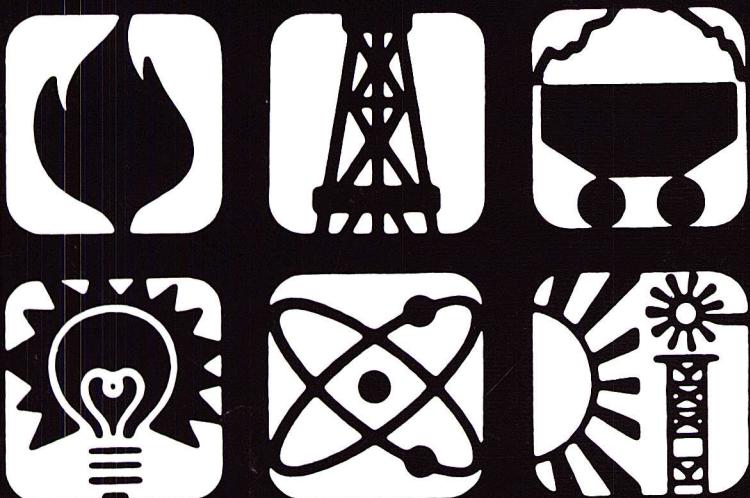


Energy Information Administration

Monthly Energy Review

March 1987



First Quarter 1987 Summaries

Monthly Energy Review

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

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

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

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

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Monthly Energy Review

March 1987

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



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Articles

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

Changes in 1981 Petroleum Data Series	May 1981
Information Services of the Energy Information Administration	September 1981
An Overview of Natural Gas Markets	December 1981
The Interstate and Intrastate Natural Gas Markets	January 1982
Natural Gas Drilling and Production Under the Natural Gas Policy Act	February 1982
Impacts of Financial Constraints on the Electric Utility Industry	October 1982
The Effect of Weather on Energy Use	April 1983
Trends in U.S. Energy Since 1973	May 1983
Data Series on Petroleum Use at Electric Utilities	July 1983
Residential Energy Consumption, 1978 Through 1981	September 1983
Exploring for Oil and Gas	November 1983
The Influence of Federal Actions on Petroleum Exploration	December [2] 1983
Aggregate Statistics: Accurate or Misleading?	December [3] 1983
Estimating Well Completions	March 1985
State Motor Gasoline Taxes, 1980-1985	March 1986
The Impact of Low Oil Prices on Electric Utility Fuel Choice	June 1986
U.S. Energy Industry Financial Developments, 1986 Second Quarter	June 1986
U.S. Energy Industry Financial Developments, 1986	December 1986
Manufacturing Sector Energy Consumption, 1985 Provisional Estimates	January 1987

Highlights

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

<i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report</i>	September 1982
<i>Energy Company Development Patterns in the Postembargo Era, Volume One</i>	November 1982
<i>Residential Energy Consumption Survey: Consumption and Expenditures</i>	January 1983
<i>Residential Energy Consumption Survey: Housing Characteristics</i>	February 1983
<i>Energy Price and Expenditure Data Report, 1970-1980</i>	July 1983
<i>Railroad Deregulation: Impact on Coal</i>	August 1983
<i>Port Deepening and User Fees: Impact on U.S. Coal Exports</i>	August 1983
<i>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report</i>	September 1983
<i>Annual Energy Review 1983</i>	February 1984
<i>State Energy Data Report, Consumption Estimates, 1960-1982</i>	March 1984
<i>Annual Energy Outlook 1983</i>	March 1984
<i>State Energy Price and Expenditure Report, 1970-1981</i>	May 1984
<i>Solar Collector Manufacturing Activity 1983</i>	June 1984
<i>Estimates of U.S. Wood Energy Consumption, 1980-1983</i>	September 1984
<i>International Energy Annual 1983</i>	September 1984
<i>Energy Conservation Indicators 1983 Annual Report</i>	November 1984
<i>Annual Energy Outlook 1984</i>	December 1984
<i>Annual Energy Review 1984</i>	January 1985
<i>Performance Profiles of Major Energy Producers 1983</i>	February 1985
<i>State Energy Price and Expenditure Report 1970-1982</i>	March 1985
<i>State Energy Data Report, Consumption Estimates, 1960-1983</i>	April 1985
<i>Annual Outlook for U.S. Electric Power 1985</i>	June 1985
<i>Short-Term Energy Outlook, Volume I, October 1985</i>	August 1985
<i>Analysis of Growth in Electricity Demand, 1980-1984</i>	August 1985
<i>Profiles of Foreign Direct Investment in U.S. Energy 1984</i>	November 1985
<i>Performance Profiles of Major Energy Producers 1984</i>	December 1985
<i>International Energy Annual 1985</i>	September 1986

Section 1. Energy Summary

First Quarter 1987 Summary

Although crude oil prices were noticeably higher in the first quarter of 1987--the composite refiner acquisition cost of crude oil averaged almost \$17 per barrel, up from the 1986 average of \$14.55 per barrel--the domestic energy industry continued to feel the effects of the disruptions of 1986. U.S. energy production in the first quarter of 1987 (Q187) was 16.1 quadrillion Btu, 3.6 percent¹ below the level in the first quarter of 1986 (Table 1.1). Energy consumption totaled 19.9 quadrillion Btu (down 1.5 percent) and a 26.2-percent increase in

net imports was required to meet demand. However, the 2.6 quadrillion Btu of energy net imports in Q187 was well below the all-time high for first-quarter net imports (4.9 quadrillion Btu) reached in 1977.

Petroleum production continued to show the effects of the 1986 decline in oil prices; it fell to 4.9 quadrillion Btu in Q187, a decline of 7.5 percent from the Q186 level. Although Alaskan production increased slightly, production in the lower 48 States and production of natural gas plant liquids declined. Natural gas production fell 0.8 percent to 4.4 quadrillion Btu. Production of coal, which faced increased competition from petroleum products, fell 5.7 percent to 4.7 quadrillion Btu.

Table 1.1 Energy Summary for March 1987
(Quadrillion (10¹⁵) Btu)

	March			Cumulative January Through March				
	1987	1986	Percent Change ^a	1987	1987 Daily Rate	1986	1986 Daily Rate	Percent Change ^a
Total Production^b	5.430	5.632	-3.6	16.091	0.179	16.695	0.185	-3.6
Petroleum ^c	1.690	1.809	-6.6	4.926	.055	5.324	.059	-7.5
Natural Gas (Dry)	1.454	1.466	-.8	4.403	.049	4.438	.049	-.8
Coal	1.619	1.707	-5.2	4.741	.053	5.029	.056	-5.7
Other ^d667	.650	2.6	2.021	.022	1.904	.021	6.2
Total Consumption^b	6.443	6.551	-1.6	19.879	.221	20.173	.224	-1.5
Petroleum ^e	2.680	2.732	-1.9	7.965	.089	7.887	.088	1.0
Natural Gas ^f	1.641	1.758	-6.6	5.405	.060	5.859	.065	-7.8
Coal	1.415	1.387	2.0	4.389	.049	4.434	.049	-1.0
Other ^g707	.674	4.9	2.120	.024	1.992	.022	6.4
Net Imports816	.629	29.7	2.569	.029	2.036	.023	26.2
Petroleum ^h881	.715	23.1	2.637	.029	2.178	.024	21.1
Natural Gas063	.049	28.6	.260	.003	.210	.002	23.8
Coal ⁱ	-.167	-.159	5.3	-.428	-.005	-.441	-.005	-3.1
Other ^j040	.024	67.3	.099	.001	.089	.001	11.9

^aBased on daily rates prior to rounding.

^bProduction and consumption totals exclude wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

^cIncludes crude oil, lease condensate, and natural gas plant liquids.

^dOther is hydroelectric and nuclear electric power, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^eIncludes petroleum products.

^fIncludes supplemental gaseous fuels.

^gOther is hydroelectric and nuclear electric power; electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy; and net imports of electricity and coal coke.

^hIncludes crude oil, lease condensate, petroleum products, pentanes plus, unfinished oils, gasoline blending components, and imports of crude oil for the Strategic Petroleum Reserve.

ⁱMinus sign indicates exports are greater than imports.

^jOther is net imports of electricity and coal coke.

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

Sources: Energy Information Administration (EIA), *Monthly Energy Review* Section 1 and EIA calculations.

¹Note: 1987 data are preliminary. Percentage changes are calculated using daily rates prior to rounding.

Nuclear-based electricity generation reached an all-time high in Q187, and oil-fired electricity generation increased for the second consecutive year, after having registered decreases for the previous 7 years. In contrast, coal-fired generation declined, due primarily to increased competition from cheaply priced heavy oil. However, coal-fired generation of electricity continued to account for over half of total generation from all sources.

Modest Declines in Demand

During the first quarter of 1987, the energy intensity of the economy continued its decade-long decline as modest growth in the economy was coupled with a slight decline in total energy consumption (compared with Q186 consumption). Energy consumption per dollar of gross national product fell to 19.9 thousand Btu per 1982 dollar; by comparison, the ratio in 1977 was 25.8 thousand Btu per 1982 dollar.

The decline in energy consumption came as a result of declines in the consumption of natural gas and coal, which surrendered market share to low-priced petroleum. Natural gas consumption fell to 5.4 quadrillion Btu in Q187, down 7.8 percent from the level in Q186, and coal consumption fell to 4.4 quadrillion Btu, down 1.0 percent. Consumption of petroleum, in contrast, rose to 8.0 quadrillion Btu in Q187, an increase of 1.0 percent from the Q186 level.

Continued Growth in Net Imports

Despite the modest recovery in oil prices, the effects of the 1986 price plunge continued into the first quarter of 1987, in the form of higher energy imports. Energy net imports were 26.2 percent above the level recorded in Q186, and changes in the trade of all three major energy sources contributed to the increase. Petroleum net imports rose 21.1 percent, natural gas net imports rose 23.8 percent, and coal net exports fell 3.1 percent.

Despite the increase in net imports, the \$7 billion energy trade deficit recorded for Q187 was \$3 billion below the Q186 level. The decrease was due primarily to lower refiner acquisition costs of crude oil. During Q187, the composite cost averaged \$16.67 per barrel, well below the \$20.12 average cost in Q186.

Net imports of petroleum reached 5.0 million barrels per day in Q187, up from 4.2 million barrels per day

in Q186. Crude oil net imports rose from 3.0 million barrels per day to 3.8 million barrels per day, while petroleum product net imports remained essentially unchanged at 1.2 million barrels per day.

Petroleum net imports from all members of the Organization of Petroleum Exporting Countries (OPEC) averaged 2.6 million barrels per day in Q187. Petroleum net imports from Arab members alone averaged 1.1 million barrels per day, up from 0.8 million barrels per day in Q186.

The 1986 increase in U.S. reliance on foreign sources of oil continued in the first quarter of 1987. Petroleum net imports from all countries rose to 31 percent of U.S. petroleum products supplied, up from 26 percent in Q186. Net imports from OPEC equaled 16 percent of U.S. petroleum products supplied in Q187, up from 13 percent in Q186, and net imports from Arab members of OPEC rose from 5 percent to 7 percent.

Retail Energy Prices

Despite the moderate increases in energy prices compared with the fourth quarter of 1986, Q187 prices of energy to end users remained below Q186 prices. Unleaded regular motor gasoline averaged \$0.91 per gallon in March 1987, down from \$0.98 per gallon in March 1986. The average price of natural gas sold to residential customers also declined, from \$5.70 per thousand cubic feet in March 1986 to \$5.38 per thousand cubic feet in March 1987. The average retail price of electricity to residential customers was essentially unchanged at about 7 cents per kilowatthour. On a dollar-per-Btu basis, however, electricity remained one of the most expensive sources of energy.

The Outlook

According to the Energy Information Administration's April 1987 *Short-Term Energy Outlook*, U.S. energy consumption for 1987 is projected to reach 75.0 quadrillion Btu, due to growth in industrial use of natural gas and electric utility use of coal. Prices of imported crude oil are projected to stabilize at about \$18 per barrel, and petroleum demand is projected to remain at the 1986 level of 16 million barrels per day. Net oil imports are projected to rise to almost 5.7 million barrels per day in 1987, with the 0.4-million-barrel-per-day increase almost exactly offsetting an expected decrease in domestic production.

Table Q1. Quarterly Summary: Production of Energy by Source
 (Quadrillion (10¹⁵) Btu)

	Coal	Crude Oil ^a	NGPL ^b	Natural Gas (Dry)	Hydro-electric Power ^c	Nuclear Electric Power	Other ^d	Total ^e
1973 Total	13.993	19.493	2.569	22.187	2.861	0.910	0.046	62.059
1974 Total	14.074	18.575	2.471	21.210	3.177	1.272	.056	60.836
1975 Total	14.990	17.729	2.374	19.640	3.155	1.900	.072	59.860
1976 Total	15.654	17.262	2.327	19.480	2.976	2.111	.081	59.891
1977 Total	15.755	17.454	2.327	19.565	2.333	2.702	.082	60.218
1978 Total	14.910	18.434	2.245	19.485	2.937	3.024	.068	61.103
1979 Total	17.539	18.104	2.286	20.076	2.931	2.776	.089	63.801
1980 1 st Quarter	4.619	4.588	.578	5.287	.746	.644	.024	16.486
2 nd Quarter	4.753	4.552	.571	4.885	.864	.605	.028	16.258
3 rd Quarter	4.449	4.549	.547	4.706	.666	.752	.031	15.701
4 th Quarter	4.776	4.559	.558	5.029	.624	.738	.032	16.316
Total	18.597	18.249	2.254	19.908	2.900	2.739	.114	64.761
1981 1 st Quarter	4.799	4.481	.581	4.995	.678	.743	.033	16.310
2 nd Quarter	3.032	4.519	.571	4.942	.754	.679	.031	14.527
3 rd Quarter	5.233	4.569	.575	4.881	.683	.821	.033	16.795
4 th Quarter	5.313	4.577	.581	4.880	.644	.765	.030	16.790
Total	18.377	18.146	2.307	19.699	2.758	3.008	.127	64.422
1982 1 st Quarter	4.943	4.502	.547	4.916	.879	.760	.023	16.570
2 nd Quarter	4.813	4.561	.537	4.572	.884	.747	.025	16.137
3 rd Quarter	4.479	4.623	.541	4.385	.749	.840	.030	15.647
4 th Quarter	4.405	4.624	.566	4.382	.745	.785	.030	15.536
Total	18.639	18.309	2.191	18.255	3.256	3.131	.108	63.889
1983 1 st Quarter	4.241	4.550	.541	4.215	.922	.776	.028	15.273
2 nd Quarter	4.121	4.587	.526	3.851	.970	.747	.026	14.828
3 rd Quarter	4.385	4.642	.553	4.040	.798	.838	.041	15.297
4 th Quarter	4.503	4.613	.564	4.424	.812	.842	.039	15.796
Total	17.250	18.392	2.184	16.530	3.502	3.203	.133	61.194
1984 1 st Quarter	4.911	4.646	.555	4.682	.908	.923	.039	16.664
2 nd Quarter	5.068	4.693	.560	4.393	.934	.818	.041	16.507
3 rd Quarter	5.385	4.746	.576	4.342	.758	.943	.044	16.793
4 th Quarter	4.359	4.763	.582	4.515	.711	.870	.050	15.849
Total	19.723	18.848	2.274	17.931	3.312	3.553	.174	65.814
1985 1 st Quarter	4.664	4.672	.555	4.533	.816	1.060	.052	16.352
2 nd Quarter	4.991	4.785	.552	4.050	.782	.929	.048	16.138
3 rd Quarter	4.874	4.750	.554	4.005	.628	1.130	15.994	
4 th Quarter	4.799	4.785	.579	4.336	.714	1.029	.060	16.301
Total	19.329	18.992	2.241	16.922	2.939	4.147	.213	64.784
1986 1 st Quarter	5.029	R 4.753	R .571	R 4.438	R .764	1.078	.062	
2 nd Quarter	4.860	R 4.632	R .526	R 3.942	R .847	1.013	.056	
3 rd Quarter	4.833	R 4.512	R .515	R 3.910	.694	1.189	.060	
4 th Quarter	4.758	R 4.479	R .537	R 4.276	R .735	1.196	.053	
Total	19.481	R 18.376	R 2.149	R 16.565	R 3.040	4.475	.232	
1987 1 st Quarter	4.741	4.376	.549	4.403	.731	1.231	.060	16.091

^aIncludes lease condensate.

^bNatural gas plant liquids.

^cIncludes industrial and utility production of hydroelectric power.

^dOther is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^eExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

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.

Table Q2. Quarterly Summary: Consumption of Energy by Source
 (Quadrillion (10¹⁵) Btu)

	Coal	Natural Gas ^a	Petroleum	Hydro-electric Power ^b	Nuclear Electric Power	Other ^c	Total ^d
1973 Total	12,971	22,512	34,840	3,010	0.910	0.039	74,282
1974 Total	12,663	21,732	33,455	3,309	1.272	.112	72,543
1975 Total	12,663	19,948	32,731	3,219	1.900	.086	70,545
1976 Total	13,584	20,345	35,175	3,065	2.111	.081	74,362
1977 Total	13,922	19,931	37,122	2,515	2.702	.097	76,289
1978 Total	13,765	20,000	37,965	3,142	3,024	.193	78,089
1979 Total	15,039	20,666	37,123	3,141	2,776	.152	78,897
1980 1 st Quarter	3,995	6,606	9,143	.800	.644	.023	21,212
2 nd Quarter	3,546	4,255	8,177	.919	.605	.014	17,516
3 rd Quarter	4,020	3,977	8,123	.721	.752	.019	17,612
4 th Quarter	3,861	5,553	8,759	.678	.738	.023	19,612
Total	15,423	20,394	34,202	3,118	2,739	.079	75,955
1981 1 st Quarter	4,069	6,237	8,391	.763	.743	.029	20,232
2 nd Quarter	3,677	4,337	7,732	.841	.679	.025	17,291
3 rd Quarter	4,191	3,997	7,785	.770	.821	.032	17,596
4 th Quarter	3,971	5,355	8,023	.731	.765	.025	18,870
Total	15,908	19,928	31,931	3,105	3,008	.111	73,991
1982 1 st Quarter	4,046	6,396	7,745	.948	.760	.019	19,915
2 nd Quarter	3,556	3,841	7,535	.937	.747	.018	16,634
3 rd Quarter	3,990	3,532	7,419	.834	.840	.023	16,638
4 th Quarter	3,730	4,738	7,532	.842	.785	.027	17,654
Total	15,322	18,505	30,231	3,561	3,131	.086	70,838
1983 1 st Quarter	3,737	5,369	7,311	1,008	.776	.025	18,226
2 nd Quarter	3,569	3,572	7,293	1,048	.747	.021	16,251
3 rd Quarter	4,440	3,317	7,626	.901	.838	.038	17,160
4 th Quarter	4,152	5,093	7,824	.914	.842	.034	18,859
Total	15,898	17,357	30,054	3,871	3,203	.118	70,500
1984 1 st Quarter	4,314	6,324	7,909	.996	.923	.041	20,507
2 nd Quarter	4,009	4,249	7,675	1,027	.818	.038	17,815
3 rd Quarter	4,490	3,496	7,755	.877	.943	.040	17,602
4 th Quarter	4,260	4,438	7,712	.816	.870	.044	18,140
Total	17,074	18,507	31,051	3,717	3,553	.163	74,064
1985 1 st Quarter	4,391	6,165	7,689	.908	1,060	.054	R 20,266
2 nd Quarter	4,136	3,793	7,592	.882	.929	.043	17,375
3 rd Quarter	4,572	3,387	7,700	.757	1,130	.048	17,593
4 th Quarter	R 4,383	4,508	7,942	.816	1,029	.055	R 18,732
Total	R 17,482	17,851	30,922	3,363	4,147	R .199	R 73,964
1986 1 st Quarter	R 4,434	R 5,859	R 7,887	R .854	1,078	.061	R 20,173
2 nd Quarter	R 4,054	R 3,606	R 7,882	R .929	1,013	.053	R 17,537
3 rd Quarter	R 4,569	3,031	R 8,111	R .799	1,189	R .052	R 17,751
4 th Quarter	R 4,225	R 4,035	R 8,298	R .830	1,196	R .048	R 18,631
Total	R 17,282	R 16,531	R 32,178	R 3,411	4,475	.215	R 74,093
1987 1 st Quarter	4,389	5,405	7,965	.832	1,231	.058	19,879

^aIncludes supplemental gaseous fuels.

^bIncludes industrial and utility production and net imports of electricity.

^cOther is net imports of coal coke and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^dExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

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.

**Table Q3. Quarterly Summary: Net Imports^a of Energy by Source
(Quadrillion (10¹⁵) Btu)**

	Coal	Crude Oil ^b	Refined Petroleum Products ^c	Natural Gas	Electricity ^d	Coal Coke	Total
1973 Total	-1.422	6.883	6.097	0.981	0.148	-0.007	12.680
1974 Total	-1.568	7.389	5.273	.907	.133	.056	12.190
1975 Total	-1.738	8.708	3.800	.904	.064	.014	11.752
1976 Total	-1.567	11.221	3.982	.922	.089	0	14.648
1977 Total	-1.401	13.921	4.321	.981	.182	.015	18.019
1978 Total	-1.004	13.125	3.932	.941	.204	.125	17.323
1979 Total	-1.702	13.328	3.603	1.243	.211	.063	16.746
1980 1 st Quarter	-.363	3.021	.902	.326	.054	0	3.940
2 nd Quarter	-.652	2.696	.625	.203	.054	-.014	2.913
3 rd Quarter	-.678	2.446	.626	.174	.055	-.011	2.611
4 th Quarter	-.698	2.423	.760	.254	.055	-.009	2.783
Total	-2.391	10.586	2.912	.957	.217	-.035	12.247
1981 1 st Quarter	-.578	2.368	.729	.244	.086	-.004	2.846
2 nd Quarter	-.529	2.127	.552	.185	.087	-.005	2.416
3 rd Quarter	-.883	2.239	.628	.184	.088	-.001	2.254
4 th Quarter	-.929	2.119	.613	.242	.088	-.006	2.128
Total	-2.918	8.854	2.522	.857	.347	-.016	9.646
1982 1 st Quarter	-.668	1.524	.569	.257	.070	-.004	1.748
2 nd Quarter	-.826	1.672	.466	.190	.053	-.007	1.549
3 rd Quarter	-.655	1.970	.536	.181	.086	-.008	2.111
4 th Quarter	-.619	1.751	.557	.268	.097	-.004	2.050
Total	-2.768	6.917	2.128	.898	.306	-.022	7.459
1983 1 st Quarter	-.392	1.224	.373	.285	.086	-.003	1.572
2 nd Quarter	-.525	1.686	.539	.186	.079	-.005	1.959
3 rd Quarter	-.572	2.110	.743	.170	.103	-.003	2.551
4 th Quarter	-.524	1.711	.696	.243	.101	-.004	2.223
Total	-2.013	6.731	2.351	.887	.369	-.016	8.309
1984 1 st Quarter	-.393	1.575	.924	.220	.088	.002	2.417
2 nd Quarter	-.620	1.820	.712	.184	.092	-.003	2.185
3 rd Quarter	-.656	1.747	.675	.152	.119	-.003	2.034
4 th Quarter	-.451	1.775	.659	.231	.105	-.007	2.313
Total	-2.119	6.918	2.970	.792	.405	-.011	8.954
1985 1 st Quarter	-.480	1.243	.590	.277	.092	.002	1.724
2 nd Quarter	-.624	1.702	.709	.202	.100	-.005	2.084
3 rd Quarter	-.664	1.590	.589	.167	.129	-.006	1.805
4 th Quarter	-.621	1.846	.683	.244	.102	-.005	2.249
Total	-2.389	6.381	2.570	.894	.423	-.013	7.866
1986 1 st Quarter	-.441	R 1.580	R .598	.210	R .090	-.001	R 2.036
2 nd Quarter	-.621	R 2.175	R .728	.124	R .082	-.003	R 2.485
3 rd Quarter	-.609	R 2.563	R .812	.139	R .105	-.008	R 3.003
4 th Quarter	-.521	R 2.358	R .716	.226	R .095	-.005	R 2.869
Total	-2.193	R 8.676	R 2.855	.700	R .371	-.017	R 10.392
1987 1 st Quarter	-.428	2.036	.601	.260	.101	-.002	2.569

^aNet imports equals imports minus exports. Minus sign indicates exports are greater than imports.

^bIncludes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

^cIncludes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

^dAssumed to be hydroelectricity.

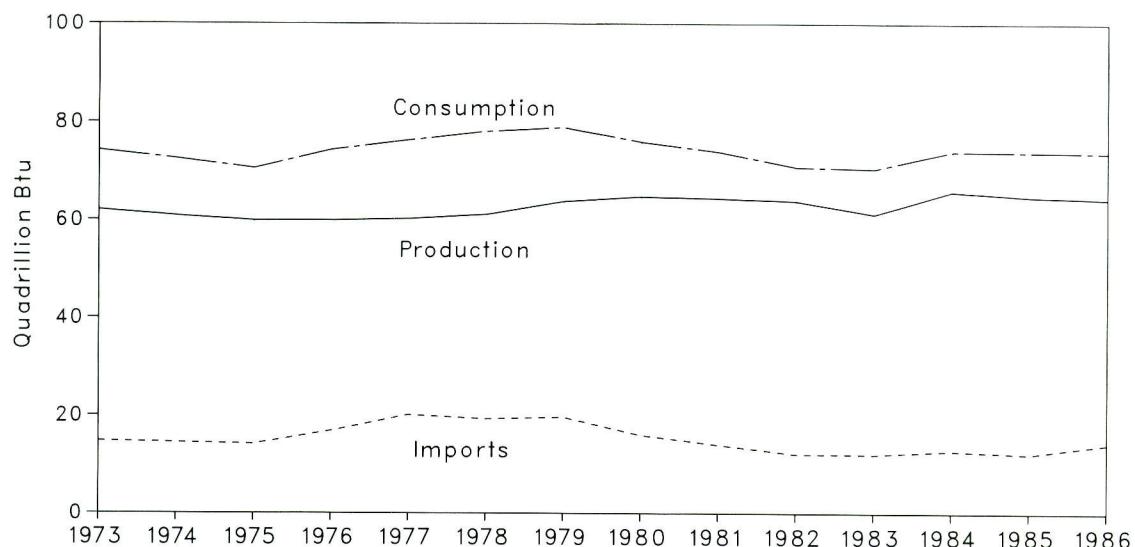
R=Revised data.

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.

Figure 1.1 Energy Overview

Yearly



Monthly

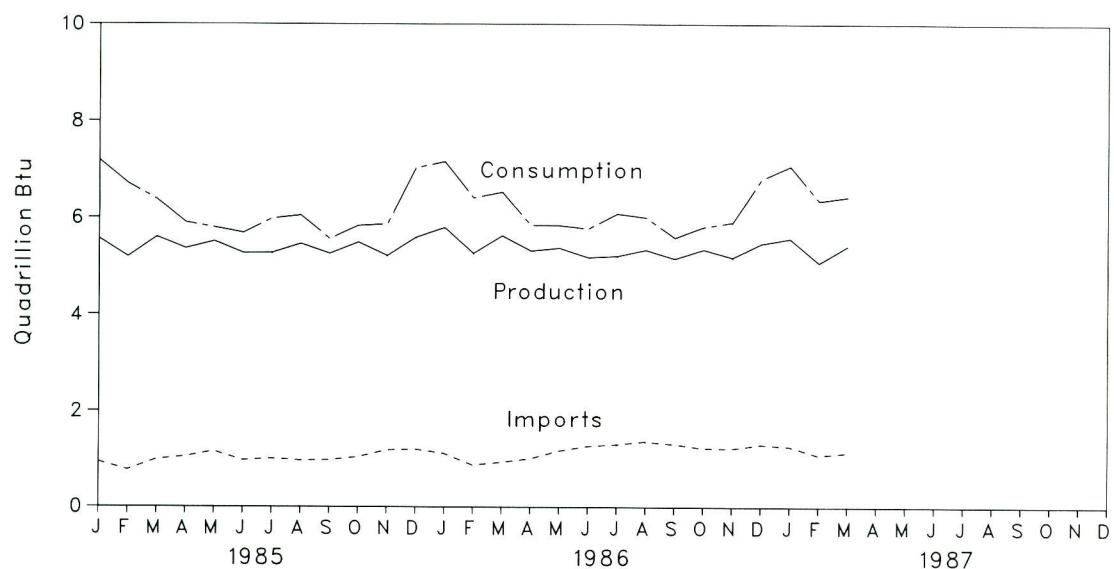


Table 1.2 Energy Overview^a
 (Quadrillion (10¹⁵) Btu)

	Production ^b	Consumption ^{b c}	Imports	Exports	Net Imports
1973 Total	62.059	74.282	14.731	2.051	12.680
1974 Total	60.836	72.543	14.413	2.223	12.190
1975 Total	59.860	70.545	14.111	2.359	11.752
1976 Total	59.891	74.362	16.837	2.188	14.648
1977 Total	60.218	76.289	20.090	2.071	18.019
1978 Total	61.103	78.089	19.254	1.931	17.323
1979 Total	63.801	78.897	19.616	2.870	16.746
1980 Total	64.761	75.955	15.971	3.723	12.247
1981 Total	64.422	73.991	13.975	4.329	9.646
1982 Total	63.889	70.838	12.091	4.632	7.459
1983 Total	61.194	70.500	12.025	3.716	8.309
1984 Total	65.814	74.064	12.758	3.804	8.954
1985 January	5.564	7.187	.926	.305	.621
February	5.192	6.701	.756	.306	.450
March	5.596	6.378	.971	.318	.653
April	5.361	5.902	1.034	.332	.702
May	5.509	5.794	1.145	.381	.764
June	5.268	5.680	.960	.342	.618
July	5.276	5.982	.994	.328	.666
August	5.460	6.048	.959	.420	.539
September	5.259	5.562	.964	.364	.600
October	5.492	5.835	1.029	.365	.664
November	5.216	5.865	1.170	.406	.764
December	5.593	R 7.032	1.189	.368	.821
Total	64.784	R 73.964	12.098	4.232	7.866
1986 January	R 5.796	R 7.187	R 1.144	R .320	R .824
February	R 5.266	R 6.435	R .875	R .293	R .582
March	R 5.632	R 6.551	R .943	R .313	R .629
April	R 5.317	R 5.878	R 1.028	R .378	R .650
May	R 5.371	R 5.870	R 1.238	R .366	R .872
June	5.188	R 5.789	R 1.278	R .314	R .963
July	R 5.214	R 6.131	R 1.335	R .336	R .999
August	R 5.335	R 6.002	R 1.388	R .373	R 1.015
September	R 5.163	R 5.618	R 1.335	.346	R .988
October	R 5.349	R 5.844	R 1.265	R .352	R .914
November	R 5.207	R 5.943	R 1.266	R .330	R .936
December	R 5.479	R 6.845	R 1.346	R .327	R 1.019
Total	R 64.318	R 74.093	R 14.441	R 4.049	R 10.392
1987 January	R 5.578	R 7.073	R 1.265	.302	R .963
February	R 5.083	R 6.363	R 1.081	R .291	R .790
March	5.430	6.443	1.134	.318	.816
3-Month Total	16.091	19.879	3.480	.911	2.569
1986 3-Month Total	16.695	20.173	2.962	.926	2.036
1985 3-Month Total	16.352	20.266	2.653	.928	1.724

^aFor definitions, see Notes at end of section.

^bExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

^cThe sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation, and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.

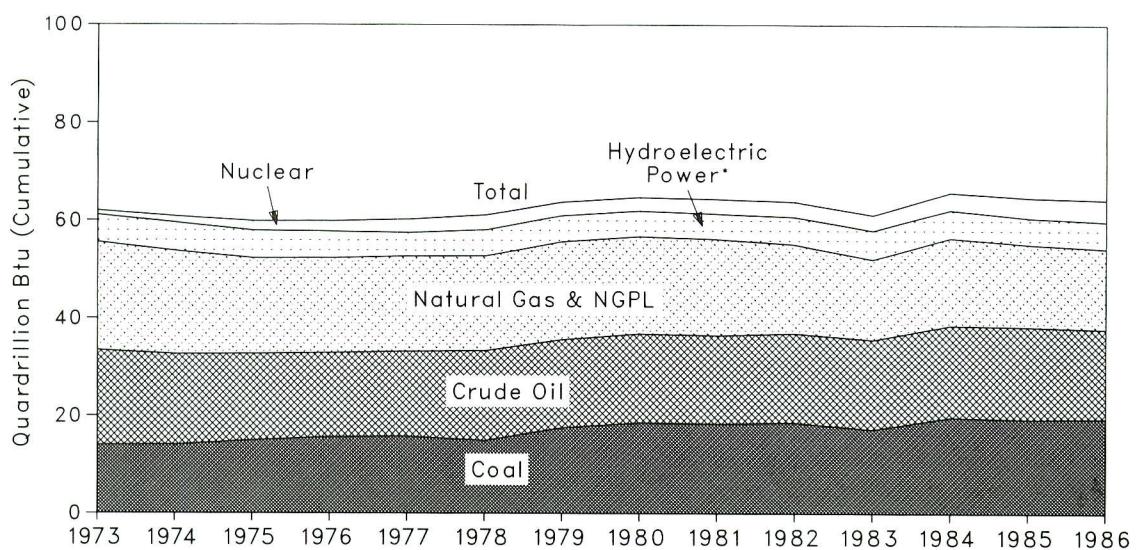
R=Revised data.

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

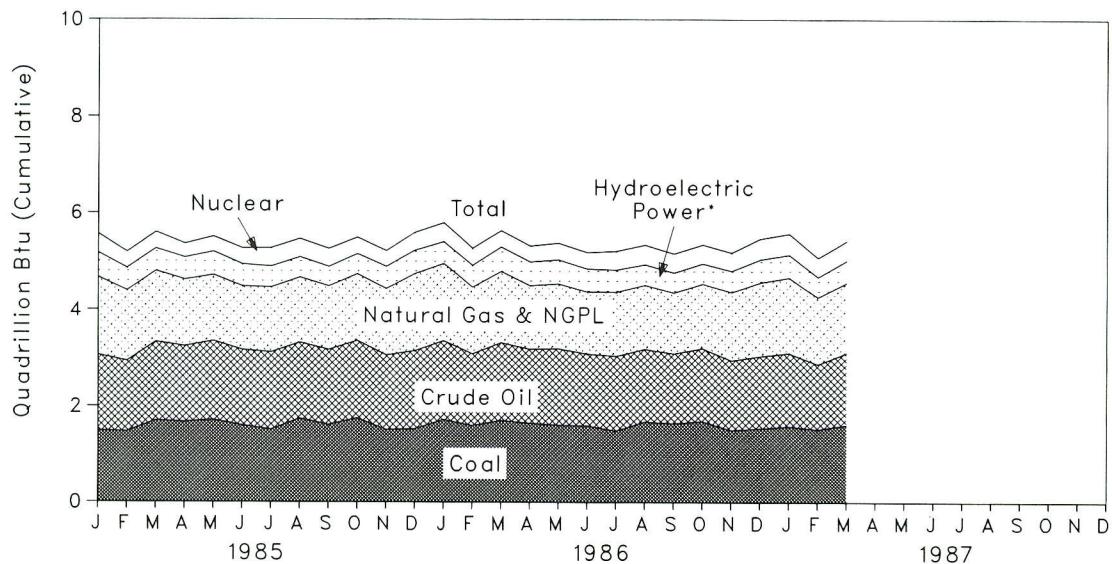
Source: Energy Information Administration calculations based on data appearing elsewhere in this publication.

Figure 1.2 Production of Energy by Source

Yearly



Monthly



*Includes other.

Table 1.3 Production of Energy by Source
 (Quadrillion (10¹⁵) Btu)

	Coal	Crude Oil ^a	NGPL ^b	Natural Gas (Dry)	Hydro-electric Power ^c	Nuclear Electric Power	Other ^d	Total ^e	Year to Date
1973 Total	13.993	19.493	2.569	22.187	2.861	0.910	0.046	62.059	
1974 Total	14.074	18.575	2.471	21.210	3.177	1.272	.056	60.836	
1975 Total	14.990	17.729	2.374	19.640	3.155	1.900	.072	59.860	
1976 Total	15.654	17.262	2.327	19.480	2.976	2.111	.081	59.891	
1977 Total	15.755	17.454	2.327	19.565	2.333	2.702	.082	60.218	
1978 Total	14.910	18.434	2.245	19.485	2.937	3.024	.068	61.103	
1979 Total	17.539	18.104	2.286	20.076	2.931	2.776	.089	63.801	
1980 Total	18.597	18.249	2.254	19.908	2.900	2.739	.114	64.761	
1981 Total	18.377	18.146	2.307	19.699	2.758	3.008	.127	64.422	
1982 Total	18.639	18.309	2.191	18.255	3.256	3.131	.108	63.889	
1983 Total	17.250	18.392	2.184	16.530	3.502	3.203	.133	61.194	
1984 Total	19.723	18.848	2.274	17.931	3.312	3.553	.174	65.814	
1985 January	1.493	1.571	.192	1.610	.288	.391	.018	5.564	5.564
February	1.471	1.466	.173	1.463	.270	.333	.016	5.192	10.756
March	1.701	1.635	.189	1.460	.258	.336	.018	5.596	16.352
April	1.674	1.574	.181	1.375	.255	.286	.016	5.361	21.713
May	1.715	1.642	.188	1.360	.277	.310	.016	5.509	27.221
June	1.602	1.570	.183	1.315	.250	.333	.016	5.268	32.490
July	1.514	1.609	.185	1.346	.223	.380	.018	5.276	37.765
August	1.742	1.583	.189	1.343	.209	.376	.018	5.460	43.225
September	1.618	1.558	.180	1.316	.196	.373	.017	5.259	48.484
October	1.753	1.613	.190	1.372	.209	.337	.017	5.492	53.976
November	1.515	1.549	.190	1.376	.240	.326	.021	5.216	59.192
December	1.531	1.624	.199	1.588	.265	.365	.022	5.593	64.785
Total	19.329	18.992	2.241	16.922	2.939	4.147	.213	64.784	
1986 January	1.723	R 1.643	R .201	1.591	.224	.391	.023	R 5.796	R 5.796
February	1.600	R 1.490	R .180	1.381	.243	.354	.019	R 5.266	R 11.062
March	1.707	R 1.621	R .189	1.466	.297	.333	.020	R 5.632	R 16.695
April	1.649	R 1.542	R .173	1.317	.288	.329	.018	R 5.317	R 22.012
May	1.611	R 1.589	R .182	1.342	.285	.345	.018	R 5.371	R 27.383
June	1.600	R 1.500	R .171	1.283	.274	.339	.020	5.188	R 32.571
July	1.494	R 1.557	R .177	1.324	.252	.388	.021	R 5.214	R 37.785
August	1.686	R 1.506	R .170	1.325	.222	.405	.021	R 5.335	R 43.120
September	1.653	R 1.449	R .167	1.260	.220	.396	.018	R 5.163	R 48.283
October	1.695	R 1.514	R .174	1.335	.223	.391	.017	R 5.349	R 53.632
November	1.514	R 1.464	R .179	1.415	.242	.378	.015	R 5.207	R 58.839
December	1.549	R 1.502	R .185	1.526	.271	.427	.020	R 5.479	R 64.318
Total	19.481	R 18.376	R 2.149	16.565	3.040	4.475	.232	R 64.318	
1987 January	1.591	1.524	.187	1.557	.266	.432	.020	R 5.578	R 5.578
February	1.531	1.351	.173	R 1.391	.222	.396	.019	R 5.083	R 10.660
March	1.619	1.501	.189	1.454	.243	.403	.021	5.430	16.091
3-Month Total	4.741	4.376	.549	4.403	.731	1.231	.060	16.091	
1986 3-Month Total	5.029	4.753	.571	4.438	.764	1.078	.062	16.695	
1985 3-Month Total	4.664	4.672	.555	4.533	.816	1.060	.052	16.352	

^aIncludes lease condensate.

^bNatural gas plant liquids.

^cIncludes industrial and utility production of hydroelectric power.

^dOther is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^eExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

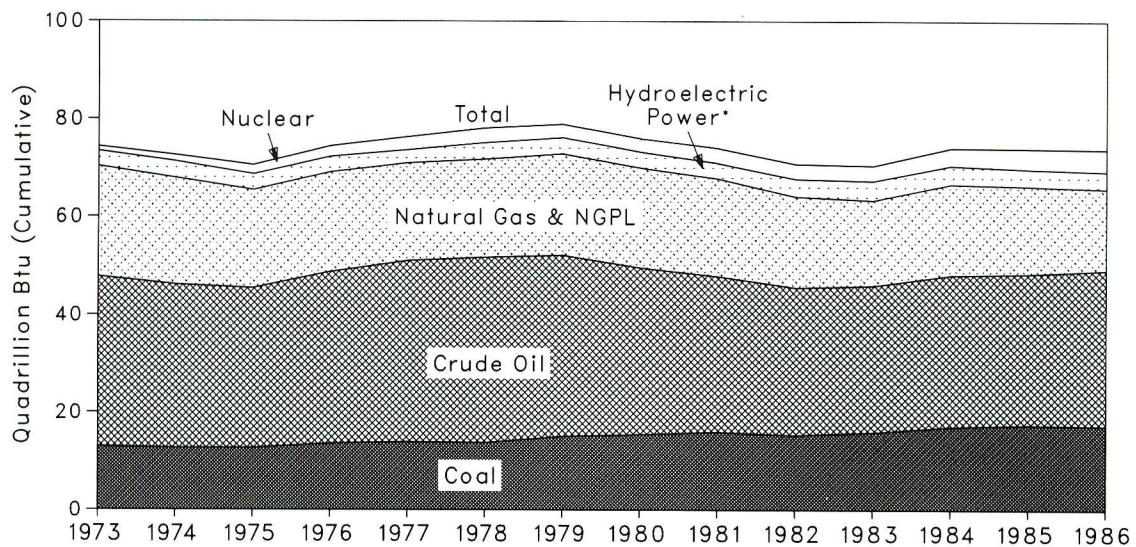
R=Revised data.

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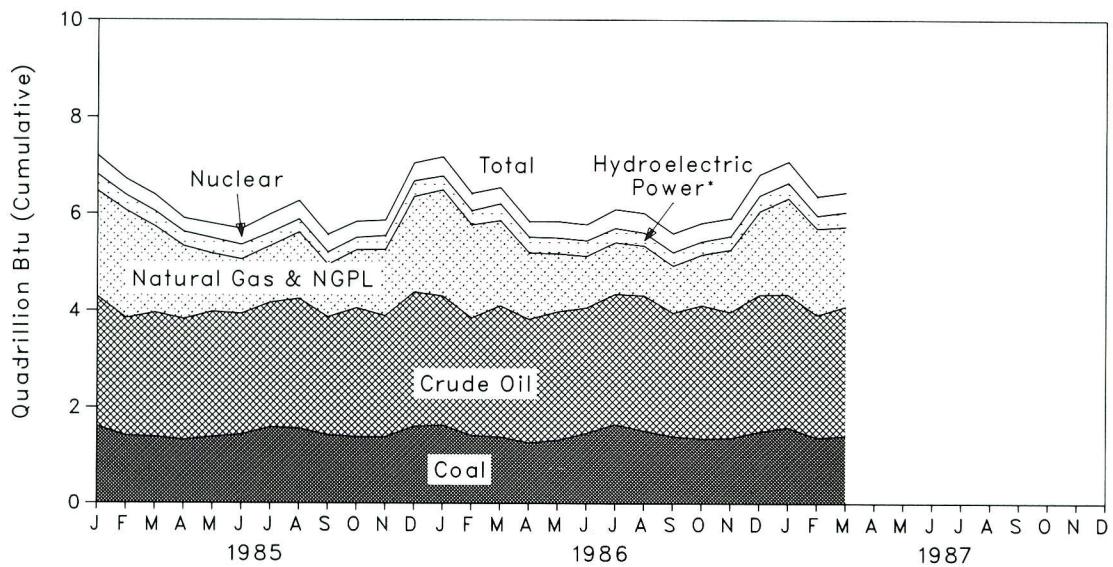
Source: Energy Information Administration calculations based on data appearing elsewhere in this publication.

Figure 1.3 Consumption of Energy by Source

Yearly



Monthly



*Includes other.

Table 1.4 Consumption of Energy by Source
 (Quadrillion (10¹⁵) Btu)

	Coal	Natural Gas ^a	Petro- leum	Hydro- electric Power ^b	Nuclear Electric Power	Other ^c	Total ^d	Year to Date
1973 Total	12,971	22,512	34,840	3,010	0.910	0.039	74,282	
1974 Total	12,663	21,732	33,455	3,309	1.272	.112	72,543	
1975 Total	12,663	19,948	32,731	3,219	1.900	.086	70,545	
1976 Total	13,584	20,345	35,175	3,065	2.111	.081	74,362	
1977 Total	13,922	19,931	37,122	2,515	2.702	.097	76,289	
1978 Total	13,765	20,000	37,965	3,142	3.024	.193	78,089	
1979 Total	15,039	20,666	37,123	3,141	2.776	.152	78,897	
1980 Total	15,423	20,394	34,202	3,118	2.739	.079	75,955	
1981 Total	15,908	19,928	31,931	3,105	3.008	.111	73,991	
1982 Total	15,322	18,505	30,231	3,561	3.131	.086	70,838	
1983 Total	15,898	17,357	30,054	3,871	3.203	.118	70,500	
1984 Total	17,074	18,507	31,051	3,717	3.553	.163	74,064	
1985 January	R 1,600	2,170	2,690	.317	.391	.018	7,187	7,187
February	1,406	2,219	2,432	.295	.333	.017	6,701	13,888
March	1,386	1,776	2,567	.295	.336	.018	6,378	20,266
April	1,320	1,495	2,500	.285	.286	.016	5,902	26,168
May	1,385	1,186	2,589	.310	.310	.013	5,794	31,962
June	1,431	1,113	2,502	.287	.333	.014	5,680	37,642
July	1,585	1,157	2,577	.267	.380	.016	5,982	43,624
August	1,562	1,155	2,682	.256	.376	.017	6,048	49,672
September	1,425	1,075	2,440	.234	.373	.015	5,562	55,235
October	1,390	1,186	2,663	.245	.337	.015	5,835	61,070
November	1,386	1,356	2,505	.273	.326	.018	5,865	66,935
December	R 1,607	1,966	2,774	.299	.365	.021	R 7,032	R 73,966
Total	R 17,482	17,851	30,922	3,363	4,147	.199	R 73,964	
1986 January	R 1,631	2,181	R 2,701	R .261	.391	.023	R 7,187	R 7,187
February	R 1,417	1,920	R 2,454	R .271	.354	.019	R 6,435	R 13,622
March	R 1,387	1,758	R 2,732	R .322	.333	.019	R 6,551	R 20,173
April	R 1,266	R 1,363	R 2,590	R .312	.329	.018	R 5,878	R 26,051
May	R 1,323	1,188	R 2,685	R .314	.345	.016	R 5,870	R 31,921
June	R 1,465	1,056	R 2,607	R .302	.339	.020	R 5,789	R 37,710
July	1,650	1,054	R 2,737	R .283	.388	.019	R 6,131	R 43,841
August	1,517	1,014	R 2,790	R .261	.405	.016	R 6,002	R 49,843
September	1,403	.963	R 2,584	R .255	.396	.017	R 5,618	R 55,461
October	1,357	1,037	R 2,787	R .254	.391	.017	R 5,844	R 61,305
November	1,368	1,279	R 2,635	R .271	.378	.012	R 5,943	R 67,248
December	1,499	1,719	R 2,876	R .305	.427	.020	R 6,845	R 74,093
Total	R 17,282	16,531	R 32,178	R 3,411	4,475	.215	R 74,093	
1987 January	1,591	1,982	R 2,750	.298	.432	.019	R 7,073	R 7,073
February	1,383	R 1,781	R 2,535	.249	.396	.020	R 6,363	R 13,435
March	1,415	1,641	2,680	.285	.403	.019	6,443	19,878
3-Month Total	4,389	5,405	7,965	.832	1,231	.058	19,879	
1986 3-Month Total	4,434	5,859	7,887	.854	1,078	.061	20,173	
1985 3-Month Total	4,391	6,165	7,689	.908	1,060	.054	20,266	

^aIncludes supplemental gaseous fuels.

^bIncludes industrial and utility production and net imports of electricity.

^cOther is net imports of coal coke and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^dExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

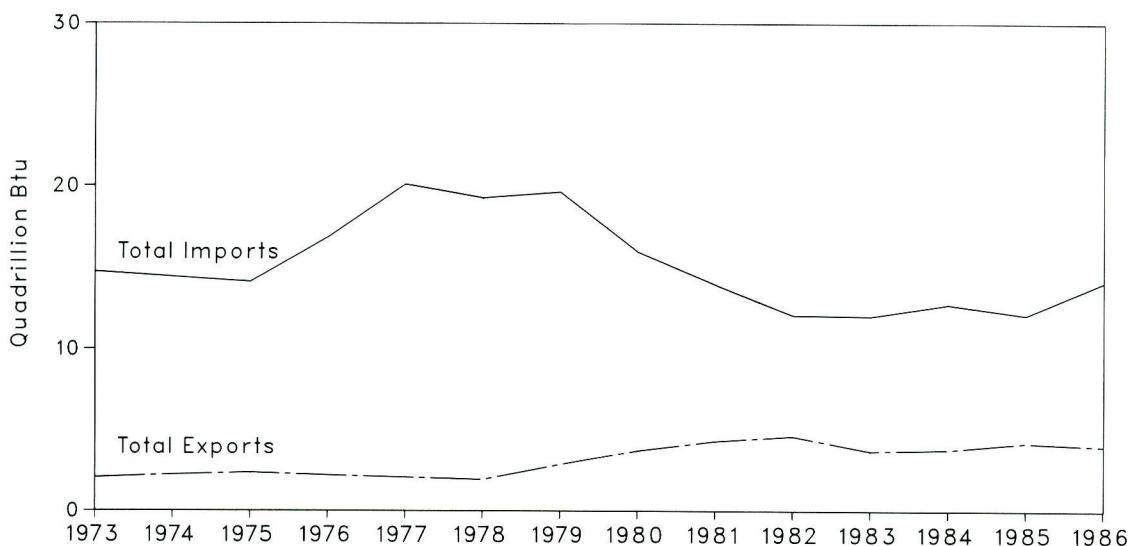
R = Revised data.

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

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

Figure 1.4 Energy Imports and Exports

Yearly



Monthly

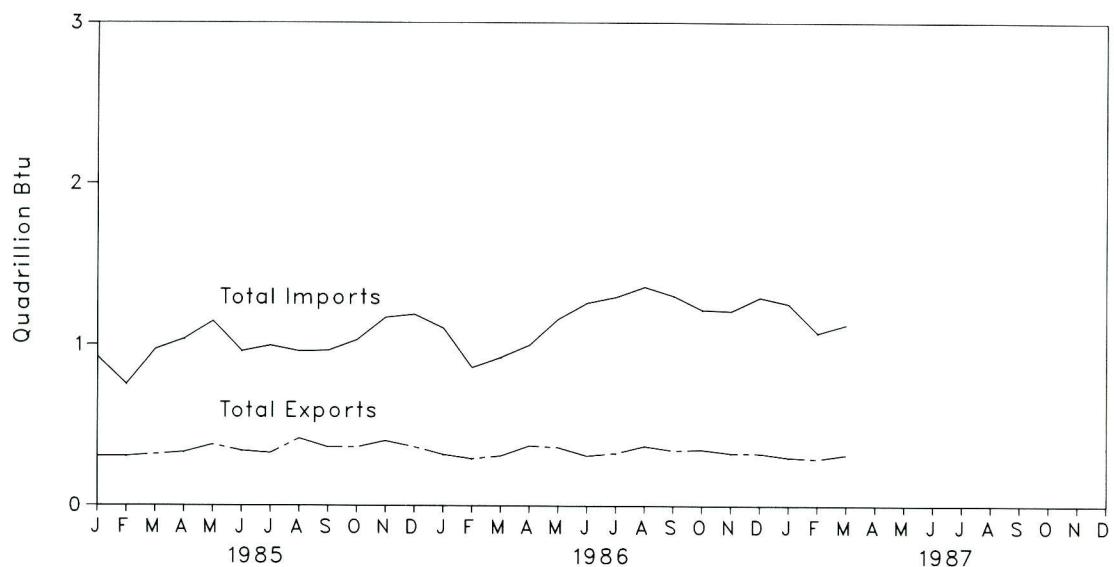


Table 1.5 Net Imports^a of Energy by Source
 (Quadrillion (10¹⁵) Btu)

	Coal	Crude Oil ^b	Petro- leum Products ^c	Natural Gas	Electric- ity ^d	Coal Coke	Total	Year to Date
1973 Total	-1.422	6.883	6.097	0.981	0.148	-0.007	12.680	
1974 Total	-1.568	7.389	5.273	.907	.133	.056	12.190	
1975 Total	-1.738	8.708	3.800	.904	.064	.014	11.752	
1976 Total	-1.567	11.221	3.982	.922	.089	0	14.648	
1977 Total	-1.401	13.921	4.321	.981	.182	.015	18.019	
1978 Total	-1.004	13.125	3.932	.941	.204	.125	17.323	
1979 Total	-1.702	13.328	3.603	1.243	.211	.063	16.746	
1980 Total	-2.391	10.586	2.912	.957	.217	-.035	12.247	
1981 Total	-2.918	8.854	2.522	.857	.347	-.016	9.646	
1982 Total	-2.768	6.917	2.128	.898	.306	-.022	7.459	
1983 Total	-2.013	6.731	2.351	.887	.369	-.016	8.309	
1984 Total	-2.119	6.918	2.970	.792	.405	-.011	8.954	
1985 January	-.150	.465	.177	.099	.030	0	.621	0.621
February	-.156	.308	.178	.094	.025	.001	.450	1.071
March	-.174	.470	.235	.084	.038	0	.653	1.724
April	-.181	.554	.228	.071	.030	.001	.702	2.427
May	-.239	.629	.271	.071	.034	-.003	.764	3.191
June	-.205	.519	.210	.060	.037	-.002	.618	3.809
July	-.188	.551	.208	.053	.044	-.002	.666	4.475
August	-.268	.520	.185	.056	.047	-.001	.539	5.014
September	-.208	.519	.196	.058	.038	-.003	.600	5.614
October	-.227	.563	.223	.071	.035	-.001	.664	6.278
November	-.211	.650	.223	.072	.033	-.003	.764	7.043
December	-.183	.633	.237	.101	.034	-.001	.821	7.863
Total	-2.389	6.381	2.570	.894	.423	-.013	7.866	
1986 January	-.152	R .607	R .240	.093	R .037	0	R .824	R .824
February	-.130	R .464	R .152	.068	R .028	0	R .582	R 1.406
March	-.159	R .509	R .206	.049	R .025	-.001	R .629	R 2.036
April	-.213	R .636	R .164	.039	R .025	0	R .650	R 2.686
May	-.220	R .760	R .262	.044	R .029	-.003	R .872	R 3.557
June	-.188	R .779	R .303	.041	R .028	0	R .963	R 4.521
July	-.200	R .853	R .274	.043	R .031	-.002	R .999	R 5.520
August	-.199	R .847	R .288	.045	R .039	-.006	R 1.015	R 6.535
September	-.211	R .863	R .250	.051	R .035	0	R .988	R 7.523
October	-.187	R .782	R .227	.061	R .031	-.001	R .914	R 8.437
November	-.167	R .797	R .210	.070	R .029	-.003	R .936	R 9.373
December	-.167	R .779	R .279	.095	R .034	-.001	R 1.019	R 10.392
Total	-2.193	R 8.676	R 2.855	.700	R .371	-.017	R 10.392	
1987 January	-.141	R .785	.181	.105	E .033	-.001	R .963	R .963
February	-.120	R .595	.194	.092	E .027	.001	R .790	R 1.753
March	-.167	.655	.225	.063	E .041	-.002	.816	2.569
3-Month Total	-.428	2.036	.601	.260	E .101	-.002	2.569	
1986 3-Month Total	-441	1.580	.598	.210	.090	-.001	2.036	
1985 3-Month Total	-480	1.243	.590	.277	.092	.002	1.724	

^aNet imports equals imports minus exports. Minus sign indicates exports are greater than imports.

^bIncludes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

^cIncludes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

^dAssumed to be hydroelectricity.

R=Revised data. E=Estimate.

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

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

Figure 1.5 Merchandise Trade Value

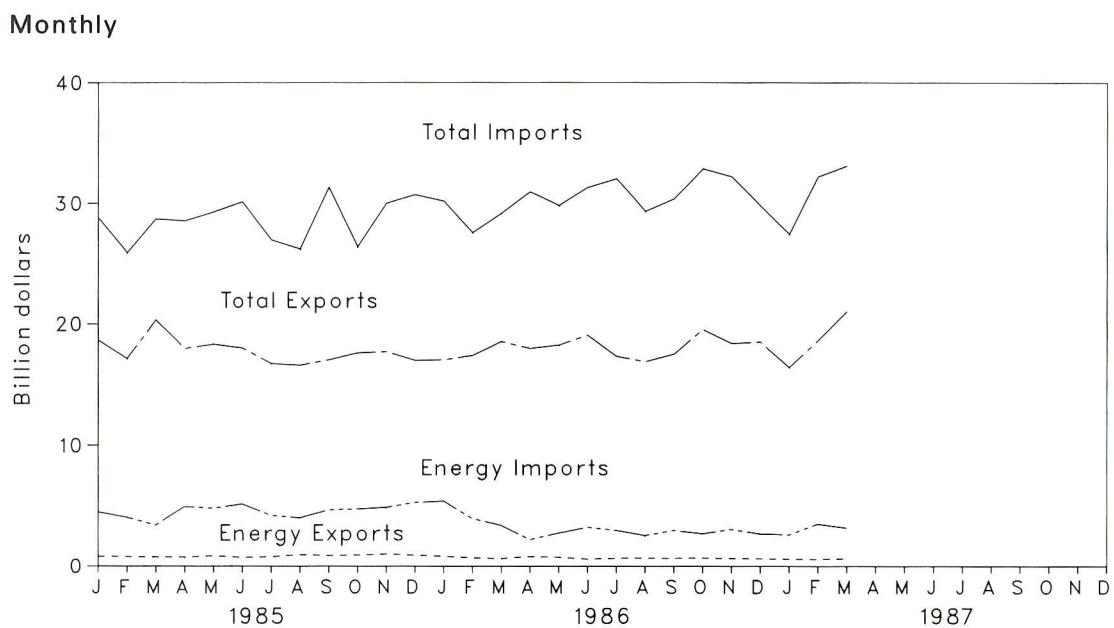
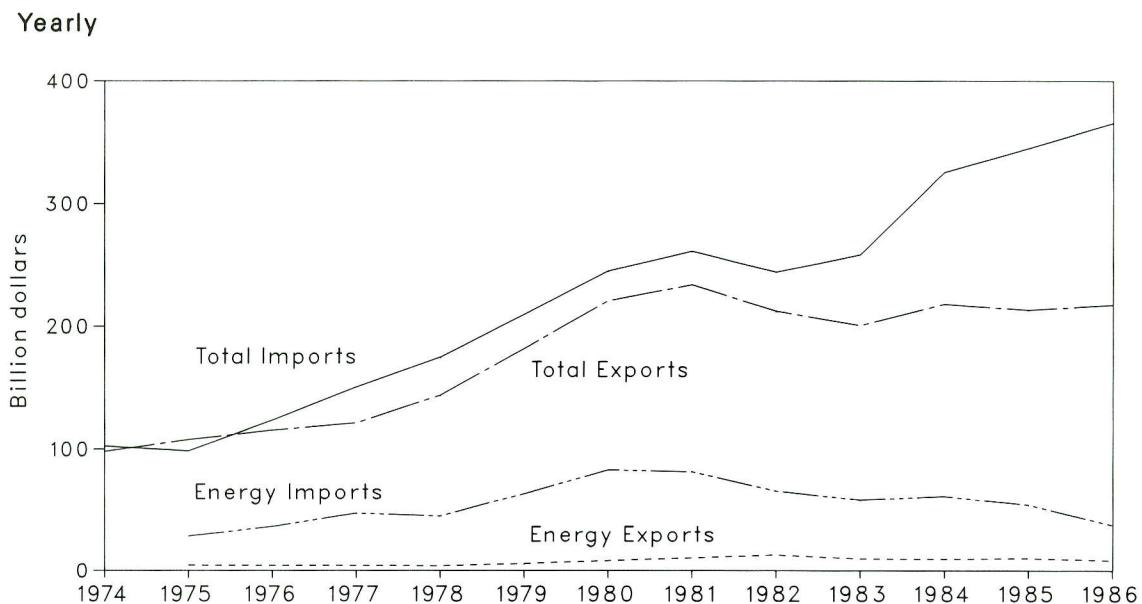


Table 1.6 Merchandise Trade Value
(Million Dollars)

	Exports			Imports			Trade Balance		
	Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total
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	29,803	-27,599
1980 Total	7,982	212,644	220,626	82,924	161,947	244,871	-74,942	50,698	-24,244
1981 Total	10,279	223,398	233,677	81,360	179,622	260,982	-71,081	43,776	-27,305
1982 Total	12,729	199,464	212,193	65,409	178,543	243,952	-52,680	20,921	-31,759
1983 Total	9,500	190,986	200,486	57,952	200,096	258,048	-48,452	-9,110	-57,562
1984 Total	9,311	208,577	217,888	60,980	264,746	325,726	-51,669	-56,169	-107,838
1985 January	804	17,869	18,673	4,434	24,402	28,836	-3,630	-6,533	-10,163
February	786	16,357	17,143	3,989	21,952	25,941	-3,203	-5,595	-8,798
March	754	19,576	20,330	3,351	25,374	28,725	-2,597	-5,798	-8,395
April	738	17,235	17,973	4,876	23,696	28,572	-4,138	-6,461	-10,599
May	837	17,500	18,337	4,748	24,554	29,302	-3,911	-7,054	-10,965
June	708	17,304	18,012	5,088	25,048	30,136	-4,380	-7,744	-12,124
July	760	15,967	16,727	4,146	22,854	27,000	-3,386	-6,888	-10,274
August	934	15,650	16,584	3,937	22,310	26,247	-3,003	-6,660	-9,663
September	868	16,166	17,034	4,597	26,752	31,349	-3,729	-10,586	-14,315
October	903	16,715	17,618	4,699	23,730	26,429	-3,796	-7,015	-10,811
November	991	16,730	17,721	4,824	25,186	30,010	-3,833	-8,457	-12,290
December	888	16,106	16,994	5,228	25,500	30,728	-4,340	-9,394	-13,734
Total	9,971	203,175	213,146	53,917	291,359	345,276	-43,946	-88,183	-132,129
1986 January	812	16,229	17,041	5,344	R 24,848	R 30,192	-4,532	R -8,619	R -13,151
February	676	16,725	17,401	3,874	R 23,714	R 27,588	-3,198	R -6,988	R -10,186
March	622	17,935	18,557	3,331	R 25,856	R 29,187	-2,709	R -7,921	R -10,630
April	791	17,210	18,001	2,176	R 28,802	R 30,978	-1,385	R -11,592	R -12,977
May	728	17,542	18,270	2,700	R 27,131	R 29,831	-1,972	R -9,589	R -11,561
June	584	18,508	19,092	3,185	R 28,184	R 31,369	-2,601	R -9,676	R -12,277
July	653	16,693	17,346	2,933	R 29,172	R 32,105	-2,280	R -12,479	R -14,759
August	661	16,234	16,895	2,511	R 26,842	R 29,353	-1,850	R -10,609	R -12,459
September	657	16,874	17,531	2,933	R 27,464	R 30,397	-2,276	R -10,591	R -12,867
October	670	18,892	19,562	2,662	R 30,286	R 32,948	-1,992	R -11,395	R -13,387
November	641	17,770	18,411	3,014	R 29,278	R 32,292	-2,373	R -11,508	R -13,881
December	620	17,903	18,523	2,647	R 26,933	R 29,580	-2,027	R -9,030	R -11,057
Total	8,115	208,514	216,629	37,310	R 328,510	R 365,820	-29,195	R -119,996	R -149,191
1987 January	573	15,848	16,421	2,564	24,902	27,466	-1,991	-9,054	-11,045
February	564	18,096	18,660	3,440	28,867	32,307	-2,876	-10,771	-13,647
March	620	20,444	21,064	3,120	30,077	33,197	-2,500	-9,633	-12,133
3-Month Total	1,758	54,387	56,145	9,124	83,846	92,970	-7,366	-29,458	-36,824

R=Revised data. NA=Not available.

Notes: • In accordance with current Bureau of the Census procedures, monthly data are not adjusted for seasonal variations. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which comprises the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.

Additional Notes and Sources: See end of section.

'86, '85 3-month totals?

Figure 1.6 Quarterly Energy Consumption per Dollar of Gross National Product (Seasonally Adjusted)

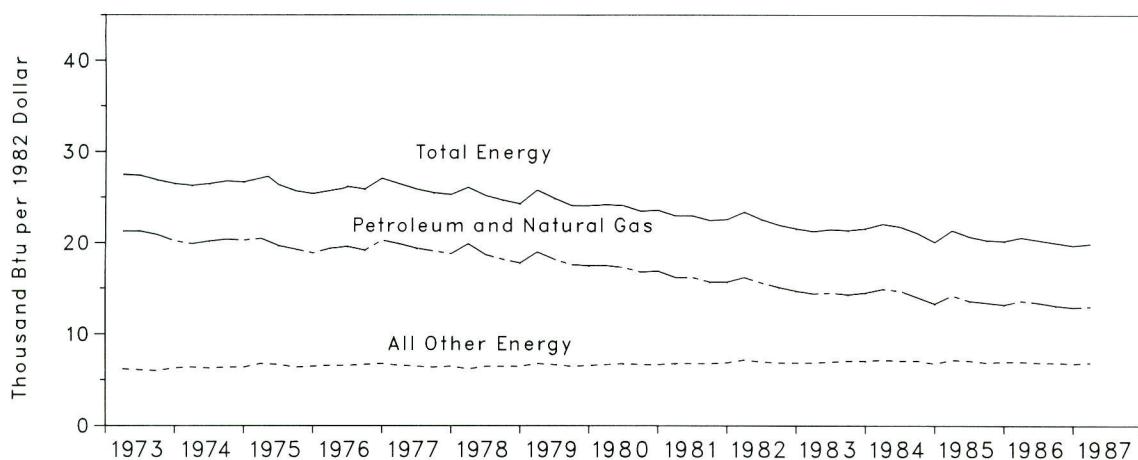


Table 1.7 Energy Consumption per Dollar of Gross National Product (Seasonally Adjusted)

	Annual Rate of Energy Consumption ^a	Gross National Product (GNP)	Energy Consumption per Dollar of GNP (Seasonally Adjusted)		
			Total Energy	Petroleum and Natural Gas	All Other Energy
	Quadrillion Btu	Trillion 1982 Dollars	Thousand Btu per 1982 Dollar		
1973 Year	74.282	2.744	27.1	20.9	6.2
1974 Year	72.543	2.729	26.6	20.2	6.4
1975 Year	70.545	2.695	26.2	19.5	6.7
1976 Year	74.362	2.827	26.3	19.6	6.7
1977 Year	76.289	2.959	25.8	19.3	6.5
1978 Year	78.089	3.115	25.1	18.6	6.5
1979 Year	78.897	3.192	24.7	18.1	6.6
1980 Year	75.955	3.187	23.8	17.1	6.7
1981 Year	73.991	3.249	22.8	16.0	6.8
1982 Year	70.838	3.166	22.4	15.4	7.0
1983 Year	70.500	3.279	21.5	14.5	7.0
1984 Year	74.064	3.490	21.2	14.2	7.0
1985 1 st Quarter ^b	R 75.786	3.547	21.4	14.2	7.2
2 nd Quarter ^b	R 73.886	3.568	20.7	13.6	7.1
3 rd Quarter ^b	R 73.075	3.604	20.3	13.4	6.9
4 th Quarter ^b	R 73.155	3.622	20.2	13.2	7.0
Year	R 73.964	3.585	20.6	13.6	7.0
1986 1 st Quarter ^b	R 75.356	3.656	20.6	13.6	7.0
2 nd Quarter ^b	R 74.444	3.661	20.3	R 13.4	R 6.9
3 rd Quarter ^b	R 73.726	3.686	20.0	13.1	6.9
4 th Quarter ^b	R 72.881	3.696	R 19.7	R 12.9	6.8
Year	R 74.093	3.675	R 20.2	R 13.3	6.9
1987 1 st Quarter ^b	74.233	3.739	19.9	13.0	6.9

^aExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

^bQuarterly data are seasonally adjusted and shown at annual rates.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding.

Sources: See end of section.

Figure 1.7 U.S. Dependence on Petroleum Net Imports

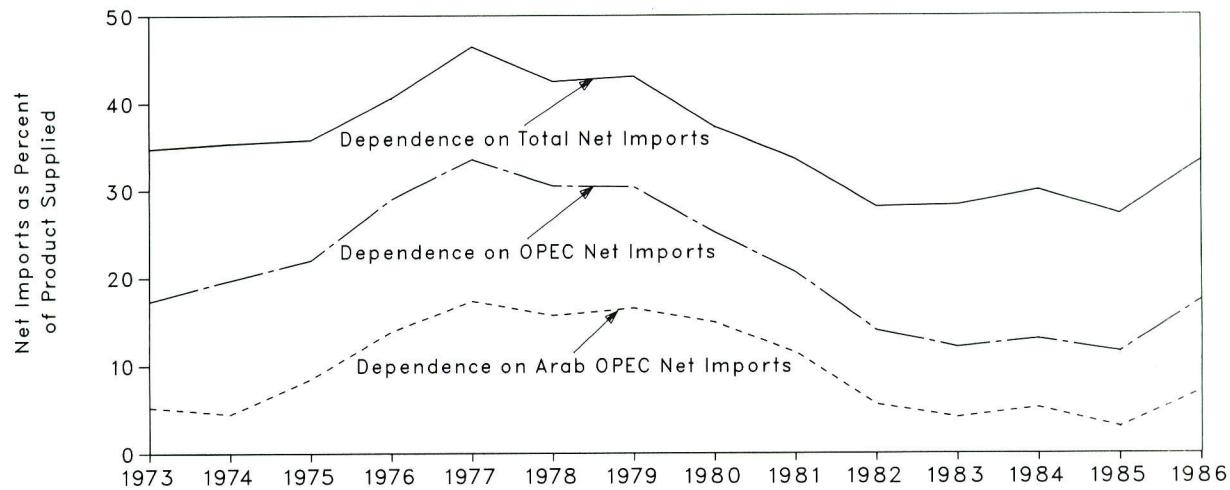


Table 1.8 U.S. Dependence on Petroleum Net Imports^a

Annual Rate	Net Imports ^b			Petroleum Products Supplied	Net Imports as Percent of U.S. Petroleum Products Supplied		
	From Arab OPEC ^c Countries	From All OPEC ^d Countries	From All Countries		From Arab OPEC ^c Countries	From All OPEC ^d Countries	From All Countries
	Thousand Barrels per Day				Percent		
1973 Average	914	2,991	6,025	17,308	5.3	17.3	34.8
1974 Average	752	3,277	5,892	16,653	4.5	19.7	35.4
1975 Average	1,382	3,599	5,846	16,322	8.5	22.0	35.8
1976 Average	2,423	5,063	7,090	17,461	13.9	29.0	40.6
1977 Average	3,184	6,190	8,565	18,431	17.3	33.6	46.5
1978 Average	2,962	5,747	8,002	18,847	15.7	30.5	42.5
1979 Average	3,054	5,633	7,985	18,513	16.5	30.4	43.1
1980 Average	2,549	4,293	6,365	17,056	14.9	25.2	37.3
1981 Average	1,844	3,315	5,401	16,058	11.5	20.6	33.6
1982 Average	852	2,136	4,298	15,296	5.6	14.0	28.1
1983 Average	630	1,843	4,312	15,231	4.1	12.1	28.3
1984 Average	817	2,037	4,715	15,726	5.2	13.0	30.0
1985 1 st Quarter	331	1,371	3,570	15,859	2.1	8.6	22.5
2 nd Quarter	529	1,857	4,625	15,486	3.4	12.0	29.9
3 rd Quarter	288	1,780	4,135	15,536	1.9	11.5	26.6
4 th Quarter	730	2,266	4,803	16,025	4.6	14.1	30.0
Average	470	1,821	4,286	15,726	3.0	11.6	27.3
1986 1 st Quarter	R 845	R 2,086	R 4,177	R 16,183	R 5.2	R 12.9	R 25.8
2 nd Quarter	R 1,131	R 2,766	R 5,504	R 15,996	R 7.1	R 17.3	R 34.4
3 rd Quarter	R 1,359	R 3,337	R 6,310	R 16,282	R 8.3	R 20.5	R 38.8
4 th Quarter	R 1,300	R 3,105	R 5,749	R 16,656	7.8	R 18.6	R 34.5
Average	R 1,160	R 2,828	R 5,439	R 16,281	7.1	R 17.4	R 33.4
1987 1 st Quarter	1,067	2,551	5,041	16,344	6.5	15.6	30.8

^aBeginning in October 1977, Strategic Petroleum Reserves are included.

^bNet imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are petroleum products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.

^cIncludes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

^dIncludes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Annual averages may not equal average of quarters due to independent rounding.

Sources: See end of section.

Figure 1.8 Cost of Fuels to End Users in Constant (1972) Dollars

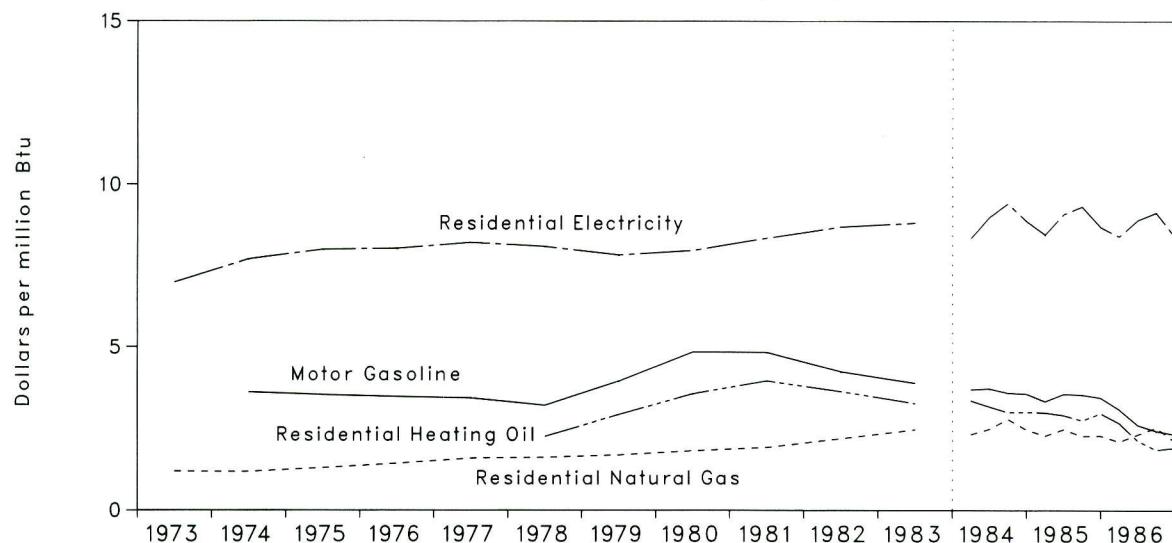


Table 1.9 Cost of Fuels to End Users in Constant (1972) Dollars^a

	Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
	Cent/Gal	\$/MMBtu	Cent/Gal	\$/MMBtu	Cent/Mcf	\$/MMBtu	Cent/kWh	\$/MMBtu
1973 Average	NA	NA	NA	NA	121.4	1.19	2.39	7.00
1974 Average	45.1	3.61	NA	NA	121.3	1.18	2.63	7.71
1975 Average	44.1	3.53	NA	NA	132.9	1.30	2.73	8.00
1976 Average	43.4	3.47	NA	NA	145.5	1.43	2.74	8.03
1977 Average	42.9	3.43	NA	NA	162.2	1.59	2.80	8.21
1978 Average	40.1	3.21	31.4	2.26	164.2	1.62	2.76	8.09
1979 Average	49.4	3.95	40.6	2.93	171.8	1.69	2.67	7.83
1980 Average	60.5	4.84	49.4	3.56	186.8	1.82	2.72	7.97
1981 Average	60.4	4.83	54.9	3.96	197.3	1.92	2.85	8.35
1982 Average	53.0	4.24	50.3	3.63	224.1	2.19	2.97	8.70
1983 Average	48.6	3.89	45.3	3.27	254.5	2.47	3.01	8.82
1984 Average	45.5	3.64	43.9	3.17	246.5	2.39	3.04	8.91
1985 1 st Quarter	41.7	3.33	41.5	2.99	234.5	2.28	2.89	8.47
2 nd Quarter	44.4	3.55	40.3	2.91	255.5	2.48	3.10	9.09
3 rd Quarter	44.2	3.53	38.1	2.75	275.3	2.27	3.18	9.32
4 th Quarter	43.0	3.44	41.2	2.97	234.5	2.28	2.97	8.70
Average	43.4	3.47	41.0	2.96	238.0	2.31	3.03	8.88
1986 1 st Quarter	38.7	3.09	37.1	2.67	217.1	2.10	2.87	8.41
2 nd Quarter	32.7	2.61	29.6	2.13	239.1	2.32	3.04	8.91
3 rd Quarter	30.4	2.43	25.6	1.85	261.3	2.53	3.12	9.14
4 th Quarter	29.0	2.32	26.5	1.91	217.8	2.11	2.87	8.41
Average	32.7	2.61	32.2	2.32	222.1	2.15	2.97	8.70
1987 1 st Quarter	31.4	2.51	29.6	2.13	200.4	1.94	2.75	8.06

^aFuel costs shown on this page are calculated using the Urban Consumer Price Index developed by the Bureau of Labor Statistics. See Note 6 at end of section.

NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Annual averages may not equal average of quarters due to independent rounding.

Sources: See end of section.

Figure 1.9 U.S. Passenger Car Efficiency Index

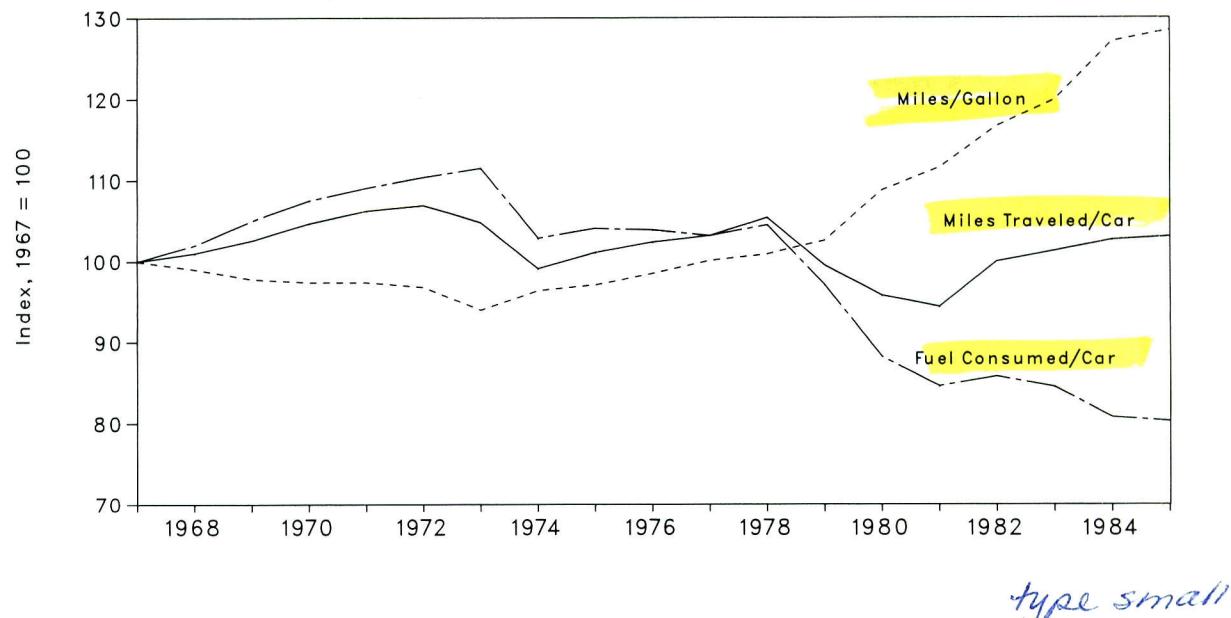


Table 1.10 U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6
1980	603	88.2	9,135	95.8	15.15	108.8
1981	579	84.6	9,002	94.4	15.54	111.6
1982	587	85.8	9,533	100.0	16.25	116.7
1983	578	84.5	9,654	101.3	16.70	119.9
1984	553	80.8	9,787	102.7	17.70	127.1
1985 ^a	549	80.3	9,827	103.1	17.90	128.5

^aPreliminary data.

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

Sources: See end of section.

Table 1.11 Population-Weighted Cooling Degree-Days^a

Census Divisions	May 1 through May 31					Cumulative January 1 through May 31				
	Normal ^b	1986	1987	Percent Change		Normal ^b	1986	1987	Percent Change	
				Normal to 1987	1986 to 1987				Normal to 1987	1986 to 1987
New England CT, ME, MA, NH, RI, VT	0	27	31	0	14.8	0	27	31	(c)	(c)
Middle Atlantic NJ, NY, PA	19	60	64	236.8	6.7	19	60	64	(c)	(c)
Eastern North Central IL, IN, MI, OH, WI	43	49	114	165.1	132.7	43	67	120	(c)	(c)
Western North Central IA, KS, MN, MO, NE, ND, SD	90	54	116	28.9	114.8	103	78	139	35.0	78.2
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	181	191	205	13.3	7.3	329	343	338	2.7	-1.5
Eastern South Central AL, KY, MS, TN	154	165	238	54.5	44.2	202	208	270	33.7	29.8
Western South Central AR, LA, OK, TX	261	251	299	14.6	19.1	400	434	409	2.3	-5.8
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	67	100	88	31.3	-12.0	88	158	142	(c)	(c)
Pacific Coast CA, OR, WA	2	28	33	1550.0	17.9	2	30	45	(c)	(c)
U.S. Average^d	89	102	132	48.3	29.4	133	157	175	31.6	11.5

^aSee Note 7 at end of section.

^bNormal is based on calculations of data from 1951 through 1980.

^cPercent change not meaningful.

^dExcludes Alaska and Hawaii.

Source: See end of section.

Notes and Sources for the Energy Summary Section

Notes

1. Energy Production: Production of energy includes production of coal, crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydroelectric power, and electricity generated from nuclear power. Production also includes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available. The volumetric data are converted to approximate heat contents (Btu values) of these energy sources using the conversion factors provided in the Conversion Factors section of this publication.

2. Energy Consumption: Consumption of energy includes consumption of coal, natural gas (including supplemental gaseous fuels), petroleum products supplied, electric utility and industrial production of hydroelectric power, net imports of electricity (assumed to be hydroelectricity), net imports of coal coke, and electricity generated from nuclear power. Consumption also includes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication.

3. Energy Imports: Energy imports include imports of coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), petroleum products, natural gas, electricity (assumed to be hydroelectricity), and coal coke. Approximate heat contents (Btu values) are derived using the conversion factors provided in the Conversion Factors section of this publication. For further information on electricity, see "Note for imports and exports of electricity" under Note 7 of the Notes and Sources for the Consumption Section.

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

5. Merchandise Trade Value: The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which includes the 50 United States,

the District of Columbia, and Puerto Rico) and the Virgin Islands. The statistics exclude imports into Guam, American Samoa, and other U.S. possessions, as well as shipments between the United States and Puerto Rico and the Virgin Islands, between the United States and other U.S. possessions, and between any of these outlying areas. From January 1981 forward, import data presented are on a customs value basis. All other values are on a free alongside ship (f.a.s.) basis. Statistics include nonmonetary gold and Department of Defense Military Program Grant-Aid shipments. "All Other" and "Total" columns include foreign exports (i.e., reexports). The "Energy" columns include mineral fuels, lubricants, and related material. "Imports" represent general imports (i.e., entries for immediate consumption, entries into customs bonded warehouses, and entries for the Strategic Petroleum Reserve). "Trade Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. The "All Other" columns are calculated by subtracting "Energy" from "Total."

6. The Consumer Price Index: The Consumer Price Index, All Urban Consumers, All Items, for 1967=100.0 is rebased to 1972=100.0 by the Energy Information Administration. The values are:

1972	100.0	1985:	1st Quarter	253.3
1973	106.2		2nd Quarter	256.3
1974	117.9		3rd Quarter	258.3
1975	128.7		4th Quarter	260.6
1976	136.1		Year	257.1
1977	144.9	1986:	1st Quarter	261.2
1978	155.9		2nd Quarter	260.6
1979	173.5		3rd Quarter	262.5
1980	197.0		4th Quarter	264.0
1981	217.4		Year	262.1
1982	230.7	1987:	1st Quarter	267.0
1983	238.1			
1984	248.3			

7. 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, MD. 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 those weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1980 by the U.S. Department of Commerce, Bureau of the Census. The data shown in the MER are available sooner than the Historical Climatology Series 5-1 and 5-2 developed by the National Climatic Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Sources

Merchandise Trade Value: 1974 through 1980: U.S. Department of Commerce, Bureau of the Census, "Highlights of U.S. Export and Import Trade," FT990 (January 1982), Appendix for total imports and exports. Energy imports and exports from U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," December issues, plus Bureau of the Census reports EA691 "Exports from the Virgin Islands to Foreign Countries," and IA245V "U.S. Imports for Consumption and General Imports into the Virgin Islands." 1981 forward: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," most recent monthly issue.

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

U.S. Dependence on Petroleum Net Imports: Imports and products supplied--Section 3 of this publication. Exports--1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*; 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Pe-

roleum Statement, Annual"; 1981-1985: EIA, *Petroleum Supply Annual*. 1986: EIA, *Petroleum Supply Monthly*.

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

- Leaded Regular Motor Gasoline--Bureau of Labor Statistics (BLS).
- Residential Heating Oil--EIA, 1983 forward: EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA Form-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to 1983 are EIA estimates using data from FEA Form P112-M1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9-A, "No. 2 Distillate Price Monitoring Report." See Note 6 in the Notes and Sources *Monthly Energy Review* Section 9, Price, for additional information.
- Residential Natural Gas--EIA, Annual data from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."
- Residential Electricity--Federal Energy Regulatory Commission (FERC), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."
- Deflator (The Urban Consumer Price Index)--BLS.

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

Section 2. Consumption

Total U.S. energy consumption in March 1987 was 6.4 quadrillion Btu. Petroleum products accounted for 41.6 percent of the energy consumed in March 1987, while natural gas accounted for 25.5 percent, and coal accounted for 22.0 percent.

Residential and commercial sector consumption was 2.6 quadrillion Btu in March 1987, up 1.6 percent from the March 1986 level. The sector consumed 39.6 percent of the March 1987 total consumption, up from its 38.3-percent share in March 1986.

Industrial sector consumption was 2.2 quadrillion Btu in March 1987, down 5.8 percent from the March 1986 level. The industrial sector accounted for 33.8 percent of the March 1987 total consumption, down from its 35.3-percent share in March 1986.

Transportation sector consumption of energy was 1.7 quadrillion Btu in March 1987, down 0.8 percent from the March 1986 level. The sector consumed 26.7 percent of the March 1987 total consumption, up from the sector's 26.4-percent share in March 1986.

Electric utility consumption of energy totaled 2.2 quadrillion Btu in March 1987, up 3.3 percent from the March 1986 level. Coal contributed 53.4 percent of the energy consumed by electric utilities in March 1987, while nuclear electric power contributed 18.6 percent; hydroelectric power, 13.0 percent; natural gas, 9.1 percent; petroleum products, 4.9 percent; and wood, waste, geothermal, wind, photovoltaic, and solar thermal energy, 1.0 percent.

Table 2.1 Energy Consumption Summary for March 1987
(Quadrillion (10¹⁵) Btu)

Energy Source	Sector				Total
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.032	0.233	(^a)	1.154	1.415
Natural Gas ^b890	.511	0.043	.197	1.641
Petroleum Products230	.672	1.671	.107	2.680
Hydroelectric Power	-	.003	-	.282	.285
Nuclear Electric Power	-	-	-	.403	.403
Net Imports of Coal Coke	-	-.002	-	-	-.002
Other ^c	-	-	-	.021	.021
Primary Consumption	1.152	1.417	1.714	2.163	6.443
Electricity428	.233	.001	-.662	
Net Energy Consumption	1.580	1.650	1.715		4.942
Electrical System Energy Losses971	.528	.002	-1.501	1.501
Total Energy Consumption^d	2.551	2.178	1.718		6.443

^aSmall amounts of coal consumed for transportation are reported as industrial sector consumption.

^bIncludes supplemental gaseous fuels. Transportation sector is pipeline fuel only.

^cOther is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

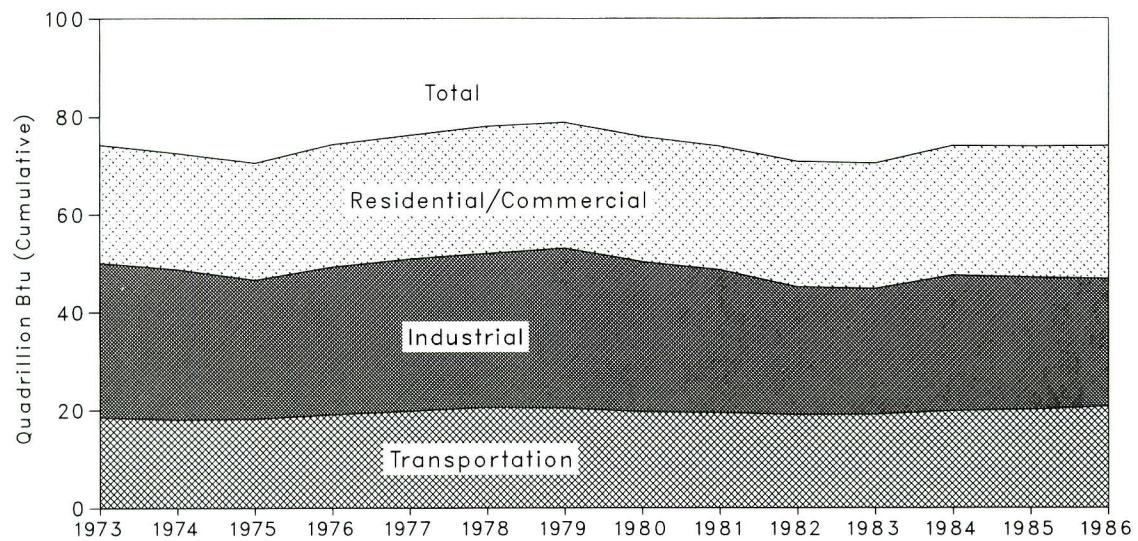
^dExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

Note: Totals may not equal sum of components due to independent rounding and the use of sector-specific conversion factors.

Additional Notes and Sources: See end of section.

Figure 2.1 Consumption of Energy by End-Use Sector

Yearly



Monthly

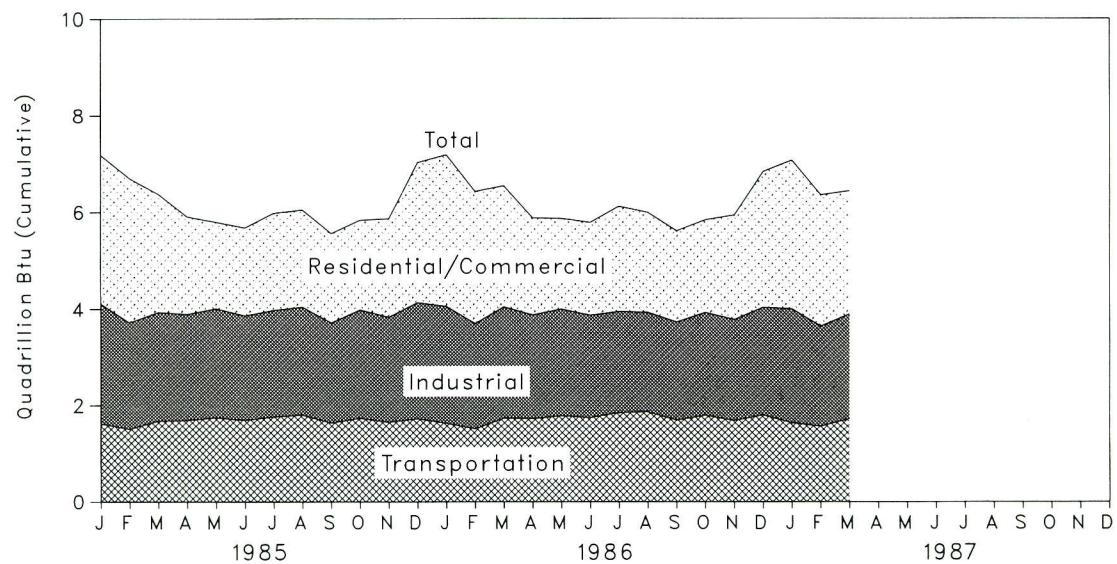


Table 2.2 Consumption of Energy by End-Use Sector
 (Quadrillion (10¹⁵) Btu)

	Residential and Commercial	Industrial	Transportation	Total
1973 Total	24.142	31.536	18.595	74.282
1974 Total	23.724	30.697	18.113	72.543
1975 Total	23.900	28.405	18.240	70.545
1976 Total	25.019	30.240	19.094	74.362
1977 Total	25.387	31.086	19.808	76.289
1978 Total	26.088	31.411	20.589	78.089
1979 Total	25.809	32.623	20.464	78.897
1980 Total	25.653	30.607	19.695	75.955
1981 Total	25.244	29.245	19.496	73.991
1982 Total	25.625	26.136	19.066	70.838
1983 Total	25.617	25.743	19.133	70.500
1984 Total	R 26.461	R 27.721	R 19.881	74.064
 1985 January	R 3.075	R 2.499	1.611	7.187
February	R 2.980	R 2.233	R 1.488	6.701
March	R 2.446	R 2.268	1.665	6.378
April	R 2.014	R 2.213	1.680	5.902
May	R 1.788	R 2.271	1.737	5.794
June	R 1.817	R 2.181	1.681	5.680
July	R 2.007	R 2.216	R 1.757	5.982
August	R 2.009	R 2.241	1.797	6.048
September	R 1.846	R 2.094	R 1.623	5.562
October	R 1.853	R 2.255	R 1.728	5.835
November	R 2.031	R 2.194	1.640	5.865
December	R 2.899	R 2.413	1.717	R 7.032
Total	R 26.764	R 27.080	R 20.123	R 73.964
 1986 January	R 3.139	R 2.426	R 1.622	R 7.187
February	R 2.733	R 2.208	R 1.495	R 6.435
March	R 2.511	R 2.311	R 1.732	R 6.551
April	R 2.003	R 2.160	R 1.721	R 5.878
May	R 1.874	R 2.219	R 1.781	R 5.870
June	R 1.919	R 2.117	R 1.752	R 5.789
July	R 2.182	R 2.079	R 1.863	R 6.131
August	R 2.063	R 2.083	R 1.852	R 6.002
September	R 1.885	R 2.042	R 1.689	R 5.618
October	R 1.914	R 2.130	R 1.798	R 5.844
November	R 2.159	R 2.102	R 1.680	R 5.943
December	R 2.813	R 2.228	R 1.801	R 6.845
Total	R 27.189	R 26.113	R 20.787	R 74.093
 1987 January	3.074	R 2.369	1.630	R 7.073
February	2.719	R 2.095	1.550	R 6.363
March	2.551	2.178	1.718	6.443
3-Month Total	8.344	6.642	4.897	19.879
 1986 3-Month Total	8.382	6.945	4.850	20.173
1985 3-Month Total	8.501	7.001	4.763	20.266

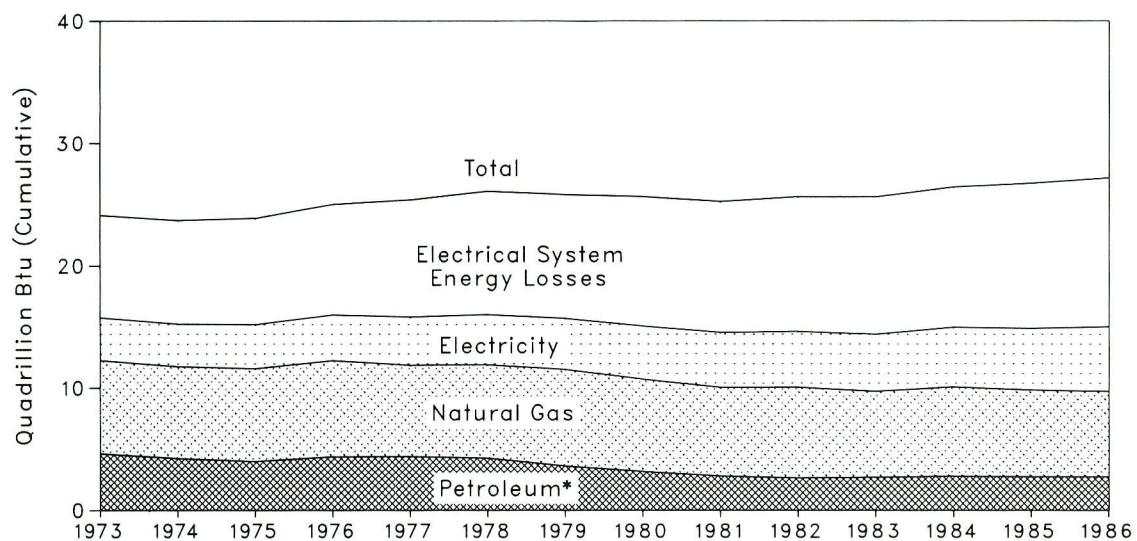
R=Revised data.

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

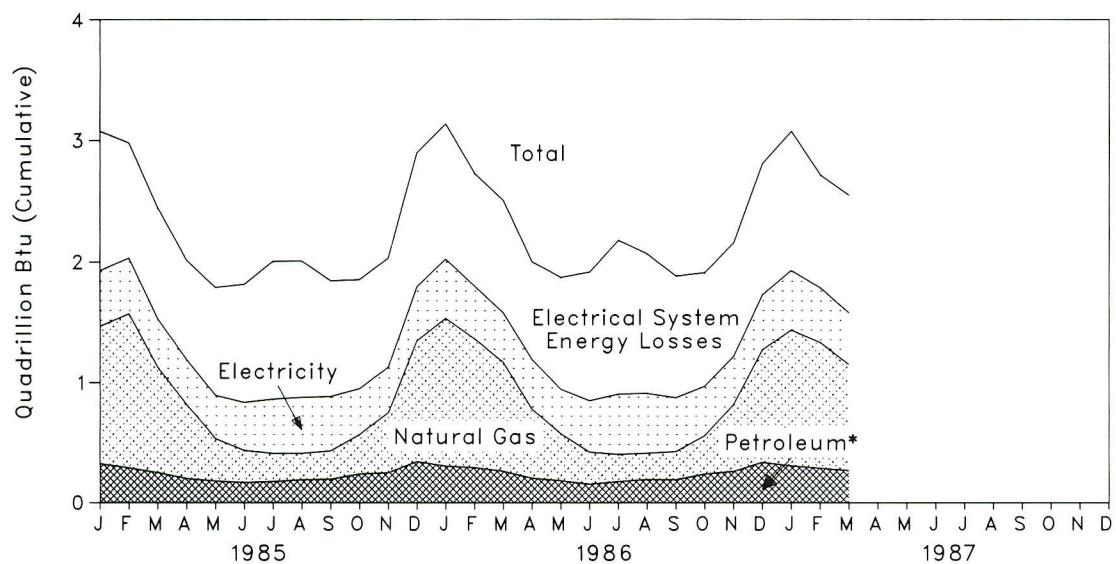
Additional Notes and Sources: See end of section.

Figure 2.2 Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



*Includes coal.

Table 2.3 Consumption of Energy by the Residential and Commercial Sector
 (Quadrillion (10¹⁵) Btu)

	Coal	Natural Gas ^a	Petroleum	Electricity ^b	Electrical System Energy Losses	Total ^c	Year to Date
1973 Total	0.254	7.626	4.391	3.495	8.377	24.142	
1974 Total257	7.518	3.996	3.475	8.478	23.724	
1975 Total209	7.581	3.805	3.604	8.701	23.900	
1976 Total203	7.866	4.181	3.747	9.023	25.019	
1977 Total205	7.461	4.206	3.955	9.559	25.387	
1978 Total214	7.624	4.070	4.116	10.065	26.088	
1979 Total187	7.891	3.448	4.184	10.100	25.809	
1980 Total145	7.540	3.035	4.355	10.578	25.653	
1981 Total168	7.243	2.634	4.497	10.703	25.244	
1982 Total188	7.427	2.449	4.566	10.994	25.625	
1983 Total196	7.024	2.499	4.680	11.218	25.617	
1984 Total212	7.292	2.582	R 4.922	R 11.453	R 26.461	
1985 January019	1.151	.299	R .458	R 1.148	R 3.075	R 3.075
February017	1.289	.267	R .459	R .948	R 2.980	R 6.054
March012	.883	.233	R .401	R .917	R 2.446	R 8.501
April018	.622	.179	R .372	R .823	R 2.014	R 10.514
May011	.351	.165	R .367	R .894	R 1.788	R 12.302
June008	.265	.157	R .406	R .979	R 1.817	R 14.119
July012	.233	.160	R .458	R 1.143	R 2.007	R 16.126
August011	.219	.176	R .471	R 1.131	R 2.009	R 18.135
September015	.234	.177	R .459	R .961	R 1.846	R 19.981
October017	.325	.217	R .391	R .904	R 1.853	R 21.833
November017	.502	.227	R .382	R .903	R 2.031	R 23.864
December022	1.011	.316	R .447	R 1.103	R 2.899	R 26.763
Total179	7.085	2.573	R 5.072	R 11.854	R 26.764	
1986 January021	1.238	R .281	.489	R 1.110	R 3.139	R 3.139
February018	1.079	R .268	.436	R .931	R 2.733	R 5.872
March013	.914	R .244	.411	R .927	R 2.511	R 8.382
April019	.580	R .180	.413	R .810	R 2.003	R 10.385
May011	.388	R .169	.379	R .927	R 1.874	R 12.259
June009	.265	R .145	.435	R 1.066	R 1.919	R 14.178
July011	.225	R .165	.508	R 1.273	R 2.182	R 16.360
August010	.218	R .174	.505	R 1.155	R 2.063	R 18.423
September014	.233	R .174	.455	R 1.009	R 1.885	R 20.308
October015	.318	R .220	.421	R .940	R 1.914	R 22.222
November016	.565	R .240	.399	R .939	R 2.159	R 24.381
December021	.941	R .313	.455	R 1.083	R 2.813	R 27.194
Total179	6.968	2.573	5.306	R 12.163	R 27.189	
1987 January021	1.137	.282	.491	1.143	3.074	3.074
February018	1.053	R .266	.453	.930	2.719	5.793
March032	.890	.230	.428	.971	2.551	8.344
3-Month Total071	3.079	.777	1.372	3.044	8.344	
1986 3-Month Total052	3.232	.793	1.336	2.969	8.382	
1985 3-Month Total048	3.323	.799	1.319	3.012	8.501	

^aIncludes supplemental gaseous fuels.

^bIncludes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^cExcludes wood, waste, geothermal wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

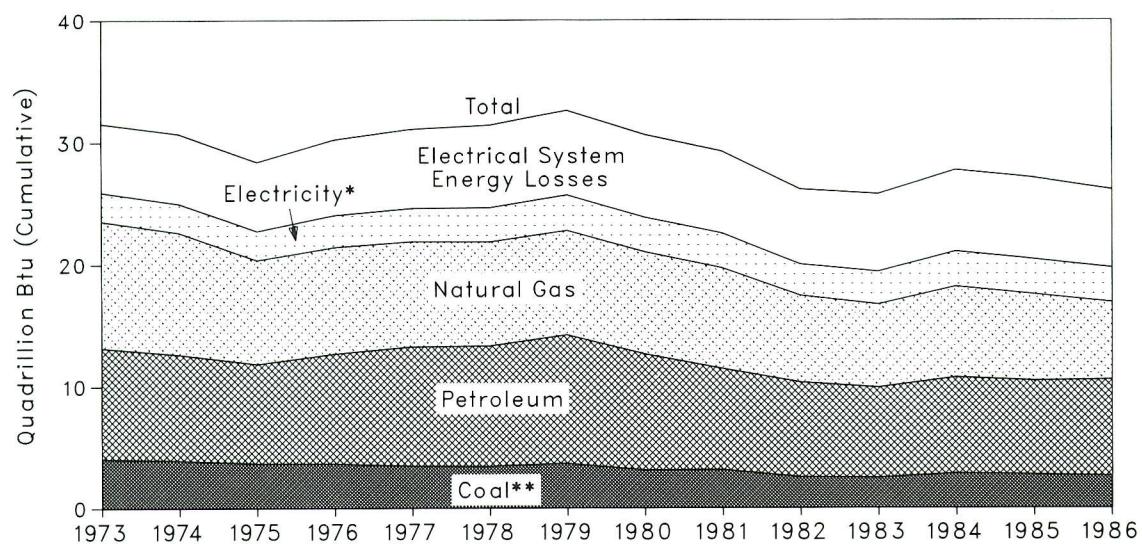
R = Revised data.

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

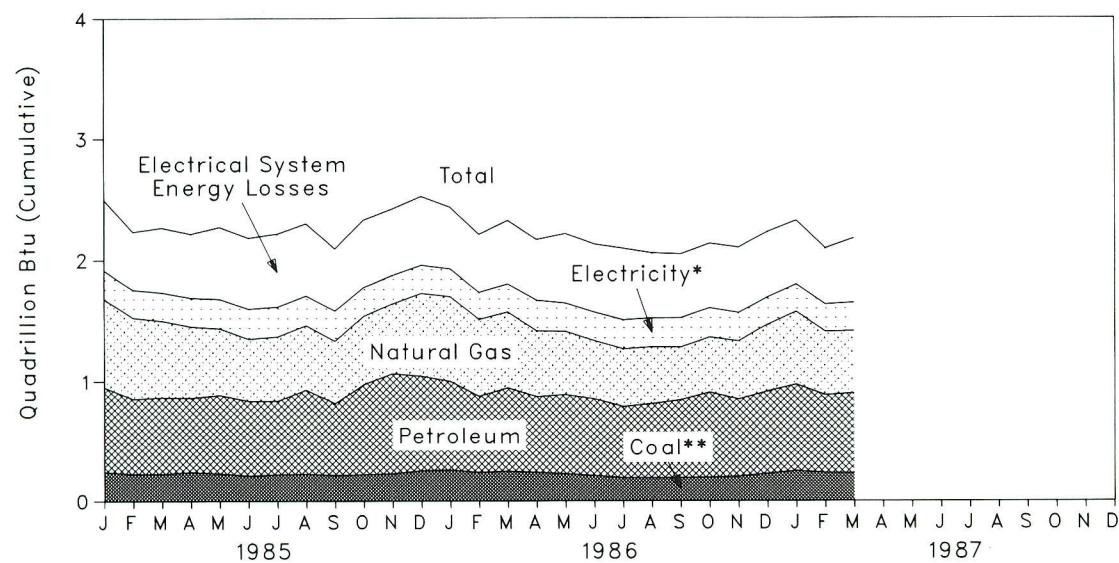
Additional Notes and Sources: See end of section.

Figure 2.3 Consumption of Energy by the Industrial Sector

Yearly



Monthly



*Includes hydroelectric power.

**Includes net imports of coal coke.

Table 2.4 Consumption of Energy by the Industrial Sector
 (Quadrillion (10¹⁵) Btu)

	Coal	Natural Gas ^a	Petro- leum	Hydro- electric Power	Net Imports of Coal Coke	Electricity ^b	Electrical System Energy Losses	Total ^c	Year to Date
1973 Total	4.057	10.388	9.113	0.035	-0.007	2.341	5.611	31.536	
1974 Total	3.868	10.003	8.698	.033	.056	2.337	5.701	30.697	
1975 Total	3.666	8.532	8.151	.032	.014	2.346	5.664	28.405	
1976 Total	3.660	8.761	9.018	.033	0	2.573	6.196	30.240	
1977 Total	3.453	8.636	9.786	.033	.015	2.682	6.481	31.086	
1978 Total	3.314	8.539	9.890	.032	.125	2.761	6.751	31.411	
1979 Total	3.593	8.549	10.576	.034	.063	2.873	6.935	32.623	
1980 Total	3.155	8.394	9.524	.033	-.035	2.781	6.755	30.607	
1981 Total	3.157	8.257	8.291	.033	-.016	2.817	6.705	29.245	
1982 Total	2.552	7.116	7.795	.033	-.022	2.542	6.120	26.136	
1983 Total	2.490	6.821	7.421	.033	-.016	2.648	6.346	25.743	
1984 Total	2.842	7.449	7.889	.032	-.011	R 2.862	R 6.659	R 27.721	
1985 January245	.728	.708	.003	0	R .232	R .582	R 2.499	R 2.499
February226	.671	.627	.003	.001	R .230	R .475	R 2.233	R 4.732
March227	.633	.639	.003	0	R .233	R .532	R 2.268	R 7.001
April241	.589	.620	.003	.001	R .237	R .524	R 2.213	R 9.214
May233	.549	.656	.003	-.003	R .242	R .591	R 2.271	R 11.485
June213	.516	.624	.003	-.002	R .242	R .584	R 2.181	R 13.666
July223	.534	.615	.003	-.002	R .241	R .601	R 2.216	R 15.882
August226	.529	.646	.002	-.001	R .247	R .592	R 2.241	R 18.123
September219	.518	.600	.002	-.003	R .245	R .512	R 2.094	R 20.217
October221	.562	.680	.002	-.001	R .239	R .553	R 2.255	R 22.473
November231	.576	.608	.002	-.003	R .232	R .548	R 2.194	R 24.667
December	R .254	.683	.678	.002	-.001	R .229	R .567	R 2.413	R 27.080
Total	R 2.760	R 7.089	7.702	.033	-.013	R 2.850	R 6.661	R 27.080	
1986 January	R .259	.700	R .732	.003	0	.224	R .508	R 2.426	R 2.426
February	R .239	.633	R .638	.003	0	.222	R .475	R 2.208	R 4.634
March	R .240	.624	R .695	.003	-.001	.231	R .520	R 2.311	R 6.945
April	R .238	R .540	R .632	.003	0	.253	R .496	R 2.160	R 9.105
May	R .230	.521	R .666	.003	-.003	.232	R .569	R 2.219	R 11.324
June	R .211	.483	R .629	.003	0	.229	R .561	R 2.117	R 13.442
July195	.478	R .579	.003	-.002	.235	R .590	R 2.079	R 15.521
August198	.471	R .643	.002	-.006	.235	R .537	R 2.083	R 17.603
September192	.437	R .647	.002	0	.237	R .527	R 2.042	R 19.645
October197	.455	R .708	.002	-.001	.238	R .530	R 2.130	R 21.775
November207	.481	R .646	.002	-.003	.229	R .539	R 2.102	R 23.877
December228	.547	R .688	.002	-.001	.226	R .537	R 2.228	R 26.105
Total	R 2.635	R 6.369	R 7.904	.033	-.017	2.791	R 6.398	R 26.113	
1987 January252	.600	R .766	.003	-.001	.225	.523	R 2.369	R 2.369
February233	R .521	R .654	.003	.001	.224	.460	R 2.095	R 4.464
March233	.511	.672	.003	-.002	.233	.528	2.178	6.642
3-Month Total718	1.632	2.092	.008	-.002	.681	1.511	6.642	
1986 3-Month Total738	1.956	2.065	.008	-.001	.676	1.503	6.945	
1985 3-Month Total698	2.033	1.975	.008	.002	.696	1.589	7.001	

^aIncludes supplemental gaseous fuels.

^bIncludes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

^cExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

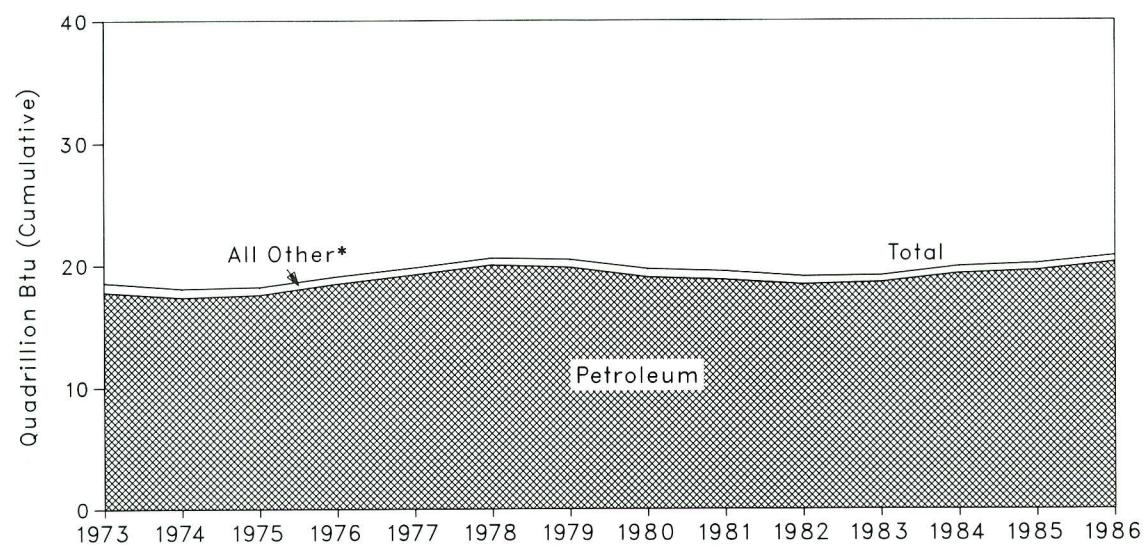
R=Revised data.

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

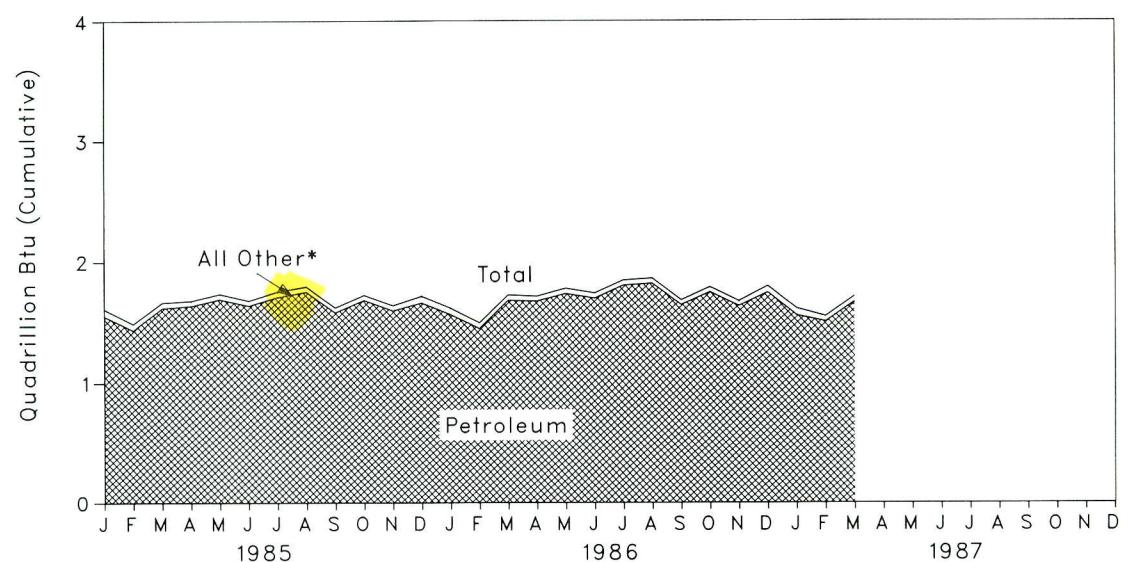
Additional Notes and Sources: See end of section.

Figure 2.4 Consumption of Energy by the Transportation Sector

Yearly



Monthly



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

**Table 2.5 Consumption of Energy by the Transportation Sector
(Quadrillion (10¹⁵) Btu)**

	Coal	Natural Gas ^a	Petroleum	Electricity ^b	Electrical System Energy Losses	Total ^c	Year to Date
1973 Total	0.003	0.743	17.821	0.008	0.020	18.595	
1974 Total002	.685	17.396	.009	.022	18.113	
1975 Total001	.595	17.610	.010	.025	18.240	
1976 Total	(d)	.559	18.499	.010	.025	19.094	
1977 Total	(d)	.543	19.230	.010	.025	19.808	
1978 Total	(e)	.539	20.019	.009	.022	20.589	
1979 Total	(e)	.612	19.817	.010	.025	20.464	
1980 Total	(e)	.650	19.009	.011	.026	19.695	
1981 Total	(e)	.658	18.800	.011	.026	19.496	
1982 Total	(e)	.612	18.417	.011	.026	19.066	
1983 Total	(e)	.505	18.591	.011	.026	19.133	
1984 Total	(e)	.545	19.295	R .013	R .029	R 19.881	
1985 January	(e)	.056	1.551	.001	.003	1.611	1.611
February	(e)	.047	1.437	.001	.002	R 1.488	R 3.099
March	(e)	.043	1.618	.001	R .003	1.665	4.763
April	(e)	.040	1.636	.001	R .003	1.680	R 6.444
May	(e)	.041	1.692	.001	.003	1.737	R 8.181
June	(e)	.039	1.638	.001	R .003	1.681	R 9.862
July	(e)	.041	1.711	.001	.003	R 1.757	R 11.619
August	(e)	.040	1.753	.001	.003	1.797	R 13.416
September	(e)	.038	1.581	.001	.002	R 1.623	R 15.039
October	(e)	.040	1.684	.001	R .003	R 1.728	R 16.766
November	(e)	.040	1.596	.001	.003	1.640	R 18.406
December	(e)	.053	1.661	.001	.003	1.717	R 20.123
Total	(e)	.520	19.558	R .014	R .032	R 20.123	
1986 January	(e)	.051	R 1.568	.001	.002	R 1.622	R 1.622
February	(e)	.044	R 1.448	.001	.002	R 1.495	R 3.118
March	(e)	.043	R 1.686	.001	.002	R 1.732	R 4.850
April	(e)	.037	R 1.680	.001	.002	R 1.721	R 6.571
May	(e)	.039	R 1.738	.001	.003	R 1.781	R 8.352
June	(e)	.038	R 1.710	.001	.003	R 1.752	R 10.104
July	(e)	.039	R 1.820	.001	.003	R 1.863	R 11.967
August	(e)	.039	R 1.809	.001	.002	R 1.852	R 13.819
September	(e)	.037	R 1.649	.001	.002	R 1.689	R 15.508
October	(e)	.039	R 1.755	.001	R .002	R 1.798	R 17.306
November	(e)	.039	R 1.637	.001	.002	R 1.680	R 18.986
December	(e)	.049	R 1.749	.001	.003	R 1.801	R 20.787
Total	(e)	.495	R 20.249	.013	.030	R 20.787	
1987 January	(e)	.053	1.573	.001	.003	1.630	1.630
February	(e)	.042	1.504	.001	.002	1.550	3.180
March	(e)	.043	1.671	.001	.002	1.718	4.897
3-Month Total	(e)	.138	4.748	.003	.007	4.897	
1986 3-Month Total	(e)	.138	4.702	.003	.007	4.850	
1985 3-Month Total	(e)	.147	4.606	.003	.008	4.763	

^aPipeline fuel only, including supplemental gaseous fuels.

^bIncludes electricity generated for distribution from wood, waste, geothermal, wind photovoltaic, and solar thermal energy.

^cExcludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy for small amounts used by electric utilities to generate electricity for distribution.

^dLess than 0.5 trillion Btu.

^eSince 1978, the small amounts of coal consumed for transportation have been reported as industrial sector consumption.

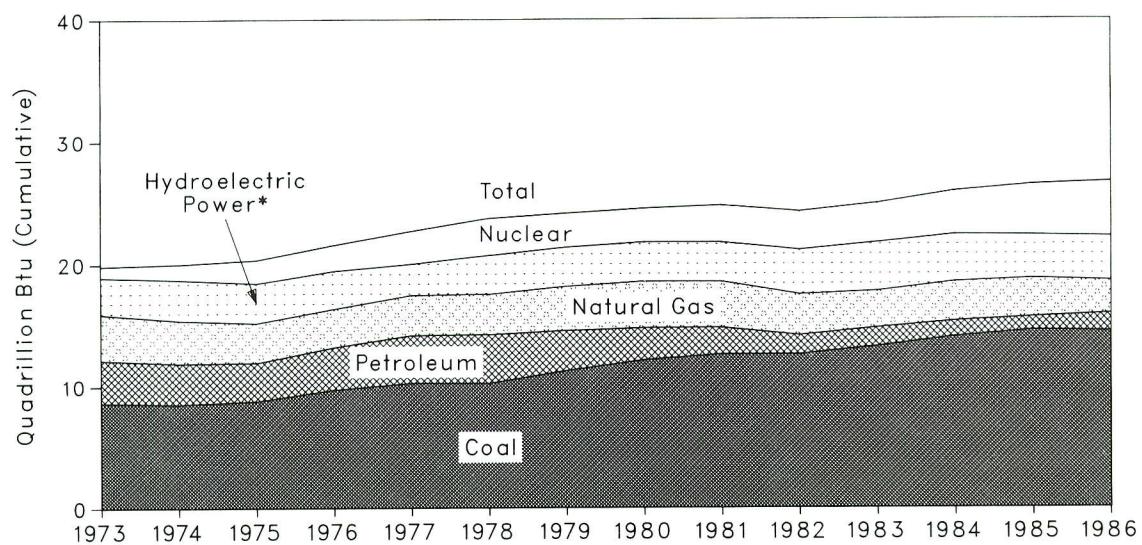
R=Revised data.

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

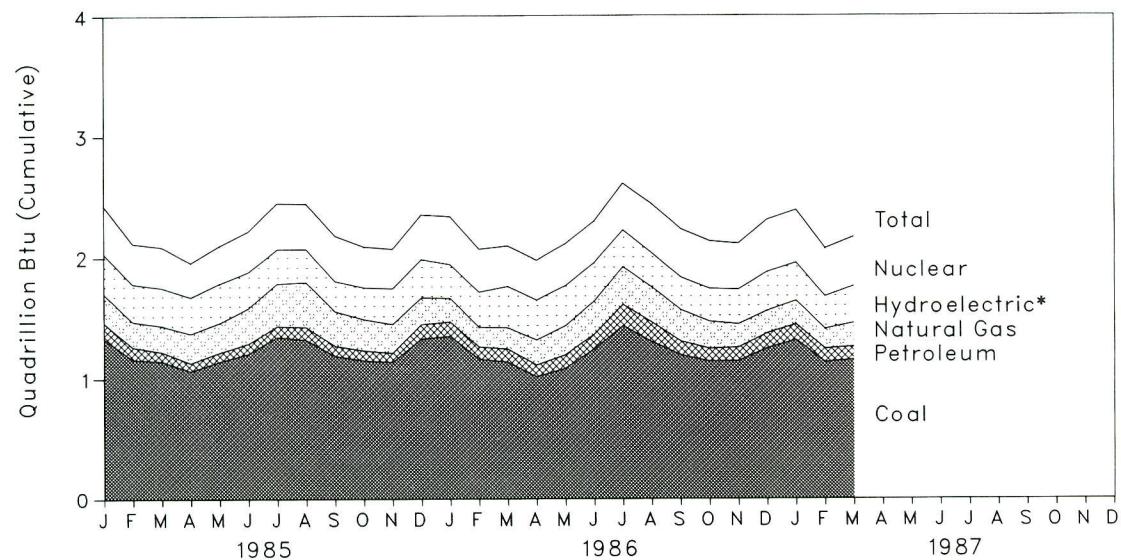
Additional Notes and Sources: See end of section.

Figure 2.5 Energy Input at Electric Utilities

Yearly



Monthly



*Includes other.

Table 2.6 Energy Input at Electric Utilities
(Quadrillion (10¹⁵) Btu)

	Coal	Natural Gas ^a	Petro- leum ^b	Hydro- electric Power ^c	Nuclear Electric Power	Other ^d	Total	Year to Date
1973 Total	8.658	3.748	3.515	2.975	0.910	0.046	19.853	
1974 Total	8.534	3.519	3.365	3.276	1.272	.056	20.022	
1975 Total	8.786	3.240	3.166	3.187	1.900	.072	20.350	
1976 Total	9.720	3.152	3.477	3.032	2.111	.081	21.573	
1977 Total	10.262	3.284	3.901	2.482	2.702	.082	22.713	
1978 Total	10.238	3.297	3.987	3.110	3.024	.068	23.724	
1979 Total	11.260	3.613	3.283	3.107	2.776	.089	24.128	
1980 Total	12.123	3.810	2.634	3.085	2.739	.114	24.505	
1981 Total	12.583	3.768	2.202	3.072	3.008	.127	24.760	
1982 Total	12.582	3.342	1.568	3.528	3.131	.108	24.260	
1983 Total	13.213	2.998	1.544	3.838	3.203	.133	24.929	
1984 Total	14.020	3.220	1.286	3.684	3.553	.174	25.937	
1985 January	1.334	.235	.132	.314	.391	.018	2.424	2.424
February	1.163	.210	.101	.292	.333	.016	2.115	4.539
March	1.148	.215	.077	.292	.336	.018	2.087	6.626
April	1.067	.243	.066	.282	.286	.016	1.959	8.585
May	1.144	.245	.075	.307	.310	.016	2.098	10.684
June	1.208	.293	.083	.283	.333	.016	2.216	12.899
July	1.347	.349	.090	.264	.380	.018	2.448	15.347
August	1.322	.368	.107	.253	.376	.018	2.445	17.793
September	1.190	.285	.082	.232	.373	.017	2.180	19.973
October	1.152	.259	.082	.242	.337	.017	2.090	22.062
November	1.138	.239	.075	.271	.326	.021	2.070	24.132
December	1.329	.218	.120	.296	.365	.022	2.350	26.482
Total	14.542	3.160	1.090	3.330	4.147	.213	26.482	
1986 January	1.352	.191	.119	R .258	.391	.023	R 2.334	R 2.334
February	1.162	.163	.101	R .268	.354	.019	R 2.067	R 4.401
March	1.138	.176	.107	R .319	.333	.020	R 2.093	R 6.494
April	1.016	.206	.097	R .309	.329	.018	R 1.975	R 8.469
May	1.085	.240	.111	R .311	.345	.018	R 2.110	R 10.579
June	1.243	.270	.123	R .299	.339	.020	R 2.294	R 12.873
July	1.436	.312	.173	R .280	.388	.021	R 2.610	R 15.484
August	1.303	.287	.163	R .258	.405	.021	R 2.437	R 17.920
September	1.194	.256	.115	R .253	.396	.018	R 2.231	R 20.151
October	1.142	.225	.105	R .252	.391	.017	R 2.133	R 22.284
November	1.143	.194	.112	R .269	.378	.015	R 2.111	R 24.395
December	1.248	.182	.126	R .302	.427	.020	R 2.305	R 26.700
Total	14.462	2.701	1.452	R 3.378	4.475	.232	R 26.700	
1987 January	1.318	.192	.129	.295	.432	.020	2.386	2.386
February	1.134	.164	.111	.246	.396	.019	2.070	4.456
March	1.154	.197	.107	.282	.403	.021	2.163	6.619
3-Month Total	3.605	.553	.348	.823	1.231	.060	6.619	
1986 3-Month Total	3.652	.530	.327	.845	1.078	.062	6.494	
1985 3-Month Total	3.645	.660	.310	.899	1.060	.052	6.626	

^aIncludes supplemental gaseous fuels.

^bIncludes 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.

^cIncludes net imports of electricity.

^dOther is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

R=Revised data.

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

Notes and Sources for the Consumption Section

1. Total Energy Consumed: Total energy consumed includes coal, natural gas (including supplemental gaseous fuels), petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, and electricity generated from nuclear power. Total energy consumed also includes electricity generated from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available.

2. Economic Sectors: Energy use is assigned to the major economic sectors according to the following guidelines as closely as possible:

- Residential and Commercial Sector-- private household establishments (which consume energy primarily for space heating, water heating, air conditioning, refrigeration, cooking, and clothes drying); nonmanufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public swimming pools are also included.
- Industrial sector--manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- Transportation sector--private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.
- Electric utility sector--privately- and publicly-owned establishments that generate electricity primarily for use by the public.

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

4. Coal: Coal is anthracite, bituminous coal, (including sub-bituminous coal), and lignite. Sources:

- 1973 through September 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
- Electric Utilities--October 1977 forward: Energy Information Administration (EIA), EIA Form 759 (formerly FPC Form 4), "Monthly Power Plant Report."
- Other Industrial--October 1977 through December 1979: EIA, EIA Form 3, "Monthly Fuel Consumption Report - Manufacturing Plants"; January 1980 forward: EIA, EIA Form 3, "Quarterly

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

- Coke Plants--October 1977 through December 1980: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981 forward: EIA, EIA Form 5/5A, "Coke and Coal Chemicals - Quarterly/Annual."
- Residential and Commercial--October 1977 through December 1979: EIA, EIA Form 2, "Monthly Coal Report, Retail Dealers and Upper Lake Docks"; January 1980 forward: EIA, EIA Form 6, "Coal Distribution Report."

5. Natural Gas: Natural gas consumption by end-use sector is based on data presented in Table 4.3 of this report. For Section 2 calculations, lease and plant fuel consumption are added to the industrial sector deliveries and pipeline fuel represents the transportation sector's use of natural gas. Values in Btu are derived using the conversion factors provided in the Conversion Factors section of this publication. Sources:

- 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.
- 1976 through 1978: EIA, *Energy Data Reports*, "Natural Gas, Annual."
- 1979: EIA, *Natural Gas Production and Consumption 1979*.
- 1980 through 1985: EIA, *Natural Gas Annual*.
- 1986 forward: EIA, EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and EIA computations.
- Electric utilities consumption - 1973 through 1976: FPC Form 4, "Monthly Power Plant Report." - 1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report." - 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report."

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

- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981 through 1984: EIA, *Petroleum Supply Annual*.
- 1985 forward: EIA, *Petroleum Supply Monthly*.

Specific petroleum products' end-use allocation procedures follow:

- **Aviation Gasoline**--All product supplied is assigned to the transportation sector.
- **Asphalt**--All product supplied is assigned to the industrial sector.
- **Distillate Fuel**

Electric Utility Sector, All Periods.

Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus small amounts of kerosene deliveries through 1982) consumed at utilities.

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

Non-Electric Utility Sectors, Annual Estimates Through 1985.

The aggregate non-electric utility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility sectors in proportion to the amount of distillate fuel delivered to end users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:

- Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1985 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and

- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

Non-Electric Utility Sectors, Monthly Estimates Through 1985.

- Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates described above into 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 for 1981 and 1982, and the Energy Information Administration, Form EIA-782-A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale, for 1983 through 1985.

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

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

Non-Electric Utility Sectors, 1986 Forward.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1985.

- **Jet Fuel**--Through 1982, small amounts of kerosene-type jet fuel were consumed by the electric utility sector. Kerosene-type jet fuel deliveries to electric utilities as reported on the FERC-423 (formerly FPC-423) were used as estimates of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.
- **Kerosene**--Total product supplied monthly is allocated to the major end-use sectors in proportion to annual deliveries grouped into end-use sectors from EIA's "Deliveries of Fuel Oil and Kerosene" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:
 - Residential sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Deliveries for 1985 are used as estimates for suc-

- ceeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;
- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Deliveries for 1985 are used as estimates for succeeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
 - Industrial sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Deliveries for 1985 are used as estimates for succeeding periods. Prior to 1979, each year's deliveries category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to "all other uses."
- **Liquefied Petroleum Gases (LPG)**--The annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption (i.e., product supplied) to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:
 - Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the sector;
 - The quantity of LPG sold each year that is consumed in internal combustion engines is allocated between the transportation and industrial sectors according to a 5-year moving average of the percentage of carburetors sold to each end-use category. The proportions range from 31 percent transportation and 69 percent industrial in 1973 to 63 percent transportation and 37 percent industrial in 1985.
 - LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and for use in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.
- The sources of the annual sales data for creating annual end-use shares are:
- 1973 through 1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.
 - 1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption because the collection of data under Form EIA-174 was discontinued after data year 1982.
 - 1984 and 1985: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases" based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.
 - Succeeding periods: The 1985 source is used to estimate succeeding periods.
- **Lubricants**--Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to those two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 forward.
 - **Motor Gasoline**--Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories formed from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:
 - Commercial sales are the sum of sales for public non-highway use, miscellaneous use, and unclassified use;
 - Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*; and
 - Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.
 - **Petroleum Coke**--The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining petroleum coke is assigned to the industrial sector.
 - **Residual Fuel**

Electric Utility Sector, All Periods.

Monthly and annual consumption 1973 through 1979 is assumed to be the amount of oil reported as consumed in steam-electric power plants. From January 1980, electric utility consumption of residual fuel is assumed to be the petroleum

products reported as "heavy oil" consumed at utilities.

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

Non-Electric Utility Sectors, Annual Estimates Through 1985.

The aggregate non-electric utility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility sectors in proportion to the amount of residual fuel delivered to end users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" ("Deliveries") reports (based primarily on data collected by Form EIA-821, previously Form EIA-172) as follows:

- Commercial sector deliveries are directly from the "Deliveries" reports for 1979 through 1985. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares;
- Industrial sector deliveries for 1979 through 1985 are the sum of deliveries for industrial, oil company, and all other uses. Prior to 1979, each year's deliveries subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
- Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years.

Non-Electric Utility Sectors, Monthly Estimates Through 1985.

- Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates described above into months in proportion to each month's share of the year's sales of No. 2 fuel oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute for 1981 and 1982, and the Energy Information Administration, Form EIA-782-A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale, 1983 through 1985.

- Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
- Industrial sector monthly estimates are made by subtracting the commercial, transportation,

and electric utility sector estimates from each month's total residual fuel supplied.

Non-Electric Utility Sectors, 1986 Forward.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1985.

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

7. Hydroelectric Power: Includes electricity generated by hydroelectric power at electric utilities, small amounts in the industrial sector, and net imports of electricity, which are assumed to be generated by hydroelectric power and are included in the electric utilities sector.

Sources for electric utilities sector:

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

Sources for industrial sector:

- 1973 through 1978: FPC Form 4, *Monthly Power Plant Report* for plants with generating capacity exceeding 10 megawatts and FPC Form 12-C, *Industrial Electric Generating Capacity*, for all other plants.
- 1979: FPC Form 4, *Monthly Power Plant Report* for plants with generating capacity exceeding 10 megawatts and EIA estimates for all other plants.
- 1980 forward: Annual generation estimated by EIA as the average generation over the 6-year period of 1974 through 1979; monthly generation estimated to be in proportion to each month's hydro-electricity generation in the electric utility industry in 1980.

Note for imports and exports of electricity:

- Monthly electricity imports and exports estimates for 1982 forward were revised in the May 1984 *Monthly Energy Review*. The revisions do not cause discontinuity in the annual data series: the data continue to come from the same source. The monthly data series, however, are discontinuous because monthly data from January 1982 forward are now available from the same source as the annual data. Estimates for monthly values prior to 1982, published in previous issues, were devel-

oped by converting the annual value to a daily rate and multiplying by the number of days in the month. Accordingly, month-to-month analyses are not comparable when taken across the transition date of January 1982. Monthly analyses on either side of that date will be comparable. There is no known bias in either the annual data or the monthly data since January 1982.

Sources for imports and exports of electricity:

- 1973 through 1980: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
- 1981: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1982 through 1985: DOE, Economic Regulatory Administration, ERA-781, "Annual Report of International Electric Import/Export Data."
- 1986 forward: EIA estimates.

8. Nuclear Electric Power and Wood, Waste, Geothermal, Wind, Photovoltaic, and Solar Thermal Energy Sources Connected to Electric Utility Distribution Systems:

Sources:

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

9. Net Imports of Coal Coke: Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports.

Sources:

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

10. Electricity: Sales of electricity represent consumption. From the sources cited below the following elec-

tricity 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 used by railroads and railways and accounted for in the transportation sector. Sales of electricity are converted into Btu at the rate of 3,412 Btu per kilowatthour.

Sources of sales data:

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

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

Section 3. Petroleum

Domestic crude oil production during May 1987 was estimated to be 8.3 million barrels per day, 1.5 percent lower than the April 1987 rate and 6.1 percent lower than the rate in May 1986.

Total petroleum imports averaged 6.0 million barrels per day in May 1987, 2.0 percent more than the April 1987 rate, but 7.1 percent less than the May 1986 rate.

In May 1987, 16.0 million barrels per day of petroleum products were supplied for domestic use, 3.0 percent below the level in April 1987, but slightly above the level 1 year earlier. Motor gasoline accounted for 46.3 percent of the total; distillate fuel oil, 16.3 percent; and residual fuel oil, 7.2 percent.

Motor gasoline supplied during May 1987 averaged 7.4 million barrels per day, 1.3 percent above the rate in April 1987 and 4.3 percent above the rate of the pre-

vious May. Stocks of motor gasoline totaled 232 million barrels at the end of May 1987, 11 million barrels below the level at the end of April 1987, but 11 million barrels above the stocks level 1 year earlier.

In May 1987, 2.6 million barrels of distillate fuel oil were supplied per day, 13.3 percent lower than the April 1987 rate and 5.7 percent lower than the May 1986 rate. Distillate fuel oil ending stocks for May 1987 were 100 million barrels, the same stocks level as the previous month, but 1 million barrels higher than the May 1986 ending stocks level.

Residual fuel oil supplied in May 1987 averaged 1.1 million barrels per day, 8.8 percent lower than in April 1987 and 14.8 percent lower than the May 1986 rate. Residual fuel oil stocks measured 40 million barrels at the end of May 1987, 4 million barrels higher than the previous month and 1 million barrels higher than the stocks level 1 year earlier.

Estimates for the most current month are based on Energy Information Administration (EIA) weekly data (except crude production) and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent month, crude production is an EIA estimate based on historical and provisional data through February 1987. The total import data above include imports into the Strategic Petroleum Reserve.

Table 3.1a Crude Oil^a and Petroleum Products Overview

	Field Production			Stock Withdrawal ^b		Petroleum Products Supplied	Ending Stocks ^c
	Total Domestic ^d	Crude Oil	Natural Gas Plant Production	Crude Oil ^e	Petroleum Products		Crude Oil ^e and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974 Average	10,498	8,774	1,688	-62	-117	16,653	1,074
1975 Average	10,045	8,375	1,633	^h -17	ⁱ -15	16,322	1,133
1976 Average	9,774	8,132	1,604	-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	ⁱ -290	ⁱ 130	16,058	1,484
1982 Average	10,252	8,649	1,550	-136	283	15,296	1,430
1983 Average	10,299	8,688	1,559	ⁱ -214	ⁱ 234	15,231	1,454
1984 Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985 January	10,412	8,740	1,628	76	1,351	16,109	1,512
February	10,692	9,025	1,623	425	1,347	16,121	1,462
March	10,748	9,095	1,600	-309	403	15,373	1,460
April	10,673	9,043	1,582	-520	56	15,472	1,473
May	10,770	9,132	1,594	-700	-399	15,504	1,508
June	10,664	9,022	1,597	264	-382	15,483	1,511
July	10,550	8,949	1,568	326	-496	15,434	1,516
August	10,485	8,803	1,594	159	568	16,060	1,494
September	10,584	8,954	1,575	-34	-255	15,099	1,502
October	10,637	8,970	1,610	98	124	15,944	1,496
November	10,640	8,902	1,660	-295	-634	15,503	1,523
December	10,777	9,030	1,680	-58	207	16,611	1,519
Average	10,636	8,971	1,609	-50	153	15,726	
1986 January	R 10,911	R 9,137	R 1,711	R -383	R -151	R 16,088	R 1,535
February	R 10,916	R 9,173	R 1,696	R -37	R 804	R 16,186	R 1,514
March	R 10,664	R 9,013	R 1,604	R -345	R 1,160	R 16,276	1,489
April	R 10,435	R 8,864	R 1,523	R 41	R 262	R 15,945	R 1,479
May	R 10,440	R 8,838	R 1,543	R 260	R -1,109	R 15,993	1,506
June	R 10,187	R 8,623	R 1,504	R 3	R -1,238	R 16,049	R 1,543
July	R 10,225	R 8,660	R 1,507	R -541	R -422	R 16,307	R 1,573
August	R 9,875	R 8,374	R 1,445	R 242	R -551	R 16,618	R 1,582
September	R 9,852	R 8,328	R 1,468	R -217	R -973	R 15,909	R 1,618
October	R 9,954	R 8,419	R 1,477	R -233	R 476	R 16,602	R 1,610
November	R 10,061	R 8,412	R 1,569	R 95	R -147	R 16,221	R 1,612
December	R 9,985	R 8,352	R 1,571	R 186	R 443	R 17,131	R 1,593
Average	R 10,289	R 8,680	R 1,551	R -78	R -124	R 16,281	
1987 January	E 10,145	E 8,477	1,592	-189	377	16,382	1,588
February	E 10,010	E 8,318	1,625	(^s)	814	16,721	1,565
March	E 10,025	E 8,349	1,607	-151	266	15,965	1,561
April	E 10,077	RE 8,426	1,600	R 11	R 559	R 16,501	R 1,544
May	NA	PE 8,296	NA	E 140	E 121	E 15,999	E 1,533
5-Mo. Average	NA	PE 8,374	NA	-39	419	16,304	
1986 5-Mo. Average	10,670	9,003	1,614	-95	181	16,097	
1985 5-Mo. Average	10,658	9,006	1,605	-216	539	15,709	

^aIncludes lease condensate.

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

^cStocks are totals as of end of period.

^dIncludes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.

^eIncludes stocks located in the Strategic Petroleum Reserve.

^fIncludes crude oil for storage in the Strategic Petroleum Reserve.

^gNet imports equals imports minus exports.

^hDue to a rounding difference, this value is 1,603 in the *Petroleum Supply Annual* and *Petroleum Supply Monthly*.

ⁱIn January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stocks withdrawal calculations.

See Note 5 at end of section.

Footnotes continued on following page.

Table 3.1b Crude Oil^a and Petroleum Products Overview (continued)

	Imports			Exports			Net Imports ^g
	Total	Crude Oil ^f	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	471	235	236	7,985
1980 Average	6,909	5,263	1,646	544	287	258	6,365
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 January	4,415	2,717	1,698	792	144	647	3,623
February	3,913	2,108	1,805	857	221	636	3,056
March	4,673	2,786	1,887	694	189	505	3,979
April	5,316	3,401	1,915	764	236	528	4,553
May	5,776	3,730	2,046	705	250	455	5,071
June	4,929	3,188	1,741	692	226	467	4,237
July	4,950	3,203	1,747	675	154	521	4,274
August	4,718	3,114	1,603	749	241	508	3,969
September	4,970	3,155	1,816	806	188	618	4,164
October	5,121	3,238	1,883	690	123	567	4,431
November	6,116	3,999	2,118	1,036	286	750	5,080
December	5,831	3,696	2,135	925	197	728	4,905
Average	5,067	3,201	1,866	781	204	577	4,286
1986 January	R 5,573	R 3,472	R 2,101	R 859	159	R 700	R 4,714
February	R 4,676	R 2,968	R 1,709	R 876	162	R 715	R 3,800
March	R 4,712	R 2,988	R 1,724	R 732	212	R 520	R 3,980
April	R 5,439	R 3,684	R 1,755	R 850	94	R 756	R 4,589
May	R 6,400	R 4,250	R 2,150	R 724	98	R 625	R 5,676
June	R 6,848	R 4,635	R 2,213	R 642	240	R 401	R 6,206
July	R 6,942	R 4,726	R 2,216	R 685	65	R 620	R 6,256
August	R 7,168	R 4,859	R 2,309	R 868	233	R 635	R 6,300
September	R 7,090	R 5,031	R 2,059	714	161	553	R 6,375
October	R 6,427	R 4,419	R 2,008	R 831	151	R 680	R 5,597
November	R 6,592	R 4,615	R 1,977	R 821	115	R 706	R 5,771
December	R 6,700	R 4,412	R 2,288	820	159	661	R 5,881
Average	R 6,224	R 4,178	R 2,045	R 785	154	R 631	R 5,439
1987 January	6,186	4,385	1,801	829	96	732	5,358
February	5,849	3,896	1,953	991	299	692	4,858
March	5,618	3,742	1,875	726	165	561	4,892
April	R 5,830	R 4,115	R 1,715	864	247	617	4,966
May	E 5,947	E 4,265	E 1,681	NA	NA	NA	NA
5-Mo. Average	5,887	4,084	1,803	NA	NA	NA	NA
1986 5-Mo. Average	5,373	3,481	1,892	806	145	661	4,567
1985 5-Mo. Average	4,833	2,962	1,871	760	208	553	4,073

Footnotes continued.

PE=Preliminary estimate. R=Revised data. NA=Not available. E=Estimate. (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 end of section.

Figure 3.1 Crude Oil and Natural Gas Liquids Production

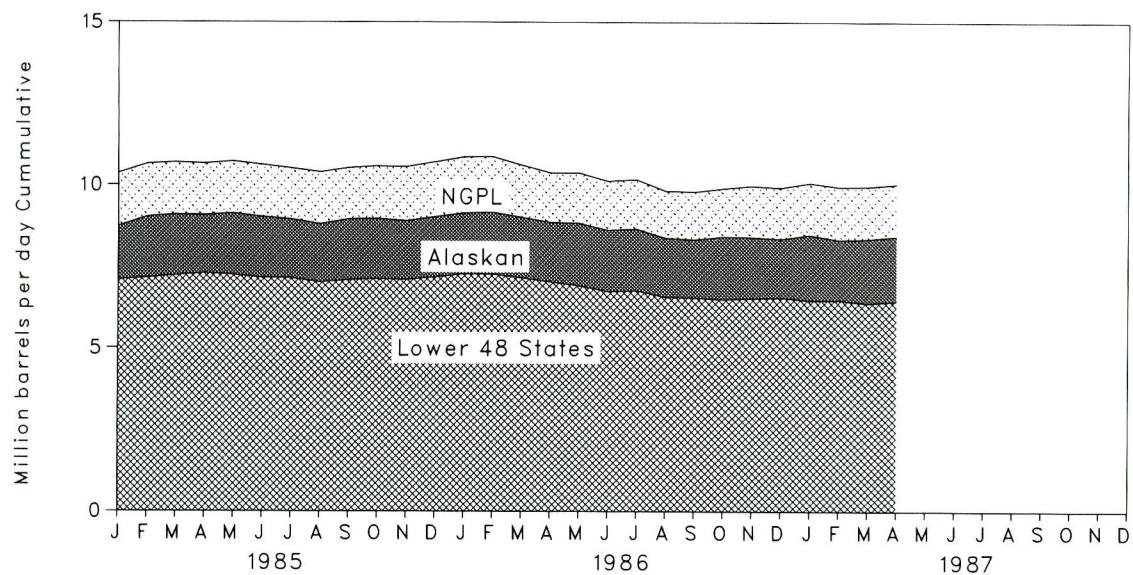


Figure 3.2 Crude Oil Ending Stocks

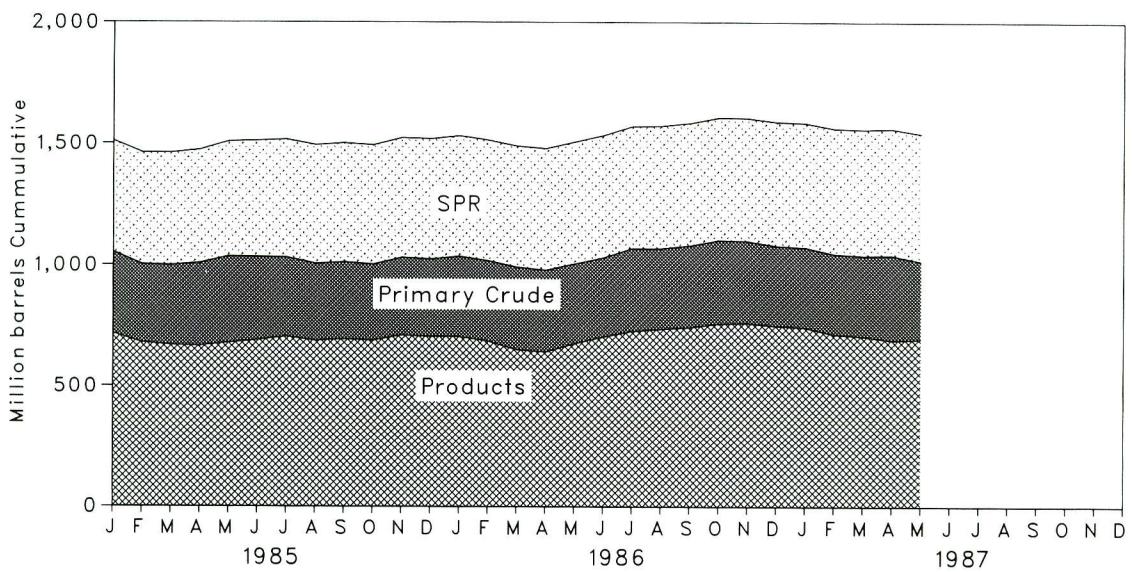


Figure 3.3 Petroleum Products Supplied and Imports

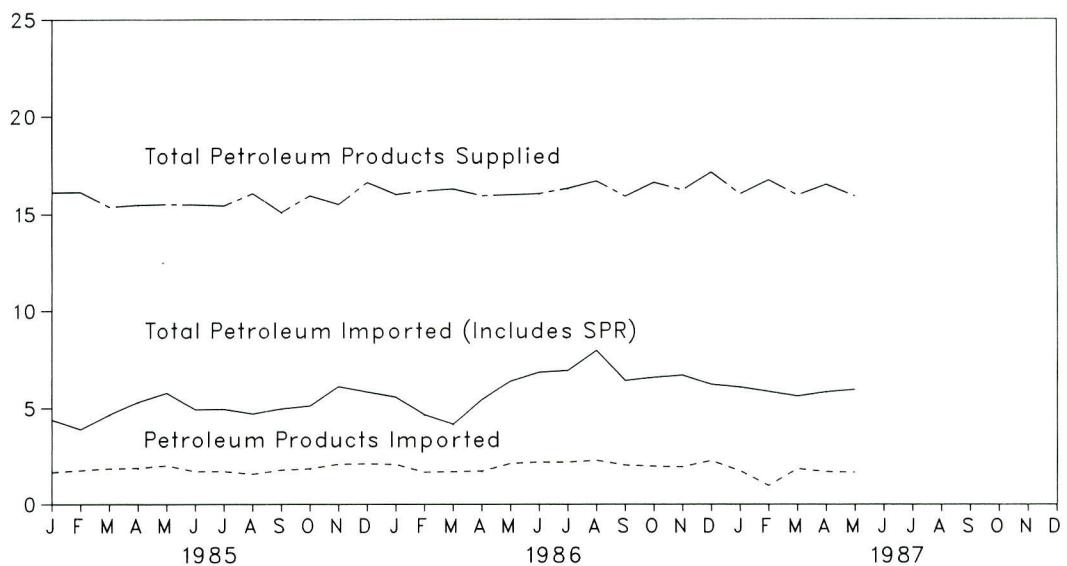


Figure 3.4 Petroleum Imports by Source

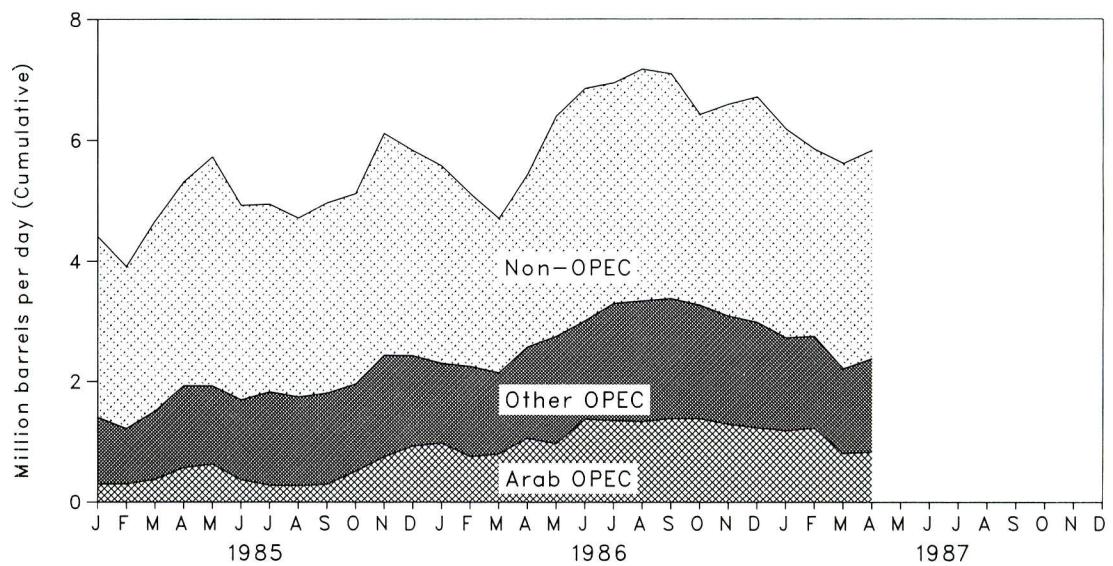


Table 3.2a Crude Oil^a Supply and Disposition
(Thousand Barrels per Day)

	Supply							Unaccounted for Crude Oil ^e	
	Field Production		Imports			Stock Withdrawal ^c			
	Total Domestic	Alaskan	Total	SPR ^d	Other	SPR ^d	Other		
1973 Average	9,208	198	3,244		3,244		11	3	
1974 Average	8,774	193	3,477		3,477		-62	-25	
1975 Average	8,375	191	4,105		4,105		-17	17	
1976 Average	8,132	173	5,287		5,287		-39	77	
1977 Average	8,245	464	6,615	21	6,594	-20	-150	-6	
1978 Average	8,707	1,229	6,356	162	6,195	-163	84	-57	
1979 Average	8,552	1,401	6,519	67	6,452	-67	-81	-11	
1980 Average	8,597	1,617	5,263	44	5,219	-45	-52	34	
1981 Average	8,572	1,609	4,396	256	4,141	-336	^g 46	83	
1982 Average	8,649	1,696	3,488	165	3,323	-174	38	71	
1983 Average	8,688	1,714	3,329	234	3,096	-234	^g 20	114	
1984 Average	8,879	1,722	3,426	197	3,229	-195	-4	185	
1985									
January	8,740	1,647	2,717	223	2,494	-223	298	122	
February	9,025	1,877	2,108	98	2,010	-97	522	94	
March	9,095	1,866	2,786	48	2,738	-48	-262	59	
April	9,043	1,784	3,401	108	3,293	-111	-409	183	
May	9,132	1,888	3,730	222	3,508	-225	-475	247	
June	9,022	1,871	3,188	155	3,034	-155	419	100	
July	8,949	1,809	3,203	226	2,977	-225	551	177	
August	8,803	1,795	3,114	116	2,999	-116	274	267	
September	8,954	1,867	3,155	71	3,084	-71	37	93	
October	8,970	1,850	3,238	20	3,218	-20	119	81	
November	8,902	1,804	3,999	53	3,946	-53	-242	150	
December	9,030	1,852	3,696	74	3,621	-60	2	164	
Average	8,971	1,825	3,201	118	3,083	-117	67	145	
1986									
January	R 9,137	1,870	R 3,472	51	R 3,420	-35	R -348	R 364	
February	R 9,173	1,907	R 2,968	24	R 2,944	-35	R -2	R 32	
March	R 9,013	1,860	R 2,988	59	R 2,929	-49	R -296	R 259	
April	R 8,864	1,836	R 3,684	63	R 3,621	-63	R 104	R 70	
May	R 8,838	1,927	R 4,250	36	R 4,215	-35	R 295	R 79	
June	R 8,623	1,887	R 4,635	64	R 4,571	-64	R 66	R 292	
July	R 8,660	1,903	R 4,726	52	R 4,674	-52	R -489	R 189	
August	R 8,374	1,811	R 4,859	51	R 4,809	-51	293	R 93	
September	R 8,328	1,782	R 5,031	47	R 4,984	-47	R -170	R 161	
October	R 8,419	1,927	R 4,419	37	R 4,382	-36	R -197	R 223	
November	R 8,412	R 1,883	R 4,615	45	R 4,570	-65	R 160	R -136	
December	R 8,352	R 1,807	R 4,412	48	R 4,365	-68	R 254	R 28	
Average	R 8,680	R 1,867	R 4,178	48	R 4,130	-50	R -28	R 139	
1987									
January	E 8,477	E 2,017	4,385	92	4,293	-108	-81	34	
February	E 8,318	E 1,853	3,896	44	3,851	-64	64	422	
March	E 8,349	E 1,968	3,742	95	3,647	-106	-45	349	
April	RE 8,426	RE 1,990	R 4,115	R 57	R 4,058	R -67	R 78	249	
May	PE 8,296	PE 1,944	E 4,265	E 84	E 4,181	E -104	E 245	NA	
5-Mo. Average	PE 8,374	PE 1,956	4,084	75	4,009	-90	52	NA	
1986 5-Mo. Average	9,003	1,880	3,481	47	3,434	-43	-51	164	
1985 5-Mo. Average	9,006	1,811	2,962	141	2,821	-142	-75	141	

^aIncludes lease condensate.

^bStocks are totals as of end of period.

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

^dStrategic Petroleum Reserve.

^eA balancing item.

^fBeginning in January 1983, crude oil used directly as fuel is shown as product supplied.

^gStocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels.

See Notes 5 and 6 at end of section.

Footnotes continued on following page.

Table 3.2b Crude Oil^a Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks ^b		
		Crude Used Directly ^f	Crude Losses	Refinery Inputs	Exports	Product Supplied ^f	Total	SPR ^d
	Thousand Barrels per Day					Million Barrels		
1973 Average	-19	13	12,431	2		242		242
1974 Average	-15	13	12,133	3		265		265
1975 Average	-17	13	12,442	6		271		271
1976 Average	-18	15	13,416	8		285		285
1977 Average	-14	16	14,602	50		348	7	340
1978 Average	-14	16	14,739	158		376	67	309
1979 Average	-13	16	14,648	235		430	91	339
1980 Average	-13	15	13,481	287		^g 466	108	^g 358
1981 Average	-58	5	12,470	228		594	230	363
1982 Average	-59	3	11,774	236		^g 644	294	350
1983 Average	NA	2	11,685	164	66	723	379	344
1984 Average	NA	2	12,044	181	64	796	451	345
1985 January	NA	1	11,445	144	63	794	457	336
February	NA	1	11,367	221	63	782	460	322
March	NA	1	11,372	189	69	791	462	330
April	NA	1	11,805	236	67	807	465	342
May	NA	1	12,094	250	65	829	472	357
June	NA	1	12,292	226	56	821	477	344
July	NA	1	12,445	154	55	811	484	327
August	NA	(s)	12,045	241	55	806	487	318
September	NA	(s)	11,925	188	55	807	489	317
October	NA	(s)	12,209	123	55	804	490	314
November	NA	(s)	12,410	286	59	812	491	321
December	NA	1	12,570	197	63	814	493	321
Average	NA	1	12,002	204	60			
1986 January	NA	R 1	R 12,374	159	R 57	826	494	332
February	NA	(s)	R 11,918	162	R 56	827	495	332
March	NA	R(s)	R 11,652	212	R 52	838	497	341
April	NA	R(s)	R 12,512	94	51	837	499	338
May	NA	(s)	R 13,279	98	49	829	500	329
June	NA	(s)	R 13,261	240	52	R 828	502	R 327
July	NA	(s)	R 12,917	65	51	845	503	342
August	NA	(s)	R 13,287	233	48	838	505	333
September	NA	(s)	R 13,097	161	45	844	506	338
October	NA	(s)	12,636	151	41	R 851	508	R 344
November	NA	(s)	R 12,831	115	41	849	509	339
December	NA	(s)	R 12,777	159	42	843	512	331
Average	NA	R(s)	R 12,716	154	R 49			
1987 January	NA	1	12,570	96	41	849	515	334
February	NA	(s)	12,296	299	41	849	517	332
March	NA	1	12,085	165	39	853	520	333
April	NA	(s)	R 12,513	247	41	R 853	522	R 331
May	NA	NA	E 12,510	NA	NA	E 847	E 525	E 322
5-Mo. Average	NA	NA	12,396	NA	NA			
1986 5-Mo. Average	NA	1	12,354	145	53			
1985 5-Mo. Average	NA	1	11,620	208	65			

Footnotes continued.

PE=Preliminary estimate. R=Revised data. NA=Not available. E=Estimate. (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 end of section.

Table 3.3a Crude Oil and Petroleum Product Imports
(Thousand Barrels per Day)

	Imports from OPEC Sources ^a										Total OPEC ^b	Total Arab OPEC ^c
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ^b			
1973 Average	136	164	486	71	213	223	459	1,135	106	2,993	915	
1974 Average	190	4	461	74	300	469	713	979	88	3,280	752	
1975 Average	282	232	715	117	390	280	762	702	122	3,601	1,383	
1976 Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424	
1977 Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185	
1978 Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963	
1979 Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056	
1980 Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551	
1981 Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848	
1982 Average	170	26	552	92	248	35	514	412	97	2,146	854	
1983 Average	240	0	337	30	338	48	302	422	144	1,862	632	
1984 Average	323	1	325	117	343	10	216	548	166	2,049	819	
1985												
January	112	0	106	60	296	0	262	481	89	1,405	305	
February	174	0	108	0	232	0	119	524	64	1,220	307	
March	247	0	85	52	283	0	164	588	84	1,505	385	
April	286	8	201	70	313	0	280	684	86	1,928	575	
May	255	0	41	128	265	0	381	552	354	1,976	635	
June	178	5	26	81	438	0	357	452	152	1,690	378	
July	125	10	44	13	390	42	381	573	248	1,825	286	
August	135	0	46	17	377	100	207	568	289	1,740	280	
September	147	0	27	57	206	43	285	808	230	1,802	302	
October	177	20	251	17	277	41	305	676	196	1,958	520	
November	164	11	430	34	356	99	325	727	294	2,440	752	
December	244	0	642	15	324	0	432	625	149	2,430	925	
Average	187	4	168	45	314	27	293	605	187	1,830	472	
1986												
January	R 215	0	664	11	R 290	0	R 278	629	R 210	R 2,298	R 976	
February	R 157	0	R 574	0	R 290	(s)	R 204	R 518	64	R 1,807	R 757	
March	260	0	482	0	R 161	0	328	R 797	117	R 2,145	798	
April	275	0	R 698	R 21	R 292	0	R 319	R 831	139	R 2,576	R 1,058	
May	R 193	0	R 574	R 40	R 314	R 40	R 398	R 899	R 290	R 2,749	R 966	
June	319	0	R 662	83	353	0	R 382	R 772	439	R 3,010	R 1,377	
July	R 310	0	R 738	59	R 532	66	542	R 730	330	R 3,307	R 1,357	
August	363	0	R 680	37	274	93	R 606	R 916	R 378	R 3,346	R 1,339	
September	R 245	0	R 810	62	341	31	R 684	R 856	356	R 3,383	R 1,388	
October	305	0	R 697	147	R 388	0	530	R 863	R 346	R 3,276	R 1,387	
November	311	0	R 868	34	R 335	0	R 483	R 843	214	R 3,088	R 1,295	
December	R 291	0	R 769	30	R 251	0	R 511	R 841	R 284	R 2,976	R 1,223	
Average	R 271	0	R 685	R 44	R 318	R 19	R 440	R 793	R 265	R 2,837	R 1,162	
1987												
January	158	0	873	15	285	0	313	866	215	2,726	1,187	
February	315	0	772	54	420	30	240	764	155	2,749	1,226	
March	301	0	427	0	308	73	312	658	135	2,215	807	
April	302	0	452	62	236	47	529	679	77	2,384	834	
4-Mo. Average	268	0	629	32	310	37	350	742	146	2,514	1,010	
1986 4-Mo. Average	228	0	605	8	257	0	284	697	134	2,213	900	
1985 4-Mo. Average	205	2	125	46	282	0	208	569	81	1,518	394	

^aExcludes 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.

^bIncludes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

^cIncludes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Table 3.3b Crude Oil and Petroleum Product Imports (continued)
(Thousand Barrels per Day)

	Imports from Non-OPEC Sources ^d										Total Imports
	Bahamas	Canada	Mexico	Nether- lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non- OPEC	Total Non- OPEC	
1973 Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974 Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975 Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976 Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977 Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978 Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979 Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980 Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981 Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982 Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983 Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984 Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985 January	92	616	767	132	113	345	32	235	678	3,010	4,415
February	37	730	652	52	119	151	50	213	689	2,693	3,913
March	36	909	923	49	115	133	29	235	739	3,168	4,673
April	4	890	950	18	107	213	42	205	959	3,388	5,316
May	74	823	929	28	126	419	37	252	1,112	3,800	5,776
June	24	720	726	30	92	481	23	271	872	3,240	4,929
July	38	610	814	36	133	324	14	236	918	3,124	4,950
August	11	664	859	18	121	336	28	241	699	2,978	4,718
September	47	783	852	40	129	303	26	173	815	3,169	4,970
October	35	825	745	5	99	352	21	260	821	3,163	5,121
November	22	766	887	30	100	376	26	325	1,143	3,676	6,116
December	54	902	676	44	96	273	12	314	1,029	3,400	5,831
Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986 January	R 62	R 823	R 681	58	108	R 333	21	326	R 862	R 3,275	R 5,573
February	R 33	R 690	R 557	11	85	218	R 18	309	R 949	R 2,870	R 4,676
March	R 18	R 750	616	27	79	178	25	186	R 688	R 2,567	R 4,712
April	R 34	R 798	R 694	13	111	188	23	209	R 793	R 2,863	R 5,439
May	R 32	R 881	R 743	R 37	130	365	27	237	R 1,199	R 3,651	R 6,400
June	R 29	R 753	R 884	17	167	R 569	30	233	R 1,157	R 3,838	R 6,848
July	R 44	R 763	R 850	25	131	R 353	29	237	R 1,202	R 3,634	R 6,942
August	R 39	R 801	738	12	133	R 584	7	214	R 1,294	R 3,822	R 7,168
September	R 15	R 801	615	17	162	437	23	291	R 1,345	R 3,706	R 7,090
October	R 38	R 842	R 680	26	112	R 173	21	215	R 1,043	R 3,151	R 6,427
November	R 39	R 960	R 565	R 53	129	R 448	21	179	R 1,111	R 3,504	R 6,592
December	R 57	R 809	R 746	7	R 148	R 351	12	R 291	R 1,304	R 3,724	R 6,700
Average	R 37	R 807	R 699	25	R 125	R 350	R 21	R 244	R 1,080	R 3,387	R 6,224
1987 January	54	777	669	29	99	419	33	327	1,053	3,461	6,186
February	54	762	689	30	111	235	24	296	900	3,100	5,849
March	33	720	699	11	124	311	17	247	1,240	3,402	5,618
April	43	808	667	12	113	485	24	259	1,034	3,446	R 5,830
4-Mo. Average	46	766	681	21	112	365	25	282	1,061	3,358	5,872
1986 4-Mo. Average	37	767	638	28	96	230	22	257	820	2,894	5,108
1985 4-Mo. Average	43	787	826	64	114	212	38	222	766	3,071	4,590

Footnotes continued.

^dIncludes 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 end of section.

Figure 3.5 Finished Motor Gasoline Products Supplied, Production, and Imports

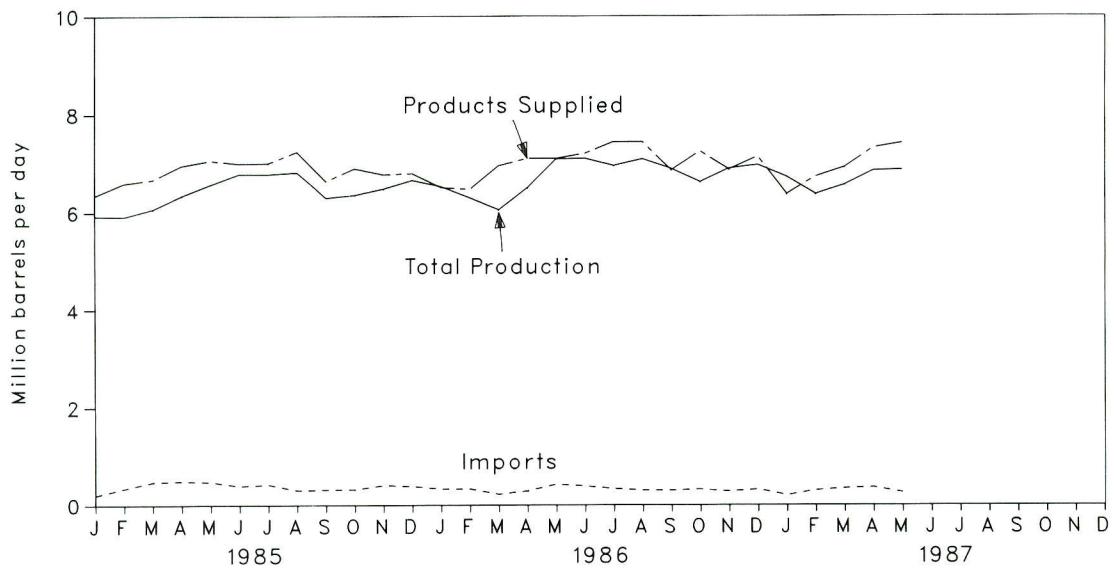


Figure 3.6 Motor Gasoline Ending Stocks

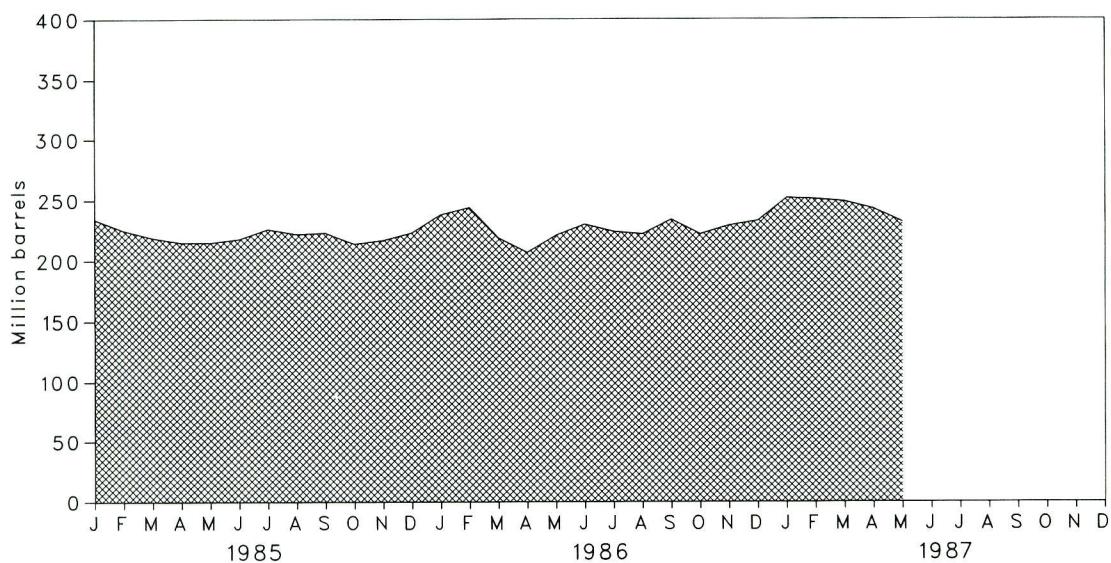


Table 3.4 Finished Motor Gasoline Supply and Disposition

	Supply			Disposition			Ending Stocks ^a		
	Total Production	Imports ^b	Stock Withdrawal ^{b c}	Exports	Product Supplied			Total Motor Gasoline ^e	Finished Motor Gasoline
					Total	Unleaded ^d	Unleaded		
Thousand Barrels per Day									
							Percent of Total		Million Barrels
1973 Average	6,535	134	9	4	6,674			209	
1974 Average	6,360	204	-24	2	6,537			198	
1975 Average	6,520	184	-28	2	6,675			235	
1976 Average	6,841	131	10	3	6,978			231	
1977 Average	7,033	217	-72	2	7,177	1,976	27.5	258	
1978 Average	7,169	190	54	1	7,412	2,521	34.0	238	
1979 Average	6,852	181	2	(s)	7,034	2,798	39.8	237	
1980 Average	6,506	140	-66	1	6,579	3,067	46.6	261	
1981 Average ^g	6,405	157	28	2	6,588	3,264	49.5	253	
1982 Average	6,338	197	25	20	6,539	3,409	52.1	235	
1983 Average	6,340	247	45	10	6,622	3,647	55.1	222	186
1984 Average	6,453	299	-54	6	6,693	3,987	59.6	243	205
1985 January	5,926	204	220	2	6,348	4,016	63.3	234	198
February	5,914	348	327	2	6,587	4,126	62.6	225	189
March	6,072	481	115	3	6,664	4,202	63.1	219	186
April	6,344	494	128	11	6,956	4,396	63.2	215	182
May	6,564	480	23	8	7,060	4,445	63.0	215	181
June	6,780	396	-172	7	6,997	4,482	64.1	218	186
July	6,788	426	-188	18	7,008	4,545	64.8	226	192
August	6,814	305	127	4	7,242	4,755	65.7	222	188
September	6,299	314	22	6	6,629	4,357	65.7	223	187
October	6,356	324	235	19	6,897	4,485	65.0	214	180
November	6,480	410	-104	17	6,770	4,477	66.1	217	183
December	6,651	386	-227	18	6,792	4,561	67.2	223	190
Average	6,419	381	41	10	6,831	4,406	64.5		
1986 January	6,522	R 332	R -347	R 6	R 6,502	4,404	R 67.7	R 238	201
February	R 6,302	R 334	R -156	R 11	R 6,469	R 4,365	R 67.5	R 244	R 205
March	R 6,061	R 224	R 691	R 21	R 6,955	R 4,678	R 67.3	R 219	R 184
April	R 6,498	R 291	R 338	R 23	R 7,105	R 4,783	R 67.3	R 207	R 174
May	R 7,095	R 471	R -450	R 9	R 7,106	R 4,729	R 66.5	R 221	R 188
June	R 7,101	R 392	R -265	R 18	R 7,209	R 4,914	R 68.2	R 230	R 196
July	R 6,956	R 337	R 189	R 47	R 7,436	R 5,182	R 69.7	R 224	R 190
August	R 7,092	R 303	R 83	R 43	R 7,435	R 5,138	R 69.1	R 222	R 187
September	R 6,891	R 303	R -289	40	R 6,864	R 4,813	R 70.1	R 234	R 196
October	R 6,616	R 322	R 372	R 61	R 7,250	R 5,086	70.1	R 222	R 184
November	R 6,895	R 280	R -200	R 96	R 6,879	R 4,918	R 71.5	R 229	R 190
December	R 6,970	R 320	R -122	24	R 7,143	R 5,193	R 72.7	233	194
Average	R 6,752	R 326	R -11	R 33	R 7,034	R 4,854	R 69.0		
1987 January	6,688	320	-484	55	6,469	4,775	73.8	250	209
February	6,367	303	78	22	6,726	4,991	74.2	251	207
March	6,555	342	43	20	6,921	5,150	74.4	249	206
April	R 6,851	R 362	R 145	42	R 7,317	5,401	73.8	R 243	R 201
May	E 6,688	E 259	E 305	NA	E 7,411	NA	NA	E 232	E 194
5-Mo. Average	6,671	317	15	NA	6,971	NA	NA		
1986 5-Mo. Average	6,499	331	17	14	6,833	4,595			
1985 5-Mo. Average	6,168	402	160	5	6,724	4,238			

^aStocks are totals as of end of period.

^bBeginning in 1981, excludes blending components.

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

^dIncludes gasohol.

^eIncludes motor gasoline blending components.

^fIn January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 at end of section.

^gBeginning in January 1981, survey forms were modified. See Note 2 at end of section.

R=Revised data. NA=Not available. E=Estimate. (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 end of section.

Figure 3.7 Distillate Fuel Oil Product Supplied, Production, and Imports

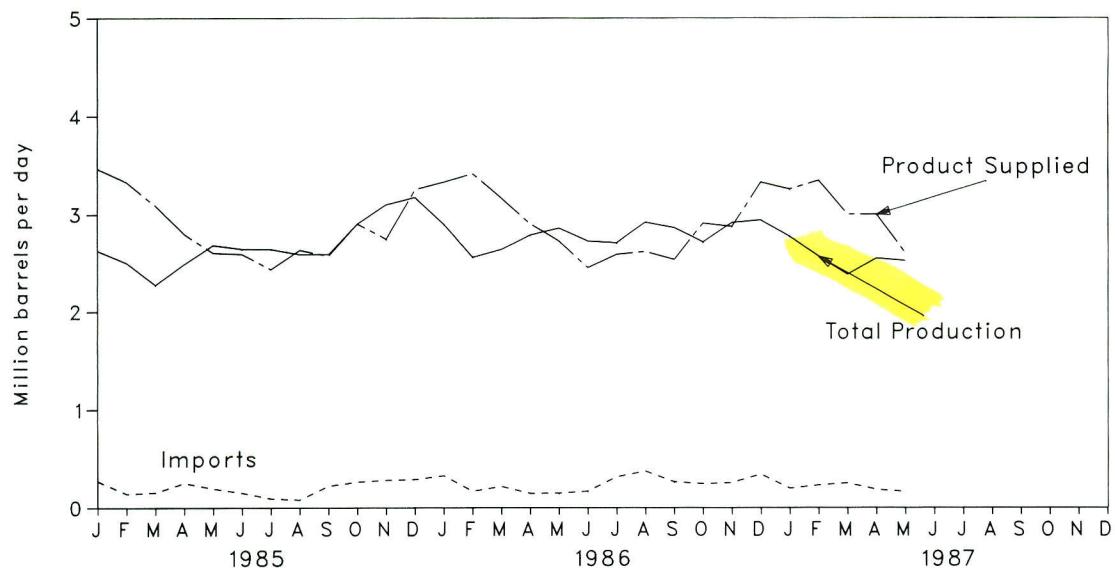


Figure 3.8 Distillate Fuel Oil Ending Stocks

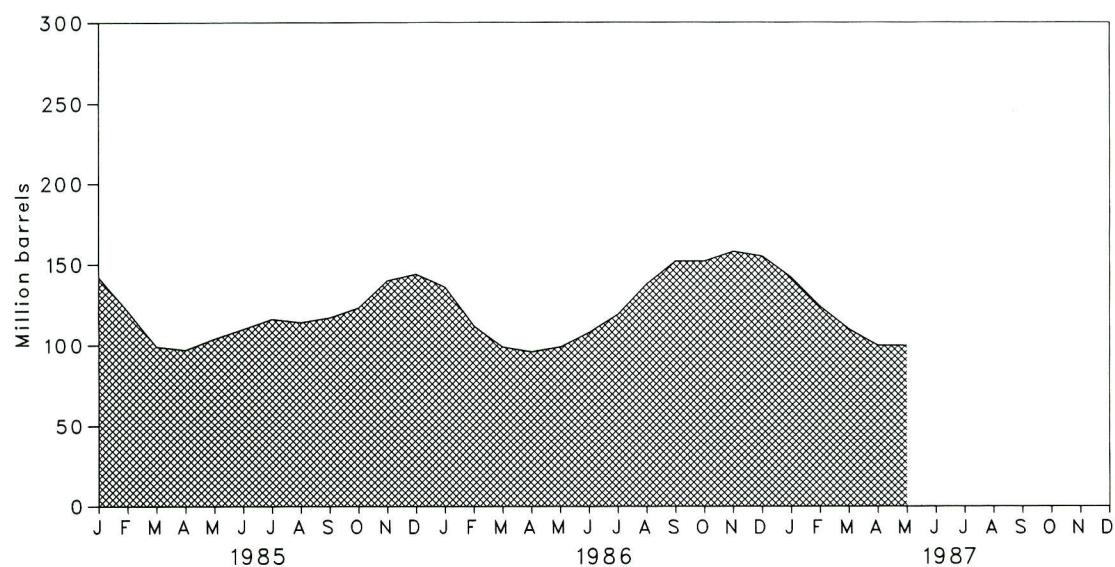


Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks ^c
	Total Production	Imports	Stock Withdrawal ^a	Crude Used Directly ^b	Exports	Product Supplied ^b	
	Thousand Barrels per Day						Million Barrels
1973 Average	2,822	392	-115	2	9	3,092	196
1974 Average	2,669	289	-9	2	2	2,948	d 200
1975 Average	2,654	155	d 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	d 205
1981 Average ^e	2,613	173	d 38	10	5	2,829	192
1982 Average	2,606	93	35	10	74	2,671	d 179
1983 Average	2,456	174	d 124	NA	64	2,690	140
1984 Average	2,681	272	-57	NA	51	2,845	161
1985							
January	2,631	272	603	NA	41	3,465	142
February	2,504	143	748	NA	64	3,330	121
March	2,267	156	714	NA	44	3,093	99
April	2,490	253	82	NA	27	2,798	97
May	2,686	197	-245	NA	31	2,607	104
June	2,647	152	-175	NA	30	2,594	110
July	2,646	95	-193	NA	112	2,436	116
August	2,592	81	62	NA	100	2,636	114
September	2,594	222	-120	NA	121	2,575	117
October	2,902	262	-195	NA	67	2,901	123
November	3,102	280	-543	NA	92	2,747	140
December	3,176	287	-128	NA	81	3,254	144
Average	2,687	200	48	NA	67	2,868	
1986							
January	2,899	R 325	R 232	NA	126	R 3,330	R 136
February	2,563	R 169	R 860	NA	176	R 3,416	R 112
March	R 2,643	217	R 438	NA	131	3,168	99
April	2,788	R 147	R 97	NA	128	R 2,904	R 96
May	R 2,858	R 149	R -95	NA	149	R 2,762	R 99
June	R 2,729	R 169	R -301	NA	53	R 2,544	R 108
July	R 2,710	R 313	R -355	NA	75	R 2,592	R 119
August	R 2,922	R 370	R -607	NA	64	R 2,621	138
September	R 2,865	R 262	R -489	NA	98	R 2,540	R 152
October	2,717	R 243	R 25	NA	74	R 2,912	152
November	R 2,917	R 254	R -222	NA	72	R 2,877	158
December	2,943	R 339	R 102	NA	55	R 3,329	155
Average	2,798	R 247	R -31	NA	100	R 2,914	
1987							
January	2,774	197	440	NA	152	3,259	141
February	2,574	229	637	NA	93	3,347	124
March	2,384	251	437	NA	67	3,005	110
April	R 2,553	R 185	R 319	NA	53	R 3,004	100
May	E 2,528	E 164	E -8	NA	NA	E 2,605	E 100
5-Mo. Average	2,562	205	360	NA	NA	3,038	
1986 5-Mo. Average	2,754	202	297	NA	141	3,112	
1985 5-Mo. Average	2,516	205	375	NA	41	3,055	

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

^bBeginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Note 4 at end of section.

^cStocks are totals as of end of period.

^dIn January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 at end of section.

^eBeginning in January 1981, survey forms were modified. See Note 2 at end of section.

R=Revised data. NA=Not available. E=Estimate.

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 end of section.

Figure 3.9 Residual Fuel Oil Product Supplied, Production, and Imports

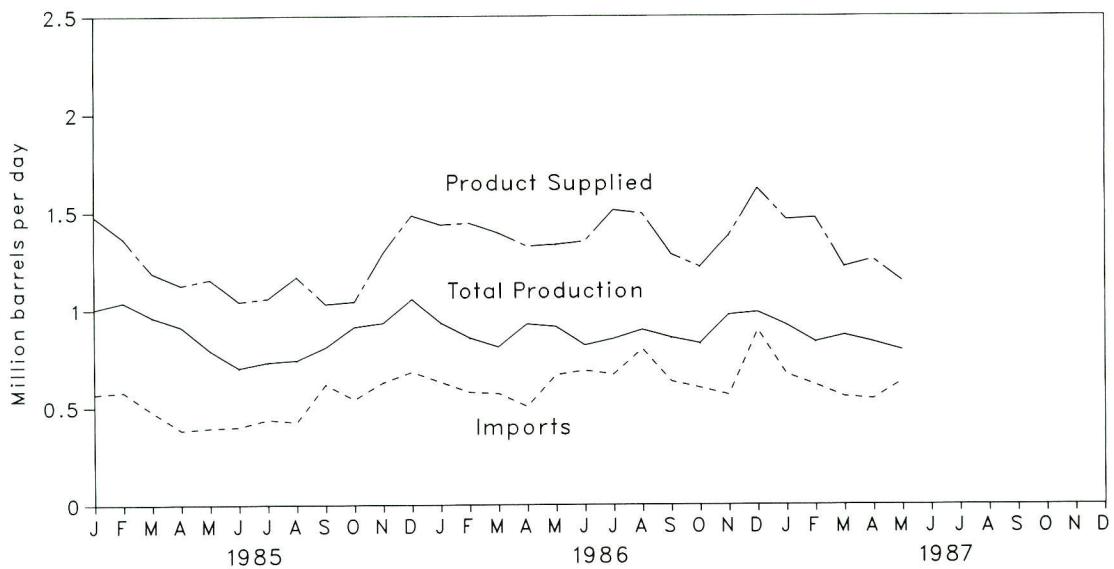


Figure 3.10 Residual Fuel Oil Ending Stocks

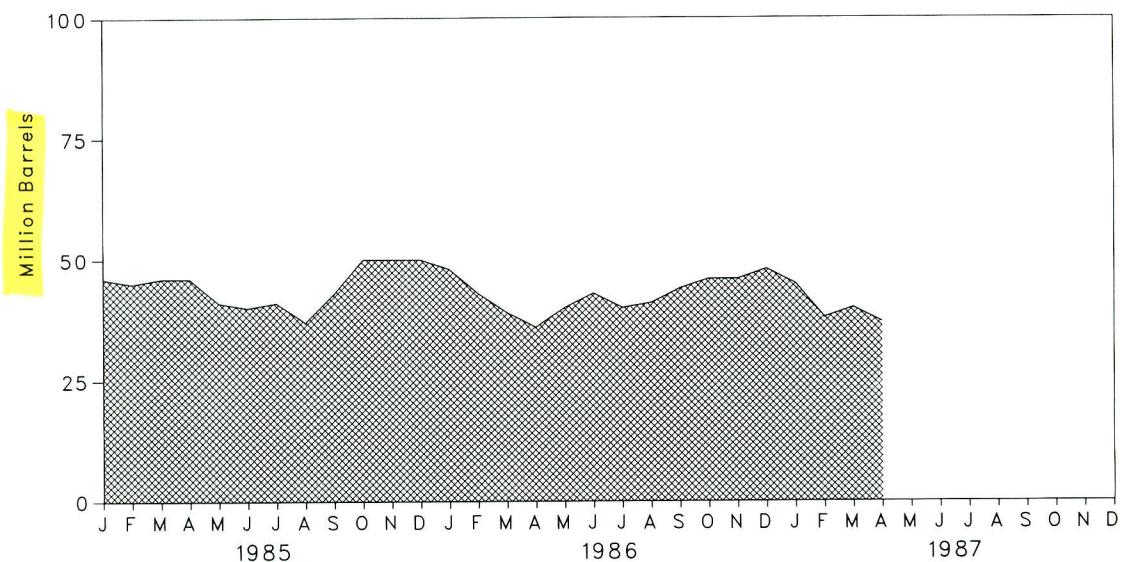


Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks ^c
	Total Production	Imports	Stock Withdrawal ^a	Crude Used Directly ^b	Exports	Product Supplied ^b	
	Thousand Barrels per Day						Million Barrels
1973 Average	971	1,853	5	17	23	2,822	53
1974 Average	1,070	1,587	-17	13	14	2,639	^d 60
1975 Average	1,235	1,223	^d 2	15	15	2,462	74
1976 Average	1,377	1,413	5	17	12	2,801	72
1977 Average	1,754	1,359	-48	13	6	3,071	90
1978 Average	1,667	1,355	-1	13	13	3,023	90
1979 Average	1,687	1,151	-15	12	9	2,826	96
1980 Average	1,580	939	10	12	33	2,508	^d 92
1981 Average ^e	1,321	800	^d 37	48	118	2,088	78
1982 Average	1,070	776	32	48	209	1,716	^d 66
1983 Average	852	699	^d 55	NA	185	1,421	49
1984 Average	891	681	-12	NA	190	1,369	53
1985							
January	1,004	568	219	NA	312	1,480	46
February	1,040	580	41	NA	295	1,366	45
March	963	477	-35	NA	216	1,190	46
April	912	383	-2	NA	167	1,126	46
May	793	394	155	NA	185	1,156	41
June	702	400	59	NA	118	1,043	40
July	732	437	-29	NA	83	1,058	41
August	742	424	108	NA	106	1,168	37
September	808	617	-207	NA	188	1,031	43
October	912	541	-228	NA	184	1,042	50
November	932	627	5	NA	275	1,290	50
December	1,055	681	-4	NA	250	1,483	50
Average	882	510	7	NA	197	1,202	
1986							
January	R 940	R 622	R 56	NA	211	R 1,407	R 49
February	856	R 604	R 200	NA	183	R 1,478	43
March	R 813	R 626	R 108	NA	113	R 1,435	R 40
April	R 933	R 545	R 127	NA	202	R 1,402	36
May	913	R 675	R -114	NA	129	R 1,345	R 39
June	818	R 712	R -111	NA	43	R 1,377	43
July	850	R 673	R 75	NA	90	R 1,508	40
August	896	R 793	R -29	NA	174	R 1,485	41
September	R 854	R 641	R -89	NA	110	R 1,296	44
October	R 827	R 635	-59	NA	144	R 1,259	46
November	R 975	R 574	-15	NA	143	R 1,391	46
December	987	R 913	R -37	NA	224	R 1,638	R 47
Average	R 889	R 669	R 8	NA	147	R 1,418	
1987							
January	919	667	80	NA	204	1,462	45
February	833	612	246	NA	221	1,470	38
March	867	552	-48	NA	150	1,220	40
April	R 831	R 541	R 123	NA	239	R 1,257	R 36
May	E 791	E 630	E -92	NA	NA	E 1,146	E 40
5-Mo. Average	848	601	58	NA	NA	1,308	
1986 5-Mo. Average	891	615	73	NA	167	1,412	
1985 5-Mo. Average	941	479	77	NA	234	1,262	

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

^bBeginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Note 4 at end of section.

^cStocks are totals as of end of period.

^dIn January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 at end of section.

^eBeginning in January 1981, survey forms were modified. See Note 2 at end of section.

R=Revised data. NA=Not available. E=Estimate.

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 end of section.

Figure 3.11 Liquefied Petroleum Gases Product Supplied, Production, and Imports

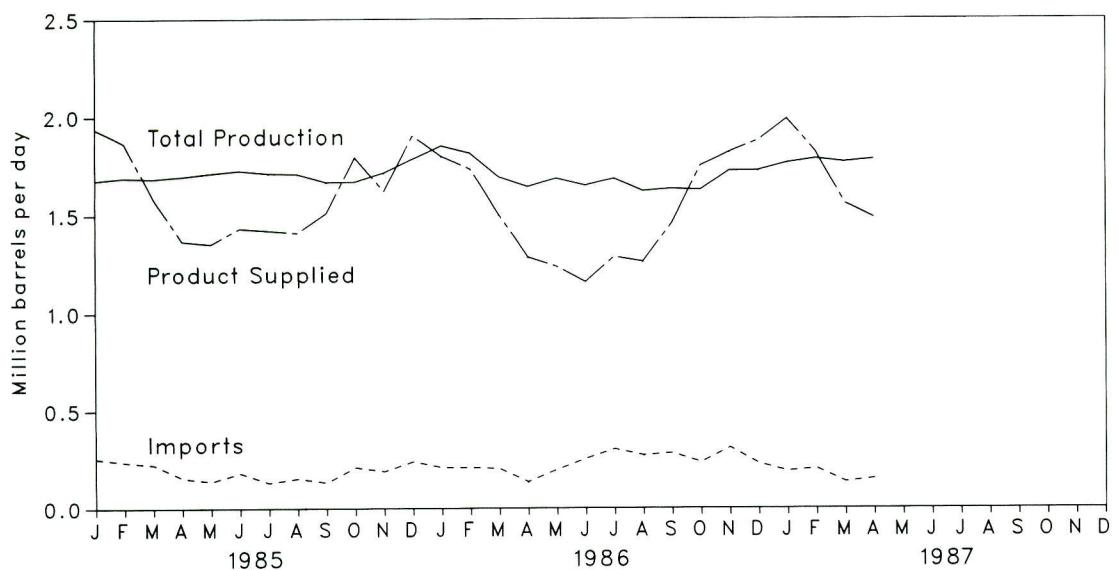


Figure 3.12 Liquefied Petroleum Gases Ending Stocks

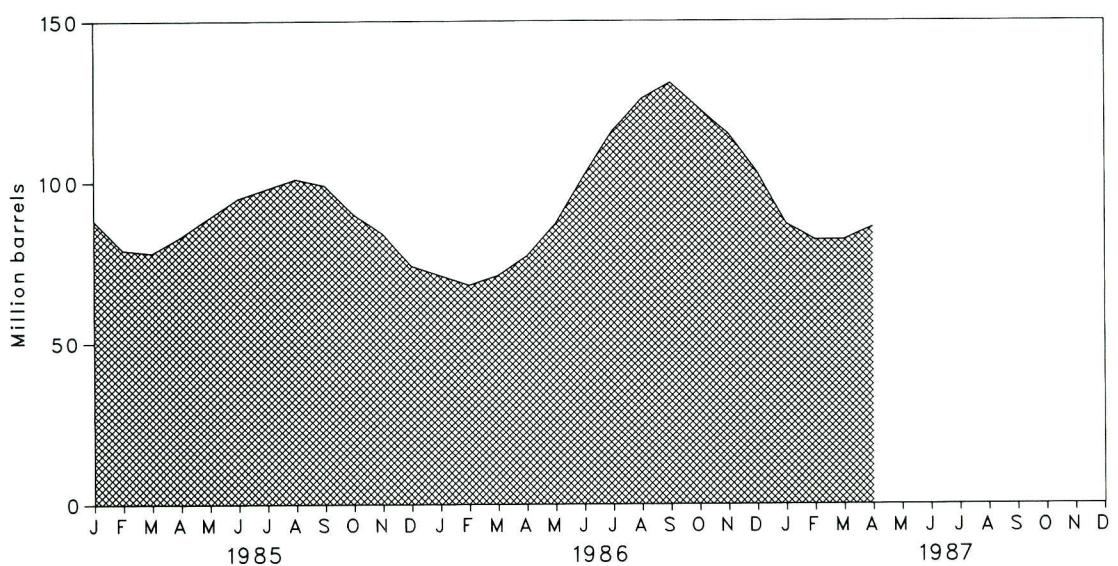


Table 3.7 Liquefied Petroleum Gases^a Supply and Disposition

	Supply			Disposition			Ending Stocks ^c
	Total Production	Imports	Stock Withdrawal ^b	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day						
1973 Average	1,600	132	-35	220	27	1,449	99
1974 Average	1,565	123	-38	220	25	1,406	d 113
1975 Average	1,527	112	d -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	d 120
1981 Average	1,571	244	d -18	289	42	1,466	135
1982 Average	e 1,527	226	111	300	65	1,499	d 94
1983 Average	1,642	190	4	253	73	1,509	d 101
1984 Average	1,697	195	19	291	48	1,572	101
1985 January	1,676	255	399	322	70	1,937	88
February	1,689	237	330	320	72	1,865	79
March	1,684	223	29	297	52	1,588	78
April	1,696	156	-143	262	78	1,368	83
May	1,713	138	-219	239	40	1,353	89
June	1,728	181	-175	250	51	1,432	95
July	1,713	131	-107	249	68	1,420	98
August	1,710	153	-98	277	80	1,409	101
September	1,667	132	61	321	29	1,510	99
October	1,669	209	304	340	47	1,794	90
November	1,716	188	192	387	88	1,620	84
December	1,786	239	337	386	75	1,901	74
Average	1,704	187	75	304	62	1,599	
1986 January	R 1,850	R 280	R 80	R 364	47	R 1,800	R 71
February	R 1,815	208	R 108	R 325	R 74	R 1,733	68
March	R 1,693	R 202	R -98	R 250	47	R 1,500	R 71
April	R 1,642	134	R -200	R 256	33	R 1,286	77
May	R 1,685	R 196	R -336	R 267	40	R 1,238	87
June	R 1,649	253	R -490	R 228	25	R 1,158	R 102
July	R 1,684	303	R -450	R 199	50	R 1,287	116
August	R 1,619	271	R -332	R 243	53	R 1,262	126
September	R 1,631	282	R -142	R 288	27	R 1,456	R 131
October	R 1,625	234	R 249	332	26	R 1,750	123
November	R 1,724	310	R 254	R 417	53	R 1,817	R 115
December	R 1,725	227	R 411	456	33	R 1,875	103
Average	R 1,695	R 242	R -80	R 302	42	R 1,512	
1987 January	1,764	188	493	419	38	1,988	87
February	1,784	201	206	341	36	1,815	82
March	1,768	132	-19	282	42	1,556	82
April	1,781	149	-139	276	30	1,486	86
4-Mo. Average	1,774	167	136	330	37	1,710	
1986 4-Mo. Average	1,749	207	-29	298	50	1,578	
1985 4-Mo. Average	1,686	218	152	300	68	1,688	

^aIncludes ethane, propane, normal butane, and isobutane.

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

^cStocks are totals as of end of period.

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

See Note 5 at end of section.

*Due to a rounding difference, this value is 1,528 in the *Petroleum Supply Annual* and the *Petroleum Supply Monthly*.

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

Sources: See end of section.

Table 3.8 Other Petroleum Products^a Supply and Disposition

	Supply			Disposition			Ending Stocks ^c
	Total Production	Imports	Stock Withdrawal ^b	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	^d 218
1975 Average	3,418	277	^d 4	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	^d 247
1981 Average	3,739	226	^d 46	723	199	3,088	282
1982 Average	3,453	334	80	787	211	^e 2,870	^d 253
1983 Average	3,460	411	^d 6	712	242	2,923	^d 256
1984 Average	3,632	565	23	791	245	3,183	240
1985							
January	3,285	400	-88	556	223	2,815	243
February	3,422	498	-101	707	204	2,910	245
March	3,464	550	-421	633	190	2,769	259
April	3,618	628	-7	836	245	3,158	259
May	3,721	837	-113	991	191	3,263	262
June	3,924	612	80	995	261	3,360	260
July	3,994	658	19	975	241	3,455	259
August	4,087	640	372	1,328	218	3,549	248
September	3,878	529	-10	823	274	3,299	248
October	3,810	548	9	861	250	3,255	248
November	3,772	612	-183	906	277	3,016	253
December	3,658	542	226	1,006	305	3,118	246
Average	3,721	588	-17	886	240	3,166	
1986							
January	R 3,902	R 541	R -172	R 967	311	R 2,993	252
February	R 3,868	R 393	R -209	R 747	270	R 3,035	258
March	R 3,754	R 454	R 21	R 854	208	R 3,167	257
April	R 3,788	R 638	R -100	R 760	369	R 3,196	R 260
May	R 4,055	R 659	R -114	R 810	298	R 3,492	R 264
June	R 4,209	R 687	R -70	R 853	263	R 3,710	R 266
July	R 4,145	R 589	R 119	R 1,064	357	R 3,432	R 262
August	R 4,223	R 572	R 335	R 1,061	301	R 3,768	252
September	R 4,225	R 571	R 35	R 846	278	R 3,708	R 251
October	R 3,969	R 575	R -112	R 666	375	R 3,391	R 254
November	R 3,904	R 559	R 36	R 940	342	R 3,217	R 253
December	R 3,920	R 490	R 90	R 1,069	325	R 3,105	R 250
Average	R 3,997	R 561	R -10	R 888	308	R 3,353	
1987							
January	3,835	428	-152	665	283	3,164	256
February	3,773	608	-354	385	320	3,322	266
March	3,772	599	-146	717	281	3,225	270
April	3,948	478	110	885	254	3,397	267
4-Mo. Average	3,832	527	-132	668	284	3,275	
1986 4-Mo. Average	3,827	508	-113	835	289	3,098	
1985 4-Mo. Average	3,446	519	-157	681	216	2,911	

^aIncludes 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.

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

^cStocks are totals as of end of period.

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

See Note 5 at end of this section.

^eDue to a rounding difference, this value is 2,869 in the *Petroleum Supply Annual* and the *Petroleum Supply Monthly*.

R=Revised data.

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

Sources: See end of 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. That discrepancy 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. The imbal-

ance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment. For further details, see the EIA, *Petroleum Supply Monthly*.

5. **New Stock Basis:** In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982--645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974--1,121; 1980--1,420; and 1982--1,462.
- Motor Gasoline: 1974--225; 1980--263; 1982--244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974--224; 1980--205; and 1982--186.
- Residual Fuel Oil: 1974--75; 1980--91; and 1982--68.
- Liquefied Petroleum Gases: 1974--113; 1980--128; and 1982--103.
- Other Petroleum Products: 1974--220; 1980--249; and 1982--259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983, were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of those 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*.
- 1981 through 1986: EIA, *Petroleum Supply Annual*.
- January 1987 through April 1987: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- May 1987: Estimates based on EIA Weekly Data (except domestic crude oil production).
- January 1986 through May 1987: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey.

Section 4. Natural Gas

Total dry natural gas production in the United States during April 1987 was an estimated 1.3 trillion cubic feet, 4.2 percent more than in April 1986.

Consumption of natural and supplemental gas in April 1987 was an estimated 1.3 trillion cubic feet. **That level** was 4.2 percent lower than in April 1986.

Deliveries to residential consumers during March 1987 (latest data available) were 583 billion cubic feet, 1.5 percent lower than in March 1986. Total deliveries to industrial consumers during March 1987 were an

estimated 412 billion cubic feet. **This** was 20.8 percent lower than in March 1986.

Imports of natural gas in April 1987 were an estimated 68 billion cubic feet, 58.1 percent higher than in the previous April.

Stocks of working gas² in underground natural gas storage reservoirs at the end of April 1987 totaled 1,939 billion cubic feet. **That total** was 5.5 percent above stocks available 1 year earlier. Net withdrawals from storage during April 1987 were 57 billion cubic feet, 19.7 percent less than during the previous April.

²Gas available for withdrawal.

Table 4.1 Natural Gas Production
(Billion Cubic Feet)

	Gross Wet Gas Withdrawals ^a	Used for Repressing ^b	Nonhydro-carbon Gas Removed ^c	Vented and Flared	Marketed Production (Wet) ^d	Extraction Loss ^c	Total Dry Gas Production ^e
1973 Total	24,067	1,171	NA	248	22,648	917	21,731
1974 Total	22,850	1,080	NA	169	21,601	887	20,713
1975 Total	21,104	861	NA	134	20,109	872	19,236
1976 Total	20,944	859	NA	132	19,952	854	19,098
1977 Total	21,097	935	NA	137	20,025	863	19,163
1978 Total	21,309	1,181	NA	153	19,974	852	19,122
1979 Total	21,883	1,245	NA	167	20,471	808	19,663
1980 Total	21,870	1,365	199	125	20,180	777	19,403
1981 Total	21,587	1,312	222	98	19,956	775	19,181
1982 Total	20,210	1,388	208	93	18,520	762	17,758
1983 Total	18,597	1,458	222	95	16,822	790	16,033
1984 Total	20,192	1,630	224	108	18,230	838	17,392
1985 January	1,826	154	29	8	1,636	77	1,559
February	1,667	148	26	7	1,486	70	1,416
March	1,684	165	28	7	1,484	71	1,413
April	1,595	163	27	8	1,397	66	1,331
May	1,579	161	27	8	1,383	66	1,317
June	1,521	154	23	8	1,336	63	1,273
July	1,565	161	27	8	1,368	65	1,303
August	1,554	153	27	8	1,365	65	1,300
September	1,530	159	25	8	1,338	64	1,274
October	1,589	160	27	8	1,394	66	1,328
November	1,599	164	29	8	1,398	66	1,332
December	1,825	173	32	8	1,613	76	1,537
Total	19,534	1,915	326	95	17,198	816	16,382
1986 January	1,801	159	20	8	1,614	74	1,540
February	1,571	146	18	7	1,401	64	1,337
March	1,678	163	20	7	1,487	68	1,419
April	1,514	151	19	7	1,337	62	1,275
May	1,541	154	18	7	1,362	63	1,299
June	1,471	142	19	7	1,302	60	1,242
July	1,512	142	19	7	1,344	62	1,282
August	1,511	139	20	7	1,345	62	1,283
September	1,432	130	17	6	1,279	59	1,220
October	1,531	153	17	7	1,354	62	1,292
November	1,622	158	20	8	1,436	66	1,370
December	1,735	157	22	8	1,548	71	1,477
Total	18,919	1,794	229	86	16,809	773	16,036
1987 January	1,783	167	22	12	1,582	75	1,507
February	R 1,597	R 153	R 21	R 9	R 1,414	R 67	R 1,347
March	E 1,663	E 157	E 20	E 8	E 1,478	E 70	E 1,408
April	E 1,570	E 147	E 19	E 9	E 1,395	E 66	E 1,329
4-Mo. Total	6,613	624	82	38	5,869	278	5,591
1986 4-Mo. Total	6,564	619	77	29	5,839	268	5,571
1985 4-Mo. Total	6,772	630	110	30	6,003	284	5,719

^aGas withdrawn from gas and oil wells.

^bGas returned to formations for repressuring, pressure maintenance, and cycling.

^cFor definitions and further explanations, see Notes at end of section.

^dEqual to gross withdrawals minus volumes used for repressuring, volumes of nonhydrocarbon gases removed, and volumes vented and flared.

See Note 2 at end of section.

^eEqual to marketed production (wet) minus extraction loss.

^fMay include unknown quantities of nonhydrocarbon gases.

R=Revised data. NA=Not available. E=Estimate.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. • Data through 1985 are final. Subsequent data are preliminary.

Sources: See end of section.

Table 4.2 Natural Gas Supply and Disposition
(Billion Cubic Feet)

	Supply				Total Supply/ Disposition ^c	Disposition			
	Total Dry Gas Production	With- drawals from Storage ^a	Supple- mental Gaseous Fuels ^b	Imports ^b		Additions to Storage ^a	Exports ^b	Consump- tion ^b	Un- accounted for ^e
1973 Total	d 21,731	1,533	NA	1,033	24,297	1,974	77	22,049	196
1974 Total	d 20,713	1,701	NA	959	23,373	1,784	77	21,223	289
1975 Total	d 19,236	1,760	NA	953	21,949	2,104	73	19,538	235
1976 Total	d 19,098	1,921	NA	964	21,983	1,756	65	19,946	216
1977 Total	d 19,163	1,750	NA	1,011	21,924	2,307	56	19,521	41
1978 Total	d 19,122	2,158	NA	966	22,245	2,278	53	19,627	287
1979 Total	d 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 Total	19,181	1,930	176	904	22,191	2,228	59	19,404	501
1982 Total	17,758	2,164	145	933	21,000	2,472	52	18,001	475
1983 Total	16,033	2,270	132	920	19,354	1,822	55	16,835	e 642
1984 Total	17,392	2,098	110	843	20,443	2,295	55	17,951	e 143
1985 January	1,559	661	13	104	2,337	35	5	2,101	196
February	1,416	438	9	99	1,962	48	5	2,148	-239
March	1,413	214	8	90	1,725	98	6	1,719	-98
April	1,331	94	11	76	1,512	209	5	1,447	-149
May	1,317	25	11	73	1,426	303	2	1,148	-27
June	1,273	33	10	65	1,381	262	5	1,077	37
July	1,303	45	12	59	1,419	312	6	1,120	-19
August	1,300	50	12	61	1,423	279	5	1,118	21
September	1,274	20	9	63	1,366	271	5	1,041	49
October	1,328	74	12	76	1,490	201	5	1,148	136
November	1,332	208	9	77	1,626	99	5	1,313	209
December	1,537	534	11	106	2,188	47	5	1,903	233
Total	16,382	2,397	126	949	19,855	2,163	57	17,281	354
1986 January	1,540	441	15	98	2,094	49	5	2,111	-71
February	1,337	400	14	73	1,824	59	5	1,859	-99
March	1,419	233	14	54	1,720	121	5	1,702	-108
April	1,275	81	10	43	1,409	152	4	R 1,319	-66
May	1,299	50	10	48	1,407	278	4	1,150	-25
June	1,242	27	10	46	1,325	270	5	1,022	28
July	1,282	31	10	47	1,370	286	4	1,020	60
August	1,283	27	10	50	1,370	287	5	982	96
September	1,220	27	10	55	1,312	246	4	932	130
October	1,292	53	11	66	1,422	205	5	1,004	208
November	1,370	199	13	75	1,657	72	5	1,238	342
December	1,477	377	15	99	1,968	39	4	1,664	261
Total	16,036	1,943	142	754	18,878	2,064	55	16,003	756
1987 January	1,507	518	17	110	2,152	47	5	1,919	181
February	R 1,347	331	14	97	R 1,789	38	5	R 1,724	R 22
March	E 1,408	217	13	68	1,706	106	5	R 1,589	R 6
April	E 1,329	107	12	68	1,516	164	4	1,263	85
4-Mo. Total	5,591	1,173	56	343	7,163	355	19	6,495	294
1986 4-Mo. Total	5,571	1,155	53	268	7,047	381	19	6,991	-344
1985 4-Mo. Total	5,719	1,407	41	369	7,536	390	21	7,415	-290

^aData for 1980 through 1985 include underground storage and liquefied natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 at end of section.

^bFor definitions and further explanations, see Notes at end of section.

^cData for 1978 through 1982 do not include intransit receipts and deliveries.

^dMay include unknown quantities of nonhydrocarbon gases.

^eSee Note 7 at end of section.

R=Revised data. NA=Not available. E=Estimate.

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

• Data through 1985 are final. Subsequent data are preliminary.

Sources: See end of section.

Table 4.3 Natural Gas^a Consumption by End-Use Sector
(Billion Cubic Feet)

	Lease and Plant Fuel	Pipeline Fuel	Delivered to Consumers					Total Consumption
			Residential	Commercial ^b	Industrial	Electric Utilities	Total	
1973 Total	1,496	728	4,879	2,597	8,689	3,660	19,825	22,049
1974 Total	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223
1975 Total	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538
1976 Total	1,634	548	5,051	2,668	6,964	3,081	17,764	19,946
1977 Total	1,659	533	4,821	2,501	6,815	3,191	17,329	19,521
1978 Total	1,648	530	4,903	2,601	6,757	3,188	17,449	19,627
1979 Total	1,499	601	4,965	2,786	6,899	3,491	18,141	20,241
1980 Total	1,026	635	4,752	2,611	7,172	3,682	18,216	19,877
1981 Total	928	642	4,546	2,520	7,128	3,640	17,834	19,404
1982 Total	1,109	596	4,633	2,606	5,831	3,226	16,295	18,001
1983 Total	978	490	4,381	2,433	5,643	2,911	15,367	16,835
1984 Total	1,077	529	4,555	2,524	6,154	3,111	16,345	17,951
1985 January	91	54	743	372	615	226	1,957	2,101
February	84	46	837	412	566	203	2,017	2,148
March	83	42	566	290	531	207	1,595	1,719
April	79	39	397	206	492	234	1,328	1,447
May	78	40	212	128	454	236	1,029	1,148
June	75	38	157	100	425	282	964	1,077
July	77	40	130	96	440	337	1,002	1,120
August	77	39	119	93	435	355	1,002	1,118
September	75	37	129	98	427	275	929	1,041
October	78	39	190	125	466	250	1,030	1,148
November	79	39	306	180	479	230	1,195	1,313
December	91	51	647	333	571	210	1,762	1,903
Total	966	504	4,433	2,432	5,901	3,044	15,811	17,281
1986 January	91	49	805	395	587	184	1,971	2,111
February	79	43	698	348	534	157	1,737	1,859
March	84	42	592	294	520	170	1,576	1,702
April	75	36	371	191	449	198	1,210	1,319
May	77	38	242	134	428	231	1,036	1,150
June	73	37	158	99	395	260	912	1,022
July	76	38	129	89	387	301	906	1,020
August	76	38	120	91	381	276	869	982
September	72	36	133	93	351	247	824	932
October	76	38	189	119	367	217	891	1,004
November	81	38	355	192	385	187	1,119	1,238
December	87	47	610	302	443	175	1,530	1,664
Total	947	480	4,404	2,348	5,226	2,602	14,581	16,003
1987 January	89	51	747	355	492	185	1,779	1,919
February	R 79	41	695	325	426	158	1,604	R 1,724
March	83	42	583	279	412	190	1,464	R 1,589
3-Month Total	251	134	2,025	959	1,330	533	4,847	5,232
1986 3-Month Total	254	134	2,095	1,037	1,641	511	5,284	5,672
1985 3-Month Total	258	142	2,146	1,074	1,712	636	5,569	5,968

^aIncludes supplemental gaseous fuels.

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

R=Revised data.

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

• Data through 1985 are final. Subsequent data are preliminary.

Sources: See end of section.

Table 4.4 Underground Storage of Natural Gas
(Volumes in Billion Cubic Feet)

	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 ^a	Volume	Percent	Injections	Withdrawals	Net ^b
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	.8	1,784	1,701	83
1975 Total	3,162	2,212	5,374	162	7.9	2,104	1,760	344
1976 Total	3,323	1,926	5,250	-286	-12.9	1,756	1,921	-165
1977 Total	3,391	2,475	5,866	549	28.5	2,307	1,750	557
1978 Total	3,473	2,547	6,020	72	2.9	2,278	2,158	120
1979 Total	3,553	2,753	6,306	207	8.1	2,295	2,047	248
1980 Total	3,642	2,655	6,297	-99	-3.6	1,896	1,910	-14
1981 Total	3,752	2,817	6,569	162	6.1	2,180	1,887	293
1982 Total	3,808	3,071	6,879	255	9.0	2,399	2,094	306
1983 Total	3,847	2,595	6,442	-476	-15.5	1,700	2,142	-442
1984 Total	3,830	2,876	6,706	281	10.8	2,252	2,064	188
1985 January	3,841	2,242	6,083	151	7.2	32	642	-610
February	3,841	1,853	5,694	-23	-1.2	47	438	-391
March	3,835	1,743	5,578	171	10.8	98	217	-119
April	3,831	1,859	5,691	239	14.8	204	91	113
May	3,837	2,129	5,965	286	15.5	294	23	272
June	3,839	2,351	6,191	211	9.8	252	31	221
July	3,849	2,605	6,454	149	6.1	309	45	263
August	3,849	2,832	6,681	92	3.4	278	50	228
September	3,849	3,081	6,930	85	2.8	272	20	253
October	3,851	3,204	7,055	29	.9	199	71	128
November	3,847	3,086	6,933	71	2.4	99	202	-103
December	3,842	2,607	6,448	-270	-9.4	44	529	-485
Total						2,128	2,359	-231
1986 January	3,842	2,214	6,056	-28	-1.3	49	441	-392
February	3,842	1,872	5,714	19	1.0	59	400	-341
March	3,838	1,764	5,602	21	1.2	121	233	-112
April	3,834	1,838	5,673	-21	-1.1	152	81	71
May	3,830	2,071	5,901	-58	-2.7	278	50	228
June	3,829	2,315	6,144	-37	-1.6	270	27	244
July	3,841	2,558	6,400	-47	-1.8	286	31	256
August	3,838	2,822	6,660	-10	-.3	287	27	261
September	3,838	3,042	6,880	-40	-1.3	246	27	219
October	3,840	3,199	7,039	-5	-.2	205	53	152
November	3,833	3,080	6,912	-7	-.2	72	199	-127
December	3,833	2,747	6,580	140	5.4	39	377	-338
Total						2,064	1,943	121
1987 January	3,821	2,279	6,100	66	3.0	47	518	-471
February	3,818	1,989	5,806	117	6.2	38	331	-293
March	3,816	1,879	5,696	115	6.5	106	217	-111
April	3,814	1,939	5,753	101	5.5	164	107	57

^aTotal underground storage capacity at the end of each calendar year (in billion cubic feet): 1978--6,890; 1979--6,929; 1980--7,434; 1981--7,805; 1982--7,915; 1983--7,985; 1984--8,043; and 1985--8,087. Current capacity is 8,145.

^bPositive 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 at end of section.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. • Data through 1985 are final. Subsequent data are preliminary.

Sources: See end of section.

Figure 4.1 Natural Gas Consumption, Production, and Imports

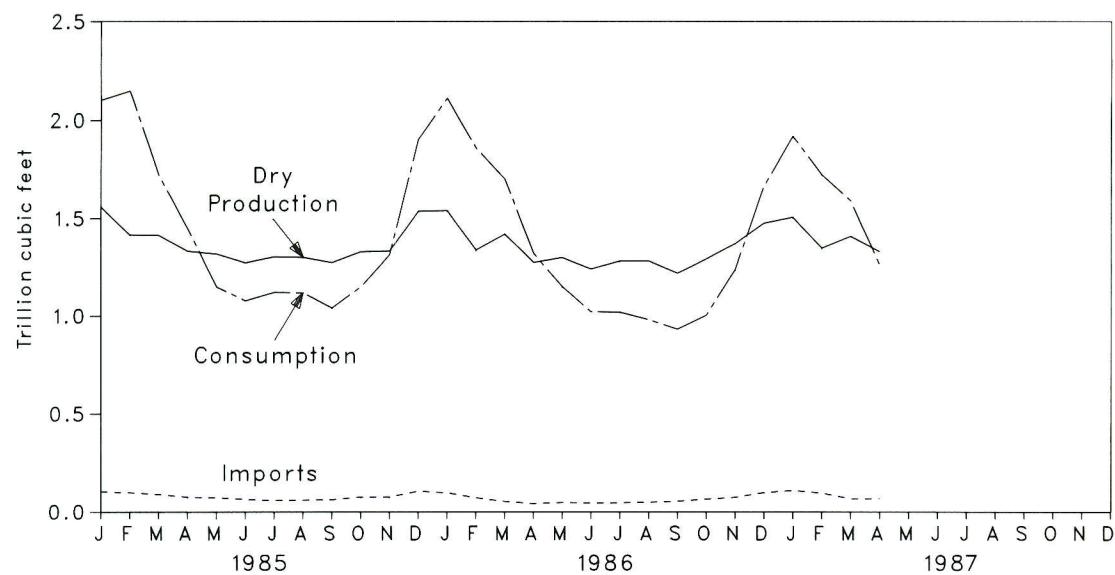
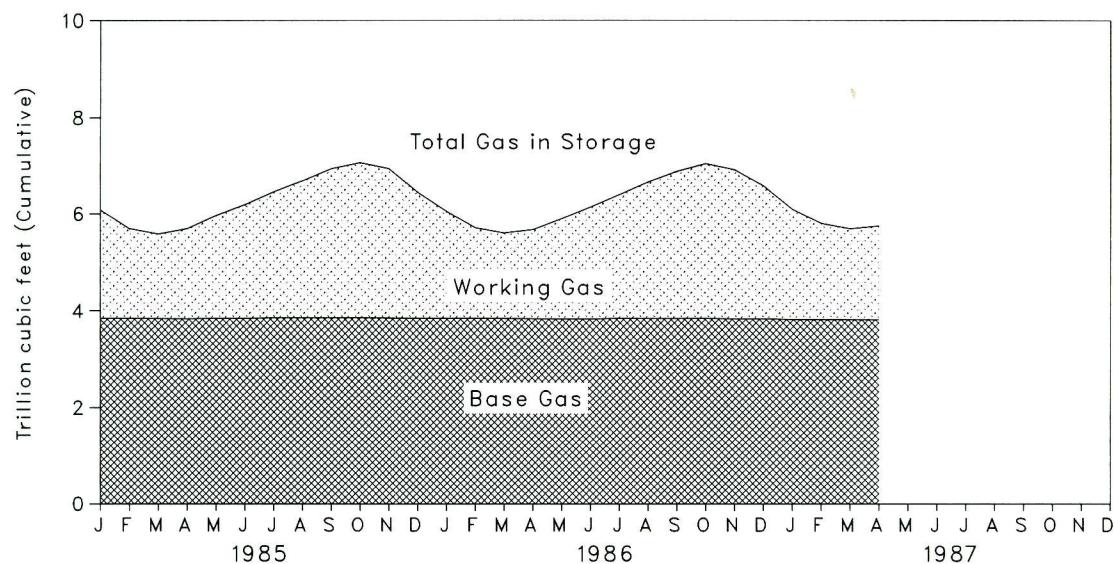


Figure 4.2 Natural Gas in Storage at End of Period



Notes and Sources for the Natural Gas Section

Notes

1. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production--carbon dioxide, helium, hydrogen sulfide, and nitrogen--are from the Energy Information Administration (EIA) *Natural Gas Annual 1985*. These data are not available for periods prior to 1980. For 1985, of the 32 producing States, 24 reported data on nonhydrocarbon gases removed. These 24 States accounted for 59 percent of total 1985 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 37 percent of the 1985 total production, did not include all or most of the nonhydrocarbon gases removed on leases. No estimates are made for the two States not reporting nonhydrocarbon gases removed. For further information, see the EIA *Natural Gas Monthly*.

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

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

2. Production: Annual data. Final annual data are from the EIA *Natural Gas Annual 1985*.

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

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

Final monthly data. The difference between annual production data published in the EIA *Natural Gas Annual 1985* and the sum of preliminary monthly data (January-December) is allocated proportionally to the preliminary monthly data.

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

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

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

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

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

Annual data beginning with 1980 are from the EIA *Natural Gas Annual 1985*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

All monthly data are considered preliminary until after the publication of the EIA *Natural Gas Annual* for that year. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a monthly supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Mexico and Canada, and liquefied natural gas (until September 1985) via tanker from Algeria. The United States exports natural gas via pipeline to Mexico and Canada and liquefied natural gas via tanker to Japan.

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

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

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

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

7. Unaccounted for: The "Unaccounted for" category represents the following: (1) quantities lost; (2) the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; (3) metering inaccuracies; (4) differences between billing cycle and calendar period time frames; (5) the effect of variations in company accounting and billing practices; and (6) imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. The increase of 0.2 trillion cubic feet (Tcf) in the "Unaccounted for" category in 1983 followed by a decline of 0.5 trillion cubic feet in 1984 reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15, through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 *Natural Gas Monthly*, which was published in July 1985.

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

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

The final monthly and annual storage and withdrawal data for 1980 through 1985 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.

Sources

Production: 1973 through 1985: Energy Information Administration (EIA), *Natural Gas Annual 1985*; January 1986 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 1985: EIA, *Natural Gas Annual 1985*; January 1986 forward: EIA computations.

Withdrawals from and Additions to Storage: 1973 through 1985: EIA, *Natural Gas Annual 1985*; January 1986 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."

Supplemental Gaseous Fuels: 1980 through 1985: EIA, *Natural Gas Annual 1985*; January 1986 forward: EIA computations.

Imports and Exports: 1973 through 1985: Form FPC-14, "Imports and Exports of Natural Gas"; January 1986 forward: EIA computations.

End-Use Consumption: All data except electric utility--1973 through 1985: EIA, *Natural Gas Annual 1985*; January 1986 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," and EIA computations. Electric utility data--EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).

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

Section 5. Oil and Gas Resource Development

In April 1987, 164 crews were engaged in seismic exploration, 20.0 percent fewer than the 205 in April 1986. The 19 marine vessels were 5.0 percent fewer and the 145 land crews were 21.6 percent fewer than those in April 1986. The total number of crews increased by 9.3 percent from the previous month, the largest increase since July 1985.

The May 1987 rotary rig count of 763 was 2.3 percent less than the 781 rigs active in May 1986, but 1.2 percent more than the rigs in April 1987. The 76 rigs operating offshore in May 1987 were 19.1 percent fewer than the 94 rigs operating offshore 1 year earlier. The 687 rigs operating onshore were the same number as those operating onshore in May 1986.

Exploratory and development well completions during April 1987 were an estimated 2,040, 38.2 percent less than the 3,300 completions estimated in April 1986 and 19.7 percent less than completions in March 1987. Oil well completions were an estimated 1,020, 38.9 percent lower than the 1,670 oil well completions in the previous April. The 360 gas well completions in April 1987 were 42.9 percent lower than the April 1986 number of 630. Total footage drilled in April 1987 was 9.9 million feet, a decrease of 37.1 percent compared with the 15.7 million feet drilled in April 1986 and a decrease of 19.2 percent from the footage drilled in March 1987.

Figure 5.1 Seismic Crews and Rotary Rigs In Operation, and Footage Drilled

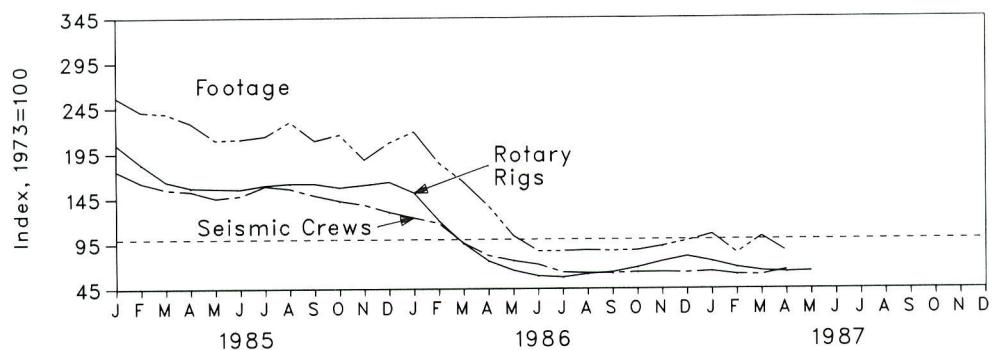


Figure 5.2 Exploratory and Development Well Completions

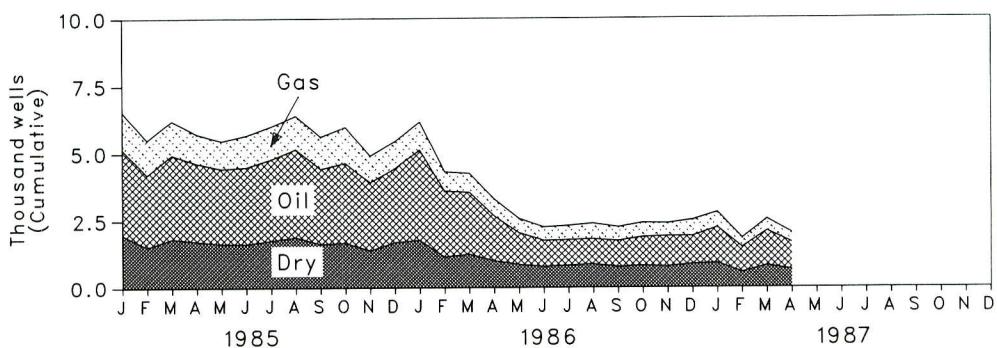


Table 5.1 Seismic Crew and Rotary Rig Count

	Crews Engaged in Seismic Exploration			Rotary Rigs in Operation ^a		
	Offshore	Onshore	Total	Offshore	Onshore	Total
	Monthly Average			Weekly Average		
1973 Average	23	227	250	84	1,110	1,194
1974 Average	31	274	305	94	1,378	1,472
1975 Average	30	254	284	106	1,554	1,660
1976 Average	25	237	262	129	1,529	1,658
1977 Average	27	281	308	167	1,834	2,001
1978 Average	25	327	352	185	2,074	2,259
1979 Average	30	370	400	207	1,970	2,177
1980 Average	37	493	530	231	2,678	2,909
1981 Average	44	637	681	256	3,714	3,970
1982 Average	57	531	588	243	2,862	3,105
1983 Average	47	426	473	199	2,033	2,232
1984 Average	49	445	494	213	2,215	2,428
1985						
January	46	393	439	242	2,210	2,452
February	46	360	406	233	1,955	2,188
March	48	340	388	223	1,732	1,955
April	47	336	383	210	1,667	1,877
May	41	323	364	200	1,665	1,865
June	47	324	371	203	1,653	1,858
July	47	350	397	194	1,715	1,909
August	49	341	390	197	1,734	1,931
September	49	323	372	197	1,733	1,930
October	45	312	357	195	1,684	1,879
November	41	305	346	187	1,725	1,912
December	39	287	326	190	1,760	1,950
Average	45	333	378	206	1,774	1,980
1986						
January	39	271	310	175	1,635	1,810
February	39	256	295	164	1,280	1,444
March	28	212	240	132	1,007	1,139
April	20	185	205	112	794	906
May	19	172	191	94	687	781
June	18	162	180	73	632	705
July	20	138	158	65	621	686
August	19	137	156	65	665	730
September	24	131	155	74	681	755
October	22	136	158	80	739	819
November	19	139	158	79	820	899
December	18	139	157	89	874	963
Average	24	176	201	99	865	964
1987						
January	18	142	160	88	812	900
February	19	132	151	75	743	818
March	18	132	150	76	696	772
April	19	145	164	73	681	754
May	NA	NA	NA	76	687	763
5-Month Ave.	NA	NA	NA	77	721	798

^aMonthly data are averages of 4- or 5-week reporting periods and are not calendar months.
NA=Not available.

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

Sources: See end of section.

Table 5.2 Exploratory and Development Wells Completed and Footage Drilled

	Exploratory and Development Well Completions ^a				Total Footage ^a
	Oil	Gas	Dry	Total	
	Thousand Wells				Million Feet
1973 Total	10.25	6.97	10.47	27.69	139.42
1974 Total	13.66	7.17	12.20	33.04	153.79
1975 Total	16.98	8.17	13.74	38.88	181.05
1976 Total	17.70	9.44	13.80	40.94	187.29
1977 Total	18.70	12.12	15.04	45.85	215.70
1978 Total	19.06	14.40	16.59	50.06	238.39
1979 Total	20.70	15.17	16.04	51.91	243.69
1980 Total	32.28	17.22	20.34	69.84	312.30
1981 Total	42.84	19.91	27.28	90.03	408.83
1982 Total	38.72	18.73	25.89	83.34	374.43
1983 Total	36.88	14.36	23.79	75.03	314.96
1984 Total	42.46	16.81	25.09	84.36	365.72
1985 January	3.17	1.40	1.98	6.55	30.41
February	2.69	1.28	1.53	5.50	25.77
March	3.11	1.27	1.83	6.21	28.30
April	R 2.89	R 1.09	R 1.74	R 5.72	R 26.19
May	2.79	1.02	1.65	5.46	24.85
June	2.85	1.18	1.64	5.67	24.18
July	3.01	1.22	1.77	6.00	25.38
August	3.26	1.25	1.89	6.41	27.23
September	2.79	R 1.19	1.64	R 5.62	R 23.99
October	2.96	1.33	1.68	5.96	25.58
November	2.54	.98	1.39	4.91	21.59
December	2.75	.99	1.70	5.44	24.53
Total	R 34.81	R 14.21	R 20.44	R 69.46	R 308.01
1986 January	3.34	1.04	1.78	6.16	25.94
February	2.36	.72	1.15	4.23	19.74
March	2.31	.71	1.25	4.28	19.32
April	R 1.67	R .63	R 1.00	R 3.30	R 15.68
May	1.19	.52	.86	2.57	12.32
June98	.50	.78	2.26	9.97
July96	.53	.82	2.31	10.31
August94	.53	.87	2.33	10.07
September98	.51	.77	2.26	9.98
October	R 1.08	R .53	R .81	R 2.42	R 10.41
November	1.14	.48	.78	2.40	10.39
December	1.05	.60	.87	2.52	11.63
Total	R 18.00	R 7.30	R 11.73	R 37.04	R 165.75
1987 January	1.33	.56	.91	2.80	12.49
February94	.34	.56	1.84	9.05
March	1.30	.44	.81	2.54	12.20
April	1.02	.36	.66	2.04	9.86
4-Month Total	4.58	1.69	2.94	9.22	43.59

^aData exclude service wells and stratigraphic and core tests.

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 subsequent revisions and independent rounding. • Due to the method of estimation, data shown on this page are frequently revised. See end of section.

Source: See end of section.

1985-86
4-month totals?

Notes and Sources for the Oil and Gas Resource Development Section

Notes

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

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

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

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

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

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

Sources

- Crews Engaged: Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletins, *Geophysics* and *Leading Edge*.
- Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running--by State."
- Wells and Footage Drilled: EIA computations based on well reports submitted to the American Petroleum Institute by Petroleum Information Corporation.

Section 6. Coal

Coal production in April 1987 totaled 72.0 million short tons, 3.2 million short tons (4.3 percent) below the 75.2 million short tons produced in April 1986.

Electric utility coal consumption in March 1987 totaled 54.6 million short tons, 1.4 percent more than the 53.9 million short tons consumed in March 1986. During the first 3 months of 1987 coal consumption at electric utilities was 170.8 million short tons. This was 1.3 percent less than the 173.0 million short tons consumed during the first 3 months of 1986.

Electric utility coal stocks at the end of March 1987 were 161.6 million short tons, 4.7 percent more than the 154.4 million short tons of stocks at the end of March 1986.

Exports of coal in March 1987 totaled 6.5 million short tons, 5.0 percent more than the 6.2 million short tons exported during March 1986. Coal exports for January through March 1987 totaled 16.6 million short tons, 3.9 percent less than the 17.2 million short tons exported during the comparable period in 1986.

Coal imports totaled 111,000 short tons in March 1987, 11,000 short tons less than the 122,000 short tons imported in March 1986. During the first 3 months of 1987, 330,000 short tons of coal were imported, 155,000 short tons less than the 485,000 imported January through March 1986.

Figure 6.1 Coal Production, Consumption, Imports, and Exports

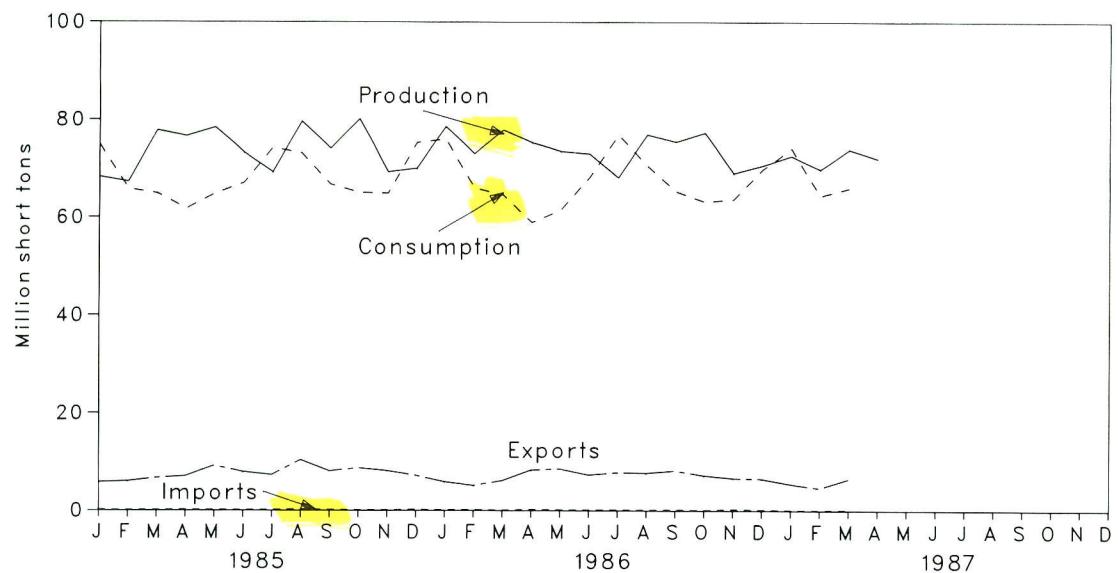


Figure 6.2 Coal Stocks at End of Period

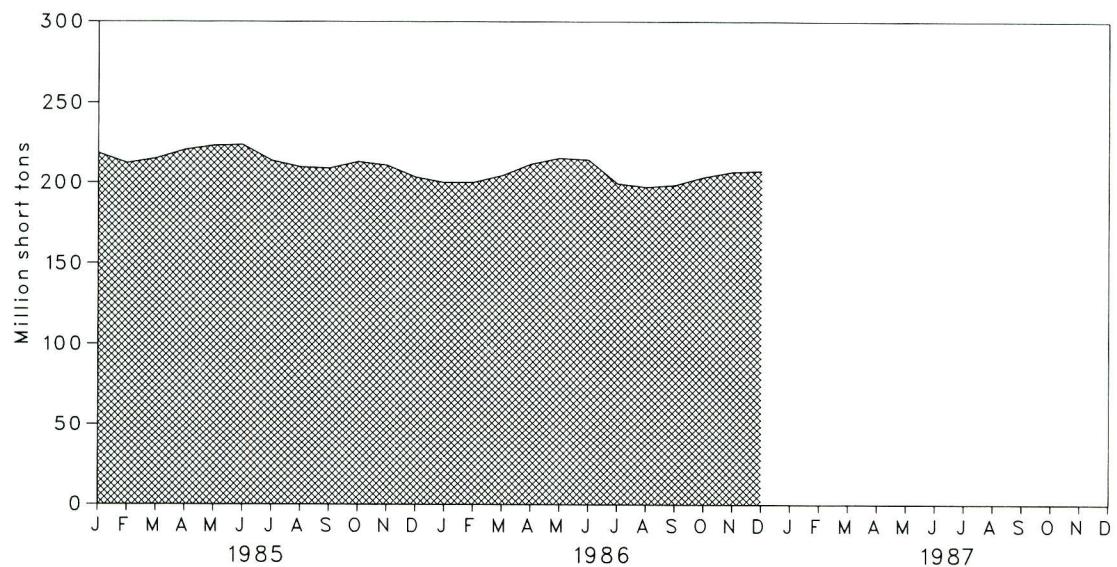


Table 6.1 Coal Overview
(Thousand Short Tons)

	Production	Consumption	Imports ^a	Exports ^b	Stocks ^c
1973 Total	598,568	562,584	127	53,587	NA
1974 Total	610,023	558,402	2,080	60,661	NA
1975 Total	654,641	562,640	940	66,309	NA
1976 Total	684,913	603,790	1,203	60,021	NA
1977 Total	697,205	625,291	1,647	54,312	NA
1978 Total	670,164	625,225	2,953	40,714	NA
1979 Total	781,134	680,524	2,059	66,042	202,472
1980 Total	829,700	702,729	1,194	91,742	228,407
1981 Total	823,775	732,628	1,043	112,541	209,423
1982 Total	838,111	706,910	742	106,277	232,037
1983 Total	782,091	736,671	1,271	77,772	202,585
1984 Total	895,921	791,291	1,286	81,483	231,300
 1985 January	68,261	R 74,849	126	5,817	218,131
February	67,233	R 65,777	101	6,030	212,035
March	77,744	R 64,857	103	6,696	214,825
April	76,541	61,753	203	7,065	220,230
May	78,382	R 64,797	159	9,231	222,798
June	73,237	66,978	138	7,913	223,210
July	69,228	R 74,162	177	7,314	213,601
August	79,622	73,102	264	10,422	209,555
September	73,977	66,673	182	8,095	208,827
October	80,158	R 65,033	128	8,744	212,920
November	69,268	R 64,866	111	8,134	210,656
December	69,989	R 75,201	260	7,220	203,367
Total	883,638	R 818,049	1,952	92,680	
 1986 January	78,543	R 75,905	154	5,935	R 200,074
February	72,929	R 65,942	209	5,158	R 200,159
March	77,829	R 64,546	122	6,152	R 204,422
April	75,195	R 58,921	214	8,302	R 211,500
May	73,432	R 61,559	172	8,545	R 215,508
June	72,967	R 68,193	190	7,323	R 214,166
July	68,116	R 76,787	178	7,780	R 199,556
August	76,879	R 70,590	171	7,718	R 197,412
September	75,355	R 65,293	188	8,189	R 198,690
October	77,262	63,176	110	7,205	203,538
November	69,044	63,679	319	6,676	206,834
December	70,604	69,788	185	6,536	207,323
Total	888,155	R 804,377	2,212	85,518	
 1987 January	72,547	NA	134	5,471	NA
February	69,814	NA	85	4,643	NA
March	73,791	NA	111	6,462	NA
April	71,970	NA	NA	NA	NA
4-Mo. Total	288,122	NA	NA	NA	
 1986 4-Mo. Total	304,496	265,314	699	25,547	
1985 4-Mo. Total	289,779	267,237	533	25,608	

^aIncludes Puerto Rico.

^bExcludes shipments of anthracite to U.S. Armed Forces overseas (218,000 short tons in 1982, 341,000 short tons in 1983, 298,000 short tons in 1984, and 240,000 short tons in 1985).

^cStocks held by electric utilities, coke plants, general industry, and coal producers and distributors at the end of period. Excludes stocks held at retail dealers for consumption by the residential and commercial sector.

R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Data through 1985 are final. Subsequent data are preliminary.

• Totals may not equal sum of components due to independent rounding. • See Note at end of section for methodology used to calculate production, consumption, and stocks.

Sources: See end of section.

Table 6.2 Coal Consumption by End-Use Sector^a
(Thousand Short Tons)

	Electric Utilities	Industrial		Residential and Commercial	Total
		Coke Plants	Other Industrial Including Transportation		
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	562,640
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	6,452	702,729
1981 Total	596,797	61,015	67,395	7,422	732,628
1982 Total	593,666	40,908	64,096	8,240	706,910
1983 Total	625,211	37,033	65,979	8,448	736,671
1984 Total	664,399	44,022	73,744	9,128	791,291
1985 January	63,645	3,463	6,911	830	R 74,849
February	55,491	3,282	6,278	726	R 65,777
March	54,784	3,511	6,046	518	R 64,857
April	50,903	3,851	6,236	764	61,753
May	54,595	3,778	5,962	461	R 64,797
June	57,634	3,284	5,696	365	66,978
July	64,252	3,437	5,950	523	R 74,162
August	63,076	3,420	6,112	494	73,102
September	56,780	3,361	5,877	656	66,673
October	54,969	3,165	6,183	716	R 65,033
November	54,311	3,192	6,605	758	R 64,866
December	63,402	3,313	7,517	969	R 75,201
Total	693,841	R 41,056	75,372	7,779	R 818,049
1986 January	64,034	3,508	R 7,471	R 893	R 75,905
February	55,050	3,324	R 6,787	R 781	R 65,942
March	53,898	3,555	R 6,535	R 557	R 64,546
April	48,114	3,602	R 6,401	R 805	R 58,921
May	51,420	3,533	R 6,120	R 486	R 61,559
June	58,892	3,071	R 5,846	R 384	R 68,193
July	68,021	2,591	R 5,704	470	R 76,787
August	61,709	2,578	R 5,859	444	R 70,590
September	56,536	2,534	R 5,634	589	R 65,293
October	54,116	2,523	5,874	662	63,176
November	54,158	2,545	6,276	701	63,679
December	59,108	2,641	7,142	896	69,788
Total	685,056	R 36,006	R 75,649	R 7,667	R 804,377
1987 January	62,418	NA	NA	NA	NA
February	53,715	NA	NA	NA	NA
March	54,647	NA	NA	NA	NA
3-Month Total	170,781	NA	NA	NA	NA
1986 3-Month Total	172,982	10,387	20,793	2,231	206,393
1985 3-Month Total	173,919	10,256	19,235	2,074	205,484

^aSee Note 2 at end of section.

R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Data through 1985 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding.

Sources: See end of section.

Table 6.3 Coal Stocks at End of Period
(Thousand Short Tons)

	Consumer				Producers and Distributors	Total ^a
	Electric Utilities	Coke Plants	Other Industrial	Total ^a		
1973 Year	86,967	6,998	10,370	104,335	NA	NA
1974 Year	83,509	6,209	6,605	96,323	NA	NA
1975 Year	110,724	8,797	8,529	128,050	NA	NA
1976 Year	117,436	9,902	7,100	134,438	NA	NA
1977 Year	133,219	12,816	11,063	157,098	NA	NA
1978 Year	128,225	8,278	9,048	145,551	NA	NA
1979 Year	159,714	10,155	11,777	181,646	20,826	202,472
1980 Year	183,010	9,067	11,951	204,028	24,379	228,407
1981 Year	168,893	6,475	9,906	185,274	24,149	209,423
1982 Year	181,132	4,642	9,479	195,253	36,784	232,037
1983 Year	155,598	4,346	8,710	168,654	33,931	202,585
1984 Year	179,727	6,166	11,317	197,210	34,090	231,300
1985 January	167,592	5,583	10,439	183,614	34,517	218,131
February	162,531	4,999	9,561	177,091	34,944	212,035
March	166,355	4,415	8,684	179,454	35,371	214,825
April	171,695	4,472	8,749	184,917	35,313	220,230
May	174,198	4,529	8,815	187,542	35,255	222,798
June	174,545	4,587	8,881	188,013	35,197	223,210
July	165,903	4,171	9,184	179,258	34,342	213,601
August	162,825	3,754	9,488	176,068	33,487	209,555
September	163,065	3,338	9,791	176,195	32,632	208,827
October	166,749	3,365	10,007	180,121	32,799	212,920
November	164,075	3,393	10,222	177,690	32,966	210,656
December	156,376	3,420	10,438	170,234	33,133	203,367
1986 January	152,078	3,302	R 9,930	R 165,311	R 34,763	R 200,074
February	151,157	3,185	R 9,423	R 163,765	R 36,394	R 200,159
March	154,415	3,067	R 8,916	R 166,398	R 38,024	R 204,422
April	161,076	3,224	R 9,135	R 173,434	R 38,065	R 211,500
May	164,667	3,380	R 9,353	R 177,401	R 38,107	R 215,508
June	162,909	3,537	R 9,572	R 176,018	R 38,148	R 214,166
July	149,803	3,313	R 9,740	R 162,856	R 36,700	R 199,556
August	149,163	3,090	R 9,908	R 162,161	R 35,252	R 197,412
September	151,945	2,866	R 10,076	R 164,887	R 33,804	R 198,690
October	157,202	2,908	10,195	170,305	33,233	203,538
November	160,908	2,950	10,314	174,171	32,663	206,834
December	161,806	2,992	10,433	175,230	32,093	207,323
1987 January	157,061	NA	NA	NA	NA	NA
February	158,322	NA	NA	NA	NA	NA
March	161,648	NA	NA	NA	NA	NA

^aTotal excludes stocks held at retail dealers for consumption by the residential and commercial sector.

R=Revised data. NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Data through 1985 are final. Subsequent data are preliminary.

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

Sources: See end of section.

Notes and Sources for the Coal Section

Notes

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

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

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

Prior to 1978, monthly consumption for the other industrial sector (i.e., all industrial users minus coke

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

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

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

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

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

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

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

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

Sources

Production: 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*; October 1977 forward: Energy Information Administration (EIA), *Weekly Coal Production*.

Consumption and Stocks: 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys* (except Residential and Commercial Consumption and Stocks and Producers and Distributors Stocks);

- Electric Utilities--October 1977 forward: EIA, Form EIA-759 (formerly FPC Form 4), "Monthly Power Plant Report."

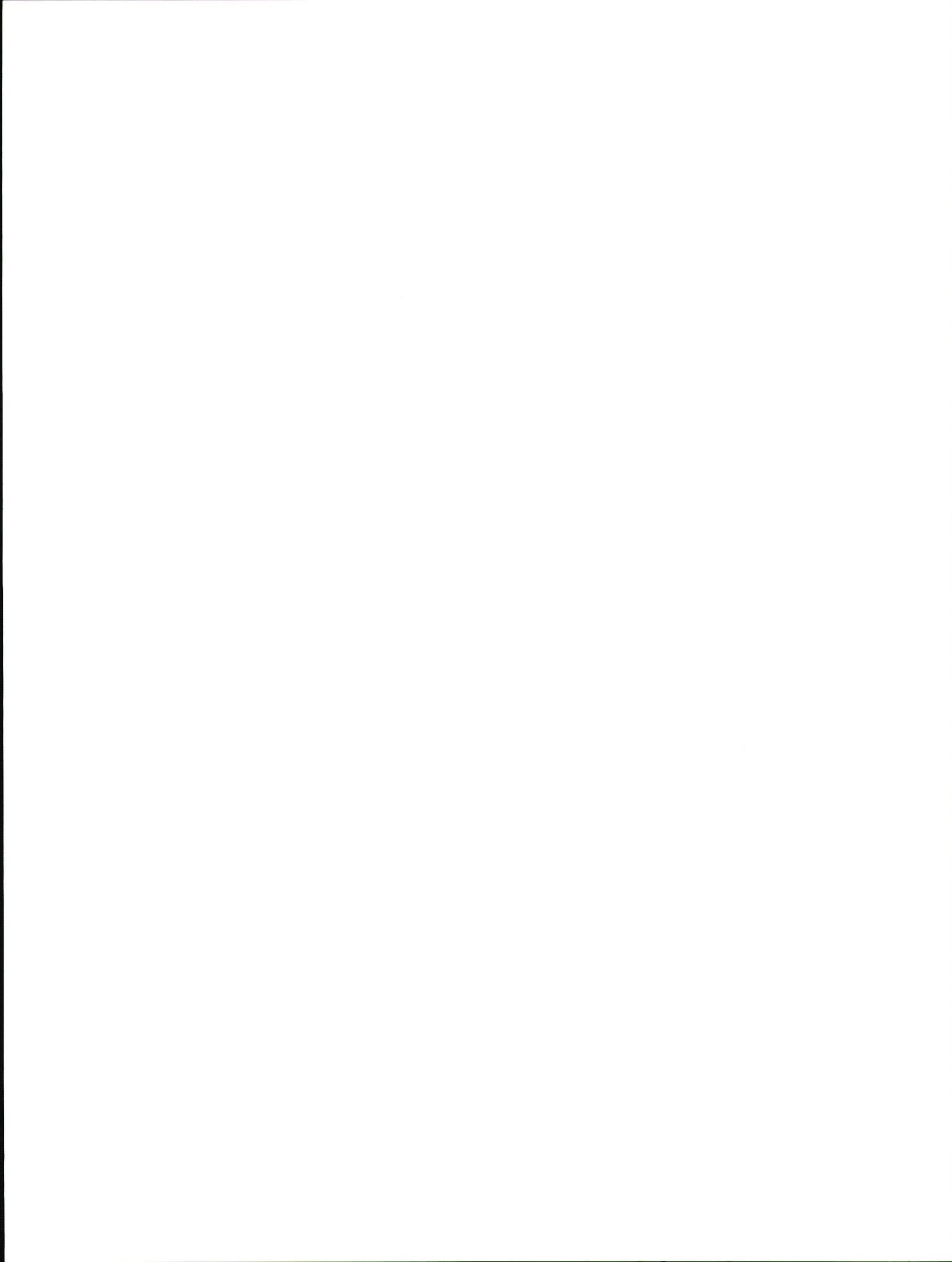
- Coke Plants--October 1977 through December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual"; January 1981 forward: EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement."

- Other Industrial--October 1977 through December 1979: EIA, Form EIA-3, "Monthly Fuel Consumption Report-Manufacturing Plants"; January 1980 forward: EIA, Form EIA-3, "Quarterly Fuel Consumption Report-Manufacturing Plants" and Form EIA-6, "Coal Distribution Report."

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

- Producers and Distributors Stocks--January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report."

Imports and Exports: Bureau of the Census, U.S. Department of Commerce, Monthly Reports IM-145 (Imports) and EM-522 (Exports).



Section 7. Electric Utilities

During March 1987, electric utilities generated 201.8 billion kilowatthours of electricity, 2.5 percent above the March 1986 generation level. Coal-fired generation totaled 111.9 billion kilowatthours, 1.4 percent above the level 1 year earlier. Nuclear generation totaled 37.3 billion kilowatthours, 21.2 percent above the March 1986 level. Hydroelectric generation was 23.2 billion kilowatthours in March 1987, 18.4 percent below the level 1 year earlier. Natural gas-fired generation was 18.3 billion kilowatthours, 13.6 percent above the March 1986 level. Petroleum-fired generation totaled 10.0 billion kilowatthours, 0.7 percent below the level 1 year earlier.

During the first quarter of 1987, electric utilities generated 618.6 billion kilowatthours of electricity, 2.0 percent above the first quarter 1986 generation level. Coal-fired generation totaled 348.2 billion kilowatthours, 1.0 percent below the first quarter 1986 level. Nuclear generation totaled 113.9 billion kilowatthours, 14.2 percent above the first quarter 1986 level. Hydroelectric generation was 69.9 billion kilowatthours in the first quarter of 1987, 4.4 percent below the first quarter 1986 level. Natural gas-fired generation was 51.3 billion kilowatthours, 5.6 percent above the level 1 year earlier. Petroleum-fired generation totaled 32.4 billion kilowatthours, 5.7 percent above the first quarter 1986 level.

Sales of electricity to all ultimate consumers in the United States in March 1987 were 194.0 billion kilowatthours, 2.3 percent below the February 1987 sales. Sales to residential consumers during March 1987 were 67.6 billion kilowatthours, 8.3 percent below the

level of sales during the previous month. Commercial sales were 51.2 billion kilowatthours, 1.9 percent below the amount sold to commercial consumers 1 month earlier. Sales to industrial consumers totaled 68.2 billion kilowatthours in March 1987, 3.9 percent more than the previous month's figure. In March 1987 other sales totaled 7.0 billion kilowatthours, 2.0 percent below the February 1987 level.

Electric utility petroleum consumption (excluding petroleum coke) during March 1987 was 17.0 million barrels, slightly above the March 1986 level. Coal consumption during March 1987 was 54.6 million short tons, 1.4 percent above the March 1986 rate. During March 1987, electric utilities consumed 189.7 billion cubic feet of natural gas, 11.8 percent above the March 1986 consumption level.

Electric utility petroleum consumption (excluding petroleum coke) during the first quarter of 1987 was 55.2 million barrels, 6.0 percent above the first quarter 1986 level. Coal consumption during the first quarter of 1987 was 170.8 million short tons, 1.3 percent below the first quarter 1986 rate. During the first quarter of 1987, electric utilities consumed 532.8 billion cubic feet of natural gas, 4.3 percent above the first quarter 1986 consumption level.

On March 31, 1987, utility stocks of all types of coal totaled 161.6 million short tons. Those stockpiles were 4.7 percent above the level of March 31, 1986. Petroleum stocks (excluding petroleum coke) on March 31, 1987, totaled 65.9 million barrels, 7.8 percent below the level on the same date in 1986.

Table 7.1 Net Electricity Generation at Electric Utilities by Energy Source
(Million Kilowatthours)

	Coal	Petroleum ^a	Natural Gas ^b	Nuclear Electric Power	Hydro-electric Power	Other ^c	Total
1973 Total	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974 Total	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975 Total	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976 Total	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977 Total	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978 Total	975,742	365,060	305,391	276,403	280,419	3,315	2,206,331
1979 Total	1,075,037	303,525	329,485	255,155	279,783	4,387	2,247,372
1980 Total	1,161,562	245,994	346,240	251,116	276,021	5,506	2,286,439
1981 Total	1,203,203	206,421	345,777	272,674	260,684	6,054	2,294,812
1982 Total	1,192,004	146,797	305,260	282,773	309,213	5,164	2,241,211
1983 Total	1,259,424	144,499	274,098	293,677	332,130	6,456	2,310,285
1984 Total	1,341,681	119,808	297,394	327,634	321,150	8,638	2,416,304
1985 January	129,092	12,077	22,051	36,186	27,543	906	227,856
February	112,037	9,270	19,417	30,812	25,902	803	198,242
March	111,391	7,120	19,848	31,041	24,640	930	194,970
April	104,790	6,017	22,425	26,458	24,403	783	184,877
May	111,515	6,859	22,481	28,697	26,421	816	196,790
June	115,583	7,576	26,740	30,837	23,839	788	205,363
July	128,880	8,289	32,191	35,184	21,293	885	226,722
August	126,550	9,858	33,915	34,812	19,981	934	226,050
September	114,630	7,435	26,273	34,508	18,767	887	202,499
October	111,053	7,514	24,120	31,205	20,048	849	194,789
November	108,815	7,008	22,453	30,166	22,954	1,031	192,427
December	127,792	11,177	20,031	33,782	25,359	1,113	219,255
Total	1,402,128	100,202	291,946	383,691	281,149	10,724	2,469,841
1986 January	130,190	11,088	17,472	36,219	21,377	1,123	217,470
February	110,982	9,529	14,925	32,721	23,222	956	192,336
March	110,390	10,073	16,149	30,773	28,465	984	196,834
April	98,995	9,227	18,961	30,477	27,523	891	186,074
May	104,900	10,435	21,947	31,924	27,205	903	197,315
June	120,154	11,563	24,767	31,334	26,223	973	215,015
July	136,654	16,296	28,712	35,894	24,072	1,045	242,672
August	123,618	15,466	26,352	37,483	21,189	1,058	225,166
September	113,957	10,677	23,457	36,593	21,114	895	206,692
October	108,584	9,873	20,876	36,214	21,335	872	197,754
November	109,045	10,464	18,044	34,944	23,153	781	196,432
December	118,362	11,894	16,845	39,463	25,965	1,022	213,551
Total	1,385,831	136,585	248,508	414,038	290,844	11,503	2,487,310
1987 January	126,624	11,924	17,788	39,975	25,409	1,017	222,736
February	109,641	10,504	15,120	36,598	21,216	940	194,019
March	111,920	10,007	18,349	37,290	23,236	1,034	201,837
3-Month Total	348,185	32,434	51,257	113,863	69,860	2,992	618,592
1986 3-Month Total	351,562	30,691	48,546	99,713	73,065	3,062	606,639
1985 3-Month Total	352,520	28,467	61,317	98,040	78,086	2,639	621,068

^aIncludes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

^bIncludes supplemental gaseous fuels.

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

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

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

Table 7.2 Electricity Sales^a by End-Use Sector
(Million Kilowatthours)

	Residential		Commercial		Industrial		Other ^b		Total	
	Old	New	Old	New	Old	New	Old	New	Old	New
1973 Total	579,231		388,266		686,085		59,326		1,712,909	
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		488,155		815,067		73,732		2,094,449	
1981 Total	722,265		514,338		825,743		84,756		2,147,103	
1982 Total	729,520		526,397		744,949		85,575		2,086,441	
1983 Total	750,948		543,788		775,999		80,219		2,150,955	
1984 Total	777,654	780,092	578,281	577,275	840,588	838,718	81,849	88,887	2,278,372	2,284,972
1985 January	77,242	77,520	49,634	49,284	67,219	68,090	7,270	7,860	201,364	202,755
February	78,011	78,292	49,406	49,058	66,582	67,445	7,046	7,618	201,045	202,413
March	63,981	64,211	46,629	46,301	67,437	68,310	6,875	7,434	184,922	186,257
April	56,025	56,227	45,826	45,503	68,445	69,332	7,049	7,622	177,345	178,684
May	52,842	53,032	47,711	47,375	70,140	71,049	6,903	7,464	177,596	178,921
June	60,652	60,871	51,521	51,158	70,091	70,999	6,848	7,404	189,112	190,432
July	70,966	71,222	56,128	55,733	69,760	70,663	7,135	7,714	203,989	205,333
August	73,693	73,959	57,041	56,640	71,402	72,328	7,277	7,868	209,414	210,795
September	71,064	71,320	55,960	55,566	70,744	71,660	7,263	7,853	205,030	206,399
October	57,515	57,723	49,978	49,626	69,158	70,054	6,903	7,464	183,554	184,866
November	56,794	56,999	47,843	47,506	67,164	68,034	7,264	7,854	179,065	180,393
December	72,192	72,452	51,289	50,928	66,383	67,243	7,243	7,831	197,107	198,454
Total	790,977	793,828	608,968	604,679	824,523	835,207	85,075	91,988	2,309,543	2,325,702
1986 January ^c	82,956		53,376		65,548		7,222		209,102	
February	70,820		50,371		65,116		6,856		193,162	
March	65,576		48,452		67,607		6,848		188,483	
April	62,434		51,138		74,040		7,843		195,455	
May	54,808		49,201		68,083		7,261		179,353	
June	63,843		56,947		67,083		6,874		194,747	
July	80,495		61,130		68,979		7,554		218,158	
August	80,574		60,583		68,934		7,304		217,394	
September	68,644		57,736		69,561		7,189		203,130	
October	62,999		53,289		69,648		7,466		193,402	
November	59,451		51,092		67,256		6,836		184,634	
December	73,131		53,301		66,149		7,296		199,876	
Total	825,730		646,615		818,005		86,549		2,376,898	
1987 January	82,389		54,436		65,920		7,440		210,184	
February	73,664		52,163		65,608		7,171		198,606	
March	67,580		51,195		68,199		7,028		194,002	
3-Mo. Total	223,632		157,794		199,727		21,639		602,791	
1986 3-Mo. Total	219,352		152,198		198,270		20,926		590,747	
1985 3-Mo. Total	220,024		144,643		203,845		22,912		591,424	

^aElectricity sales to all ultimate consumers.

^bIncludes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.

^cBeginning in January 1986, monthly Form EIA-826 electricity sales estimates, which are preliminary Form EIA-861 values, are based on a new sample and new expansion factors from data reported on Form EIA-861.

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

Sources: **Old Series:** • 1973 through February 1980: Federal Power Commission, FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; • March 1980 through 1982: Federal Energy Regulatory Commission, FERC Form 5, "Electric Utility Company Monthly Statement"; • 1983 through 1985, Energy Information Administration, Form EIA-826, "Electric Utility Company Monthly Statement." **New Series:** • 1984 and 1985 annual data: Energy Information Administration, Form EIA-861, "Annual Electric Utility Report." • 1985 monthly data: Energy Information Administration, Form EIA-861 annual data ratioed to months based on Energy Information Administration, Form EIA-826 monthly data. • 1986 monthly and annual data: Energy Information Administration, Form EIA-826, "Electric Utility Company Monthly Statement." • 1987 monthly data: Energy Information Administration, Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions."

Old series statistics are based on data reported by a sample of electric utilities on Form EI-826, "Monthly Electric Utility Sales and Revenue Report with State Distribution," and predecessor forms. New series annual statistics for 1984 and 1985 are based on Form EI-861, "Annual Electric Utility Report," which collects data from all electric utilities in the United States, American Samoa, Guam, Puerto Rico, and the Virgin Islands. The statistics shown are for the United States only. New series monthly statistics for 1985 are based on the relationship between data from Forms EIA-826 and EIA-861 for that year. Beginning in 1986, monthly and annual Form EIA-826 electricity sales estimates, which are preliminary Form EIA-861 values, are based on a new sample and new expansion factors from data reported on Form EIA-861.

Figure 7.1 Coal Consumed to Produce Electricity

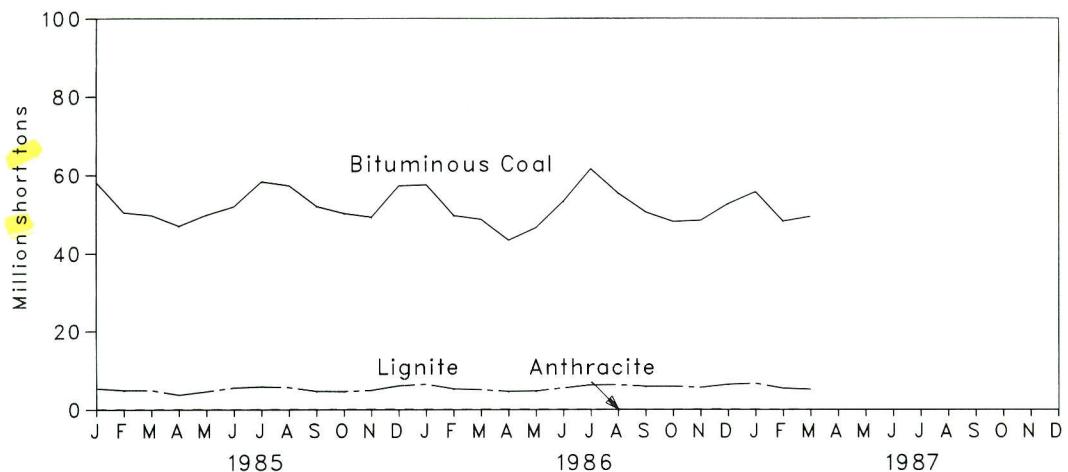


Figure 7.2 Petroleum Consumed to Produce Electricity

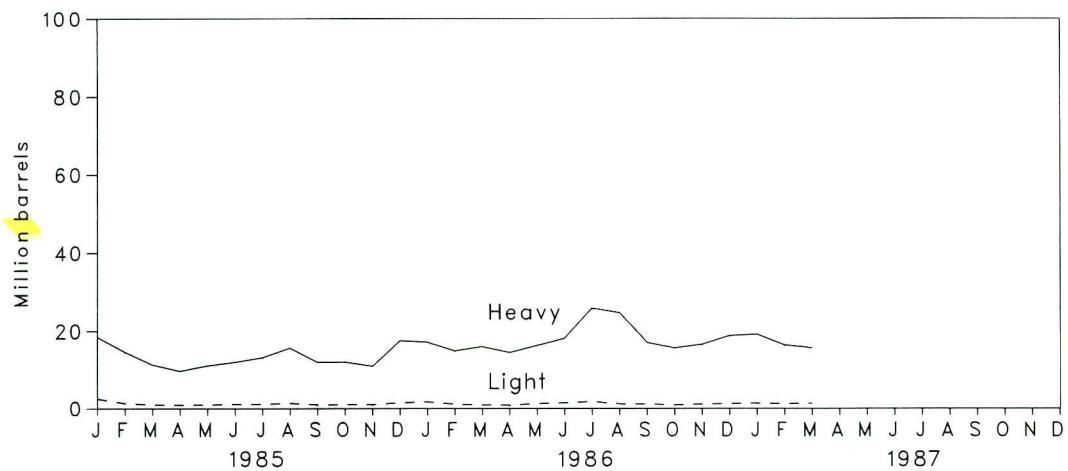


Figure 7.3 Natural Gas Consumed to Produce Electricity

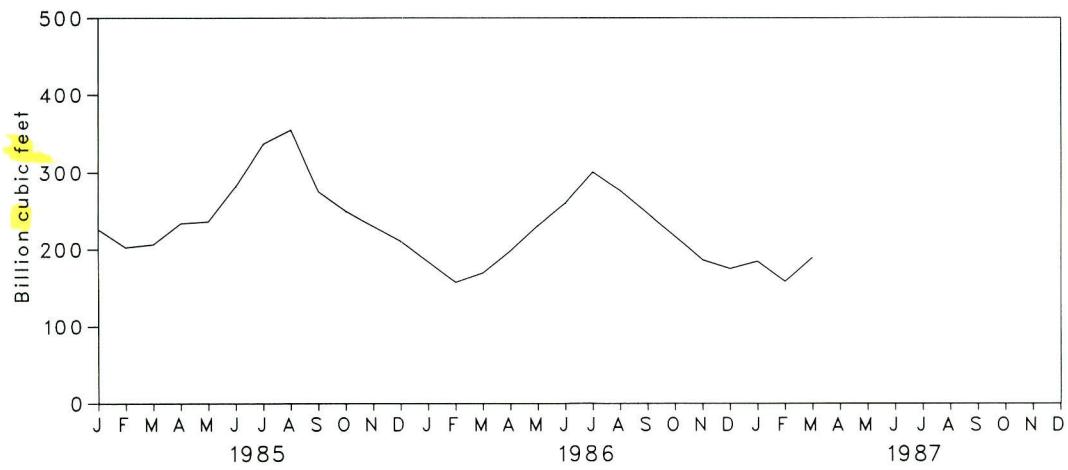


Table 7.3 Fossil Fuels Consumed at Electric Utilities to Generate Electricity

	Coal				Petroleum				Natural Gas ^c
	Anthra-cite	Bituminous Coal	Lignite	Total	Heavy ^a	Light ^b	Total Liquids	Petroleum Coke	
	Thousand Short Tons				Thousand Barrels			Thousand Short Tons	Million Cubic Feet
1973 Total	1,443	376,975	10,794	389,212	(d)	(d)	560,248	507	3,660,172
1974 Total	1,498	378,643	11,670	391,811	(d)	(d)	536,274	625	3,443,428
1975 Total	1,480	388,523	15,960	405,962	(d)	(d)	506,128	70	3,157,569
1976 Total	1,350	425,205	21,817	448,371	(d)	(d)	555,920	68	3,080,868
1977 Total	1,425	451,051	24,650	477,126	(d)	(d)	623,705	98	3,191,200
1978 Total	1,064	448,763	31,407	481,235	(d)	(d)	635,839	398	3,188,363
1979 Total	1,046	488,129	37,876	527,051	(d)	(d)	523,297	268	3,490,523
1980 Total	951	526,680	41,642	569,274	391,163	29,051	420,214	179	3,681,595
1981 Total	1,221	550,784	44,792	596,797	329,798	21,313	351,111	139	3,640,154
1982 Total	1,075	543,346	49,245	593,666	234,434	15,337	249,771	149	3,225,518
1983 Total	1,036	570,108	54,067	625,211	228,984	16,512	245,497	261	2,910,767
1984 Total	1,070	606,339	56,990	664,399	189,289	15,190	204,479	252	3,111,342
1985									
January	88	58,155	5,402	63,645	18,574	2,482	21,056	18	226,276
February	70	50,481	4,940	55,491	14,729	1,333	16,062	17	202,546
March	78	49,793	4,913	54,784	11,323	980	12,303	16	207,286
April	92	47,072	3,738	50,903	9,561	911	10,471	16	233,819
May	98	49,890	4,607	54,595	11,046	962	12,008	13	236,220
June	90	51,984	5,561	57,634	12,005	1,111	13,116	21	281,939
July	92	58,327	5,833	64,252	13,238	1,109	14,347	20	336,535
August	96	57,304	5,676	63,076	15,730	1,338	17,067	19	354,653
September	74	52,031	4,675	56,780	11,994	979	12,972	24	274,868
October	85	50,265	4,619	54,969	12,060	969	13,029	23	249,579
November	83	49,315	4,913	54,311	10,925	1,021	11,946	23	229,943
December	86	57,270	6,046	63,402	17,595	1,440	19,035	20	210,417
Total	1,033	631,885	60,923	693,841	158,779	14,635	173,414	231	3,044,083
1986									
January	67	57,525	6,442	64,034	17,254	1,688	18,942	15	184,024
February	50	49,711	5,289	55,050	14,978	1,100	16,077	15	157,070
March	88	48,737	5,073	53,898	16,090	928	17,018	23	169,697
April	84	43,391	4,639	48,114	14,538	893	15,431	23	198,143
May	68	46,629	4,723	51,420	16,386	1,209	17,595	25	231,041
June	64	53,332	5,496	58,892	18,173	1,390	19,564	24	260,163
July	67	61,669	6,285	68,021	25,839	1,727	27,567	26	300,870
August	64	55,331	6,314	61,709	24,633	1,150	25,782	31	276,163
September	47	50,574	5,916	56,536	17,102	1,107	18,209	31	246,674
October	57	48,151	5,907	54,116	15,714	869	16,584	26	216,738
November	84	48,451	5,623	54,158	16,656	1,076	17,731	34	186,605
December	88	52,634	6,386	59,108	18,794	1,189	19,983	38	175,181
Total	829	616,134	68,093	685,056	216,156	14,326	230,482	313	2,602,370
1987									
January	68	55,686	6,664	62,418	19,142	1,317	20,459	28	184,722
February	75	48,243	5,397	53,715	16,510	1,152	17,662	29	158,341
March	79	49,428	5,140	54,647	15,741	1,289	17,030	28	189,732
3-Month Total	222	153,357	17,201	170,781	51,393	3,757	55,150	84	532,795
1986 3-Month Total	205	155,973	16,804	172,982	48,321	3,716	52,037	53	510,791
1985 3-Month Total	236	158,428	15,255	173,919	44,626	4,794	49,421	51	636,109

^aHeavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

^bLight oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

^cIncludes supplemental gaseous fuels.

^dPrior to 1980, petroleum consumption data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in Table 7.5.

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 EIA-759, "Monthly Power Plant Report."

Figure 7.4 Coal Stocks at Electric Utilities at End of Period

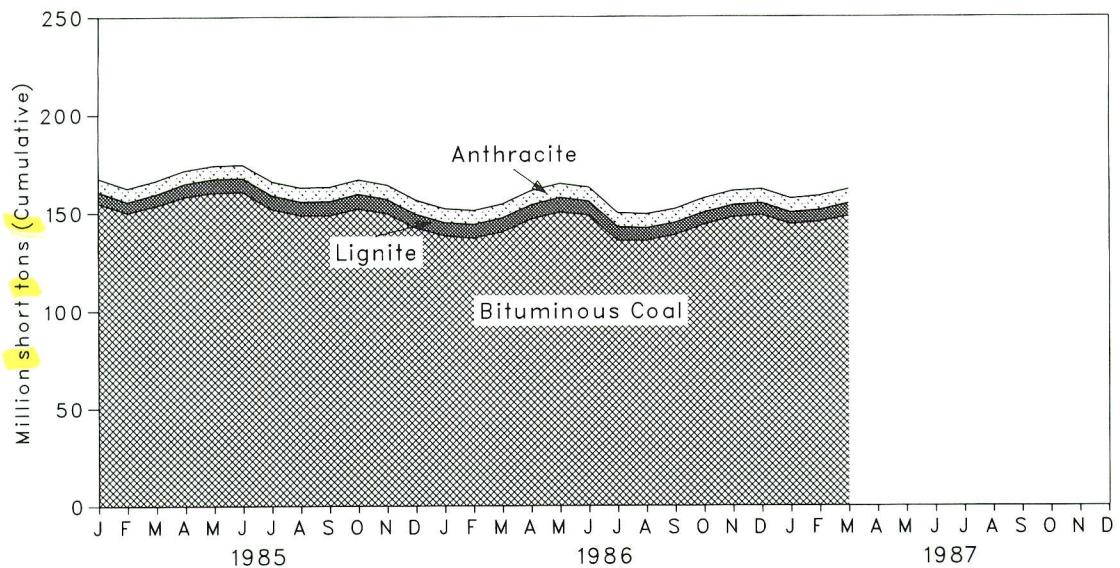


Figure 7.5 Petroleum Stocks at Electric Utilities at End of Period

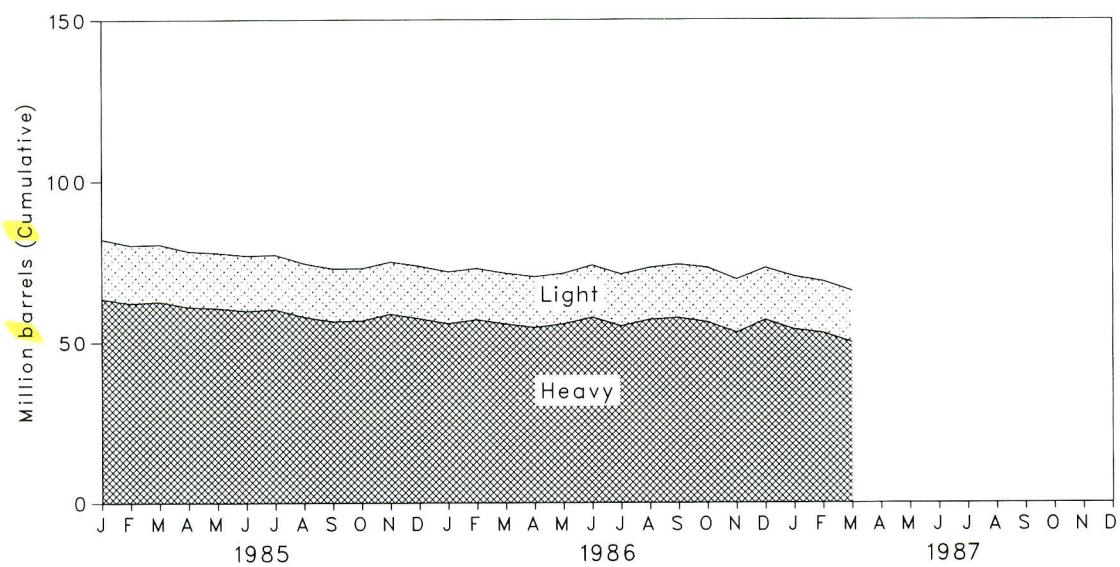


Table 7.4 Coal and Petroleum Stocks at Electric Utilities at End of Period

	Coal				Petroleum			
	Anthracite	Bituminous Coal	Lignite	Total	Heavy ^a	Light ^b	Total Liquids	Petroleum Coke
	Thousand Short Tons				Thousand Barrels			Thousand Short Tons
1973 Year	1,066	84,941	961	86,967	(c)	(c)	89,216	312
1974 Year	930	81,712	867	83,509	(c)	(c)	112,917	35
1975 Year	982	107,927	1,815	110,724	(c)	(c)	125,257	31
1976 Year	1,000	114,130	2,306	117,436	(c)	(c)	121,696	32
1977 Year	2,321	128,210	2,688	133,219	(c)	(c)	144,031	44
1978 Year	2,178	123,020	3,027	128,225	(c)	(c)	118,788	198
1979 Year	3,274	152,981	3,459	159,714	(c)	(c)	131,422	183
1980 Year	4,741	174,154	4,115	183,010	105,351	30,023	135,374	52
1981 Year	5,537	158,258	5,098	168,893	102,042	26,094	128,136	42
1982 Year	6,080	170,480	4,573	181,132	95,515	23,369	118,884	41
1983 Year	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55
1984 Year	6,710	167,118	5,899	179,727	68,503	19,116	87,619	50
1985 January	6,719	155,067	5,806	167,592	63,546	18,518	82,064	57
February	6,736	150,077	5,717	162,531	62,094	18,088	80,182	50
March	6,782	153,739	5,834	166,355	62,558	17,837	80,395	43
April	6,836	158,218	6,641	171,695	60,889	17,398	78,286	31
May	6,905	160,326	6,967	174,198	60,530	17,236	77,765	33
June	6,991	160,595	6,959	174,545	59,629	17,218	76,846	33
July	7,045	151,809	7,049	165,903	60,116	17,034	77,151	43
August	7,109	148,698	7,018	162,825	57,820	16,699	74,519	42
September	7,185	148,637	7,243	163,065	56,487	16,442	72,930	40
October	7,258	151,999	7,492	166,749	56,676	16,292	72,968	43
November	7,223	149,579	7,272	164,075	58,720	16,250	74,970	47
December	7,189	142,144	7,043	156,376	57,304	16,386	73,689	49
1986 January	7,182	138,077	6,819	152,078	55,797	16,147	71,943	52
February	7,172	136,944	7,042	151,157	56,956	16,020	72,976	50
March	7,146	140,023	7,246	154,415	55,649	15,821	71,470	36
April	7,127	146,639	7,310	161,076	54,556	15,793	70,350	28
May	7,133	150,164	7,370	164,667	55,665	15,764	71,429	34
June	7,148	148,686	7,075	162,909	57,611	16,319	73,930	36
July	7,158	135,630	7,016	149,803	55,023	16,145	71,168	43
August	7,117	135,542	6,504	149,163	56,964	16,221	73,185	42
September	7,146	138,396	6,403	151,945	57,474	16,686	74,160	45
October	7,158	143,855	6,189	157,202	56,148	17,009	73,157	41
November	7,119	147,597	6,191	160,908	53,000	16,575	69,575	42
December	7,099	148,665	6,042	161,806	56,841	16,269	73,111	40
1987 January	7,091	144,044	5,926	157,061	53,941	16,496	70,437	35
February	7,087	145,206	6,030	158,322	52,847	16,072	68,919	34
March	7,098	148,020	6,530	161,648	49,957	15,970	65,927	41

^aHeavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.

^bLight oil includes Grade No. 2 heating oil, kerosene, and jet fuel.

^cPrior to 1980, petroleum stock data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in Table 7.5.

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 EIA-759, "Monthly Power Plant Report."

**Table 7.5 Petroleum Consumption and Stocks at Electric Utilities by Prime Mover Type
(Thousand Barrels)**

	Petroleum Consumption			Petroleum Stocks at End of Period		
	Steam Plants	GT/IC ^a	Total Liquids	Steam Plants	GT/IC ^a	Total Liquids
1973 Total	513,190	47,058	560,248	,79,121	10,095	89,216
1974 Total	483,146	53,128	536,274	97,718	15,199	112,917
1975 Total	467,221	38,907	506,128	108,825	16,432	125,257
1976 Total	514,077	41,843	555,920	106,993	14,703	121,696
1977 Total	574,869	48,837	623,705	124,750	19,281	144,031
1978 Total	588,319	47,520	635,839	102,402	16,386	118,788
1979 Total	492,606	30,691	523,297	111,121	20,301	131,422
1980 Total	401,863	18,351	420,214	117,227	18,147	135,374
1981 Total	339,680	11,431	351,111	112,380	15,756	128,136
1982 Total	243,537	6,234	249,771	105,287	13,597	118,884
1983 Total	237,845	7,652	245,497	78,285	11,090	89,375
1984 Total	197,050	7,429	204,479	76,836	10,784	87,619
1985 January	19,846	1,210	21,056	71,528	10,536	82,064
February	15,595	467	16,062	70,088	10,094	80,182
March	11,966	337	12,303	70,385	10,010	80,395
April	10,133	338	10,471	68,651	9,636	78,286
May	11,604	403	12,008	68,249	9,516	77,765
June	12,516	601	13,116	67,529	9,317	76,846
July	13,840	507	14,347	67,816	9,334	77,151
August	16,272	795	17,067	65,307	9,212	74,519
September	12,485	488	12,972	63,701	9,229	72,930
October	12,646	383	13,029	63,908	9,059	72,968
November	11,584	362	11,946	66,103	8,867	74,970
December	18,355	680	19,035	64,704	8,985	73,689
Total	166,842	6,572	173,414			
1986 January	17,915	1,027	18,942	63,043	8,901	71,943
February	15,536	541	16,077	64,134	8,842	72,976
March	16,585	433	17,018	62,671	8,799	71,470
April	14,982	449	15,431	61,758	8,591	70,350
May	16,933	662	17,595	63,010	8,419	71,429
June	18,796	768	19,564	65,115	8,816	73,930
July	26,373	1,193	27,567	62,322	8,845	71,168
August	25,104	678	25,782	64,167	9,018	73,185
September	17,500	709	18,209	65,183	8,976	74,160
October	16,194	390	16,584	63,937	9,220	73,157
November	17,171	561	17,731	60,527	9,048	69,575
December	19,410	572	19,983	64,258	8,853	73,111
Total	222,500	7,983	230,482			
1987 January	19,798	661	20,459	61,399	9,037	70,437
February	17,007	655	17,662	59,903	9,016	68,919
March	16,335	695	17,030	57,022	8,905	65,927
3-Month Total	53,140	2,010	55,150			
1986 3-Month Total	50,036	2,001	52,037			
1985 3-Month Total	47,406	2,014	49,421			

^aGT/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 EIA-759, "Monthly Power Plant Report."

Section 8. Nuclear

In March 1987, U.S. nuclear generating units produced a total of 37.3 billion net kilowatthours of electricity, 21.2 percent more generation than in March 1986. The 103 operable units generated at an average capacity factor of 56.7 percent, 5.4 percentage points higher than the March 1986 value. Nuclear power supplied 18.5 percent of the total electricity generated in March 1987, compared with 15.6 in March 1986.

For the first quarter 1987, nuclear generation increased 14.2 percent compared with first quarter generation in 1986. The monthly capacity factor for the first quarter of 1987 averaged 60.2 percent in 1987 compared with an average monthly capacity factor of 57.4 percent for the same period of 1986.

On March 16, Vogtle 1, a 1,198 net-megawatt-electric pressurized-water reactor was issued a full power amendment to the operating license by the Nuclear Regulatory Commission. Vogtle 1 is operated by Georgia Power. On March 25, Palo Verde 3, a 1,259 net-megawatt-electric pressurized-water reactor was issued an operating license and will be operated by Arizona Public Service.

On March 31, 1987, there were 103 operable nuclear generating units in the United States, with a collective net summer generating capability of 88.4 million kilowatts of electricity. Six additional units had operating licenses from the Nuclear Regulatory Commission authorizing fuel loading and low power testing (Braidwood 1, Clinton 1, Nine Mile Point 2, Palo Verde 3, Seabrook 1, and Shoreham). Of the 103 operable units, five were in full-power ascension (Byron 1, Fermi 2, Shearon Harris 1, Perry 1, and Vogtle 1). Of the 98 operable units having reached full power, 23 units generated below 25 percent of capacity. Of the 23 units, 8 units were out-of-service at least part of the month for maintenance or refueling, and 10 units remained out-of-service for 3 months or more for extended repairs or modifications.

As of March 31, 1987, there were 128 domestic nuclear power generating units in all stages of planning, construction, or operation, with an aggregate net design capacity of 119 million kilowatts.

Figure 8.1 Electricity Generated by Utilities and by Nuclear Power Plants

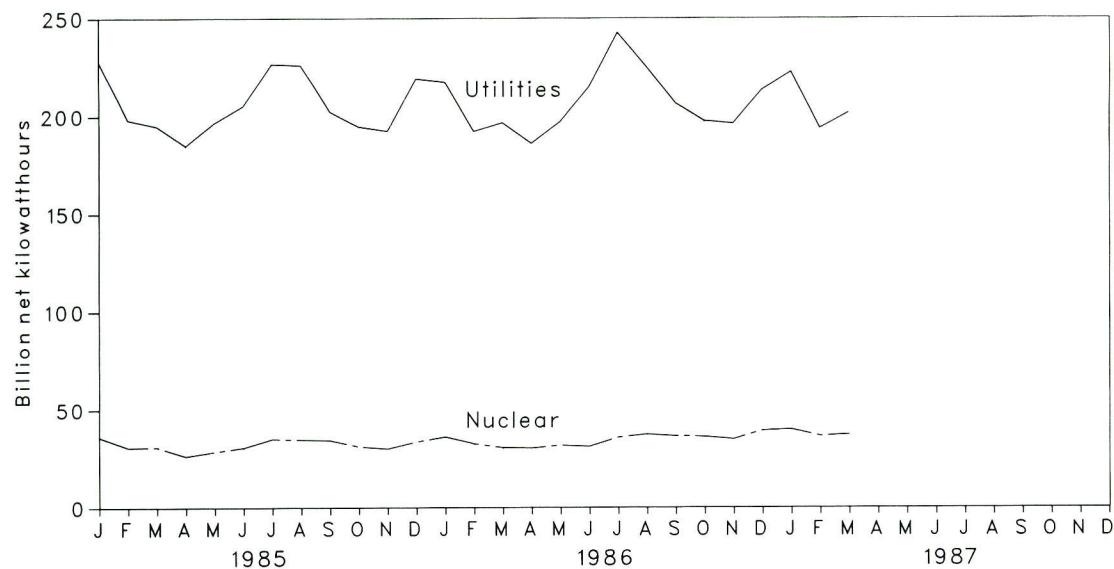


Figure 8.2 Nuclear Portion of Electricity Generation and Capacity Factor

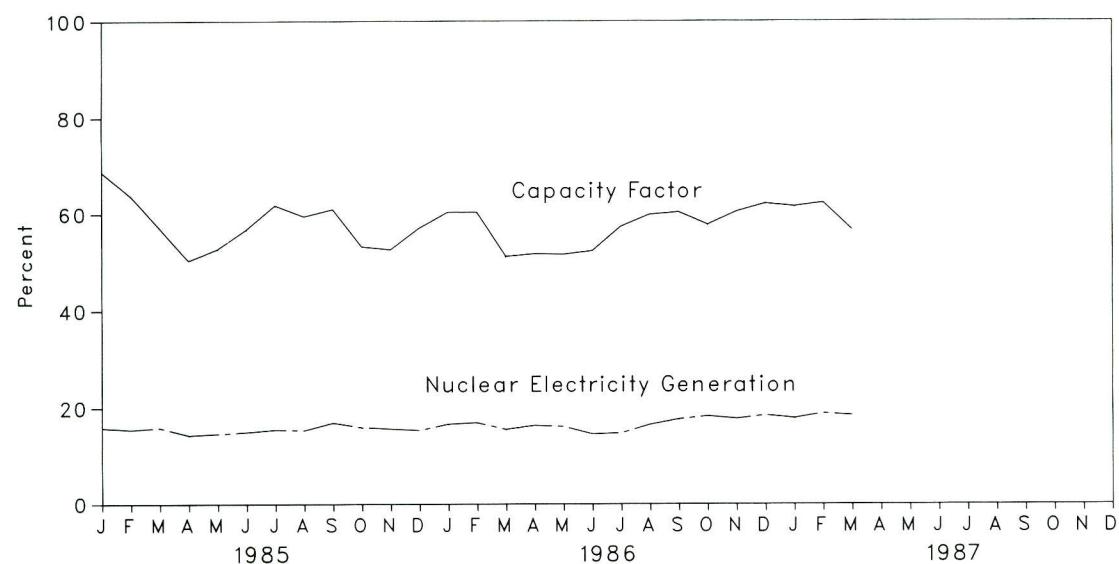


Table 8.1 Nuclear Power Plant Operations

	Operable Reactors ^a ^b	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Net Summer Capability of Operable Reactors ^a ^c	Capacity Factor ^d
			Number	Million Net Kilowatthours	Percent
1973 Year	39	83,479	4.5	22,615	53.7
1974 Year	48	113,976	6.1	31,803	47.9
1975 Year	54	172,505	9.0	37,161	56.0
1976 Year	61	191,104	9.4	43,657	54.9
1977 Year	65	250,883	11.8	46,202	63.4
1978 Year	70	276,403	12.5	50,709	64.7
1979 Year	68	255,155	11.4	49,630	58.5
1980 Year	70	251,116	11.0	51,668	56.4
1981 Year	74	272,674	11.9	55,914	58.4
1982 Year	77	282,773	12.6	59,927	56.7
1983 Year	80	293,677	12.7	63,009	54.4
1984 Year	86	327,634	13.6	69,652	56.3
1985 January	87	36,186	15.9	70,675	68.8
February	88	30,812	15.5	71,795	63.9
March	89	31,041	15.9	72,899	57.2
April	89	26,458	14.3	72,899	50.5
May	89	28,697	14.6	72,899	52.9
June	91	30,837	15.0	75,275	56.9
July	92	35,184	15.5	76,354	61.9
August	94	34,812	15.4	78,478	59.6
September	94	34,508	17.0	78,478	61.1
October	94	31,205	16.0	78,478	53.4
November	95	30,166	15.7	79,397	52.8
December	95	33,782	15.4	79,397	57.2
Year		383,691	15.5		58.0
1986 January	96	36,219	16.7	80,604	60.4
February	96	32,721	17.0	80,604	60.4
March	96	30,773	15.6	80,604	51.3
April	97	30,477	16.4	81,863	51.8
May	98	31,924	16.2	82,995	51.7
June	98	31,334	14.6	82,995	52.4
July	99	35,894	14.8	84,048	57.4
August	99	37,483	16.6	84,048	59.9
September	99	36,593	17.7	84,048	60.5
October	99	36,214	18.3	84,048	57.8
November	100	34,944	17.8	85,241	56.9
December	100	39,463	18.5	85,241	62.2
Year		414,038	16.6		56.9
1987 January	102	39,975	17.9	87,248	61.6
February	102	36,598	18.9	87,248	62.4
March	103	37,290	18.5	88,446	56.7

^aMonthly data are the status as of the last day of the month. Yearly data are the status as of December 31 of each year.

^bSee Note 1 at end of section.

^cWhen possible, net summer capability is used. When a reactor has not operated long enough to permit determination of a net summer capability, an estimation is made based on the net design electrical rating. For the definitions of net summer capability and net design electrical rating, see Note 3 at end of section.

^dFor an explanation of the method of calculating the capacity factor, see Note 4 at end of section.

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

Sources: See end of section.

Table 8.2 Status of Nuclear Reactor Units^a

	Licensed for Operation		Construction Permits		On Order	Announced	Total	Total Design Capacity ^d
	Operable ^b	In Startup ^c	Granted	Pending				
	Number of Reactor Units							Million Net Kilowatts
1973 Year	39	3	51	58	48	20	219	212
1974 Year	48	5	58	80	28	16	235	234
1975 Year	54	2	69	73	19	19	236	236
1976 Year	61	0	72	66	16	19	234	236
1977 Year	65	1	80	52	13	9	220	220
1978 Year	70	0	90	32	9	4	205	204
1979 Year	68	0	91	21	3	0	183	179
1980 Year	70	2	82	12	3	0	169	163
1981 Year	74	0	75	11	3	0	163	157
1982 Year	77	2	60	3	2	0	144	135
1983 Year	80	3	53	0	2	0	138	129
1984 Year	86	6	38	0	2	0	132	123
1985 January	87	5	38	0	2	0	132	123
February	88	4	38	0	2	0	132	123
March	89	5	36	0	2	0	132	123
April	89	6	33	0	2	0	130	121
May	89	6	33	0	2	0	130	121
June	91	4	33	0	2	0	130	121
July	92	3	33	0	2	0	130	121
August	94	2	32	0	2	0	130	121
September	94	2	32	0	2	0	130	121
October	94	2	32	0	2	0	130	121
November	95	2	31	0	2	0	130	121
December	95	3	30	0	2	0	130	121
1986 January	96	2	30	0	2	0	130	121
February	96	3	29	0	2	0	130	121
March	96	4	28	0	2	0	130	121
April	97	4	27	0	2	0	130	121
May	98	3	27	0	2	0	130	121
June	98	3	27	0	2	0	130	121
July	99	2	25	0	2	0	128	119
August	99	2	25	0	2	0	128	119
September	99	3	24	0	2	0	128	119
October	99	7	20	0	2	0	128	119
November	100	7	19	0	2	0	128	119
December	100	7	19	0	2	0	128	119
1987 January	102	6	18	0	2	0	128	119
February	102	6	18	0	2	0	128	119
March	103	6	17	0	2	0	128	119

^aMonthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.

^bSee Note 1 at end of section.

^cSee Note 2 at end of section.

^dNet design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability.

See Note 3 at end of section.

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

Sources: See end of section.

Notes and Sources for the Nuclear Section

Notes

1. Operable Reactors: Nuclear power generating units that have been issued operating licenses, completed low power testing, and are authorized to operate at full power (i.e., in receipt of a full power amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N unit operated by the Department of Energy (DOE). The Hanford-N unit, with a net summer capability of 840 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport unit (net summer capability of 60 MWe) operated by DOE, was included prior to retirement from service on October 1, 1982, except for the interval from March 1974 through August 1977 when it was excluded because of a major core modification outage. The DOE-operated Experimental Breeder Reactor 2 unit (EBR-2) is not included because the electricity it generates is not distributed commercially. Five units were deleted from entries subsequent to their removal from service: Peach Bottom 1 (net summer capability of 40 MWe) and Indian Point 1 (net summer capability of 265 MWe), both-out-of service since November 1974; Humboldt Bay (net summer capability of 65 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden 1 (net summer capability of 200 MWe), out-of-service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island 2 (net summer capability of 880 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979.

2. In Startup: Units that have been issued an operating license authorizing fuel loading and low power testing but have not been issued a full power amendment from the NRC. Without the amendment, these units cannot distribute electricity commercially.

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

(a) **Net Summer Capability**--The steady hourly output which generating equipment is expected to supply to system load exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.

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

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

Sources

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

Electricity Generation: 1973 through September 1977--Federal Power Commission, Form 4, "Monthly Power Plant Report." October 1977 through 1981--Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report." 1982 forward--Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

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

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

Unit 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."

Section 9. Price

Crude Oil. The average price of domestic crude oil purchased at the wellhead was \$14.54 per barrel in March 1987, 13.8 percent above the level in March 1986.

The refiner acquisition cost of imported crude oil in March 1987 was \$17.24 per barrel, 21.3 percent above the March 1986 level. The cost of domestic crude oil in March 1987 was \$16.93, an increase of 12.0 percent from the March 1986 average.

Motor Gasoline. The national city average retail price of leaded regular gasoline at all types of stations was 88 cents per gallon in April 1987, 2.7 percent higher than the price in March 1987. The price of unleaded regular gasoline at all types of stations was 93 cents per gallon in April 1987, 2.4 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged \$1.07 per gallon in April 1987, 2.0 percent higher than during March 1987.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in March 1987 was 39 cents per gallon, 4.1 percent below the previous month's price, but 1.0 percent above the March 1986 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in March 1987 was 36 cents per gallon, 2.4 percent below the February 1987 average, but 14.9 percent above the March 1986 average.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in March 1987 was 90 cents per gallon, 0.7 percent above the price in the previous month, but 19.0 percent below the price in March 1986. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in March 1987 was 50 cents per gallon, up 1.6 percent from the previous month's price, but down 27.5 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil. The national average price of heating oil sold to residential customers in March 1987 was 79 cents per gallon. This was 0.9 percent below the price in February 1987 and 11.0 percent below the March 1986 price. The average price for resale was 49 cents per gallon in March 1987, 0.8 percent below the price in the previous month and 5.8 percent below the price in March 1986.

Natural Gas. In February 1987, the average wellhead price of natural gas production was \$1.65 per thousand cubic feet, 27.0 percent below the February 1986 price. The average price of natural gas delivered to electric utility plants was \$2.41 per thousand cubic feet in February 1987, 15.4 percent below the February 1986 price. The average price of natural gas used by residential consumers in March 1987 was \$5.38 per thousand cubic feet, 5.6 percent less than the March 1986 price. The average price of natural gas used by industrial consumers in March 1987 was \$2.91 per thousand cubic feet, 17.1 percent less than the March 1986 price.

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

The national retail price of electricity to residential consumers in March 1987 was 7.14 cents per kilowatthour, 2.7 percent³ above the February 1987 price. The price of electricity to commercial consumers averaged 6.95 cents per kilowatthour in March 1987, 1.5 percent above the previous month's price. The average electricity price to industrial users during March 1987 was 4.67 cents per kilowatthour, 0.5 percent above the price 1 month earlier. The March national retail price of electricity to other consumers was 6.53 cents per kilowatthour, the same as the February 1987 price.

³Percentages in this paragraph are based on unrounded numbers not shown in the following tables.

Figure 9.1 Crude Oil Prices

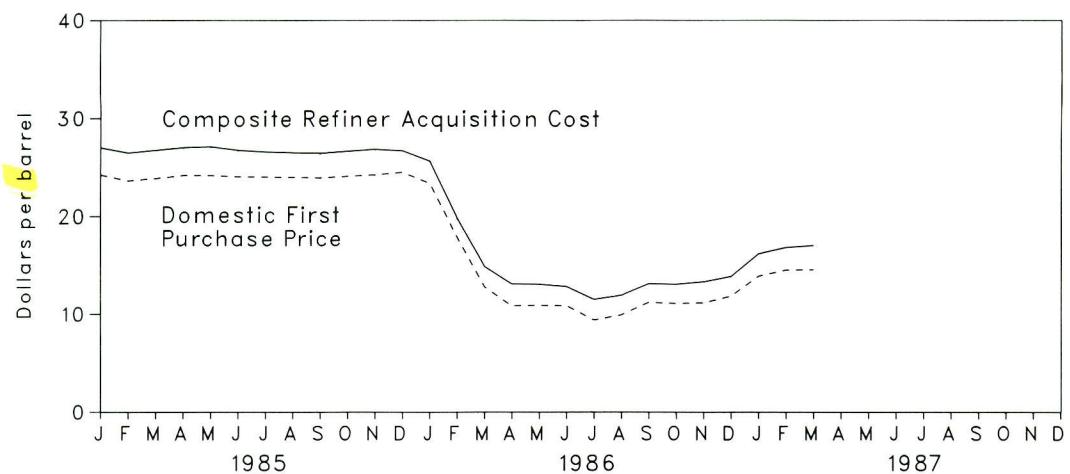


Figure 9.2 Refiner and Gas Plant Operator Sales Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel

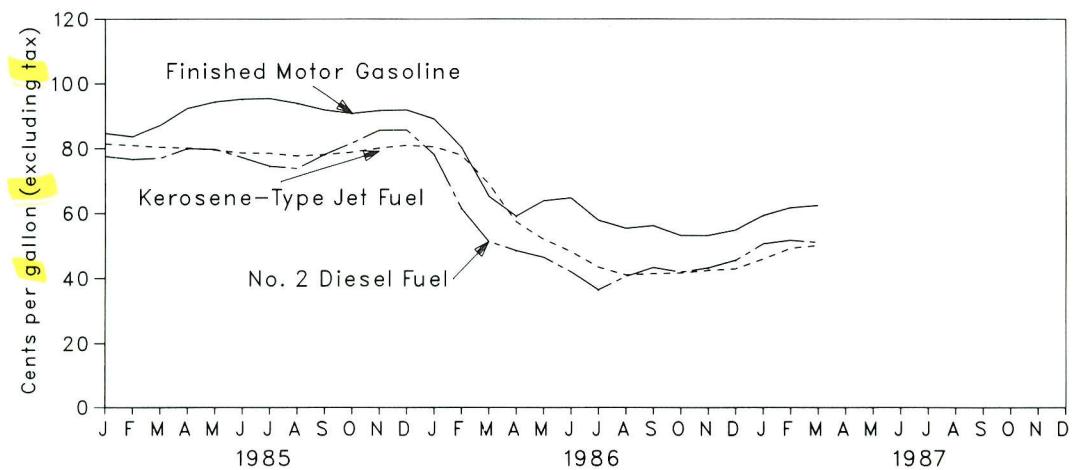


Figure 9.3 Refiner and Gas Plant Operator Sales Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel Oil

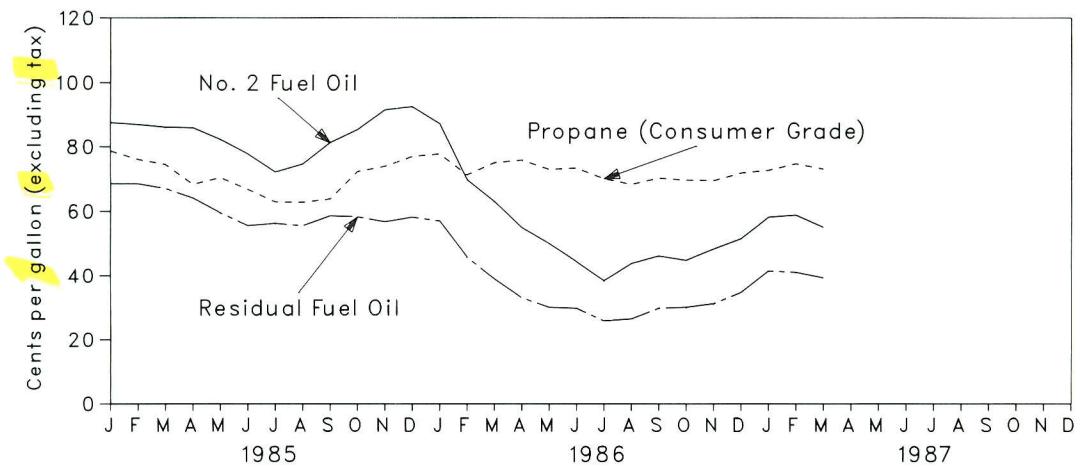


Table 9.1 Crude Oil Price Summary
(Dollars per Barrel)

	Average Domestic First Purchase Price ^a	Average FOB Cost of Crude Oil Imports ^b	Average Landed Cost of Crude Oil Imports ^c	Refiner Acquisition Cost of Crude Oil ^d		
				Domestic	Imported	Composite
1976 Average	8.19	12.17	13.34	8.84	13.48	10.89
1977 Average	8.57	13.24	14.31	9.55	14.53	11.96
1978 Average	9.00	13.30	14.38	10.61	14.57	12.46
1979 Average	12.64	20.19	21.65	14.27	21.67	17.72
1980 Average	21.59	32.27	33.95	24.23	33.89	28.07
1981 Average	31.77	35.10	36.52	34.33	37.05	35.24
1982 Average	28.52	32.11	33.18	31.22	33.55	31.87
1983 Average	26.19	27.73	28.93	28.87	29.30	28.99
1984 Average	25.88	27.44	28.46	28.53	28.88	28.63
1985						
January	24.26	26.34	27.02	26.89	27.49	27.02
February	23.64	26.23	26.86	26.35	26.99	26.49
March	23.89	26.50	27.13	26.60	27.20	26.76
April	24.19	26.75	27.51	26.79	27.59	27.03
May	24.18	26.38	27.21	26.91	27.60	27.12
June	24.07	25.71	26.49	26.60	27.25	26.76
July	24.04	25.43	26.37	26.60	26.57	26.59
August	23.99	25.51	26.26	26.46	26.61	26.50
September	23.96	25.56	26.48	26.41	26.56	26.45
October	24.10	25.74	26.71	26.60	26.79	26.66
November	24.27	25.81	26.73	26.73	27.12	26.86
December	24.51	24.12	25.19	26.93	26.21	26.72
Average	24.09	25.83	26.66	26.66	26.99	26.75
1986						
January	23.38	21.45	22.76	25.94	24.92	25.64
February	17.84	15.17	16.28	20.42	18.02	19.81
March	12.78	12.56	13.52	15.11	14.21	14.87
April	10.83	11.58	12.46	13.06	13.14	13.08
May	10.90	10.94	12.15	12.99	13.17	13.05
June	10.84	10.82	11.88	13.11	12.25	12.82
July	9.39	9.72	10.87	11.82	10.91	11.51
August	9.92	10.56	11.50	11.95	11.87	11.92
September	11.20	11.78	12.71	13.27	12.85	13.11
October	11.10	11.97	13.10	13.20	12.78	13.05
November	11.15	12.62	13.53	13.21	13.46	13.30
December	11.83	13.84	14.50	13.67	14.17	13.85
Average	12.66	12.46	13.42	14.83	13.98	14.55
1987						
January	13.89	R 15.30	R 16.16	16.02	16.43	16.17
February	R 14.50	R 16.09	R 16.95	16.76	16.96	16.82
March	14.54	16.38	17.07	16.93	17.24	17.03

^aSee Note 1 at end of section.

^bSee Note 2 at end of section.

^cSee Note 3 at end of section.

^dSee Note 4 at end of section.

R=Revised data.

Notes: • Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions. • Values for Average Domestic First Purchase Price and Refiner Acquisition Cost of Crude Oil for the current month, and for Average FOB and Average Landed Cost of Crude Oil Imports for the current two months, are preliminary.

Sources: See end of section.

Table 9.2 FOB Cost of U.S. Crude Oil Imports from Selected Countries^a
(Dollars per Barrel)

	Algeria	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
1976 Average	13.05	12.76	11.61	NA	13.08	11.69	NA	11.32
1977 Average	14.36	13.57	12.67	13.42	14.44	12.37	NA	12.68
1978 Average	14.10	13.64	12.65	13.24	14.04	12.70	13.82	12.45
1979 Average	20.65	19.35	23.71	20.29	21.80	17.63	21.20	17.37
1980 Average	36.57	32.37	(b)	31.11	35.82	28.53	34.58	24.78
1981 Average	39.09	35.93	(b)	33.13	38.53	32.48	36.08	28.86
1982 Average	34.23	35.27	30.93	28.07	35.13	33.50	33.46	23.77
1983 Average	30.06	29.93	28.25	25.19	29.78	28.03	29.84	21.48
1984 Average	28.04	29.10	26.93	26.37	29.39	27.60	28.90	24.16
1985 January	25.47	27.43	NA	26.43	27.22	W	W	24.32
February	W	27.62	NA	26.13	27.41	W	W	24.36
March	26.50	27.01	W	26.45	28.20	NA	W	24.91
April	27.34	27.46	W	26.42	27.95	NA	27.99	24.57
May	W	27.30	W	26.34	27.81	NA	27.37	24.51
June	W	27.06	W	24.99	27.09	NA	26.65	24.32
July	W	27.44	W	24.49	27.86	NA	26.51	23.13
August	NA	26.74	W	24.81	27.83	NA	26.98	22.59
September	W	25.29	W	24.72	27.97	W	27.60	22.49
October	W	26.95	W	24.76	28.30	W	28.22	22.84
November	W	27.24	W	24.57	28.67	W	28.69	23.08
December	W	27.49	W	23.57	29.19	18.48	28.08	22.78
Average	26.84	27.12	W	25.33	28.04	22.04	27.63	23.64
1986 January	W	26.68	NA	19.81	26.18	12.60	25.15	21.40
February	W	W	W	14.24	19.93	W	18.31	12.56
March	W	13.32	W	11.55	15.77	12.07	W	10.40
April	W	10.77	W	10.22	14.61	12.13	11.78	10.48
May	12.17	11.36	W	10.47	13.64	8.03	13.25	10.90
June	W	11.81	W	9.77	12.39	8.54	12.91	9.55
July	W	10.00	W	8.43	10.98	10.15	10.38	7.71
August	W	9.74	W	10.55	11.53	9.34	10.45	9.96
September	W	12.22	NA	11.58	13.45	10.51	13.47	10.16
October	W	12.47	W	11.40	13.86	11.34	13.65	10.26
November	W	12.05	NA	11.78	13.88	13.65	14.05	10.73
December	W	W	W	12.73	15.04	15.15	15.26	12.68
Average	13.18	13.17	W	11.75	14.38	11.31	13.77	10.93
1987 January	16.30	15.22	W	15.55	17.38	R 14.51	17.42	R 13.76
February	R 16.35	R 17.75	W	R 15.34	18.07	W	R W	R 13.89
March	W	W	NA	16.02	17.79	W	17.42	14.76

^aThe Free on Board (FOB) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 at end of section.

bNo crude oil was imported.

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

Notes: • Values for the current two months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published. • Cargoes that were purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported.

Sources: See end of section.

**Table 9.3 Landed Cost of U.S. Crude Oil Imports from Selected Countries^a
(Dollars per Barrel)**

	Algeria	Canada	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
1975 Average	12.72	12.72	13.79	12.21	NA	12.62	12.30	NA	11.65
1976 Average	13.81	13.57	13.82	12.82	NA	13.80	13.04	NA	11.80
1977 Average	15.20	14.21	14.63	13.80	13.75	15.25	13.61	NA	13.13
1978 Average	14.91	14.50	14.64	13.88	13.54	14.86	13.92	NA	12.83
1979 Average	21.90	20.43	20.69	25.02	20.86	22.96	19.15	22.16	18.18
1980 Average	37.90	30.47	33.92	(b)	31.80	37.05	30.02	35.88	25.86
1981 Average	40.49	32.16	37.57	(b)	33.78	39.70	34.19	37.24	29.87
1982 Average	35.28	26.92	36.75	32.40	28.64	36.17	35.00	34.28	24.82
1983 Average	31.26	25.63	31.57	29.81	25.78	30.84	29.76	30.87	22.94
1984 Average	29.08	26.59	30.64	28.67	26.87	30.50	29.50	29.60	25.15
1985 January	26.28	25.30	29.26	NA	26.80	28.70	W	W	25.36
February	26.06	24.00	28.84	NA	26.51	28.55	W	W	25.37
March	27.09	25.17	28.40	W	26.72	29.42	NA	W	25.73
April	28.18	26.14	28.99	W	26.67	28.99	W	28.70	25.44
May	W	26.30	28.98	W	26.66	28.73	NA	28.07	25.26
June	W	26.24	28.73	24.55	25.29	27.81	NA	27.54	25.13
July	27.35	25.97	28.95	24.33	24.76	28.56	W	27.60	23.81
August	W	26.05	28.14	25.76	24.96	28.54	NA	27.61	23.45
September	W	25.94	26.79	26.47	25.00	28.76	W	28.23	23.38
October	W	25.90	28.47	26.56	25.09	29.06	26.69	29.00	23.57
November	W	25.91	29.00	27.00	24.91	29.61	24.72	29.45	23.80
December	W	25.56	28.82	W	23.94	30.38	21.09	28.75	23.53
Average	27.46	25.71	28.67	25.79	25.63	28.96	24.72	28.35	24.43
1986 January	W	23.92	28.44	NA	20.17	27.83	14.41	25.38	22.21
February	W	17.31	W	W	14.58	21.43	14.08	18.62	13.27
March	W	13.02	14.94	W	11.87	16.57	13.66	W	11.01
April	W	11.57	12.29	W	10.53	15.21	13.64	12.46	11.19
May	13.05	12.04	12.80	W	10.81	14.55	10.57	14.17	11.58
June	W	12.71	13.20	11.29	10.08	14.01	10.49	13.65	10.24
July	W	11.20	11.72	W	8.73	12.12	11.33	11.83	8.45
August	W	11.70	11.37	11.18	10.87	12.38	11.27	11.56	10.66
September	12.88	12.50	13.67	W	11.95	14.13	12.11	14.15	10.86
October	W	12.47	14.18	W	11.74	14.64	12.84	14.76	10.87
November	13.19	12.49	13.96	NA	12.13	14.64	14.57	14.63	11.24
December	W	12.85	14.32	W	13.04	15.56	16.09	15.42	13.24
Average	14.33	13.37	14.59	12.39	12.07	15.28	12.80	14.51	11.55
1987 January	16.96	14.65	R 16.24	W	15.94	18.02	R 15.87	17.47	R 14.46
February	R 17.03	R 15.48	R 18.10	17.75	R 15.67	18.54	R 17.80	R 18.14	R 14.65
March	W	15.71	17.89	17.57	16.32	18.46	W	18.06	15.39

^aSee Note 3 at end of section.

^bNo crude oil was imported.

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

Notes: • Values for the current two months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published. • Cargoes that were purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported.

Sources: See end of section.

Table 9.4 U.S. City Average Retail Prices for Motor Gasoline^a
 (Cents per Gallon, Including Tax)

	Leaded Regular	Unleaded Regular	Unleaded Premium	Average for All Types ^b
1974 Average	53.2	NA	NA	NA
1975 Average	56.7	NA	NA	NA
1976 Average	59.0	61.4	NA	NA
1977 Average	62.2	65.6	NA	NA
1978 Average	62.6	67.0	NA	65.2
1979 Average	85.7	90.3	NA	88.2
1980 Average	119.1	124.5	NA	122.1
1981 Average ^c	131.1	137.8	147.0	135.3
1982 Average	122.2	129.6	141.5	128.1
1983 Average	115.7	124.1	138.3	122.5
1984 Average	112.9	121.2	136.6	119.8
1985 January	106.0	114.8	130.4	114.5
February	104.1	113.1	129.0	112.8
March	107.1	115.9	131.0	115.5
April	111.9	120.5	134.0	119.9
May	114.4	123.1	136.0	122.3
June	115.3	124.1	137.1	123.3
July	115.4	124.2	136.7	123.3
August	114.3	122.9	135.9	122.2
September	112.9	121.6	134.9	120.9
October	111.7	120.4	134.2	119.8
November	112.3	120.7	133.9	120.1
December	112.3	120.8	134.4	120.3
Average	111.5	120.2	134.0	119.6
1986 January	110.7	119.4	133.6	119.0
February	103.4	112.0	128.2	111.9
March	89.4	98.1	116.0	98.3
April	81.5	88.8	106.1	89.5
May	85.2	92.3	107.5	92.7
June	88.5	95.5	110.0	95.8
July	82.2	89.0	104.5	89.5
August	77.8	84.3	99.9	84.8
September	79.7	86.0	101.0	86.4
October	77.1	83.1	98.7	83.7
November	76.2	82.1	98.0	82.7
December	76.4	82.3	98.4	83.0
Average	85.7	92.7	108.5	93.1
1987 January	80.6	86.2	100.7	86.8
February	84.8	90.5	104.7	91.1
March	85.6	91.2	105.2	91.8
April	87.9	93.4	107.3	94.0

^aSee Note 5 at end of section.

^bAlso includes types of gasoline not shown separately.

^cIn September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, the average for all types category, gasohol is 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 end of section.

**Table 9.5 Refiner and Gas Plant Operator Sales Prices of Residual Fuel Oil^a
(Cents per Gallon, Excluding Tax)**

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average	29.3	31.4	24.5	27.5	26.3	29.8
1979 Average	45.0	46.8	36.6	38.9	39.9	43.6
1980 Average	60.8	67.5	47.9	52.3	52.8	60.7
1981 Average	74.8	82.9	62.2	67.3	66.3	75.6
1982 Average	69.5	74.7	57.2	61.1	61.2	67.6
1983 Average	64.3	69.5	59.1	61.1	60.9	65.1
1984 Average	68.5	72.0	63.9	65.9	65.4	68.7
1985 January	67.6	71.2	63.4	66.5	64.8	68.6
February	67.6	71.1	63.4	66.0	65.0	68.6
March	66.2	69.8	60.8	65.0	62.4	67.1
April	63.0	67.5	58.8	61.9	60.3	64.1
May	58.1	61.2	53.5	58.0	55.0	59.5
June	54.9	59.9	50.6	52.7	52.4	55.6
July	56.4	58.9	52.8	54.5	53.9	56.3
August	55.2	57.1	52.0	53.8	53.2	55.6
September	60.1	62.8	53.1	54.8	56.1	58.6
October	60.1	63.6	52.3	53.8	54.9	58.3
November	57.8	61.7	50.7	52.8	53.6	56.8
December	60.7	62.6	52.3	54.4	55.1	58.2
Average	61.0	64.4	56.0	58.2	57.7	61.0
1986 January	57.1	62.0	49.5	52.9	51.7	57.1
February	43.9	49.0	36.3	42.7	38.7	45.8
March	37.6	42.7	28.3	35.7	31.6	39.0
April	31.7	36.8	25.8	30.1	28.0	33.0
May	30.5	35.0	23.5	26.8	26.5	30.1
June	30.1	32.3	22.9	26.8	26.2	29.8
July	23.8	27.4	20.3	24.4	21.9	25.9
August	26.9	29.3	21.8	23.2	23.6	26.5
September	29.9	31.5	26.4	28.2	28.1	29.8
October	28.9	31.9	26.2	28.8	27.6	30.1
November	29.5	33.7	25.1	29.0	27.4	31.2
December	34.1	37.7	27.7	31.6	30.3	34.7
Average	33.0	37.2	28.8	31.7	30.5	34.3
1987 January	39.9	44.5	35.7	37.9	37.7	41.5
February	40.2	43.5	34.4	38.3	37.2	41.1
March	39.5	41.8	33.5	37.2	36.3	39.4

^aSales for resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to end users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as commercial customers.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration estimates. See Note 6 at end of section.

Sources: See end of section.

Table 9.6 Refiner and Gas Plant Operator Sales Prices of Petroleum Products for Resale^a
(Cents per Gallon, Excluding Tax)

	Finished Motor Gasoline ^b	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1979 Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
1980 Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1981 Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
1982 Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
1983 Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
1984 Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
1985 January	75.2	114.5	79.6	85.8	75.7	74.9	40.1
February	76.4	114.0	79.5	86.5	75.2	74.2	39.3
March	81.1	113.6	78.9	85.7	76.1	75.6	38.0
April	86.0	112.6	79.4	84.7	79.3	79.2	37.9
May	87.5	113.2	78.2	80.4	76.5	78.9	38.1
June	87.7	113.7	76.1	75.9	72.9	75.5	37.0
July	87.3	113.6	75.2	76.9	70.3	72.3	36.3
August	85.0	113.3	76.8	79.7	72.1	72.5	36.5
September	83.2	113.0	79.2	85.9	77.0	76.3	37.6
October	83.1	113.0	81.6	90.1	81.7	80.5	39.7
November	84.7	112.6	83.6	93.6	84.9	84.3	43.0
December	83.0	108.1	83.1	92.7	83.2	82.1	46.8
Average	83.5	113.0	79.4	87.4	77.6	77.2	39.8
1986 January	76.7	109.8	77.0	83.8	73.7	73.3	43.9
February	65.0	108.9	68.0	67.2	56.4	56.0	35.4
March	52.4	102.2	58.1	60.9	51.9	47.4	29.2
April	51.8	98.5	49.4	52.6	45.9	46.3	27.3
May	57.9	95.6	46.7	50.4	45.2	44.1	28.5
June	54.5	92.2	44.5	50.1	40.0	39.6	28.3
July	45.8	86.7	39.9	40.7	34.8	34.0	25.3
August	47.9	83.0	39.3	48.1	40.0	38.8	24.6
September	48.7	81.6	42.2	49.2	41.6	41.8	24.8
October	46.1	82.9	43.7	47.8	41.0	40.9	25.1
November	47.1	81.8	43.5	51.2	42.4	41.8	24.3
December	47.3	81.3	45.3	53.3	44.2	43.4	23.6
Average	53.1	91.1	49.7	60.6	48.7	45.2	29.0
1987 January	53.3	82.9	49.0	59.1	50.6	49.5	25.0
February	55.0	84.3	R 49.5	R 56.7	49.3	R 49.5	R 24.5
March	56.3	83.6	49.2	54.1	48.9	48.7	23.7

^aSales for resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to end users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

^bSee Note 5 at end of section.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration estimates. See Note 6 at end of section.

Sources: See end of section.

Table 9.7 Refiner and Gas Plant Operator Sales Prices of Petroleum Products to End Users^a
 (Cents per Gallon, Excluding Tax)

	Finished Motor Gasoline ^b	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1979 Average	71.3	68.9	54.7	58.5	51.6	58.5	35.7
1980 Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1981 Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
1982 Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
1983 Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
1984 Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
1985 January	84.6	121.7	81.4	105.9	87.4	77.6	78.7
February	83.6	121.1	80.9	103.7	86.8	76.7	76.1
March	87.1	121.4	80.4	103.1	86.0	77.0	74.6
April	92.4	121.2	80.1	101.0	85.8	79.9	68.4
May	94.4	121.9	79.5	94.1	82.2	79.7	70.5
June	95.2	121.7	78.6	88.2	77.8	77.2	66.8
July	95.4	120.2	78.5	86.0	72.3	74.5	62.9
August	94.0	118.9	77.7	89.9	74.7	73.8	62.8
September	91.9	119.5	78.1	96.1	81.2	78.1	63.8
October	90.8	118.9	78.8	100.6	85.2	81.6	72.4
November	91.7	118.3	80.1	106.8	91.3	85.5	74.0
December	91.9	117.0	80.9	111.5	92.3	85.6	77.0
Average	91.2	120.1	79.6	103.0	84.9	78.9	71.7
1986 January	89.1	116.2	80.5	105.4	87.1	78.1	77.8
February	80.3	117.2	77.9	93.4	69.9	61.5	71.4
March	65.2	111.5	69.0	85.0	63.0	51.2	75.1
April	59.1	102.9	57.3	79.4	55.0	48.5	75.9
May	63.8	102.2	51.9	67.2	50.0	46.4	73.1
June	64.7	97.0	48.2	49.3	44.4	42.0	73.5
July	57.8	94.3	43.4	48.2	28.4	36.5	70.2
August	55.3	94.9	41.0	62.5	2.3	40.5	68.4
September	56.1	93.2	41.4	75.1	46.1	43.3	70.4
October	53.1	91.1	41.6	69.5	44.8	41.9	69.8
November	53.1	87.2	42.4	74.5	48.3	43.2	69.6
December	54.8	88.8	42.9	76.8	51.5	45.5	72.0
Average	62.3	100.1	52.9	79.3	56.0	47.9	72.5
1987 January	59.3	87.9	45.9	82.8	58.2	50.5	72.8
February	61.7	89.7	49.2	80.4	58.8	51.6	R 74.8
March	62.4	90.3	50.0	81.9	55.1	51.0	73.2

^aSales for resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to end users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.

^bSee Note 5 at end of section.

R=Revised data.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration estimates. See Note 6 at end of section.

Sources: See end of section.

Table 9.8a Sales Prices of No. 2 Distillate to Residences for Selected States^a
 (Cents per Gallon, Excluding Tax)

	CT	ME	MA	NH	RI	VT	DE	DC
1978 Average	50.1	48.6	48.8	50.3	50.7	50.8	47.8	50.7
1979 Average	72.0	68.8	70.9	72.5	72.8	72.5	68.2	74.2
1980 Average	98.0	96.3	97.8	100.4	101.1	101.5	95.4	102.6
1981 Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4
1982 Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5
1983 Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0
1984 Average	112.1	103.9	111.6	108.4	111.4	111.9	109.6	118.7
1985 January	106.9	97.9	107.2	100.7	108.1	106.9	103.8	112.1
February	107.2	98.5	107.1	102.7	106.9	107.3	104.0	117.1
March	106.8	100.6	107.3	103.3	106.2	107.9	104.6	115.9
April	107.0	101.5	106.6	102.3	106.8	106.5	104.1	113.9
May	106.2	99.4	104.5	99.9	102.1	105.4	100.7	112.4
June	103.5	95.4	101.0	94.4	98.6	103.7	96.4	107.2
July	100.6	91.4	98.3	91.2	97.4	101.4	96.2	107.3
August	99.6	90.5	96.2	91.8	95.9	101.4	97.5	105.5
September	100.5	94.0	100.7	97.6	101.0	104.7	98.8	107.1
October	106.6	99.5	104.6	102.3	104.4	106.7	102.7	109.9
November	111.4	103.7	110.7	108.0	111.6	111.1	107.0	114.4
December	114.2	105.5	111.1	108.9	110.9	113.0	110.5	117.2
Average	108.0	99.7	107.0	102.4	106.7	107.7	104.6	114.3
1986 January	111.6	101.1	105.9	103.2	101.9	109.0	102.3	116.3
February	99.5	90.9	90.6	88.5	93.5	100.2	93.9	105.4
March	93.4	86.5	85.9	84.2	84.6	95.6	87.1	97.6
April	86.2	77.9	76.7	74.4	72.1	89.0	77.1	93.2
May	80.8	74.5	74.2	70.6	76.6	84.7	74.2	87.9
June	77.7	68.5	68.8	65.4	72.6	78.9	73.7	81.7
July	68.5	59.3	64.6	62.9	69.1	70.9	67.3	74.7
August	67.0	58.5	65.1	63.4	69.0	68.9	66.6	70.7
September	68.4	58.2	67.9	62.7	69.2	70.1	66.9	72.1
October	68.6	59.1	68.4	63.8	68.7	70.3	66.1	74.2
November	69.5	59.7	70.0	65.0	72.1	71.3	67.9	76.9
December	72.5	67.1	73.2	69.9	74.6	72.6	71.2	80.7
Average	89.0	74.4	82.3	75.6	82.3	86.7	85.0	93.1
1987 January	80.0	72.8	80.4	76.1	79.9	78.2	78.2	87.1
February	R 83.4	R 73.3	80.7	R 75.3	R 81.5	79.6	79.5	R 92.6
March	82.8	74.3	80.2	74.6	81.5	79.2	79.6	93.4

^aThe States are listed by geographic region of the country. State names are abbreviated as follows: CT - Connecticut, ME - Maine, MA - Massachusetts, NH - New Hampshire, RI - Rhode Island, VT - Vermont, DE - Delaware, DC - District of Columbia, MD - Maryland, NJ - New Jersey, NY - New York, PA - Pennsylvania, VA - Virginia, WV - West Virginia, IL - Illinois, IN - Indiana, MI - Minnesota, OH - Ohio, WI - Wisconsin, ID - Idaho, AK - Alaska, OR - Oregon, WA - Washington.

Footnotes continued on following page.

**Table 9.8b Sales Prices of No. 2 Distillate to Residences for Selected States^a
(continued)
(Cents per Gallon, Excluding Tax)**

	MD	NJ	NY	PA	VA	WV	IL	IN
1978 Average	49.2	49.6	50.1	48.8	49.1	46.2	46.5	48.5
1979 Average	70.1	71.0	71.2	69.8	70.4	65.1	68.8	72.7
1980 Average	97.9	97.9	98.2	96.4	98.5	92.2	95.8	99.6
1981 Average	121.4	121.5	123.2	118.1	120.5	115.0	114.9	118.5
1982 Average	117.1	117.4	120.5	113.7	117.7	109.3	110.9	114.3
1983 Average	110.3	107.9	112.1	105.8	108.7	101.0	100.4	100.7
1984 Average	113.5	111.0	115.5	107.9	110.5	102.1	100.1	103.1
1985 January	107.5	105.0	111.3	102.9	106.2	98.4	95.2	98.6
February	108.6	105.7	112.0	103.2	106.8	98.3	94.4	97.8
March	108.3	105.1	111.3	102.1	105.8	98.1	94.5	96.3
April	109.6	105.2	111.0	101.0	105.4	96.0	96.6	98.6
May	108.2	103.3	109.8	99.7	105.9	93.8	96.4	97.4
June	104.4	99.6	108.1	94.9	104.3	90.7	92.0	97.6
July	101.2	97.4	105.3	92.1	99.3	90.3	89.7	93.3
August	98.9	97.5	105.5	92.5	98.9	88.6	90.6	92.9
September	103.3	101.3	104.5	96.8	101.9	96.2	95.6	96.5
October	106.2	103.3	107.1	98.6	105.6	98.7	100.1	101.2
November	111.9	109.3	114.4	105.5	108.4	104.4	104.0	105.3
December	112.7	112.0	115.0	109.0	109.9	104.7	103.4	105.3
Average	108.8	105.9	111.3	102.3	106.3	98.0	97.5	99.1
1986 January	112.2	107.7	111.4	104.7	107.0	100.1	97.6	99.8
February	99.9	98.3	102.6	95.3	98.2	87.8	83.1	84.9
March	93.9	91.7	96.3	86.9	90.9	79.7	74.7	75.5
April	88.6	84.0	87.5	77.9	84.2	70.8	68.6	73.9
May	85.0	80.1	85.1	72.6	74.6	67.4	72.9	67.2
June	79.7	75.6	81.3	66.0	74.4	63.4	67.3	66.5
July	75.8	76.8	72.9	64.1	67.8	53.9	69.4	60.1
August	70.7	72.3	71.6	62.6	71.1	59.7	66.5	65.6
September	70.3	73.4	74.0	66.6	70.5	62.1	68.4	66.7
October	72.4	74.7	74.0	66.5	69.6	64.0	63.0	65.2
November	73.4	74.6	76.1	66.4	68.3	68.3	72.8	65.4
December	77.2	76.7	78.5	68.3	70.4	72.6	72.8	68.7
Average	91.4	90.2	91.1	81.5	86.2	74.9	74.3	74.8
1987 January	82.6	83.1	83.2	74.8	77.0	72.9	76.6	72.8
February	R 85.4	84.3	R 84.8	75.6	R 79.5	76.1	73.7	R 72.1
March	86.3	82.4	84.2	74.1	78.1	71.9	77.7	70.9

Footnotes continued on following page.

**Table 9.8c Sales Prices of No. 2 Distillate to Residences for Selected States^a
(continued)
(Cents per Gallon, Excluding Tax)**

	MI	MN	OH	WI	ID	AK	OR	WA	U.S. Average
1978 Average	47.9	47.8	47.4	44.7	43.6	53.2	45.8	48.6	49.0
1979 Average	70.9	72.4	68.6	67.3	62.1	68.2	68.0	69.7	70.4
1980 Average	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	97.4
1981 Average	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4
1982 Average	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6	116.0
1983 Average	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	107.8
1984 Average	105.0	104.1	102.1	101.0	98.5	106.9	99.3	102.6	109.1
1985 January	102.1	99.5	98.3	97.3	97.4	108.6	97.0	100.6	104.9
February	101.0	99.8	98.7	96.2	96.9	107.6	96.6	99.8	105.4
March	101.3	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0
April	100.0	101.1	99.8	97.7	95.7	107.0	96.5	99.2	105.3
May	98.3	103.8	99.6	99.5	96.0	106.9	96.7	98.1	103.6
June	98.4	104.3	97.1	94.2	95.9	107.3	95.5	99.2	100.7
July	97.4	100.5	92.9	93.0	94.8	108.4	95.3	97.3	98.0
August	97.2	100.1	91.8	93.0	94.5	106.9	93.0	96.7	97.3
September	99.1	98.7	95.6	94.9	94.3	109.2	93.4	97.6	99.6
October	101.8	101.1	97.9	99.1	97.2	109.1	94.0	100.0	103.0
November	103.5	105.7	104.4	102.0	97.9	106.1	98.8	104.4	108.6
December	107.1	105.2	105.9	103.2	98.8	106.5	102.3	106.1	110.5
Average	102.1	101.9	99.7	98.3	97.2	108.3	97.1	101.1	105.3
1986 January	102.6	100.5	100.7	96.4	97.1	106.8	100.1	104.5	106.4
February	91.9	86.3	91.9	83.9	90.9	104.9	83.7	90.4	95.8
March	80.5	80.1	80.8	76.0	76.5	113.6	66.9	75.3	88.7
April	74.6	76.3	78.2	74.0	69.8	95.6	62.5	74.9	80.7
May	72.3	79.4	75.2	71.8	74.7	94.3	64.1	71.1	77.4
June	65.3	74.5	69.1	69.2	66.8	89.3	60.0	65.2	72.9
July	66.6	69.6	62.3	62.7	63.8	84.5	54.6	60.2	66.9
August	69.9	67.6	62.5	63.6	58.5	84.3	55.6	60.5	66.4
September	70.8	70.0	64.2	67.1	60.5	89.3	61.9	66.9	68.5
October	70.0	67.8	61.5	62.7	62.1	79.1	62.5	68.2	67.8
November	70.4	68.0	61.0	65.6	63.5	80.0	62.7	68.8	69.8
December	72.8	68.7	64.8	68.3	63.5	85.3	63.9	68.4	72.5
Average	81.2	79.3	77.7	75.3	73.8	94.4	70.4	77.6	84.4
1987 January	75.9	70.7	69.1	72.0	62.7	86.5	67.6	71.3	78.2
February	R 75.1	R 69.9	72.0	73.0	R 65.1	R 88.9	71.1	R 74.1	R 79.6
March	76.2	71.3	70.5	73.4	65.6	89.0	71.1	74.7	78.9

Footnotes continued.

R=Revised data.

Notes: • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration estimates. See Note 6 at end of section.

Sources: See end of section.

Table 9.9 Average Retail Electricity Prices^a
(Cents per kilowatthour)

	Residential		Commercial		Industrial		Other		Total ^b	
	Old Series ^c	New Series	Old Series ^c	New Series	Old Series ^c	New Series	Old Series ^c	New Series	Old Series ^c	New Series
1973 Average	2.54		2.41		1.25		2.10		1.96	
1974 Average	3.10		3.04		1.69		2.75		2.49	
1975 Average	3.51		3.45		2.07		3.08		2.92	
1976 Average	3.73		3.69		2.21		3.27		3.09	
1977 Average	4.05		4.09		2.50		3.51		3.42	
1978 Average	4.31		4.36		2.79		3.62		3.69	
1979 Average	4.64		4.68		3.05		3.96		3.99	
1980 Average	5.36		5.48		3.69		4.76		4.73	
1981 Average	6.20		6.29		4.29		5.28		5.46	
1982 Average	6.86		6.86		4.95		5.92		6.13	
1983 Average	7.18		7.02		4.96		6.38		6.30	
1984 Average	7.54		7.33		5.04		6.78		6.52	
1985 January	7.28		7.25		5.12		6.80		6.52	
February	7.19		7.21		5.12		6.77		6.47	
March	7.48		7.36		5.13		7.01		6.55	
April	7.73		7.44		5.09		6.95		6.58	
May	7.98		7.55		5.08		7.09		6.66	
June	8.15		7.60		5.24		7.07		6.86	
July	8.24		7.64		5.36		7.13		7.02	
August	8.18		7.55		5.20		7.01		6.92	
September	8.18		7.62		5.24		7.08		6.95	
October	8.05		7.65		5.19		6.98		6.80	
November	7.73		7.49		5.10		6.91		6.63	
December	7.44		7.29		5.10		6.73		6.56	
Average	7.79		7.47		5.16		6.96		6.71	
1986 January ^d	7.34	7.02	7.29	7.05	5.16	4.97	7.00	6.38	6.60	6.34
February	7.54	7.12	7.41	7.16	5.12	4.94	7.05	6.72	6.64	6.36
March	7.59	7.23	7.47	7.22	5.12	4.94	7.29	6.75	6.63	6.37
April	7.79	7.41	7.45	7.21	5.01	4.83	7.25	7.04	6.60	6.36
May	7.82	7.43	7.39	7.11	5.05	4.87	7.22	6.85	6.59	6.33
June	8.11	^e 7.42	7.56	7.26	5.02	4.84	7.21	6.71	6.81	6.45
July	8.20	7.77	7.49	7.08	5.32	5.08	7.19	6.77	7.01	6.67
August	8.19	7.71	7.50	7.23	5.33	5.08	6.99	6.57	7.01	6.68
September	8.16	7.77	7.57	7.29	5.20	4.99	7.33	6.91	6.91	6.62
October	7.78	7.43	7.33	7.13	5.05	4.84	6.89	6.21	6.60	6.34
November	7.67	7.39	7.31	6.97	4.90	4.44	7.01	6.52	6.51	6.09
December	7.29	7.01	7.05	6.86	4.83	4.68	6.65	6.26	6.36	6.15
Average	7.79	7.41	7.40	7.13	5.09	4.87	7.09	6.64	6.70	6.40
1987 January ^d	7.24	6.93	7.06	6.85	4.85	4.71	6.86	6.47	6.40	6.18
February	7.29	6.95	7.06	6.85	4.79	4.65	6.86	6.53	6.35	6.13
March	7.47	7.14	7.16	6.95	4.80	4.67	6.88	6.53	6.40	6.18

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

^bAverage price for total sales to ultimate consumers.

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

^dSee Note 7 at end of section.

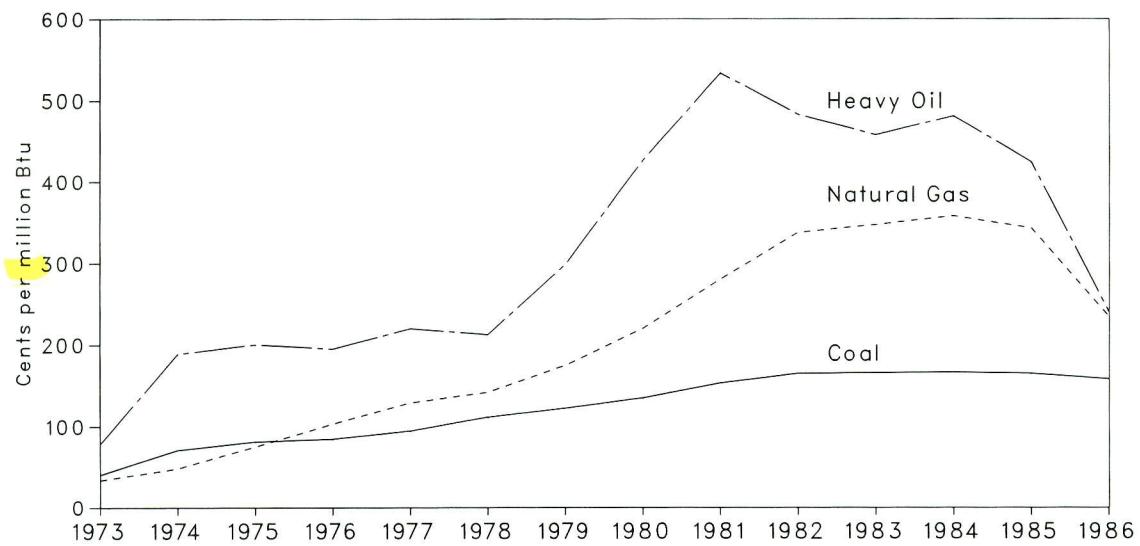
^eThe residential price reflects unbilled sales for eight utilities. Major unbilled residential sales were reported in the West South Central Census Division.

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

Sources: See end of section.

Figure 9.4 Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants

Yearly



Monthly

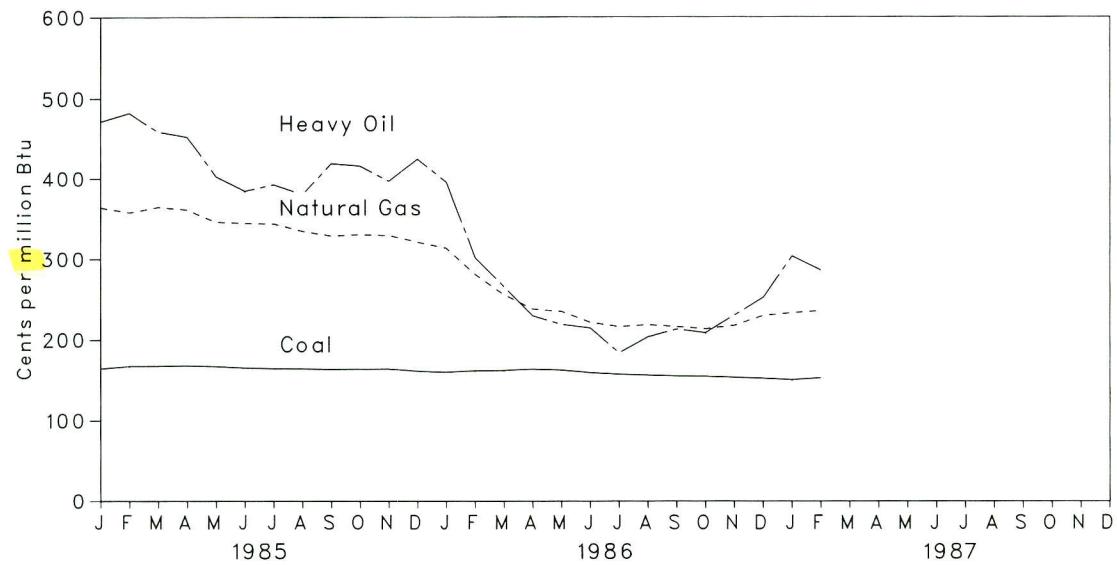


Table 9.10 Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants^a
 (Cents per million Btu)

	Coal	Heavy Oil ^b	Natural Gas ^c	All Fossil Fuels ^b
1973 Average	40.5	78.5	33.8	47.6
1974 Average	70.9	189.0	48.2	91.4
1975 Average	81.4	200.5	75.2	104.4
1976 Average	84.8	195.2	103.4	111.9
1977 Average	94.7	219.8	129.1	129.7
1978 Average	111.6	212.5	142.2	141.1
1979 Average	122.4	298.8	174.9	163.9
1980 Average	135.1	426.7	219.9	192.8
1981 Average	153.2	533.4	280.5	225.6
1982 Average	164.7	483.2	337.6	224.9
1983 Average	165.6	457.8	347.4	220.6
1984 Average	166.4	481.2	358.3	219.2
1985 January	164.1	472.0	364.4	218.7
February	167.0	482.4	358.1	218.1
March	167.1	458.8	364.9	209.5
April	167.6	452.1	361.6	210.6
May	166.8	403.1	346.1	206.3
June	165.0	384.9	344.8	208.1
July	164.2	392.8	344.0	217.4
August	164.0	380.5	334.8	211.1
September	163.2	419.0	328.7	204.9
October	163.5	415.8	330.4	204.3
November	163.6	397.2	329.3	204.5
December	161.0	424.3	320.9	202.9
Average	164.8	424.4	343.1	209.6
1986 January	R 159.6	R 396.0	R 313.6	R 195.7
February	R 161.4	R 302.1	R 281.2	R 185.6
March	161.7	R 266.2	R 256.2	R 179.9
April	R 163.5	229.7	R 238.4	177.7
May	162.3	218.9	R 235.2	177.7
June	159.2	214.4	R 221.5	174.1
July	R 157.1	R 184.1	R 216.1	171.1
August	156.1	R 203.6	R 218.5	R 170.7
September	154.9	213.0	R 216.2	R 168.5
October	154.7	208.6	R 213.6	R 165.8
November	153.3	R 230.5	R 217.6	166.1
December	152.2	252.7	R 230.1	170.3
Average	157.9	R 240.1	R 234.4	R 175.0
1987 January	150.4	304.1	233.6	173.3
February	152.7	286.5	236.3	172.0

^aData through 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.

^bSee Note 8 at end of section.

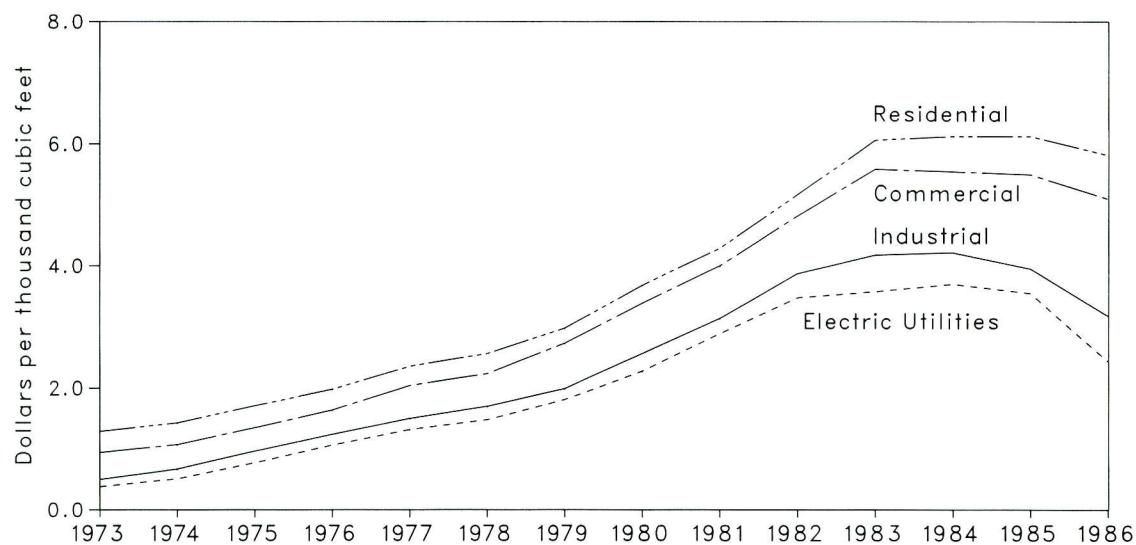
^cIncludes supplemental gaseous fuels.

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

Sources: See end of section.

Figure 9.5 Natural Gas Prices To Consumers

Yearly



Monthly

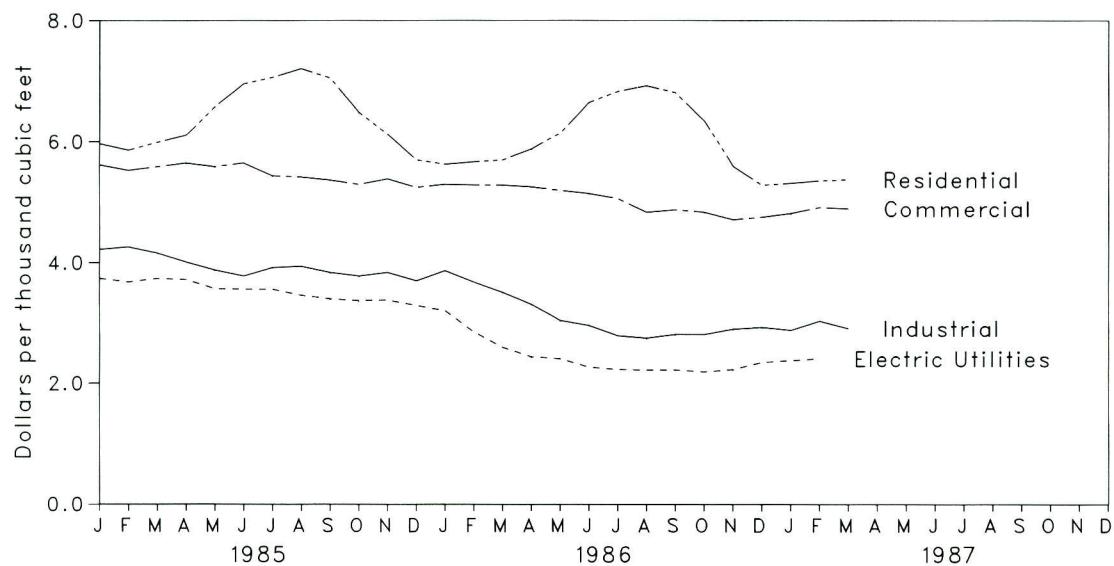


Table 9.11 Natural Gas Prices^a
(Dollars per Thousand Cubic Feet)

	Wellhead	Major Interstate Pipeline Companies		City Gate	Delivered to Consumers ^b				
		Imports	Purchases from Producers		Residential	Commercial	Industrial	Electric Utilities ^c	Average
1973 Average	0.22	NA	NA	NA	1.29	0.94	0.50	0.38	0.73
1974 Average30	NA	NA	NA	1.43	1.07	.67	.51	.89
1975 Average45	NA	NA	NA	1.71	1.35	.96	.77	1.19
1976 Average58	NA	NA	NA	1.98	1.64	1.24	1.06	1.47
1977 Average79	NA	NA	NA	2.35	2.04	1.50	1.32	1.78
1978 Average91	2.21	0.83	NA	2.56	2.23	1.70	1.48	1.98
1979 Average	1.18	2.60	1.22	NA	2.98	2.73	1.99	1.81	2.34
1980 Average	1.59	4.42	1.63	NA	3.68	3.39	2.56	2.27	2.91
1981 Average	1.98	4.84	2.15	NA	4.29	4.00	3.14	2.89	3.51
1982 Average	2.46	4.94	2.72	NA	5.17	4.82	3.87	3.48	4.32
1983 Average	2.59	4.51	2.93	NA	6.06	5.59	4.18	3.58	4.82
1984 Average	2.66	4.08	2.91	3.95	6.12	5.55	4.22	3.70	4.85
1985 January	2.64	3.21	2.89	3.89	5.97	5.62	4.22	3.74	5.12
February	2.71	3.08	2.87	3.94	5.86	5.53	4.26	3.68	5.16
March	2.62	3.29	2.90	3.97	5.99	5.59	4.16	3.74	5.06
April	2.64	3.39	2.86	3.91	6.11	5.65	4.01	3.72	4.89
May	2.53	3.32	2.89	3.89	6.59	5.59	3.88	3.57	4.64
June	2.58	3.40	3.00	3.86	6.96	5.65	3.78	3.56	4.50
July	2.51	3.41	2.82	3.69	7.07	5.44	3.92	3.56	4.51
August	2.47	3.28	2.69	3.70	7.21	5.42	3.94	3.46	4.43
September	2.42	3.28	2.76	3.68	7.06	5.37	3.84	3.40	4.44
October	2.37	3.16	2.68	3.59	6.50	5.30	3.78	3.37	4.48
November	2.36	2.88	2.62	3.46	6.13	5.39	3.84	3.38	4.67
December	2.28	2.79	2.67	3.45	5.70	5.25	3.70	3.29	4.74
Average	2.51	3.18	2.81	3.75	6.12	5.50	3.95	3.55	4.72
1986 January	2.28	2.81	2.64	3.52	5.63	5.30	3.87	3.20	4.89
February	2.26	2.79	2.60	3.52	5.67	5.29	3.68	2.85	4.82
March	2.16	3.05	2.48	3.50	5.70	5.29	3.51	2.60	4.67
April	2.00	3.14	2.37	3.33	5.88	5.26	3.31	2.44	4.37
May	1.87	2.75	2.47	3.15	6.15	5.20	3.04	2.41	4.02
June	1.76	2.56	2.48	3.11	6.66	5.15	2.96	2.27	3.73
July	1.70	2.78	2.40	3.08	6.84	5.07	2.79	2.23	3.49
August	1.67	2.22	2.59	3.04	6.93	4.84	2.75	2.22	3.47
September	1.67	2.26	2.06	3.02	6.82	4.88	2.81	2.22	3.61
October	1.66	2.22	2.27	2.94	6.36	4.84	2.81	2.19	3.79
November	1.65	1.84	2.10	2.90	5.60	4.72	2.90	2.23	4.07
December	1.64	1.99	2.16	2.99	5.29	4.76	2.93	2.35	4.27
Average	1.87	2.51	2.38	3.22	5.82	5.10	3.18	2.43	4.26
1987 January	1.66	1.90	2.16	2.98	5.32	4.82	2.88	2.38	4.35
February	1.65	2.21	2.11	3.02	5.36	4.92	3.03	2.41	4.46
March	NA	2.30	2.08	2.91	5.38	4.90	2.91	NA	NA

^aPrices shown on this page are intended to include all taxes. See Note 9 at end of section.

^bIncludes supplemental gaseous fuels.

^cData through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.

^dThe decline from the previous month was primarily the result of refunds in the form of reduced charges.

NA=Not available.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Data through 1985 are final. Subsequent data are preliminary.

Sources: See end of section.

Notes and Sources for the Price Section

Notes

1. The average domestic first purchase price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the price represented an estimate of the average of posted prices; after February 1976, the price represents an average of actual first purchase prices. The data series was previously called "Actual Domestic Wellhead Price."

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

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

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

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

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

5. Several different series of motor gasoline prices are published in this section. U.S. City Average Retail Prices for Motor Gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. For the period 1974 through 1978, prices were collected in 56 urban areas. For the period 1978 forward, prices were collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers-about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

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

6. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous annual data series have been generated for 1978-1980, and monthly series for 1981 and 1982, by estimating the prices that would have been published had the EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment for product and sales type matching, and for discontinuity due to other factors.

An important difference between the previous and present prices is the distinction between wholesale and resale, and between retail and end user. The resale category continues to include sales among resellers. However, bulk sales to utility, industrial, and commercial accounts previously included in the wholesale category are now counted as made to end users. The end user category continues to include retail sales through company owned and operated outlets but also includes the bulk utility, industrial, and commercial sales. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article reprinted from the December 1983 [3] *Petroleum Marketing Monthly* published by the Energy Information Administration.

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

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

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

Sources

Petroleum and Petroleum Products:

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

182, "Domestic Crude Oil First Purchase Report."

- Crude oil imports costs--Energy Information Administration (EIA), 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 through June 1984: EP Form 51, "Monthly Foreign Crude Oil Transaction Report"; July 1984 forward: Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report."
- Refiner acquisition costs--EIA, January 1976: FEO Form 96, "Monthly Cost Allocation Report"; February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report"; July 1978 through December 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report"; January 1981 forward: EIA Form 14, "Refiners' Monthly Cost Report."
- U.S. City average retail motor gasoline prices--Bureau of Labor Statistics.
- No. 2 Distillate to Residences--January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report" and EIA-782B, "Resellers/Retailers' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA estimates using data from FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report." See Note 8 on the previous page for additional information on the estimated data.
- All other petroleum products--January 1983 forward, EIA Form-782A, "Refiners/Gas Plant Operators' Monthly Petroleum Product Sales Report." Prices prior to January 1983 are EIA estimates using data from FEA Form 302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices." See Note 8 on the previous page for additional information on the estimated data.

Natural Gas:

- Average wellhead--Annual data through 1982 from EIA, *Natural Gas Annual, 1973 through 1983*. Annual data for 1983 and 1984 from Form EIA-627, "Annual Quantity and Value of Natural Gas Report" and the U.S. Minerals Management Service. Monthly data are estimated primarily on the basis of values reported by State agencies in Mississippi, New Mexico, Oklahoma, and Texas. These States together account for almost 50 percent of total U.S. marketed production. Monthly data are adjusted to conform with final reported annual data.
- Imports and Purchases from Producers by Major Interstate Pipeline Companies--FERC Form 11,

- "Interstate Pipeline Company Purchases, and Industrial Sales".
- City Gate--EIA, October 1983 forward: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."
- Residential, Commercial, Industrial and Consumer Average-Annual data from EIA, Form EIA-176 "Annual Report of Natural and Supplemental Gas Supply and Disposition." Monthly data from EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."
- Electric Utilities--EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
- 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."

Electricity:

Section 10. International

Crude Oil Production. World crude oil production during March 1987 was 52.8 million barrels per day, down 0.3 million from the level in the previous month. World crude oil production in the first quarter of 1987 averaged 53.4 million barrels per day, down 2.4 percent from the first quarter 1986 level.

Organization of Petroleum Exporting Countries (OPEC) production during March 1987 averaged 15.4 million barrels per day, down 0.3 million from the level during the previous month. OPEC output in the first quarter of 1987 averaged 15.9 million barrels per day, down 9.1 percent from the first-quarter 1986 average. Production by the Arab members of OPEC during March 1987 averaged 8.9 million barrels per day, down 0.7 million from the February 1987 level. During March 1987, production decreased in Saudi Arabia by 525,000 barrels per day, in Libya by 100,000, in Qatar by 50,000, in Kuwait by 25,000, and in the United Arab Emirates by 20,000 barrels per day compared with the previous month. Production increased in Iraq by 30,000 barrels per day, but remained the same in Algeria as during the previous month. Production by Arab members of OPEC during the first quarter of 1987 averaged 9.4 million barrels per day, 11.5 percent below the first-quarter 1986 level. Among non-Arab OPEC countries in March 1987, production increased in Iran by 450,000 barrels per day, in Nigeria by 90,000, in Ven-

ezuela by 50,000, and in Indonesia by 15,000 barrels per day compared with the previous month.

Among the non-OPEC nations in March 1987, production decreased in Canada and in the United Kingdom by 55,000 and 53,000 barrels per day, respectively, but increased in the United States by 31,000 barrels per day. Production in Mexico remained the same as during the previous month.

Nuclear Electricity Generation. In March 1987, the 20 non-Communist countries with nuclear power capacity generated 128.5 gross terawatthours (billion kilowatthours) of nuclear generated electricity, 9.6 percent more than the March 1986 generation. During the first quarter of 1987 nuclear generation increased 8.0 percent compared with the same period in 1986.

With the addition of the Vogtle 1 unit in the United States there were 323 operable nuclear power generating units in these 20 non-communist countries with operable nuclear units. Those 323 operable nuclear power generating units had a collective gross generating capacity of 254.2 gigawatts (million kilowatts), based on *Nucleonics Week* information, as of March 31, 1987. In March 1987, the 103 operable U.S. units accounted for 94.2 gross gigawatts, 37.1 percent of the total non-Communist nuclear generating capacity.

Table 10.1a Crude Oil Production by Major Petroleum Producing Countries
(Thousand Barrels per Day)

	Algeria	Iraq	Kuwait ^a	Libya	Qatar	Saudi Arabia ^a	United Arab Emirates	Arab Members of OPEC ^b	Indonesia	Iran	Nigeria
1973 Average	1,097	2,018	3,020	2,175	570	7,596	1,533	18,009	1,339	5,861	2,054
1974 Average	1,009	1,971	2,546	1,521	518	8,480	1,679	17,724	1,375	6,022	2,255
1975 Average	983	2,262	2,084	1,480	438	7,075	1,664	15,986	1,307	5,350	1,783
1976 Average	1,075	2,415	2,145	1,933	497	8,577	1,936	18,578	1,504	5,883	2,067
1977 Average	1,152	2,348	1,969	2,063	445	9,245	1,999	19,221	1,686	5,663	2,085
1978 Average	1,161	2,563	2,131	1,983	487	8,301	1,831	18,457	1,635	5,242	1,897
1979 Average	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168	2,302
1980 Average	1,012	2,514	1,656	1,787	472	9,900	1,709	19,050	1,577	1,662	2,055
1981 Average	805	1,000	1,125	1,140	405	9,815	1,474	15,764	1,605	1,380	1,433
1982 Average	710	1,012	823	1,150	330	6,483	1,250	11,758	1,339	2,214	1,295
1983 Average	660	1,005	1,064	1,105	295	5,086	1,149	10,364	1,343	2,440	1,241
1984 Average	638	1,209	1,157	1,087	394	4,663	1,146	10,294	1,412	2,174	1,388
1985 January	640	1,250	1,110	1,000	270	3,510	1,100	8,880	1,310	1,900	1,400
February	660	1,250	1,125	1,000	290	4,025	1,160	9,510	1,330	2,100	1,690
March	690	1,200	1,085	1,000	315	3,835	1,215	9,340	1,300	2,200	1,700
April	650	1,370	970	1,000	260	3,470	1,215	8,935	1,300	2,300	1,600
May	650	1,300	940	1,100	290	2,590	1,160	8,030	1,200	2,000	1,450
June	600	1,370	920	980	300	2,420	1,100	7,690	1,050	2,200	1,100
July	600	1,450	940	910	320	2,740	1,155	8,115	1,300	2,200	1,000
August	600	1,400	940	910	320	2,340	1,200	7,710	1,300	2,400	1,200
September	650	1,600	980	1,100	295	2,980	1,285	8,890	1,200	2,200	1,450
October	650	1,650	1,055	1,200	320	3,910	1,255	10,040	1,260	2,300	1,700
November	680	1,700	1,050	1,200	300	4,200	1,250	10,380	1,300	2,200	1,760
December	650	1,650	1,080	1,300	335	4,680	1,225	10,920	1,250	2,400	1,620
Average	643	1,433	1,016	1,059	301	3,388	1,193	9,033	1,258	2,201	1,471
1986 January	650	1,650	1,115	1,100	360	4,465	1,245	10,585	1,420	2,100	1,200
February	550	1,650	1,315	900	325	4,715	1,445	10,900	1,300	2,000	1,400
March	600	1,650	1,515	900	350	4,115	1,395	10,525	1,300	1,800	1,600
April	600	1,500	1,520	900	180	4,720	1,345	10,765	1,340	2,000	1,700
May	600	1,700	1,510	1,100	360	4,360	1,495	11,125	1,425	2,100	1,600
June	600	1,800	1,650	1,200	430	5,250	1,595	12,525	1,350	2,200	1,540
July	600	1,800	1,805	1,150	400	5,905	1,595	13,255	1,345	2,200	1,555
August	600	1,800	1,733	1,150	400	6,433	1,625	13,741	1,423	1,700	1,765
September	600	1,800	1,118	990	280	4,818	1,345	10,951	1,310	1,500	1,300
October	600	1,800	1,130	1,000	300	5,030	1,355	11,215	1,325	1,500	1,325
November	600	1,600	1,350	1,000	300	5,350	1,195	11,395	1,370	1,600	1,325
December	600	1,500	1,350	1,000	300	5,350	1,215	11,315	1,330	1,850	1,325
Average	600	1,688	1,427	1,034	333	5,045	1,404	11,531	1,354	1,879	1,470
1987 January	600	1,650	1,200	950	285	3,900	1,195	9,780	1,280	2,200	1,240
February	600	1,670	1,165	950	R 250	3,815	1,175	R 9,625	1,250	1,650	R 1,140
March	600	1,700	1,140	850	200	3,290	1,155	8,935	1,265	2,100	1,230
3-Mo. Avg.	600	1,673	1,168	916	245	3,663	1,175	9,441	1,266	1,994	1,205

^aIncludes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In March 1987, total production in that region amounted to approximately 380,000 barrels per day.

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

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

^dOther is a calculated total derived from the difference between world production and the nations represented above.

R=Revised data.

Footnotes continued on following page.

**Table 10.1b Crude Oil Production by Major Petroleum Producing Countries
(continued)
(Thousand Barrels per Day)**

	Vene-zuela	Total OPEC ^c	Canada	Mexico	United Kingdom	United States	China	USSR	Other ^d	World
1973 Average	3,366	30,989	1,800	465	2	9,208	1,090	8,329	3,690	55,573
1974 Average	2,976	30,729	1,684	571	2	8,774	1,315	8,856	3,838	55,769
1975 Average	2,346	27,155	1,439	705	12	8,375	1,490	9,472	4,116	52,764
1976 Average	2,294	30,738	1,295	831	245	8,132	1,670	9,985	4,297	57,193
1977 Average	2,238	31,298	1,320	981	768	8,245	1,874	10,485	4,551	59,522
1978 Average	2,165	29,805	1,313	1,209	1,082	8,707	2,082	10,950	4,720	59,868
1979 Average	2,356	30,928	1,496	1,461	1,568	8,552	2,122	11,187	5,039	62,353
1980 Average	2,168	26,891	1,435	1,936	1,622	8,597	2,114	11,460	5,170	59,225
1981 Average	2,102	22,646	1,285	2,313	1,811	8,572	2,012	11,552	5,355	55,546
1982 Average	1,895	18,868	1,271	2,748	2,065	8,649	2,045	11,615	5,639	52,900
1983 Average	1,801	17,583	1,356	2,689	2,291	8,688	2,120	11,684	6,243	52,654
1984 Average	1,798	17,481	1,438	2,780	2,480	8,879	2,296	11,576	6,904	53,834
1985										
January	1,670	15,570	1,450	2,635	2,755	8,740	2,450	11,150	7,255	52,005
February	1,675	16,725	1,450	2,685	2,625	9,025	2,450	11,150	7,294	53,404
March	1,680	16,650	1,500	2,810	2,575	9,095	2,450	11,150	7,367	53,597
April	1,675	16,240	1,465	2,825	2,610	9,043	2,480	11,150	7,447	53,260
May	1,685	14,795	1,475	2,790	2,520	9,132	2,480	11,190	7,412	51,794
June	1,670	14,110	1,450	2,555	2,430	9,022	2,480	11,130	7,179	50,356
July	1,670	14,715	1,430	2,620	2,365	8,949	2,490	11,250	7,511	51,330
August	1,670	14,710	1,450	2,795	2,195	8,803	2,490	11,290	7,502	51,235
September	1,670	15,855	1,450	2,815	2,575	8,954	2,490	11,350	7,595	53,084
October	1,670	17,420	1,450	2,750	2,645	8,970	2,500	11,390	7,593	54,718
November	1,675	17,765	1,450	2,795	2,655	8,902	2,500	11,400	7,661	55,128
December	1,680	18,320	1,553	2,740	2,420	9,030	2,500	11,390	7,633	55,586
Average	1,674	16,068	1,465	2,735	2,530	8,971	2,480	11,250	7,455	52,954
1986										
January	1,670	17,425	1,540	2,510	2,666	9,121	2,500	11,360	7,656	54,778
February	1,670	17,720	1,475	2,123	2,725	9,181	2,500	11,420	7,798	54,942
March	1,670	17,355	1,480	2,219	2,710	9,002	2,500	11,520	7,695	54,481
April	1,670	17,935	1,475	2,358	2,580	8,850	2,500	11,570	7,271	54,539
May	1,670	18,380	1,425	2,527	2,545	8,842	2,500	11,650	7,726	55,595
June	1,690	19,775	1,400	2,547	2,198	8,591	2,500	11,660	7,675	56,346
July	1,700	20,525	1,460	2,536	2,608	8,636	2,500	11,690	7,674	57,629
August	2,040	21,104	1,545	2,567	2,598	8,391	2,500	11,740	7,875	58,320
September	1,695	17,131	1,500	2,371	2,558	8,333	2,560	11,760	7,999	54,212
October	1,684	17,439	1,530	2,324	2,573	8,434	2,560	11,785	7,939	54,584
November	1,714	17,834	1,450	2,452	2,476	8,321	2,690	11,835	8,234	55,292
December	1,790	18,040	1,475	2,569	2,346	8,348	2,690	11,830	8,280	55,578
Average	1,723	18,396	1,480	2,428	2,548	8,668	2,542	11,653	7,819	55,534
1987										
January	1,650	16,570	R 1,470	2,510	2,637	8,477	2,690	11,735	R 8,156	R 54,245
February	1,640	R 15,715	R 1,480	2,510	2,566	8,318	2,690	R 11,710	R 8,151	R 53,140
March	1,690	15,415	1,425	2,510	2,513	8,349	2,690	11,830	8,100	52,832
3-Mo. Avg.	1,661	15,906	1,458	2,510	2,572	8,383	2,690	11,760	8,135	53,415

Footnotes continued.

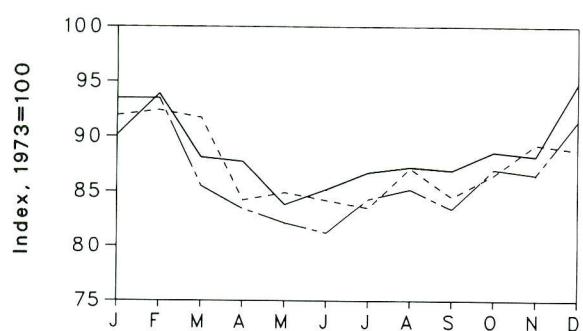
Note: • U.S. geographic coverage is the 50 States and the District of Columbia. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: • 1973-1985 annual data (except the United States): Energy Information Administration (EIA), *International Energy Annual*

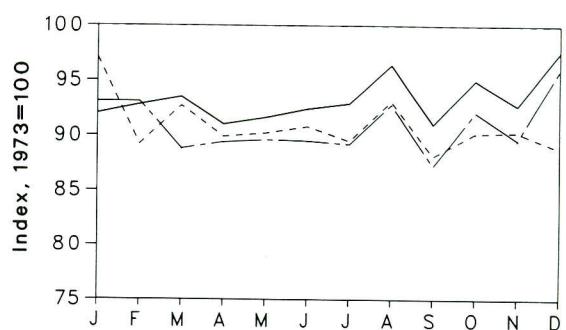
• 1973-1987 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly*. • 1985-1987 monthly data (except United States and world): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources. • 1985-1987 monthly data for world: Sum of data for all countries using above sources.

Figure 10.1 Petroleum Consumption for OECD Countries

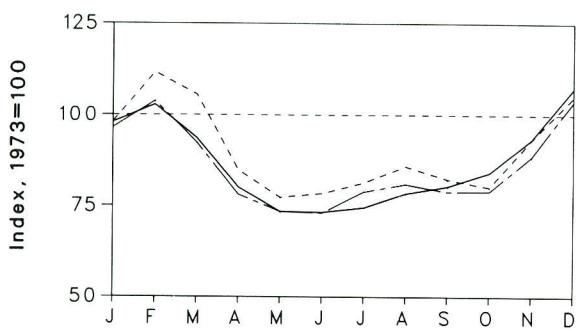
Total OECD



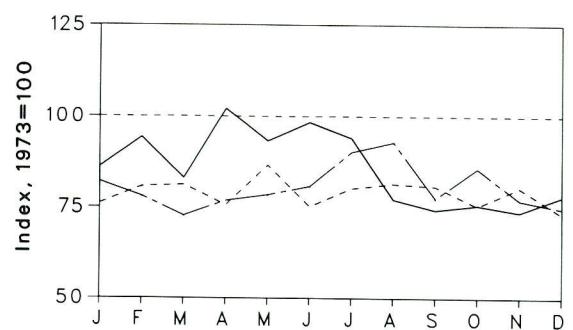
United States



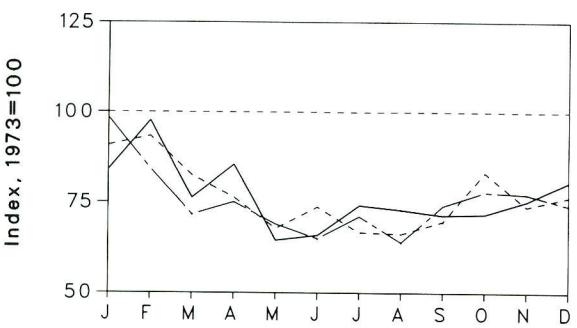
Japan



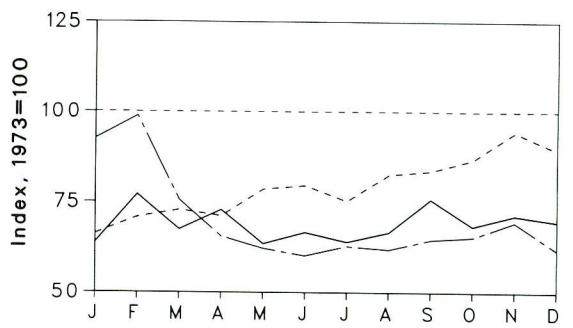
West Germany



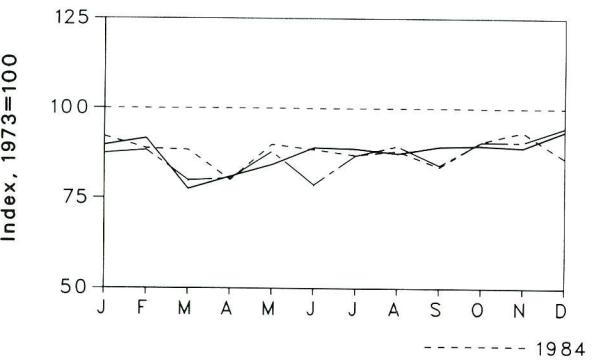
France



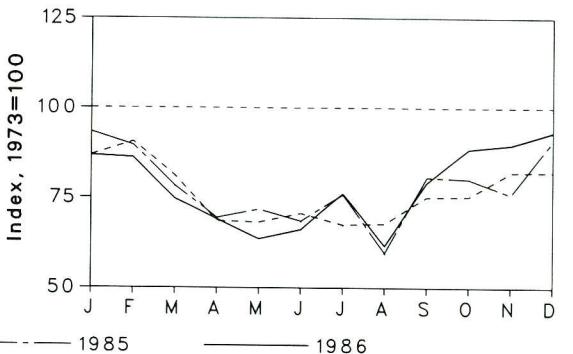
United Kingdom



Canada



Italy



----- 1984

----- 1985

----- 1986

Table 10.2 Petroleum Consumption for OECD Countries^a
 (Thousand Barrels per Day)

	Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe ^b	Other OECD ^c	Total OECD ^a
1973 Average	1,707	2,422	2,147	5,071	2,301	17,308	2,915	14,521	975	39,582
1974 Average	1,740	2,260	2,090	4,960	2,138	16,653	2,612	13,708	1,018	38,078
1975 Average	1,694	2,136	1,940	4,502	1,872	16,322	2,515	13,059	955	36,531
1976 Average	1,743	2,280	1,991	4,771	1,856	17,461	2,708	13,813	1,024	38,812
1977 Average	1,751	2,235	1,907	5,231	1,880	18,431	2,837	13,795	1,079	40,287
1978 Average	1,737	2,169	1,948	5,142	1,850	18,847	3,048	13,963	1,070	40,759
1979 Average	1,857	2,385	2,013	5,480	1,930	18,513	3,073	14,670	1,045	41,565
1980 Average	1,947	2,256	1,934	4,960	1,725	17,056	2,707	13,634	1,041	38,638
1981 Average	1,836	2,023	1,874	4,848	1,590	16,058	2,449	12,515	1,056	36,313
1982 Average	1,616	1,940	1,782	4,554	1,587	15,296	2,324	12,094	1,083	34,642
1983 Average	1,490	1,911	1,730	4,368	1,520	15,231	2,290	11,808	947	33,844
1984 Average	1,503	1,857	1,637	4,577	1,824	15,726	2,300	11,834	960	34,600
1985 January	1,491	2,383	2,001	4,887	2,130	16,109	2,393	13,564	948	36,998
February	1,508	2,043	1,923	5,262	2,274	16,121	2,274	13,137	1,001	37,028
March	1,364	1,734	1,682	4,680	1,738	15,373	2,120	11,405	1,001	33,823
April	1,372	1,817	1,487	3,962	1,507	15,472	2,238	11,136	1,078	33,020
May	1,501	1,671	1,537	3,721	1,432	15,504	2,284	10,739	1,023	32,487
June	1,344	1,575	1,469	3,701	1,385	15,483	2,356	10,617	984	32,129
July	1,483	1,723	1,627	4,003	1,445	15,434	2,630	11,451	1,016	33,387
August	1,527	1,551	1,281	4,109	1,425	16,060	2,708	11,099	940	33,735
September	1,435	1,792	1,733	4,002	1,487	15,099	2,259	11,485	996	33,018
October	1,546	1,884	1,723	4,008	1,503	15,944	2,499	12,044	901	34,443
November	1,546	1,869	1,629	4,487	1,596	15,503	2,245	11,695	1,024	34,254
December	1,614	1,794	1,951	5,259	1,423	16,611	2,176	11,701	1,010	36,194
Average	1,478	1,818	1,669	4,336	1,608	15,726	2,350	11,666	993	34,198
1986 January	1,530	2,036	1,861	4,963	1,468	15,923	2,509	12,390	864	35,669
February	1,561	2,365	1,848	5,215	1,772	16,056	2,746	13,408	934	37,173
March	1,322	1,846	1,603	4,747	1,551	16,188	2,419	11,718	908	34,883
April	1,382	2,070	1,480	4,061	1,676	15,743	2,976	12,623	914	34,722
May	1,438	1,563	1,364	3,721	1,462	15,852	2,715	11,153	993	33,157
June	1,519	1,596	1,419	3,713	1,532	15,998	2,865	11,566	915	33,710
July	1,514	1,794	1,634	3,777	1,473	16,075	2,739	12,036	915	34,317
August	1,492	1,766	1,322	3,975	1,532	16,686	2,250	11,386	965	34,505
September	1,524	1,728	1,701	4,076	1,742	15,755	2,165	12,052	1,008	34,415
October	1,530	1,737	1,901	4,266	1,572	16,441	2,203	11,818	1,005	35,060
November	1,521	1,821	1,926	4,728	1,639	16,051	2,148	11,782	826	34,908
December	1,597	1,953	2,001	5,442	1,601	16,897	2,272	12,530	1,066	37,532
Average	1,494	1,852	1,671	4,386	1,583	16,142	2,498	12,027	943	34,992

^aOrganization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States, as well as "Total OECD Europe" and "Other OECD."

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

^c"Other OECD" includes Australia, New Zealand, and the U.S. Territories.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia. • Data through 1984 are final. Subsequent data are preliminary.

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

Data required to update the series on this page were not available at the time of publication.

Figure 10.2 Petroleum Stocks for OECD Countries at End of Period

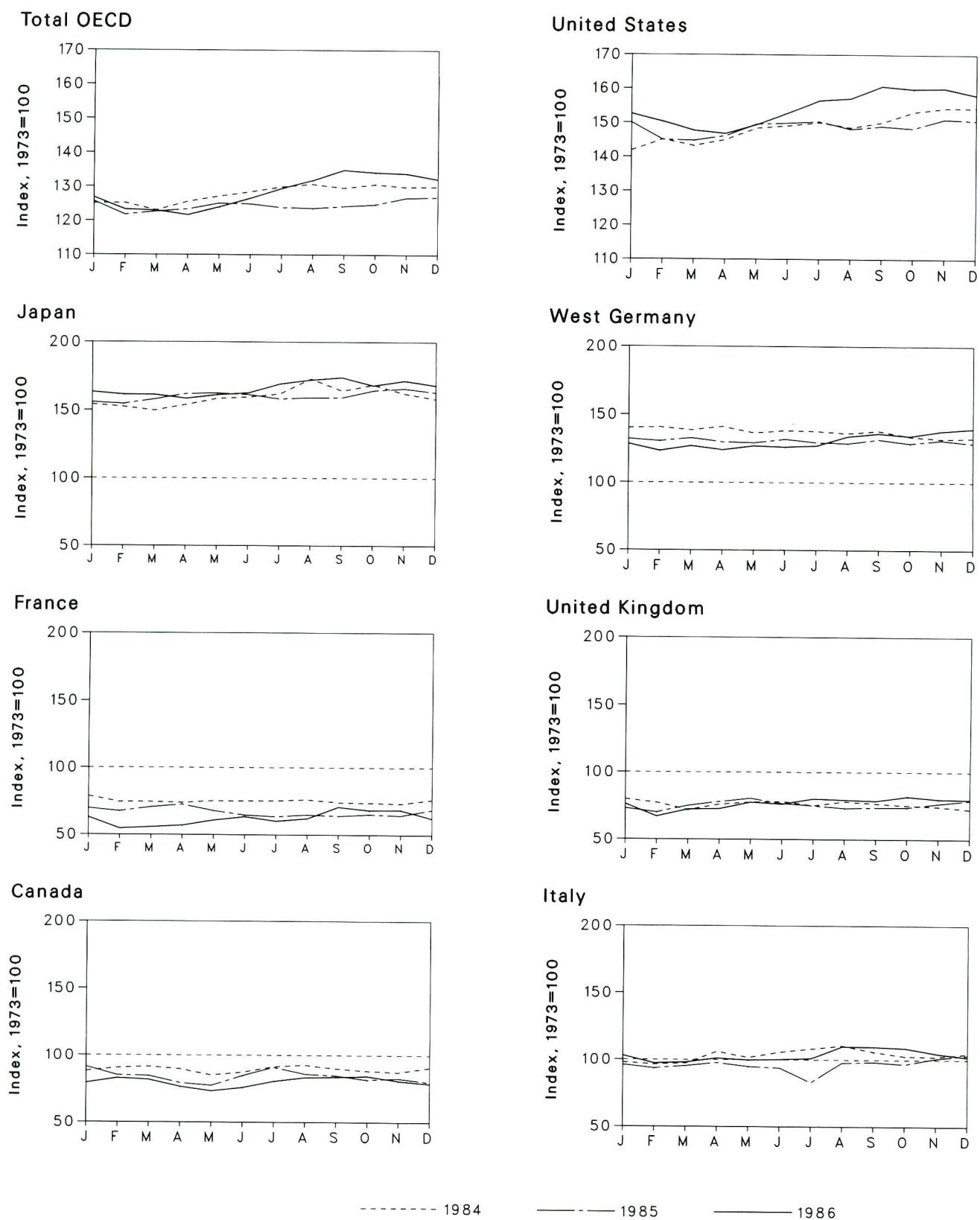


Table 10.3 Petroleum Stocks^a for OECD Countries^b at End of Period
(Million Barrels)

	Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Total OECD Europe ^c	Other OECD ^d	Total OECD ^b
1973 Year	140	201	152	303	156	1,008	181	1,070	67	2,588
1974 Year	145	249	167	370	161	1,074	213	1,227	64	2,880
1975 Year	174	225	143	375	165	1,133	187	1,154	67	2,903
1976 Year	153	234	143	380	165	1,112	208	1,205	68	2,918
1977 Year	167	239	161	409	148	1,312	225	1,268	68	3,224
1978 Year	144	201	154	413	157	1,278	238	1,219	68	3,122
1979 Year	150	226	163	460	169	1,341	272	1,353	75	3,379
1980 Year	164	243	170	495	168	1,392	319	1,464	72	3,587
1981 Year	161	214	167	482	143	1,484	297	1,337	67	3,531
1982 Year	136	193	179	484	125	1,430	272	1,258	68	3,376
1983 Year	120	153	149	471	119	1,454	250	1,145	68	3,258
1984 Year	127	153	159	480	113	1,556	240	1,132	69	3,364
1985 January	128	140	146	472	114	1,512	239	1,071	70	3,253
February	119	135	142	468	109	1,462	236	1,032	71	3,153
March	118	142	145	479	117	1,460	240	1,053	65	3,175
April	111	146	148	491	121	1,473	235	1,053	67	3,195
May	108	136	144	492	125	1,508	234	1,063	65	3,237
June	119	130	142	489	119	1,511	239	1,050	64	3,233
July	127	128	126	480	117	1,516	234	1,022	62	3,207
August	120	130	149	482	114	1,494	233	1,042	62	3,200
September	119	129	149	483	115	1,502	238	1,052	62	3,218
October	114	131	147	498	115	1,496	233	1,056	65	3,230
November	116	130	154	503	119	1,523	237	1,072	65	3,279
December	112	138	157	495	123	1,519	233	1,093	67	3,285
1986 January	111	127	157	495	118	1,538	232	1,071	66	3,281
February	116	110	148	489	104	1,515	223	1,004	68	3,191
March	114	112	149	489	113	1,489	229	1,023	70	3,184
April	107	114	154	480	113	1,480	224	1,016	65	3,148
May	102	122	151	488	121	1,506	230	1,053	60	3,209
June	106	127	152	493	119	1,541	228	1,067	67	3,274
July	112	121	154	513	125	1,578	230	1,076	68	3,348
August	116	125	167	522	124	1,584	242	1,125	68	3,415
September	117	142	167	527	123	1,620	247	1,156	72	3,492
October	118	137	165	510	128	1,612	243	1,161	72	3,473
November	113	138	159	520	125	1,614	250	1,147	71	3,465
December	110	125	155	510	124	1,594	253	1,138	71	3,423

^aPetroleum 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.

^bOrganization for Economic Cooperation and Development (OECD) includes Canada, Japan, and the United States, as well as "Total OECD Europe" and "Other OECD."

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

^d"Other OECD" includes Australia, New Zealand, and the U.S. Territories.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. • In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported. Using the new basis, the end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,420 in 1980, and 1,462 in 1982.

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

Data required to update the series on this page were not available at the time of publication.

Table 10.4a Nuclear Electricity Generation by Non-Communist Countries^a
(Billion Gross Kilowatthours)

	Argentina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Netherlands	Pakistan
1973 Total	0	0	0	15.3	0	14.7	2.5	3.1	9.4	1.1	0.5
1974 Total	1.0	0.1	0	15.4	0	14.7	1.9	3.4	18.9	3.3	.6
1975 Total	2.5	6.8	0	13.2	0	18.3	2.5	3.8	21.3	3.3	.5
1976 Total	2.6	10.0	0	18.0	0	15.8	3.2	3.8	36.6	3.9	.5
1977 Total	1.6	11.9	0	26.6	2.7	17.9	2.8	3.4	28.2	3.7	.3
1978 Total	2.9	12.5	0	33.0	3.3	30.6	2.3	4.5	53.1	4.1	.2
1979 Total	2.7	11.4	0	38.4	6.7	39.9	3.2	2.6	62.0	3.5	(s)
1980 Total	2.3	12.5	0	40.4	7.0	61.2	2.9	2.2	82.8	4.2	.1
1981 Total	2.8	12.8	0	43.3	14.5	105.2	3.1	2.7	86.0	3.7	.2
1982 Total	1.9	15.6	0.1	42.6	16.5	108.9	2.2	6.8	104.5	3.9	.1
1983 Total	3.4	24.1	.2	53.0	17.4	144.2	2.9	5.8	109.1	3.6	.2
1984 Total	4.5	27.7	2.1	53.8	18.5	191.2	4.1	6.9	127.2	3.8	.3
1985 January2	2.5	.4	5.7	1.7	21.9	.2	.8	12.2	.4	(s)
February4	1.7	.3	5.0	1.6	19.2	.2	.7	10.7	.3	(s)
March5	2.0	.3	5.9	1.8	20.6	.4	.8	12.0	.2	0
April4	2.2	.1	5.2	1.6	17.7	.6	.7	11.8	(s)	0
May4	2.8	.2	2.4	1.2	15.9	.5	.7	13.0	.2	0
June4	2.8	.4	4.2	1.2	13.6	.4	.6	12.6	.4	(s)
July5	2.5	.3	5.7	1.4	16.1	.4	.6	12.5	.4	.1
August5	3.2	.1	6.0	1.5	15.4	.2	.5	12.9	.4	(s)
September5	3.3	.3	5.4	1.6	17.2	.3	.3	12.8	.4	0
October6	3.9	.4	5.1	1.7	20.0	.4	.3	13.9	.4	(s)
November7	3.9	.3	5.8	1.7	22.1	.4	.3	13.1	.4	.1
December7	3.8	.3	6.5	1.7	24.4	.4	.6	14.7	.4	.1
Total	5.8	34.5	3.4	62.9	18.8	224.0	4.5	7.0	152.0	3.9	.3
1986 January6	3.8	(s)	6.5	1.8	25.6	.5	.9	15.0	.4	(s)
February6	2.8	0	6.2	1.6	22.8	.4	.5	13.5	.1	(s)
March5	3.6	0	7.0	1.8	23.6	.5	.9	14.5	.3	(s)
April5	3.7	0	6.0	1.7	21.0	.3	.9	12.4	.4	(s)
May7	3.2	0	5.7	1.4	16.3	.4	.7	12.8	.4	(s)
June4	2.9	0	5.4	1.1	16.7	.4	.9	15.0	.4	(s)
July4	3.0	0	5.3	1.3	18.8	.5	.9	15.2	.4	(s)
August6	3.1	0	6.6	1.4	16.5	.5	.9	14.8	.4	.1
September6	3.1	0	6.2	1.5	19.0	.4	.9	13.4	.4	0
October2	3.2	0	6.6	1.8	22.4	.3	.8	12.7	.4	(s)
November2	3.0	(s)	6.4	1.7	24.1	.5	.3	11.7	.3	(s)
December3	3.3	.1	6.7	1.7	27.4	.5	.1	13.8	.4	(s)
Total	5.7	38.6	.1	74.6	18.8	254.3	5.1	8.7	164.8	4.2	.5
1987 January7	4.1	0	6.7	1.8	27.3	.5	.1	14.7	.2	.1
February5	3.6	0	6.1	1.6	25.2	.5	.1	13.0	(s)	(s)
March2	3.4	0	4.4	1.8	25.8	.4	(s)	15.1	.1	(s)
3-Month Total	1.4	11.2	0	17.3	5.1	78.3	1.4	.2	42.8	.3	.1
1986 3-Month Total	1.7	10.2	(s)	19.6	5.2	72.0	1.4	2.3	43.0	.8	.1
1985 3-Month Total	1.1	6.2	1.0	16.6	5.1	61.7	.9	2.3	34.8	.9	.1

^aFigures 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.

^bThe United Kingdom assesses generation at 4-, 5-, or 6-week intervals, rather than by calendar month.

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

Footnotes continued on following page.

**Table 10.4b Nuclear Electricity Generation by Non-Communist Countries^a
(continued)**
(Billion Gross Kilowatthours)

	South Africa	South Korea	Spain	Sweden	Switzer- land	Taiwan	United King- dom ^b	West Germany	Non- Communist World Excluding U.S.	United States	Total Non- Communist World
1973 Total	0	0	6.5	2.1	6.2	0	28.2	11.9	101.4	87.8	189.3
1974 Total	0	0	7.2	2.3	7.0	0	33.8	12.0	121.7	124.3	246.0
1975 Total	0	0	7.5	12.0	7.7	0	30.5	21.7	151.8	182.3	334.1
1976 Total	0	0	7.6	16.0	7.9	0	36.8	24.5	187.1	201.8	388.9
1977 Total	0	0.1	6.5	19.9	8.1	0.1	38.1	36.0	207.8	264.2	472.0
1978 Total	0	2.3	7.6	23.8	8.3	2.7	36.6	35.7	263.5	292.4	555.9
1979 Total	0	3.2	6.7	21.0	11.8	6.3	38.5	42.2	300.1	270.6	570.7
1980 Total	0	3.5	5.2	26.7	14.3	8.2	37.2	43.7	354.3	265.4	619.8
1981 Total	0	2.9	9.4	37.7	15.2	10.7	38.9	53.4	442.4	288.5	730.9
1982 Total	0	3.8	8.8	38.8	15.0	13.1	44.1	63.4	489.9	298.6	788.5
1983 Total	0	9.0	10.7	40.4	15.5	18.9	49.6	65.8	573.9	313.6	887.5
1984 Total	4.2	11.8	23.1	51.3	16.3	24.3	54.1	92.6	717.7	343.8	1,061.5
1985 January3	1.1	2.2	5.4	2.2	2.4	5.7	10.8	76.1	38.0	114.1
February	0	1.3	1.9	5.0	2.0	2.1	5.6	10.1	68.3	32.4	100.6
March	0	1.5	2.8	5.6	2.2	2.5	6.6	11.7	77.4	32.5	109.9
April	0	1.3	2.4	4.5	2.2	2.7	5.1	10.6	69.0	28.3	97.3
May	0	1.5	2.3	3.9	1.9	2.8	4.7	9.3	63.8	31.8	95.6
June1	1.2	3.1	2.6	1.2	2.6	5.1	9.6	62.0	31.0	93.0
July8	1.1	2.2	3.1	1.3	2.2	4.1	8.4	63.7	36.4	100.2
August8	1.2	2.1	4.3	1.0	2.2	3.8	9.5	65.5	36.8	102.3
September	1.0	1.3	2.1	4.7	1.7	2.6	4.9	10.3	70.7	35.9	106.6
October	1.1	1.4	2.2	5.4	2.2	2.6	4.3	11.3	77.2	32.1	109.3
November8	1.7	2.2	7.0	2.2	1.7	3.7	11.7	79.6	31.7	111.3
December9	1.9	2.6	6.9	2.2	2.5	6.0	12.3	89.0	35.7	124.6
Total	5.7	16.5	28.0	58.6	22.4	28.7	59.6	125.7	862.3	402.6	1,264.9
1986 January	1.0	2.0	3.1	6.8	2.3	2.9	4.8	12.0	90.0	38.1	128.1
February6	1.7	2.5	6.4	2.1	2.1	5.3	10.4	79.7	34.1	113.8
March7	1.5	2.4	7.2	2.3	2.2	6.4	10.7	86.0	31.2	117.2
April7	1.6	3.0	6.7	2.2	2.0	4.2	9.6	76.8	32.2	109.0
May7	2.4	3.6	4.8	2.1	2.0	4.4	9.5	71.2	33.7	104.9
June2	2.2	3.9	4.1	1.2	1.6	5.1	9.0	70.4	33.2	103.6
July6	2.0	3.1	3.8	.9	1.8	4.1	7.9	70.0	38.0	108.1
August7	2.4	2.9	4.3	1.0	1.9	4.2	8.0	70.3	39.2	109.6
September9	2.1	2.7	5.1	1.9	2.0	4.9	9.1	74.2	37.9	112.0
October	1.0	3.0	3.4	6.5	2.3	2.4	4.1	8.8	80.0	37.9	117.9
November	1.3	2.2	3.4	6.9	2.1	2.8	4.8	10.5	82.4	36.3	118.8
December9	3.1	3.2	7.3	2.2	3.1	6.1	11.9	92.3	41.2	133.4
Total	9.3	26.1	37.5	69.9	22.5	26.9	58.2	117.4	943.3	432.9	1,376.3
1987 January7	3.2	3.4	7.2	2.3	3.2	R 5.0	12.0	R 93.2	R 41.8	R 135.0
February7	3.0	3.3	6.6	2.1	3.1	R 5.2	11.6	R 86.1	R 38.3	R 124.4
March8	2.5	4.0	7.1	2.3	3.0	6.7	12.4	90.0	38.5	128.5
3-Month Total	2.2	8.7	10.7	20.9	6.7	9.3	16.9	35.9	269.3	118.6	387.9
1986 3-Month Total	2.3	5.2	8.1	20.4	6.7	7.2	16.5	33.1	255.7	103.3	359.0
1985 3-Month Total3	3.9	7.0	16.1	6.5	7.0	17.9	32.6	221.8	102.8	324.6

Footnotes continued.

Notes: • U.S. geographic coverage is the 50 States and the District of Columbia. • The sum of the months may not equal the annual total because the annual total may reflect revisions which are not included in the monthly data. Also, the sum of the months may not equal the annual total due to independent rounding.

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

Conversion Factors

Units of Measure

Coal		
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
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
Uranium		
1 short ton (U_3O_8)	contains	0.769 metric tons of uranium
1 short ton (UF_6)	contains	0.613 metric tons of uranium
1 metric ton (UF_6)	contains	0.676 metric tons of uranium

Approximate Heat Content of Petroleum Products

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

^a60 percent butane and 40 percent propane.

^b70 percent ethane and 30 percent propane.

Approximate Heat Content of Fuels, 1973-1979

	Units	1973	1974	1975	1976	1977	1978	1979
Coal								
Production	Million Btu/short ton	23.376	23.072	22.897	22.855	22.597	22.248	22.454
Consumption	Million Btu/short ton	23.057	22.677	22.506	22.498	22.265	22.017	22.100
Non-electric utility users	Million Btu/short ton	24.878	24.783	24.745	24.861	24.701	24.496	24.626
Electric utilities	Million Btu/short ton	22.246	21.781	21.642	21.679	21.508	21.275	21.364
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.596	26.700	26.562	26.601	26.548	26.478	26.548
Anthracite								
Production	Million Btu/short ton	22.132	21.711	21.582	22.045	22.661	23.079	23.170
Consumption	Million Btu/short ton	21.464	20.919	20.762	21.254	22.066	22.398	22.069
Non-electric utility users	Million Btu/short ton	22.674	22.330	22.272	22.618	24.101	24.388	24.272
Electric utilities	Million Btu/short ton	17.920	17.200	17.064	17.526	17.244	17.104	17.454
Imports and exports	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous coal and lignite								
Production	Million Btu/short ton	23.391	23.087	22.910	22.863	22.597	22.242	22.449
Consumption	Million Btu/short ton	23.073	22.694	22.522	22.509	22.266	22.014	22.100
Residential and commercial	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078	21.884
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial and transportation	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175	22.436
Electric utilities	Million Btu/short ton	22.262	21.799	21.659	21.692	21.521	21.284	21.372
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501	26.570
Coal coke, imports and exports	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800	24.800
Crude oil^a								
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.817	5.827	5.821	5.808	5.810	5.802	5.810
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products								
Imports	Million Btu/barrel	5.897	5.884	5.858	5.856	5.834	5.839	5.810
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808	5.832
Petroleum Products^b								
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519	5.494
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382	5.471
Industrial	Million Btu/barrel	5.565	5.537	5.527	5.535	5.552	5.546	5.416
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407	5.430
Electric utilities	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251	6.258
Imports	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955	5.811
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814	5.864
LPG consumption	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669	3.680
Natural gas plant liquids								
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925	3.955
Natural gas								
Production, dry	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Production, wet	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092
Consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Non-electric utility users	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018
Electric utilities	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,035
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant

generation ^c	Btu/kilowatthour	10,389	10,442	10,406	10,373	10,435	10,361	10,353
Nuclear power plant generation	Btu/kilowatthour	10,903	11,161	11,013	11,047	10,769	10,941	10,879
Geothermal energy power plant generation	Btu/kilowatthour	21,674	21,674	21,611	21,611	21,611	21,611	21,545
Electricity Consumption	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412	3,412

^aIncludes lease condensate.

^bWeighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.

^cThis is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

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

Approximate Heat Content of Fuels, 1980-1987

	Units	1980	1981	1982	1983	1984	1985	1986-87 ^d
Coal								
Production	Million Btu/short ton	22.415	22.309	22.240	22.056	22.014	21.874	21.934
Consumption	Million Btu/short ton	21.947	21.714	21.675	21.581	21.577	21.370	21.485
Non-electric utility users	Million Btu/short ton	24.731	24.477	24.195	24.093	24.069	23.664	23.609
Electric utilities	Million Btu/short ton	21.295	21.085	21.194	21.133	21.101	20.959	21.110
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.384	26.160	26.223	26.291	26.402	26.307	26.292
Anthracite								
Production	Million Btu/short ton	22.869	23.291	23.289	22.734	23.107	22.428	22.429
Consumption	Million Btu/short ton	21.405	22.080	22.518	21.583	22.322	20.817	20.690
Non-electric utility users	Million Btu/short ton	22.719	23.749	24.578	24.536	25.128	23.031	23.061
Electric utilities	Million Btu/short ton	17.652	18.168	18.160	16.516	17.018	16.784	15.486
Imports and exports	Million Btu/short ton	25.400	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous coal and lignite								
Production	Million Btu/short ton	22.411	22.302	22.234	22.053	22.009	21.871	21.932
Consumption	Million Btu/short ton	21.950	21.712	21.671	21.581	21.574	21.372	21.488
Residential and commercial	Million Btu/short ton	22.488	22.191	22.373	22.934	22.880	23.072	23.381
Coke plants	Million Btu/short ton	26.800	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial and transportation	Million Btu/short ton	22.690	22.572	22.694	22.679	22.524	22.012	22.078
Electric utilities	Million Btu/short ton	21.301	21.091	21.200	21.141	21.108	20.965	21.117
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.404	26.176	26.231	26.300	26.410	26.320	26.308
Coal coke, imports and exports	Million Btu/short ton	24.800	24.800	24.800	24.800	24.800	24.800	24.800
Crude oil^a								
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.812	5.818	5.826	5.825	5.823	5.832	R 5.903
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Crude oil and petroleum products								
Imports	Million Btu/barrel	5.796	5.775	5.775	5.774	5.745	5.736	R 5.808
Exports	Million Btu/barrel	5.820	5.821	5.820	5.800	5.850	5.814	R 5.832
Petroleum products^b								
Consumption	Million Btu/barrel	5.479	5.448	5.415	5.406	5.395	5.387	R 5.415
Residential and commercial	Million Btu/barrel	5.468	5.409	5.392	5.286	5.261	5.203	R 5.245
Industrial	Million Btu/barrel	5.376	5.310	5.262	5.273	5.256	5.265	R 5.318
Transportation	Million Btu/barrel	5.440	5.434	5.423	5.416	5.423	5.421	R 5.424
Electric utilities	Million Btu/barrel	6.254	6.258	6.258	6.255	6.251	6.247	R 6.257
Imports	Million Btu/barrel	5.748	5.659	5.664	5.677	5.613	5.572	R 5.624
Exports	Million Btu/barrel	5.841	5.837	5.829	5.800	5.867	5.819	R 5.839
LPG consumption	Million Btu/barrel	3.674	3.643	3.615	3.614	3.599	3.603	R 3.640
Natural gas plant liquids								
Production	Million Btu/barrel	3.914	3.930	3.872	3.839	3.812	3.815	R 3.797
Natural gas								
Production, dry	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,033	1,033
Production, wet	Btu/cubic foot	1,098	1,103	1,107	1,115	1,109	1,113	1,113
Consumption	Btu/cubic foot	1,026	1,027	1,028	1,031	1,031	1,033	1,033
Non-electric utility users	Btu/cubic foot	1,024	1,025	1,026	1,031	1,030	1,032	1,032
Electric utilities	Btu/cubic foot	1,035	1,035	1,036	1,030	1,035	1,038	1,038
Imports	Btu/cubic foot	1,022	1,014	1,018	1,024	1,005	1,002	1,002
Exports	Btu/cubic foot	1,013	1,011	1,011	1,010	1,010	1,011	1,011

Approximate Heat Rates for Electricity

Fossil fuel steam-electric power plant generation ^c	Btu/kilowatthour	10,388	10,453	10,423	10,445	10,211	10,339	10,339
Nuclear power plant generation	Btu/kilowatthour	10,908	11,030	11,073	10,905	10,843	10,809	10,809
Geothermal energy power plant generation	Btu/kilowatthour	21,639	21,639	21,629	21,290	21,303	21,263	21,263
Electricity Consumption	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412	3,412

^aIncludes lease condensate.

^bWeighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.

^cThis is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

^dPreliminary data.

R=Revised data.

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

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum Products

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

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

Butane. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

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

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

Ethane. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

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

Isobutane. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Jet Fuel, Kerosene Type. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as published for "Jet Fuel, Commercial" by the Texas Eastern Transmission Corpora-

tion in the report *Competition and Growth in American Energy Markets 1947-1985*, 1968.

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

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

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

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

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

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

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

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

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

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

Petroleum Coke. 1973 forward: EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines

internal memorandum *Bureau of Mines Standard Average Heating Value of Various Fuels, adopted January 3, 1950*. The Bureau of Mines calculated this factor by dividing the 30,120,000 Btu per short ton as given in the referenced Bureau of Mines internal memorandum by 5.0 barrels per short ton as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

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

Propane. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

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

Road Oil. 1973 forward: EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel which was assumed to be equal to that of asphalt (see "Asphalt") and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970*.

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

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

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

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

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

Approximate Heat Content of Fuels

Petroleum

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

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

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

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

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

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

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

Petroleum Products, Consumption by Electric Utilities. 1973-1985: Calculated annually by EIA as the average

of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*. 1986 forward: Estimated by EIA.

Petroleum Products, Consumption by Industrial Users. 1973-1985: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*. 1986 forward: Estimated by EIA.

Petroleum Products, Consumption by Residential and Commercial Users. 1973-1985: Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*. 1986 forward: Estimated by EIA.

Petroleum Products, Consumption by Transportation Users. 1973-1985: Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*. 1986 forward: Estimated by EIA.

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

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

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

Natural Gas

Natural Gas, Consumption. 1973-1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual.

1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. Heat content and quantity consumed are from Form EIA-176.

Natural Gas, Consumption by Electric Utilities. 1973 forward: Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from FERC Form 423 and predecessor forms.

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

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

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

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

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

Coal and Coal Coke

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

Anthracite, Consumption by Electric Utilities. 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite receipts at electric utilities by the quantity of anthracite received at electric util-

ties. Heat contents and receipts are from FERC Form 423 and predecessor forms.

Anthracite, Consumption by Non-Electric Utility Users. 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite production less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of non-electric utility anthracite consumption less the quantity of anthracite stock changes, losses, and unaccounted for.

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

Anthracite, Production. 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of freshly mined anthracite (estimated to have an average heat content of 25.400 million Btu per short ton) and the heat content of anthracite recovered from culm banks and river dredging (estimated to have a heat content of 17.500 million Btu per short ton) by the total quantity of anthracite production.

Bituminous Coal and Lignite, Consumption. 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumed by electric utilities, coal coke plants, other industrial plants, the residential and commercial sector, and the transportation sector by the sum of their respective tonnages.

Bituminous Coal and Lignite, Consumption by Coke Plants. 1973 forward: Estimated by EIA to be 26.800 million Btu per short ton based on an input/output analysis of coal carbonization.

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

Bituminous Coal and Lignite, Consumption by Other Industrial and Transportation Users. 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by other industrial users and that of coal consumed at electric utilities in the 1974-1982 period.

1974 forward: Calculated annually by EIA assuming that the bituminous coal and lignite delivered to other industrial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coal-producing district was applied to the

volume of deliveries to other industrial users from each coal-producing district, and the sum total of the heat content was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Consumption by Residential and Commercial Users. 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by residential and commercial users and that of coal consumed by electric utilities in the 1974-1982 period.

1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to residential and commercial users from each coal-producing district (reported on EIA Form 6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to bituminous coal and lignite received at electric utilities from each of the same coal-producing districts (reported on FERC Form 423). The average Btu value of coal by coal-producing district was applied to the volume of deliveries to residential and commercial users from each coal-producing district, and the total of the heat value was divided by the total volume of deliveries.

Bituminous Coal and Lignite, Exports. 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of exported metallurgical coal (estimated to average 27.000 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25.000 million Btu per short ton) by the total quantity of bituminous coal and lignite exported.

Bituminous Coal and Lignite, Imports. 1973 forward: EIA estimated the average thermal conversion factor to be 25.000 million Btu per short ton.

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

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

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

Coal, Consumption by Non-Electric Utility Users. 1973 forward: Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite

and anthracite consumed by non-electric utility users by the sum of their respective tonnages.

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

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

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

Coal Coke, Imports and Exports. 1973 forward: EIA adopted the Bureau of Mines estimate of 24,800 million Btu per short ton.

the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind photovoltaic, or solar thermal electric energy sources. EIA has selected a rate that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants. By using this factor, it is possible to evaluate fossil fuel requirements for replacing these sources during periods of interruption such as drought. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. 1973 forward: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States as published by EIA in *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants*.

Geothermal Energy Power Plant Generation. 1973 forward: Calculated annually by EIA by weighting the average annual heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. 1982 forward: Estimated annually by EIA based on an informal survey of relevant plants.

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

Approximate Heat Rates for Electricity

Fossil Fuel Steam-Electric Power Plant Generation. There is no generally accepted practice for measuring

Glossary

Anthracite. A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. It is often referred to as hard coal. It includes meta-anthracite and semianthracite and conforms to ASTM Specification D388 for anthracite.

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

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

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

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

Butane. A normally gaseous, paraffinic hydrocarbon (C_4H_{10}) extracted from natural gas or refinery gas streams. It includes isobutane (a branch-chain configuration) and normal butane (a straight-chain configuration) and is covered by ASTM Specification 1835 and Natural Gas Processors Specifications for commercial butane. It is used primarily for blending into high-octane gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

Butylene. A normally gaseous, olefinic hydrocarbon (C_4H_8) recovered from refinery processes. Quantities are included with "normal butane" data.

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

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

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

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

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

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

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

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

Degree-Days, Cooling. The number of degrees per day that the daily average temperature is above $65\text{ }^{\circ}\text{F}$. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Heating. The number of degrees per day that the daily average temperature is below $65\text{ }^{\circ}\text{F}$. The

daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

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

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

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

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

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

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

Electricity Sales. The gross electricity output measured at the generator terminals, minus power plant use and transmission and distribution losses. Included in each end-use sector are the following: commercial sales of electricity to businesses that generally require less than 1,000 kilowatts of service; industrial sales of electricity to businesses that generally require more than 1,000 kilowatts of service; residential sales of electricity to

residences for household purposes; "other" sales of electricity to government, railways, street lighting authorities, and sales not elsewhere included.

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

Ethane. A normally gaseous, paraffinic hydrocarbon (C_2H_6) extracted from natural gas or refinery gas streams. It is used primarily as petrochemical feedstock for eventual production of chemicals and plastic materials.

Ethylene. A normally gaseous, olefinic hydrocarbon (C_2H_4) recovered from refinery processes. Quantities are included with "ethane" data.

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

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

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

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

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

Geothermal Energy (As Used At Electric Utilities). Hot water or steam, extracted from geothermal reservoirs in the earth's crust, which is supplied to steam turbines at electric utilities that drive generators to produce electricity.

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

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

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

Isobutane. See "Butane."

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

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

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

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

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

Motor Gasoline, Finished. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Excludes blendstock that has not been blended into finished motor gasoline and alcohol that has not been blended into gasohol.

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

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

per gallon or more than 0.005 grams of phosphorus per gallon.

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

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

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

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural reservoirs.

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

Natural Gas Wellhead Price. The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Geological Survey. The price includes all costs prior to shipment from the lease including gathering and compression costs in addition to State production, severance, and similar charges.

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

Normal Butane. See "Butane."

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

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

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

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

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

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

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

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

Petroleum Stocks, Primary. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored

on Federal leases or in the Strategic Petroleum Reserve, is included. Excluded are stocks of foreign origin that are held in bonded warehouse storage.

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

Propane. A normally gaseous, paraffinic hydrocarbon (C_3H_8) It is extracted from natural gas or refinery gas streams and includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specifications D1835. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

Propylene. A normally gaseous, olefinic hydrocarbon (C_3H_6) recovered from refinery processes. Quantities are included with "propane" data.

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

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

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

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

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

Supplemental Gaseous Fuels. Consists primarily of synthetic natural gas, propane-air, and refinery (still) gas. May also include coke oven gas, biomass gas, manufactured gas, and air injected for Btu stabilization.

Synthetic Natural Gas (SNG). A product resulting from the manufacture, conversion, or reforming of hy-

drocarbons that may be easily substituted for, or interchanged with, pipeline-quality natural gas.

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

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

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

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

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

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

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