.189
	September	R1.368	R1.126	R2.499	R0.258	R0.274	(0.001)	0.014	R5.537	R51.726
	October	R1.294	R1.293	R2.507	R0.249	R0.276	(0.001)	0.015	R5.633	R57.359
	November	R1.309	R1.540	R2.521	R0.289	R0.275	(0.001)	0.013	R5.945	R63.304
	December	1.501	2.189	2.799	0.364	0.290	(0.003)	0.011	7.150	70.454
	<b>TOTAL</b>	<b>15.850</b>	<b>17.430</b>	<b>29.983</b>	<b>3.856</b>	<b>3.217</b>	<b>(0.016)</b>	<b>0.135</b>	<b>70.454</b>	

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

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

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

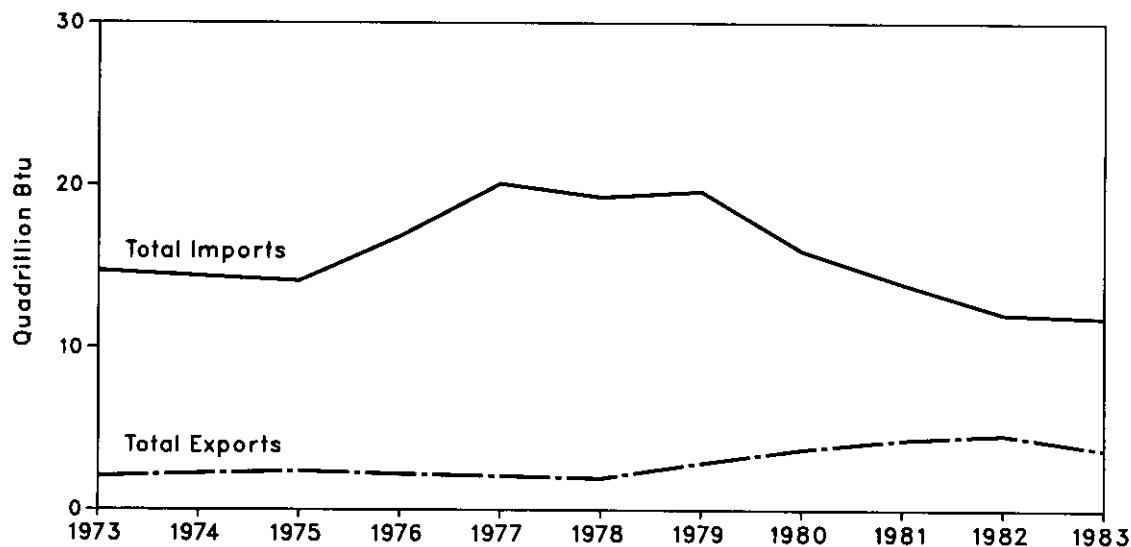
• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at electric utilities.

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

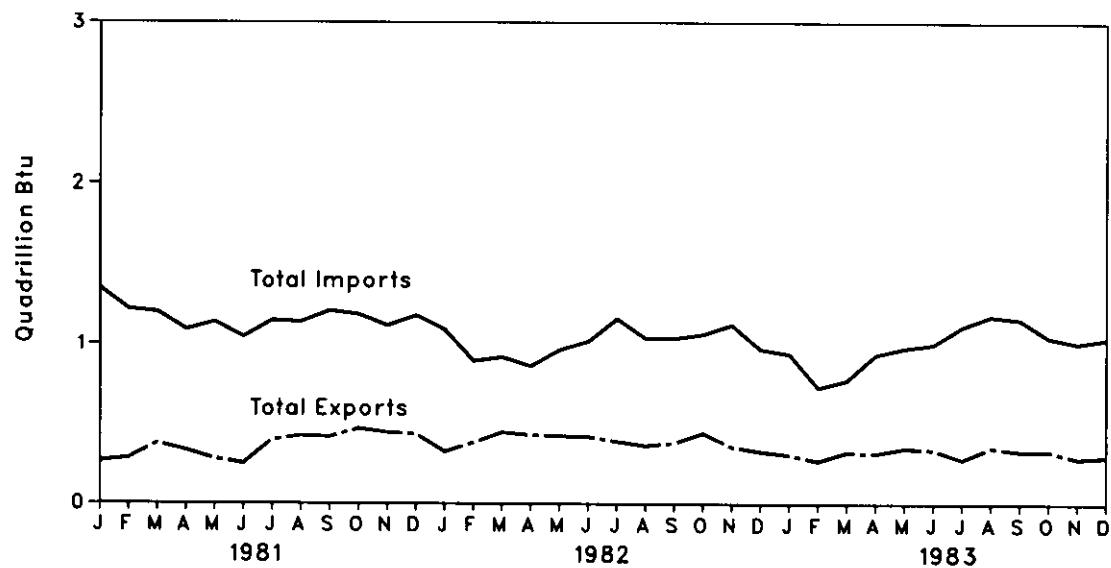
## **Executive Summary**

### **Energy Imports and Exports**

**Yearly**



**Monthly**



# Executive Summary

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

		Crude Oil <sup>2</sup>	Refined Petroleum Products <sup>4</sup>	Natural Gas (Dry)	Electricity	Coal Coke	Total Net Imports	Yearly Cumulative Net Imports of Energy
Quadrillion (10 <sup>15</sup> ) Btu								
1973	TOTAL	R(1.422)	6.883	6.097	0.981	0.148	(0.008)	R12.679
1974	TOTAL	R(1.568)	7.389	5.273	0.907	0.133	0.059	R12.192
1975	TOTAL	R(1.738)	8.708	3.800	0.904	0.064	0.014	R11.753
1976	TOTAL	R(1.567)	11.221	3.982	0.922	0.089	0.000	R14.648
1977	TOTAL	R(1.401)	13.921	4.321	0.981	0.182	0.015	R18.019
1978	TOTAL	R(1.004)	13.125	3.932	0.941	0.204	0.131	R17.329
1979	TOTAL	R(1.702)	13.328	3.603	1.243	0.211	0.086	R16.748
1980	TOTAL	R(2.391)	10.586	2.912	0.957	0.217	(0.037)	12.246
1981	January	(0.151)	0.829	0.293	0.087	R0.030	0.000	R1.087
	February	(0.175)	0.762	0.240	0.081	R0.027	(0.001)	R0.934
	March	(0.252)	0.778	0.196	0.076	R0.030	(0.003)	R0.825
	April	(0.215)	0.723	0.161	0.065	R0.029	(0.001)	R0.761
	May	(0.157)	0.717	0.210	0.059	R0.030	0.000	R0.859
	June	(0.158)	0.687	0.181	0.061	R0.029	(0.004)	R0.796
	July	(0.281)	0.728	0.210	0.062	R0.030	0.000	R0.749
	August	(0.292)	0.717	0.199	0.060	R0.030	0.000	R0.713
	September	(0.310)	0.794	0.219	0.062	R0.029	(0.002)	R0.792
	October	(0.321)	0.749	0.184	0.075	R0.030	(0.003)	R0.715
	November	(0.308)	0.658	0.214	0.078	R0.029	0.000	R0.670
	December	(0.299)	0.712	0.215	0.089	R0.030	(0.003)	R0.743
	<b>TOTAL</b>	<b>(2.918)</b>	<b>8.854</b>	<b>2.522</b>	<b>0.855</b>	<b>R0.347</b>	<b>(0.017)</b>	<b>R9.643</b>
1982	January	(0.160)	R0.624	0.181	R0.097	R0.027	0.000	R0.769
	February	(0.234)	0.438	R0.207	0.081	0.025	(0.001)	0.515
	March	(0.273)	0.461	0.181	0.078	R0.027	(0.002)	R1.757
	April	R(0.284)	R0.468	0.153	0.071	R0.026	(0.001)	R0.434
	May	(0.262)	R0.551	0.166	0.063	R0.027	(0.003)	R0.542
	June	R(0.280)	R0.654	R0.147	0.056	R0.026	(0.004)	R0.600
	July	(0.239)	R0.726	R0.196	0.063	R0.027	(0.003)	R0.770
	August	(0.190)	R0.641	0.144	0.056	R0.027	(0.001)	R0.677
	September	R(0.226)	0.603	0.196	0.062	R0.026	(0.003)	R0.659
	October	R(0.260)	R0.614	R0.168	0.073	R0.027	(0.001)	R0.621
	November	R(0.203)	0.629	0.228	R0.088	R0.026	(0.002)	R0.768
	December	(0.157)	R0.507	0.161	R0.107	R0.027	(0.001)	R0.645
	<b>TOTAL</b>	<b>R(2.768)</b>	<b>R6.917</b>	<b>R2.128</b>	<b>R0.896</b>	<b>R0.322</b>	<b>(0.023)</b>	<b>R7.473</b>
1983	January	R(0.116)	0.509	R0.098	0.117	R0.029	(0.001)	R0.636
	February	(0.113)	0.327	R0.128	R0.099	R0.027	(0.001)	R0.465
	March	(0.162)	R0.372	0.132	R0.088	R0.029	(0.001)	R0.458
	April	R(0.157)	R0.536	0.144	0.073	R0.028	(0.002)	R0.622
	May	R(0.180)	0.533	R0.190	0.062	R0.029	(0.002)	R0.633
	June	R(0.188)	R0.587	R0.182	0.057	R0.028	(0.001)	R0.665
	July	(0.159)	0.672	0.243	0.052	R0.029	(0.002)	R0.836
	August	R(0.217)	R0.723	R0.239	0.055	R0.029	(0.001)	R0.827
	September	R(0.195)	R0.707	R0.229	0.061	R0.028	(0.001)	R0.829
	October	R(0.209)	R0.597	0.239	0.062	R0.029	(0.001)	R0.718
	November	R(0.153)	0.546	0.229	0.076	R0.028	(0.001)	R0.727
	December	(0.162)	0.563	0.213	0.103	0.029	(0.003)	0.743
	<b>TOTAL</b>	<b>(2.013)</b>	<b>6.673</b>	<b>2.266</b>	<b>0.905</b>	<b>0.346</b>	<b>(0.018)</b>	<b>8.160</b>

Revisions result primarily from reestimated Btu conversion factors for coal.

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

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

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

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

R=Revised data.

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

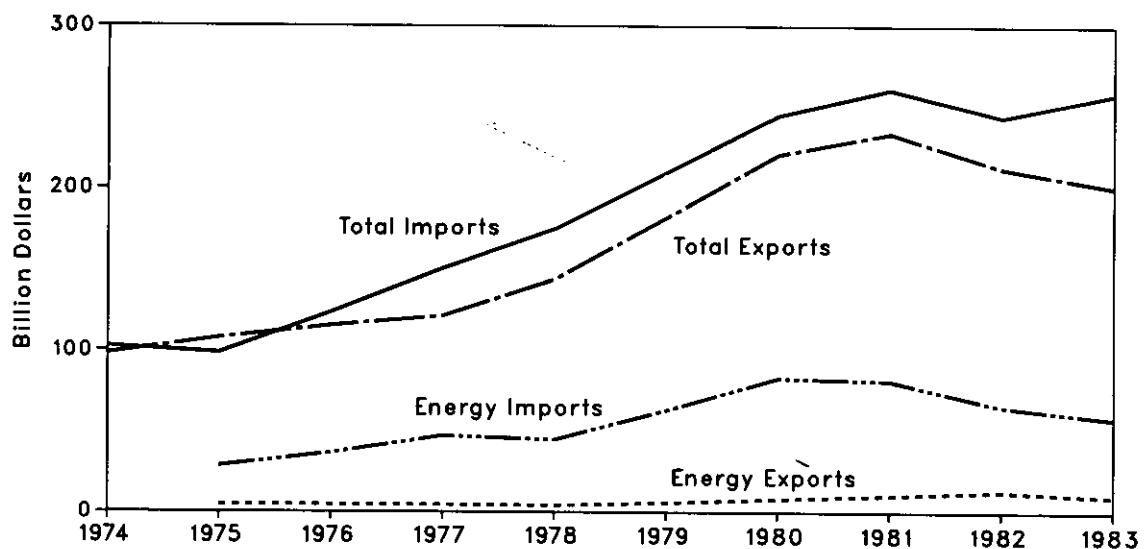
• Totals may not equal sum of components due to independent rounding.

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

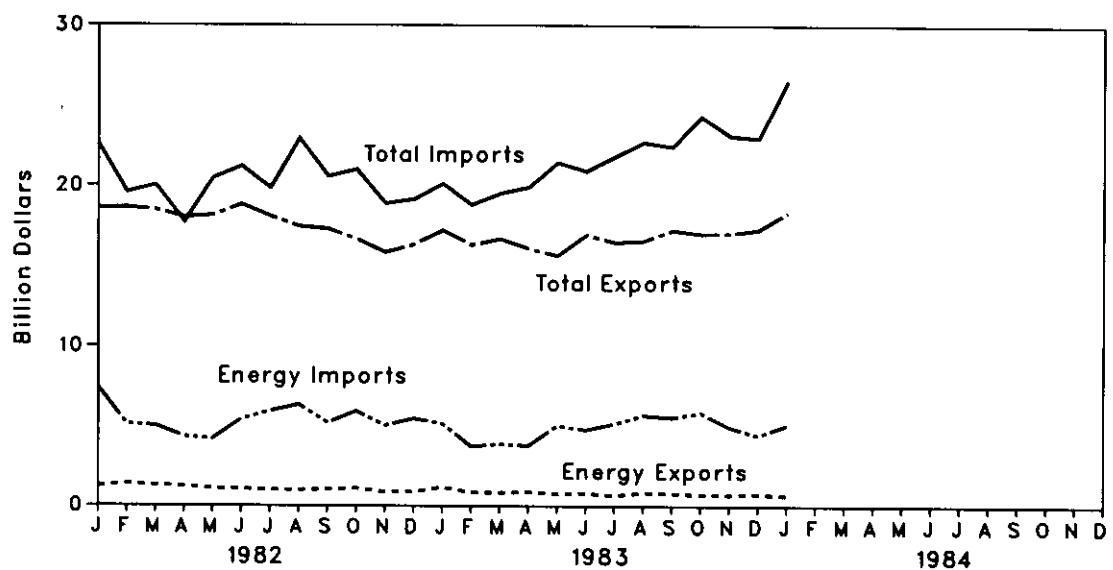
## **Executive Summary**

### **Merchandise Trade Value**

## Yearly



## **Monthly**



# Executive Summary

## Merchandise Trade Value

	Exports			Imports			Trade Balance		
	Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total
		Million dollars							
1974 TOTAL	NA	NA	98,092	NA	NA	102,559	NA	NA	-4,467
1975 TOTAL	4,470	103,182	107,652	28,325	70,178	98,503	-23,855	+33,004	+9,149
1976 TOTAL	4,226	110,997	115,223	36,384	87,093	123,477	-32,158	+23,904	-8,254
1977 TOTAL	4,184	117,048	121,232	47,153	103,237	150,390	-42,969	+13,811	-29,158
1978 TOTAL	3,882	139,799	143,681	44,763	129,994	174,757	-40,881	+9,805	-31,076
1979 TOTAL	5,675	176,185	181,860	63,077	146,381	209,458	-57,402	+29,804	-27,599
1980 TOTAL	7,982	212,644	220,626	82,924	161,947	244,871	-74,942	+50,697	-24,244
1981 January	756	18,146	18,902	8,007	14,609	22,616	-7,251	+3,537	-3,714
February	999	18,789	19,788	7,939	13,977	21,916	-6,940	+4,812	-2,127
March	939	20,339	21,278	6,471	14,558	21,029	-5,532	+5,781	+249
April	738	19,048	19,786	7,831	14,418	22,249	-7,093	+4,630	-2,463
May	593	18,306	18,899	6,075	15,157	21,232	-5,482	+3,149	-2,333
June	565	19,185	19,750	7,252	14,753	22,005	-6,687	+4,432	-2,255
July	847	18,442	19,289	5,687	14,427	20,114	-4,840	+4,015	-825
August	884	18,147	19,031	6,876	16,366	23,242	-5,992	+1,781	-4,212
September	939	18,612	19,551	6,555	14,719	21,274	-5,616	+3,893	-1,724
October	991	18,172	19,163	6,638	16,439	23,077	-5,648	+1,733	-3,914
November	997	18,156	19,153	6,608	15,900	22,508	-5,611	+2,256	-3,356
December	1,067	17,818	18,885	5,422	14,324	19,746	-4,355	+3,494	-861
TOTAL	10,279	223,398	233,677	81,360	179,622	260,982	-71,081	+43,776	-27,305
1982 January	1,205	17,379	18,584	7,439	15,134	22,573	-6,234	+2,245	-3,989
February	1,361	17,253	18,614	5,107	14,463	19,570	-3,746	+2,790	-956
March	1,256	17,206	18,462	5,009	15,010	20,019	-3,753	+2,196	-1,557
April	1,201	16,804	18,005	4,312	13,402	17,714	-3,111	+3,402	+291
May	1,065	17,059	18,124	4,167	16,310	20,477	-3,102	+749	-2,353
June	1,035	17,788	18,823	5,427	15,760	21,187	-4,392	+2,028	-2,364
July	974	17,086	18,060	5,943	13,906	19,849	-4,969	+3,180	-1,790
August	961	16,502	17,463	6,353	16,577	22,930	-5,392	-75	-5,467
September	998	16,322	17,320	5,201	15,380	20,581	-4,203	+942	-3,261
October	1,072	15,599	16,671	5,947	15,059	21,006	-4,875	+540	-4,335
November	847	15,005	15,852	5,037	13,855	18,892	-4,190	+1,150	-3,041
December	855	15,492	16,347	5,468	13,686	19,154	-4,613	+1,806	-2,808
TOTAL	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	+20,921	-31,759
1983 January	R1,142	R16,090	R17,232	R5,142	R14,985	R20,127	R-4,000	R+1,105	R-2,895
February	R833	R15,479	R16,312	R3,704	R15,100	R18,804	R-2,871	R+378	R-2,493
March	R822	R15,868	R16,690	R3,865	R15,663	R19,528	R-3,043	R+206	R-2,837
April	R850	R15,245	R16,095	R3,763	R16,151	R19,914	R-2,913	R-906	R-3,819
May	R750	R14,905	R15,655	R5,033	R16,413	R21,446	R-4,283	R-1,508	R-5,791
June	R791	R16,168	R16,959	R4,767	R16,149	R20,916	R-3,976	+19	R-3,957
July	R644	R15,842	R16,486	R5,164	R16,664	R21,828	R-4,520	R-821	R-5,341
August	R824	R15,758	R16,582	R5,703	R17,011	R22,714	R-4,879	R-1,253	R-6,132
September	R778	R16,479	R17,257	R5,571	R16,880	R22,451	R-4,793	R-402	R-5,195
October	R699	R16,334	R17,033	R5,872	R18,461	R24,333	R-5,173	R-2,127	R-7,300
November	R689	R16,374	R17,063	R4,951	R18,164	R23,115	R-4,262	R-1,790	R-6,052
December	R739	R16,559	R17,298	R4,417	R18,559	R22,976	R-3,678	R-2,001	R-5,678
TOTAL	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562
1984 January	660	17,666	18,326	5,089	21,497	26,586	-4,429	-3,831	-8,260

R=Revised data. NA=Not available.

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

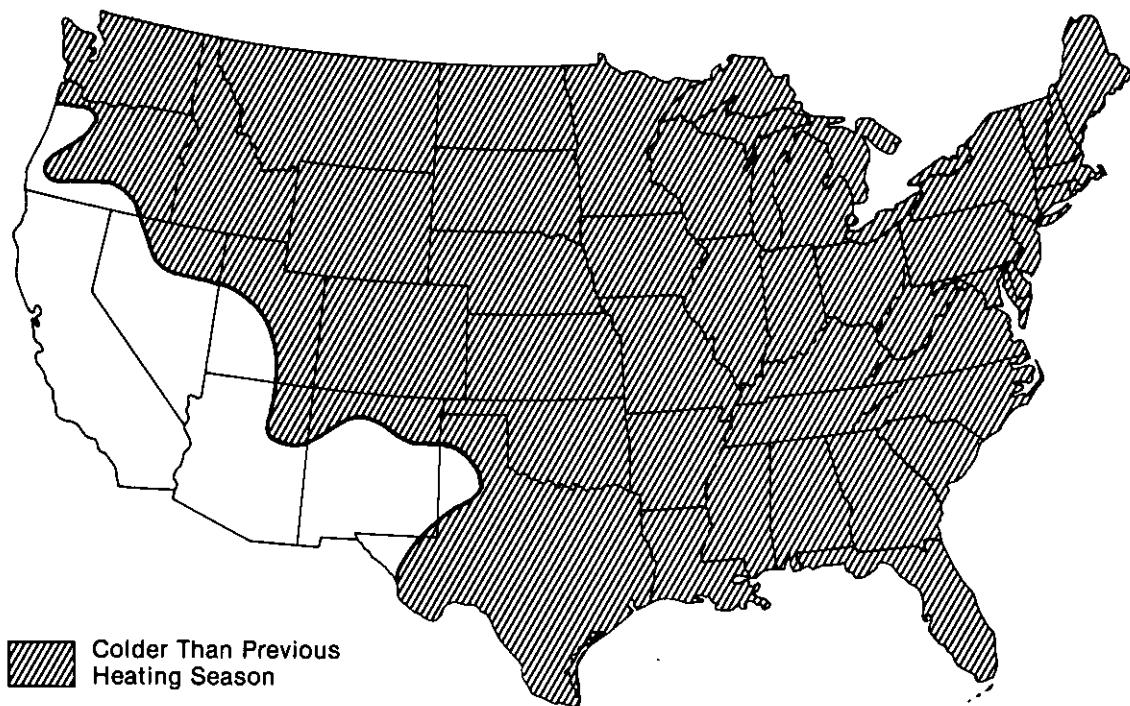
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.

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

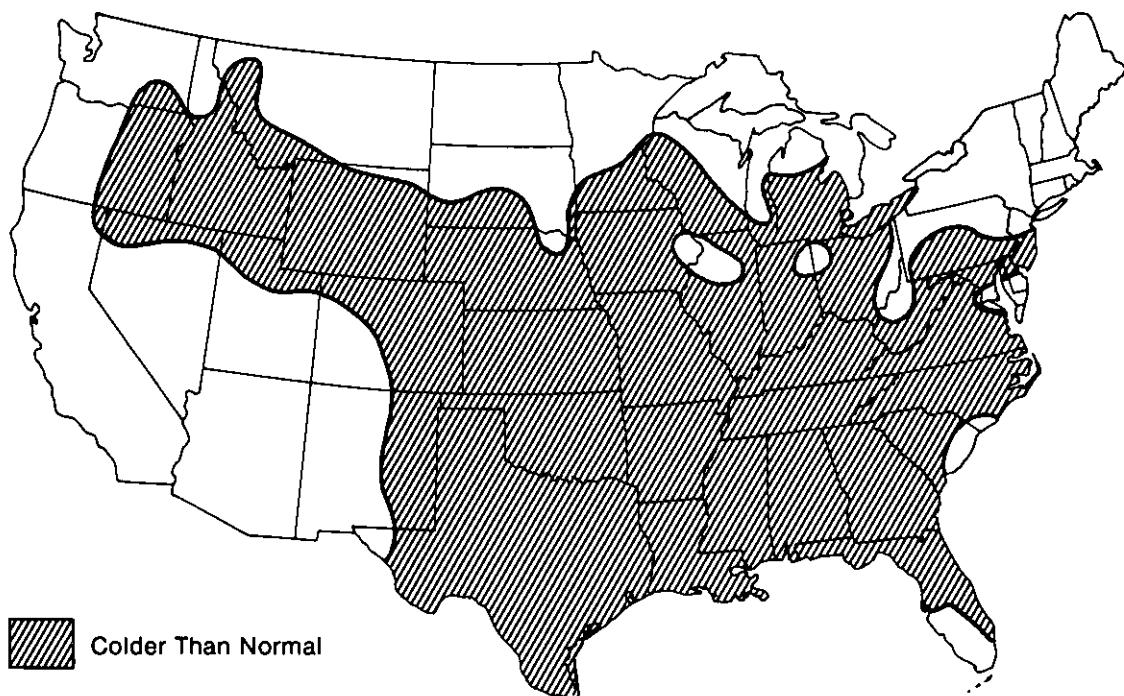
## **Executive Summary**

**Heating Degree-Days Accumulated from July 1, 1983, through March 3, 1984**

Departure from Previous Heating Season



Departure from Normal



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

# Executive Summary

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

Census Divisions	February 1 through February 29					Cumulative July 1 through February 29				
				Percent Change					Percent Change	
	Normal <sup>2</sup>	1983	1984	Normal to 1984	1983 to 1984	Normal <sup>2</sup>	1983	1984	Normal to 1984	1983 to 1984
New England Conn., Maine, Mass., N.H., R.I., Vt.	1,1-09	1,024	901	-18.8	-12.0	4,759	4,369	4,570	-4.0	4.6
Middle Atlantic N.J., N.Y., Pa.	1,0-31	958	843	-18.2	-12.0	4,321	3,924	4,317	-0.1	10.0
Eastern North Central Ill., Ind., Mich., Ohio, Wisc.	1,1-11	943	887	-20.2	-5.9	4,768	4,176	4,893	2.6	17.2
Western North Central Iowa, Kans., Minn., Mo., Nebr., N.Dak., S.Dak.	1,1-43	951	892	-22.0	-6.2	5,112	4,607	5,203	1.8	12.9
South Atlantic Del., Fla., Ga., Md. and D.C., N.C., S.C., Va., W.Va.	569	567	477	-16.2	-15.9	2,379	2,207	2,444	2.7	10.7
Eastern South Central Ala., Ky., Miss., Tenn.	659	625	588	-10.8	-5.9	2,847	2,556	3,054	7.3	19.5
Western South Central Ark., La., Okla., Tex.	448	449	404	-9.8	-10.0	1,943	1,901	2,226	14.6	17.1
Mountain Ariz., Colo., Idaho, Mont., Nev., N.Mex., Utah, Wyo.	823	726	828	0.6	14.0	4,074	3,930	4,085	0.3	3.9
Pacific Coast Calif., Oreg., Wash.	481	409	443	-7.9	8.3	2,442	2,155	2,039	-16.5	-5.4
U.S. AVERAGE <sup>3</sup>	812	733	680	-16.3	-7.2	3,556	3,224	3,575	0.5	10.9

<sup>1</sup> See Note 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.

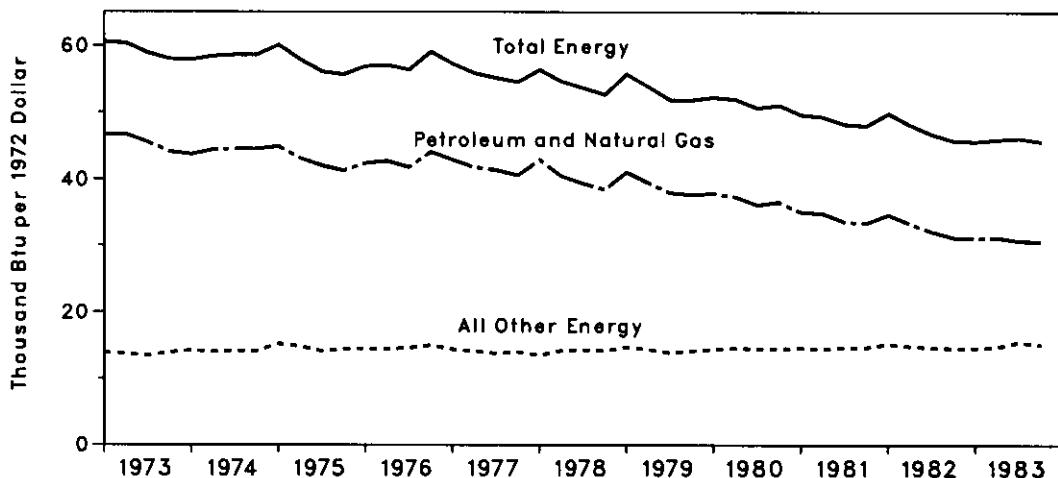
## Executive Summary

### 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 1972 dollars	Thousand Btu per 1972 dollar		
1973	R74.212	1.254	R59.2	45.7	R13.5
1974	R72.479	1.246	R58.2	44.3	R13.9
1975	R70.485	1.232	R57.2	42.8	R14.4
1976	R74.297	1.298	R57.2	42.8	R14.4
1977	R76.215	1.370	R55.6	41.6	R14.0
1978	R78.039	1.439	R54.2	40.3	R13.9
1979	R78.845	1.479	R53.3	39.1	R14.2
1980	R75.900	1.475	51.5	37.0	14.5
1981	R73.940	1.514	R48.8	34.3	R14.5
1982	1st Qtr <sup>1</sup>	R74.192	1.486	R49.9	R15.2
	2nd Qtr <sup>1</sup>	R71.781	1.489	R48.2	R14.9
	3rd Qtr <sup>1</sup>	R69.525	1.486	R46.8	R14.7
	4th Qtr <sup>1</sup>	R67.870	1.481	R45.8	R14.6
	YEAR	R70.822	1.485	R47.7	R14.9
1983	1st Qtr <sup>1</sup>	R68.040	1.490	R45.7	R14.6
	2nd Qtr <sup>1</sup>	R70.184	1.525	R46.0	R14.8
	3rd Qtr <sup>1</sup>	R71.699	1.553	R46.2	R15.5
	4th Qtr <sup>1</sup>	71.838	1.572	45.7	15.1
	YEAR	70.454	1.535	45.9	15.0

Revisions result primarily from reestimated Btu conversion factors for coal.

### Quarterly Energy Consumption per Dollar of Gross National Product<sup>2</sup> (Seasonally Adjusted)



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

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

R=Revised data.

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

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

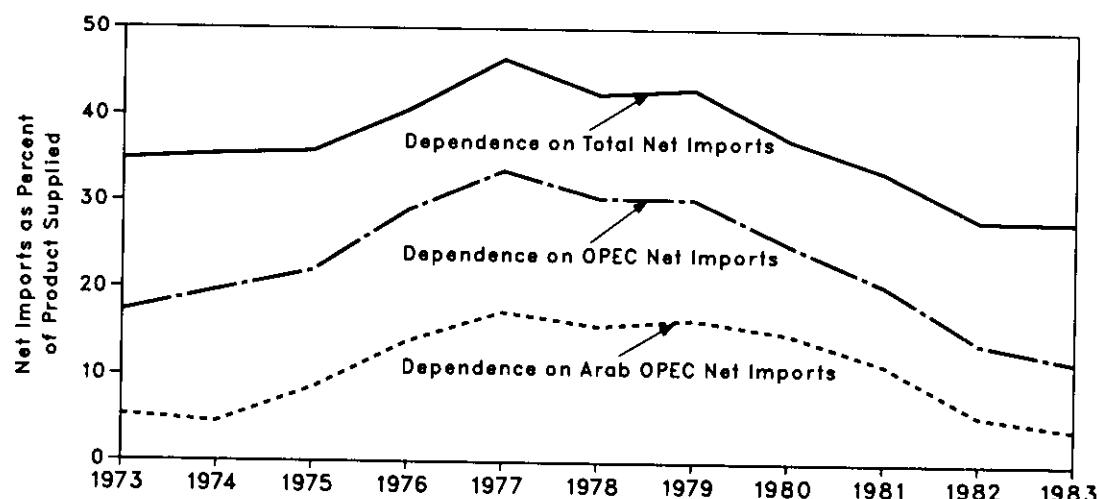
Sources: • See the last page of this section.

# Executive Summary

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

Net Imports <sup>2</sup>				Net Imports as Percent of U.S. Petroleum Products Supplied			
	from Arab OPEC <sup>3</sup> Countries	from All OPEC <sup>4</sup> Countries	from All Countries	Petroleum Products Supplied	from Arab OPEC <sup>3</sup> Countries	from All OPEC <sup>4</sup> Countries	from All Countries
<b>ANNUAL RATE</b>	Thousand Barrels per Day				Percent		
1973 AVERAGE	915	2,991	6,025	17,308	5.3	17.3	34.8
1974 AVERAGE	751	3,277	5,892	16,653	4.5	19.7	35.4
1975 AVERAGE	1,382	3,598	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	5,632	7,985	18,513	16.5	30.4	43.1
1980 AVERAGE	2,549	4,293	6,365	17,056	14.9	25.2	37.3
1981 1st Qtr	2,060	3,804	5,964	17,113	12.0	22.2	34.9
2nd Qtr	1,786	3,117	5,099	15,597	11.5	20.0	32.7
3rd Qtr	1,857	3,181	5,400	15,532	12.0	20.5	34.8
4th Qtr	1,679	3,167	5,151	16,008	10.5	19.8	32.2
AVERAGE	1,845	3,315	5,401	16,058	11.5	20.6	33.6
1982 1st Qtr	1,105	2,391	R4,037	15,891	7.0	15.1	25.4
2nd Qtr	817	1,925	4,074	15,292	5.3	12.6	26.6
3rd Qtr	820	2,239	R4,721	14,893	5.5	15.0	31.7
4th Qtr	672	1,990	4,353	15,120	4.4	13.2	28.8
AVERAGE	851	2,136	4,298	15,296	5.6	14.0	28.1
1983 1st Qtr	346	1,139	3,024	15,015	2.3	7.6	20.1
2nd Qtr	446	1,655	R4,141	14,764	3.0	11.2	28.1
3rd Qtr	841	2,478	5,297	15,223	5.5	16.3	34.8
4th Qtr	850	1,961	4,506	15,726	5.4	12.5	28.7
AVERAGE	623	1,812	4,249	15,184	4.1	11.9	28.0

## U.S. Dependence on Petroleum Net Imports



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

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

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

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

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

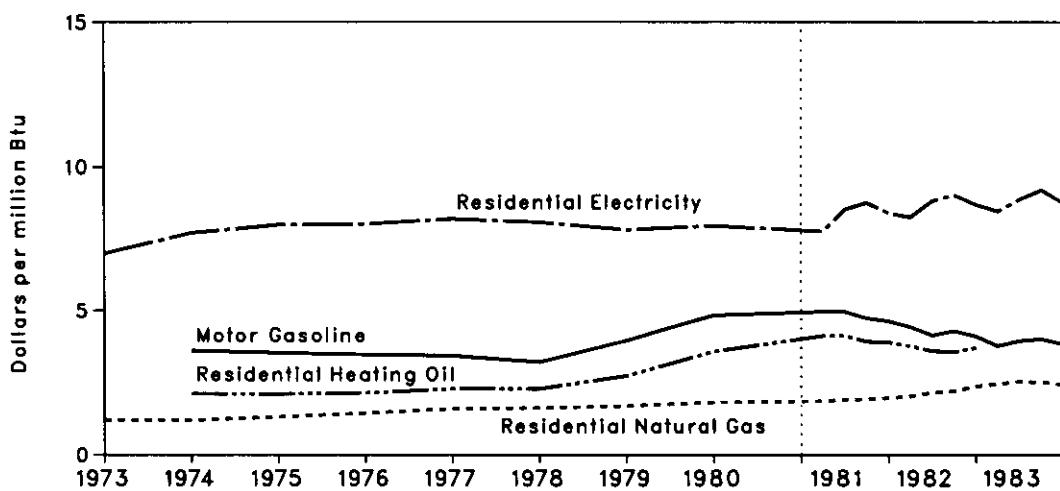
Sources: • See the last page of this section.

## Executive Summary

### Energy Indicator—Cost of Fuels to End Users in Constant (1972) Dollars

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	\$/MMBtu	cent/gal	\$/MMBtu	cent/Mcf	\$/MMBtu	cent/kWh	\$/MMBtu
1973	AVERAGE	NA	NA	NA	NA	121.4	1.19	2.39	7.00
1974	AVERAGE	45.1	3.81	29.4	2.12	121.3	1.18	2.63	7.71
1975	AVERAGE	44.1	3.53	29.3	2.11	132.9	1.30	2.73	8.00
1976	AVERAGE	43.4	3.47	29.8	2.15	145.5	1.43	2.74	8.03
1977	AVERAGE	42.9	3.43	31.8	2.29	162.2	1.59	2.80	8.21
1978	AVERAGE	40.1	3.21	31.7	2.29	164.2	1.62	2.76	8.09
1979	AVERAGE	49.4	3.95	37.8	2.73	171.8	1.69	2.67	7.83
1980	AVERAGE	60.5	4.84	49.7	3.58	186.8	1.82	2.72	7.97
1981	1st Qtr	62.1	4.97	57.0	4.11	190.6	1.86	2.65	7.77
	2nd Qtr	62.1	4.97	57.2	4.12	197.0	1.92	2.91	8.53
	3rd Qtr	59.3	4.74	54.4	3.92	197.4	1.93	2.99	8.76
	4th Qtr	57.9	4.63	54.0	3.89	202.2	1.97	2.87	8.41
	AVERAGE	60.4	4.83	55.7	4.01	197.3	1.92	2.85	8.35
1982	1st Qtr	55.3	4.42	52.2	3.76	208.5	2.03	2.82	8.26
	2nd Qtr	51.7	4.13	49.8	3.59	221.6	2.16	3.01	8.82
	3rd Qtr	53.5	4.28	49.4	3.56	226.4	2.21	3.08	9.03
	4th Qtr	51.3	4.10	51.3	3.70	243.0	2.37	2.97	8.70
	AVERAGE	53.0	4.24	51.4	3.71	224.1	2.19	2.97	8.70
1983	1st Qtr	47.1	3.77	NA	NA	251.3	2.45	2.89	8.47
	2nd Qtr	49.3	3.94	NA	NA	259.1	2.53	3.03	8.88
	3rd Qtr	50.0	4.00	NA	NA	257.7	2.51	3.14	9.20
	4th Qtr	47.9	3.83	NA	NA	249.7	2.43	2.99	8.76
	AVERAGE	48.6	3.89	NA	NA	254.5	2.48	3.01	8.82

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



NA=Not available.

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

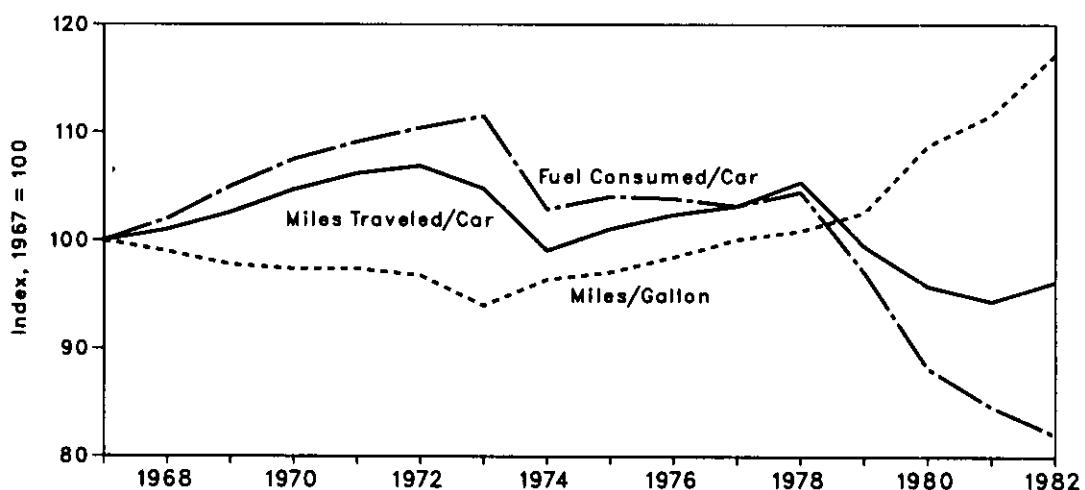
Sources: • See the last page of this section.

# Executive Summary

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

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,048	105.4	14.06	100.9
1979	684	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	561	82.0	9,167	96.2	16.33	117.2

### U.S. Passenger Car Efficiency Index



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

Sources: • See the last page of this section.

## Notes and Sources for the Executive Summary Section

### Notes

1. **Energy Production:** Production of energy includes production of coal (anthracite, bituminous coal, and lignite), crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydropower, and electricity generated from nuclear power, geothermal power, and wood and waste. The volumetric data 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 (anthracite, bituminous coal, and lignite), natural gas (dry), refined petroleum products supplied, electric utility and industrial production of hydropower, net imports of electricity produced from hydropower, net imports of coke made from coal, and electricity generated from nuclear power, geothermal power, and wood and waste. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.
3. **Energy Imports:** Energy imports include imports of bituminous coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.
4. **Energy Exports:** Energy exports include bituminous coal, crude oil, refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.
5. **Merchandise Trade Value:** The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which includes the 50 United States, the District of Columbia, and Puerto Rico) and the Virgin Islands. The statistics exclude imports into Guam, American Samoa, and other U.S. possessions, as well as shipments between the United States and Puerto Rico and the Virgin Islands, between the United States and other U.S. possessions, and between any of these outlying areas. From January 1981 forward, import data presented are on a customs value basis. All other values are on a free alongside ship (f.a.s.) basis. Monthly data are adjusted for seasonal and working-day variation, if present and identifiable; annual data are unadjusted, and annual totals may not equal sum of monthly totals. Statistics include nonmonetary gold. Statistics exclude Department of Defense Military Program Grant-Aid shipments. "All Other" and "Total" columns include foreign exports (i.e., reexports). The "Energy" columns include mineral fuels, lubricants, and related material. "Imports" represent general imports (i.e., entries for immediate consumption, entries into customs bonded warehouses, and entries for the Strategic Petroleum Reserve). "Trade Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. The "All Other" columns are calculated by subtracting "Energy" from "Total."
6. **Degree-Days:** Degree-days are relative measurements of outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65° F. by convention. Heating degree-days are deviations of the mean daily temperature below 65° F. For example, if a weather station recorded a mean daily temperature of 78° F., cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40° F. would report 25 heating degree-days (and 0 cooling degree-days).

There are 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 in use 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, North Carolina, 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:** • Motor gasoline—Bureau of Labor Statistics.
- Heating oil—Energy Information Administration (EIA), 1974 and 1975: Form CLC-92, "No. 2 Heating Oil Monthly Price Adjustment Report"; 1976 forward: FEA Form P112-M-1 and EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."
- Natural gas—Annual data 1973 through 1982 from EIA, *Natural Gas Annual*, based on Form EIA-176, "Supply and Distribution of Natural Gas," and predecessors. Annual 1983 and quarterly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index for natural gas and are adjusted to conform with final reported annual data. See Note 9 in the Notes and Sources for the Price Section.
- Electricity—Federal Energy Regulatory Commission (FERC), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."
- Deflator (The Consumer Price Index)—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.
- U.S. Passenger Car Efficiency:** • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

## Energy Consumption

Total U.S. energy consumption in 1983 was 70.5 quadrillion Btu, 0.5 percent below the 1982 level.

Residential and commercial sector consumption was 25.5 quadrillion Btu during 1983, down 0.4 percent from the 1982 level. The residential and commercial sector accounted for 36.2 percent of the 1983 total, the same as during the previous year.

Industrial sector consumption was 25.9 quadrillion Btu in 1983, down 0.7 percent from the 1982 level. This sector consumed 36.8 percent of the 1983 total, about the same as in the previous year.

Transportation sector consumption was 19.0 quadrillion Btu in 1983, down 0.4 percent from the 1982 level. This sector consumed 27.0 percent of the 1983 total, about the same as in the previous year.

The electric utilities consumption was an estimated 25.0 quadrillion Btu of energy in 1983, 2.9 percent higher than in 1982. Coal contributed 53.0 percent of the energy consumed by electric utilities during 1983, while hydroelectric contributed 15.3 percent; nuclear, 12.9 percent; natural gas, 12.1 percent; petroleum, 6.2 percent; and geothermal and wood and waste, 0.5 percent.

Energy consumption summary for the month of December is on page 30.

## Energy Consumption Summary for January through December 1983 (Quadrillion (10<sup>15</sup>) Btu)

Energy Source	Sector					TOTAL
	Residential and Commercial	Industrial	Transportation	Electric Utilities		
Coal	0.193	2.422	0.000	13.234	15.850	
Natural Gas (dry)	7.088	6.745	0.576	3.014	17.430	
Petroleum Products	2.326	7.734	18.381	1.543	29.983	
Hydroelectric	0.000	0.033	0.000	3.823	3.856	
Nuclear	0.000	0.000	0.000	3.217	3.217	
Net Imports of Coal Coke	0.000	(0.016)	0.000	0.000	(0.016)	
Other <sup>1</sup>	0.000	0.000	0.000	0.135	0.135	
<b>PRIMARY CONSUMPTION</b>	<b>9.607</b>	<b>16.918</b>	<b>18.957</b>	<b>24.965</b>	<b>70.454</b>	
Electricity Sales	4.675	2.646	0.010	(7.331)		
Net Energy Consumption	14.282	19.564	18.967		52.813	
Electrical Energy Losses	11.241	6.368	0.024	(17.634)	17.634	
<b>TOTAL ENERGY CONSUMED</b>	<b>25.523</b>	<b>25.932</b>	<b>18.991</b>		<b>70.454</b>	

<sup>1</sup> Includes only geothermal power and electricity produced from wood and waste.

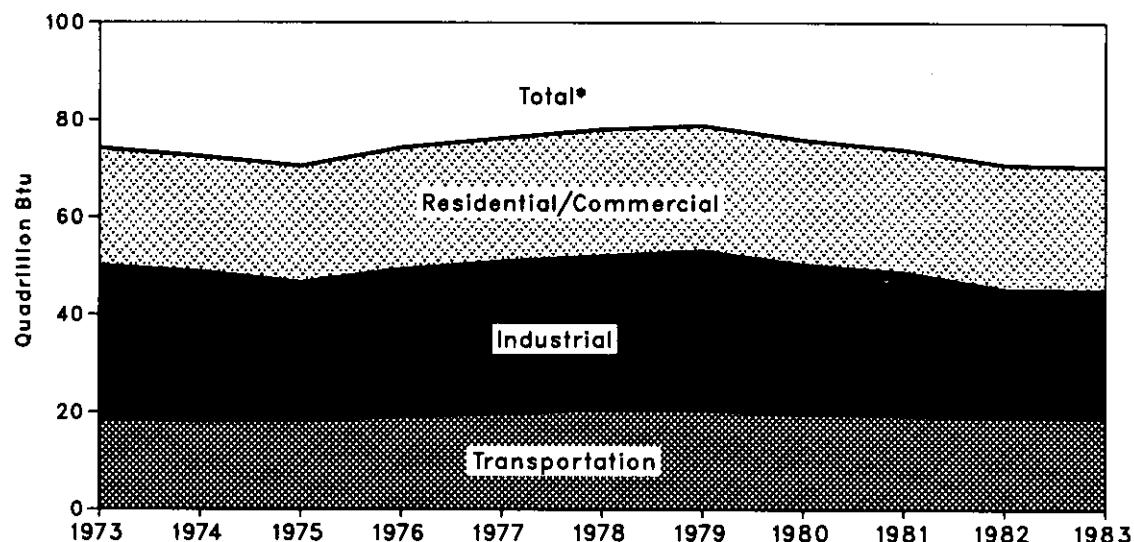
Notes: • Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors.

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

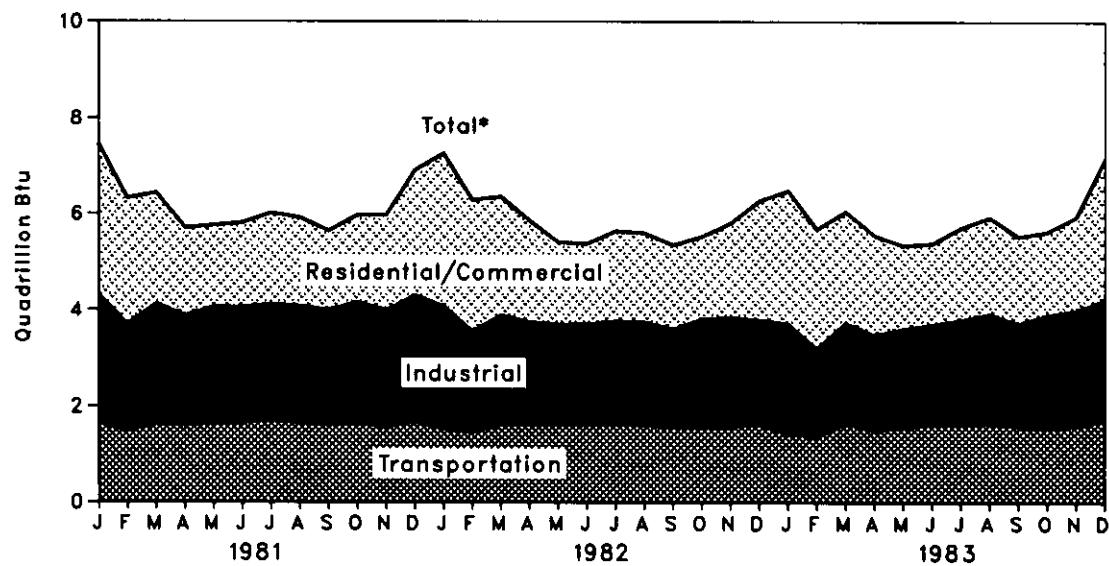
# Consumption

## Consumption of Energy by End-Use Sector

Yearly



Monthly



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

# Consumption

## Consumption of Energy by End-Use Sector

		Residential and Commercial	Industrial	Transportation	Total Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu					
1973	TOTAL	R24.147	R31.463	R18.596	R74.212
1974	TOTAL	R23.729	R30.630	R18.113	R72.479
1975	TOTAL	R23.902	R28.343	R18.240	R70.485
1976	TOTAL	R25.020	R30.177	R19.093	R74.297
1977	TOTAL	R25.375	R31.021	R19.808	R76.215
1978	TOTAL	R26.084	R31.363	R20.589	R78.039
1979	TOTAL	R25.810	R32.567	R20.464	R78.845
1980	TOTAL	R25.654	R30.549	R19.693	R75.900
1981	January	R3.157	R2.639	R1.659	R7.455
	February	R2.643	R2.215	R1.472	R6.328
	March	R2.319	R2.504	R1.616	R6.436
	April	R1.835	R2.272	R1.601	R5.705
	May	R1.708	R2.419	R1.634	R5.761
	June	R1.761	R2.387	R1.663	R5.813
	July	R1.903	R2.414	R1.700	R6.018
	August	R1.849	R2.415	R1.655	R5.919
	September	R1.659	R2.387	R1.604	R5.646
	October	R1.811	R2.518	R1.642	R5.969
	November	R1.990	R2.412	R1.572	R5.972
	December	R2.610	R2.626	R1.679	R6.917
	<b>TOTAL</b>	<b>R25.246</b>	<b>R29.208</b>	<b>R19.495</b>	<b>R73.940</b>
1982	January	R3.194	R2.533	R1.536	R7.263
	February	R2.750	R2.098	R1.449	R6.293
	March	R2.475	R2.268	R1.620	R6.360
	April	R2.114	R2.122	R1.621	R5.854
	May	R1.726	R2.077	R1.613	R5.414
	June	R1.683	R2.092	1.611	R5.386
	July	R1.883	R2.124	R1.640	R5.649
	August	R1.862	R2.139	R1.607	R5.612
	September	R1.759	R2.026	R1.576	R5.363
	October	R1.731	R2.225	1.577	R5.534
	November	R1.966	R2.257	R1.582	R5.808
	December	R2.496	R2.151	R1.634	R6.287
	<b>TOTAL</b>	<b>R25.638</b>	<b>R26.111</b>	<b>R19.066</b>	<b>R70.822</b>
1983	January	R2.782	R2.262	R1.446	R6.493
	February	R2.485	R1.838	R1.360	R5.684
	March	R2.323	R2.076	1.656	R6.057
	April	R2.081	R1.969	R1.511	R5.559
	May	R1.746	R2.038	R1.569	R5.351
	June	R1.705	R2.055	R1.634	R5.396
	July	R1.921	R2.159	R1.632	R5.713
	August	R2.016	R2.245	R1.671	R5.936
	September	R1.828	R2.116	R1.594	R5.537
	October	R1.745	R2.304	R1.585	R5.633
	November	R1.956	R2.391	R1.599	R5.945
	December	2.936	2.479	1.734	7.150
	<b>TOTAL</b>	<b>25.523</b>	<b>25.932</b>	<b>18.991</b>	<b>70.454</b>

Explanation of revisions given on page 34.

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

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu								
1973	TOTAL	R0.259	7.626	4.391	3.495	8.377	R24.147	
1974	TOTAL	R0.260	7.518	3.996	3.475	8.480	R23.729	
1975	TOTAL	R0.212	7.581	3.805	3.604	8.700	R23.902	
1976	TOTAL	R0.206	7.866	4.181	3.747	9.020	R25.020	
1977	TOTAL	R0.207	7.461	4.206	3.955	9.545	R25.375	
1978	TOTAL	R0.215	7.624	4.070	4.116	10.060	R26.084	
1979	TOTAL	R0.188	7.891	3.448	4.184	R10.100	R25.810	
1980	TOTAL	R0.147	7.539	3.035	4.355	10.578	R25.654	
1981	January	R0.020	R1.269	0.437	0.425	R1.005	R3.157	R3.157
	February	R0.016	R1.123	0.293	0.391	R0.819	R2.643	R5.800
	March	R0.011	R0.912	0.202	0.355	R0.839	R2.319	R8.119
	April	R0.013	R0.591	R0.147	0.325	R0.759	R1.835	R9.954
	May	R0.011	R0.422	0.155	0.321	R0.799	R1.708	R11.662
	June	R0.007	0.291	0.148	0.365	R0.951	R1.761	R13.424
	July	R0.010	0.241	0.138	0.429	R1.085	R1.903	R15.327
	August	0.011	0.236	0.149	0.431	R1.022	R1.849	R17.176
	September	R0.014	0.246	0.153	0.392	R0.853	R1.659	R18.834
	October	R0.014	0.390	0.249	0.348	R0.810	R1.811	R20.646
	November	R0.019	R0.584	0.257	0.336	R0.794	R1.990	R22.636
	December	R0.024	R0.943	0.306	0.380	R0.958	R2.610	R25.246
	TOTAL	R0.171	R7.249	R2.634	4.497	R10.696	R25.246	
1982	January	R0.023	R1.344	R0.303	0.440	R1.085	R3.194	R3.194
	February	R0.016	R1.222	R0.228	0.409	R0.875	R2.750	R5.943
	March	R0.013	R0.948	R0.252	0.373	R0.890	R2.475	R8.419
	April	R0.016	R0.706	R0.243	0.346	R0.803	R2.114	R10.533
	May	R0.011	R0.382	R0.181	0.327	R0.825	R1.726	R12.258
	June	R0.008	0.279	R0.144	0.358	R0.894	R1.683	R13.941
	July	R0.014	0.245	R0.121	0.412	R1.090	R1.883	R15.824
	August	R0.015	0.234	R0.134	0.431	R1.049	R1.862	R17.686
	September	R0.015	0.247	R0.197	0.403	R0.897	R1.759	R19.445
	October	R0.015	R0.343	R0.201	0.349	R0.823	R1.731	R21.176
	November	R0.019	0.605	R0.172	0.340	R0.830	R1.966	R23.142
	December	R0.023	R0.878	R0.274	0.381	R0.940	R2.496	R25.638
	TOTAL	R0.189	R7.433	R2.449	4.566	R11.000	R25.638	
1983	January	R0.022	R1.081	R0.257	0.413	R1.008	R2.782	R2.782
	February	R0.015	R1.049	R0.199	0.390	R0.833	R2.485	R5.267
	March	R0.013	R0.821	R0.235	0.366	R0.889	R2.323	R7.590
	April	R0.016	R0.698	R0.210	0.352	R0.805	R2.081	R9.670
	May	R0.011	R0.427	R0.164	0.327	R0.817	R1.746	R11.416
	June	R0.009	0.290	R0.139	0.359	R0.908	R1.705	R13.121
	July	R0.014	0.233	R0.118	0.431	R1.126	R1.921	R15.042
	August	R0.013	R0.224	R0.136	0.470	R1.174	R2.016	R17.059
	September	R0.017	0.233	R0.191	0.449	R0.937	R1.828	R18.886
	October	R0.018	0.333	R0.192	0.366	R0.835	R1.745	R20.631
	November	R0.020	0.559	R0.185	0.350	R0.841	R1.956	R22.587
	December	0.025	1.140	0.301	0.402	1.067	2.936	25.523
	TOTAL	0.193	7.088	2.326	4.675	11.241	25.523	

Explanation of revisions given on page 34.

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

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

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

# Consumption

## Consumption of Energy by the Industrial Sector

		Coal	Natural Gas (Dry)	Petro-leum	Hydro-electric	Net Coke Imports	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu										
1973	TOTAL	R3.984	10.388	R9.113	0.035	(0.008)	2.341	5.610	R31.463	
1974	TOTAL	R3.800	10.003	R8.698	0.033	0.059	2.337	5.700	R30.630	
1975	TOTAL	R3.602	8.532	R8.151	0.032	0.014	2.346	5.665	R28.343	
1976	TOTAL	R3.595	8.761	R9.018	0.033	0.000	2.573	6.197	R30.177	
1977	TOTAL	R3.394	8.636	R9.786	0.033	0.015	2.682	6.476	R31.021	
1978	TOTAL	R3.258	8.539	R9.890	0.032	0.131	2.761	6.755	R31.363	
1979	TOTAL	R3.532	8.549	R10.576	0.034	0.066	2.873	R6.937	R32.567	
1980	TOTAL	R3.103	8.394	R9.524	0.033	(0.037)	2.781	6.751	R30.549	
1981	January	R0.290	R0.755	R0.822	0.003	0.000	0.229	R0.541	R2.639	R2.639
	February	R0.269	0.526	R0.706	0.003	(0.001)	0.230	R0.482	R2.215	R4.854
	March	R0.272	R0.691	R0.753	0.003	(0.003)	0.234	R0.554	R2.504	R7.358
	April	R0.252	R0.589	R0.653	0.003	(0.001)	0.232	R0.544	R2.272	R9.630
	May	R0.230	R0.669	R0.699	0.003	0.000	0.234	R0.583	R2.419	R12.049
	June	R0.225	R0.617	R0.664	0.003	(0.004)	0.244	R0.637	R2.387	R14.436
	July	R0.263	R0.642	R0.643	0.003	0.000	0.245	R0.618	R2.414	R16.850
	August	R0.266	0.667	R0.650	0.002	0.000	0.246	R0.584	R2.415	R19.265
	September	R0.259	0.675	R0.683	0.002	(0.002)	0.242	R0.527	R2.387	R21.652
	October	R0.260	R0.808	R0.665	0.002	(0.003)	0.236	R0.550	R2.518	R24.170
	November	R0.262	0.756	R0.633	0.002	0.000	0.226	R0.533	R2.412	R26.582
	December	R0.262	R0.871	R0.724	0.002	(0.003)	0.219	R0.552	R2.626	R29.208
	TOTAL	R3.109	R8.265	R8.295	0.033	(0.017)	2.817	R6.704	R29.208	
1982	January	R0.262	0.793	R0.731	0.003	0.000	0.215	R0.530	R2.533	R2.533
	February	R0.245	0.520	R0.658	0.003	(0.001)	0.214	R0.459	R2.098	R4.631
	March	R0.236	0.622	R0.663	0.003	(0.002)	0.220	R0.526	R2.268	R6.898
	April	R0.218	R0.515	R0.676	0.003	(0.001)	0.214	R0.496	R2.122	R9.020
	May	R0.211	0.480	R0.634	0.003	(0.003)	0.213	R0.538	R2.077	R11.097
	June	R0.197	R0.524	R0.612	0.003	(0.004)	0.217	R0.543	R2.092	R13.189
	July	R0.191	R0.529	R0.625	0.003	(0.003)	0.214	R0.565	R2.124	R15.313
	August	R0.192	0.537	R0.667	0.002	(0.001)	0.216	R0.526	R2.139	R17.452
	September	R0.184	R0.583	R0.600	0.002	(0.003)	0.205	R0.456	R2.026	R19.478
	October	R0.192	0.678	R0.657	0.002	(0.001)	0.208	R0.489	R2.225	R21.703
	November	R0.195	0.708	R0.641	0.002	(0.002)	0.207	R0.505	R2.257	R23.960
	December	R0.197	0.626	R0.635	0.002	(0.001)	0.199	R0.493	R2.151	R26.111
	TOTAL	R2.520	R7.116	R7.798	0.033	(0.023)	2.542	R6.126	R26.111	
1983	January	R0.208	R0.666	R0.706	0.003	(0.001)	0.198	R0.483	R2.262	R2.262
	February	R0.194	0.406	R0.604	0.003	(0.001)	0.202	R0.431	R1.838	R4.099
	March	R0.185	R0.554	R0.631	0.003	(0.001)	0.206	R0.499	R2.076	R6.176
	April	R0.202	0.469	R0.618	0.003	(0.002)	0.207	R0.473	R1.969	R8.145
	May	R0.196	0.490	R0.602	0.003	(0.002)	0.214	R0.534	R2.038	R10.183
	June	R0.180	R0.452	R0.625	0.003	(0.001)	0.226	R0.571	R2.055	R12.238
	July	R0.207	0.500	R0.635	0.003	(0.002)	0.226	R0.589	R2.159	R14.397
	August	R0.210	R0.550	R0.654	0.002	(0.001)	0.237	R0.593	R2.245	R16.642
	September	R0.203	0.547	R0.631	0.002	(0.001)	0.237	R0.495	R2.116	R18.758
	October	R0.205	R0.657	R0.669	0.002	(0.001)	0.235	R0.537	R2.304	R21.062
	November	R0.207	R0.707	R0.692	0.002	(0.001)	0.230	R0.553	R2.391	R23.453
	December	0.226	0.748	0.668	0.002	(0.003)	0.229	0.608	2.479	25.932
	TOTAL	2.422	6.745	7.734	0.033	(0.016)	2.646	6.368	25.932	

Explanation of revisions given on page 34.

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

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

# Consumption

## Consumption of Energy by the Transportation Sector

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu								
1973	TOTAL	0.003	0.743	R17.821	0.009	0.020	R18.596	
1974	TOTAL	0.002	0.685	R17.396	0.009	0.022	R18.113	
1975	TOTAL	0.001	0.595	R17.610	0.010	0.025	R18.240	
1976	TOTAL	( <sup>1</sup> )	0.559	R18.499	0.010	0.025	R19.093	
1977	TOTAL	( <sup>1</sup> )	0.543	R19.230	0.010	0.025	R19.808	
1978	TOTAL	( <sup>1</sup> )	0.539	R20.019	0.009	0.022	R20.589	
1979	TOTAL	( <sup>1</sup> )	0.612	R19.817	0.010	0.025	R20.464	
1980	TOTAL	( <sup>1</sup> )	0.648	R19.009	0.011	0.026	R19.693	
1981	January	( <sup>1</sup> )	0.077	R1.578	0.001	0.002	R1.659	R1.659
	February	( <sup>1</sup> )	0.065	R1.405	0.001	0.002	R1.472	R3.131
	March	( <sup>1</sup> )	0.065	R1.548	0.001	0.002	R1.616	R4.746
	April	( <sup>1</sup> )	0.050	R1.547	0.001	0.002	R1.601	R6.347
	May	( <sup>1</sup> )	0.048	R1.583	0.001	0.002	R1.634	R7.981
	June	( <sup>1</sup> )	0.044	R1.615	0.001	0.002	R1.663	R9.644
	July	( <sup>1</sup> )	0.044	R1.653	0.001	0.002	R1.700	R11.344
	August	( <sup>1</sup> )	0.044	R1.608	0.001	0.002	R1.655	R12.999
	September	( <sup>1</sup> )	0.043	R1.558	0.001	0.002	R1.604	R14.603
	October	( <sup>1</sup> )	0.051	R1.587	0.001	0.002	R1.642	R16.245
	November	( <sup>1</sup> )	0.055	R1.514	0.001	0.002	R1.572	R17.817
	December	( <sup>1</sup> )	0.071	R1.604	0.001	0.002	R1.679	R19.495
	<b>TOTAL</b>	( <sup>1</sup> )	<b>R0.658</b>	<b>R18.800</b>	<b>0.011</b>	<b>0.026</b>	<b>R19.495</b>	
1982	January	( <sup>1</sup> )	0.081	R1.452	0.001	R0.002	R1.536	R1.536
	February	( <sup>1</sup> )	0.068	R1.378	0.001	0.002	R1.449	R2.985
	March	( <sup>1</sup> )	0.063	R1.554	0.001	0.002	R1.620	R4.605
	April	( <sup>1</sup> )	0.050	R1.568	0.001	0.002	R1.621	R6.226
	May	( <sup>1</sup> )	0.039	R1.571	0.001	0.002	R1.613	R7.840
	June	( <sup>1</sup> )	0.038	1.570	0.001	0.002	1.611	R9.451
	July	( <sup>1</sup> )	0.039	R1.597	0.001	0.002	R1.640	R11.090
	August	( <sup>1</sup> )	0.039	R1.565	0.001	0.002	R1.607	R12.698
	September	( <sup>1</sup> )	0.039	R1.534	0.001	0.002	R1.576	R14.274
	October	( <sup>1</sup> )	0.044	R1.529	0.001	0.002	1.577	R15.850
	November	( <sup>1</sup> )	0.053	R1.525	0.001	0.002	R1.582	R17.432
	December	( <sup>1</sup> )	R0.060	R1.571	0.001	0.002	R1.634	R19.066
	<b>TOTAL</b>	( <sup>1</sup> )	<b>R0.613</b>	<b>R18.417</b>	<b>0.011</b>	<b>R0.026</b>	<b>R19.066</b>	
1983	January	( <sup>1</sup> )	0.067	R1.376	0.001	0.002	R1.446	R1.446
	February	( <sup>1</sup> )	0.056	R1.301	0.001	0.002	R1.360	2.806
	March	( <sup>1</sup> )	0.054	1.599	0.001	0.002	1.656	4.462
	April	( <sup>1</sup> )	0.047	R1.461	0.001	0.002	R1.511	R5.974
	May	( <sup>1</sup> )	0.039	R1.527	0.001	0.002	R1.569	R7.543
	June	( <sup>1</sup> )	0.034	R1.597	0.001	0.002	R1.634	R9.176
	July	( <sup>1</sup> )	0.036	R1.593	0.001	0.002	R1.632	R10.809
	August	( <sup>1</sup> )	0.039	R1.629	0.001	0.002	R1.671	R12.480
	September	( <sup>1</sup> )	0.037	R1.554	0.001	0.002	R1.594	R14.073
	October	( <sup>1</sup> )	0.043	R1.539	0.001	0.002	R1.585	R15.658
	November	( <sup>1</sup> )	0.051	R1.545	0.001	0.002	R1.599	R17.257
	December	( <sup>1</sup> )	0.072	1.659	0.001	0.002	1.734	18.991
	<b>TOTAL</b>	( <sup>1</sup> )	<b>0.576</b>	<b>18.381</b>	<b>0.010</b>	<b>0.024</b>	<b>18.991</b>	

Explanation of revisions given on page 34.

<sup>1</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

		Natural Gas (Dry)	Petro- leum <sup>1</sup>	Hydro- electric power <sup>2</sup>	Nuclear Electric Power	Other <sup>3</sup>	Total Energy Input	Yearly Cumulative Energy Input
Quadrillion (10 <sup>12</sup> ) Btu								
1973	TOTAL	8.658	3.748	3.515	2.975	0.910	0.046	19.852
1974	TOTAL	8.535	3.519	3.365	3.276	1.272	0.056	20.023
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	21.573
1977	TOTAL	10.243	3.284	3.901	2.482	2.702	0.082	22.694
1978	TOTAL	10.236	3.297	3.987	3.110	3.024	0.068	23.722
1979	TOTAL	11.264	3.609	3.283	3.107	R2.776	0.089	R24.129
1980	TOTAL	12.122	3.807	2.634	3.085	2.739	0.114	24.501
1981	January	1.153	0.239	0.275	R0.263	R0.262	0.011	R2.204
	February	1.010	R0.231	0.188	R0.247	R0.238	0.010	R1.925
	March	1.020	R0.282	0.184	R0.245	R0.243	0.011	R1.985
	April	0.921	0.299	0.160	R0.245	R0.228	0.010	R1.863
	May	0.949	0.327	0.156	R0.281	R0.218	0.010	R1.941
	June	1.056	R0.393	0.203	R0.304	R0.233	0.010	R2.200
	July	1.184	R0.424	0.214	R0.292	R0.255	0.011	R2.380
	August	1.149	R0.402	0.171	R0.255	R0.297	0.011	R2.285
	September	1.022	0.336	0.165	R0.215	R0.269	0.011	R2.018
	October	1.008	0.312	0.171	R0.219	R0.227	0.011	R1.947
	November	0.991	R0.267	0.146	R0.227	R0.251	0.010	R1.892
	December	1.120	R0.247	0.169	R0.279	R0.287	0.010	R2.112
	TOTAL	12.583	R3.760	2.202	R3.072	R3.008	0.127	R24.752
1982	January	R1.204	0.246	0.221	R0.309	R0.283	0.009	R2.272
	February	R1.036	0.228	0.162	R0.304	R0.222	0.008	R1.960
	March	R1.015	0.255	0.144	R0.340	R0.251	0.007	R2.011
	April	R0.922	0.255	0.120	R0.319	R0.240	0.007	R1.862
	May	R0.967	0.267	0.106	R0.320	R0.238	0.008	R1.907
	June	R1.005	0.306	0.111	R0.319	R0.265	0.010	R2.015
	July	R1.171	0.365	0.144	R0.313	R0.281	0.010	R2.284
	August	R1.162	0.374	0.125	R0.278	R0.275	0.010	R2.224
	September	R1.026	0.303	0.110	R0.235	R0.280	0.010	R1.964
	October	R0.982	R0.283	0.106	R0.234	R0.256	0.011	R1.871
	November	R1.013	0.234	0.100	R0.270	R0.256	0.011	R1.885
	December	R1.079	0.222	0.120	R0.318	R0.269	0.009	R2.016
	TOTAL	R12.582	R3.338	1.568	R3.559	R3.115	0.108	R24.271
1983	January	R1.129	R0.216	0.137	R0.336	R0.276	0.011	R2.105
	February	R0.968	0.183	0.134	R0.319	R0.245	0.008	R1.857
	March	R0.995	0.215	0.133	R0.347	R0.263	0.010	R1.963
	April	R0.922	0.210	0.110	R0.342	R0.246	0.009	R1.839
	May	R0.967	0.226	0.097	R0.356	R0.243	0.007	R1.895
	June	R1.065	R0.257	0.119	R0.350	R0.266	0.010	R2.067
	July	R1.278	0.325	0.155	R0.323	R0.282	0.012	R2.375
	August	R1.358	0.364	0.158	R0.300	R0.282	0.016	R2.477
	September	R1.147	0.309	0.123	R0.256	R0.274	0.014	R2.122
	October	R1.072	0.260	0.106	R0.246	R0.276	0.015	R1.976
	November	R1.083	R0.222	0.099	R0.287	R0.275	0.013	R1.978
	December	1.251	0.227	0.171	0.361	0.290	0.011	2.310
	TOTAL	13.234	3.014	1.543	3.823	3.217	0.135	24.965

Explanation of revisions given on page 34.

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

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

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

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

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

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

## Energy Consumption Summary for December 1983

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

Energy Source	Sector				TOTAL
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.025	0.226	0.000	1.251	1.501
Natural Gas (dry)	1.140	0.748	0.072	0.227	2.189
Petroleum Products	0.301	0.668	1.659	0.171	2.799
Hydroelectric	0.000	0.002	0.000	0.361	0.364
Nuclear	0.000	0.000	0.000	0.290	0.290
Net Imports of Coal Coke	0.000	(0.003)	0.000	0.000	(0.003)
Other <sup>1</sup>	0.000	0.000	0.000	0.011	0.011
<b>PRIMARY CONSUMPTION</b>	<b>1.466</b>	<b>1.641</b>	<b>1.731</b>	<b>2.310</b>	<b>7.150</b>
Electricity Sales	0.402	0.229	0.001	(0.633)	
Net Energy Consumption	1.868	1.871	1.732		5.472
Electrical Energy Losses	1.067	0.608	0.002	(1.678)	1.678
<b>TOTAL ENERGY CONSUMED</b>	<b>2.936</b>	<b>2.479</b>	<b>1.734</b>		<b>7.150</b>

<sup>1</sup> Includes only geothermal power and electricity produced from wood and waste.

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

• Additional notes and sources for this table and all other tables in this section are provided on the next page.

## Notes and Sources for the Consumption Section

**1. Total Energy Consumed:** Total energy consumed includes coal (anthracite, bituminous coal, and lignite), natural gas (dry), refined petroleum products supplied, electric utility and industrial generation of electricity from hydropower, net imports of electricity generated from hydropower, and electricity generated from nuclear power, geothermal power, and wood and waste. Data do not include the consumption of wood-derived fuel other than that consumed by the electric utility industry. Also excluded are small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at 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, cooking, and clothes drying; by non-manufacturing business establishments, including motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; by health, social, and educational institutions; and by Federal, State, and local governments.
- Industrial sector—Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- Transportation sector—Energy consumed to move people and commodities in both the public and private sectors, including military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.
- Electric utility sector—Energy consumed by privately- and publicly-owned establishments that generate electricity primarily for resale.

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

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

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

**5. Natural Gas:** Natural gas consumption by end-use sector is based on data presented in the table titled "Natural and Supplemental Gas Consumption" in Part 4. For the Part 2 consumption summary, 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 and 1982: EIA, *Petroleum Supply Annual*.  
• 1983 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.

(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

- **Electric Utility Sector, All Periods.**

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

- **Nonutility Sectors, Annual Estimates.**

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

- Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
    - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.

- **Nonutility Sectors, Monthly Estimates Through 1982.**

Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980 and the American Petroleum Institute since January 1981.

The transportation sector highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.

Industrial sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

- **Nonutility Sectors, 1983 Forward.**

Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.

- **Jet Fuel**—Small amounts of kerosene-type jet fuel in all periods are consumed by the electric utility sector. Kerosene-type jet fuel deliveries to electric utilities as reported on the FERC-423 (formerly FPC-423) are used as an estimate 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" reports (based primarily on data collected by Form EIA-172) as follows:

- Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;
    - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
    - Industrial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to 'all other uses.'

- **Liquefied Petroleum Gases (LPG)**

— 1973 through 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 equal 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.

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

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

### 6. Petroleum (continued):

- 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: The 1982 annual end-use shares are applied for succeeding periods to estimate the amount of the total LPG supplied that is consumed by each major end-use sector.
- **Lubricants**—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 forward.
- **Motor Gasoline**—Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories formed from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:
  - Commercial sales are the sum of sales for public non-highway use, miscellaneous use, and unclassified use;
  - Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*; and
  - Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.
- **Petroleum Coke**—The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining portion is assigned to the industrial sector.
- **Residual Fuel**
  - **Electric Utility Sector, All Periods.** Monthly and annual consumption 1973 through 1979 is assumed to be the amount of oil reported as consumed in steam electric plants. From January 1980, electric utility consumption of residual fuel is assumed to be the petroleum products reported as "heavy oil" consumed at utilities. Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."
  - **Nonutility Sectors, Annual Estimates.** The aggregate nonutility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel delivered to end-users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
    - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, oil company, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.
  - **Nonutility Sectors, Monthly Estimates Through 1982.**
    - Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute since January 1981.
    - Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
    - Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.
  - **Nonutility Sectors, 1983 Forward.** Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.
- **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: Includes electricity generated by hydropower at electric utilities, small amounts in the industrial sector, and net imports of electricity, which are assumed to be generated by hydropower and are included in the hydroelectricity in the electric utilities sector.

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

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

### 7. Hydroelectric (continued):

#### *Sources for electric utilities sector:*

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

#### *Sources for industrial sector:*

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

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

#### *Sources for imports and exports of electricity:*

- 1973 through 1980 annual: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
- 1981 annual: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1982 annual: DOE, Economic Regulatory Administration, Office of Fuels Programs, 'Electricity Exchanges Across International Borders - 1982,' DOE/RG-0062, May 1983.
- Monthly through 1982: Estimates are derived by dividing the annual number by the number of days in the year and multiplying by the number of days in the month.
- 1983 forward: EIA estimates.

### 8. Nuclear:

#### *Sources:*

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

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

#### *Sources:*

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

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

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

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

#### *Sources of sales data:*

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

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

## Summary of Revisions to the Consumption Section

Revisions to the end-use consumption estimates in this section of the *Monthly Energy Review* include:

- More specific end-use conversion factors were implemented for bituminous coal and lignite. The one annual conversion factor previously applied to all nonutility sectors has been replaced with three end-use annual factors: (1) a residential and commercial factor; (2) a coke plant factor; and (3) an other industry factor. The new factors appear in the Conversion Factors section of this publication.
- About 0.01 to 0.02 quadrillion Btu of petroleum per year was shifted from the industrial sector to the transportation sector as a result of a reestimation with LPG. Previously, LPG sales for internal combustion engine use were split 16 percent to the transportation sector and 84 percent to the industrial sector for all years and months. This constant split was replaced with a variable annual split based on a 5-year moving average of the percentage of carburetors sold to the two sectors. The proportions range from 31 percent transportation and 69 percent industrial in 1973 to 52 percent transportation and 48 percent industrial in 1982.
- Small amounts of kerosene-type jet fuel that had been counted in the industrial sector in 1975, 1976, and 1977 were reassigned to the transportation sector.

## **Crude Oil and Refined Petroleum Products\***

Domestic crude oil production during February 1984 was estimated to be 8.7 million barrels per day, 0.8 percent above the rate in both January 1984 and February 1983.

Total petroleum imports averaged 5.3 million barrels per day in February 1984, 1.3 percent less than the January 1984 rate but 42.9 percent more than the February 1983 rate.

In February 1984, 15.4 million barrels per day of petroleum products were supplied for domestic use, 8.0 percent below the level in January 1984 but 4.2 percent above the level of the previous February. Motor gasoline accounted for 39.7 percent of the total; distillate fuel oil, 18.1 percent; and residual fuel oil, 9.9 percent.

Motor gasoline supplied during February 1984 averaged 6.1 million barrels per day, 2.5 percent below the rate in January 1984 but 1.5 percent above the rate of the previous February. Stocks of motor gasoline to-

taled 233 million barrels at the end of February 1984, 8 million barrels above the level at the end of January 1984 but 18 million barrels below the February 1983 level.

In February 1984, 2.8 million barrels of distillate fuel oil were supplied per day, 20.1 percent lower than the January 1984 rate and 1.6 percent lower than the February 1983 level. Distillate fuel oil stocks were 130 million barrels at the end of February 1984, 11 million barrels above the level at the end of the previous month but 17 million barrels below the stock level of 1 year earlier.

Residual fuel oil supplied in February 1984 averaged 1.5 million barrels per day, 23.2 percent lower than in January 1984 and 3.0 percent lower than the February 1983 rate. Residual fuel oil stocks measured 52 million barrels at the end of February 1984, 7 million barrels above the level at the end of January 1984, but 1 million barrels below the ending stocks for the month of February 1983.

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\*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 November 1983. The total import data above include imports into the Strategic Petroleum Reserve.

# Petroleum

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

		Field Production			Stock Withdrawal <sup>2</sup>		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
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	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	*1,430
	AVERAGE	10,252	8,649	1,550	-136	283	15,296	
1983	January	10,356	8,634	1,668	-567	*865	14,765	1,453
	February	10,298	8,660	1,585	-382	1,128	14,772	1,432
	March	10,259	8,677	1,544	56	1,765	15,484	1,375
	April	10,229	8,686	1,502	-438	431	14,779	1,376
	May	10,231	8,682	1,483	68	-759	14,250	1,397
	June	10,262	8,676	1,514	-163	-242	15,281	1,409
	July	10,237	8,647	1,536	118	-922	14,913	1,434
	August	10,257	8,653	1,561	-781	-289	15,366	1,467
	September	10,323	8,666	1,598	-191	-634	15,396	1,492
	October	10,317	8,654	1,604	-180	-456	14,947	1,512
	November	10,310	8,624	1,636	182	-128	15,533	1,510
	December	10,188	8,612	1,533	-306	2,150	16,691	1,453
	AVERAGE	10,272	8,656	1,564	-215	239	15,184	
1984	January	10,282	8,659	1,585	R-342	R1,085	R16,726	R1,430
	February†	NA	8,726	NA	51	-749	15,386	1,442
	AVERAGE	NA	8,691	NA	-152	199	16,078	

<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.

\*Net imports equals imports minus exports.

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

Footnotes continued on following page.

# Petroleum

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

		Imports			Exports			Net Imports <sup>2</sup>
		Total	Crude Oil <sup>3</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	January	5,332	3,693	1,639	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,874	1,610	882	321	561	3,602
	April	4,378	2,849	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	262	542	4,008
	June	5,327	3,836	1,491	703	94	609	4,624
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,636	1,778	791	184	606	4,624
	October	5,306	3,670	1,636	932	270	662	4,374
	November	5,744	3,862	1,882	786	262	524	4,958
	December	4,606	3,000	1,605	860	193	667	3,746
	AVERAGE	5,113	3,488	1,625	815	236	579	4,298
1983	January	4,372	2,938	1,434	973	117	856	3,399
	February	3,691	2,268	1,423	865	262	603	2,825
	March	3,629	2,232	1,398	801	174	627	2,829
	April	4,744	3,154	1,590	809	88	721	3,935
	May	4,898	3,234	1,664	848	280	568	4,049
	June	5,218	3,502	1,716	774	144	630	4,443
	July	5,690	3,868	1,822	571	145	426	5,119
	August	6,036	4,174	1,863	663	172	491	5,373
	September	6,088	4,221	1,867	684	177	507	5,403
	October	5,256	3,446	1,810	576	140	436	4,680
	November	5,168	3,912	1,856	679	186	494	4,489
	December	4,986	3,214	1,772	639	95	544	4,348
	AVERAGE	4,988	3,303	1,686	739	164	575	4,249
1984	January	R5,347	R3,029	R2,318	575	153	422	4,772
	February†	5,275	3,016	2,258	NA	NA	NA	NA
	AVERAGE	5,312	3,023	2,289	NA	NA	NA	NA

Footnotes continued.

<sup>1</sup>Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.

<sup>2</sup>Notes: • Geographic coverage is the 50 States and the District of Columbia.

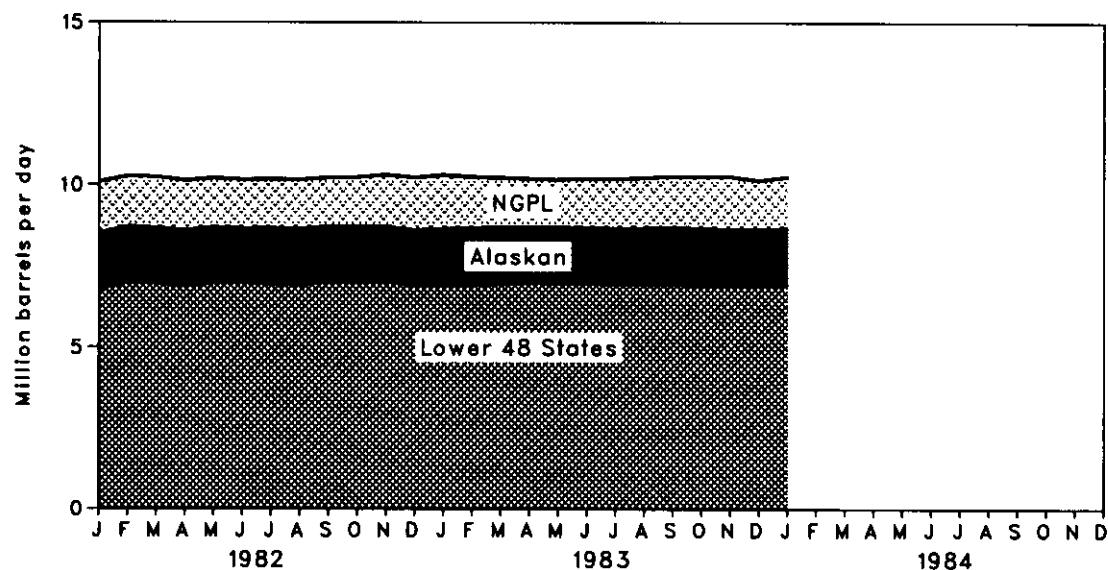
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

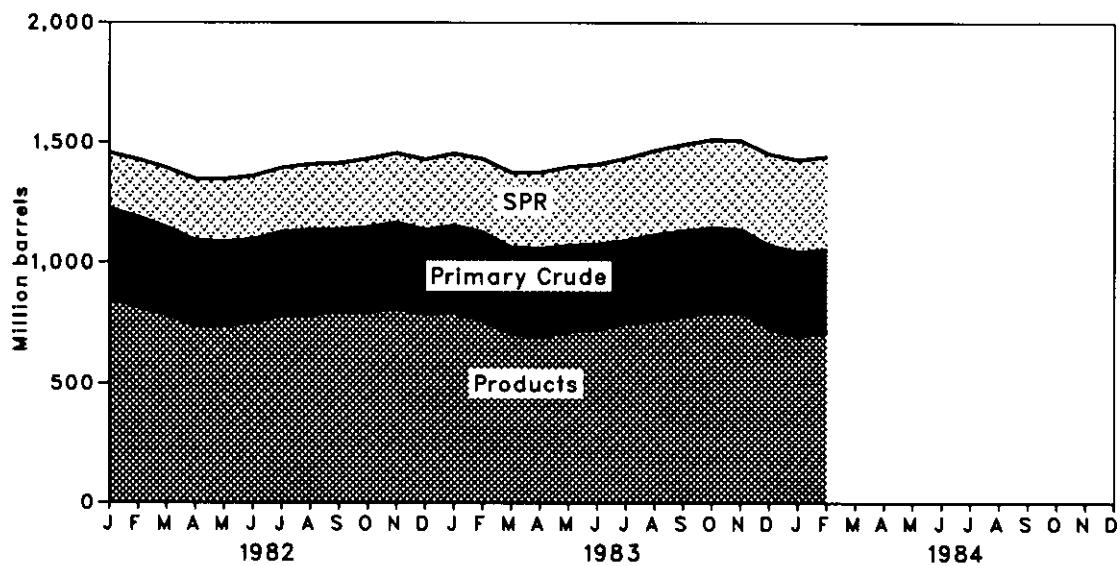
# Petroleum

## Overview

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



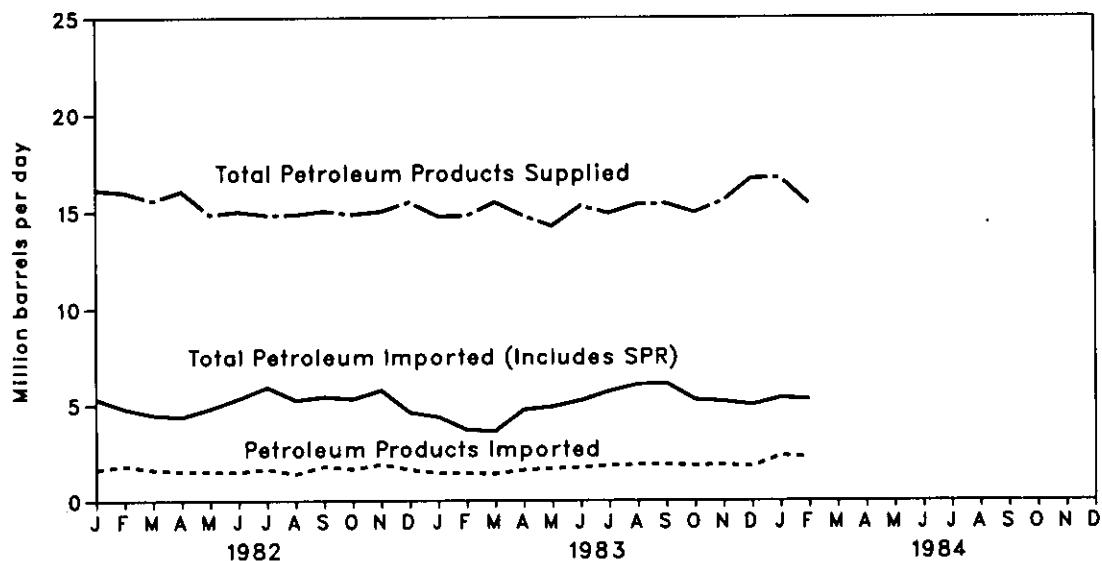
### Stocks



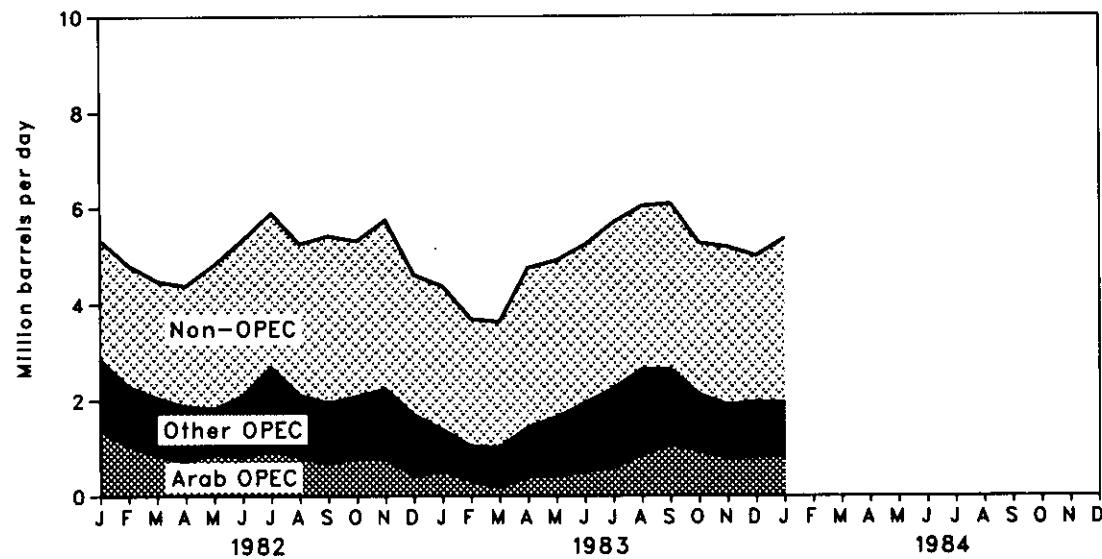
# Petroleum

## 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>		Unaccounted for Crude Oil
	Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other	
Thousand barrels per day								
1973	AVERAGE	9,208	198	3,244	3,244		11	3
1974	AVERAGE	8,774	193	3,477	3,477		-62	-25
1975	AVERAGE	8,375	191	4,105	4,105		-17	17
1976	AVERAGE	8,132	173	5,287	5,287		-39	77
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	AVERAGE	8,572	1,809	4,396	256	4,141	-336	83
1982	January	8,509	1,705	3,693	170	3,523	-159	-242
	February	8,702	1,707	2,990	159	2,830	-213	101
	March	8,667	1,696	2,874	185	2,689	-235	156
	April	8,591	1,691	2,849	190	2,659	-233	2
	May	8,683	1,707	3,309	204	3,105	-176	196
	June	8,646	1,665	3,836	105	3,732	-105	111
	July	8,658	1,710	4,248	97	4,150	-97	-50
	August	8,634	1,697	3,851	208	3,643	-208	-232
	September	8,701	1,705	3,636	139	3,497	-143	406
	October	8,701	1,706	3,670	216	3,454	-216	-332
	November	8,697	1,676	3,862	180	3,683	-179	249
	December	8,598	1,682	3,000	124	2,877	-125	-124
	AVERAGE	8,649	1,696	3,488	165	3,323	-174	35
							38	71
1983	January	8,634	1,698	2,938	219	2,720	-219	-348
	February	8,660	1,725	2,268	197	2,071	-197	423
	March	8,677	1,726	2,232	201	2,031	-184	134
	April	8,686	1,710	3,154	205	2,949	-197	191
	May	8,682	1,710	3,234	289	2,945	-293	362
	June	8,676	1,710	3,502	190	3,312	-188	480
	July	8,647	1,705	3,868	274	3,594	-264	382
	August	8,653	1,712	4,174	350	3,823	-358	-74
	September	8,666	1,722	4,221	309	3,912	-307	116
	October	8,654	1,731	3,446	202	3,244	-201	21
	November	8,624	1,713	3,312	171	3,141	-135	317
	December	8,612	1,713	3,214	193	3,021	-252	137
	AVERAGE	8,656	1,715	3,303	234	3,069	-234	-141
							19	159
1984	January	8,659	1,741	R3,029	R200	R2,829	R-173	R-169
	February†	8,726	1,740	3,016	87	2,930	-87	NA
	AVERAGE	8,691	1,741	3,023	145	2,878	-131	NA
							-21	

<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.

†Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

\*Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Note 6 on the last page of this section.

Footnotes continued on following page.

# Petroleum

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

	Supply		Disposition			Ending Stocks <sup>2</sup>		
	Crude Used Directly <sup>3</sup>	Crude Losses	Refinery Inputs	Exports	Product Supplied <sup>3</sup>	Total	SPR <sup>4</sup>	Other Primary
Thousand barrels per day								
1973 AVERAGE	-19	13	12,431	2	NA	242		242
1974 AVERAGE	-15	13	12,133	3	NA	265		265
1975 AVERAGE	-17	13	12,442	6	NA	271		271
1976 AVERAGE	-18	15	13,416	8	NA	285		285
1977 AVERAGE	-14	16	14,602	50	NA	348	7	340
1978 AVERAGE	-14	16	14,739	158	NA	376	67	309
1979 AVERAGE	-13	16	14,648	235	NA	430	91	339
1980 AVERAGE	-13	15	13,481	287	NA	466	108	358
1981 AVERAGE	-58	5	12,470	228	NA	594	230	363
1982	January	-63	3	11,599	238	NA	606	235
	February	-64	2	11,236	304	NA	613	241
	March	-63	5	11,276	321	NA	609	249
	April	-65	3	11,392	174	NA	610	256
	May	-62	3	11,806	262	NA	609	261
	June	-60	7	12,494	94	NA	608	264
	July	-60	3	12,446	229	NA	613	267
	August	-57	2	11,871	304	NA	626	274
	September	-56	4	12,146	184	NA	619	278
	October	-51	2	11,749	270	NA	636	285
	November	-51	1	11,724	262	NA	648	290
	December	-53	1	11,514	193	NA	644	294
	AVERAGE	-59	3	11,774	236	NA		
1983	January	NA	2	11,070	117	54	661	301
	February	NA	3	10,635	262	69	672	306
	March	NA	2	10,854	174	70	670	312
	April	NA	2	11,436	88	68	684	318
	May	NA	1	11,789	280	63	681	327
	June	NA	1	12,287	144	64	686	332
	July	NA	2	12,347	145	65	683	341
	August	NA	1	12,141	172	64	707	352
	September	NA	1	12,445	177	66	713	361
	October	NA	1	11,784	140	63	718	367
	November	NA	2	12,003	186	64	713	371
	December	NA	1	11,217	95	67	722	379
	AVERAGE	NA	1	11,672	164	65		
1984	January	NA	1	R11,579	153	64	R733	R384
	February†	NA	NA	12,116	NA	NA	727	387
	AVERAGE	NA	NA	11,838	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

## Crude Oil and Petroleum Product Imports

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

			Saudi Arabia	United Arab Emirates	Indo- nesia	Iran	Nigeria	Vene- zuela	Other OPEC <sup>2</sup>	Total OPEC	Total Arab OPEC <sup>3</sup>
Thousand barrels per day											
1973	AVERAGE	136	164	486	71	213	223	459	1,135	106	2,993
1974	AVERAGE	190	4	461	74	300	469	713	979	88	3,280
1975	AVERAGE	282	232	715	117	390	280	762	702	122	3,601
1976	AVERAGE	432	453	1,230	254	539	298	1,025	700	134	5,066
1977	AVERAGE	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	AVERAGE	649	654	1,144	385	573	555	919	645	226	5,751
1979	AVERAGE	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	AVERAGE	488	554	1,261	172	348	9	857	481	130	4,300
1981	AVERAGE	311	319	1,129	81	366	0	620	406	90	3,323
1982	January	254	161	877	111	289	0	663	376	128	2,859
	February	139	92	693	89	244	0	584	355	102	2,297
	March	91	37	555	155	200	0	522	399	91	2,051
	April	85	0	511	122	215	0	427	426	85	1,871
	May	179	0	601	116	236	0	222	422	54	1,830
	June	115	0	593	94	215	72	537	361	110	2,096
	July	159	0	660	108	327	69	910	356	95	2,685
	August	181	0	489	133	271	27	574	299	133	2,107
	September	179	0	432	57	191	21	477	518	69	1,943
	October	249	7	494	61	242	108	313	504	106	2,084
	November	247	14	489	47	283	34	479	528	115	2,235
	December	155	0	237	12	265	88	462	399	73	1,690
	AVERAGE	170	26	552	92	248	35	514	412	97	2,146
1983	January	204	0	282	47	255	43	186	324	43	1,384
	February	104	0	214	9	217	0	92	371	28	1,035
	March	63	0	103	0	138	0	121	425	173	1,023
	April	228	0	180	(s)	210	0	186	508	125	1,438
	May	284	0	122	12	324	37	352	444	69	1,645
	June	300	0	175	40	502	38	402	335	146	1,938
	July	282	0	182	58	464	112	525	431	187	2,240
	August	370	0	426	45	416	213	464	477	230	2,641
	September	413	0	587	21	516	86	324	472	208	2,627
	October	261	0	638	16	368	12	307	337	169	2,108
	November	165	0	545	56	318	21	214	435	135	1,891
	December	141	0	569	45	291	9	329	408	163	1,957
	AVERAGE	235	0	336	29	335	48	294	414	140	1,832
1984	January	242	0	463	114	278	0	243	547	51	1,939
											828

<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	180	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	January	58	513	425	179	106	346	62	334	452	2,474	5,332
	February	67	537	476	221	120	181	38	362	508	2,510	4,807
	March	43	437	503	189	118	294	62	307	480	2,433	4,484
	April	82	360	476	184	166	247	36	266	690	2,507	4,378
	May	77	419	766	152	95	516	47	302	607	2,981	4,811
	June	32	481	797	148	129	557	58	322	708	3,231	5,327
	July	64	536	783	158	118	433	38	376	698	3,204	5,890
	August	80	443	853	145	106	520	24	317	650	3,137	5,244
	September	92	493	897	195	89	631	51	278	746	3,472	5,414
	October	45	459	682	148	109	666	52	262	801	3,222	5,306
	November	51	553	860	212	90	623	81	334	706	3,508	5,744
	December	88	561	689	174	102	438	48	336	480	2,916	4,606
	AVERAGE	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	January	68	536	849	218	73	315	40	299	588	2,988	4,372
	February	92	592	722	179	81	193	50	192	554	2,655	3,691
	March	86	488	760	187	78	240	43	162	563	2,606	3,629
	April	167	452	981	216	85	421	20	183	781	3,306	4,744
	May	135	501	944	153	108	483	42	235	651	3,252	4,898
	June	137	576	831	181	120	424	48	252	712	3,281	5,218
	July	69	633	849	191	103	369	37	364	836	3,450	5,690
	August	142	540	891	194	90	461	40	313	725	3,395	6,036
	September	137	523	832	251	82	472	33	308	822	3,461	6,088
	October	164	539	771	172	106	414	48	370	565	3,149	5,256
	November	143	542	717	144	110	334	55	440	793	3,278	5,168
	December	119	592	718	153	113	429	22	271	613	3,030	4,986
	AVERAGE	122	542	822	187	96	381	40	283	684	3,156	4,988
1984	January	152	624	705	277	54	382	53	390	772	3,408	5,347

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.

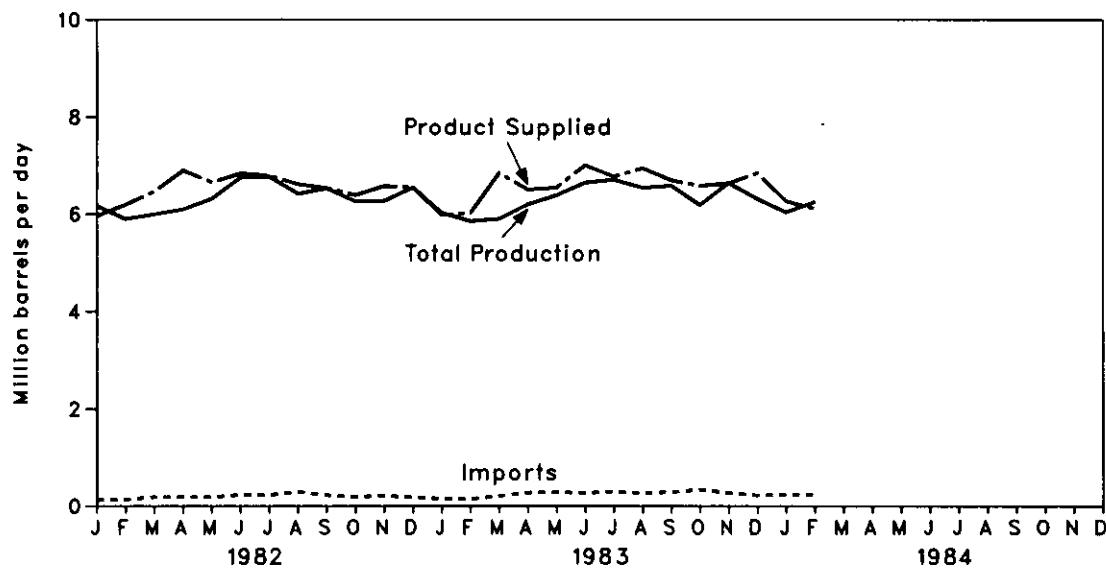
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: • See the last page of this section.

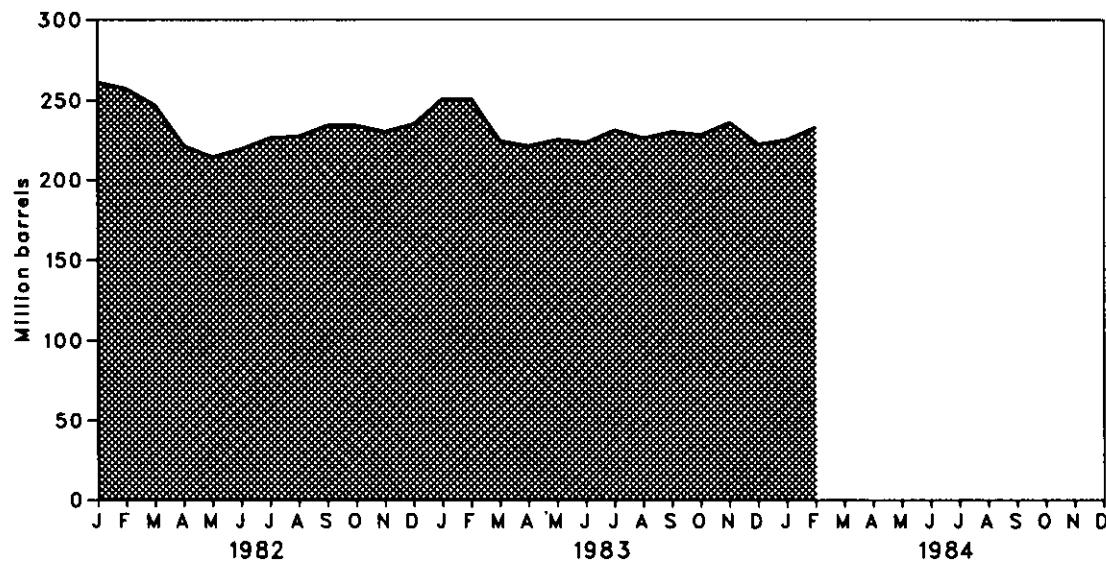
## Petroleum

## **Motor Gasoline**

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



## 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>5</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	(8)	7,034	2,798	39.8	237
1980	AVERAGE	6,506	140	-66	1	6,579	3,067	46.6	*261
1981	AVERAGE <sup>†</sup>	6,405	157	-28	2	6,588	3,264	49.5	253
1982	January	6,167	128	-316	18	5,961	3,067	51.5	261
	February	5,899	133	172	8	6,196	3,210	51.8	257
	March	5,994	183	334	44	6,466	3,358	51.9	247
	April	6,095	185	650	33	6,897	3,495	50.7	221
	May	6,319	182	177	23	6,655	3,415	51.3	214
	June	6,754	230	-134	14	6,835	3,565	52.2	219
	July	6,768	225	-178	24	6,790	3,577	52.7	177
	August	6,419	291	-81	16	6,614	3,526	53.3	226
	September	6,527	223	-198	22	6,531	3,404	52.1	185
	October	6,262	185	-42	15	6,391	3,351	52.4	234
	November	6,273	211	101	11	6,574	3,451	52.5	192
	December	6,542	178	-165	7	6,549	3,485	53.2	*235
	AVERAGE	6,338	197	25	20	6,539	3,409	52.1	*194
1983	January	6,020	148	-186	(s)	5,981	3,352	56.0	251
	February	5,848	142	32	(s)	6,022	3,257	54.1	251
	March	5,897	205	765	23	6,843	3,620	52.9	224
	April	6,202	273	27	1	6,501	3,505	53.9	183
	May	6,386	284	-128	1	6,540	3,547	54.2	225
	June	6,646	265	118	22	7,008	3,796	54.2	183
	July	6,704	297	-210	18	6,773	3,752	55.4	231
	August	6,539	260	159	13	6,946	3,836	55.2	190
	September	6,582	285	-160	14	6,693	3,671	54.8	226
	October	6,188	335	60	2	6,581	3,698	56.2	188
	November	6,636	269	-274	2	6,629	3,714	56.0	236
	December	6,314	217	340	25	6,846	3,967	57.9	185
	AVERAGE	6,332	249	47	10	6,617	3,646	55.1	
1984	January	R6,037	R233	R-1	1	R6,268	3,606	57.5	R225
	February <sup>†</sup>	6,252	229	-355	NA	6,114	NA	NA	233
	AVERAGE	6,141	231	-172	NA	6,193	NA	NA	194

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

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

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

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

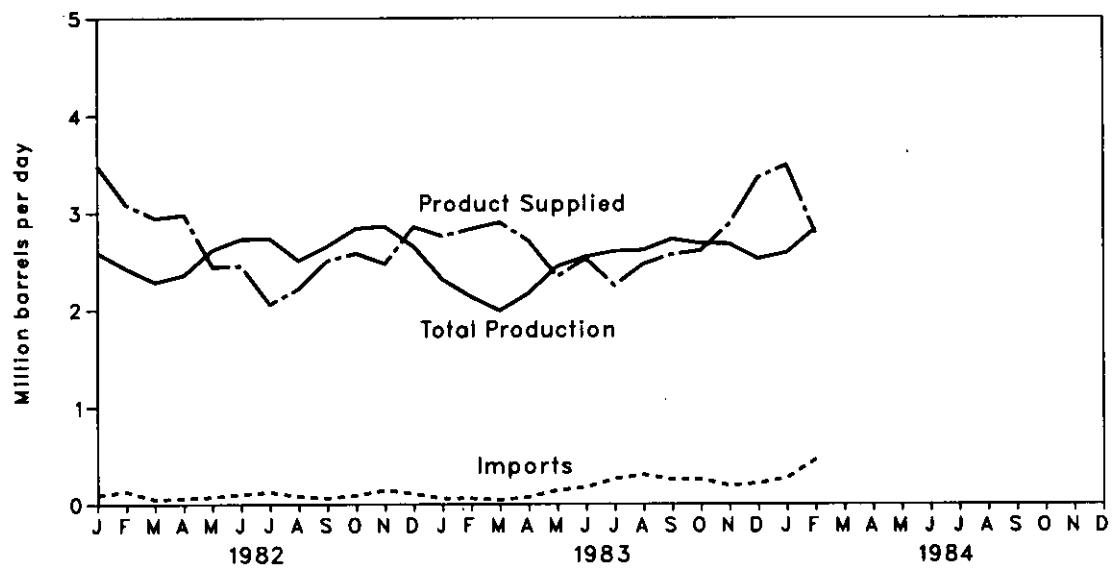
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

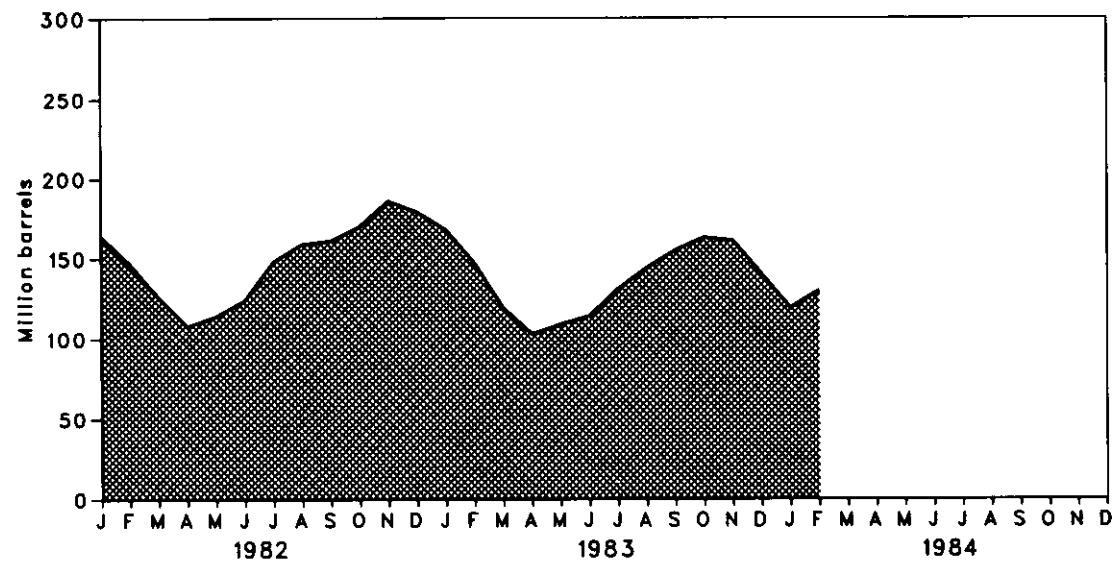
# Petroleum

## Distillate Fuel Oil

### Product Supplied, Total Production, and Imports



### Stocks



# Petroleum

## Distillate Fuel Oil Supply and Disposition

		Supply			Disposition		Ending Stocks <sup>1</sup>	
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>4</sup>	
		Thousand barrels per day						
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	AVERAGE	2,662	142	64	1	3	2,866	205
1981	AVERAGE <sup>s</sup>	2,613	173	-38	10	5	2,829	192
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-339	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	179
	AVERAGE	2,606	93	35	10	74	2,671	
1983	January	2,314	58	-561	NA	173	2,760	168
	February	2,136	58	742	NA	105	2,832	147
	March	1,991	42	926	NA	59	2,900	119
	April	2,169	73	518	NA	47	2,713	103
	May	2,444	141	-193	NA	50	2,341	109
	June	2,545	175	-154	NA	40	2,526	114
	July	2,600	259	-556	NA	55	2,248	131
	August	2,612	302	-403	NA	43	2,467	144
	September	2,725	253	-374	NA	37	2,568	155
	October	2,682	255	-275	NA	55	2,606	163
	November	2,679	189	65	NA	54	2,879	161
	December	2,524	212	675	NA	54	3,358	140
	AVERAGE	2,454	169	124	NA	64	2,682	
1984	January	R2,585	R270	R676	NA	40	R3,490	R119
	February†	2,831	457	-447	NA	NA	2,788	130
	AVERAGE	2,704	360	133	NA	NA	3,150	

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

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

<sup>3</sup>Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.

<sup>4</sup>In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

<sup>†</sup>Beginning 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.

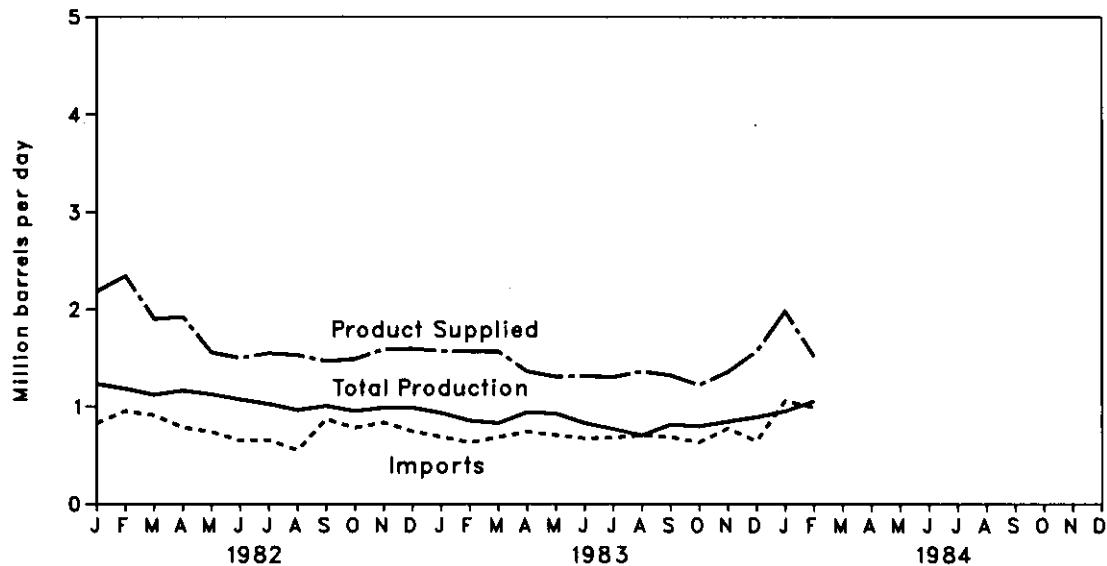
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

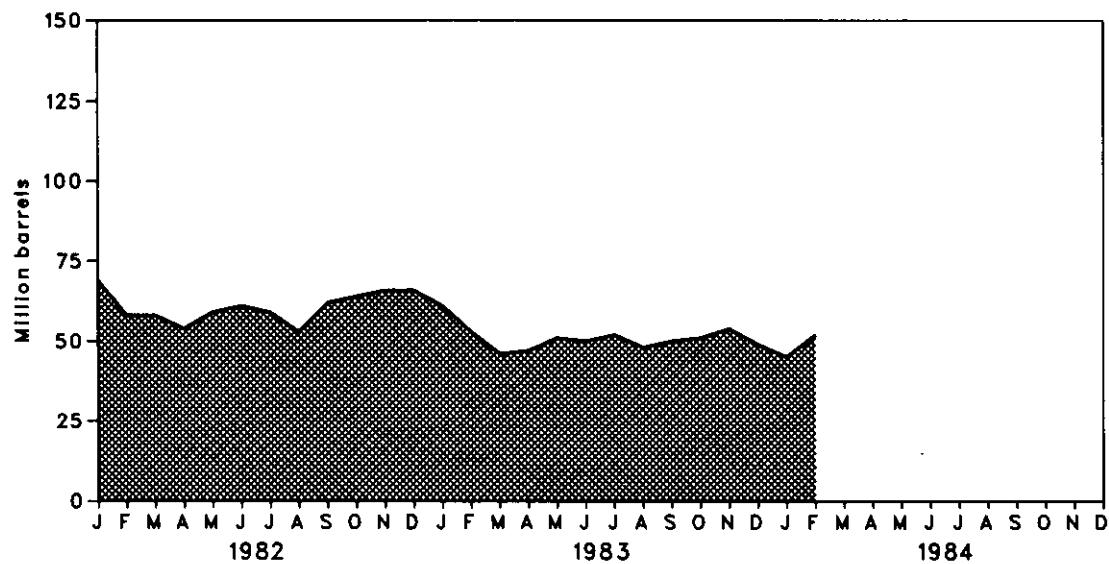
## Petroleum

## **Residual Fuel Oil**

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



## Stocks



# Petroleum

## Residual Fuel Oil Supply and Disposition

		Supply			Disposition		Ending Stocks <sup>1</sup>	
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>4</sup>	
		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	12	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	AVERAGE	1,580	939	10	12	33	2,508	92
1981	AVERAGE <sup>5</sup>	1,321	800	-37	48	118	2,088	78
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-306	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	66
	AVERAGE	1,070	776	32	48	209	1,716	
1983	January	935	691	-243	NA	294	1,574	61
	February	857	632	270	NA	191	1,568	53
	March	833	686	220	NA	169	1,569	46
	April	942	743	-10	NA	310	1,364	47
	May	930	709	-139	NA	190	1,310	51
	June	832	676	28	NA	219	1,317	50
	July	771	682	-58	NA	90	1,306	52
	August	706	705	115	NA	165	1,362	48
	September	815	690	-47	NA	134	1,324	50
	October	799	634	-56	NA	153	1,224	51
	November	848	777	-101	NA	167	1,358	54
	December	893	646	173	NA	141	1,570	49
	AVERAGE	846	689	52	NA	185	1,403	
1984	January	R953	R1,061	R119	NA	151	R1,981	R45
	February†	1,057	994	-375	NA	NA	1,521	52
	AVERAGE	1,003	1,028	-120	NA	NA	1,758	

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

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

<sup>3</sup>Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.

<sup>4</sup>In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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

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

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

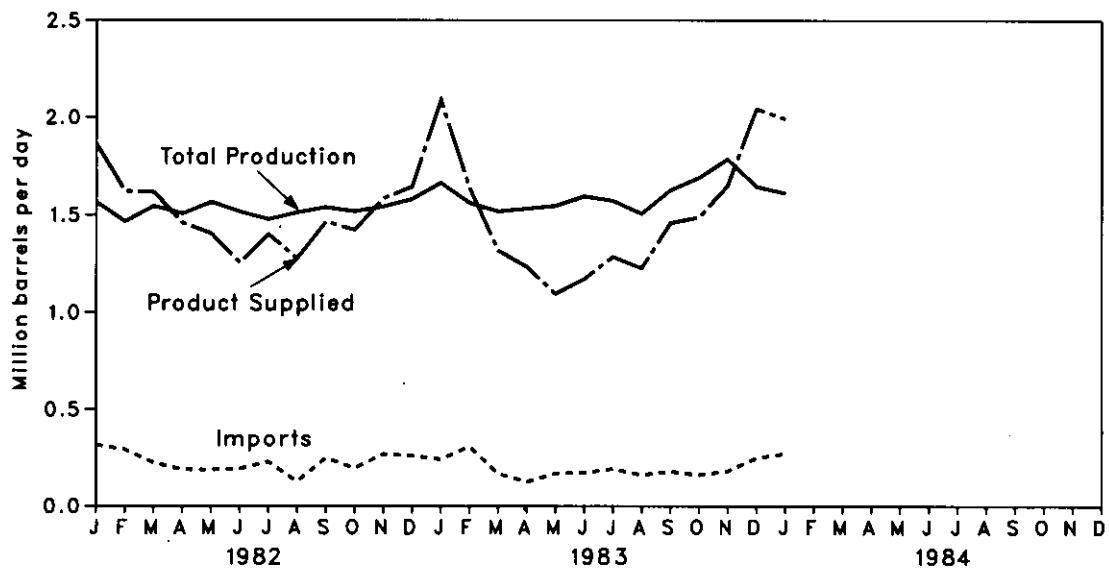
• Totals may not equal sum of components due to independent rounding.

Sources: • See the last page of this section.

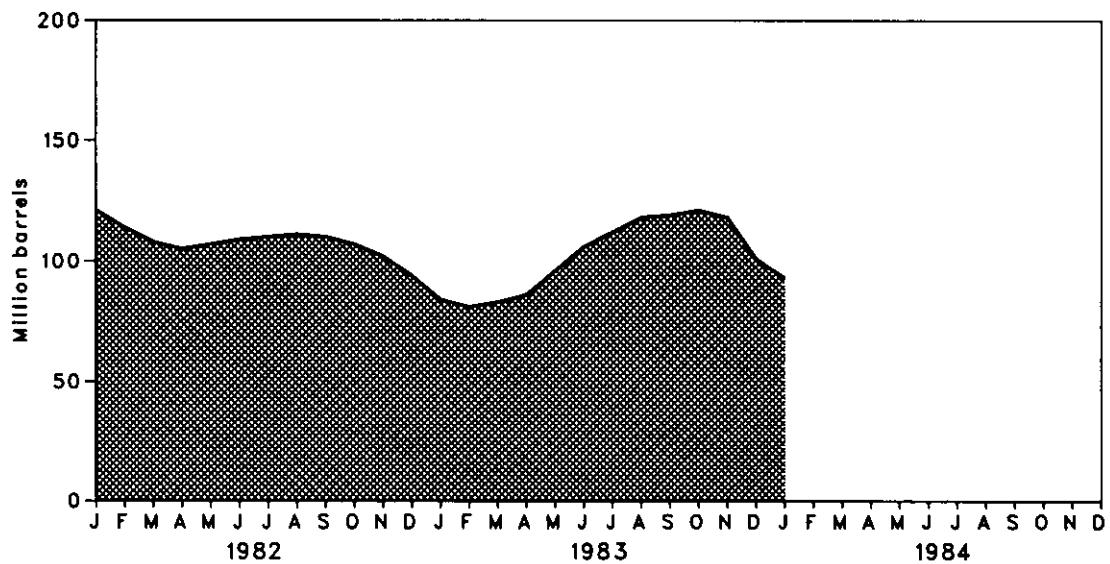
### Petroleum

## Liquefied Petroleum Gases

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



## Stocks



# Petroleum

## Liquefied Petroleum Gases Supply and Disposition

		Supply		Disposition			Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	
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	January	1,565	314	443	391	67	1,863      121
	February	1,466	291	243	327	51	1,621      114
	March	1,544	223	211	289	74	1,615      108
	April	1,506	188	98	257	77	1,458      105
	May	1,565	186	-71	234	43	1,403      107
	June	1,515	192	-86	262	106	1,254      109
	July	1,476	227	-13	253	37	1,399      110
	August	1,511	125	-45	254	61	1,276      111
	September	1,538	247	37	274	85	1,463      110
	October	1,517	194	97	306	81	1,421      107
	November	1,542	267	175	363	37	1,583      102
	December	1,580	258	256	395	56	1,642      94
	AVERAGE	1,528	226	111	300	65	1,499
1983	January	1,662	240	618	313	118	2,088      84
	February	1,560	305	84	237	76	1,636      81
	March	1,517	166	-51	189	127	1,316      83
	April	1,531	124	-107	198	116	1,232      86
	May	1,545	167	-326	207	84	1,094      96
	June	1,593	172	-333	205	59	1,169      106
	July	1,571	191	-206	217	55	1,284      112
	August	1,505	160	-183	229	29	1,225      118
	September	1,625	178	-23	236	86	1,457      119
	October	1,688	160	-61	268	32	1,487      121
	November	1,784	180	78	361	33	1,648      118
	December	1,644	247	575	358	66	2,043      101
	AVERAGE	1,602	190	6	252	73	1,473
1984	January	1,610	269	-470	333	23	1,993      93

<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.

In January 1975, 1981, 1983, and 1984 a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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

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

• Liquefied petroleum gases are ethane, propane, normal butane, isobutane and pentanes plus (natural gasoline, isopentane and plant condensate). Unfractionated stream is reported with each component.

Sources: • See the last page of this section.

# Petroleum

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

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawals <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	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	253
	AVERAGE	3,453	334	80	787	211	2,869	
1983	January	3,222	297	-371	570	271	2,307	271
	February	3,270	287	-1	680	232	2,645	271
	March	3,400	298	-94	570	249	2,786	273
	April	3,363	377	3	596	247	2,901	273
	May	3,448	364	26	694	242	2,902	273
	June	3,674	427	99	715	292	3,197	270
	July	3,703	393	106	757	209	3,237	266
	August	3,774	435	23	689	242	3,302	266
	September	3,861	460	-31	768	236	3,287	267
	October	3,579	427	-124	701	195	2,985	270
	November	3,560	442	101	912	238	2,955	267
	December	3,106	450	387	877	257	2,808	255
	AVERAGE	3,498	388	10	711	242	2,943	
1984	January	3,391	486	-177	561	207	2,931	253

<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.

\*In January 1975, 1981, 1983, and 1984 a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.

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

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

Sources: • See the last page of this section.

## 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 redesigned 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 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.
  - Natural Gas Liquids: In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractuated 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 1982: EIA, *Petroleum Supply Annual*.
- January 1983 through January 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- February 1984: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1983 through February 1984: 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 January 1984 was an estimated 1.5 trillion cubic feet (Tcf). This was 2.3 percent higher than in January 1983.

Consumption of natural and supplemental gas in January 1984 was an estimated 2.1 Tcf, 4.5 percent higher than in January 1983.

Deliveries to residential consumers during December 1983 (latest data available) were an estimated 775 billion cubic feet (Bcf), 39.1 percent higher than in December 1982. Estimated consumption by residential users during 1983 totaled 4.5 Tcf, 3.3 percent lower than in the previous year. Total deliveries to industrial consumers during December 1983 were an estimated 636 Bcf. This

was 22.3 percent higher than in December 1982. Estimated consumption by industrial users during 1983 totaled 5.6 Tcf, 4.3 percent below the 1982 level.

Imports of natural gas in January 1984 were an estimated 89 Bcf, 25.8 percent lower than in the previous January. Receipts of foreign gas during January 1984 included Algerian liquefied natural gas (LNG) equivalent to approximately 3 Bcf.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of January 1984 totaled 2.1 Tcf. This was 21.0 percent below stocks available a year earlier. Net withdrawals from storage during January 1984 were 512 Bcf, 20.5 percent higher than during the previous January.

\*Gas available for withdrawal.

# Natural Gas

## Production Summary

		Gross Wet Gas Withdrawals <sup>1</sup>	Used for Repressuring <sup>2</sup>	Nonhydro-carbon Gas Removed <sup>3</sup>	Vented and Flared	Marketed Production (Wet) <sup>4</sup>	Extraction Loss <sup>5</sup>	Total Dry Gas Production <sup>6</sup>
Billion cubic feet								
1973	TOTAL	24,067	1,171	NA	248	*22,648	917	*21,731
1974	TOTAL	22,850	1,080	NA	169	*21,601	887	*20,713
1975	TOTAL	21,104	861	NA	134	*20,109	872	*19,236
1976	TOTAL	20,944	859	NA	132	*19,952	854	*19,098
1977	TOTAL	21,097	935	NA	137	*20,025	863	*19,163
1978	TOTAL	21,309	1,181	NA	153	*19,974	852	*19,122
1979	TOTAL	21,883	1,245	NA	167	*20,471	808	*19,663
1980	TOTAL	21,870	1,365	199	125	20,180	777	19,403
1981	January	1,890	108	20	10	1,752	68	1,684
	February	1,702	101	18	10	1,573	61	1,512
	March	1,871	109	18	9	1,735	67	1,668
	April	1,808	108	18	8	1,674	65	1,609
	May	1,838	115	18	7	1,698	66	1,632
	June	1,770	109	19	8	1,634	63	1,571
	July	1,797	106	20	9	1,663	65	1,598
	August	1,841	108	18	10	1,705	66	1,639
	September	1,716	114	18	7	1,577	61	1,516
	October	1,781	113	18	7	1,643	64	1,579
	November	1,714	108	17	6	1,583	61	1,522
	December	1,860	114	20	8	1,718	67	1,651
	<b>TOTAL</b>	<b>21,587</b>	<b>1,312</b>	<b>222</b>	<b>98</b>	<b>19,956</b>	<b>775</b>	<b>19,181</b>
1982	January	1,865	108	19	9	1,728	71	1,657
	February	1,712	101	18	8	1,584	65	1,519
	March	1,816	115	19	7	1,675	69	1,606
	April	1,714	108	18	7	1,581	65	1,516
	May	1,692	117	17	7	1,552	64	1,488
	June	1,643	114	16	7	1,505	62	1,443
	July	1,667	119	15	7	1,526	63	1,463
	August	1,638	120	18	8	1,492	61	1,431
	September	1,570	116	16	6	1,431	59	1,372
	October	1,610	126	16	8	1,460	60	1,400
	November	1,621	119	18	9	1,476	61	1,415
	December	1,663	125	19	10	1,510	62	1,448
	<b>TOTAL</b>	<b>20,210</b>	<b>1,388</b>	<b>208</b>	<b>93</b>	<b>18,520</b>	<b>762</b>	<b>17,758</b>
1983	January	1,668	122	19	7	1,520	62	1,458
	February	1,471	108	16	6	1,340	55	1,285
	March	1,534	124	17	7	1,386	57	1,329
	April	1,453	120	16	7	1,310	54	1,256
	May	1,450	111	16	8	1,316	54	1,262
	June	1,399	118	19	7	1,256	52	1,204
	July	1,485	125	18	7	1,335	55	1,280
	August	1,537	124	20	7	1,386	57	1,329
	September	1,492	119	19	7	1,347	55	1,292
	October	1,559	122	18	7	1,412	58	1,354
	November	R1,566	R114	19	7	1,427	59	1,368
	December	1,709	136	19	8	1,546	64	1,482
	<b>TOTAL</b>	<b>R18,324</b>	<b>R1,443</b>	<b>216</b>	<b>85</b>	<b>16,581</b>	<b>682</b>	<b>15,899</b>
1984	January	1,714	132	19	8	1,555	64	1,491

<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.

R=Revised data. NA=Not available.

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

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

• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

# Natural Gas

## Supply and Disposition of Dry Natural Gas and Supplemental Gaseous Fuels

		Supply				Disposition				
		Total Dry Gas Production	With-drawals from Storage <sup>1</sup>	Supplemental Gaseous Fuels <sup>2</sup>	Imports <sup>2</sup>	Total Supply/Disposition <sup>3</sup>	Additions to Storage <sup>1</sup>	Exports <sup>2</sup>	Consumption <sup>2</sup>	Un-accounted for <sup>2</sup>
Billion cubic feet										
1973	TOTAL	21,731	1,533	NA	1,033	24,297	1,974	77	22,049	196
1974	TOTAL	20,713	1,701	NA	959	23,373	1,784	77	21,223	289
1975	TOTAL	19,236	1,760	NA	953	21,949	2,104	73	19,538	235
1976	TOTAL	19,098	1,921	NA	963	21,983	1,756	65	19,946	216
1977	TOTAL	19,163	1,750	NA	1,011	21,924	2,307	56	19,521	41
1978	TOTAL	19,122	2,158	NA	966	22,245	2,278	53	19,627	287
1979	TOTAL	19,663	2,047	NA	1,253	22,964	2,295	56	20,241	372
1980	TOTAL	19,403	1,972	155	985	22,515	1,949	49	19,877	640
1981	January	1,684	571	20	91	2,366	38	5	2,279	44
	February	1,512	385	17	85	1,999	60	5	1,895	39
	March	1,668	239	17	80	2,004	56	5	1,899	44
	April	1,609	56	14	69	1,748	213	5	1,488	42
	May	1,632	27	13	62	1,734	261	4	1,426	43
	June	1,571	28	12	65	1,676	321	5	1,309	41
	July	1,598	27	12	66	1,703	342	5	1,314	42
	August	1,639	15	12	64	1,730	369	5	1,313	43
	September	1,516	9	12	67	1,604	293	6	1,265	40
	October	1,579	51	14	79	1,723	158	5	1,519	41
	November	1,522	127	15	82	1,746	82	5	1,619	40
	December	1,651	396	19	93	2,159	35	5	2,076	43
	TOTAL	19,181	1,930	176	904	22,191	2,228	59	19,404	501
1982	January	1,657	697	19	98	2,471	24	3	2,400	44
	February	1,519	461	16	85	2,081	51	5	1,984	41
	March	1,606	274	15	82	1,977	91	5	1,838	43
	April	1,516	112	12	72	1,712	185	2	1,485	40
	May	1,488	11	9	65	1,573	394	3	1,136	40
	June	1,443	11	9	61	1,524	364	6	1,115	39
	July	1,463	12	9	67	1,551	362	5	1,145	39
	August	1,431	36	9	61	1,537	342	6	1,151	38
	September	1,372	20	9	66	1,467	285	5	1,140	37
	October	1,400	62	11	77	1,550	197	5	1,311	37
	November	1,415	168	13	91	1,687	85	5	1,559	38
	December	1,448	299	14	110	1,871	88	5	1,739	39
	TOTAL	17,758	2,165	145	933	21,001	2,472	52	18,001	475
1983	January	1,458	450	16	120	2,044	24	5	1,976	39
	February	1,285	324	13	102	1,724	35	5	1,650	34
	March	1,329	266	13	91	1,699	58	5	1,601	35
	April	1,256	162	11	76	1,505	81	4	1,386	34
	May	1,262	41	9	64	1,376	189	3	1,150	34
	June	1,204	22	8	61	1,295	254	5	1,004	32
	July	1,280	25	9	56	1,370	267	5	1,064	34
	August	1,329	35	9	58	1,431	248	4	1,144	35
	September	1,292	27	9	65	1,393	259	5	1,095	34
	October	1,354	35	10	65	1,464	166	4	1,258	36
	November	1,368	152	12	80	1,612	72	5	1,498	37
	December	1,482	601	17	R106	R2,206	32	5	R2,129	40
	TOTAL	15,899	2,140	136	R944	R19,119	1,685	55	R16,955	424
1984	January	1,491	562	16	89	2,158	50	4	2,064	40

<sup>1</sup>Monthly and annual data for 1980 through 1982 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 intratransit receipts and deliveries.

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

R=Revised data. NA=Not available.

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

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

• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last page of this section.

# Natural Gas

## Natural and Supplemental Gas Consumption

		Delivered to Consumers							
		Lease and Plant Fuel	Pipeline Fuel	Residential	Commercial <sup>1</sup>	Industrial	Electric Utilities	Total	Total Consumption
Billion cubic feet									
1973	TOTAL	1,496	728	4,879	2,597	8,689	3,660	19,825	22,049
1974	TOTAL	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223
1975	TOTAL	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538
1976	TOTAL	1,634	548	5,051	2,668	6,964	3,081	17,764	19,946
1977	TOTAL	1,659	533	4,821	2,501	6,815	3,191	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	January	81	75	831	406	654	232	2,123	2,279
	February	73	63	740	355	440	224	1,759	1,895
	March	81	63	585	304	593	273	1,755	1,899
	April	78	49	372	204	496	289	1,361	1,488
	May	79	47	260	151	573	316	1,300	1,426
	June	76	43	168	116	525	381	1,190	1,309
	July	77	43	136	99	548	411	1,194	1,314
	August	79	43	123	107	571	390	1,191	1,313
	September	73	42	133	107	585	325	1,150	1,265
	October	76	50	232	148	711	302	1,393	1,519
	November	74	54	364	205	663	259	1,491	1,619
	December	80	69	601	318	769	239	1,927	2,076
	TOTAL	928	642	4,546	2,520	7,128	3,640	17,834	19,404
1982	January	104	79	866	444	669	238	2,217	2,400
	February	95	66	786	405	412	220	1,823	1,984
	March	100	61	602	322	506	247	1,677	1,838
	April	95	49	451	237	407	246	1,341	1,485
	May	93	38	233	139	375	258	1,005	1,136
	June	90	37	165	107	420	296	988	1,115
	July	91	38	138	101	424	353	1,016	1,145
	August	89	38	123	105	435	361	1,024	1,151
	September	86	38	136	105	482	293	1,016	1,140
	October	87	43	204	130	573	273	1,181	1,311
	November	88	52	372	218	603	226	1,419	1,559
	December	90	58	557	299	520	215	1,591	1,739
	TOTAL	1,109	596	4,633	2,606	5,831	3,226	16,295	18,001
1983	January	91	65	697	357	558	208	1,820	1,976
	February	80	55	673	349	316	177	1,515	1,650
	March	83	53	525	275	457	208	1,465	1,601
	April	78	46	449	231	379	203	1,262	1,386
	May	79	38	269	147	399	218	1,033	1,150
	June	75	33	176	107	365	248	896	1,004
	July	80	35	130	97	408	314	949	1,064
	August	83	38	119	99	453	352	1,023	1,144
	September	81	36	124	103	452	299	978	1,095
	October	85	42	195	130	555	251	1,131	1,258
	November	85	50	347	198	604	214	1,363	1,498
	December	93	70	775	336	636	219	1,966	2,129
	TOTAL	993	561	4,480	2,428	5,582	2,912	15,401	16,955

<sup>1</sup>Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.

<sup>2</sup>Estimated on the basis of heating degree-day data obtained from the National Oceanic and Atmospheric Administration.

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 1982 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 January	3,642	2,152	5,795	-172	-7.4	37	558	-521
February	3,648	1,824	5,472	-28	-1.5	59	376	-317
March	3,654	1,631	5,285	37	2.3	55	234	-179
April	3,670	1,764	5,434	73	4.3	208	55	153
May	3,684	1,977	5,660	-22	-1.1	255	26	228
June	3,681	2,252	5,933	-46	-2.0	314	27	287
July	3,699	2,558	6,257	-29	-1.1	335	26	309
August	3,713	2,882	6,595	28	1.0	361	15	346
September	3,720	3,152	6,872	53	1.7	287	9	277
October	3,726	3,248	6,974	61	1.9	155	50	104
November	3,731	3,201	6,932	175	5.8	80	124	-44
December	3,752	2,817	6,569	162	6.1	34	387	-353
<b>TOTAL</b>						<b>2,180</b>	<b>1,887</b>	<b>293</b>
1982 January	3,751	2,182	5,932	29	1.4	24	673	-649
February	3,750	1,787	5,536	-37	-2.0	50	446	-396
March	3,766	1,604	5,370	-26	-1.6	88	265	-176
April	3,778	1,676	5,454	-88	-5.0	180	108	73
May	3,780	2,034	5,814	57	2.9	382	11	371
June	3,778	2,369	6,147	117	5.2	353	11	342
July	3,780	2,704	6,484	146	5.7	351	12	339
August	3,781	2,998	6,778	116	4.0	332	35	298
September	3,782	3,251	7,033	99	3.1	277	20	257
October	3,785	3,364	7,149	116	3.6	191	60	131
November	3,772	3,309	7,081	108	3.4	83	163	-80
December	3,808	3,071	6,879	255	9.0	86	289	-204
<b>TOTAL</b>						<b>2,399</b>	<b>2,094</b>	<b>306</b>
1983 January	3,813	2,644	6,457	462	21.2	24	450	-425
February	3,811	2,356	6,167	569	31.9	35	324	-288
March	3,812	2,148	5,959	544	33.9	58	266	-208
April	3,818	2,074	5,893	398	23.8	81	162	-81
May	3,818	2,222	6,041	188	9.3	189	41	148
June	3,819	2,454	6,272	85	3.6	254	22	232
July	3,826	2,696	6,522	-8	-0.3	267	25	242
August	3,823	2,908	6,732	-89	-3.0	248	35	214
September	3,823	3,140	6,964	-110	-3.4	259	27	232
October	3,825	3,269	7,094	-95	-2.8	166	35	130
November	3,838	3,174	7,013	-135	-4.1	72	152	-80
December	R3,845	2,596	6,441	-475	-15.5	32	601	-569
<b>TOTAL</b>						<b>1,685</b>	<b>2,140</b>	<b>-455</b>
1984 January	3,843	2,089	5,932	-555	-21.0	50	562	-512

<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; and 1983—7,985. Current total capacity is 8,043.

<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.

R=Revised data.

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

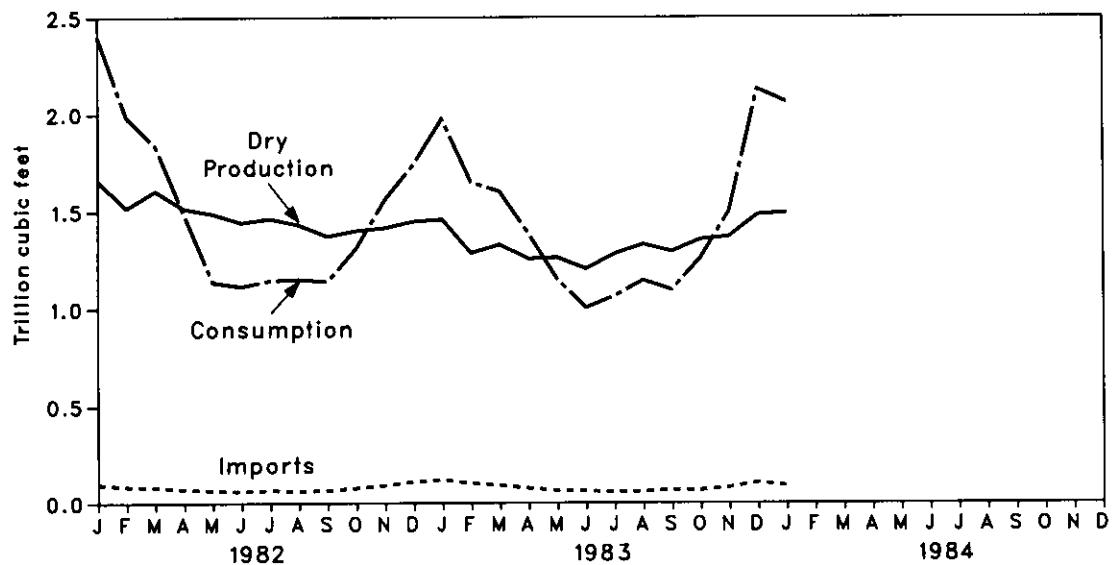
• Totals may not equal sum of components due to independent rounding.

• Data for 1978 through 1982 are final. All other data are preliminary unless otherwise noted.

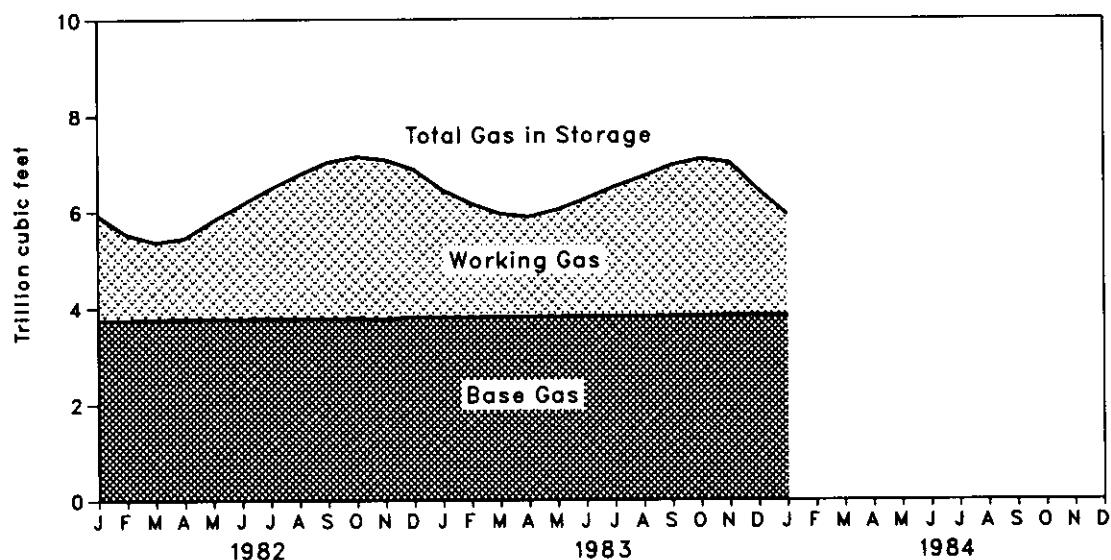
Sources: • See the last page of this section.

## Natural Gas

### **Consumption, Dry Production, and Imports**



## **Gas in Storage**



## 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 EIA *Natural Gas Annual, 1982*. These data are not available for periods prior to 1980. For 1982, of the 31 producing States, 18 reported data on nonhydrocarbon gases removed. These 18 States accounted for 53 percent of total 1982 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 40 percent of the 1982 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 Energy Information Administration (EIA) *Natural Gas Monthly*.

Monthly data are reported by two States and computed for four States. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for the year in which the report month falls. Three States report monthly data on nonhydrocarbon gases removed; the rest of the data is estimated. 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 Energy Information Administration (EIA) *Natural Gas Annual, 1982*.

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 the year in which the report month falls. 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, 1982* 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 Fuels:** Supplemental gaseous fuels are mainly synthetic natural gas, propane-air, and refinery gas. Other gases may also be included. During 1982, coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization were reported in this category.

Annual data beginning with 1980 are from the EIA *Natural Gas Annual, 1982*. 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 the year in which the report month falls. 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 the calendar year in which the report month falls.

**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; 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. For additional explanatory information, see the EIA *Natural Gas Monthly*.

**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 the heating year (April through March) in which the report month falls. 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 1982 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 are continued on the next page.)

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

### Sources

**Production:** 1973 through 1982: Energy Information Administration (EIA), *Natural Gas Annual, 1982*, Appendix B; January 1983 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 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations.

**Withdrawals from and Additions to Storage:** 1973 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."

**Supplemental Gaseous Fuels:** 1980 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations.

**Imports and Exports:** 1973 through 1982: Form FPC-14, "Imports and Exports of Natural Gas"; January 1983 forward: EIA computations.

**End-Use Consumption:** •All data except electric utility—1973 through 1982: EIA, *Natural Gas Annual, 1982*, Appendix B; January 1983 forward: EIA computations. •Electric utility data—EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).

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

## **Oil and Gas Resource Development**

The January 1984 rotary rig count of 2,666 was 1.7 percent higher than the January 1983 count of 2,622. The 216 rigs operating offshore were 0.9 percent fewer than those working in January 1983.

The reported total number of wells drilled for 1983 was 76,329, an 11.0-percent decrease from the 85,795 reported for 1982. Oil well completions reported for 1983 were 37,207, a 7.7-percent decrease from the comparable 1982 figure of 40,301. Gas well completions of 15,628 were reported for 1983, 17.5 percent less than the 18,952 gas well completions reported for 1982. The reported total footage drilled for 1983 of 325.8 million feet was a 17.7-percent decrease from the 1982 figure of 396.0 million feet.

In January 1984, the reported total number of wells drilled was 6,315, a 3.0-percent increase in the weekly average compared to the total wells reported in January 1983. Oil well completions reported during January 1984 were 3,253, a weekly average increase of 9.5 percent compared to the January 1983 reported

oil well completions. Gas well completions of 1,058 were reported for January 1984, 5.0 percent fewer on a weekly basis than those reported for January 1983. January 1984 reported footage drilled of 27.9 million feet was a weekly average of 6.7 percent higher than the reported footage drilled for the previous January.

The 477 crews engaged in seismic exploration in January 1984 were 4.6 percent more than those in January 1983. The 427 land crews working were 4.9 percent more than those working in January 1983. The 50 marine vessels working during January 1984 represented a 2.0-percent increase compared to the vessels working in January 1983. Poor weather in several operating areas during January 1984 caused a decrease in the number of crews working onshore during the month. The number of offshore vessels and the total crews working in December 1983 were revised downward because of the incorrect inclusion of three vessels engaged in engineering surveys rather than in oil and gas exploration.

Prior to 1984, the American Petroleum Institute (API) aggregated the weekly data on wells and footage drilled into months and quarters using the convention that the first 2 months in every quarter contained 4 weeks and the last month of every quarter contained 5 weeks. Beginning with January 1984 data, the formula has been changed to more closely represent actual calendar months. Accordingly, January, August, and November 1984 become 5-week months while September and December 1984 become 4-week months. The other months remain unchanged. Because of these changes, comparisons of drilling data for 1983 and 1984 will be done on the basis of weekly averages.

# Oil and Gas Resource Development

		Rotary Rigs In Operation <sup>1</sup>	Exploratory and Development Wells Drilled <sup>2</sup>				Total Footage of Wells Drilled <sup>2</sup>	
			Oil	Gas	Dry	Total		
		Monthly average					Thousand feet	
1973	AVERAGE	1,194	TOTAL	9,902	6,385	10,305	26,592	136,391
1974	AVERAGE	1,472	TOTAL	12,784	7,240	11,674	31,698	150,551
1975	AVERAGE	1,660	TOTAL	16,408	7,580	13,247	37,235	174,434
1976	AVERAGE	1,658	TOTAL	17,059	9,085	13,621	39,765	181,780
1977	AVERAGE	2,001	TOTAL	18,912	11,378	14,692	44,982	210,848
1978	AVERAGE	2,259	TOTAL	17,775	13,064	16,218	47,057	227,110
1979	AVERAGE	2,177	TOTAL	19,383	14,681	15,752	49,816	238,659
1980	AVERAGE	2,909	TOTAL	27,026	15,730	18,089	60,845	284,461
1981	January	3,386		1,794	964	1,339	4,097	19,907
	February	3,502		2,459	1,046	1,610	5,115	22,726
	March	3,595		3,099	1,423	1,883	6,405	30,166
	April	3,728		2,905	1,600	1,546	6,051	27,836
	May	3,816		2,604	1,159	1,675	5,438	24,842
	June	3,926		3,497	1,320	2,105	6,922	31,689
	July	3,998		2,790	1,116	1,698	5,604	25,542
	August	4,131		3,140	1,260	1,874	6,274	28,933
	September	4,242		3,414	1,978	2,014	7,406	33,630
	October	4,352		3,772	1,879	2,099	7,750	35,520
	November	4,436		3,591	1,584	2,069	7,244	32,263
	December	4,520		4,619	2,586	3,078	10,283	48,594
	AVERAGE	3,970	TOTAL	37,671	17,894	22,973	78,538	361,407
1982	January	4,436		2,798	954	2,132	5,884	28,167
	February	4,160		3,036	1,430	2,234	6,700	31,985
	March	3,816		3,736	1,480	2,479	7,695	37,896
	April	3,460		3,674	1,530	2,287	7,491	36,439
	May	3,178		3,451	1,940	2,205	7,596	36,987
	June	2,908		3,888	1,891	2,521	8,300	38,962
	July	2,746		3,290	1,703	1,931	6,924	31,111
	August	2,620		2,865	1,588	1,917	6,370	28,836
	September	2,482		3,363	1,599	2,330	7,292	32,611
	October	2,402		2,833	1,210	2,125	6,168	27,274
	November	2,500		3,279	1,658	2,025	6,962	31,130
	December	2,696		4,087	1,970	2,363	8,420	34,648
	AVERAGE	3,105	TOTAL	R40,301	R18,952	R26,542	R85,795	R395,993
1983	January	2,622		R2,376	R891	R1,640	R4,907	R20,922
	February	2,192		2,899	1,190	2,223	6,312	27,758
	March	2,003		3,462	1,606	2,644	7,712	34,360
	April	1,846		3,028	1,401	1,985	6,414	27,459
	May	1,926		3,186	1,745	1,827	6,758	28,544
	June	1,979		3,514	1,237	2,105	6,856	28,050
	July	2,039		2,683	1,132	1,640	5,455	22,953
	August	2,156		2,641	1,075	1,533	5,249	22,582
	September	2,252		3,733	1,271	2,019	7,023	30,325
	October	2,382		2,970	1,211	1,699	5,880	24,887
	November	2,572		3,237	1,140	1,991	6,368	26,811
	December	2,780		3,470	1,699	2,201	7,370	30,942
	AVERAGE	2,232	TOTAL	37,207	15,628	23,494	76,329	325,760
1984	January	2,666		*3,253	*1,058	*2,004	*6,315	*27,915

Beginning in January 1984, the American Petroleum Institute changed the reporting convention for wells and footage drilled. See box on page 63.

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

<sup>2</sup>Data exclude service wells and stratigraphic and core tests. Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), (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 (4,5,4).

R = Revised data.

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

• Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

Sources: • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—By State."

• Wells and Footage Drilled: American Petroleum Institute, "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

# Oil and Gas Resource Development

		Crews Engaged In Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore <sup>1</sup>	Onshore <sup>1</sup>	Total <sup>1</sup>
		Monthly average			Annual total		
1973	AVERAGE	23	227	250	258,944	127,160	386,104
1974	AVERAGE	31	274	305	341,784	158,629	500,413
1975	AVERAGE	30	254	284	309,283	150,694	459,977
1976	AVERAGE	25	237	262	226,303	142,926	369,229
1977	AVERAGE	27	281	308	124,676	120,072	244,748
1978	AVERAGE	25	327	352	174,607	135,899	310,506
1979	AVERAGE	30	370	400	193,212	163,929	357,141
1980	AVERAGE	37	493	530	202,694	184,088	386,782
1981	January	38	553	591			
	February	41	561	602			
	March	40	570	610			
	April	40	605	645			
	May	42	619	661			
	June	44	652	696			
	July	43	668	711			
	August	46	689	735			
	September	47	697	744			
	October	52	689	741			
	November	52	681	733			
	December	47	656	703			
	AVERAGE	44	637	681	338,201	256,201	594,402
1982	January	53	642	695			
	February	53	625	678			
	March	52	597	649			
	April	55	571	626			
	May	61	551	612			
	June	69	546	615			
	July	66	527	593			
	August	62	500	562			
	September	59	476	535			
	October	51	465	516			
	November	50	452	502			
	December	49	428	477			
	AVERAGE	57	531	588	558,464	248,483	806,947
1983	January	49	407	456			
	February	47	404	451			
	March	45	402	447			
	April	39	410	449			
	May	39	410	449			
	June	43	428	471			
	July	46	437	483			
	August	49	435	484			
	September	57	444	501			
	October	50	448	498			
	November	49	446	495			
	December	R48	445	R493			
	AVERAGE	47	426	473			
1984	January	50	427	477			

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

R=Revised data.

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

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

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



# Part 6

## Coal

### Coal

In January 1984, 68.2 million short tons of coal were produced, 9.8 percent more than the 62.1 million short tons produced in January 1983.

Electric utilities consumed 59.1 million short tons of coal in December 1983, 16.1 percent more than they consumed in December 1982. Electric utility coal consumption in calendar year 1983 totaled 625.6 million short tons, an increase of 5.4 percent from consumption of 593.7 million short tons in 1982.

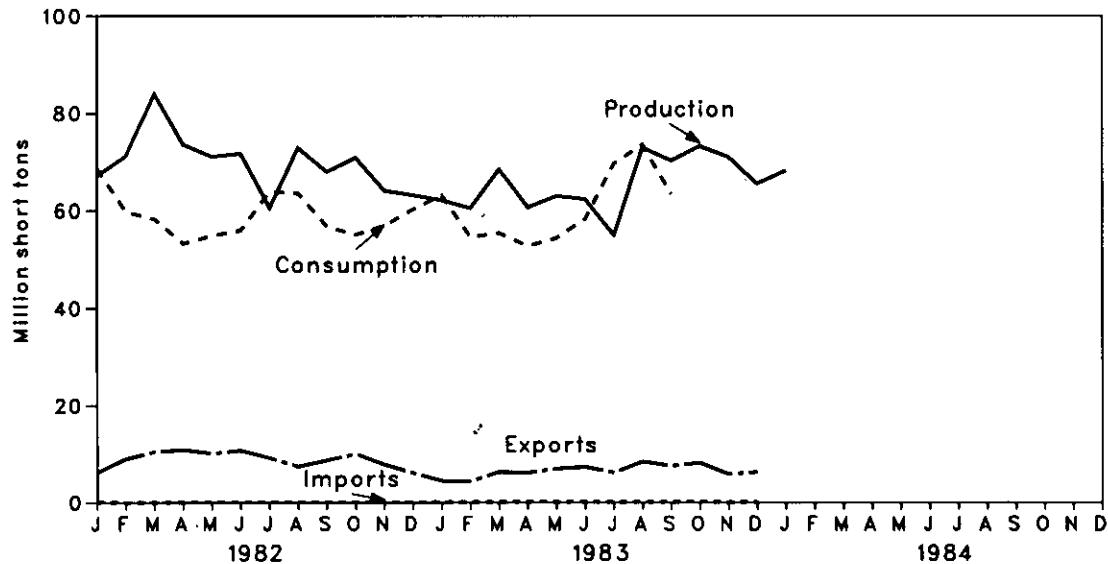
Electric utility coal stocks of 155.6 million short tons at the end of December 1983 were 25.5 million short tons (14.1 percent) below the level 1 year earlier.

Imports of coal in December 1983 totaled 102 thousand short tons, 26 thousand short tons more than the amount imported in December 1982. Total coal imports during calendar year 1983 were 1.3 million short tons, 71.3 percent more than in 1982. Exports of coal in December 1983 totaled 6.3 million short tons, 3.4 percent more than the amount exported during December 1982. Coal exports in calendar year 1983 totaled 77.8 million short tons, 26.8 percent less than the 106.3 million short tons exported during 1982. Coal exports during 1983 were principally to Europe (42.5 percent), Japan (23.0 percent), and Canada (22.1 percent).

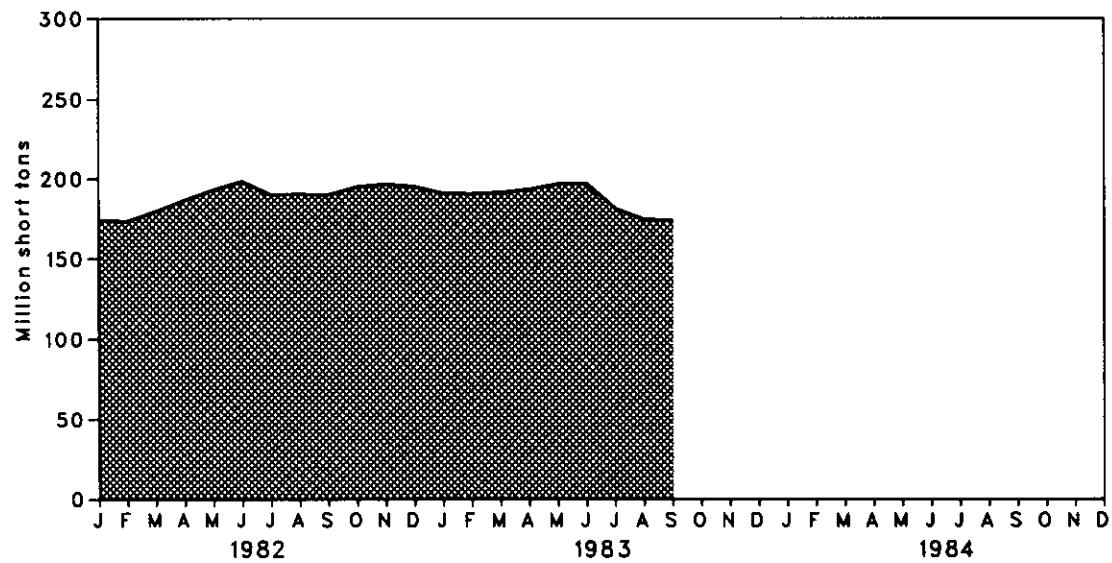
# Coal

## Bituminous Coal, Lignite, and Anthracite

### Production, Consumption, Imports, and Exports



### Stocks



# Coal

## Bituminous Coal, Lignite, and Anthracite

		Production	Domestic Consumption	Imports <sup>1</sup>	Exports <sup>2</sup>	Stocks <sup>3</sup>
Thousand short tons						
1973	TOTAL	598,568	562,584	127	53,587	104,335
1974	TOTAL	610,023	558,402	2,080	60,661	96,323
1975	TOTAL	654,641	562,641	940	66,309	128,050
1976	TOTAL	684,913	603,790	1,203	60,021	134,438
1977	TOTAL	697,205	625,291	1,647	54,312	157,098
1978	TOTAL	670,164	625,225	2,953	40,714	145,551
1979	TOTAL	781,134	680,524	2,059	66,042	181,646
1980	TOTAL	829,700	702,729	1,194	91,742	204,028
1981	January	65,927	67,580	35	5,795	198,603
	February	70,918	59,735	104	6,771	197,962
	March	78,266	60,069	77	9,710	207,340
	April	36,253	54,649	63	8,271	187,143
	May	38,100	55,025	96	6,086	168,126
	June	61,555	59,685	138	6,158	158,274
	July	74,076	67,394	13	10,762	154,423
	August	78,782	65,896	150	11,315	157,141
	September	81,720	59,722	69	11,900	164,970
	October	85,241	59,161	94	12,360	175,384
	November	76,577	58,695	76	11,849	183,044
	December	76,360	65,017	127	11,564	185,274
	TOTAL	823,775	732,627	1,043	112,541	
1982	January	67,138	68,692	71	6,177	173,931
	February	71,169	59,746	30	8,964	173,193
	March	83,943	58,236	12	10,423	179,484
	April	73,587	53,274	10	10,831	186,458
	May	71,127	54,844	109	10,110	192,926
	June	71,720	55,950	9	10,680	198,377
	July	60,535	63,828	69	9,182	189,997
	August	72,898	63,528	131	7,385	190,310
	September	67,951	56,734	71	8,683	189,967
	October	70,852	55,034	66	9,972	195,107
	November	64,055	56,831	87	7,807	196,700
	December	63,136	60,214	76	6,064	195,254
	TOTAL	838,112	706,911	742	106,277	
1983	January†	62,103	63,118	78	4,471	191,130
	February†	60,487	54,573	71	4,382	190,722
	March†	68,462	55,364	120	6,291	191,530
	April†	60,630	52,765	144	6,115	193,402
	May†	62,980	54,323	102	6,952	196,982
	June†	62,323	58,274	133	7,279	197,037
	July†	54,917	69,632	87	6,140	181,232
	August†	72,949	73,507	115	8,380	174,598
	September†	70,281	63,466	97	7,525	173,733
	October†	73,201	NA	190	8,131	NA
	November†	71,039	NA	32	5,838	NA
	December†	65,494	NA	102	6,270	NA
	TOTAL†	784,865	NA	1,271	77,772	NA
1984	January†	68,214	NA	NA	NA	NA

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

<sup>2</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (335,000 short tons in 1982 and 363,000 short tons in 1983).

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

†Preliminary data. 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—Bituminous Coal, Lignite, and Anthracite

		Industrial				
		Electric Utilities	Coke Plants <sup>1</sup>	Other Industrial <sup>2</sup> Including Transportation	Residential and Commercial	Total
Thousand short tons						
1973	TOTAL	389,212	94,101	68,154	11,117	562,584
1974	TOTAL	391,811	90,191	64,983	11,417	558,402
1975	TOTAL	405,962	83,598	63,670	9,410	562,641
1976	TOTAL	448,371	84,704	61,799	8,916	603,790
1977	TOTAL	477,126	77,739	61,472	8,954	625,291
1978	TOTAL	481,235	71,394	63,085	9,511	625,225
1979	TOTAL	527,051	77,368	67,717	8,388	680,524
1980	TOTAL	569,274	66,657	60,347	6,451	702,729
1981	January	54,688	5,465	6,532	895	67,580
	February	47,914	5,177	5,932	712	59,735
	March	48,398	5,532	5,665	474	60,069
	April	43,677	4,862	5,548	562	54,649
	May	44,999	4,259	5,297	470	55,025
	June	50,080	4,460	4,845	300	59,685
	July	56,144	5,449	5,371	430	67,394
	August	54,483	5,434	5,520	459	65,896
	September	48,483	5,340	5,312	587	59,722
	October	47,800	5,158	5,577	626	59,161
	November	47,014	5,037	5,793	851	58,695
	December	53,116	4,842	6,003	1,056	65,017
	<b>TOTAL</b>	<b>596,797</b>	<b>61,014</b>	<b>67,395</b>	<b>7,421</b>	<b>732,627</b>
1982	January	56,825	4,444	6,430	993	68,692
	February	48,878	4,340	5,835	693	59,746
	March	47,884	4,173	5,616	563	58,236
	April	43,490	3,708	5,373	703	53,274
	May	45,622	3,622	5,133	467	54,844
	June	47,424	3,481	4,681	364	55,950
	July	55,248	3,121	4,831	628	63,828
	August	54,838	3,058	4,962	670	63,528
	September	48,414	2,924	4,759	637	56,734
	October	46,330	2,757	5,287	660	55,034
	November	47,799	2,693	5,494	845	56,831
	December	50,914	2,587	5,695	1,018	60,214
	<b>TOTAL</b>	<b>593,666</b>	<b>40,908</b>	<b>64,097</b>	<b>8,240</b>	<b>706,911</b>
1983	January†	53,351	2,813	5,963	990	63,118
	February†	45,772	2,742	5,399	660	54,573
	March†	47,039	2,567	5,200	557	55,364
	April†	43,589	3,206	5,252	718	52,765
	May†	45,691	3,151	5,012	469	54,323
	June†	50,362	2,734	4,787	391	58,274
	July†	60,390	3,269	5,374	599	69,632
	August†	64,170	3,252	5,520	565	73,507
	September†	54,212	3,196	5,307	751	63,466
	October†	50,689	NA	NA	NA	NA
	November†	51,185	NA	NA	NA	NA
	December†	59,117	NA	NA	NA	NA
	<b>TOTAL†</b>	<b>625,569</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

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

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

†Preliminary data. NA=Not available.

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

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

Sources: • See the last page of this section.

# Coal

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

		Industrial		
	Electric Utilities	Coke Plants <sup>2</sup>	Other Industrial	Total <sup>3</sup>
Thousand short tons				
1973	86,967	6,998	10,370	104,335
1974	83,509	6,209	6,605	96,323
1975	110,724	8,797	8,529	128,050
1976	117,436	9,902	7,100	134,438
1977	133,219	12,816	11,063	157,098
1978	128,225	8,278	9,048	145,551
1979	159,714	10,155	11,777	181,646
1980	183,010	9,067	11,951	204,028
1981	January	176,975	9,634	198,603
	February	175,715	10,211	197,962
	March	183,983	10,788	207,340
	April	169,221	6,952	187,143
	May	153,415	4,850	168,126
	June	144,520	4,500	158,274
	July	140,124	5,074	154,423
	August	142,318	5,648	157,141
	September	149,526	6,163	164,970
	October	159,676	6,308	175,384
	November	167,002	6,392	183,044
	December	168,893	6,475	185,274
1982	January	158,469	6,207	173,931
	February	158,136	5,909	173,193
	March	164,518	5,612	179,484
	April	171,390	5,931	186,458
	May	177,461	6,231	192,926
	June	182,513	6,532	198,377
	July	174,503	6,166	189,997
	August	175,194	5,800	190,310
	September	175,225	5,434	189,967
	October	180,571	5,171	195,107
	November	182,368	4,908	196,700
	December	181,132	4,642	195,254
1983	January†	177,832	4,338	191,130
	February†	178,310	4,034	190,782
	March†	179,883	3,728	191,530
	April†	181,371	4,089	193,402
	May†	184,567	4,450	196,982
	June†	184,236	4,812	197,037
	July†	168,576	4,489	181,232
	August†	162,068	4,165	174,598
	September†	161,368	3,842	173,733
	October†	166,574	NA	NA
	November†	165,807	NA	NA
	December†	155,598	NA	NA

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

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

<sup>3</sup>Total excludes stocks at retail dealers that are consumed by the residential and commercial sector.

†Preliminary data. NA=Not available.

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

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

Sources: • See the last page of this section.

## Notes and Sources for the Coal Section

### Note

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

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

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

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

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

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

where  $S_b$  = beginning stocks

$R$  = receipts

$S_e$  = ending stocks.

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

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

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

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

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

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

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

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

### Sources

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

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

- Electric Utilities—October 1977 forward: EIA, EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
- Other Industrial—October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report-Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly Fuel Consumption Report-Manufacturing Plants" and EIA Form 6, "Coal Distribution Report."
- Coke Plants—October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals-Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals—Quarterly/Annual."
- Residential and Commercial—October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."

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

# Part 7

## Electric Utilities

### Electric Utilities

During December 1983, utilities generated 212.2 billion kilowatt-hours of electricity, 14.9 percent above the December 1982 generation level. Coal-fired generation totaled 117.1 billion kilowatt-hours, 16.0 percent above the December 1982 level. Hydroelectric generation totaled 31.7 billion kilowatt-hours, 14.2 percent above the December 1982 level. Nuclear generation was 26.3 billion kilowatt-hours in December 1983, 7.9 percent above the December 1982 level. Natural gas-fired generation was 20.6 billion kilowatt-hours, 3.0 percent above the level 1 year earlier. Petroleum-fired generation totaled 16.0 billion kilowatt-hours, 42.7 percent above the December 1982 level.

Total electricity generation in 1983 was 2.3 trillion kilowatt-hours, 3.0 percent above total generation in 1982. Hydroelectric generation increased by 7.4 percent during 1983, coal-fired generation increased by 5.7 percent, and nuclear generation increased by 3.3 percent. Natural gas-fired generation decreased 10.2 percent, and petroleum-fired generation decreased 1.5 percent during 1983.

Sales of electricity to all ultimate consumers in the United States in December 1983 were 185.4 billion kilowatt-hours, 8.9 percent above December 1982 sales. Sales to residential consumers during December 1983 were 66.3 billion kilowatt-hours, 6.8 percent above the level of sales during the same month in 1982. Commercial sales were 45.1 billion kilowatt-hours, 6.0 percent more than the amount sold to commercial consumers in December 1982. Sales to industrial consumers totaled 67.2 billion kilowatt-hours in December 1983, 15.0 percent more than the

1982 figure. In December 1983, other sales totaled 6.8 billion kilowatt-hours, 5.1 percent below the December 1982 level.

Total electricity sales in 1983 increased 3.0 percent compared to sales during 1982. During 1983, sales increased to the residential sector by 2.7 percent, to the commercial sector by 3.3 percent, and to the industrial sector by 4.1 percent compared to sales during 1982.

Electric utility petroleum consumption (excluding petroleum coke) during December 1983 was 27.5 million barrels, 44.3 percent above the December 1982 level. During 1983, total consumption of this fuel was 245.3 million barrels, 1.8 percent below the level during 1982. Coal consumption by electric utilities during December 1983 was 59.1 million short tons, 16.1 percent above the December 1982 rate. Total coal consumption by electric utilities during 1983 was 625.6 million short tons, 5.4 percent above the level in 1982. During December 1983, electric utilities consumed 219.1 billion cubic feet of natural gas, 2.1 percent above the December 1982 consumption level. Total natural gas consumed by electric utilities during 1983 was 2.9 trillion cubic feet, 9.7 percent below the amount in 1982.

On December 31, 1983, utility stocks of anthracite, bituminous coal, and lignite totaled 155.6 million short tons. Stockpiles were 14.1 percent below the level of December 1982. Petroleum stocks (excluding petroleum coke) on December 31, 1983, totaled 89.4 million barrels, 24.8 percent below the level on the same date in 1982.

# Electric Utilities

## Net Electricity Generation by Primary Energy Source

		Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Nuclear	Hydro	Other <sup>3</sup>	Total
Million kilowatt-hours								
1973	TOTAL	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974	TOTAL	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975	TOTAL	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976	TOTAL	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977	TOTAL	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978	TOTAL	975,742	365,060	305,391	276,403	280,419	3,315	2,206,331
1979	TOTAL	1,075,037	303,525	329,485	255,155	279,783	4,387	2,247,372
1980	TOTAL	1,161,562	245,994	346,240	251,116	276,021	5,506	2,286,439
1981	January	111,765	25,963	22,081	23,779	22,338	540	206,467
	February	97,653	17,444	21,339	21,595	21,099	483	179,613
	March	99,482	16,957	25,997	22,004	20,572	541	185,553
	April	88,109	15,106	27,460	20,646	20,723	500	172,545
	May	88,941	14,508	30,070	19,723	24,081	483	177,806
	June	99,837	18,972	35,885	21,166	26,370	473	202,702
	July	112,854	20,072	38,712	23,080	25,133	523	220,373
	August	108,403	16,001	36,918	26,946	21,615	520	210,403
	September	97,664	15,566	30,850	24,398	17,822	538	186,838
	October	97,046	16,213	28,917	20,556	18,088	531	181,352
	November	94,841	13,847	24,670	22,783	18,963	465	175,570
	December	106,608	15,772	22,877	25,997	23,879	457	195,590
	<b>TOTAL</b>	<b>1,203,203</b>	<b>206,421</b>	<b>345,777</b>	<b>272,674</b>	<b>260,684</b>	<b>6,054</b>	<b>2,294,812</b>
1982	January	113,124	20,674	22,621	25,678	26,896	411	209,403
	February	96,906	15,217	20,920	20,188	26,690	380	180,299
	March	97,625	13,495	23,598	22,755	29,885	330	187,687
	April	88,116	11,192	23,231	21,785	27,928	328	172,580
	May	92,997	9,868	24,291	21,639	27,971	381	177,147
	June	95,314	10,419	27,959	24,026	27,953	458	186,128
	July	110,617	13,380	33,340	25,467	27,294	485	210,584
	August	110,124	11,753	34,418	24,986	23,894	480	205,656
	September	96,896	10,363	27,649	25,391	19,896	468	180,662
	October	93,769	9,885	25,804	23,248	19,750	509	172,966
	November	95,547	9,313	21,466	23,235	23,297	520	173,377
	December	100,970	11,238	19,963	24,376	27,760	415	184,722
	<b>TOTAL</b>	<b>1,192,004</b>	<b>146,797</b>	<b>305,260</b>	<b>282,773</b>	<b>309,213</b>	<b>5,164</b>	<b>2,241,211</b>
1983	January	108,164	12,881	19,720	25,090	29,318	506	195,680
	February	92,692	12,586	16,659	22,204	27,950	395	172,485
	March	95,598	12,557	19,686	23,897	30,302	455	182,494
	April	88,114	10,337	19,174	22,352	29,988	424	170,389
	May	91,296	9,050	20,444	22,064	31,193	356	174,403
	June	101,512	11,130	23,091	24,158	30,692	462	191,046
	July	121,633	14,636	29,605	25,602	28,033	565	220,074
	August	129,313	14,870	33,147	25,581	25,824	738	229,472
	September	108,868	11,299	28,040	24,830	21,711	678	195,426
	October	101,951	9,941	23,783	25,060	20,726	711	182,172
	November	103,228	9,230	20,169	24,922	24,677	637	182,864
	December	117,131	16,033	20,567	26,290	31,691	528	212,241
	<b>TOTAL</b>	<b>1,259,500</b>	<b>144,550</b>	<b>274,085</b>	<b>292,051</b>	<b>332,106</b>	<b>6,454</b>	<b>2,308,746</b>

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

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

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

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

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

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

# Electric Utilities

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

	Residential	Commercial	Industrial	Other <sup>2</sup>	Total
Million kilowatt-hours					
1973 TOTAL	579,231	388,266	686,085	59,328	1,712,910
1974 TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975 TOTAL	588,140	403,049	687,680	68,222	1,747,091
1976 TOTAL	606,452	425,094	754,069	69,631	1,855,246
1977 TOTAL	645,239	446,514	786,037	70,571	1,948,361
1978 TOTAL	674,466	461,163	809,078	73,215	2,017,922
1979 TOTAL	682,819	473,307	841,903	73,070	2,071,099
1980 TOTAL	717,495	488,156	815,067	73,732	2,094,449
1981 January	74,087	43,229	67,076	7,557	191,949
February	66,359	41,345	67,411	7,092	182,207
March	57,660	39,541	68,590	7,035	172,826
April	50,914	37,910	68,138	6,562	163,525
May	48,348	39,331	68,714	6,780	163,173
June	56,165	44,244	71,641	6,777	178,827
July	69,990	48,989	71,712	7,124	197,814
August	70,299	49,003	72,010	7,147	198,459
September	61,098	46,977	71,011	7,164	186,250
October	52,989	42,183	69,154	7,024	171,350
November	51,965	39,747	66,161	7,143	165,016
December	62,391	41,839	64,124	7,351	175,705
TOTAL	722,265	514,338	825,742	84,756	2,147,101
1982 January	76,264	44,947	62,939	7,929	192,079
February	69,128	43,459	62,778	7,441	182,805
March	60,498	41,710	64,496	7,255	173,959
April	54,918	40,036	62,723	6,836	164,512
May	49,092	40,021	62,480	6,976	158,569
June	54,083	44,206	63,684	6,766	168,739
July	65,704	48,211	62,617	7,035	183,567
August	69,906	49,720	63,306	6,808	189,740
September	63,053	48,068	59,980	7,194	178,296
October	52,638	42,864 <sup>3</sup>	60,830	7,084	163,416
November	52,136	40,572	60,651	7,122	160,479
December	62,102	42,584	58,464	7,128	170,278
TOTAL	729,519	526,397	744,949	85,575	2,086,440
1983 January	69,929	44,011	57,931	7,251	179,122
February	65,094	42,495	59,085	6,922	173,596
March	59,003	41,589	60,267	6,902	167,761
April	56,314	40,689	60,565	6,297	163,865
May	49,648	40,273	62,697	6,214	158,832
June	54,101	45,080	66,111	6,228	171,519
July	68,923	50,818	66,094	6,759	192,594
August	78,074	53,138	69,598	6,884	207,695
September	72,885	52,131	69,603	6,962	201,581
October	55,374	45,517	68,924	6,492	176,307
November	53,704	42,666	67,544	6,560	170,474
December†	66,323	45,119	67,216	6,765	185,422
TOTAL†	749,372	543,526	775,635	80,236	2,148,768

<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.

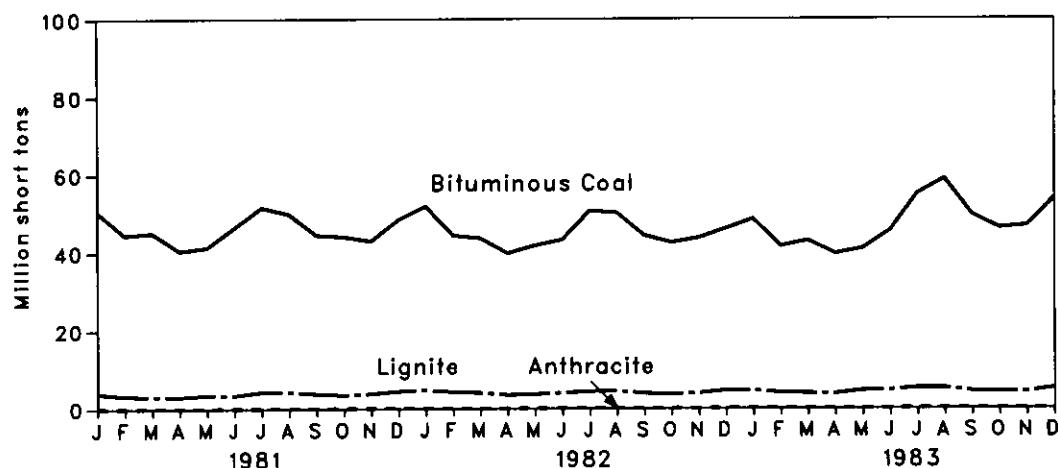
• Totals may not equal sum of components due to independent rounding.

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

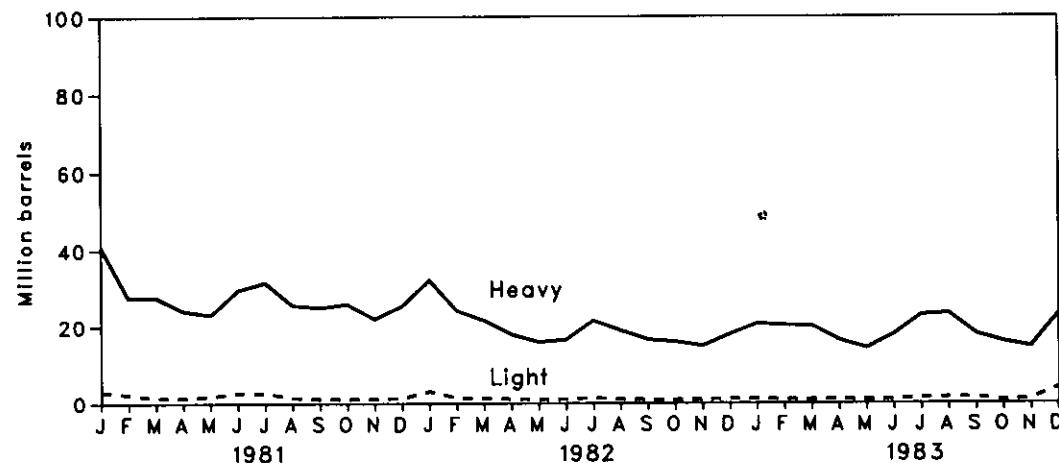
## **Electric Utilities**

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

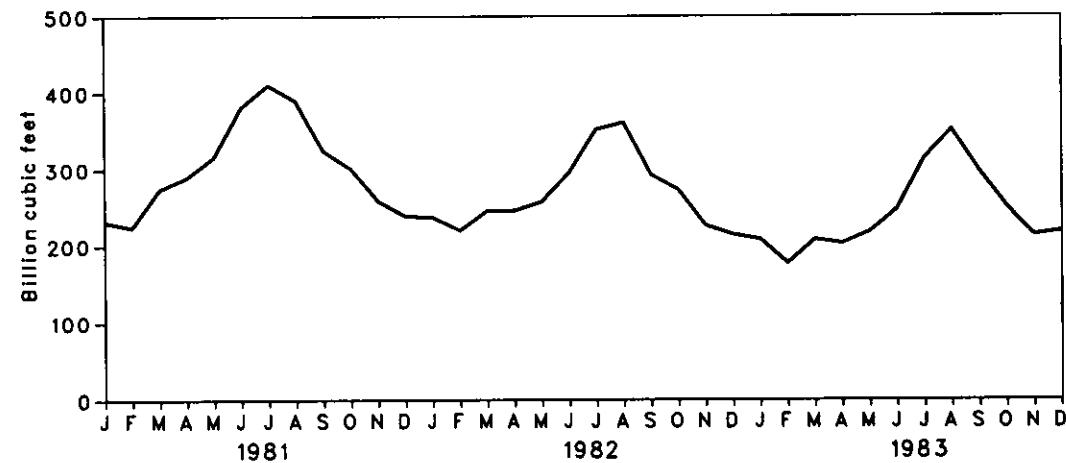
## **Coal Consumption**



## Petroleum Consumption



### Natural Gas Consumption



# Electric Utilities

## Primary Energy Consumed to Produce Electricity

		Coal			Petroleum			Natural Gas		
		Anthracite	Bituminous Coal	Lignite	Total	Heavy <sup>1</sup>	Light <sup>2</sup>	Total Liquids	Petroleum Coke	
			Thousand short tons			Thousand barrels			Thousand short tons	
1973	TOTAL	1,443	376,975	10,794	389,212	(*)	(*)	560,248	507	3,660,172
1974	TOTAL	1,498	378,643	11,670	391,811	(*)	(*)	536,274	625	3,443,428
1975	TOTAL	1,480	388,523	15,960	405,962	(*)	(*)	506,128	70	3,157,669
1976	TOTAL	1,350	425,205	21,817	448,371	(*)	(*)	555,920	68	3,080,868
1977	TOTAL	1,425	451,051	24,650	477,126	(*)	(*)	623,705	98	3,191,200
1978	TOTAL	1,064	448,763	31,407	481,235	(*)	(*)	635,839	398	3,188,363
1979	TOTAL	1,046	488,129	37,876	527,051	(*)	(*)	523,297	268	3,490,523
1980	TOTAL	951	526,680	41,642	569,274	391,163	29,051	420,214	179	3,681,595
1981	January	81	50,635	3,972	54,688	40,885	3,047	43,931	10	231,606
	February	58	44,583	3,272	47,914	27,755	2,242	29,997	9	224,003
	March	75	45,168	3,155	48,398	27,862	1,405	29,267	9	273,431
	April	73	40,535	3,069	43,677	24,229	1,356	25,585	7	289,053
	May	91	41,405	3,503	44,999	23,130	1,795	24,925	14	316,310
	June	105	46,503	3,471	50,080	29,699	2,705	32,404	13	380,775
	July	102	51,705	4,337	56,144	31,628	2,615	34,243	11	410,666
	August	133	50,010	4,339	54,483	25,760	1,422	27,182	13	389,564
	September	98	44,557	3,828	48,483	25,137	1,145	26,282	13	324,828
	October	115	44,161	3,524	47,800	26,078	1,123	27,201	15	301,670
	November	141	43,032	3,841	47,014	22,042	1,139	23,181	12	258,811
	December	148	48,487	4,481	53,116	25,593	1,319	26,912	12	239,436
	<b>TOTAL</b>	<b>1,221</b>	<b>550,784</b>	<b>44,792</b>	<b>596,797</b>	<b>329,798</b>	<b>21,313</b>	<b>351,111</b>	<b>139</b>	<b>3,640,154</b>
1982	January	89	52,014	4,723	56,825	32,269	3,131	35,399	10	237,675
	February	83	44,478	4,317	48,878	24,351	1,421	25,772	9	220,032
	March	73	43,751	4,060	47,884	21,617	1,304	22,921	4	246,550
	April	88	39,888	3,515	43,490	17,913	1,132	19,045	11	246,344
	May	98	41,845	3,678	45,622	15,939	991	16,930	12	257,848
	June	94	43,340	3,990	47,424	16,539	1,053	17,592	13	295,557
	July	108	50,769	4,371	55,248	21,550	1,360	22,910	11	352,818
	August	95	50,283	4,460	54,838	18,873	1,053	19,926	13	361,351
	September	67	44,431	3,916	48,414	16,544	921	17,464	9	293,232
	October	81	42,598	3,650	46,330	15,990	870	16,860	17	273,003
	November	100	43,756	3,943	47,799	14,908	1,007	15,916	18	226,477
	December	99	46,192	4,622	50,914	17,940	1,094	19,035	22	214,630
	<b>TOTAL</b>	<b>1,075</b>	<b>543,346</b>	<b>49,245</b>	<b>593,666</b>	<b>234,434</b>	<b>15,337</b>	<b>249,771</b>	<b>149</b>	<b>3,225,518</b>
1983	January	73	48,695	4,583	53,351	20,728	1,122	21,850	17	208,337
	February	73	41,668	4,032	45,772	20,305	996	21,301	19	176,965
	March	75	43,095	3,870	47,039	20,174	957	21,131	16	208,010
	April	92	39,716	3,781	43,589	16,374	1,066	17,440	24	202,919
	May	104	41,002	4,585	45,691	14,360	949	15,309	30	218,186
	June	88	45,584	4,690	50,362	17,879	1,034	18,913	23	247,858
	July	89	55,082	5,219	60,390	23,144	1,472	24,616	25	314,373
	August	92	58,879	5,200	64,170	23,610	1,542	25,152	24	352,170
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,540
	October	91	46,263	4,335	50,689	15,993	870	16,863	22	251,120
	November	86	46,883	4,216	51,185	14,688	1,077	15,766	17	214,195
	December	88	53,854	5,176	59,117	23,344	4,127	27,471	21	219,098
	<b>TOTAL</b>	<b>1,036</b>	<b>570,466</b>	<b>54,067</b>	<b>625,568</b>	<b>228,621</b>	<b>16,721</b>	<b>245,341</b>	<b>261</b>	<b>2,911,771</b>

<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 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.

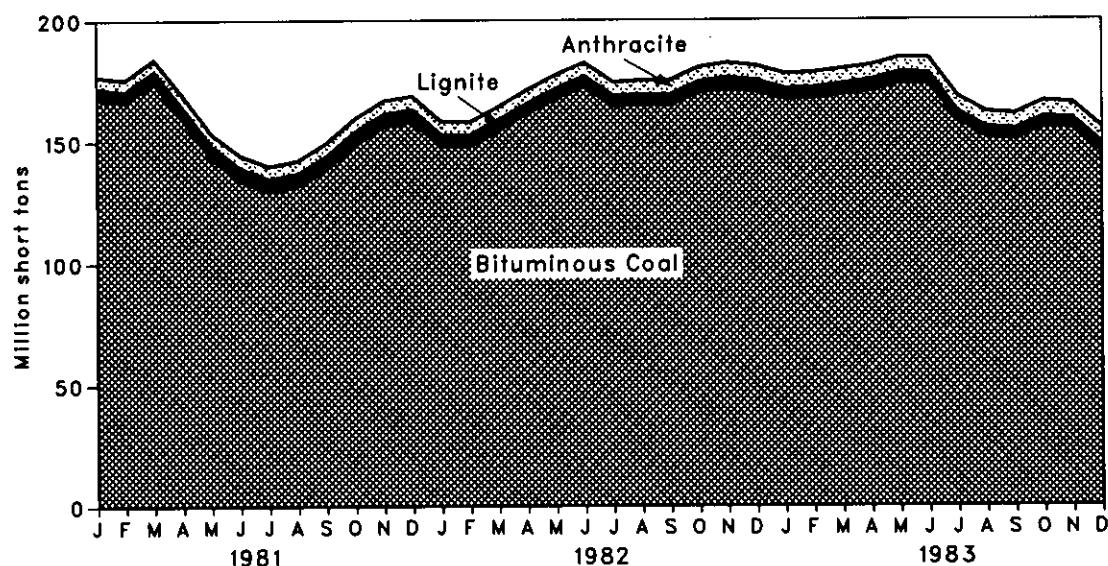
• Totals may not equal sum of components due to independent rounding.

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."

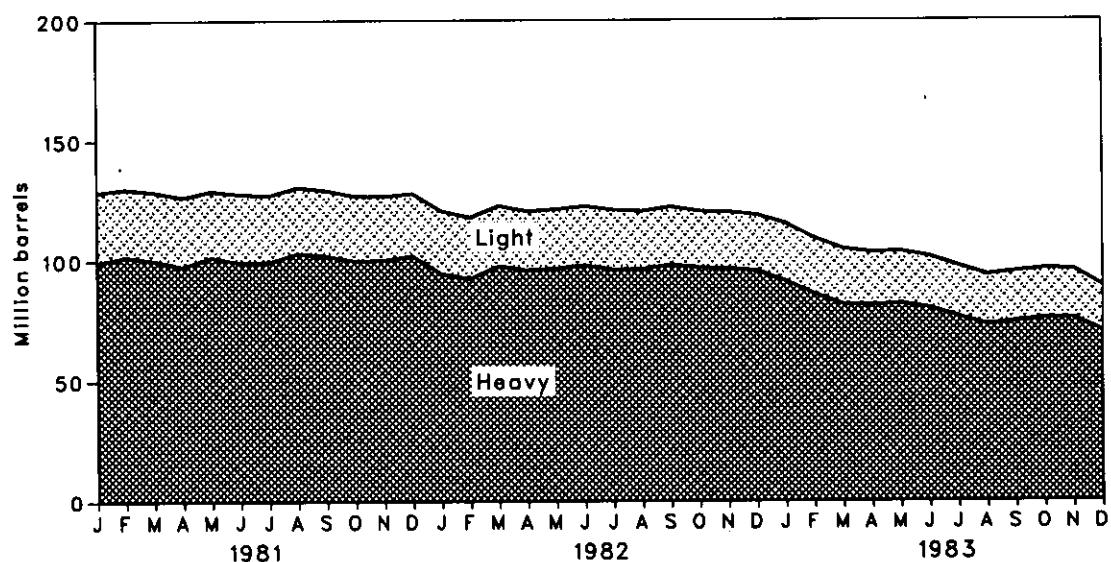
## **Electric Utilities**

### **Coal and Petroleum Stocks at End of Period**

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



#### **Petroleum Stocks**



# Electric Utilities

## Coal and Petroleum Stocks at End of Period

	Coal				Petroleum				
	Anthracite	Bituminous Coal			Heavy <sup>1</sup>	Light <sup>2</sup>	Total Liquids	Petroleum Coke	
		Lignite	Total	Heavy <sup>1</sup>					
		Thousand short tons							
1973	1,066	84,941	961	86,967	(*)	(*)	89,216	312	
1974	930	81,712	867	83,509	(*)	(*)	112,917	35	
1975	982	107,927	1,815	110,724	(*)	(*)	125,257	31	
1976	1,000	114,130	2,306	117,436	(*)	(*)	121,696	32	
1977	2,321	128,210	2,688	133,219	(*)	(*)	144,031	44	
1978	2,178	123,020	3,027	128,225	(*)	(*)	118,788	198	
1979	3,274	152,981	3,459	159,714	(*)	(*)	131,422	183	
1980	4,741	174,154	4,115	183,010	105,351	30,023	135,374	52	
1981	January	4,824	167,884	4,267	176,975	99,196	29,535	128,732	51
	February	4,859	166,552	4,304	175,715	101,867	28,328	130,195	52
	March	4,951	174,554	4,478	183,983	100,178	28,732	128,911	52
	April	5,035	159,645	4,541	169,221	97,629	29,024	126,652	51
	May	5,008	143,500	4,907	153,415	101,574	27,671	129,245	52
	June	5,081	134,321	5,119	144,520	99,398	28,547	127,945	49
	July	5,269	129,684	5,171	140,124	99,603	27,729	127,332	48
	August	5,337	132,072	4,909	142,318	103,104	27,714	130,817	47
	September	5,428	138,808	5,290	149,526	102,104	27,403	129,506	46
	October	5,512	148,952	5,213	159,676	100,008	27,055	127,063	44
	November	5,548	156,360	5,094	167,002	100,301	26,715	127,016	43
	December	5,537	158,258	5,098	168,893	102,042	26,094	128,136	42
1982	January	5,437	148,404	4,628	158,469	94,609	26,162	120,771	39
	February	5,401	148,118	4,617	158,136	92,622	25,418	118,040	40
	March	5,488	154,724	4,305	164,518	97,706	25,136	122,842	43
	April	5,542	161,720	4,128	171,390	95,984	24,636	120,620	42
	May	5,569	167,805	4,088	177,461	96,607	24,796	121,403	41
	June	5,603	172,819	4,092	182,513	97,959	24,647	122,606	43
	July	5,658	164,688	4,157	174,503	96,085	25,008	121,093	43
	August	5,791	165,182	4,221	175,194	96,345	24,193	120,538	42
	September	5,896	165,065	4,264	175,225	98,160	24,225	122,385	47
	October	5,992	170,281	4,298	180,571	96,920	23,595	120,515	36
	November	6,060	171,832	4,476	182,368	96,618	23,553	120,171	42
	December	6,080	170,480	4,573	181,132	95,515	23,369	118,884	41
1983	January	6,107	167,515	4,210	177,832	91,474	23,942	115,416	54
	February	6,104	167,843	4,362	178,310	85,847	23,438	109,284	53
	March	6,143	169,538	4,201	179,883	81,632	23,199	104,831	54
	April	6,120	170,815	4,436	181,371	81,243	22,084	103,327	47
	May	6,145	173,969	4,453	184,567	82,007	21,742	103,749	44
	June	6,230	173,483	4,524	184,236	80,092	21,435	101,527	52
	July	6,299	158,711	3,566	168,576	76,543	21,130	97,673	50
	August	6,380	151,671	4,038	162,088	73,257	20,649	93,906	45
	September	6,435	150,762	4,171	161,368	74,560	20,688	95,248	47
	October	6,506	156,012	4,056	166,574	75,874	20,554	96,428	53
	November	6,531	155,281	3,995	165,807	75,915	20,284	96,199	63
	December	6,507	145,250	3,841	155,598	70,564	18,810	89,375	55

<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	401,863	18,351	420,214	117,227	18,147	135,374
1981	January	41,904	2,027	43,931	110,533	18,199	128,732
	February	28,948	1,049	29,997	112,879	17,315	130,195
	March	28,492	775	29,267	111,490	17,421	128,911
	April	25,028	557	25,585	109,455	17,197	126,652
	May	23,958	967	24,925	112,172	17,073	129,245
	June	30,673	1,731	32,404	109,988	17,957	127,945
	July	32,577	1,666	34,243	110,476	16,856	127,332
	August	26,598	584	27,182	114,016	16,801	130,817
	September	25,762	520	26,282	112,992	16,515	129,506
	October	26,646	556	27,201	110,900	16,164	127,063
	November	22,749	432	23,181	110,939	16,077	127,016
	December	26,345	567	26,912	112,380	15,756	128,136
	TOTAL	339,680	11,431	351,111			
1982	January	33,832	1,567	35,399	105,475	15,296	120,771
	February	25,249	524	25,772	102,883	15,157	118,040
	March	22,371	550	22,921	108,142	14,699	122,842
	April	18,553	492	19,045	106,143	14,477	120,620
	May	16,614	316	16,930	106,701	14,702	121,403
	June	17,241	351	17,592	108,189	14,417	122,606
	July	22,192	718	22,910	106,170	14,923	121,093
	August	19,508	418	19,926	106,438	14,100	120,538
	September	17,146	318	17,464	108,177	14,208	122,385
	October	16,547	313	16,860	106,701	13,813	120,515
	November	15,591	325	15,916	106,361	13,809	120,171
	December	18,694	341	19,035	105,287	13,597	118,884
	TOTAL	243,537	6,234	249,771			
1983	January	21,373	477	21,850	101,246	14,170	115,416
	February	20,885	416	21,301	96,459	13,825	109,284
	March	20,728	403	21,131	91,288	13,543	104,831
	April	16,997	444	17,440	90,796	12,531	103,327
	May	14,968	341	15,309	91,276	12,473	103,749
	June	18,436	477	18,913	89,199	12,328	101,527
	July	23,745	871	24,616	85,599	12,074	97,673
	August	24,167	985	25,152	82,192	11,714	93,906
	September	18,532	996	19,529	83,509	11,740	95,248
	October	16,518	345	16,863	84,779	11,649	96,428
	November	15,336	430	15,766	84,774	11,425	96,199
	December	25,975	1,496	27,471	78,265	11,110	89,375
	TOTAL	237,659	7,682	245,341			

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

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

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

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

# Part 8

## Nuclear

### Nuclear

During December 1983, U.S. nuclear powerplants generated a total of 26.3 billion net kilowatt-hours (kWh) of electricity, equivalent to an average hourly output of 35.3 million net kWh. This was 2.1 percent above the average hourly generation for November 1983, and 7.9 percent above the comparable output for December 1982. Nuclear powerplants supplied 12.4 percent of the electricity generated by domestic utilities in December 1983.

In 1983, domestic nuclear powerplants generated 292.1 billion net kWh of electricity, 3.3 percent more than in 1982. Nuclear powerplants generated about 12.6 percent of U.S. electricity production in both 1982 and 1983. During 1983, nuclear power surpassed natural gas to become the third leading energy source for electricity generation in the United States following coal and hydroelectric power.

In December 1983, two domestic units, LaSalle-2 and WNP-2, were licensed by the Nuclear Regulatory Commission for fuel-loading and low-power testing. LaSalle-2 is a 1,078-net megawatt (MWe) boiling water reactor (BWR) operated by Commonwealth Edison. WNP-2 is a 1,100-net MWe BWR operated by the Washington Public Power Supply System (WPPSS). The addition of La Salle-2 and WNP-2 brings the number of operational units at the end of 1983 to 83, with a collective generating capacity of 66,239 net MWe. Of these 83, 3 units were in low-power testing (Grand Gulf-1, LaSalle-

2, and WNP-2); 5 units were in power ascension (LaSalle-1, McGuire-2, San Onofre-2, San Onofre-3, and Summer-1); and 23 units generated no electricity or operated substantially below capacity in December (Arkansas Nuclear I-2, Browns Ferry-1, Browns Ferry-3, Brunswick-2, Dresden-3, Indian Point-3, La Crosse, La Salle-1, Millstone-2, Oyster Creek, Palisades, Pilgrim, Point Beach-1, Prairie Island-1, Quad Cities-2, Salem-2, San Onofre-1, Sequoyah-1, St. Lucie-1, Susquehanna-1, Three Mile Island-1, Turkey Point-3, and Zion-1).

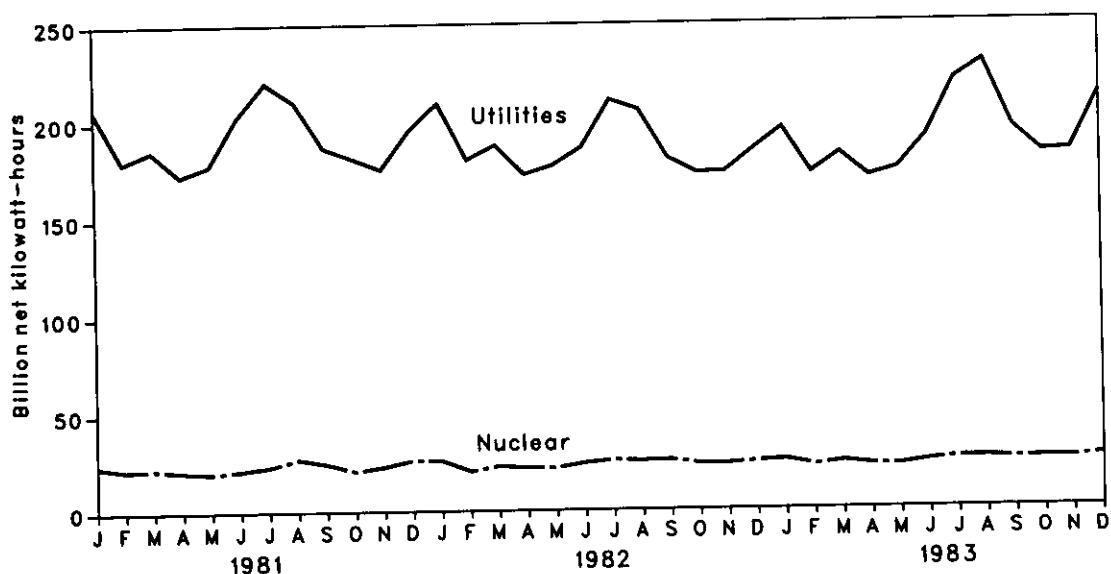
Late in December, Carolina Power and Light Company announced cancellation of its 900-net MWe pressurized water reactor (PWR), Harris-2. Of the original four 900-MWe PWRs planned for the Harris site, only Harris-1 remains. The cancellation of Harris-2 reduced the number of units with construction permits granted to 53. As of December 31, 1983, there were 138 domestic nuclear powerplants in all stages of planning, construction, or operation with an aggregate design capacity of 129 thousand net MWe.

During 1983, a total of six units, two PWRs (Cherokee-1 and Harris-2); three BWRs (Clinton-2, Skagit-1, and Skagit-2); and one fast breeder reactor (Clinch River) with a total net design capacity of 6,049 MWe, were officially cancelled. In addition, Humboldt Bay, a 65-MWe BWR that had been out of service since 1976 and was dropped from the following tables beginning in 1980, was officially terminated in 1983.

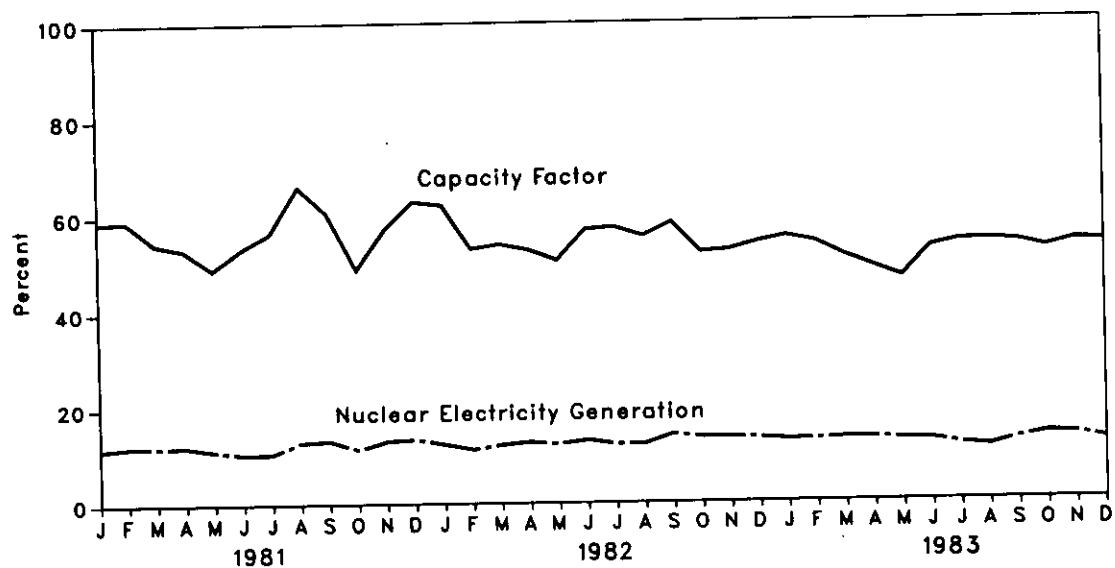
# Nuclear

## Nuclear Powerplant Operations

### Electricity Generated by Utilities and by Nuclear Powerplants



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



\*Percentage of Maximum Dependable Capacity utilized.

# Nuclear

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

	Reactors Licensed For Operation <sup>2</sup>	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation		Maximum Dependable Capacity <sup>3</sup>	Capacity Factor <sup>4</sup>
			Million net kilowatt-hours	Percent		
			Thousand net megawatts	Percent		
1973	40	83,479	4.5	19,843	63.2	
1974	55	113,976	6.1	35,732	43.5	
1975	58	172,505	9.0	35,794	55.2	
1976	65	191,104	9.4	44,609	53.5	
1977	68	250,883	11.8	47,155	62.9	
1978	72	276,403	12.5	50,824	63.9	
1979	71	255,155	11.4	50,944	57.6	
1980	72	251,116	11.0	52,597	55.1	
1981	January	73	23,779	11.5	54,374	58.8
	February	73	21,595	12.0	54,372	59.1
	March	73	22,004	11.9	54,429	54.3
	April	73	20,646	12.0	54,095	53.1
	May	73	19,723	11.1	54,074	49.0
	June	74	21,166	10.4	55,214	53.2
	July	74	23,080	10.5	54,998	56.4
	August	74	26,946	12.8	54,820	66.1
	September	75	24,398	13.1	56,037	60.5
	October	75	20,556	11.3	56,412	48.9
	November	74	22,783	13.0	55,328	57.2
	December	74	25,997	13.3	55,524	62.9
	YEAR	74	272,674	11.9	55,524	56.6
1982	January	74	25,678	12.3	55,471	62.2
	February	75	20,188	11.2	56,608	53.1
	March	75	22,755	12.1	56,609	54.0
	April	76	21,785	12.6	57,424	52.8
	May	76	21,639	12.2	57,415	50.6
	June	77	24,026	12.9	58,560	57.0
	July	78	25,467	12.1	59,601	57.4
	August	79	24,986	12.1	60,521	55.5
	September	79	25,391	14.1	60,501	58.3
	October	78	23,248	13.4	59,921	52.1
	November	79	23,235	13.4	61,523	52.5
	December	79	24,376	13.2	60,528	54.1
	YEAR	79	282,773	12.6	60,528	55.0
1983	January	79	25,090	12.8	61,030	55.3
	February	79	22,204	12.9	61,117	54.1
	March	80	23,897	13.1	62,697	51.2
	April	81	22,352	13.1	63,515	48.9
	May	81	22,064	12.7	63,495	46.7
	June	81	24,158	12.6	63,553	52.8
	July	81	25,602	11.6	63,552	54.1
	August	81	25,581	11.1	63,492	54.2
	September	81	24,830	12.7	63,924	53.9
	October	81	25,060	13.8	64,064	52.5
	November	81	24,922	13.6	64,058	54.0
	December	83	26,290	12.4	66,239	53.8
	YEAR	83	292,051	12.6	66,239	52.6

<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.

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

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

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

Sources: • See the last page of this section.

# Nuclear

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

		Reactors Licensed For Operation <sup>2</sup>	Construction Permits Granted	Construction Permits Pending	Reactor Units on Order	Reactor Units Announced	Total Reactor Units	Total Design Capacity <sup>3</sup> (Million Net Kilowatts)
1973		40	51	58	48	20	217	212
1974		55	58	80	28	16	235	234
1975		58	69	73	19	19	236	236
1976		65	72	66	16	19	235	236
1977		68	80	52	13	9	221	220
1978		72	90	32	9	4	206	204
1979		71	91	21	3	0	186	180
1980		72	82	12	3	0	169	163
1981	January	73	81	12	3	0	169	163
	February	73	81	12	3	0	169	163
	March	73	81	12	3	0	169	163
	April	73	81	12	3	0	169	163
	May	73	81	12	3	0	169	163
	June	74	80	12	3	0	169	163
	July	74	80	12	3	0	169	163
	August	74	79	12	3	0	168	162
	September	75	78	11	3	0	167	161
	October	75	77	11	3	0	166	160
	November	74	78	11	3	0	166	160
	December	74	75	11	3	0	163	157
1982	January	74	73	11	3	0	161	154
	February	75	72	6	2	0	155	147
	March	75	72	6	2	0	155	147
	April	76	71	6	2	0	155	147
	May	76	71	6	2	0	155	147
	June	77	70	6	2	0	155	147
	July	78	67	6	2	0	153	145
	August	79	64	5	2	0	150	141
	September	79	64	3	2	0	148	138
	October	78	64	3	2	0	147	138
	November	79	60	3	2	0	144	135
	December	79	60	3	2	0	144	135
1983	January	79	60	3	2	0	144	135
	February	79	60	3	2	0	144	135
	March	80	59	3	2	0	144	135
	April	81	57	3	2	0	143	134
	May	81	57	3	2	0	143	134
	June	81	57	3	2	0	143	134
	July	81	57	3	2	0	143	134
	August	81	57	3	2	0	143	134
	September	81	57	3	2	0	143	134
	October	81	56	2	2	0	141	133
	November	81	56	0	2	0	139	131
	December	83	53	0	2	0	138	129

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

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

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

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

Sources: • See the last page of this section.

## Notes and Sources for the Nuclear Section

### Notes

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

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

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

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

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

### Sources

**Reactors Licensed for Operation:** •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors." **Electricity Generation:** •1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report."

•October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report." •1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

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

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

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

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



## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$25.88 per barrel in December 1983. This was 0.8 percent below the previous month's level and 8.0 percent below the level in December 1982. The average wellhead price of domestic crude oil during the year 1983 was \$26.19 per barrel, 8.2 percent lower than during 1982.

During December 1983, the composite refiner acquisition cost of crude oil was \$28.83 per barrel, \$0.02 per barrel (0.1 percent) below the previous month's price of \$28.85. The price of imported crude oil increased \$0.21 per barrel from the November 1983 level to \$29.30 per barrel in December. This price was 10.8 percent below the December 1982 level. The price of domestic crude oil in December 1983 was \$28.62, a decrease of \$0.14 per barrel from the November 1983 average.

### Motor Gasoline

The national average retail price of all grades and all types of motor gasoline was \$1.20 per gallon in January 1984. Leaded regular gasoline at all types of stations sold for an average of \$1.13 per gallon in January, 1.3 percent lower than the price in December 1983. The price of unleaded regular gasoline at all types of stations was \$1.22 per gallon in January, 1.2 percent lower than the price in December 1983.

### Natural Gas

The average wellhead price of marketed natural gas produced in December 1983 was \$2.58 per thousand cubic feet (Mcf), the same as in November 1983 but \$0.04 per Mcf (1.5 percent) less than the December 1982 price. The average wellhead price during the year 1983 was \$2.60 per Mcf, 5.7 percent higher than during 1982. The average price of natural gas delivered to electric

utility plants was \$3.53 per Mcf in November 1983, down \$0.07 per Mcf (1.9 percent) from the October 1983 price and \$0.08 (2.2 percent) from the November 1982 price. The average price of natural gas used by residential consumers in January 1984 was \$5.96 per Mcf, \$0.07 less than in December 1983 but \$0.12 per Mcf (2.1 percent) more than in January 1983.

### Electricity

The average retail price of electricity sold by selected privately owned utilities to all types of consumers in December 1983 was 6.14 cents per kilowatt-hour (kWh), a 1.4-percent decrease from the November 1983 price but 0.5 percent more than the December 1982 price of 6.11 cents per kWh. The average price of electricity sold to residential consumers in December 1983 was 6.97 cents per kWh, a decrease of 3.9 percent from the previous month's average but 3.9 percent above the December 1982 price. The average price of electricity sold to commercial consumers was 6.91 cents per kWh in December 1983, a 3.1-percent decrease from the November 1983 price but a 1.9-percent increase from the December 1982 price. The average electricity price to industrial users during December 1983 was 4.81 cents per kWh, a 0.4-percent decrease from the price during the previous month and a 4.0-percent decrease from the December 1982 price.

The average retail price of electricity sold by selected privately owned utilities to all types of consumers during the year 1983 was 6.29 cents per kWh, 2.6 percent above the average in 1982. Residential consumers paid an average of 7.18 cents per kWh for electricity, 4.7 percent more than during 1982. Commercial consumers paid an average of 7.01 cents per kWh, 2.2 percent more than during 1982. Industrial consumers paid an average of 4.97 cents per kWh, slightly more (0.4 percent) than during 1982.

# Price

## Petroleum Price Summary

	Actual Domestic Average Wellhead Price <sup>1</sup>	Refiner Acquisition Cost of Crude Oil <sup>2</sup>			No. 6 Residual Oil Price Average <sup>3</sup> Wholesale <sup>4</sup> Retail <sup>4</sup>	
		Domestic	Imported	Composite	Dollars per barrel	
1976 AVERAGE						
1976 AVERAGE	8.19	8.84	13.48	10.89	10.72	11.49
1977 AVERAGE	8.57	9.55	14.53	11.96	11.96	13.23
1978 AVERAGE	9.00	10.61	14.57	12.46	11.51	12.75
1979 AVERAGE	12.64	14.27	21.67	17.72	17.66	18.67
1980 AVERAGE	21.59	24.23	33.89	28.07	23.14	26.09
1981						
January	28.85	32.71	38.85	34.86	31.14	33.65
February	34.14	36.27	39.00	37.28	31.81	36.04
March	34.70	36.97	38.31	37.48	31.78	36.11
April	34.05	35.58	38.41	36.58	30.56	34.70
May	32.71	35.21	37.84	36.11	30.41	34.11
June	31.71	34.20	37.03	35.03	25.95	31.03
July	31.13	33.76	36.58	34.70	26.52	30.57
August	31.13	33.79	35.82	34.46	27.01	30.52
September	31.13	33.47	35.44	34.11	26.20	30.33
October	31.00	33.48	35.43	34.07	26.78	30.32
November	30.98	33.49	36.21	34.33	27.99	30.16
December	30.72	33.51	35.95	34.33	27.26	30.90
AVERAGE	31.77	34.33	37.05	35.24	28.86	32.50
1982						
January	30.87	33.39	35.54	33.95	27.07	29.83
February	29.76	32.71	35.48	33.40	26.29	30.02
March	28.31	31.08	34.07	31.81	25.73	29.50
April	27.65	30.27	32.82	30.83	25.46	28.21
May	27.67	30.37	32.78	31.02	26.52	28.93
June	28.11	30.79	33.79	31.74	26.62	29.59
July	28.33	30.92	33.44	31.74	25.97	29.33
August	28.18	30.85	32.95	31.45	26.34	28.44
September	27.99	30.76	33.03	31.40	26.49	28.43
October	28.74	31.38	33.28	31.98	27.52	29.28
November	28.70	31.57	33.09	32.07	28.31	29.84
December	28.12	30.80	32.85	31.29	26.81	28.47
AVERAGE	28.52	31.22	33.55	31.87	26.55	29.08
1983						
January	27.22	30.55	31.40	30.73	NA	NA
February	26.41	29.16	30.76	29.49	NA	NA
March	26.08	28.69	28.43	28.64	NA	NA
April	25.85	28.45	27.95	28.33	NA	NA
May	26.08	28.68	28.53	28.64	NA	NA
June	25.98	28.67	29.23	28.85	NA	NA
July	25.86	28.74	28.76	28.75	NA	NA
August	26.03	28.58	29.50	28.88	NA	NA
September	26.08	28.69	29.54	28.97	NA	NA
October	26.04	28.88	29.67	29.14	NA	NA
November	26.09	28.76	29.09	28.85	NA	NA
December	25.88	28.62	29.30	28.83	NA	NA
AVERAGE	26.19	28.87	29.30	28.99	NA	NA
1984 January	NA	NA	NA	NA	NA	NA

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

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

<sup>3</sup>Wholesale refers to the price of residual fuel oil sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial, and residential accounts.

<sup>4</sup>Excludes tax.

<sup>5</sup>Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded and unbranded jobbers and commercial accounts. Retail refers to the price at which company-owned and operated retail dealers sell to customers.

Footnotes continued on following page.

# Price

## Petroleum Price Summary (continued)

	No. 2 Diesel Price Average <sup>a</sup>		No. 2 Heating Oil Price Average		Gasoline Price Average All Types <sup>a</sup> Retail	Propane Price Average <sup>b</sup> Wholesale <sup>c</sup>	Butane Price Average <sup>b</sup> Wholesale <sup>c</sup>
	Wholesale <sup>c</sup>	Retail <sup>c</sup>	Wholesale	Retail			
Cents per gallon							
1976 AVERAGE	31.9	34.7	32.6	40.6	NA	20.6	21.9
1977 AVERAGE	36.1	39.3	36.9	46.0	NA	25.0	25.4
1978 AVERAGE	37.1	40.2	38.7	49.4	65.2	24.0	23.0
1979 AVERAGE	58.2	62.4	53.0	65.6	88.2	29.5	45.8
1980 AVERAGE	81.2	87.3	82.2	97.8	122.1	42.4	62.9
1981 January	92.5	100.9	98.6	114.4	126.9	46.5	66.1
February	99.5	106.1	106.0	123.4	135.3	48.2	63.0
March	101.7	108.8	106.3	125.5	138.8	48.3	62.1
April	101.3	107.7	105.2	123.9	138.1	49.3	60.1
May	100.8	106.8	104.0	122.7	137.0	48.6	56.8
June	99.5	106.6	103.0	120.9	136.2	46.0	52.7
July	98.8	103.8	102.7	121.0	135.3	46.0	56.5
August	97.8	105.9	102.2	119.4	134.8	47.2	60.6
September	97.6	104.8	101.6	119.7	135.8	47.7	64.6
October	97.4	105.3	101.1	118.8	135.3	47.3	64.7
November	98.3	105.2	102.3	120.8	135.1	47.5	61.6
December	98.3	105.1	102.6	122.0	134.8	45.5	55.4
AVERAGE	98.5	106.2	102.8	120.5	135.3	47.2	60.4
1982 January	98.0	105.3	101.5	122.0	134.1	43.1	51.8
February	94.8	103.2	98.3	120.7	131.8	38.3	48.9
March	90.2	98.0	91.3	115.3	126.8	35.7	49.6
April	86.6	96.1	90.0	113.2	121.0	34.9	56.1
May	89.1	97.6	95.1	114.3	122.4	35.4	65.6
June	93.5	102.2	98.5	116.2	129.6	36.9	67.9
July	93.4	101.1	98.6	115.8	131.8	39.7	69.7
August	92.3	99.3	96.7	115.9	131.0	43.8	72.2
September	92.4	99.8	97.7	115.2	129.5	49.5	77.4
October	95.7	102.1	102.0	119.6	128.0	51.0	75.7
November	97.3	104.5	101.5	121.6	126.8	53.2	76.1
December	91.2	100.3	95.9	119.6	124.4	49.5	72.6
AVERAGE	92.7	100.5	97.4	118.6	128.1	43.3	64.8
1983 January	NA	NA	NA	NA	121.3	NA	NA
February	NA	NA	NA	NA	117.0	NA	NA
March	NA	NA	NA	NA	113.5	NA	NA
April	NA	NA	NA	NA	119.8	NA	NA
May	NA	NA	NA	NA	124.3	NA	NA
June	NA	NA	NA	NA	126.1	NA	NA
July	NA	NA	NA	NA	127.2	NA	NA
August	NA	NA	NA	NA	126.9	NA	NA
September	NA	NA	NA	NA	125.7	NA	NA
October	NA	NA	NA	NA	123.9	NA	NA
November	NA	NA	NA	NA	122.4	NA	NA
December	NA	NA	NA	NA	121.5	NA	NA
AVERAGE	NA	NA	NA	NA	122.5	NA	NA
1984 January	NA	NA	NA	NA	120.0	NA	NA

### Footnotes continued.

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

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

<sup>c</sup>Preliminary data. NA=Not available.

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

Sources: • See the last pages of this section.

# Price

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

		Algeria	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
Dollars per barrel											
1976	AVERAGE	13.05	12.76	11.61	12.55	NA	13.08	11.69	11.94	NA	11.32
1977	AVERAGE	14.36	13.57	12.67	13.90	13.42	14.44	12.37	12.83	NA	12.68
1978	AVERAGE	14.10	13.64	12.65	13.75	13.24	14.04	12.70	13.24	13.82	12.45
1979	AVERAGE	20.65	19.35	23.71	22.43	20.29	21.80	17.63	19.58	21.20	17.37
1980	AVERAGE	36.57	32.37	(*)	36.41	31.11	35.82	28.53	NA	34.58	24.78
1981	January	39.37	36.54	(*)	40.52	35.88	40.11	32.39	NA	38.34	32.87
	February	40.13	36.13	(*)	40.73	36.57	40.03	32.60	NA	39.41	30.36
	March	40.30	36.40	(*)	40.25	35.60	39.85	32.73	NA	39.50	31.24
	April	39.70	36.38	(*)	40.04	33.81	39.92	32.41	NA	38.85	29.93
	May	39.57	36.09	(*)	38.91	34.45	39.11	32.13	NA	37.16	28.39
	June	39.20	36.95	(*)	39.85	30.30	38.44	32.42	NA	35.84	30.50
	July	38.06	35.47	(*)	38.70	32.72	39.25	32.07	NA	34.89	29.25
	August	39.34	35.61	(*)	39.45	31.23	39.55	31.95	NA	34.38	27.08
	September	39.60	35.82	(*)	36.74	30.37	36.04	32.09	NA	34.44	28.14
	October	36.90	35.08	(*)	36.36	30.83	35.45	33.56	NA	34.87	27.27
	November	36.55	35.53	(*)	37.15	31.80	36.41	33.49	NA	35.97	28.39
	December	37.35	36.08	(*)	36.78	31.29	36.49	33.70	NA	36.46	28.02
	AVERAGE	39.09	35.93	(*)	39.44	33.13	38.53	32.48	NA	36.08	28.86
1982	January	36.96	35.53	(*)	35.69	29.67	36.23	33.40	NA	36.20	29.07
	February	35.56	35.59	(*)	34.64	30.92	35.92	33.50	NA	34.00	28.94
	March	31.50	35.74	(*)	34.21	27.86	34.94	33.77	NA	30.78	22.89
	April	30.54	35.69	(*)	(*)	26.96	33.80	33.49	NA	32.49	21.89
	May	33.32	34.82	31.11	(*)	28.53	35.22	32.97	NA	32.43	22.31
	June	34.72	35.95	W	(*)	28.18	35.18	33.80	NA	33.67	22.25
	July	34.35	35.22	31.44	(*)	28.32	35.15	33.26	NA	33.66	23.50
	August	33.03	35.63	31.17	(*)	27.67	35.13	32.63	NA	33.17	20.71
	September	34.20	35.24	W	(*)	27.95	34.70	32.98	NA	33.30	23.58
	October	34.26	35.25	W	(*)	27.82	35.05	33.54	NA	33.93	22.93
	November	34.44	34.99	29.80	(*)	27.63	35.02	33.59	NA	34.08	23.74
	December	34.86	34.73	29.09	(*)	27.63	33.18	34.04	NA	33.21	26.21
	AVERAGE	34.23	35.27	30.93	35.12	28.07	35.13	33.50	NA	33.46	23.77
1983	January	W	34.71	W	(*)	26.90	W	W	NA	32.77	21.58
	February	W	33.74	W	(*)	25.69	W	W	NA	30.95	21.82
	March	31.07	29.69	W	(*)	24.53	29.52	30.03	NA	29.16	20.04
	April	29.37	29.57	W	(*)	24.18	29.63	W	NA	30.07	20.05
	May	29.54	29.31	W	(*)	24.60	29.72	W	NA	29.61	19.88
	June	29.80	29.59	W	(*)	24.13	29.57	W	NA	28.92	20.80
	July	30.15	29.73	28.41	(*)	24.92	29.81	27.91	NA	30.00	19.89
	August	30.32	29.60	28.19	(*)	25.15	29.92	27.83	NA	29.88	21.56
	September	30.33	29.77	28.03	(*)	25.10	29.59	27.73	NA	30.33	21.81
	October	29.98	29.81	28.29	(*)	25.72	30.23	28.24	NA	29.73	23.58
	November	R29.75	30.34	W	(*)	R25.76	R29.99	R28.22	NA	R29.42	R23.17
	December†	NA	29.76	28.30	(*)	26.18	29.63	28.08	NA	28.84	24.61

<sup>1</sup>The Free on Board (FOB) cost excludes all costs related to insurance and transportation. See Note 3 on the last pages of 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 shown through December 1980 are for the month of reporting; prices since then are for the month of loading.

Sources: • See the last pages of this section.

# Price

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

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
Dollars per barrel												
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	NA	12.62	12.30	12.87	NA	11.65
1976	AVERAGE	13.81	13.57	13.82	12.82	13.58	NA	13.80	13.04	13.30	NA	11.80
1977	AVERAGE	15.20	14.21	14.63	13.80	14.87	13.75	15.25	13.61	14.04	NA	13.13
1978	AVERAGE	14.91	14.50	14.64	13.88	14.72	13.54	14.86	13.92	14.39	NA	12.83
1979	AVERAGE	21.90	20.43	20.69	25.02	23.68	20.86	22.96	19.15	21.90	22.16	18.18
1980	AVERAGE	37.90	30.47	33.92	(*)	37.72	31.80	37.05	30.02	NA	35.88	25.86
1981	January	41.25	34.26	38.08	(*)	41.81	36.81	41.55	34.06	NA	39.90	33.80
	February	41.90	33.73	37.86	(*)	42.19	37.23	41.46	34.38	NA	40.69	31.20
	March	41.62	33.88	38.11	(*)	41.60	36.42	40.98	34.42	NA	40.72	32.09
	April	40.96	33.74	37.95	(*)	41.58	34.42	41.04	34.16	NA	40.02	30.97
	May	40.81	32.70	37.72	(*)	40.46	34.83	40.10	33.73	NA	38.31	29.39
	June	40.31	32.67	38.73	(*)	41.44	31.03	39.60	34.29	NA	37.04	31.46
	July	39.59	31.19	37.20	(*)	40.27	33.18	40.05	33.72	NA	35.87	29.22
	August	40.65	30.44	37.07	(*)	40.30	31.77	40.85	33.23	NA	35.40	28.11
	September	41.62	30.83	37.52	(*)	37.73	30.84	37.20	33.66	NA	35.26	29.12
	October	37.52	31.17	36.39	(*)	38.15	31.34	36.64	34.88	NA	36.00	28.27
	November	37.43	31.04	36.84	(*)	38.50	32.42	37.59	34.91	NA	36.87	29.27
	December	38.14	31.37	37.31	(*)	38.89	31.85	37.52	35.37	NA	37.44	29.00
	AVERAGE	40.49	32.16	37.57	(*)	40.92	33.78	39.70	34.19	NA	37.24	29.87
1982	January	38.19	31.05	36.88	(*)	36.91	30.21	37.37	34.44	NA	36.78	29.82
	February	37.09	28.80	36.81	(*)	35.28	31.47	37.06	34.51	NA	35.04	30.09
	March	32.25	26.71	37.17	(*)	34.80	28.69	35.81	34.92	NA	31.35	23.92
	April	31.66	24.86	36.87	(*)	(*)	27.58	34.82	34.80	NA	33.19	23.09
	May	34.24	24.90	36.50	32.01	(*)	29.18	36.06	34.28	NA	33.22	23.44
	June	35.41	24.63	37.35	W	(*)	28.76	36.15	35.20	NA	34.41	23.43
	July	35.26	26.62	37.04	32.08	(*)	28.95	36.19	35.04	NA	34.67	24.61
	August	33.87	26.40	36.81	31.84	(*)	28.19	36.16	34.28	NA	33.88	21.90
	September	34.88	26.52	36.65	W	(*)	28.50	35.56	34.45	NA	34.01	24.53
	October	35.41	26.91	36.83	33.28	(*)	28.22	35.98	35.21	NA	34.56	23.90
	November	35.82	26.78	36.49	32.66	(*)	28.17	36.04	35.41	NA	34.74	24.91
	December	35.70	27.35	36.19	32.73	(*)	28.19	34.54	36.43	NA	34.05	27.09
	AVERAGE	35.28	26.92	36.75	32.40	36.05	28.64	36.17	35.00	NA	34.28	24.82
1983	January	33.20	27.62	36.12	W	(*)	27.50	W	W	NA	33.48	23.20
	February	32.17	26.19	35.07	W	(*)	26.15	32.24	W	NA	33.33	23.36
	March	31.24	24.78	31.17	W	(*)	25.06	30.49	31.63	NA	29.92	21.48
	April	30.55	24.35	31.14	W	(*)	24.65	30.63	W	NA	30.84	21.45
	May	30.48	24.32	30.82	W	(*)	25.17	30.75	W	NA	30.60	21.24
	June	30.88	24.88	31.40	29.10	(*)	24.81	30.56	W	NA	30.02	22.07
	July	31.36	25.45	31.46	30.06	(*)	25.34	30.91	29.53	NA	30.86	21.30
	August	31.85	25.45	31.65	29.57	(*)	25.80	31.21	29.39	NA	30.83	22.82
	September	31.78	25.71	31.27	29.31	(*)	25.66	30.70	29.53	NA	31.39	23.12
	October	30.97	26.01	31.14	29.73	(*)	26.44	31.16	29.98	NA	30.79	24.75
	November	R30.96	25.83	R31.30	W	(*)	R26.29	R31.02	R29.88	NA	R30.33	R24.68
	December	NA	26.69	30.83	28.57	(*)	26.88	30.83	29.75	NA	29.86	25.00

<sup>1</sup>See Note 4 on the last pages of 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 shown through December 1980 are for the month of reporting; prices since then are for the month of loading.

Sources: • See the last pages of this section.

## Price

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

		Leaded Regular	Unleaded Regular	Leaded Premium	Average for All Types
Cents per gallon, including tax					
1974	AVERAGE	53.2	NA	56.9	NA
1975	AVERAGE	56.7	NA	60.9	NA
1976	AVERAGE	59.0	61.4	63.6	NA
1977	AVERAGE	62.2	65.6	67.4	NA
1978	AVERAGE	62.6	67.0	69.4	65.2
1979	AVERAGE	85.7	90.3	92.2	88.2
1980	AVERAGE	119.1	124.5	128.1	122.1
1981	January	123.8	129.8	133.8	126.9
	February	132.1	138.2	141.0	135.3
	March	135.2	141.7	144.9	138.8
	April	134.4	141.2	145.1	138.1
	May	133.3	140.0	144.7	137.0
	June	132.4	139.1	144.6	136.2
	July	131.5	138.2	144.6	135.3
	August	131.0	137.6	144.4	134.8
	September <sup>2</sup>	130.5	137.6	145.6	135.8
	October	129.9	137.1	145.7	135.3
	November	129.7	136.9	146.2	135.1
	December	129.3	136.5	146.0	134.8
	AVERAGE	131.1	137.8	143.9	135.3
1982	January	128.5	135.8	145.6	134.1
	February	126.0	133.4	143.8	131.8
	March	120.6	128.4	140.7	126.8
	April	114.8	122.5	136.8	121.0
	May	116.6	123.7	137.9	122.4
	June	124.2	130.9	140.8	129.6
	July	126.3	133.1	145.0	131.8
	August	125.4	132.3	145.8	131.0
	September	123.6	130.8	144.1	129.5
	October	121.9	129.5	141.3	128.0
	November	120.7	128.3	141.2	126.8
	December	118.1	126.0	137.1	124.4
	AVERAGE	122.2	129.6	141.7	128.1
1983	January	114.6	122.8	135.3	121.3
	February	109.9	118.7	131.8	117.0
	March	106.4	115.1	127.4	113.5
	April	113.1	121.5	132.1	119.8
	May	117.7	125.9	137.6	124.3
	June	119.7	127.7	142.9	126.1
	July	120.7	128.8	144.6	127.2
	August	120.3	128.5	143.7	126.9
	September	118.9	127.4	140.5	125.7
	October	117.2	125.5	137.2	123.9
	November	115.6	124.1	135.6	122.4
	December	114.6	123.1	138.1	121.5
	AVERAGE	115.7	124.1	137.2	122.5
1984	January	113.1	121.6	NA	120.0

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

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

NA=Not available.

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

Sources: • See the last pages of this section.

# Price

## Aviation Fuel

		Aviation Gasoline		Naphtha-Type <sup>1</sup>		Kerosene-Type	
		Wholesale <sup>2</sup>	Retail <sup>2</sup>	Wholesale <sup>2</sup>	Retail <sup>2</sup>	Wholesale <sup>2</sup>	Retail <sup>2</sup>
Cents per gallon, excluding tax							
1976	AVERAGE	42.4	43.1	31.5	32.5	31.2	
1977	AVERAGE	46.7	47.7	35.0	36.7	35.8	
1978	AVERAGE	51.0	52.1	37.5	38.9	38.9	
1979	AVERAGE	68.5	69.5	52.3	66.5	55.1	
1980	AVERAGE	107.2	109.4	88.2	87.5	87.4	
1981	January	118.9	121.6	99.2	97.1	95.7	
	February	121.3	128.1	102.7	103.6	101.6	
	March	127.2	131.1	106.9	104.8	106.3	
	April	117.5	131.3	109.0	103.8	106.4	
	May	120.7	133.5	109.1	104.4	106.2	
	June	116.5	132.1	107.6	102.3	104.8	
	July	120.1	133.4	106.3	100.5	103.8	
	August	120.0	132.5	105.7	101.4	103.3	
	September	121.0	133.5	105.6	103.0	103.3	
	October	117.2	134.5	104.8	99.9	101.1	
	November	114.4	133.2	104.5	101.9	102.6	
	December	116.8	131.9	103.8	101.9	102.2	
	AVERAGE	118.8	131.5	105.7	102.0	103.1	
1982	January	122.4	133.2	101.7	101.3	101.6	
	February	122.0	134.0	101.3	100.0	101.0	
	March	117.0	134.8	98.4	97.6	99.6	
	April	113.4	132.7	96.0	93.0	96.8	
	May	109.6	132.7	94.1	91.7	95.5	
	June	114.7	132.5	98.4	94.1	95.3	
	July	120.4	134.4	98.7	94.3	95.3	
	August	117.7	132.6	97.3	95.0	95.4	
	September	115.7	130.0	98.2	95.5	95.1	
	October	116.6	131.5	98.5	98.4	95.8	
	November	118.4	131.7	96.4	98.2	96.4	
	December	119.6	130.3	94.0	93.7	95.6	
	AVERAGE	116.7	132.4	97.7	96.1	96.9	

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

<sup>2</sup>Wholesale refers to the price of aviation fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.

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

Sources: • See the last pages of this section.

## Price

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

		Refiners' Average Selling Price to Resellers and Retailers	Average Purchase Price Paid by Distributors for Heating Oil <sup>2</sup>	Average Distributor Margin on Residential Heating Oil <sup>2</sup>	Average Selling Price to Residential Customers <sup>2</sup>
Cents per gallon					
1976	<b>AVERAGE</b>	31.4	32.6	NA	40.6
1977	<b>AVERAGE</b>	35.7	36.9	NA	46.0
1978	<b>AVERAGE</b>	37.2	38.7	11.0	49.4
1979	<b>AVERAGE</b>	55.9	53.0	12.8	65.6
1980	<b>AVERAGE</b>	80.0	82.2	15.8	97.8
1981	January	94.9	98.6	15.1	114.4
	February	102.5	106.0	16.1	123.4
	March	102.8	106.3	17.6	125.5
	April	100.9	105.2	17.7	123.9
	May	100.7	104.0	17.6	122.7
	June	99.3	103.0	16.9	120.9
	July	98.5	102.7	17.1	121.0
	August	98.2	102.2	16.2	119.4
	September	97.8	101.6	17.2	119.7
	October	98.0	101.1	16.6	118.8
	November	100.0	102.3	17.6	120.8
	December	100.6	102.6	18.3	122.0
	<b>AVERAGE</b>	99.3	102.6	16.8	120.5
1982	January	99.1	101.5	19.3	122.0
	February	94.7	98.3	21.3	120.7
	March	87.4	91.3	22.6	115.3
	April	86.0	90.0	22.0	113.2
	May	91.2	95.1	18.4	114.3
	June	95.4	98.5	16.9	116.2
	July	93.8	98.6	16.3	115.8
	August	92.5	96.7	18.2	115.9
	September	93.3	97.7	16.3	115.2
	October	98.8	102.0	16.7	119.6
	November	99.2	101.5	19.0	121.6
	December	89.9	95.9	22.9	119.6
	<b>AVERAGE</b>	93.2	97.4	20.2	118.6

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

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

NA = Not available.

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

Sources: • See the last pages of this section.

# Price

## Residential Heating Oil Prices by Region

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

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

W=Value withheld to avoid disclosure of company data.

Sources: • See the last pages of this section.

## Price

### Average No. 6 Residual Fuel Oil Prices

		0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Average	
		Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail
Dollars per barrel, excluding taxes									
1976	AVERAGE	12.20	12.54	10.83	11.79	9.98	10.43	10.72	11.49
1977	AVERAGE	13.45	14.36	12.09	13.45	11.31	12.27	11.96	13.23
1978	AVERAGE	12.77	14.47	11.95	12.78	10.73	11.70	11.51	12.75
1979	AVERAGE	19.87	21.21	18.33	19.33	15.89	16.44	17.66	18.67
1980	AVERAGE	26.41	31.13	24.91	27.59	20.77	22.11	23.14	26.09
1981	January	34.27	37.23	32.12	33.96	29.12	31.35	31.14	33.65
	February	38.04	41.60	34.96	37.32	28.96	32.02	31.81	36.04
	March	37.78	41.19	34.47	38.01	29.55	31.95	31.78	36.11
	April	35.66	41.71	33.10	35.94	28.35	30.56	30.56	34.70
	May	33.61	41.09	32.53	35.94	28.77	30.64	30.41	34.11
	June	28.01	38.30	26.71	32.38	25.33	27.16	25.95	31.03
	July	29.56	39.02	27.38	31.93	25.62	25.96	26.52	30.57
	August	30.48	36.57	27.77	32.04	26.03	26.20	27.01	30.52
	September	29.91	39.17	27.46	32.08	24.80	26.26	26.20	30.33
	October	30.26	39.90	28.64	31.88	24.96	26.18	26.78	30.32
	November	31.71	39.48	29.63	31.02	26.09	26.45	27.99	30.16
	December	31.40	37.65	28.29	32.19	25.39	26.53	27.26	30.90
	AVERAGE	32.97	39.31	30.56	33.69	27.07	28.57	28.86	32.50
1982	January	33.03	37.56	28.90	31.13	24.60	25.94	27.07	29.83
	February	31.67	38.41	29.30	30.95	23.60	24.70	26.29	30.02
	March	30.95	38.96	27.60	30.57	23.45	24.21	25.73	29.50
	April	30.11	36.77	27.08	30.00	23.57	24.40	25.46	28.21
	May	30.38	37.97	27.89	30.05	25.15	25.94	26.52	28.93
	June	27.98	38.93	28.26	30.89	25.35	26.56	26.62	29.59
	July	30.05	37.46	27.39	29.84	24.19	26.49	25.97	29.33
	August	28.86	31.82	27.50	30.37	25.40	26.02	26.34	28.44
	September	30.22	32.41	27.73	30.45	25.21	25.93	26.49	28.43
	October	31.98	33.51	29.51	32.24	25.72	26.59	27.52	29.28
	November	32.28	34.14	29.44	32.24	26.30	26.99	28.31	29.84
	December	31.31	32.59	28.19	30.25	25.16	26.22	26.81	28.47
	AVERAGE	30.92	36.34	28.27	30.71	24.76	25.82	26.55	29.08

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

• Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial, and residential accounts.

Sources: • See the last pages of this section.

# Price

## National Average Natural Gas Prices

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies	Purchased by Electric Plants <sup>1</sup>	Residential Price <sup>2</sup>
Dollars per thousand cubic feet							
1973	AVERAGE	0.22	NA	NA	NA	0.35	1.29
1974	AVERAGE	0.30	NA	NA	NA	0.49	1.43
1975	AVERAGE	0.45	NA	NA	NA	0.77	1.71
1976	AVERAGE	0.58	NA	NA	NA	1.06	1.98
1977	AVERAGE	0.79	NA	NA	NA	1.33	2.35
1978	AVERAGE	0.91	2.21	0.83	1.54	1.48	2.56
1979	AVERAGE	1.18	2.60	1.22	2.01	1.80	2.98
1980	AVERAGE	1.59	4.42	1.63	2.54	2.28	3.68
1981	January	1.77	4.33	1.83	2.94	2.51	3.94
	February	1.81	4.51	1.89	3.00	2.67	3.99
	March	1.86	4.61	1.91	3.01	2.71	4.06
	April	1.93	4.88	2.07	2.96	2.81	4.11
	May	1.95	4.82	2.15	3.00	2.92	4.29
	June	1.95	4.83	2.16	3.06	2.95	4.30
	July	2.01	4.86	2.20	3.08	2.97	4.32
	August	2.02	4.89	2.27	3.24	2.99	4.30
	September	2.08	4.88	2.26	3.22	2.95	4.47
	October	2.11	5.00	2.31	3.34	3.07	4.50
	November	2.15	5.01	2.38	3.38	3.07	4.53
	December	2.16	4.97	2.36	3.35	2.97	4.55
	AVERAGE	1.98	4.80	2.15	3.13	2.91	4.29
1982	January	2.23	4.86	2.38	3.59	3.07	4.65
	February	2.30	4.92	2.46	3.58	3.18	4.69
	March	2.35	4.89	2.38	3.61	3.25	4.78
	April	2.40	5.06	2.44	3.61	3.32	4.86
	May	2.45	4.93	2.63	3.62	3.42	5.17
	June	2.45	4.86	3.06	3.66	3.57	5.20
	July	2.47	5.00	2.79	3.71	3.69	5.23
	August	2.53	5.07	2.84	3.75	3.67	5.23
	September	2.56	5.05	2.80	3.88	3.67	5.41
	October	2.60	5.02	2.97	3.91	3.68	5.66
	November	2.62	5.01	3.02	3.98	3.61	5.68
	December	2.62	4.97	3.19	4.00	3.64	5.74
	AVERAGE	2.46	4.97	2.75	3.72	3.49	5.17
1983	January	2.63	5.03	3.27	4.32	3.57	5.84
	February	2.64	5.09	3.15	4.33	3.41	5.85
	March	2.61	5.01	3.06	4.23	3.44	5.94
	April	2.57	4.66	2.90	4.37	3.34	6.04
	May	2.56	4.40	3.03	4.24	3.54	6.20
	June	2.62	4.41	2.93	4.22	3.58	6.18
	July	2.56	4.31	2.96	4.24	3.72	6.19
	August	2.61	3.93	2.90	4.23	3.75	6.16
	September	R2.70	4.02	2.87	4.07	3.70	6.16
	October	R2.61	4.03	2.86	4.22	3.60	6.08
	November	2.58	4.26	2.84	4.26	3.53	6.02
	December	2.58	NA	NA	NA	NA	6.03
	AVERAGE	2.60	NA	NA	NA	NA	5.99
1984	January	NA	NA	NA	NA	NA	5.96

The Bureau of Labor Statistics residential price series has been replaced with Energy Information Administration data and estimates. See Notes and Sources on pages 99 through 101.

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

<sup>2</sup>Monthly residential prices are EIA calculations. See Note 9 on last pages of this section for estimation procedures.

R=Revised data. NA=Not available.

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

• Data for 1973 through December 1982 are final. All other data are preliminary unless otherwise indicated.

Sources: • See the last pages of this section.

# Price

## Electricity

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

### Average Retail Electricity Prices for Privately Owned Utilities<sup>2</sup>

		Coal	Residual Oil <sup>3</sup>	Gas <sup>4</sup>	All Fossil Fuels <sup>5</sup>	Residential	Commercial	Industrial	Other	Total <sup>6</sup>
				Cents per million Btu					Cents per kilowatt-hour	
1973	AVERAGE	40.5	78.8	33.8	47.5	2.54	2.41	1.25	2.10	1.96
1974	AVERAGE	71.0	191.0	48.1	90.9	3.10	3.04	1.69	2.75	2.49
1975	AVERAGE	81.4	201.4	75.4	103.0	3.51	3.45	2.07	3.08	2.92
1976	AVERAGE	84.8	195.9	103.4	110.4	3.73	3.69	2.21	3.27	3.09
1977	AVERAGE	94.7	220.4	130.0	127.7	4.05	4.09	2.50	3.51	3.42
1978	AVERAGE	111.6	212.3	143.8	139.3	4.31	4.36	2.79	3.62	3.69
1979	AVERAGE	122.4	299.7	175.4	162.1	4.64	4.68	3.05	3.96	3.99
1980	AVERAGE	135.1	427.9	221.4	190.4	5.36	5.48	3.69	4.76	4.73
1981	January	142.7	540.2	245.9	219.2	5.43	5.72	3.94	4.92	4.96
	February	146.3	572.9	260.5	218.2	5.52	5.83	3.95	5.01	4.99
	March	148.3	583.9	264.0	215.0	5.76	6.01	4.04	5.33	5.12
	April	146.9	568.3	273.5	241.9	5.99	6.14	4.07	5.20	5.20
	May	146.7	552.8	282.7	250.6	6.26	6.29	4.16	5.47	5.36
	June	152.7	506.1	286.3	234.6	6.49	6.48	4.36	5.37	5.59
	July	156.5	496.3	288.6	227.5	6.58	6.47	4.48	5.61	5.76
	August	157.0	494.4	291.1	220.2	6.62	6.49	4.49	5.52	5.78
	September	157.2	501.0	286.5	212.3	6.63	6.48	4.49	5.65	5.74
	October	160.2	511.9	300.7	217.7	6.57	6.52	4.40	5.31	5.64
	November	159.1	521.0	300.0	215.1	6.42	6.48	4.46	5.43	5.61
	December	156.7	505.0	291.4	215.5	6.32	6.46	4.56	*4.60	5.65
	AVERAGE	153.2	529.4	282.5	222.5	6.20	6.29	4.29	5.28	5.46
1982	January	160.9	484.6	301.0	226.4	6.22	6.49	4.66	5.44	5.74
	February	164.1	487.6	310.4	220.7	6.35	6.68	4.70	5.83	5.84
	March	165.7	470.9	315.8	219.8	6.58	6.79	4.83	6.38	5.97
	April	164.6	478.0	323.4	214.3	6.72	6.81	4.84	5.77	5.99
	May	165.1	485.7	331.6	215.7	6.94	6.86	4.95	5.91	6.09
	June	167.0	479.6	345.8	224.7	7.08	6.94	4.92	6.01	6.18
	July	164.5	468.8	335.9	237.6	7.18	6.98	5.12	6.13	6.38
	August	164.7	458.8	355.7	227.6	7.22	6.91	5.15	6.09	6.40
	September	165.9	464.4	358.5	226.9	7.18	6.97	5.25	6.07	6.41
	October	164.9	479.3	360.4	220.1	7.21	7.09	5.09	5.81	6.33
	November	165.3	493.4	351.5	218.2	6.94	7.04	4.88	5.69	6.14
	December	162.9	456.3	355.4	216.8	6.71	6.78	5.01	5.85	6.11
	AVERAGE	164.7	475.5	340.6	222.5	6.86	6.86	4.95	5.92	6.13
1983	January	166.7	444.0	346.9	214.6	6.65	6.78	5.03	5.91	6.13
	February	167.7	439.7	331.9	212.1	6.73	6.86	4.96	5.97	6.12
	March	168.1	421.0	334.9	213.9	6.93	6.93	5.07	6.16	6.23
	April	168.1	435.5	325.5	215.2	6.91	6.86	4.92	6.15	6.12
	May	165.1	443.7	343.5	215.0	7.20	7.04	4.89	6.60	6.21
	June	167.3	450.2	346.7	219.8	7.41	7.13	4.96	6.62	6.35
	July	165.5	464.7	361.1	236.6	7.50	7.13	5.11	6.24	6.53
	August	164.4	464.8	363.1	229.6	7.52	7.06	5.01	6.37	6.51
	September	164.1	480.1	358.1	226.1	7.55	7.15	5.00	6.58	6.52
	October	164.7	479.6	350.1	219.9	7.50	7.19	5.01	6.66	6.41
	November	163.3	473.4	340.7	215.5	7.25	7.13	4.83	6.63	6.23
	December†	NA	NA	NA	NA	6.97	6.91	4.81	6.40	6.14
	AVERAGE†	NA	NA	NA	NA	7.18	7.01	4.97	6.36	6.29

<sup>1</sup>Data through December 1982 cover all steam-electric utility generating plants with a capacity of 25 megawatts or greater. Beginning with January 1983, data cover steam-electric utility generating plants with a capacity of 50 megawatts or greater.

<sup>2</sup>Data through 1979 cover privately owned electric utilities in Classes A and B. Data for 1980 forward cover selected utilities in Class A only whose electric operating revenues were \$100 million or more during the previous year.

<sup>3</sup>See Note 8 on the last pages of this section.

<sup>4</sup>Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.

<sup>5</sup>Average price for total sales to ultimate consumers.

<sup>6</sup>Includes a major adjustment by one utility.

†Initial estimates. NA=Not available.

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

Sources: • See the last pages of this section.

## Notes and Sources for the Price Section

### Notes

1. The actual domestic average price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices.
2. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on EIA Form 14, the "Refiners' Monthly Cost Report." These prices were previously published from data collected on ERA Form 49, the "Domestic Crude Oil Entitlements Program Refiners Monthly Report." The ERA Form 49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for EIA Form 14 in accordance with conventions used for ERA Form 49. Also, the respondents for the two forms are essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken in comparing the data collected on the two forms.

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

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

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

3. FOB literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

4. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to March 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

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

6. The survey and method used to derive data for March 1976 forward differ from those used for prior months. Data for January 1974 through February 1976 are derived from a survey of distributors, and prices and margins are computed as unweighted averages. The average distributor purchase price and average dealer margin for March 1976 forward are for distributors only, whereas the average selling price includes both refiners and distributors. Data for March 1976 forward are computed as sales weighted averages.

7. Standard Federal Regions are defined as follows:

Region 1 —Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;

Region 2 —New York, New Jersey, Puerto Rico, Virgin Islands;

Region 3 —Pennsylvania, Maryland, West Virginia, Virginia, the District of Columbia, Delaware;

Region 4 —Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;

Region 5 —Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;

Region 6 —Texas, New Mexico, Oklahoma, Arkansas, Louisiana;

Region 7 —Kansas, Missouri, Iowa, Nebraska;

Region 8 —Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;

Region 9 —California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;

Region 10 —Washington, Oregon, Idaho, Alaska.

8. Residual fuel oil prices include fuel oils No. 4, No. 5, and No. 6, and topped crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (No. 2 fuel oil, kerosene, and jet fuel) prices but does not include petroleum coke prices.

9. 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.

### 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."

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

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

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

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

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

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

- No. 2 heating oil (residential heating oil) prices—EIA, 1976 through October 1980: FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report"; November 1980 forward: EIA Form 9A, "No. 2 Distillate Price Monitoring Report."
- Motor gasoline prices—Bureau of Labor Statistics.
- Propane and butane prices—EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."
- Crude oil imports costs—Environmental Protection, Safety and Emergency Preparedness, 1975 through January 1979; FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 forward: EP Form 51, "Monthly Foreign Crude Oil Transaction Report."
- Aviation fuel prices—EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

**Natural Gas:** • Average wellhead price—annual data from EIA, *Natural Gas Annual*, 1973 through 1982. Monthly data are estimated primarily on the basis of values reported by State agencies in 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 from EIA, *Natural Gas Annual*, 1973 through 1982. Monthly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index (CPI-U) for natural gas and are adjusted to conform with final reported annual data. See Note 9 on the previous page for estimation procedures.
- Electricity:** • Cost of fossil fuels—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
- Retail prices—EIA, January 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement."

## Explanation of New Residential Natural Gas Price Series

The Energy Information Administration (EIA) has developed a new monthly residential natural gas price series based on annual data collected on Form EIA-176. These data give total annual sales and revenues for each class of service and thereby permit direct calculation of the average annual residential natural gas price for all consumers in the Nation. Initial monthly estimates are obtained by multiplying the annual average by the ratio of monthly values of the Bureau of Labor Statistics (BLS) Consumer Price Index for All Urban Consumers (CPI-U) for natural gas (piped) for consecutive months. When a subsequent year's annual average price becomes available, the initial monthly estimates are adjusted to that annual average.

The series previously published had been used because it is the only monthly residential natural gas price regularly collected by the Federal Government. These data give BLS residential natural gas prices based on surveys of first "100 therm" block sales in major cities and regions throughout the Nation. The series is referred to as the "U.S. City Average" and does not strictly represent the average residential gas price. Since natural gas usage depends on locale, climate, weather, and equipment, typical customers may use more or less than 100 therms during a month. For comparison, the two data series are shown below:

<b>Average Residential Natural Gas Price</b>			
	Previous Series <sup>1</sup>	New Series <sup>2</sup>	
	Dollars per thousand cubic feet		
1973	<b>AVERAGE</b>	<b>1.08</b>	<b>1.29</b>
1974	<b>AVERAGE</b>	<b>1.25</b>	<b>1.43</b>
1975	<b>AVERAGE</b>	<b>1.54</b>	<b>1.71</b>
1976	<b>AVERAGE</b>	<b>1.85</b>	<b>1.98</b>
1977	<b>AVERAGE</b>	<b>2.26</b>	<b>2.35</b>
1978	<b>AVERAGE</b>	<b>2.63</b>	<b>2.56</b>
1979	<b>AVERAGE</b>	<b>3.23</b>	<b>2.98</b>
1980	<b>AVERAGE</b>	<b>3.95</b>	<b>3.68</b>
1981	January	4.10	3.94
	February	4.13	3.99
	March	4.21	4.06
	April	4.25	4.11
	May	4.61	4.29
	June	4.61	4.30
	July	4.64	4.32
	August	4.70	4.30
	September	4.90	4.47
	October	4.91	4.50
	November	4.88	4.53
	December	4.75	4.55
	<b>AVERAGE</b>	<b>4.56</b>	<b>4.29</b>
1982	January	4.86	4.65
	February	4.87	4.69
	March	5.06	4.78
	April	5.18	4.86
	May	5.63	5.17
	June	5.62	5.20
	July	5.60	5.23
	August	5.56	5.23
	September	5.82	5.41
	October	6.11	5.66
	November	5.94	5.68
	December	6.06	5.74
	<b>AVERAGE</b>	<b>5.53</b>	<b>5.17</b>
1983	January	6.15	5.84
	February	6.15	5.85
	March	6.17	5.94
	April	6.37	6.04
	May	6.63	6.20
	June	6.63	6.18
	July	6.62	6.19
	August	6.59	6.16
	September	6.66	6.16
	October	6.57	6.08
	November	6.40	6.02
	December	6.42	6.03
	<b>AVERAGE</b>	<b>6.45</b>	<b>5.99</b>

<sup>1</sup>Monthly data from BLS surveys of first "100 therm" block sales in major cities and regions throughout the Nation.

<sup>2</sup>Annual data from EIA, *Natural Gas Annual*, 1973 through 1982. Monthly data are EIA estimates based on the BLS CPI-U for natural gas and are adjusted to conform with final reported annual data.

R=Revised data.



## International

### Crude Oil Production

World crude oil production in December 1983 was 54.3 million barrels per day, down 0.3 million barrels per day (0.5 percent) from the November 1983 level. Organization of Petroleum Exporting Countries (OPEC) production in December 1983 averaged 18.8 million barrels per day, down 0.3 million barrels per day from the November 1983 level.

Preliminary world crude oil production for the year 1983 was 52.8 million barrels per day, down 0.6 percent from 1982. The 1983 annual average production by OPEC was 17.6 million barrels per day, down 1.2 million barrels per day from the 1982 annual average. A major portion of this decrease in annual OPEC production occurred in Saudi Arabia, where production declined 1.4 million barrels per day. Other significant decreases occurred in Venezuela, Libya, and the United Arab Emirates, where production decreased by 101, 83, and 69 thousand barrels per day, respectively. Kuwait and Iran experienced increases in production of 248 and 211 thousand barrels per day, respectively.

Among non-OPEC nations, annual crude oil production in 1983 increased in the United Kingdom and Canada by 173 and 144 thousand barrels per day, respectively. There was a slight increase in production during the year in the United States. Production in Mexico decreased by 64 thousand barrels per day in 1983.

### Petroleum Consumption

Preliminary petroleum consumption data for December 1983 were available for France, Italy, and the United States. In comparison to December 1982, consumption levels in each country increased. During December 1983, consumption in Italy and France increased by 210 and 30 thousand barrels per day, respectively. U.S. consumption in December 1983 was 1.2 million barrels per day higher than in December 1982.

### Petroleum Stocks

Preliminary data for December 1983 indicate that petroleum stock levels were down com-

pared to December 1982 levels in every country reporting except the United States. Petroleum stocks in Italy, Canada, and the United Kingdom were down compared to the December 31, 1982, level by 16.2, 9.8, and 5.6 percent, respectively. West Germany and Japan showed declines of 4.4 and 3.8 percent, respectively. In contrast, the United States reported a 1.6-percent increase in stocks compared to the level at the end of December 1982.

Petroleum stocks for all Organization for Economic Cooperation and Development members stood at 3,225 million barrels on December 31, 1983, a decrease of 125 million barrels (3.7 percent) compared to stocks held on December 31, 1982.

### Nuclear Electricity Production

In December 1983, the 19 non-Communist nations with significant nuclear power capacity generated 86.9 gross terawatt-hours (TWhe or billion kilowatt-hours) of nuclear-based electricity. On a per-hour basis, this output was 7.5 percent greater than the November 1983 generation and 15.9 percent greater than the comparable December 1982 output. During 1983, these 19 countries generated a total of 883.3 gross TWhe of electricity, up 12.0 percent from the 1982 generation. Of the 883.3 TWhe generated in 1983, 313.6 gross TWhe (35.5 percent) were generated by nuclear powerplants in the United States.

Ontario Hydro's Pickering-6 unit, a 540-gross megawatt pressurized heavy water reactor, generated electricity for the first time on November 8, 1983. Two U.S. units, LaSalle-2 and WNP-2, were issued licenses for fuel-loading and low-power testing in December (see page 81). With the addition of Pickering-6, LaSalle-2, and WNP-2, the number of operational power reactors in the non-Communist countries, as of December 31, 1983, totaled 251, with a collective generating capacity of 174.8 gross gigawatts (million kilowatts). The 83 U.S. units accounted for 71.0 gross gigawatts (40.6 percent) of this capacity.

Petroleum Stocks  
Nuclear Electricity Production  
International  
Crude Oil Production  
Petroleum Consumption  
Petroleum Stocks  
Monthly Energy Review  
Energy Information Administration

# International

## Crude Oil Production for Major Petroleum Producing Countries

		Algeria	Iraq	Kuwait <sup>1</sup>	Libya	Qatar	Saudi Arabia <sup>1</sup>	United Arab Emirates	Arab Members of OPEC <sup>2</sup>	Indonesia	Iran
Thousand barrels per day											
1973	AVERAGE	1,097	2,018	3,020	2,175	570	7,596	1,533	18,009	1,339	5,861
1974	AVERAGE	1,009	1,971	2,546	1,521	518	8,480	1,679	17,724	1,375	6,022
1975	AVERAGE	983	2,262	2,084	1,480	438	7,075	1,664	15,986	1,307	5,350
1976	AVERAGE	1,075	2,415	2,145	1,933	497	8,577	1,936	18,578	1,504	5,883
1977	AVERAGE	1,152	2,348	1,969	2,063	445	9,245	1,999	19,221	1,686	5,663
1978	AVERAGE	1,161	2,563	2,131	1,983	487	8,301	1,831	18,457	1,635	5,242
1979	AVERAGE	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168
1980	AVERAGE	1,012	2,514	1,656	1,787	472	9,900	1,709	19,050	1,577	1,662
1981	January	950	600	1,765	1,600	505	10,265	1,620	17,305	1,630	1,600
	February	950	700	1,565	1,650	480	10,265	1,605	17,215	1,620	1,700
	March	950	1,000	1,560	1,600	505	10,110	1,610	17,335	1,635	1,700
	April	900	1,000	995	1,600	515	10,195	1,570	16,775	1,630	1,600
	May	900	1,000	990	1,400	435	10,140	1,550	16,415	1,600	1,500
	June	800	1,000	1,080	1,200	340	10,180	1,435	16,035	1,600	1,600
	July	725	1,100	1,200	750	380	10,170	1,415	15,740	1,600	1,400
	August	600	1,100	830	700	295	10,330	1,480	15,335	1,600	1,100
	September	550	1,100	855	700	365	9,155	1,465	14,190	1,600	1,100
	October	700	1,100	985	700	360	9,685	1,480	15,010	1,600	920
	November	750	1,100	890	900	340	8,640	1,365	13,985	1,600	930
	December	800	1,100	895	1,000	340	8,645	1,430	14,210	1,580	1,200
	AVERAGE	805	1,000	1,125	1,140	405	9,815	1,474	15,764	1,605	1,380
1982	January	800	1,500	805	1,000	405	8,655	1,450	14,615	1,490	1,100
	February	700	1,500	840	600	375	8,440	1,375	13,830	1,450	1,200
	March	600	1,500	745	600	300	7,145	1,365	12,255	1,400	1,800
	April	600	900	680	700	230	6,630	1,215	10,955	1,245	1,800
	May	620	750	720	800	320	5,870	1,125	10,205	1,240	2,500
	June	650	750	840	1,000	410	6,670	1,210	11,530	1,305	2,500
	July	650	800	870	1,300	275	6,170	1,160	11,225	1,305	2,500
	August	700	800	920	1,300	340	5,920	1,155	11,135	1,240	2,200
	September	800	800	885	1,400	285	5,685	1,155	11,010	1,300	2,700
	October	800	800	860	1,700	380	5,660	1,155	11,355	1,370	2,700
	November	800	800	915	1,700	310	5,615	1,155	11,295	1,400	2,700
	December	800	800	850	1,750	305	5,250	1,155	10,910	1,360	2,800
	AVERAGE	710	972	827	1,158	329	6,470	1,214	11,680	1,339	2,214
1983	January	700	R850	780	1,100	255	R4,950	R1,060	R9,695	R1,225	R2,700
	February	600	R850	895	900	200	R3,510	R1,060	R8,015	R1,015	R2,400
	March	600	R900	R965	900	170	R3,910	R1,035	R8,480	R1,180	R2,200
	April	700	R950	R880	1,000	260	R3,930	R1,145	R8,865	R1,400	R2,000
	May	600	R1,000	1,030	1,100	275	R4,725	R1,175	R9,905	R1,400	R2,300
	June	700	R1,000	R920	1,100	300	R4,620	R1,180	R9,820	1,400	2,500
	July	700	R1,050	1,085	1,100	300	5,535	R1,175	R10,945	R1,490	2,800
	August	700	R1,100	1,180	1,100	265	5,930	R1,185	R11,460	R1,490	2,500
	September	700	R1,050	1,375	1,150	310	6,025	R1,185	R11,795	R1,470	2,700
	October	700	R1,100	1,305	1,150	R320	R6,005	R1,165	R11,745	R1,520	2,400
	November	700	R1,150	R1,265	1,150	R460	R5,915	R1,195	R11,835	R1,560	2,300
	December	700	1,050	1,225	1,150	420	5,825	1,195	11,565	1,440	2,300
	AVERAGE	675	1,005	1,075	1,075	295	5,085	1,145	10,355	1,385	2,425

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In December 1983, total production in this region amounted to approximately 450,000 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.

\*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*	Canada	Mexico	United Kingdom	United States	China	USSR	Other*	World
Thousand barrels per day												
1973	AVERAGE	2,054	3,366	30,989	1,800	465	2	9,208	1,090	8,465	3,855	55,674
1974	AVERAGE	2,255	2,976	30,729	1,684	571	2	8,774	1,315	9,000	3,777	55,852
1975	AVERAGE	1,783	2,346	27,155	1,439	705	12	8,375	1,490	9,625	4,079	52,880
1976	AVERAGE	2,067	2,294	30,738	1,295	831	245	8,132	1,670	10,143	4,258	57,312
1977	AVERAGE	2,085	2,238	31,298	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	January	1,900	2,220	25,025	1,390	2,220	1,765	8,540	2,024	11,900	5,111	57,975
	February	1,960	2,195	25,075	1,390	2,120	1,820	8,604	2,025	11,900	5,161	58,095
	March	1,875	2,240	25,190	1,280	2,365	1,885	8,613	2,025	11,900	5,152	58,410
	April	1,825	2,200	24,215	1,330	2,540	1,750	8,557	2,011	11,900	5,122	57,425
	May	1,295	2,200	23,380	1,250	2,545	1,770	8,501	2,025	11,900	5,264	56,635
	June	1,350	1,990	22,945	1,235	2,300	1,765	8,629	2,025	11,900	5,066	55,865
	July	770	1,760	21,620	1,270	2,095	1,750	8,500	2,010	11,900	5,215	54,360
	August	710	1,960	21,050	1,235	2,260	1,760	8,583	2,020	11,900	4,962	53,770
	September	1,065	2,080	20,385	1,265	2,480	1,830	8,604	1,990	11,900	5,166	53,620
	October	1,250	1,970	21,200	1,120	2,490	1,845	8,563	2,020	11,900	5,247	54,385
	November	1,590	2,230	20,575	1,280	2,090	1,840	8,586	2,020	11,900	5,109	53,400
	December	1,820	2,260	21,230	1,380	1,980	1,870	8,585	2,020	11,900	5,135	54,100
	AVERAGE	1,433	2,102	22,646	1,285	2,313	1,811	8,572	2,012	11,909	5,352	55,900
1982	January	1,765	1,985	21,285	1,218	2,315	1,905	8,509	2,020	11,900	5,488	54,640
	February	1,395	1,730	19,950	1,275	2,550	1,955	8,702	2,020	11,900	5,558	53,910
	March	945	1,870	18,615	1,182	2,545	2,000	8,667	2,020	11,900	5,341	52,270
	April	890	1,490	16,725	928	2,780	2,110	8,591	2,025	11,900	5,481	50,540
	May	1,310	1,480	17,075	1,114	2,715	2,085	8,683	2,025	11,900	5,528	51,125
	June	1,645	1,500	18,845	1,330	2,790	2,140	8,646	2,025	11,900	5,489	53,165
	July	1,280	1,800	18,450	1,235	2,790	2,120	8,658	2,025	12,000	5,507	52,785
	August	1,105	2,000	18,045	1,300	2,795	2,125	8,634	2,025	12,000	5,551	52,475
	September	1,170	1,990	18,515	1,300	2,830	2,175	8,701	2,025	12,000	5,499	53,045
	October	1,480	2,160	19,430	1,310	2,900	2,165	8,701	2,040	12,410	5,489	54,445
	November	1,355	2,300	19,415	1,420	2,940	2,220	8,697	2,040	12,410	5,683	54,825
	December	1,215	2,325	18,985	1,300	3,025	2,315	8,598	2,040	12,410	5,732	54,405
	AVERAGE	1,295	1,891	18,784	1,241	2,749	2,117	8,649	2,029	12,000	5,593	53,162
1983	January	880	2,085	R16,975	1,230	2,980	2,135	8,634	2,085	12,410	R5,846	R52,295
	February	675	1,780	R14,270	1,360	2,295	2,315	8,660	2,085	12,410	R5,961	R49,355
	March	905	2,080	R15,215	1,395	2,415	2,265	8,677	2,085	12,410	R5,896	R50,360
	April	1,150	1,715	R15,525	1,260	2,670	2,170	8,686	2,085	R12,000	R6,056	R50,450
	May	1,625	1,685	R17,285	1,320	2,795	2,235	8,682	2,085	11,900	R6,041	R52,345
	June	1,535	1,690	R17,345	1,505	2,775	2,045	8,676	2,085	11,900	R6,041	R52,470
	July	1,710	1,695	R19,050	1,480	2,685	2,280	8,647	2,105	R11,900	R6,132	R54,280
	August	1,300	1,730	R18,895	1,420	2,775	2,290	8,653	2,105	R11,900	R6,038	R54,075
	September	1,220	1,725	R19,295	1,435	2,735	2,385	8,666	2,105	11,900	R6,105	R54,625
	October	1,290	1,740	R19,095	1,390	2,660	2,355	8,654	2,105	11,900	R6,229	R54,390
	November	1,245	1,770	R19,095	1,415	2,730	2,490	8,624	2,085	11,900	R6,245	R54,585
	December	1,310	1,775	18,790	1,400	2,690	2,530	8,612	2,085	11,900	6,299	54,305
	AVERAGE	1,240	1,790	17,595	1,385	2,685	2,290	8,656	2,090	12,035	6,083	52,820

Footnotes continued.

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

R=Revised data.

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

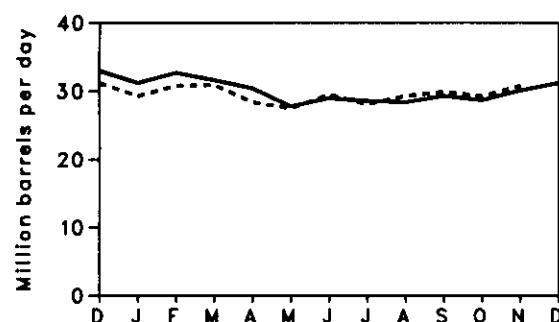
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • See the last page of this section.

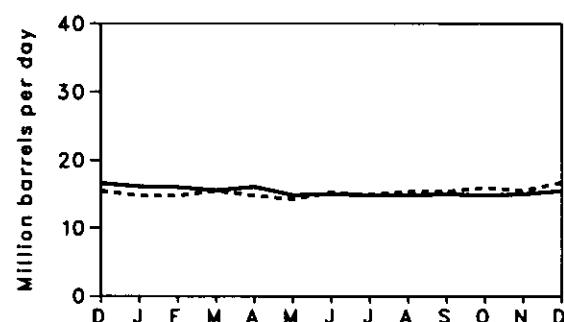
# International

## Petroleum Consumption

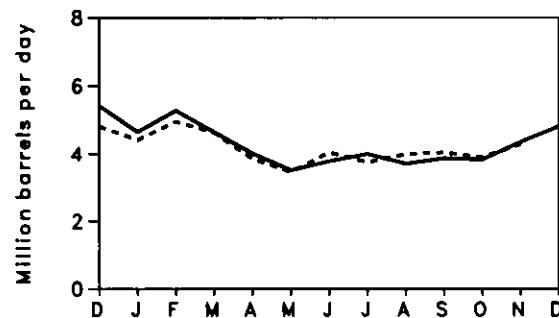
Total IEA



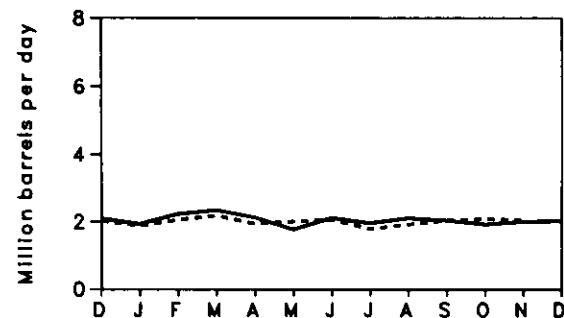
United States



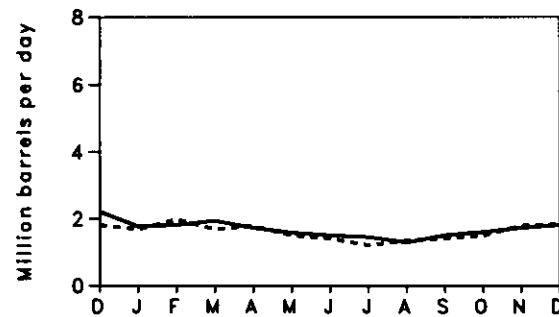
Japan\*



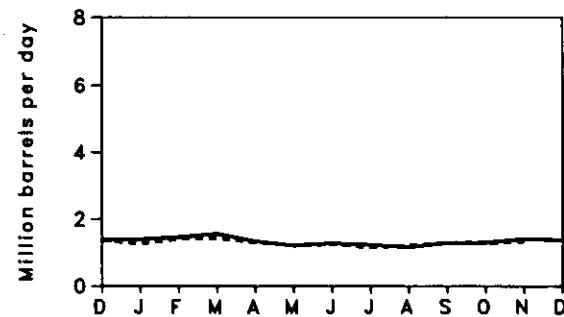
West Germany



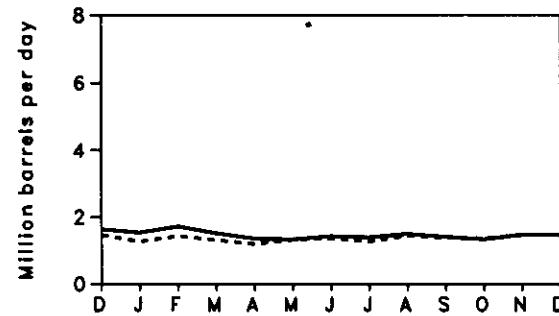
France\*\*



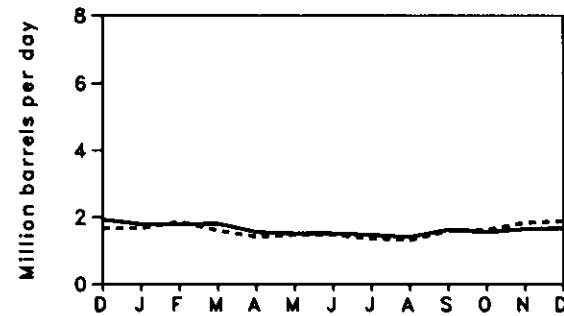
United Kingdom



Canada



Italy\*\*\*



\*Excludes liquefied petroleum gases and condensates.

\*\*Not a member of IEA.

\*\*\*Principal products only.

— 1982    - - - 1983

# International

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

		Canada	France <sup>2</sup>	Italy	Japan	United Kingdom	United States	West Germany	Other IEA <sup>3</sup>	Total IEA <sup>4</sup>
Thousand barrels per day										
1973	AVERAGE	1,597	2,219	1,525	5,000	1,958	17,308	2,693	4,069	34,150
1974	AVERAGE	1,630	2,094	1,521	4,872	1,829	16,653	2,408	4,047	32,960
1975	AVERAGE	1,595	1,925	1,468	4,568	1,633	16,322	2,319	3,905	31,810
1976	AVERAGE	1,847	2,075	1,503	4,786	1,601	17,461	2,507	4,265	33,770
1977	AVERAGE	1,661	1,973	1,476	5,015	1,655	18,431	2,478	4,214	34,930
1978	AVERAGE	1,701	2,077	1,551	5,115	1,683	18,847	2,596	4,387	35,880
1979	AVERAGE	1,766	2,107	1,607	5,173	1,690	18,513	2,664	4,487	35,900
1980	AVERAGE	1,730	1,965	1,602	4,680	1,420	17,056	2,360	4,152	33,000
1981	January	1,760	2,310	1,880	4,980	1,400	18,430	2,230	4,420	35,100
	February	1,770	2,170	2,195	5,350	1,460	16,989	2,510	4,126	34,400
	March	1,550	1,790	1,895	5,020	1,430	15,907	2,100	3,598	31,500
	April	1,600	1,500	1,785	4,140	1,290	15,350	1,810	3,925	29,900
	May	1,490	1,670	1,410	3,600	1,190	15,353	1,880	3,977	28,900
	June	1,635	1,600	1,510	3,915	1,210	16,095	2,155	3,880	30,400
	July	1,620	1,450	1,580	4,160	1,170	15,682	2,150	4,138	30,500
	August	1,630	1,160	1,360	4,100	1,125	15,263	2,111	3,711	29,300
	September	1,595	1,425	1,715	4,060	1,285	15,655	2,085	3,905	30,300
	October	1,585	1,655	1,600	4,085	1,390	15,822	2,305	4,013	30,800
	November	1,595	2,010	1,650	4,610	1,470	15,593	2,030	4,052	31,000
	December	1,635	2,215	1,930	5,425	1,380	16,596	2,100	3,934	33,000
	AVERAGE	1,615	1,745	1,705	4,445	1,325	16,058	2,120	4,032	31,300
1982	January	1,530	1,770	1,800	4,645	1,400	16,124	1,935	3,766	31,200
	February	1,715	1,815	1,795	5,275	1,465	16,001	2,230	4,219	32,700
	March	1,510	1,940	1,805	4,640	1,560	15,560	2,340	4,185	31,600
	April	1,350	1,730	1,560	4,015	1,340	16,046	2,125	3,964	30,400
	May	1,325	1,580	1,510	3,515	1,210	14,847	1,770	3,623	27,800
	June	1,430	1,505	1,520	3,780	1,280	14,998	2,115	3,877	29,000
	July	1,390	1,455	1,475	3,995	1,235	14,821	1,955	3,729	28,600
	August	1,500	1,295	1,410	3,705	1,170	14,839	2,105	3,671	28,400
	September	1,410	1,510	1,630	3,865	1,295	15,022	2,035	4,043	29,300
	October	1,335	1,605	1,555	3,830	1,305	14,859	1,922	3,894	28,700
	November	1,470	1,735	1,650	4,355	1,415	15,009	2,005	4,196	30,100
	December	1,460	1,815	1,670	4,810	1,380	15,487	2,025	4,368	31,200
	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	14,765	1,875	4,055	29,300
	February	1,430	1,985	1,865	4,950	1,415	14,772	2,060	4,308	30,800
	March	1,305	1,685	1,605	4,625	1,430	15,484	2,180	4,271	30,900
	April	1,190	1,785	1,415	3,850	1,300	14,779	1,940	3,926	28,400
	May	1,320	1,500	1,470	3,460	1,230	14,250	2,010	3,760	27,500
	June	1,360	1,405	1,475	4,040	1,255	15,281	2,060	4,029	29,500
	July	1,265	1,210	1,365	3,745	1,160	14,913	1,785	3,867	28,100
	August	1,440	1,350	1,315	3,990	1,220	15,366	1,920	4,049	29,300
	September	1,380	1,415	1,590	4,040	1,300	15,396	2,040	4,154	29,900
	October	1,360	1,495	1,625	3,900	1,280	14,947	2,090	4,098	29,300
	November	1,460	R1,800	R1,840	4,290	1,340	15,533	2,050	4,287	30,800
	December	NA	1,845	1,880	NA	NA	16,691	NA	NA	NA
	AVERAGE	NA	1,595	1,590	NA	NA	15,184	NA	NA	NA

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

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

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

<sup>4</sup>The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.

R=Revised data. NA=Not available.

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

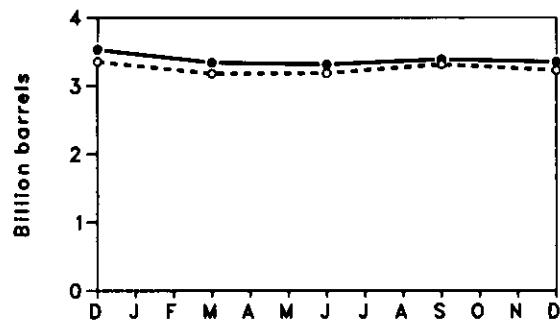
• Data for 1981 through 1983 are preliminary.

Sources: • See the last page of this section.

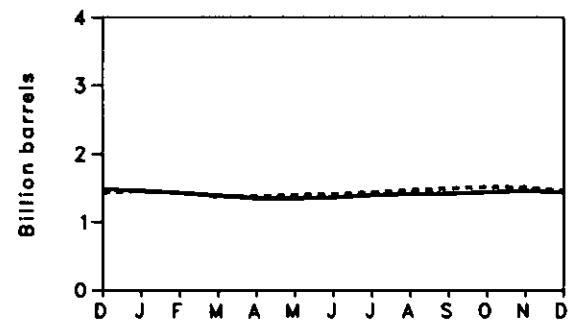
# International

## Petroleum Stocks

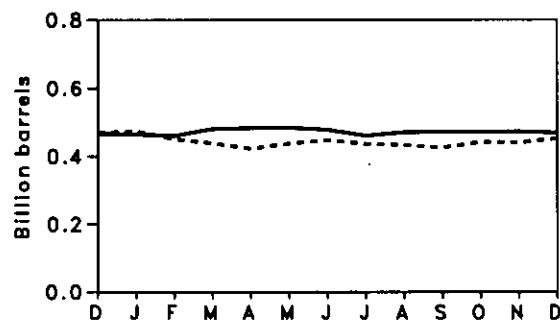
Total OECD



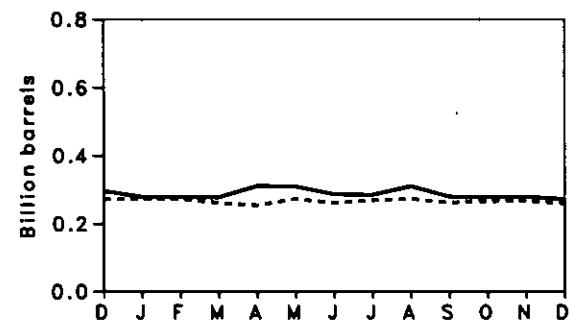
United States



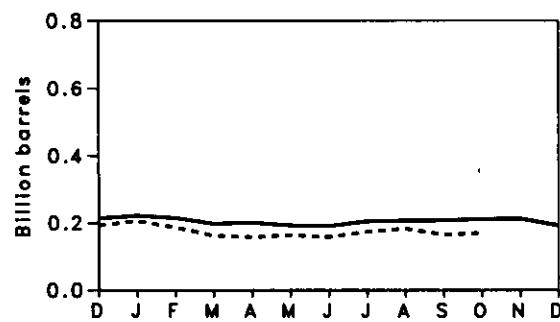
Japan



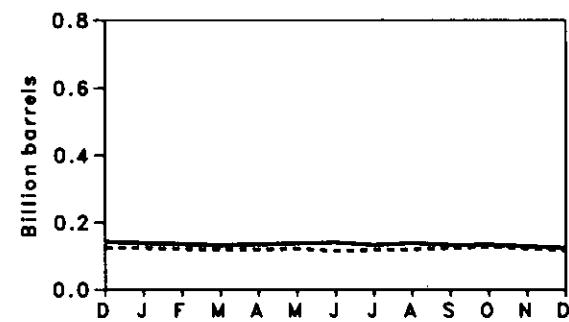
West Germany



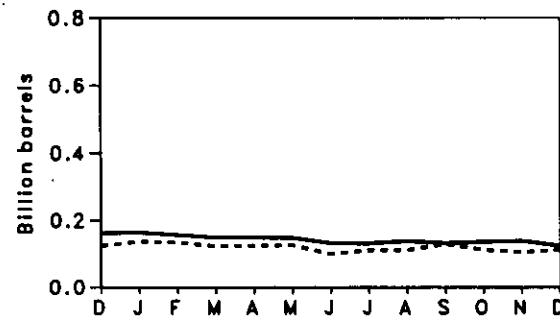
France



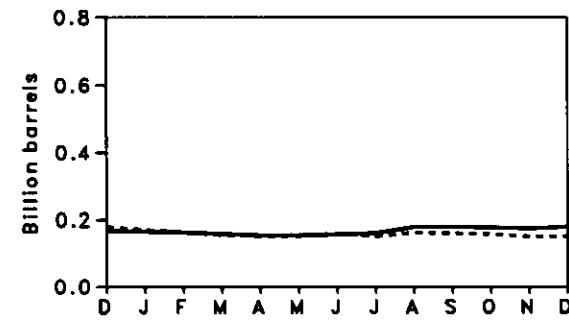
United Kingdom



Canada



Italy



●—● 1982      ○---○ 1983

# International

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

	Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD <sup>2</sup>	Total OECD <sup>3</sup>
Million barrels									
1973	149	203	NA	303	156	1,008	NA	NA	NA
1974	164	240	169	370	191	1,074	215	NA	NA
1975	167	239	143	375	164	1,133	190	NA	NA
1976	156	231	142	394	165	1,112	214	NA	NA
1977	R167	R239	R161	R409	R148	1,312	R225	R524	R3,185
1978	R144	R201	R154	R413	R157	1,278	R238	R512	R3,097
1979	R150	R226	163	R460	R169	1,341	R272	R594	R3,375
1980	R164	R243	R170	R495	R168	1,392	R319	R636	R3,587
1981	January	169	234	155	479	1,388	319	NA	NA
	February	162	235	184	457	1,389	312	NA	NA
	March	R159	R220	158	R450	R163	1,401	317	R607
	April	174	235	169	484	165	1,415	322	NA
	May	176	229	173	496	162	1,438	321	NA
	June	R172	R217	171	R493	158	1,430	R311	R623
	July	179	228	177	476	153	1,439	305	NA
	August	184	233	189	483	151	1,457	308	NA
	September	R177	R233	187	R492	R150	1,476	307	R617
	October	172	238	188	500	149	1,485	303	NA
	November	163	230	178	483	147	1,501	300	NA
	December	R161	R214	167	R482	R143	1,484	297	R583
1982	January	163	222	165	464	NA	1,456	280	NA
	February	156	215	162	460	NA	1,428	280	NA
	March	R148	R198	158	480	133	1,392	279	R550
	April	148	201	154	483	NA	1,346	312	NA
	May	147	193	154	484	NA	1,347	310	NA
	June	131	R191	156	478	141	1,360	R287	R567
	July	130	205	160	460	134	1,393	286	NA
	August	137	207	179	470	139	1,408	311	NA
	September	131	R208	179	472	R134	1,414	280	R570
	October	135	212	177	471	135	1,432	279	NA
	November	138	213	174	472	130	1,455	280	NA
	December	R123	R193	179	469	125	1,430	273	R558
1983	January	136	206	170	473	125	1,453	274	NA
	February	133	187	163	450	121	1,432	274	NA
	March	R122	R162	155	438	120	1,375	262	R541
	April	123	158	151	422	120	1,376	255	NA
	May	125	164	152	437	123	1,397	274	NA
	June	R99	R158	159	447	116	1,409	262	R531
	July	110	174	151	436	119	1,434	270	NA
	August	110	183	161	433	121	1,467	274	NA
	September	R128	165	160	425	125	1,492	263	R554
	October	111	170	157	441	129	1,512	267	NA
	November	105	NA	150	440	124	1,510	267	NA
	December	111	NA	150	451	118	1,453	261	NA
									3,225

Historical data have been revised where necessary to make them consistent with current definitions and to include U.S. Territories.

<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.

R=Revised data. NA=Not available.

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

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

Sources: • See the last page of this section.

# International

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

	Argen-tina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Nether-lands	Paki-stan
Billion gross kilowatt-hours											
1973	TOTAL	0	0	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
1975	TOTAL	2.5	6.8	0	13.2	0	18.3	2.5	3.8	22.2	3.3
1976	TOTAL	2.6	10.0	0	18.0	0	15.8	3.2	3.8	36.7	3.9
1977	TOTAL	1.6	11.9	0	26.8	2.7	17.9	2.8	3.4	28.1	3.7
1978	TOTAL	2.9	12.5	0	32.9	3.3	30.5	2.3	4.4	53.2	4.1
1979	TOTAL	2.7	11.4	0	38.4	6.7	39.9	3.2	2.6	62.0	3.5
1980	TOTAL	2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2
1981	January	0.3	1.2	0	3.2	1.3	9.3	0.2	0.2	8.2	0.1
	February	0.2	1.0	0	3.5	0.9	8.6	0.2	0.3	7.1	(s)
	March	0.3	0.6	0	3.9	1.4	8.8	0.3	0.1	7.8	0.3
	April	0.2	0.7	0	3.3	1.5	8.3	0.3	0.6	7.9	0
	May	0.2	1.2	0	3.4	1.0	8.9	0.4	0.3	8.0	0.4
	June	0.2	1.2	0	3.6	0.7	8.3	0.3	0.1	6.7	0.4
	July	0.3	1.3	0	4.0	0.8	8.4	0.3	0.3	8.3	0.4
	August	0.2	1.2	0	4.0	1.4	7.7	0.2	0.1	8.5	0.4
	September	0.3	0.9	0	3.3	1.5	8.5	0.2	0.1	6.4	0.4
	October	0.2	1.0	0	3.4	1.4	8.1	0.2	0.1	5.6	0.4
	November	0.2	1.3	0	3.5	1.3	9.3	0.2	0.1	5.3	0.4
	December	0.2	1.3	0	4.1	1.2	11.0	0.3	0.4	6.1	0.3
	<b>TOTAL</b>	<b>2.8</b>	<b>12.8</b>	<b>0</b>	<b>43.3</b>	<b>14.5</b>	<b>105.2</b>	<b>3.1</b>	<b>2.7</b>	<b>86.0</b>	<b>3.7</b>
1982	January	0.3	1.3	0	4.1	1.5	11.0	0.2	0.6	8.1	0.4
	February	0.2	0.8	0	3.2	1.5	10.0	0.2	0.7	7.7	0.1
	March	0.3	0.5	0	3.5	1.7	10.6	0.2	0.7	9.2	(s)
	April	0.3	1.0	(s)	3.7	1.6	10.1	0.2	0.5	9.7	0.3
	May	0.3	1.3	(s)	3.1	1.3	9.0	0.2	0.7	9.5	0.4
	June	0.3	1.2	(s)	3.3	0.9	7.8	0.1	0.6	9.5	0.4
	July	0.2	1.3	0	3.6	1.2	8.3	0.1	0.6	9.8	0
	August	0	1.2	0	3.9	1.5	7.0	0.2	0.4	9.7	0.4
	September	(s)	0.7	0	3.2	1.5	7.2	0.1	0.6	8.0	0.4
	October	0	1.7	0	4.0	1.4	6.6	0.2	0.6	7.5	0.4
	November	(s)	1.8	0	3.3	1.3	8.3	0.3	0.3	7.8	0
	December	0.2	1.8	0	3.8	1.3	13.0	0.2	0.5	8.1	0.4
	<b>TOTAL</b>	<b>1.9</b>	<b>15.6</b>	<b>0.1</b>	<b>42.6</b>	<b>16.5</b>	<b>108.9</b>	<b>2.2</b>	<b>6.8</b>	<b>104.5</b>	<b>3.9</b>
1983	January	0.2	1.9	0	4.3	1.7	13.8	0.2	0.2	8.0	0.4
	February	0.2	1.4	0	4.5	1.5	10.9	0.1	0.1	6.8	(s)
	March	0.2	0.7	(s)	4.6	1.6	11.3	0.2	0.1	7.9	(s)
	April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2
	May	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3
	June	0.2	2.5	0	4.4	1.0	9.3	0.3	0.7	9.1	0.4
	July	0.3	2.5	0	4.8	1.3	11.0	0.2	0.7	9.5	0.4
	August	0.1	2.4	0	3.8	1.6	12.1	0.3	0.5	10.4	0.4
	September	0.2	R2.2	0	4.4	1.5	12.4	0.3	0.6	9.8	0.4
	October	0.2	2.2	0	4.7	1.4	13.0	0.3	0.6	9.8	0.4
	November	0.2	2.0	(s)	R4.3	1.5	13.4	0.2	0.7	8.5	0.4
	December	0.2	2.1	0.1	5.0	1.7	16.8	0.3	0.7	9.1	0.4
	<b>TOTAL</b>	<b>2.5</b>	<b>24.1</b>	<b>0.2</b>	<b>53.0</b>	<b>17.4</b>	<b>144.2</b>	<b>2.9</b>	<b>5.8</b>	<b>106.5</b>	<b>3.6</b>

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

<sup>2</sup>The United Kingdom assesses generation at 4-, 5- or 6-week intervals, rather than by calendar month.

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

See additional footnotes on the following page.

# International

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

		South Korea	Spain	Sweden	Switzer-land	Taiwan	United Kingdom <sup>2</sup>	West Germany	Non- Communist World Excluding U.S.	United States	Total Non- Communist World
Billion gross kilowatt-hours											
1973	<b>TOTAL</b>	0	6.5	2.1	6.2	0	28.0	11.9	100.7	88.0	188.7
1974	<b>TOTAL</b>	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
1975	<b>TOTAL</b>	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.7	334.4
1976	<b>TOTAL</b>	0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.8	389.1
1977	<b>TOTAL</b>	0.1	6.5	19.9	8.1	0.1	38.1	35.8	207.8	263.3	471.0
1978	<b>TOTAL</b>	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
1979	<b>TOTAL</b>	3.2	6.7	21.0	11.8	6.3	38.5	42.2	300.1	270.6	570.7
1980	<b>TOTAL</b>	3.5	5.2	26.7	14.3	8.2	37.2	43.7	354.4	265.4	619.8
1981	January	0.3	0.8	3.5	1.5	0.8	3.8	5.0	39.7	25.7	65.4
	February	0	0.6	3.6	1.4	0.7	3.4	4.6	36.2	22.6	58.8
	March	0	0.7	3.7	1.5	0.8	4.2	4.9	39.1	23.1	62.2
	April	0	0.6	3.3	1.4	0.8	2.8	4.4	36.5	21.7	58.2
	May	0.2	0.8	2.8	1.4	0.8	2.5	4.3	36.6	20.9	57.4
	June	0.4	0.8	2.8	0.7	0.8	3.3	4.1	34.5	22.6	57.1
	July	0.4	1.1	1.4	0.6	0.8	2.5	5.2	36.1	24.8	61.0
	August	0.4	1.0	2.6	1.0	0.8	2.5	3.9	36.0	28.3	64.2
	September	0.3	0.6	3.0	1.3	0.8	3.1	3.3	33.9	25.7	59.6
	October	0.3	1.2	3.3	1.5	1.2	2.7	4.0	34.7	21.6	56.3
	November	0.3	0.6	3.6	1.4	1.0	3.1	4.3	36.0	24.0	60.1
	December	0.4	0.7	4.1	1.5	1.1	4.9	5.4	43.1	27.5	70.6
	<b>TOTAL</b>	<b>2.9</b>	<b>9.4</b>	<b>37.7</b>	<b>15.2</b>	<b>10.7</b>	<b>38.9</b>	<b>53.4</b>	<b>442.4</b>	<b>288.5</b>	<b>730.9</b>
1982	January	0.4	1.0	4.0	1.5	0.8	3.4	5.9	44.5	27.1	71.6
	February	0.4	0.9	3.3	1.3	1.0	3.5	5.4	40.0	21.3	61.3
	March	0.4	0.5	3.8	1.5	1.0	4.1	5.3	43.2	24.0	67.1
	April	0.2	0.4	3.8	1.4	0.8	3.3	5.3	42.5	22.8	65.3
	May	0	0.5	2.5	1.2	0.8	2.6	5.6	39.0	22.8	61.8
	June	(s)	0.7	1.9	0.6	1.0	3.3	4.2	35.6	25.3	60.9
	July	0.3	0.6	1.2	0.9	1.2	3.3	4.5	37.6	26.8	64.4
	August	0.4	0.7	2.0	1.0	1.2	3.7	4.5	37.7	26.4	64.1
	September	0.4	0.7	3.7	1.2	1.3	4.2	5.4	38.6	26.7	65.3
	October	0.4	1.0	4.2	1.5	1.4	3.7	5.2	39.8	25.4	65.3
	November	0.4	0.9	4.0	1.4	1.1	3.8	5.8	41.0	24.2	65.3
	December	0.4	0.9	4.2	1.5	1.4	5.1	6.5	49.2	25.8	75.0
	<b>TOTAL</b>	<b>3.8</b>	<b>8.8</b>	<b>38.8</b>	<b>15.0</b>	<b>13.1</b>	<b>44.1</b>	<b>63.4</b>	<b>489.9</b>	<b>298.6</b>	<b>788.5</b>
1983	January	0.5	1.0	4.2	1.5	1.5	R4.3	6.5	R50.0	27.4	R77.4
	February	0.4	0.9	3.7	1.4	0.8	4.3	5.6	R42.7	23.8	66.5
	March	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	R25.1	71.7
	April	0.4	0.8	3.3	1.5	1.7	4.3	4.0	R43.1	23.4	R66.5
	May	0.2	0.4	2.4	1.2	2.0	3.4	2.9	R40.6	23.9	R64.5
	June	0.7	0.6	2.4	0.5	2.0	R4.2	4.2	R42.4	25.7	R68.1
	July	0.7	0.6	1.6	1.2	1.6	3.3	5.1	44.8	27.3	72.1
	August	R1.1	1.0	2.7	1.0	1.4	3.7	4.6	R47.1	27.9	R75.0
	September	1.1	1.0	3.0	1.4	1.2	4.4	6.0	R49.9	R26.4	R76.2
	October	0.8	1.1	3.6	1.5	1.6	3.7	7.4	52.4	27.6	R80.0
	November	1.2	1.1	R4.5	1.4	1.6	3.9	6.7	R51.7	26.6	R78.3
	December	1.3	1.4	5.0	1.5	1.7	5.5	5.7	58.4	28.6	86.9
	<b>TOTAL</b>	<b>9.0</b>	<b>10.7</b>	<b>40.5</b>	<b>15.5</b>	<b>18.9</b>	<b>50.0</b>	<b>64.7</b>	<b>569.7</b>	<b>313.6</b>	<b>883.3</b>

Footnotes continued.

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

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

Sources: • See the last page of this section.

## Notes and Sources for the International Section

### Notes

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

2. The members of the Organization 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 United States Territories.

### Sources

**Crude Oil Production:** • 1973-1982 annual data: Energy Information Administration, *1982 International Energy Annual*.

• U.S. annual and monthly data: Energy Information Administration, *Petroleum Supply Monthly*.

• 1981-1983 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.

• 1981-1983 monthly data for World: Sum of data for all countries using above sources.

**Petroleum Consumption:** • Central Intelligence Agency, "International Energy Statistical Review" (except the United States).

• United States data: Energy Information Administration, *Petroleum Supply Monthly*.

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

**Petroleum Stocks:** • United States data: Energy Information Administration, *Petroleum Supply Monthly*. • Other OECD data: OECD, *Quarterly Oil Statistics*; Comite Professionnel du Petrole, *Bulletin Mensuel*. • *Total OECD: Sum of data for all OECD member countries using above sources*.

**Nuclear Electricity Generation:** • *Nucleonics Week*.

# Conversion Factors

## Approximate Heat Content

Refined Petroleum Product	Million Btu per Barrel
Asphalt.....	6.636
Aviation gasoline .....	5.048
Butane .....	4.326
Butane-propane mixture <sup>1</sup> .....	4.130
Distillate fuel oil .....	5.825
Ethane .....	3.082
Ethane-propane mixture <sup>2</sup> .....	3.308
Isobutane.....	3.974
Jet fuel—kerosene type.....	5.670
Jet fuel—naphtha type.....	5.355
Kerosene .....	5.670
Lubricants.....	6.065
Motor gasoline .....	5.253
Natural gasoline.....	4.620
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 20 percent propane.

## Units of Measure

### Weight

1 metric ton	contains	1,000 kilograms or 2,204.62 pounds
1 long ton	contains	2,240 pounds
1 short ton	contains	2,000 pounds

### Conversion Factors for Crude Oil (Average Gravity)

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

### Conversion Factors for Uranium

1 short ton (U <sub>3</sub> O <sub>8</sub> )	contains	0.769 metric tons of uranium
1 short ton (UF <sub>4</sub> )	contains	0.613 metric tons of uranium
1 metric ton (UF <sub>4</sub> )	contains	0.676 metric tons of uranium

## Price Indexes, 1972 = 100.0

	Gross National Product Implicit Price Deflator	Consumer Price Index, All Urban Consumers, All Items
1972	100.00	100.0
1973	105.75	106.2
1974	115.08	117.9
1975	125.79	128.7
1976	132.34	136.1
1977	140.05	144.9
1978	150.42	155.9
1979	163.42	173.5
1980	178.64	197.0
1981	195.51	217.4
1982	206.88	230.7
1983	215.67	238.1

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 Fuels

	Units	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983†
<b>Coal</b>												
Production.....	Million Btu/short ton	23.27	22.96	22.81	22.85	22.49	22.17	22.38	22.35	22.25	22.20	22.02
Consumption.....	Million Btu/short ton	22.94	22.56	22.39	22.39	22.14	21.93	22.01	21.87	21.65	21.63	21.55
Non-utility.....	Million Btu/short ton	24.48	24.38	24.35	24.45	24.33	24.12	24.23	24.35	24.15	23.92	23.80
Electric utility.....	Million Btu/short ton	22.24	21.78	21.64	21.68	21.47	21.27	21.37	21.29	21.08	21.20	21.16
Imports.....	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Exports.....	Million Btu/short ton	26.59	26.70	26.56	26.60	26.55	26.48	26.55	26.28	26.08	26.22	26.29
<b>Anthracite</b>												
Production.....	Million Btu/short ton	23.17	22.56	23.39	22.77	23.18	23.52	23.59	23.35	23.69	23.68	23.75
Consumption.....	Million Btu/short ton	22.71	21.95	21.74	22.15	22.69	22.97	22.70	22.16	22.10	23.00	22.80
Non-utility.....	Million Btu/short ton	24.34	23.75	23.85	23.84	24.99	25.17	25.20	23.74	25.12	25.37	25.20
Electric utility*.....	Million Btu/short ton	17.92	17.20	17.06	17.53	17.24	17.10	17.45	17.65	18.17	18.16	18.15
Imports and exports.....	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40
<b>Bituminous coal and lignite</b>												
Production.....	Million Btu/short ton	23.267	22.970	22.802	22.849	22.482	22.157	22.374	22.343	22.243	22.188	22.015
Consumption.....	Million Btu/short ton	22.937	22.564	22.402	22.393	22.142	21.921	22.014	21.874	21.645	21.624	21.547
Residential and commercial.....	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078	21.884	22.488	22.191	22.373	22.300
Coke plants.....	Million Btu/short ton	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000
Other industrial & transp.....	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175	22.436	22.690	22.572	22.694	22.650
Electric utility.....	Million Btu/short ton	22.260	21.800	21.660	21.690	21.480	21.280	21.380	21.300	21.090	21.200	21.160
Imports.....	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501	26.570	26.404	26.176	26.231	26.300
<b>Coal coke</b>												
Production.....	Million Btu/short ton	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
<b>Crude petroleum<sup>1</sup></b>												
Production.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports.....	Million Btu/barrel	5.817	5.827	5.821	5.808	5.810	5.802	5.810	5.812	5.818	5.826	5.824
Exports.....	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800
<b>Crude petroleum and products</b>												
Imports.....	Million Btu/barrel	5.897	5.884	5.858	5.856	5.834	5.839	5.810	5.796	5.775	5.775	5.768
Exports.....	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808	5.832	5.820	5.821	5.820	5.800
<b>Petroleum products</b>												
Consumption.....	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519	5.494	5.479	5.448	5.415	5.410
Residential and commercial.....	Million Btu/barrel	5.387	5.377	5.368	5.383	5.389	5.382	5.471	5.468	5.409	5.392	5.361
Industrial.....	Million Btu/barrel	5.565	5.537	5.527	5.536	5.552	5.548	5.416	5.376	5.310	5.262	5.277
Transportation.....	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407	5.430	5.440	5.434	5.423	5.412
Electric utility.....	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251	6.258	6.254	6.258	6.258	6.254
Imports.....	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955	5.811	5.748	5.659	5.664	5.660
Exports.....	Million Btu/barrel	5.752	5.773	5.747	5.743	5.798	5.814	5.864	5.841	5.837	5.829	5.800
LPG consumption average <sup>2</sup> .....	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669	3.680	3.674	3.643	3.615	3.612
<b>Natural gas plant liquid</b>												
Production.....	Million Btu/barrel	4.048	4.011	3.984	3.984	3.941	3.925	3.955	3.914	3.930	3.872	3.859
<b>Natural gas, dry</b>												
Production.....	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021	1,026	1,027	1,028	1,028
Consumption*.....	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021	1,026	1,027	1,028	1,028
Non-utility consumption.....	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018	1,024	1,026	1,026	1,026
Electric utility consumption*.....	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,034	1,034	1,033	1,035	1,035
Imports*.....	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037	1,022	1,014	1,018	1,018
Exports*.....	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013	1,013	1,011	1,011	1,011
Wet natural gas production.....	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092	1,098	1,103	1,107	1,107

## Approximate Heat Rates for Electricity

Hydropower generation <sup>3</sup> .....	Btu/kWh	10,389	10,442	10,406	10,373	10,435	10,361	10,353	10,388	10,453	10,470	10,470
Nuclear power generation <sup>3</sup> .....	Btu/kWh	10,903	11,161	11,013	11,047	10,769	10,941	10,879	10,908	11,030	11,015	11,015
Geothermal power generation <sup>3</sup> .....	Btu/kWh	21,674	21,674	21,611	21,611	21,611	21,611	21,545	21,639	21,639	21,594	21,594
Electricity consumption.....	Btu/kWh	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412

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

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

<sup>3</sup> There is no generally accepted practice for measuring hydropower thermal conversion rates. The hydropower factors on this page are the prevailing rate factors at fossil fuel steam electric powerplants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydropower production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydropower is the principal means for producing electricity. Similarly, the nuclear power and geothermal power conversion factors represent the thermal conversion equivalent of the uranium and geothermal steam consumed at powerplants. The heat content of a kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatt-hour.

\* Based on data reported in Energy Information Administration (and predecessor) surveys.

† Preliminary data.

Note: A listing of sources for the approximate heat content values are published in the 1983 Annual Energy Review, DOE/EIA-0384(83).

# Glossary

## Glossary

### **Anthracite**

A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal. Includes metaanthracite and semianthracite. Conforms to ASTM Specification D388 for anthracite.

### **Bituminous Coal**

A coal that is high in carbonaceous matter having a volatility greater than anthracite and a calorific value greater than lignite. Often referred to in the United States as soft coal. Includes subbituminous coal and conforms to ASTM Specification D388 for bituminous and subbituminous coal.

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

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

### **Coke (Coal)**

Bituminous coal from which constituents have been driven off by heat so that the fixed carbon and the ash are fused together. It is used primarily in blast furnaces for smelting ores, especially iron ore.

### **Crude Oil**

A mixture of hydrocarbons that is in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Statistically, crude oil reported at refineries, in pipelines, at pipeline terminals, and on leases may include lease condensate, shale oil, and tar sands oil.

### **Crude Oil Refinery Input**

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

### **Crude Oil Stocks**

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

### **Distillate Fuel Oil**

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

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

### **Electricity Production**

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

### **Ethane**

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

### **Exports**

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

### **Full-Serve Station**

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

### **Imports**

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

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

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

imports. Coverage includes the United States and its territories.

#### **Lease Condensate**

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

#### **Lignite**

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

#### **Liquefied Petroleum Gases**

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

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

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

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

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

#### **Motor Gasoline**

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

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

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

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

Beginning in January 1981, "Motor Gasoline" was redefined as "Finished Motor Gasoline," which is a complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives that have been blended to form a fuel suitable for use in spark ignition engines. Included are premium and regular grade, both leaded and unleaded, gasohol, and all other refinery products listed in ASTM Specification D439. Excludes any blendstock until blending has been completed and the blendstock is incorporated in the finished gasoline and no longer separately identified. Also excludes any alcohol to be used in the blending of gasohol.

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

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

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

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

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

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

#### **Natural Gas**

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

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

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

#### **Petroleum**

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

#### **Petroleum Coke**

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

#### **Petroleum Products**

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

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

#### **Propane**

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

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

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

#### **Refiner Acquisition Cost**

The cost to the refiner, including transportation and fees, of crude oil. The composite cost is the average of domestic and imported crude oil costs and represents the amount of crude oil cost that refiners may pass on to their customers.

#### **Residual Fuel Oil**

The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and No. 6 fuel oil that conform to ASTM Specification D396, Navy Special Fuel Oil, Bunker C fuel oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

#### **Rotary Rig**

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

#### **Self-Serve Station**

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

#### **Startup Test Phase of Nuclear Powerplant**

A nuclear powerplant that has been licensed by the Nuclear Regulatory Commission to operate, but that is in the initial testing phase during which production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer, and places it in "commercial operation" status. A request is then submitted to the appropriate utility rate commission to include the powerplant in the rate base calculation.

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

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

#### **Strategic Petroleum Reserve**

Petroleum inventories (currently only crude oil) held in Government-owned underground storage for use during periods of major supply interruptions. Congress enacted legislation to establish a Strategic Petroleum Reserve in Title I, Part B, of the Energy Policy and Conservation Act of 1975, Public Law 94-163.

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

A product resulting from the manufacture, conversion, or reforming of hydrocarbons that may be easily substituted for or interchanged with pipeline-quality natural gas.

#### **Unaccounted for Crude Oil**

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

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

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

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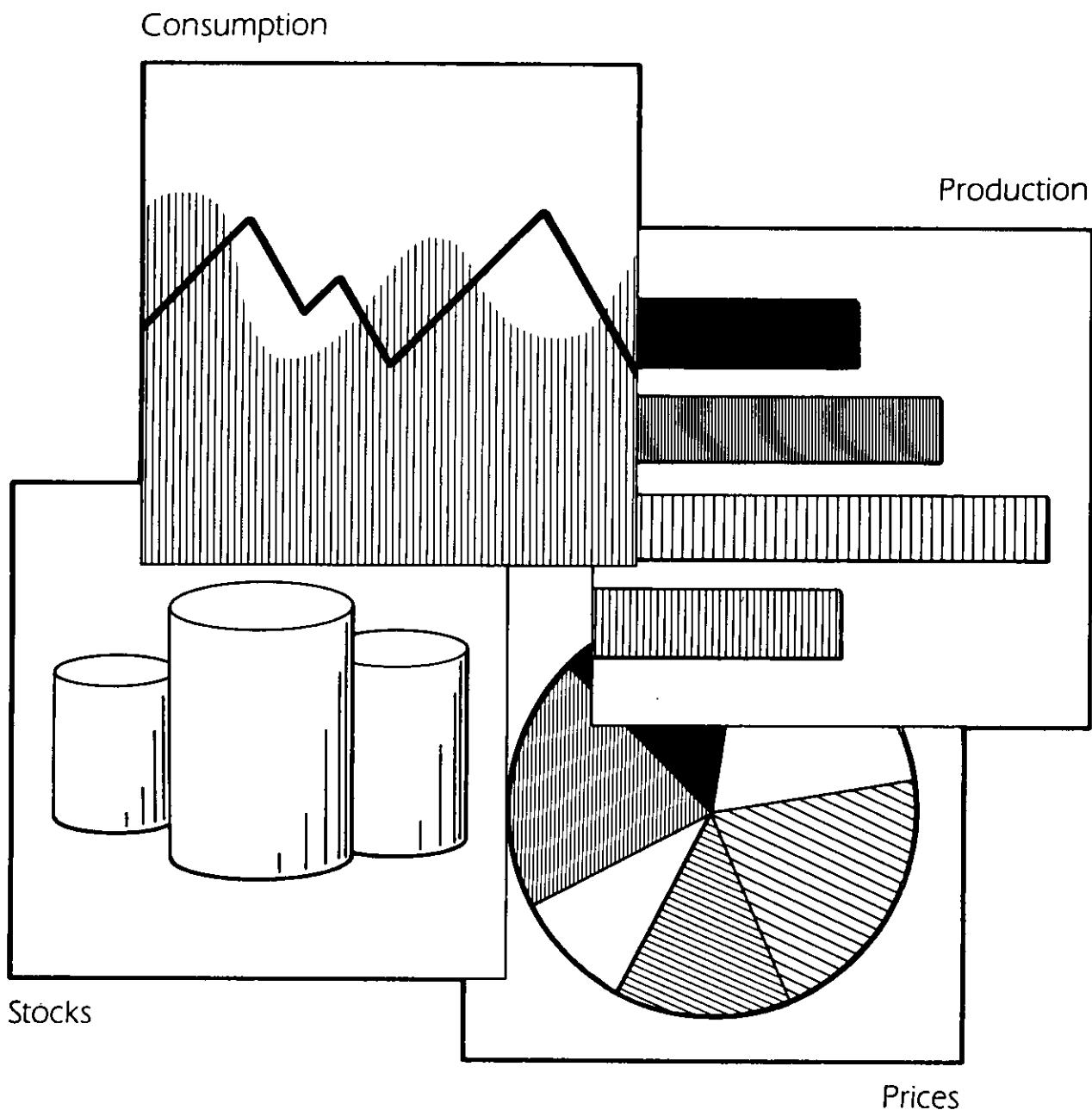
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