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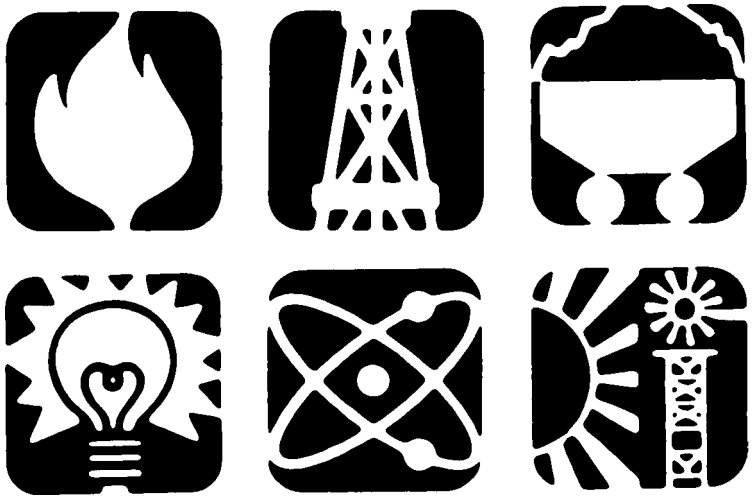
Energy Information Administration

Monthly Energy Review

December 1986



1986 Annual Data and 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.

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Monthly Energy Review

December 1986

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Office of Energy Markets and
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U.S. Department of Energy
Washington, DC 20585

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Contents

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.

Highlights

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

U.S. Energy Industry Financial Developments, 1986

This article traces elements of key financial indicators in the U.S. energy industry, based on a review of data for 188 energy companies for 1985 and 1986.[1] The financial performance of these companies is reviewed as a whole and in four major sectors--petroleum (including natural gas production), natural gas transmission and distribution, coal, and electric utilities.

Primary economic indicators increased modestly during 1986; real gross national product was up 2.5 percent.[2] At the same time, energy prices declined in most sectors, falling sharply in the oil and gas sectors. Falling oil prices led to severe financial difficulties for the oil and gas production sector and petroleum-producing regions. Crude oil production fell by an estimated 3 percent, while crude oil imports increased by 32 percent compared with 1985.[3]

Overall, slow economic growth and rapidly falling energy prices reduced net income[4] for the energy companies included in this review by 22 percent (Table F1). Gains realized by the 95 coal and electric utility companies, which reported higher annual net income in 1986 than in 1985, were more than offset by the declines reported by the 93 petroleum and natural gas companies.

Petroleum

The average refiner acquisition cost of crude oil fell an estimated 46 percent to $14.55 per barrel[5] in 1986, and the 52 petroleum companies experienced a 43-percent decline in annual net income.

Financial results varied substantially by segment (Figure F1). The 12 independent producers reported losses of $32 million in 1986. Also reporting extremely poor results for the year were the oilfield services companies,

[1]Publicly available data from 90 electric utilities, 12 natural gas transmission companies, 29 natural gas distribution companies, 12 independent petroleum producers, 8 refiners and marketers, 10 oilfield services companies, 5 coal producers, and 22 major petroleum firms.

[2]U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, January 1987), pp. 1-19.

[3]Where data on prices and physical quantities were not yet available for the entire year of 1986, estimates were obtained from Energy Information Administration, *Short-Term Energy Outlook,* Quarterly Projections, January 1987, DOE/EIA-0202(87/1Q) (Washington, DC, February 1987), pp. 31-44. Those estimates are not anticipated to be significantly different from final data.

[4]Net income from continuing operations, excluding extraordinary gains or losses.

[5]Energy Information Administration, *Monthly Energy Review,* December 1986, DOE/EIA-0035(86/12) (Washington, DC, March 1987), Table 9.1.

Table F1. Income by Segment, 188 Companies, 1985 and 1986

(Million Dollars)

Segment	1986	1985	Percent Change
Petroleum			
Oil and Gas Producers (12)	-32.1	252.0	NM
Oilfield Services (10)	-296.4	1,188.5	NM
Refiner/Marketers (8)	464.3	438.5	5.9
Major Petroleum Companies (22)	12,657.3	20,418.2	-38.0
Subtotal Petroleum (52)	12,793.0	22,297.2	-42.6
Natural Gas Transmission and Distribution (41)	1,479.1	1,949.0	-24.1
Coal (5)	124.2	110.1	12.8
Electric Utilities (90)	18,416.6	17,803.4	3.4
Total (188)	32,812.9	42,159.7	-22.2

NM=Not meaningful.

Notes: • The number of companies in each segment is reported in parentheses. • Totals may not equal sum of components due to independent rounding. • Percentage changes were calculated from unrounded data.

Source: Companies' quarterly reports to stockholders and "Earnings Digest," Wall Street Journal (various issues, January and February 1987).

who sustained losses of $296 million in 1986. They were particularly hard hit by the precipitous fall in drilling activity and the resulting fierce competition for the remaining business. In contrast, the eight independent refiners and marketers benefited from a continued favorable margin between crude oil and product prices (Figure F2) and a 2.6-percent growth in refined products supplied. This segment's net income increased 6 percent from $439 million in 1985 to $464 million in 1986.

The major oil companies' net income fell 38 percent to $12.7 billion (Table F1). Improved profitability of domestic and foreign refining and marketing operations, although significant, did not offset the substantial declines in oil and gas production operations. The major petroleum companies also reacted to sharply lower crude oil prices by reducing their investment expenditures, especially for oil and gas exploration and development. For 12 companies reporting worldwide capital and exploratory expenditures, spending was 30 percent less in 1986 than in 1985.[6]

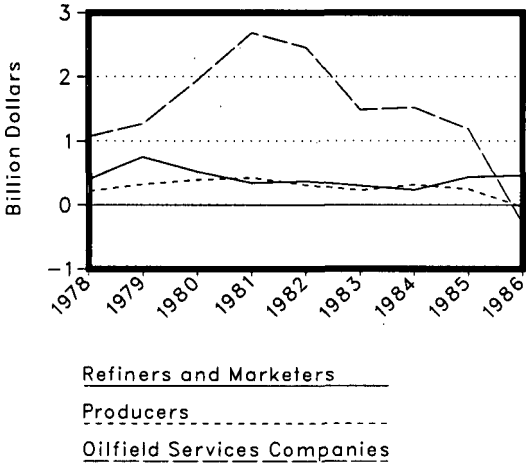
Other

In 1986, total dispositions of natural gas fell 5 percent relative to the previous year,[7] due to lower industrial demand and fuel switching by electric utilities. Consequently, natural gas transmission and distribution companies' net income fell 24 percent to $1.5 billion in 1986.

Five independent coal producers reported 1986 net income of $124 million, a 13-percent increase from 1985. Net income from coal operations of six major petroleum companies reporting such data totaled $378 million, up 2 percent from 1985.[8] The increases in net income occurred despite a fall in the average price of coal[9] and were attributable to improved productivity and cost reductions.

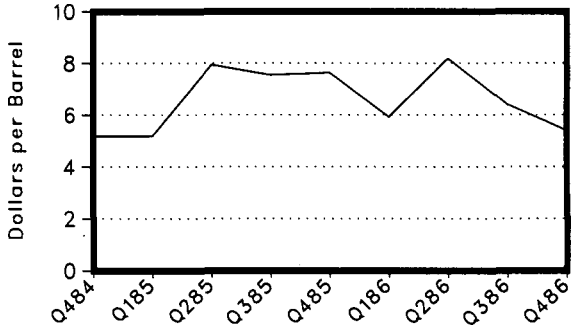
Ninety electric utilities' net income in 1986 totaled $18.4 billion, a 3-percent increase over 1985. The increase was due primarily to a decline in fuel prices paid by electric utilities and to a slight increase in net generation.[10]

Figure F1. Independent Petroleum Companies' Income, 1978-1986



Source: Companies' reports to stockholders;" Earnings Digest," Wall Street Journal (various issues, January and February 1986); and Standard and Poor's Compustat Services, Inc., COMPUSTAT II Annual Data Item 18 (Income Before Extraordinary Items), February 1987.

Figure F2. U.S. Refiner Apparent Profit Margin, 1984-1986



Source: Energy Information Administration, Petroleum Marketing Monthly, November 1986, DOE/EIA-0380(86/11) (Washington, DC, February 1987), pp. 8-13.

For Further Information

This article was prepared by the Economics and Statistics Division, Office of Energy Markets and End Use, Energy Information Administration. Inquiries regarding the article may be addressed to Mr. Crawford Honeycutt on (202) 586-1420.

[6]Compiled from companies' quarterly reports to stockholders.
[7]Energy Information Administration, *Short-Term Energy Outlook*, p. 41.
[8]Companies' quarterly reports to stockholders.
[9]Energy Information Administration, *Short-Term Energy Outlook*, pp. 32, 43.
[10]Energy Information Administration, *Short-Term Energy Outlook*, pp. 32, 43.

Section 1. Energy Summary

1986 Year-End Summary

Prices of crude oil and natural gas fell dramatically in 1986, causing a significant disruption in the domestic energy market. U.S. energy production in 1986 was 64.3 quadrillion British thermal units (Btu), 0.8 percent[1] below the level in 1985 (see summary table below), and consumption of energy totaled 73.9 quadrillion Btu, down slightly from the 1985 level. Net imports jumped 27.9 percent from 1985 levels, reaching 10.1 quadrillion Btu in 1986, but remained below the all-time high of 18.0 quadrillion Btu reached in 1977.

Production by Energy Source

In an environment of sharply lower prices, production of both natural gas and petroleum declined in 1986 compared with production levels in 1985. Natural gas production fell to 16.5 quadrillion Btu, down 2.5 percent. Petroleum production fell to 20.5 quadrillion Btu, down 3.3 percent; although Alaskan production increased slightly, production in the lower 48 States and production of natural gas plant liquids declined. In contrast, coal production increased 0.8 percent to 19.5 quadrillion Btu.

Table 1.1 Energy Summary for December 1986
(Quadrillion (10^{15}) Btu)

	December			Cumulative January Through December				
	1986	1985	Percent Change[a]	1986	1986 Daily Rate	1985	1985 Daily Rate	Percent Change[a]
Total Production[b]	5.503	5.593	-1.6	64.251	0.176	64.784	0.177	-0.8
Petroleum[c]	1.681	1.822	-7.8	20.525	.056	21.233	.058	-3.3
Natural Gas (Dry)	1.556	1.588	-2.0	16.494	.045	16.922	.046	-2.5
Coal	1.549	1.531	1.2	19.481	.053	19.329	.053	.8
Other[d]	.718	.652	10.1	7.751	.021	7.300	.020	6.2
Total Consumption[b]	6.830	7.029	-2.8	73.925	.203	73.962	.203	-.1
Petroleum[e]	2.835	2.774	2.2	31.887	.087	30.922	.085	3.1
Natural Gas[f]	1.721	1.966	-12.5	16.527	.045	17.851	.049	-7.4
Coal	1.517	1.604	-5.4	17.322	.047	17.479	.048	-.9
Other[g]	.757	.685	10.5	8.189	.022	7.710	.021	6.2
Net Imports	.974	.821	18.7	10.057	.028	7.866	.022	27.9
Petroleum[h]	1.007	.870	15.8	11.112	.030	8.952	.025	24.1
Natural Gas	.095	.101	-5.9	.700	.002	.894	.002	-21.5
Coal[i]	-.167	-.183	-8.9	-2.193	-.006	-2.389	-.007	-8.2
Other[i]	.039	.033	18.8	.438	.001	.410	.001	7.0

[a]Based on daily rates prior to rounding.
[b]Production 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.
[c]Includes crude oil, lease condensate, and natural gas plant liquids.
[d]Other is hydroelectric and nuclear electric power, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[e]Includes petroleum products.
[f]Includes supplemental gaseous fuels.
[g]Other 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.
[h]Includes crude oil, lease condensate, petroleum products, pentanes plus, unfinished oils, gasoline blending components, and imports of crude oil for the Strategic Petroleum Reserve.
[i]Minus sign indicates exports are greater than imports.
[j]Other 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.

[1]Note: 1986 data are preliminary. Percentage changes are calculated using daily rates prior to rounding.

Nuclear-based electricity generation reached an all-time high in 1986, and oil-fired electricity generation also increased, reversing a 7-year decline. Coal-fired generation was down slightly from the record level attained in 1985, due 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

The energy intensity of the economy declined in 1986 for the 10th consecutive year, as continued modest growth in the economy was coupled with a slight decline in total energy consumption. Energy consumption per dollar of gross national product fell to 20.1 thousand Btu per 1982 dollar; by comparison, the ratio in 1976 was 26.3 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 16.5 quadrillion Btu in 1986, down 7.4 percent from the level in 1985, and coal consumption fell to 17.3 quadrillion Btu, down 0.9 percent. Consumption of petroleum, in contrast, rose to 31.9 quadrillion Btu in 1986, an increase of 3.1 percent from the 1985 level.

Growing Reliance on Imports

As low oil prices depressed domestic oil production and stimulated petroleum consumption, net imports of petroleum rose 24.1 percent in 1986 compared with net import levels in 1985. In addition, coal net exports declined 8.2 percent. The changes in the oil and coal trade more than offset the 21.5-percent decline in net imports of natural gas that occurred as imports from Mexico and Algeria fell to zero. As a result, net imports of all sources of energy combined were 27.9 percent higher in 1986 than in 1985. And, despite a $13-per-barrel decline in the refiner acquisition cost of imported crude oil in 1986 compared with 1985, an energy trade deficit of $29.2 billion was recorded for the year.

Net imports of petroleum reached 5.3 million barrels per day in 1986, up from 4.3 million barrels per day in 1985. Crude oil net imports rose from 3.0 million barrels per day to 4.0 million barrels per day, while petroleum product net imports remained essentially unchanged at 1.3 million barrels per day.

Petroleum net imports from all members of the Organization of Petroleum Exporting Countries (OPEC) averaged 2.8 million barrels per day. Petroleum net imports from Arab members alone averaged 1.1 million barrels per day, up from 0.5 million barrels per day in 1985.

U.S. reliance on foreign sources of oil increased markedly in 1986. As a percent of U.S. petroleum products supplied, petroleum net imports from all countries rose to 33 percent, up from 27 percent in 1985. Net imports from OPEC equaled 17 percent of U.S. petroleum products supplied in 1986, up from 12 percent in 1985, and net imports from Arab members of OPEC rose from 3 percent to 7 percent. However, U.S. dependence on imports from the Arab members of OPEC remained well below the peak level of 1977 when imports from Arab OPEC reached 17 percent of U.S. petroleum products supplied.

Declining Costs to End Users

As prices of crude oil and natural gas declined, prices of energy to end users also declined. The price of leaded regular motor gasoline in 1986 averaged $0.86 per gallon, down from $1.12 per gallon in 1985. The average price of natural gas sold to residential customers also declined, from $6.12 per thousand cubic feet in 1985 to $5.82 per thousand cubic feet in 1986. The average retail price of electricity to residential customers was essentially unchanged at about 8 cents per kilowatthour. On a dollar-per-Btu basis, however, electricity remained one of the most expensive sources of energy.

The Outlook for 1987

According to the Energy Information Administration's January 1987 *Short-Term Energy Outlook*, U.S. energy consumption for 1987 is projected to increase from the 1986 level by 2.3 percent to 75.6 quadrillion Btu. Demand for petroleum is projected to increase by almost 1 percent to 16.3 million barrels per day, while domestic crude oil production is projected to decrease by 5.1 percent to 8.2 million barrels per day. As a result, petroleum net imports are projected to average nearly 5.8 million barrels per day in 1987, up by almost 0.5 million barrels per day from the 1986 level.

Table Q1. Quarterly Summary: Production of Energy by Source
(Quadrillion (10^{15}) 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**	**R 62.059**
1974 Total	**14.074**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**.056**	**R 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**	**R 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**	**R 63.801**
1980 1st Quarter	4.619	4.588	.578	5.287	.746	.644	.024	16.486
2nd Quarter	4.753	4.552	R .571	4.885	.864	.605	.028	16.258
3rd Quarter	4.449	4.549	.547	4.706	.666	.752	.031	15.701
4th Quarter	4.776	4.559	.558	5.029	.624	.738	.032	16.316
Total	**18.597**	**18.249**	**2.254**	**R 19.908**	**2.900**	**2.739**	**.114**	**64.761**
1981 1st Quarter	4.799	4.481	.581	4.995	.678	.743	.033	16.310
2nd Quarter	3.032	4.519	.571	4.942	.754	.679	.031	14.527
3rd Quarter	5.233	4.569	.575	4.881	.683	.821	.033	16.795
4th 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 1st Quarter	4.943	4.502	.547	4.916	.879	.760	.023	16.570
2nd Quarter	*4.613*	*4.561*	*.537*	*4.572*	.884	.747	.025	16.137
3rd Quarter	4.479	4.623	.541	4.385	.749	.840	.030	15.647
4th 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**	**R 63.889**
1983 1st Quarter	4.241	4.550	.541	4.215	.922	.776	.028	15.273
2nd Quarter	4.121	4.587	.526	3.851	.970	.747	.026	14.828
3rd Quarter	4.385	4.642	.553	4.040	.798	.838	.041	15.297
4th 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 1st Quarter	4.911	4.646	.555	4.682	.908	.923	.039	16.664
2nd Quarter	5.068	4.693	.560	4.393	.934	.818	.041	16.507
3rd Quarter	5.385	4.746	.576	4.342	.758	.943	.044	16.793
4th 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 1st Quarter	4.664	4.672	R .555	4.533	R .816	R 1.060	.052	R 16.352
2nd Quarter	4.991	4.785	R .552	4.050	R .782	R .929	.048	R 16.138
3rd Quarter	4.874	4.750	R .554	4.005	R .628	R 1.130	R .054	R 15.994
4th Quarter	4.799	4.785	R .579	4.336	R .714	R 1.029	.060	R 16.301
Total	**19.329**	**18.992**	**R 2.241**	**R 16.922**	**R 2.939**	**R 4.147**	**.213**	**R 64.784**
1986 1st Quarter	R 5.029	R 4.750	R .574	4.386	R .768	R 1.078	.062	R 16.647
2nd Quarter	R 4.860	R 4.625	R .542	3.932	R .848	R 1.013	.056	R 15.875
3rd Quarter	R 4.833	R 4.511	R .529	3.931	R .694	R 1.189	.060	R 15.747
4th Quarter	4.758	4.465	.530	4.246	.734	1.196	.053	15.981
Total	**19.481**	**18.351**	**2.174**	**16.494**	**3.044**	**4.475**	**.232**	**64.251**

[a]Includes lease condensate.
[b]Natural gas plant liquids.
[c]Includes industrial and utility production of hydroelectric power.
[d]Other is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[e]Excludes 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 (10^{15}) 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**	**R 70.545**
1976 Total	**13.584**	**20.345**	**35.175**	**R 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**	**R 3.142**	**3.024**	**.193**	**R 78.089**
1979 Total	**15.039**	**20.666**	**37.123**	**3.141**	**2.776**	**.152**	**R 78.897**
1980 1st Quarter	3.995	6.606	9.143	.800	.644	.023	21.212
2nd Quarter	3.546	4.255	8.177	.919	.605	.014	17.516
3rd Quarter	4.020	3.977	8.123	.721	.752	.019	17.612
4th Quarter	3.861	5.553	8.759	.678	.738	.023	19.612
Total	**15.423**	**R 20.394**	**34.202**	**3.118**	**2.739**	**.079**	**R 75.955**
1981 1st Quarter	4.069	6.237	8.391	.763	.743	.029	20.232
2nd Quarter	3.677	4.337	7.732	.841	.679	.025	17.291
3rd Quarter	4.191	3.997	7.785	.770	.821	.032	17.596
4th Quarter	3.971	5.355	8.023	.731	.765	.025	18.870
Total	**15.908**	**R 19.928**	**31.931**	**3.105**	**3.008**	**.111**	**R 73.991**
1982 1st Quarter	4.046	6.396	7.745	.948	.760	.019	19.915
2nd Quarter	3.556	3.841	7.535	.937	.747	.018	16.634
3rd Quarter	3.990	3.532	7.419	.834	.840	.023	16.638
4th Quarter	3.730	R 4.738	7.532	.842	.785	.027	R 17.654
Total	**15.322**	**R 18.505**	**R 30.231**	**3.561**	**3.131**	**.086**	**R 70.838**
1983 1st Quarter	3.737	5.369	7.311	1.008	.776	.025	18.226
2nd Quarter	3.569	3.572	7.293	1.048	.747	.021	16.251
3rd Quarter	4.440	3.317	7.626	.901	.838	.038	17.160
4th Quarter	4.152	5.093	7.824	.914	.842	.034	18.859
Total	**15.898**	**R 17.357**	**30.054**	**3.871**	**3.203**	**.118**	**R 70.500**
1984 1st Quarter	4.314	6.324	7.909	.996	.923	.041	20.507
2nd Quarter	4.009	4.249	7.675	1.027	.818	.038	17.815
3rd Quarter	4.490	3.496	7.755	.877	.943	.040	17.602
4th 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 1st Quarter	4.391	6.165	7.689	R .908	R 1.060	.054	R 20.267
2nd Quarter	4.136	3.793	7.592	R .882	R .929	.043	R 17.375
3rd Quarter	4.572	3.387	7.700	R .757	R 1.130	.048	R 17.593
4th Quarter	R 4.380	4.508	7.942	R .816	R 1.029	.055	R 18.729
Total	**R 17.479**	**R 17.851**	**30.922**	**R 3.363**	**R 4.147**	**R .200**	**R 73.962**
1986 1st Quarter	R 4.426	5.855	R 7.820	R .873	R 1.078	.061	R 20.113
2nd Quarter	R 4.051	3.605	R 7.813	R .945	R 1.013	.053	R 17.480
3rd Quarter	R 4.571	3.031	R 8.054	R .820	R 1.189	R .053	R 17.717
4th Quarter	4.275	4.034	8.199	.861	1.196	.049	18.613
Total	**17.322**	**16.527**	**31.887**	**3.499**	**4.475**	**.215**	**73.925**

[a]Includes supplemental gaseous fuels.
[b]Includes industrial and utility production and net imports of electricity.
[c]Other is net imports of coal coke and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[d]Excludes 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.

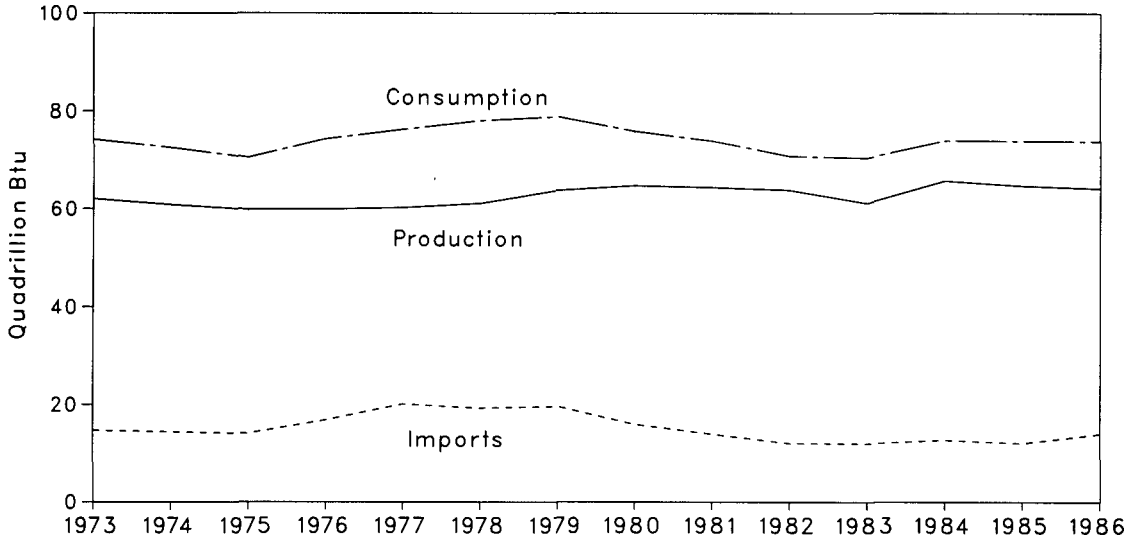
Table Q3. Quarterly Summary: Net Imports[a] of Energy by Source
(Quadrillion (10^{15}) Btu)

	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**	**R 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**	**R 16.746**
1980 1st Quarter	-.363	3.021	.902	.326	.054	0	3.940
2nd Quarter	-.652	2.696	.625	.203	.054	-.014	2.913
3rd Quarter	-.678	2.446	.626	.174	.055	-.011	2.611
4th Quarter	-.698	2.423	.760	.254	.055	-.009	2.783
Total	**-2.391**	**10.586**	**2.912**	**.957**	**.217**	**-.035**	**12.247**
1981 1st Quarter	-.578	2.368	.729	.244	.086	-.004	2.846
2nd Quarter	-.529	2.127	.552	.185	.087	-.005	2.416
3rd Quarter	-.883	2.239	.628	.184	.088	-.001	2.254
4th Quarter	-.929	2.119	.613	.242	.088	-.006	2.128
Total	**-2.918**	**8.854**	**2.522**	**R .857**	**.347**	**-.016**	**R 9.646**
1982 1st Quarter	-.668	1.524	.569	.257	.070	-.004	1.748
2nd Quarter	-.826	1.672	.466	.190	.053	-.007	1.549
3rd Quarter	-.655	1.970	.536	.181	.086	-.008	2.111
4th Quarter	-.619	1.751	.557	.268	.097	-.004	2.050
Total	**-2.768**	**6.917**	**2.128**	**R .898**	**.306**	**-.022**	**R 7.459**
1983 1st Quarter	-.392	1.224	.373	.285	.086	-.003	1.572
2nd Quarter	-.525	1.686	.539	.186	.079	-.005	1.959
3rd Quarter	-.572	2.110	.743	.170	.103	-.003	2.551
4th Quarter	-.524	1.711	.696	.243	.101	-.004	2.223
Total	**-2.013**	**6.731**	**2.351**	**R .887**	**.369**	**-.016**	**R 8.309**
1984 1st Quarter	-.393	1.575	.924	.220	.088	.002	2.417
2nd Quarter	-.620	1.820	.712	.184	.092	-.003	2.185
3rd Quarter	-.656	1.747	.675	.152	.119	-.003	2.034
4th Quarter	-.451	1.775	.659	.231	.105	-.007	2.313
Total	**-2.119**	**6.918**	**2.970**	**R .792**	**.405**	**-.011**	**R 8.954**
1985 1st Quarter	-.480	1.243	.590	.277	R .092	.002	R 1.724
2nd Quarter	-.624	1.702	.709	.202	R .100	-.005	R 2.084
3rd Quarter	-.664	1.590	.589	.167	R .129	-.006	R 1.805
4th Quarter	-.621	1.846	.683	.244	R .102	-.005	R 2.249
Total	**-2.389**	**6.381**	**2.570**	**R .894**	**R .423**	**-.013**	**R 7.866**
1986 1st Quarter	R -.441	1.542	R .568	.210	RE .105	-.001	R 1.982
2nd Quarter	-.621	2.119	R .669	.124	RE .097	-.003	R 2.385
3rd Quarter	-.609	2.503	R .786	R .139	RE .126	-.008	R 2.937
4th Quarter	-.521	2.261	.664	.226	E .127	-.005	2.752
Total	**-2.193**	**8.426**	**2.687**	**.700**	**RE .455**	**-.017**	**10.057**

[a]Net imports equals imports minus exports. Minus sign indicates exports are greater than imports.
[b]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[c]Includes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.
[d]Assumed to be hydroelectricity.
R=Revised data. E=Estimated 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

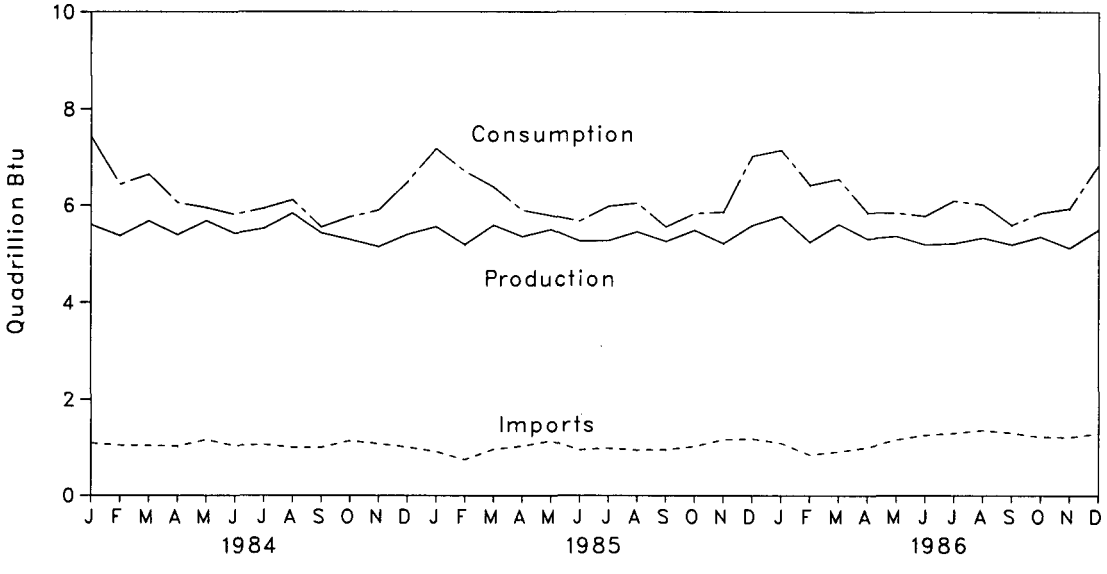


Table 1.2 Energy Overview[a]
(Quadrillion (10^{15}) Btu)

	Production[c]	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 January	5.606	7.442	1.101	.247	.854
February	5.376	6.428	1.052	.221	.831
March	5.682	6.637	1.047	.315	.732
April	5.397	6.055	1.034	.327	.708
May	5.687	5.953	1.169	.365	.804
June	5.423	5.807	1.040	.367	.673
July	5.525	5.938	1.065	.326	.739
August	5.835	6.110	1.004	.359	.645
September	5.434	5.553	1.005	.355	.650
October	5.298	5.761	1.143	.295	.848
November	5.147	5.902	1.084	.271	.814
December	5.405	6.478	1.012	.360	.652
Total	**65.814**	**74.064**	**12.758**	**3.804**	**8.954**
1985 January	R 5.564	R 7.187	R .926	.305	.621
February	R 5.192	R 6.701	.756	.306	.450
March	R 5.596	R 6.378	R .971	.318	R .653
April	R 5.361	R 5.902	1.034	.332	.702
May	R 5.509	R 5.794	1.145	.381	R .764
June	R 5.268	R 5.680	.960	.342	.618
July	R 5.276	R 5.982	.994	.328	.666
August	R 5.460	R 6.048	R .959	.420	R .539
September	R 5.259	R 5.562	.964	.364	R .600
October	R 5.492	R 5.835	1.029	.365	.664
November	R 5.216	R 5.865	1.170	.406	.764
December	R 5.593	R 7.029	R 1.189	.368	R .821
Total	**R 64.784**	**R 73.962**	**R 12.098**	**4.232**	**R 7.866**
1986 January	R 5.781	R 7.156	R 1.100	R .319	R .781
February	R 5.248	R 6.416	R .861	R .285	R .576
March	R 5.618	R 6.541	R .926	.301	R .625
April	R 5.314	R 5.853	R 1.008	.374	R .634
May	R 5.370	R 5.847	R 1.167	.367	R .800
June	R 5.191	R 5.781	R 1.264	R .313	R .952
July	R 5.217	R 6.097	R 1.305	R .329	R .976
August	R 5.337	R 6.019	R 1.367	R .372	R .995
September	R 5.192	R 5.601	R 1.313	.346	R .967
October	R 5.358	R 5.845	R 1.230	.347	R .882
November	R 5.121	R 5.938	R 1.224	.328	R .896
December	5.503	6.830	1.303	.328	.974
Total	**64.251**	**73.925**	**14.068**	**4.011**	**10.057**

[a]For definitions, see Notes at end of section.

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

[c]Excludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

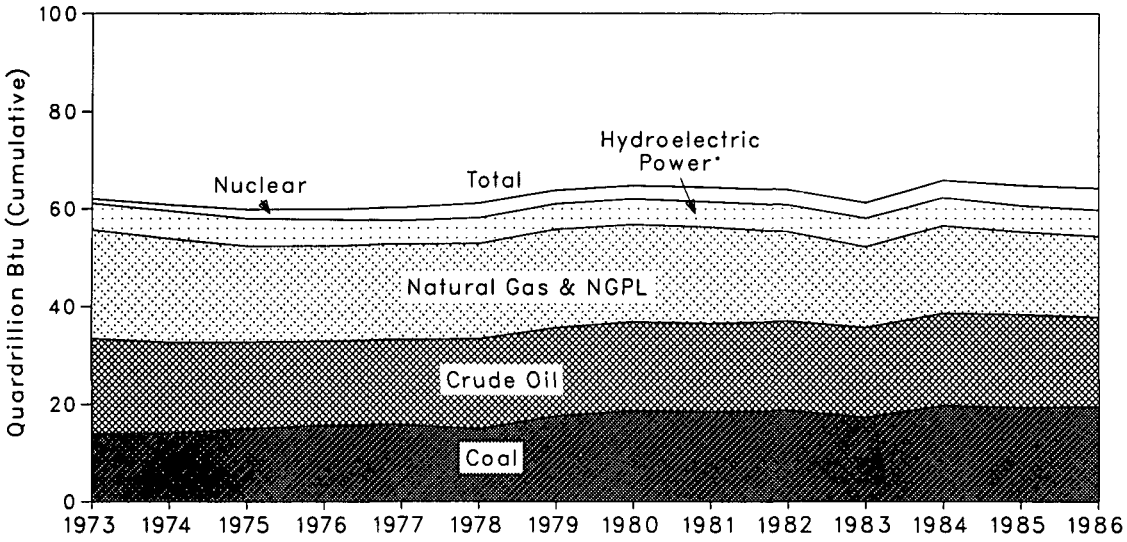
R=Revised data.

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

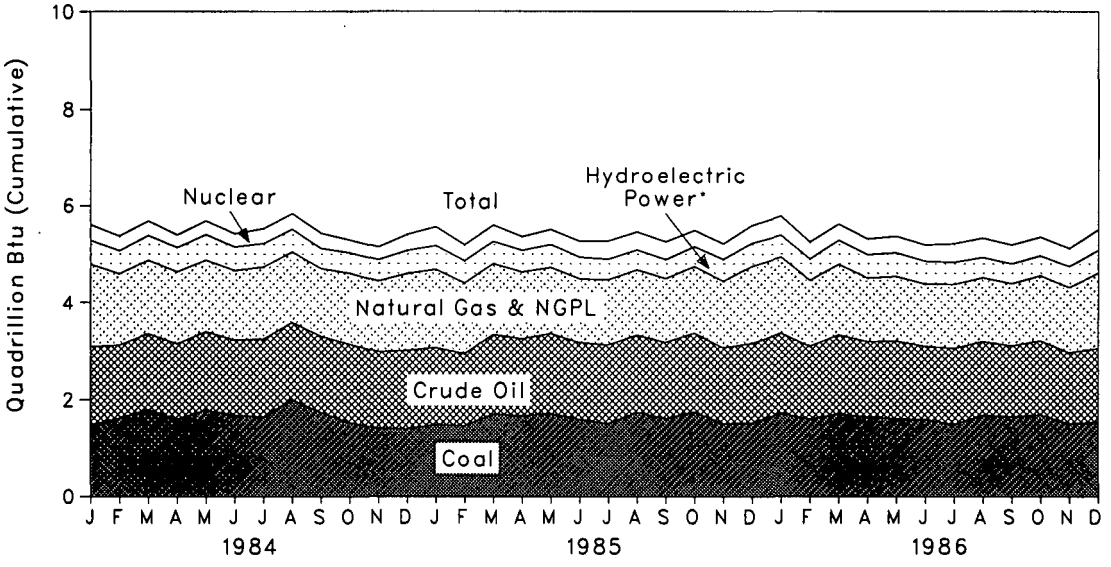
Source: Energy Information Administration calculations based on data appearing elsewhere in this publication.

Figure 1.2 Production of Energy by Source

Yearly



Monthly



*Includes other.

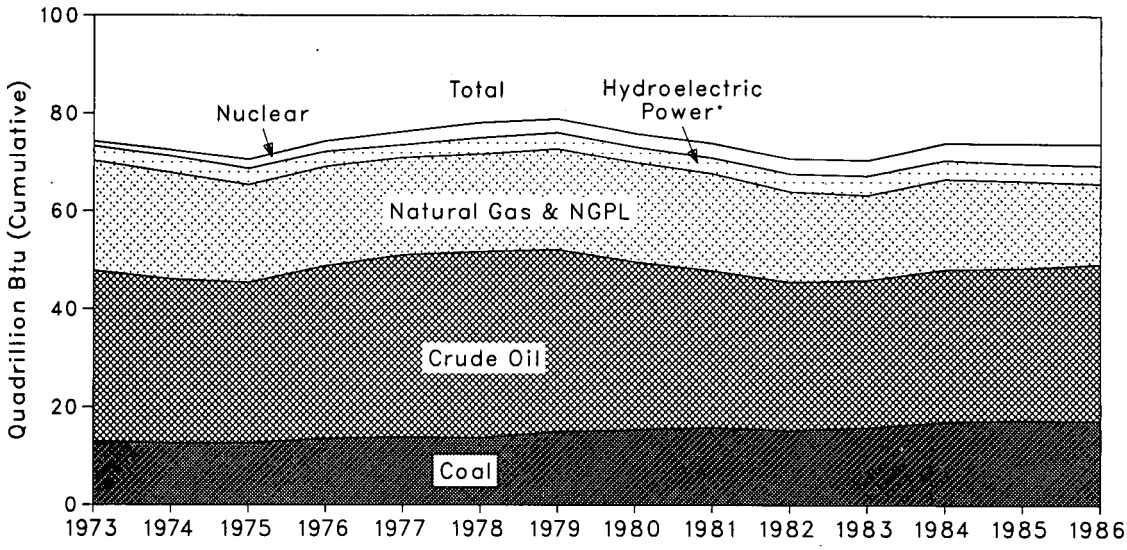
Table 1.3 Production of Energy by Source
(Quadrillion (10^{15}) Btu)

	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 January	1.495	1.594	.186	1.695	.307	.318	.011	5.606	5.606
February	1.622	1.493	.181	1.472	.287	.308	.013	5.376	10.982
March	1.795	1.559	.189	1.515	.314	.296	.015	5.682	16.664
April	1.601	1.542	.185	1.483	.309	.263	.014	5.397	22.061
May	1.785	1.610	.191	1.478	.328	.280	.014	5.687	27.748
June	1.682	1.540	.184	1.432	.297	.274	.013	5.423	33.172
July	1.646	1.598	.193	1.485	.284	.307	.013	5.525	38.696
August	1.999	1.584	.193	1.463	.259	.320	.016	5.835	44.531
September	1.739	1.565	.190	1.394	.216	.316	.015	5.434	49.965
October	1.536	1.601	.195	1.465	.215	.269	.016	5.298	55.263
November	1.418	1.562	.192	1.463	.230	.266	.016	5.147	60.409
December	1.405	1.600	.195	1.587	.266	.335	.018	5.405	65.814
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	R .288	R .391	.018	R 5.564	R 5.564
February	1.471	1.466	.173	1.463	R .270	R .333	.016	R 5.192	R 10.756
March	1.701	1.635	.189	1.460	R .258	R .336	.018	R 5.596	R 16.352
April	1.674	1.574	.181	1.375	R .255	R .286	.016	R 5.361	R 21.713
May	1.715	1.642	.188	1.360	R .277	R .310	.016	R 5.509	R 27.221
June	1.602	1.570	R .183	1.315	R .250	R .333	.016	R 5.268	R 32.490
July	1.514	1.609	.185	1.346	R .223	R .380	.018	R 5.276	R 37.766
August	1.742	1.583	R .189	1.343	R .209	R .376	.018	R 5.460	R 43.225
September	1.618	1.558	.180	1.316	R .196	R .373	.018	R 5.259	R 48.484
October	1.753	1.613	.190	1.372	R .209	R .337	.017	R 5.492	R 53.976
November	1.515	1.549	.190	1.376	R .240	R .326	.021	R 5.216	R 59.192
December	1.531	1.624	R .199	1.588	R .265	R .365	.022	R 5.593	R 64.785
Total	**19.329**	**18.992**	**R 2.241**	**16.922**	**R 2.939**	**R 4.147**	**.213**	**R 64.784**	
1986 January	R 1.723	1.640	R .202	1.573	R .229	R .391	.023	R 5.781	R 5.781
February	R 1.600	1.491	.182	1.359	R .244	R .354	.019	R 5.248	R 11.029
March	R 1.707	1.619	R .190	1.453	R .296	R .333	.020	R 5.618	R 16.647
April	R 1.649	1.540	.178	1.312	R .288	R .329	.018	R 5.314	R 21.961
May	R 1.611	1.590	R .187	1.334	R .285	R .345	.018	R 5.370	R 27.331
June	R 1.600	1.495	.177	1.286	R .274	R .339	.020	R 5.191	R 32.523
July	R 1.494	1.553	R .183	1.326	R .252	R .388	.021	R 5.217	R 37.740
August	R 1.686	1.509	R .177	1.317	R .221	R .405	.021	R 5.337	R 43.077
September	R 1.653	1.450	.169	1.287	R .221	R .396	.018	R 5.192	R 48.269
October	R 1.695	1.516	R .174	1.342	R .221	R .391	.018	R 5.358	R 53.627
November	R 1.514	1.448	.176	1.348	R .242	R .378	.015	R 5.121	R 58.748
December	R 1.549	1.501	.180	1.556	.271	.427	.020	5.503	64.251
Total	**19.481**	**18.351**	**2.174**	**16.494**	**3.044**	**4.475**	**.232**	**64.251**	

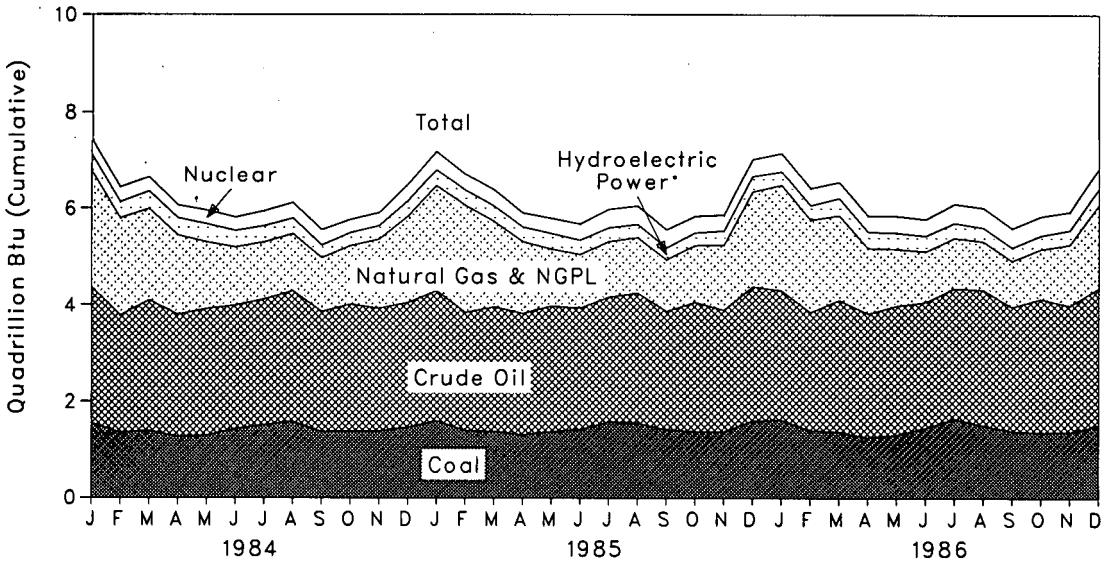
[a]Includes lease condensate.
[b]Natural gas plant liquids.
[c]Includes industrial and utility production of hydroelectric power.
[d]Other is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[e]Excludes wood, waste, geothermal, wind, photovoltaic, 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 1.3 Consumption of Energy by Source

Yearly



Monthly



*Includes other.

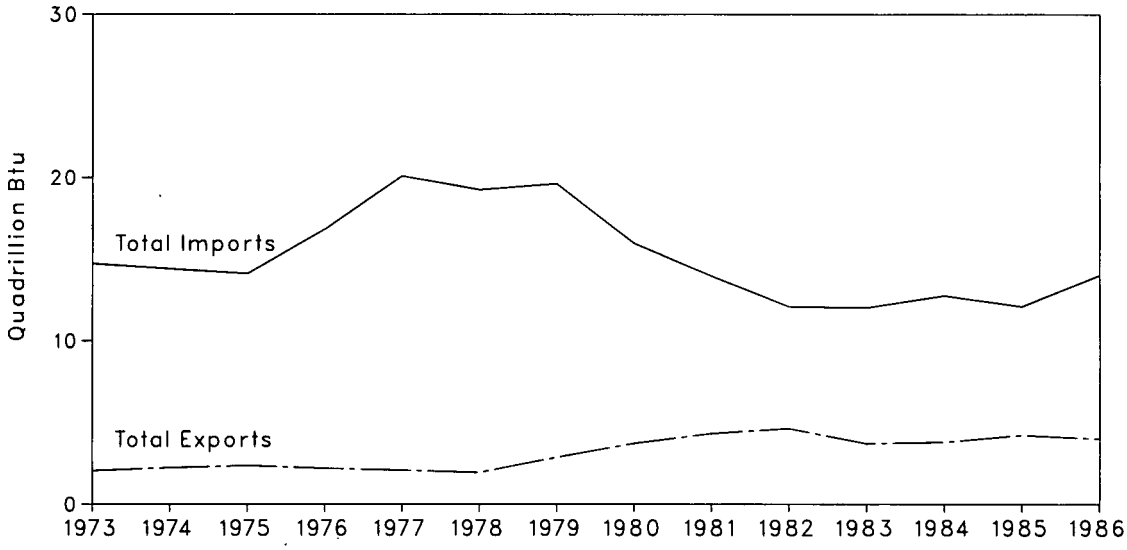
Table 1.4 Consumption of Energy by Source
(Quadrillion (10^{15}) Btu)

	Coal	Natural Gas[a]	Petroleum	Hydroelectric 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 January	1.552	2.413	2.810	.338	.318	.012	7.442	7.442
February	1.359	2.015	2.415	.315	.308	.015	6.428	13.870
March	1.403	1.897	2.684	.342	.296	.014	6.637	20.507
April	1.272	1.648	2.520	.339	.263	.014	6.055	26.562
May	1.298	1.389	2.612	.360	.280	.013	5.953	32.515
June	1.439	1.212	2.542	.328	.274	.011	5.807	38.322
July	1.519	1.188	2.592	.321	.307	.012	5.938	44.260
August	1.587	1.190	2.695	.304	.320	.014	6.110	50.371
September	1.384	1.119	2.468	.253	.316	.014	5.553	55.924
October	1.395	1.217	2.612	.256	.269	.013	5.761	61.684
November	1.394	1.436	2.529	.262	.266	.014	5.902	67.586
December	1.470	1.786	2.571	.298	.335	.017	6.478	74.064
Total	**17.074**	**18.507**	**31.051**	**3.717**	**3.553**	**.163**	**74.064**	
1985 January	1.599	2.170	2.690	R .317	R .391	.018	R 7.187	R 7.187
February	1.406	2.219	2.432	R .295	R .333	.017	R 6.701	R 13.888
March	1.386	1.776	2.567	R .295	R .336	.018	R 6.378	R 20.267
April	1.320	1.495	2.500	R .285	R .286	.016	R 5.902	R 26.168
May	1.385	1.186	2.589	R .310	R .310	.013	R 5.794	R 31.962
June	1.431	1.113	2.502	R .287	R .333	.014	R 5.680	R 37.642
July	1.585	1.157	2.577	R .267	R .380	.016	R 5.982	R 43.624
August	1.562	1.155	2.682	R .256	R .376	.017	R 6.048	R 49.672
September	*1.425*	*1.075*	*2.440*	R .234	R .373	.015	R 5.562	R 55.235
October	1.390	1.186	2.663	R .245	R .337	.016	R 5.835	R 61.070
November	1.386	1.356	2.505	R .273	R .326	.018	R 5.865	R 66.935
December	1.604	1.966	2.774	R .299	R .365	.021	R 7.029	R 73.964
Total	**17.479**	**17.851**	**30.922**	**R 3.363**	**R 4.147**	**R .200**	**R 73.962**	
1986 January	R 1.628	2.180	R 2.671	R .263	R .391	.023	R 7.156	R 7.156
February	R 1.414	1.918	R 2.433	R .278	R .354	.019	R 6.416	R 13.572
March	R 1.384	1.757	R 2.716	R .332	R .333	.019	R 6.541	R 20.113
April	R 1.265	1.363	R 2.556	R .322	R .329	.018	R 5.853	R 25.965
May	R 1.322	1.187	R 2.659	R .318	R .345	.016	R 5.847	R 31.812
June	R 1.464	1.056	R 2.597	R .305	R .339	.020	R 5.781	R 37.593
July	R 1.650	1.054	R 2.697	R .289	R .388	.019	R 6.097	R 43.690
August	R 1.518	1.013	R 2.799	R .267	R .405	.016	R 6.019	R 49.709
September	R 1.403	.964	R 2.558	R .263	R .396	.017	R 5.601	R 55.310
October	R 1.373	1.038	R 2.758	R .267	R .391	.017	R 5.845	R 61.155
November	R 1.384	1.275	R 2.606	R .283	R .378	.012	R 5.938	R 67.093
December	1.517	1.721	2.835	.311	.427	.020	6.830	73.923
Total	**17.322**	**16.527**	**31.887**	**3.499**	**4.475**	**.215**	**73.925**	

[a]Includes supplemental gaseous fuels.
[b]Includes industrial and utility production and net imports of electricity.
[c]Other is net imports of coal coke and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[d]Excludes 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

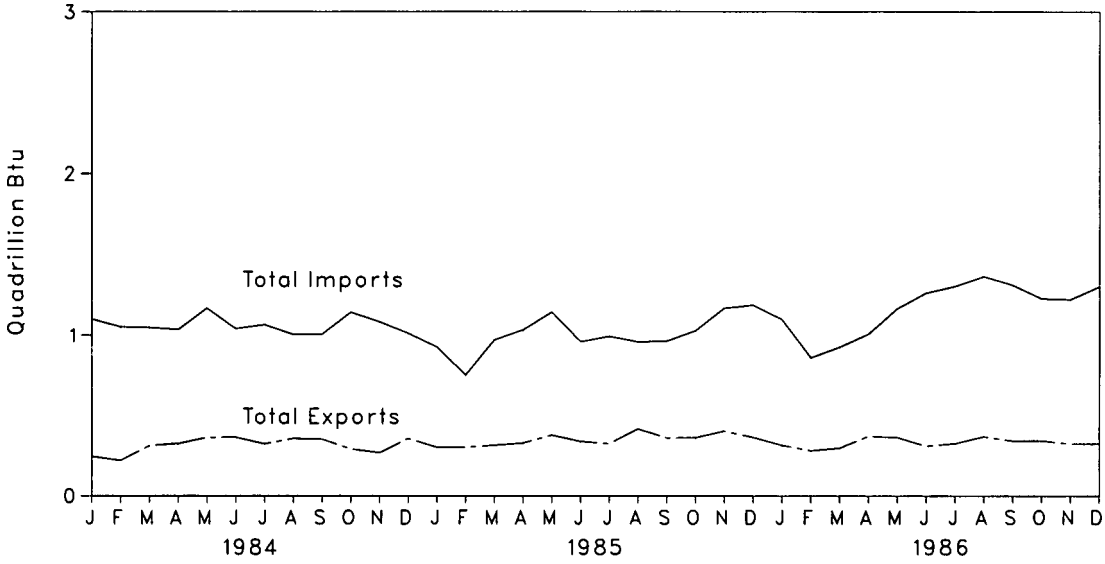


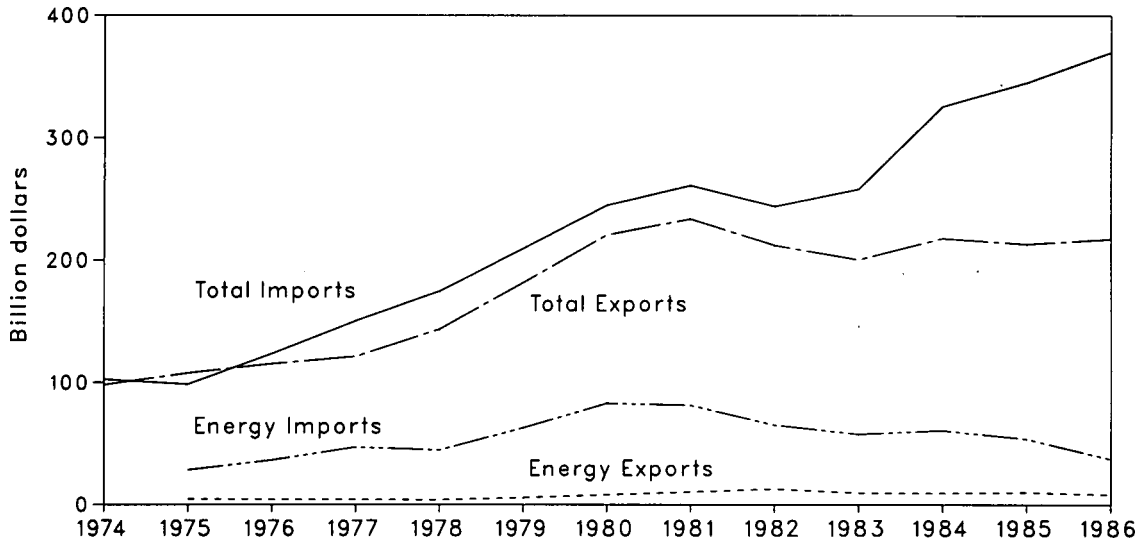
Table 1.5 Net Imports[a] of Energy by Source
(Quadrillion (10^{15}) Btu)

	Coal	Crude Oil[b]	Petroleum Products[c]	Natural Gas	Electricity[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 January	-.132	.524	.336	.092	.032	.001	.854	0.854
February	-.109	.467	.379	.064	.028	.002	.831	1.685
March	-.152	.584	.209	.063	.029	-.001	.732	2.417
April	-.199	.567	.244	.066	.030	0	.708	3.124
May	-.215	.672	.255	.061	.032	-.001	.804	3.929
June	-.205	.581	.213	.056	.031	-.002	.673	4.602
July	-.215	.639	.228	.050	.037	-.001	.739	5.341
August	-.214	.552	.214	.049	.045	-.002	.645	5.986
September	-.228	.556	.233	.052	.037	0	.650	6.636
October	-.173	.652	.269	.062	.040	-.003	.848	7.483
November	-.109	.591	.223	.079	.033	-.003	.814	8.297
December	-.169	.533	.167	.089	.032	-.001	.652	8.949
Total	**-2.119**	**6.918**	**2.970**	**.792**	**.405**	**-.011**	**8.954**	
1985 January	-.150	.465	.177	.099	R .030	0	.621	.621
February	-.156	.308	.178	.094	R .025	.001	.450	1.071
March	-.174	.470	.235	.084	R .038	0	R .653	R 1.724
April	-.181	.554	.228	.071	R .030	.001	.702	R 2.427
May	-.239	.629	.271	.071	R .034	-.003	R .764	R 3.191
June	-.205	.519	.210	.060	R .037	-.002	.618	R 3.809
July	-.188	.551	.208	.053	R .044	-.002	.666	R 4.475
August	-.268	.520	.185	.056	R .047	-.001	R .539	R 5.014
September	-.208	.519	.196	.058	.038	-.003	R .600	R 5.614
October	-.227	.563	.223	.071	.035	-.001	.664	R 6.278
November	-.211	.650	.223	.072	.033	-.003	.764	R 7.043
December	-.183	.633	.237	.101	R .034	-.001	R .821	R 7.863
Total	**-2.389**	**6.381**	**2.570**	**.894**	**R .423**	**-.013**	**R 7.866**	
1986 January	-.152	.573	R .233	.093	E .034	0	R .781	R .781
February	R -.130	.464	R .139	.068	R E .035	0	R .576	R 1.357
March	-.159	.504	R .195	.049	R E .036	-.001	R .625	R 1.982
April	-.213	.633	R .142	.039	R E .034	0	R .634	R 2.616
May	R -.220	.711	R .235	.044	E .033	-.003	R .800	R 3.416
June	-.188	.776	R .292	.041	R E .030	0	R .952	R 4.367
July	-.200	.829	R .269	.043	R E .037	-.002	R .976	R 5.343
August	-.199	.831	R .278	.045	R E .046	-.006	R .995	R 6.338
September	-.211	.844	R .240	.051	R E .043	0	R .967	R 7.305
October	-.187	.753	R .209	.061	E .046	-.001	R .882	R 8.187
November	R -.167	.759	R .196	.070	E .042	-.003	R .896	R 9.083
December	-.167	.748	.259	.095	E .040	-.001	.974	10.057
Total	**-2.193**	**8.426**	**2.687**	**.700**	**E .455**	**-.017**	**10.057**	

[a]Net imports equals imports minus exports. Minus sign indicates exports are greater than imports.
[b]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[c]Includes petroleum products, unfinished oils, pentanes plus, and gasoline blending components.
[d]Assumed to be hydroelectricity.
R=Revised data. E=Estimated value.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration calculations based on data appearing elsewhere in this publication.

Figure 1.5 Merchandise Trade Value

Yearly



Monthly

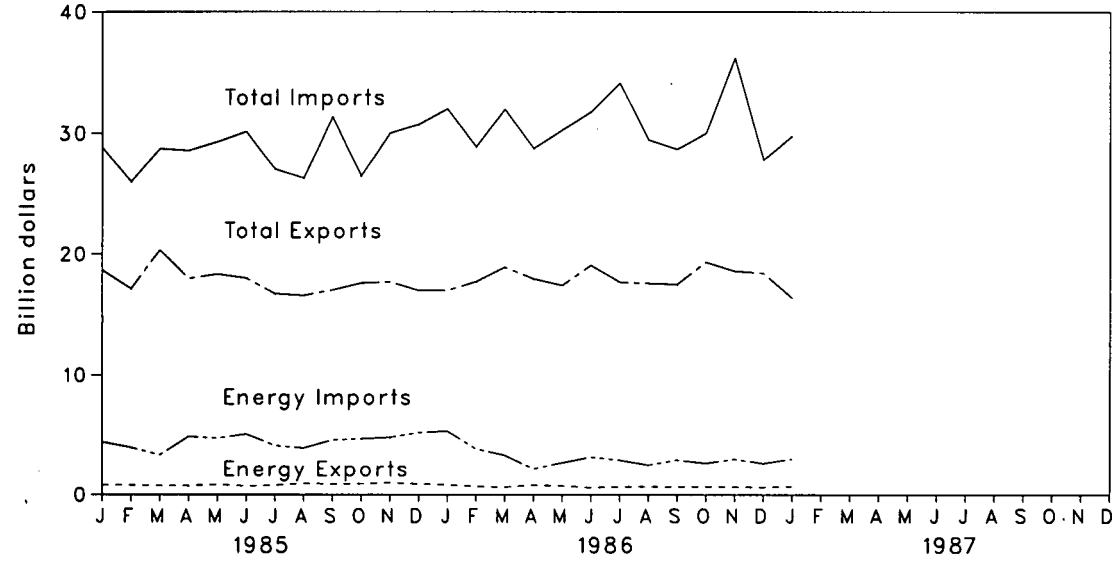


Table 1.6 Merchandise Trade Value
(Million Dollars)

	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 January	582	16,584	17,166	5,089	21,408	26,497	-4,507	-4,824	-9,331
February	502	16,513	17,015	5,006	20,112	25,118	-4,504	-3,599	-8,103
March	790	18,818	19,608	5,323	22,408	27,731	-4,533	-3,590	-8,123
April	759	17,024	17,783	5,629	22,531	28,160	-4,870	-5,507	-10,377
May	901	17,837	18,738	4,696	21,911	26,607	-3,795	-4,075	-7,870
June	872	17,509	18,381	5,206	20,758	25,964	-4,334	-3,249	-7,583
July	765	17,598	18,363	5,434	26,131	31,565	-4,669	-8,533	-13,202
August	878	16,434	17,312	4,886	22,157	27,043	-4,008	-5,723	-9,731
September	820	16,781	17,601	4,663	23,190	27,853	-3,843	-6,409	-10,252
October	757	17,855	18,612	5,168	22,362	27,530	-4,411	-4,508	-8,919
November	712	17,463	18,175	5,207	22,089	27,296	-4,495	-4,626	-9,121
December	973	18,163	19,136	4,672	19,691	24,363	-3,699	-1,528	-5,227
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	16,194	17,006	5,344	26,661	32,005	-4,532	-10,467	-14,999
February	676	17,059	17,735	3,874	25,041	28,895	-3,198	-7,963	-11,161
March	622	18,291	18,913	3,331	28,641	31,972	-2,709	-10,350	-13,059
April	791	17,174	17,965	2,176	26,586	28,762	-1,385	-9,412	-10,797
May	728	16,703	17,431	2,700	27,572	30,272	-1,972	-10,870	-12,842
June	584	18,486	19,070	3,185	28,579	31,764	-2,601	-10,093	-12,694
July	653	17,054	17,707	2,933	31,188	34,121	-2,280	-14,134	-16,414
August	661	16,943	17,604	2,511	26,965	29,476	-1,850	-10,021	-11,871
September	657	16,861	17,518	2,933	25,762	28,695	-2,276	-8,901	-11,177
October	670	18,660	19,330	2,662	27,356	30,018	-1,992	-8,696	-10,688
November	641	17,954	18,595	3,014	33,173	36,187	-2,373	-15,219	-17,592
December	620	17,811	18,431	2,647	25,148	27,795	-2,027	-7,337	-9,364
Total	**8,115**	**209,189**	**217,304**	**37,310**	**332,651**	**369,961**	**-29,195**	**-123,462**	**-152,657**
1987 January	669	15,715	16,384	3,025	26,780	29,805	-2,356	-11,065	-13,421

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.

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

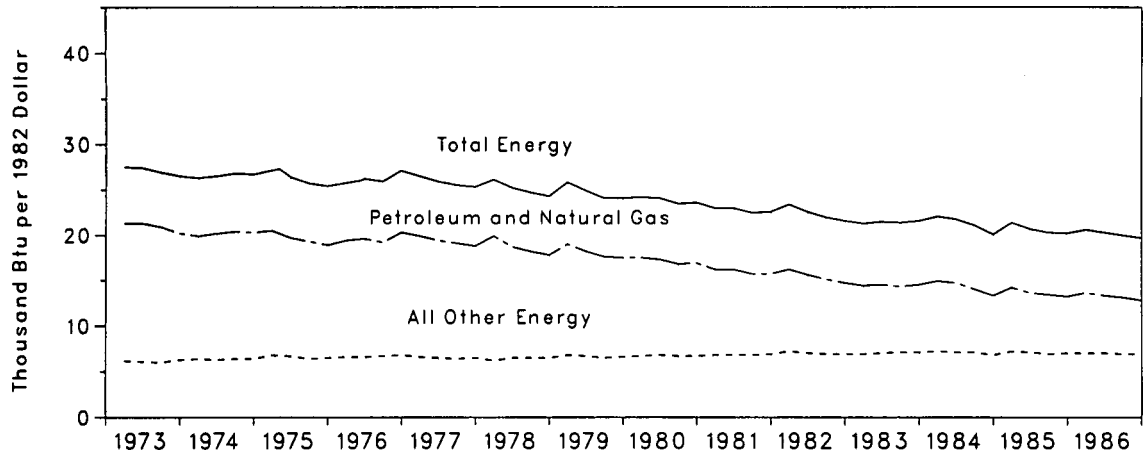


Table 1.7 Energy Consumption per Dollar of Gross National Product (Seasonally Adjusted)

	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 1st Quarter[b]	75.979	3.445	22.1	14.9	7.2
2nd Quarter[b]	76.116	3.487	21.8	14.7	7.1
3rd Quarter[b]	74.113	3.507	21.1	14.0	7.1
4th Quarter[b]	70.897	3.520	20.1	13.3	6.8
Year	**74.064**	**3.490**	**21.2**	**14.2**	**7.0**
1985 1st Quarter[b]	R 75.790	3.547	21.4	14.2	7.2
2nd Quarter[b]	R 73.906	3.568	20.7	13.6	7.1
3rd Quarter[b]	R 73.091	3.604	20.3	13.4	6.9
4th Quarter[b]	R 73.107	3.622	R 20.2	13.2	R 7.0
Year	**R 73.962**	**3.585**	**20.6**	**13.6**	**7.0**
1986 1st Quarter[b]	R 75.154	3.656	R 20.6	13.6	R 7.0
2nd Quarter[b]	R 74.223	3.661	R 20.3	13.3	R 7.0
3rd Quarter[b]	R 73.587	3.686	R 20.0	R 13.1	6.9
4th Quarter[b]	72.761	3.698	19.7	12.8	6.9
Year	**73.925**	**3.676**	**20.1**	**13.2**	**6.9**

[a]Excludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

[b]Quarterly data are seasonally adjusted and shown at annual rates.

R=Revised data.

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

Sources: See end of section.

Figure 1.7 U.S. Dependence on Petroleum Net Imports

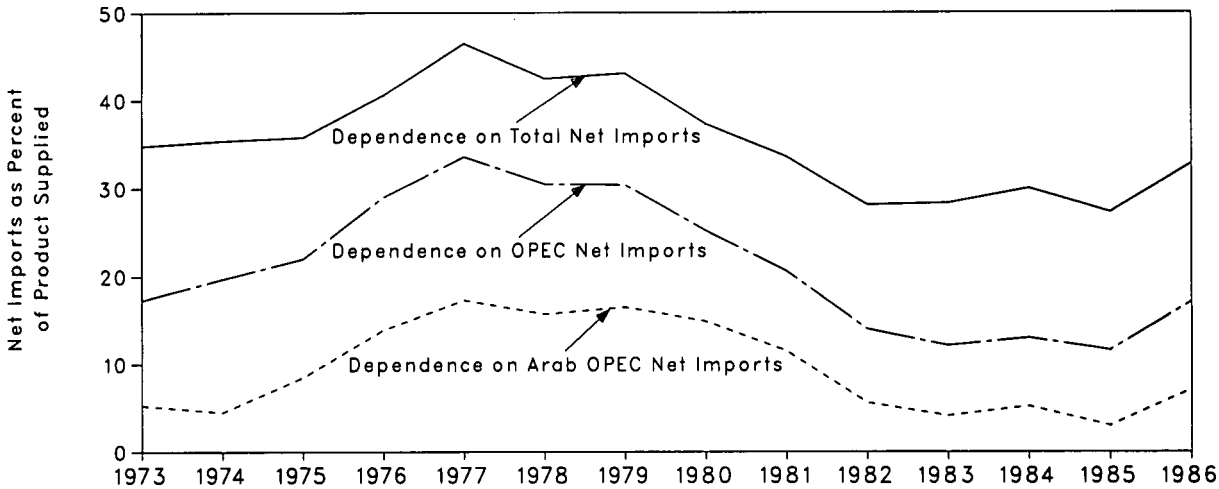


Table 1.8 U.S. Dependence on Petroleum Net Imports[a]

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 1st Quarter	769	1,878	4,802	16,110	4.8	11.7	29.8
2nd Quarter	907	2,278	4,853	15,632	5.8	14.6	31.0
3rd Quarter	877	2,080	4,590	15,625	5.6	13.3	29.4
4th Quarter	715	1,912	4,618	15,538	4.6	12.3	29.7
Average	**817**	**2,037**	**4,715**	**15,726**	**5.2**	**13.0**	**30.0**
1985 1st Quarter	331	1,371	3,570	15,859	2.1	8.6	22.5
2nd Quarter	529	1,857	4,625	15,486	3.4	12.0	29.9
3rd Quarter	288	1,780	4,135	15,536	1.9	11.5	26.6
4th Quarter	730	2,266	4,803	16,025	4.6	14.1	30.0
Average	**470**	**1,821**	**4,286**	**15,726**	**3.0**	**11.6**	**27.3**
1986 1st Quarter	843	2,038	4,083	16,055	5.3	12.7	25.4
2nd Quarter	1,138	2,714	5,321	15,864	7.2	17.1	33.5
3rd Quarter	1,323	3,267	6,206	16,177	8.2	20.2	38.4
4th Quarter	1,279	3,003	5,522	16,467	7.8	18.2	33.5
Average	**1,147**	**2,759**	**5,289**	**16,142**	**7.1**	**17.1**	**32.8**

[a]Beginning in October 1977, Strategic Petroleum Reserves are included.
[b]Net imports equals imports minus exports. Imports from OPEC countries exclude indirect imports which are petroleum products imported primarily from Caribbean and West European areas and refined from crude oil produced in OPEC countries.
[c]Includes Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[d]Includes Arab OPEC countries plus Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Annual averages may not equal average of quarters due to independent rounding.
Sources: See end of section.

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

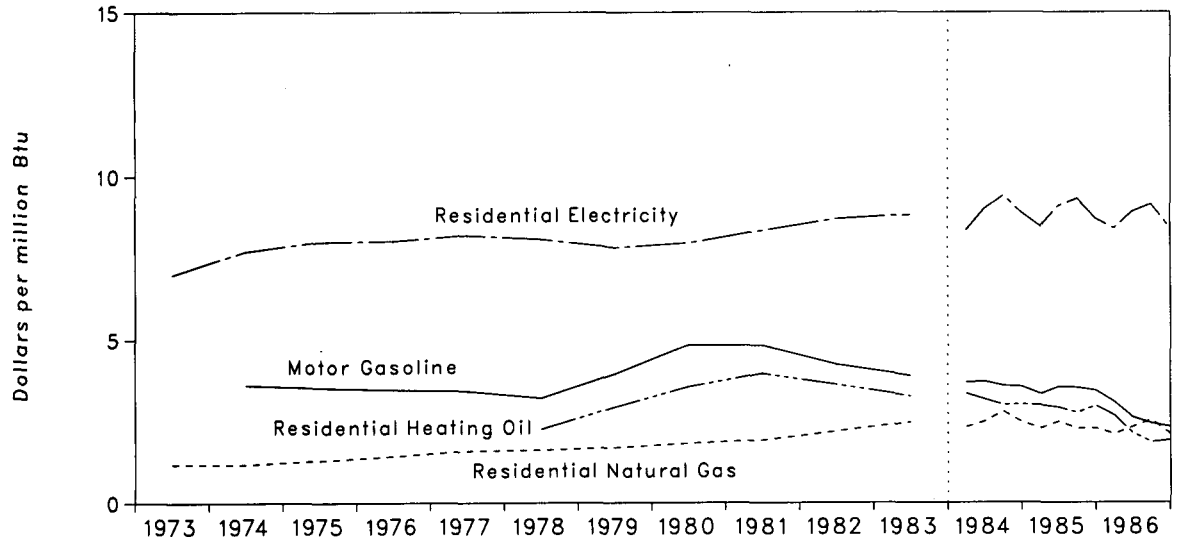


Table 1.9 Cost of Fuels to End Users in Constant (1982) Dollars[a]

	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 1st Quarter	46.1	3.69	46.4	3.35	239.2	2.32	2.85	8.35
2nd Quarter	46.5	3.72	43.9	3.17	256.1	2.49	3.07	9.00
3rd Quarter	44.9	3.59	41.6	3.00	286.9	2.79	3.21	9.41
4th Quarter	44.5	3.56	41.7	3.01	253.9	2.47	3.03	8.88
Average	**45.5**	**3.64**	**43.9**	**3.17**	**246.5**	**2.39**	**3.04**	**8.91**
1985 1st Quarter	41.7	3.33	41.5	2.99	234.5	2.28	2.89	8.47
2nd Quarter	44.4	3.55	40.3	2.91	255.5	2.48	3.10	9.09
3rd Quarter	44.2	3.53	38.1	2.75	275.3	R 2.27	3.18	9.32
4th 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 1st Quarter	38.7	3.09	37.1	2.67	217.1	R 2.10	2.87	8.41
2nd Quarter	32.7	2.61	29.6	2.13	239.1	2.32	3.04	8.91
3rd Quarter	30.4	2.43	25.6	1.85	261.3	R 2.53	3.12	9.14
4th 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**

[a]Fuel 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

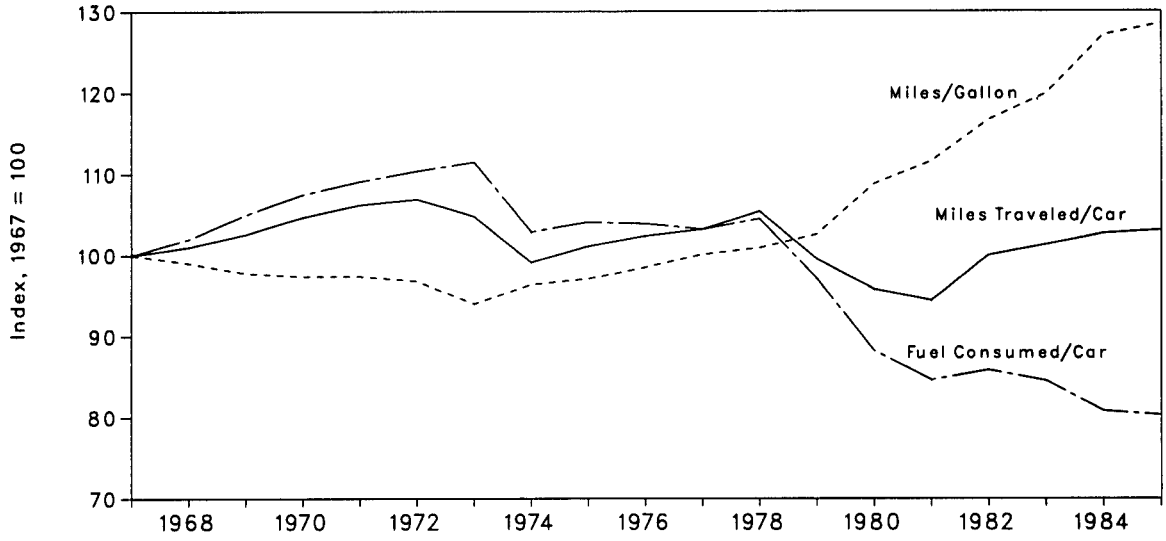


Table 1.10 U.S. Passenger Car Efficiency

	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

[a]Preliminary data.
Note: Geographic coverage is the 50 States and the District of Columbia.
Sources: See end of section.

Table 1.11 Population-Weighted Heating Degree-Days[a]

Census Divisions	February 1 through February 28					Cumulative July 1 through February 28				
				Percent Change					Percent Change	
	Normal[b]	1986	1987	Normal to 1987	1986 to 1987	Normal[b]	1986	1987	Normal to 1987	1986 to 1987
New England CT, ME, MA, NH, RI, VT	1,074	1,102	1,099	2.3	-0.3	4,723	4,690	4,848	2.6	3.4
Middle Atlantic NJ, NY, PA	999	981	1,002	.3	2.1	4,293	4,169	4,250	-1.0	1.9
Eastern North Central IL, IN, MI, OH, WI	1,076	1,082	910	-15.4	-15.9	4,736	4,907	4,507	-4.8	-8.2
Western North Central IA, KS, MN, MO, NE, ND, SD	1,107	1,123	822	-25.7	-26.8	5,061	5,442	4,650	-8.1	-14.6
South Atlantic DE, FL, GA, MD and DC, NC, SC, VA, WV	551	492	544	-1.3	10.6	2,364	2,184	2,259	-4.4	3.4
Eastern South Central AL, KY, MS, TN	639	529	569	-11.0	7.6	2,827	2,595	2,682	-5.1	3.4
Western South Central AR, LA, OK, TX	435	353	369	-15.2	4.5	1,930	1,785	1,921	-.5	7.6
Mountain AZ, CO, ID, MT, NV, NM, UT, WY	793	712	741	-6.6	4.1	4,004	4,050	4,001	-.1	-1.2
Pacific Coast CA, OR, WA	453	395	419	-7.5	6.1	2,239	2,233	2,172	-3.0	-2.7
U.S. Average[c]	**785**	**755**	**715**	**-8.9**	**-5.3**	**3,504**	**3,484**	**3,393**	**-3.2**	**-2.6**

[a]See Note 7 at end of section.
[b]Normal is based on calculations of data from 1951 through 1980.
[c]Excludes 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	1984:	1st Quarter	244.5
1973	106.2		2nd Quarter	247.2
1974	117.9		3rd Quarter	249.9
			4th Quarter	251.7
1975	128.7		Year	248.3
1976	136.1			
1977	144.9	1985:	1st Quarter	253.3
			2nd Quarter	256.3
1978	155.9		3rd Quarter	258.3
1979	173.5		4th Quarter	260.6
1980	197.0		Year	257.1
1981	217.4	1986:	1st Quarter	261.2
1982	230.7		2nd Quarter	260.6
1983	238.1		3rd Quarter	262.5
			4th Quarter	264.0
			Year	262.1

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*, "Petroleum 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 1986 was 73.9 quadrillion Btu, 0.1 percent below the 1985 level. Petroleum products accounted for 43.1 percent of the energy consumed in 1986, while coal accounted for 23.4 percent, and natural gas accounted for 22.4 percent.

Residential and commercial sector consumption was 27.3 quadrillion Btu in 1986, up 1.6 percent from the 1985 level. That sector consumed 36.9 percent of the 1986 total, up from its 36.3-percent share in 1985.

Industrial sector consumption was 26.0 quadrillion Btu in 1986, down 3.8 percent from the 1985 level. The industrial sector accounted for 35.1 percent of the 1986 total consumption, down from the industrial sector's 36.5-percent share of 1985 total consumption.

Transportation sector consumption of energy was 20.7 quadrillion Btu in 1986, up 2.9 percent from the 1985 level. That sector consumed 28.0 percent of the 1986 total, up from the sector's 27.2-percent share in 1985.

Electric utility consumption of energy was an estimated 26.8 quadrillion Btu in 1986, 1.2 percent higher than in 1985. Coal contributed 54.0 percent of the energy consumed by electric utilities in 1986, while nuclear electric power contributed 16.7 percent; hydroelectric power, 12.9 percent; natural gas, 10.1 percent; petroleum products, 5.4 percent; and wood, waste, geothermal, wind, photovoltaic, and solar thermal energy, 0.9 percent.

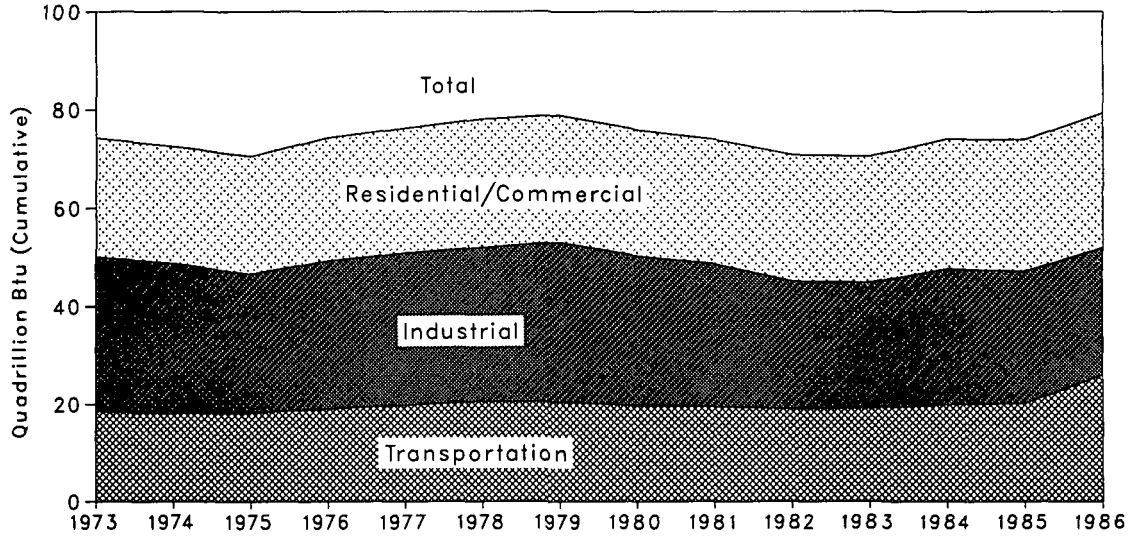
Table 2.1 Energy Consumption Summary for 1986
(Quadrillion (10^{15}) Btu)

Energy Source	Sector				Total
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.184	2.675	([a])	14.463	17.322
Natural Gas[b]	6.968	6.364	0.495	2.699	16.527
Petroleum Products	2.573	7.705	20.158	1.452	31.887
Hydroelectric Power	.000	.033	.000	3.466	3.499
Nuclear Electric Power	.000	.000	.000	4.475	4.475
Net Imports of Coal Coke	.000	-.017	.000	.000	-.017
Other[c]	.000	.000	.000	.232	.232
Primary Consumption	**9.724**	**16.760**	**20.653**	**26.788**	**73.925**
Electricity	5.306	2.791	.013	-8.110	
Net Energy Consumption	**15.031**	**19.551**	**20.666**		**55.248**
Electrical System Energy Losses	12.220	6.428	.030	-18.678	18.678
Total Energy Consumption[d]	**27.251**	**25.979**	**20.695**		**73.925**

([a])Negligible quantity is included in the industrial sector.
[b]Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.
[c]Other is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[d]Excludes wood, waste, geothermal, wind, photovotaic, 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

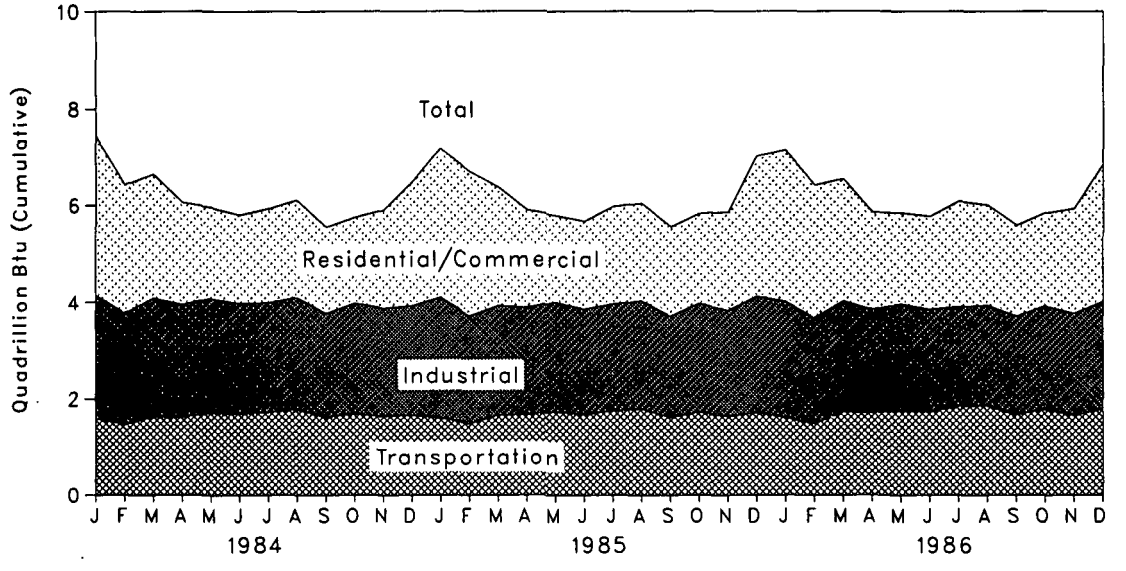


Table 2.2 Consumption of Energy by End-Use Sector
(Quadrillion (10^{15}) Btu)

	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	R **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 January	3.298	2.545	1.598	7.442
February	2.650	2.304	1.475	6.428
March	2.555	2.448	1.635	6.637
April	2.112	2.326	1.623	6.055
May	1.879	2.365	1.714	5.953
June	1.829	2.280	1.697	5.807
July	1.948	2.260	1.728	5.938
August	2.005	2.315	1.786	6.110
September	1.784	2.148	1.621	5.553
October	1.777	2.282	1.700	5.761
November	2.023	2.238	1.640	5.902
December	2.551	2.263	1.663	6.478
Total	**26.415**	**27.769**	**19.878**	**74.064**
1985 January	R 3.080	R 2.494	R 1.611	R 7.187
February	R 2.984	R 2.229	R 1.487	R 6.701
March	R 2.451	R 2.264	R 1.665	R 6.378
April	R 2.018	R 2.209	R 1.680	R 5.902
May	R 1.793	R 2.267	R 1.737	R 5.794
June	R 1.822	R 2.176	R 1.681	R 5.680
July	R 2.013	R 2.211	R 1.756	R 5.982
August	R 2.014	R 2.236	R 1.797	R 6.048
September	R 1.851	R 2.090	R 1.622	R 5.562
October	R 1.857	R 2.251	R 1.727	R 5.835
November	R 2.036	R 2.190	R 1.640	R 5.865
December	R 2.904	R 2.406	R 1.717	R 7.029
Total	R **26.823**	R **27.019**	R **20.120**	R **73.962**
1986 January	R 3.137	R 2.400	R 1.618	R 7.156
February	R 2.741	R 2.186	R 1.491	R 6.416
March	R 2.518	R 2.296	R 1.730	R 6.541
April	R 2.010	R 2.137	R 1.712	R 5.853
May	R 1.880	R 2.207	R 1.764	R 5.847
June	R 1.924	R 2.118	R 1.737	R 5.781
July	R 2.179	R 2.055	R 1.856	R 6.097
August	R 2.074	R 2.077	R 1.863	R 6.019
September	R 1.888	R 2.031	R 1.680	R 5.601
October	R 1.922	R 2.136	R 1.788	R 5.845
November	R 2.166	R 2.104	R 1.669	R 5.938
December	2.817	2.226	1.787	6.830
Year to Date	**27.251**	**25.979**	**20.695**	**73.925**

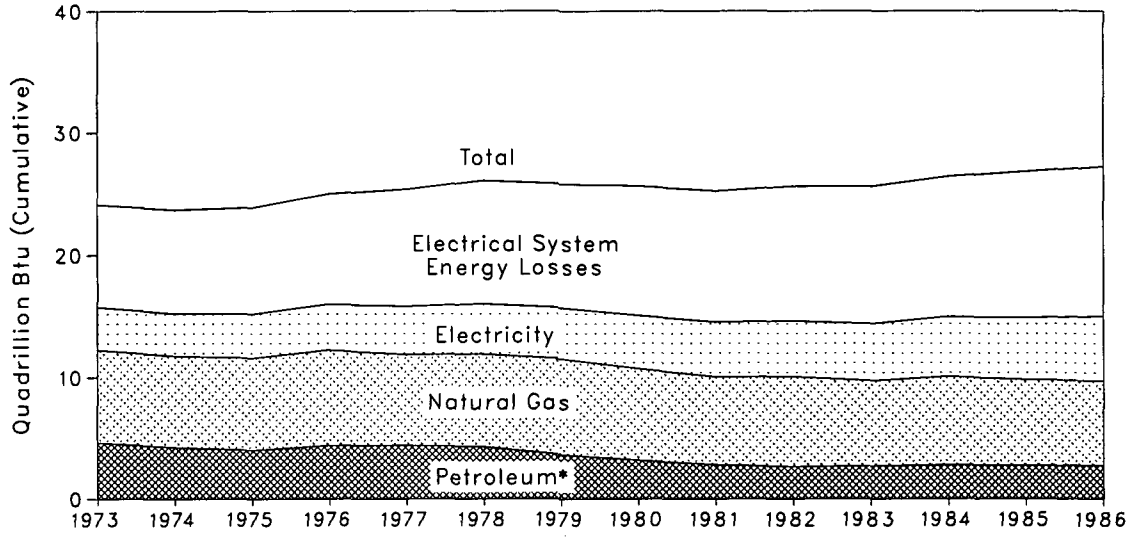
R=Revised data.

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

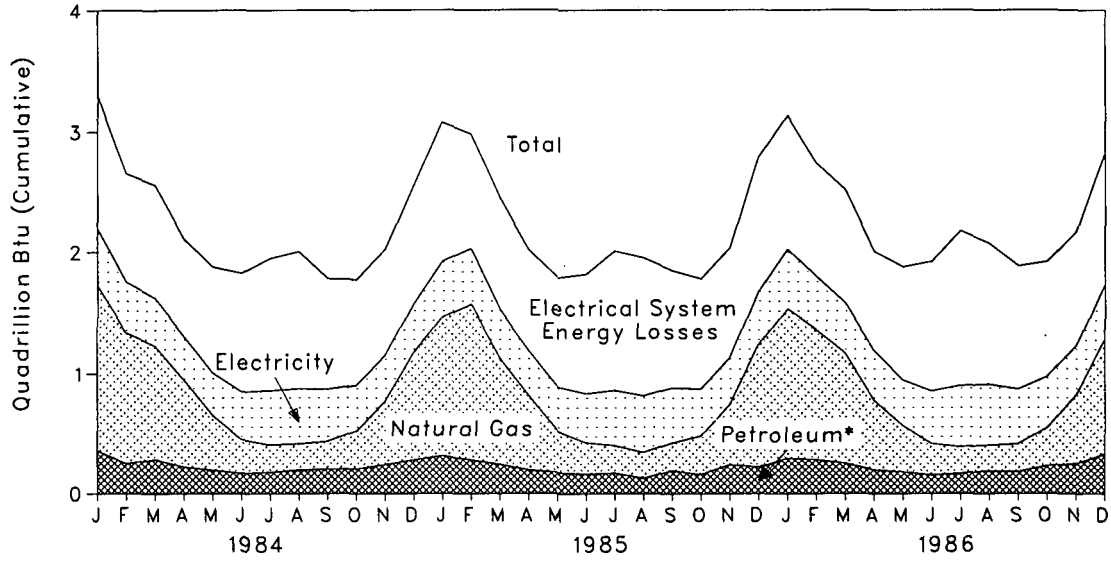
Additional Notes and Sources: See end of section.

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 (10^{15}) 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 Total	**.257**	**7.518**	**3.996**	**3.475**	**8.478**	**23.724**	
1975 Total	**.209**	**7.581**	**3.805**	**3.604**	**8.701**	**23.900**	
1976 Total	**.203**	**7.866**	**4.181**	**3.747**	**9.023**	**25.019**	
1977 Total	**.205**	**7.461**	**4.206**	**3.955**	**9.559**	**25.387**	
1978 Total	**.214**	**7.624**	**4.070**	**4.116**	**10.065**	**26.088**	
1979 Total	**.187**	**7.891**	**3.448**	**4.184**	**10.100**	**25.809**	
1980 Total	**.145**	**7.540**	**3.035**	**4.355**	**10.578**	**25.653**	
1981 Total	**.168**	**7.243**	**2.634**	**4.497**	**10.703**	R **25.244**	
1982 Total	**.188**	**7.427**	**2.449**	**4.566**	R **10.994**	**25.625**	
1983 Total	**.196**	**7.024**	**2.499**	**4.680**	**11.218**	**25.617**	
1984 January	.024	1.363	.339	.476	1.096	3.298	3.298
February	.021	1.086	.230	.418	.895	2.650	5.947
March	.015	.943	.270	.394	.932	2.555	8.502
April	.022	.727	.201	.360	.802	2.112	10.614
May	.013	.460	.182	.355	.869	1.879	12.493
June	.010	.286	.158	.395	.979	1.829	14.322
July	.016	.232	.161	.449	1.091	1.948	16.270
August	.015	.222	.181	.456	1.131	2.005	18.275
September	.020	.235	.183	.433	.913	1.784	20.060
October	.016	.319	.190	.377	.874	1.777	21.836
November	.017	.531	.225	.372	.877	2.023	23.859
December	.022	.886	.261	.410	.973	2.551	26.410
Total	**.212**	**7.292**	**2.582**	**4.894**	**11.435**	**26.415**	
1985 January	.019	1.151	R .299	.457	R 1.154	R 3.080	R 3.080
February	.017	1.289	R .267	.458	R .954	R 2.984	R 6.064
March	.012	.883	R .233	.400	R .923	R 2.451	R 8.515
April	.018	.622	R .179	.371	R .829	R 2.018	R 10.533
May	.011	.351	R .165	.366	R .900	R 1.793	R 12.325
June	.008	.265	R .157	.405	R .986	R 1.822	R 14.147
July	.012	.233	R .160	.457	R 1.150	R 2.013	R 16.160
August	.011	.219	R .176	.470	R 1.138	R 2.014	R 18.175
September	.015	.234	R .177	.457	R .967	R 1.851	R 20.025
October	.017	.325	R .217	.389	R .910	R 1.857	R 21.883
November	.017	.502	R .227	.381	R .909	R 2.036	R 23.918
December	.022	1.011	R .316	.445	R 1.110	R 2.904	R 26.823
Total	**.179**	**7.085**	R **2.573**	R **5.054**	R **11.931**	R **26.823**	
1986 January	.021	1.238	R .278	.489	R 1.111	R 3.137	R 3.137
February	.018	1.079	R .270	.436	R .936	R 2.741	R 5.878
March	.013	.914	R .245	.411	R .934	R 2.518	R 8.396
April	.019	.580	R .182	.413	R .816	R 2.010	R 10.406
May	.011	.388	R .172	.379	R .930	R 1.880	R 12.286
June	.009	.265	.148	.435	R 1.067	R 1.924	R 14.209
July	.011	.225	R .158	.508	R 1.278	R 2.179	R 16.389
August	.010	.218	R .180	R .505	R 1.161	R 2.074	R 18.463
September	.014	.233	R .172	.455	R 1.014	R 1.888	R 20.351
October	.017	.318	R .219	.421	R .948	R 1.922	R 22.273
November	.018	.565	R .237	R .399	R .947	R 2.166	R 24.438
December	.023	.941	.311	E .455	1.087	2.817	27.255
Total	**.184**	**6.968**	**2.573**	**5.306**	**12.220**	**27.251**	

[a]Includes supplemental gaseous fuels.

[b]Includes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

[c]Excludes wood, waste, geothermal wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.

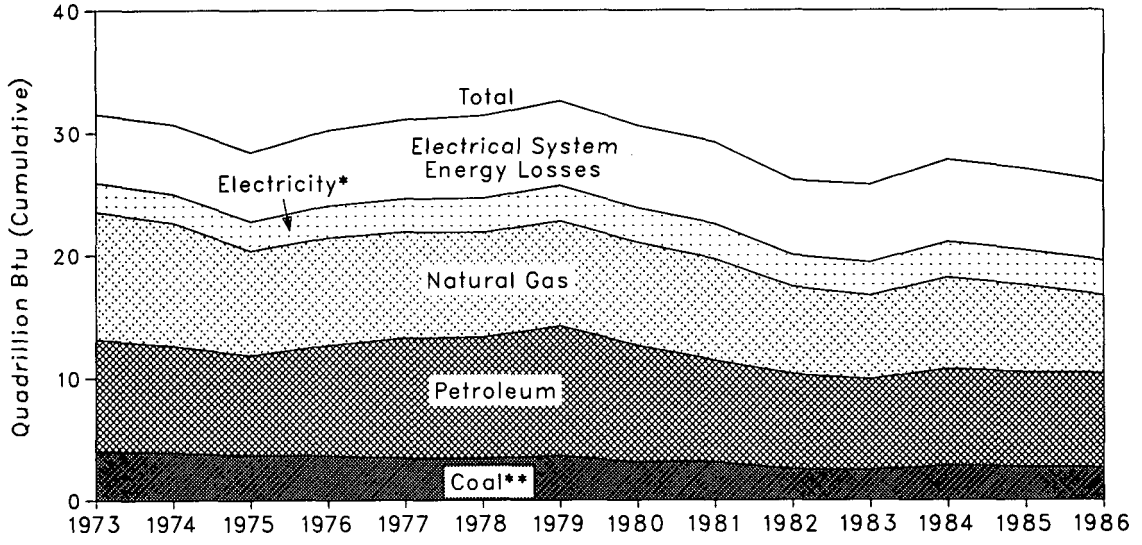
R=Revised data. E=Estimated data.

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

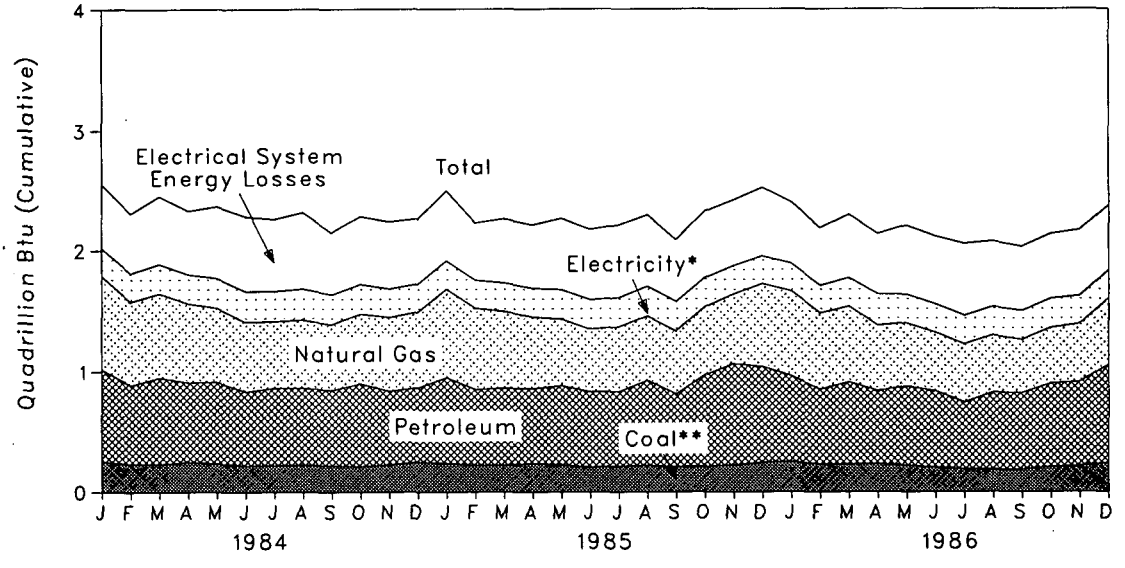
Additional Notes and Sources: See end of section.

Figure 2.3 Consumption of Energy by the Industrial Sector

Yearly



Monthly



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

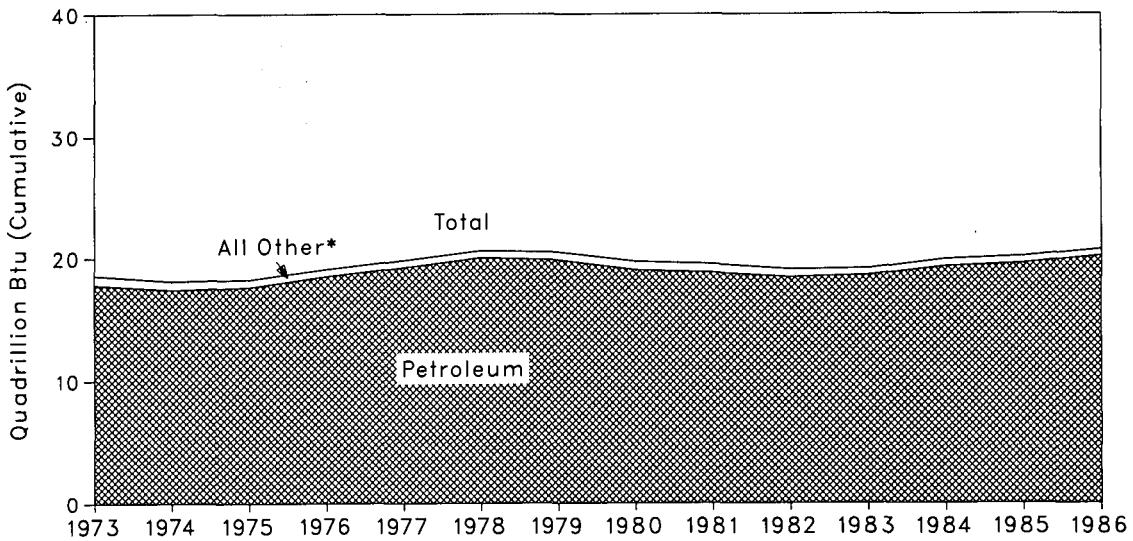
Table 2.4 Consumption of Energy by the Industrial Sector
(Quadrillion (10^{15}) Btu)

	Coal	Natural Gas[a]	Petroleum	Hydroelectric 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 January	.256	.769	.764	.003	.001	.228	.524	2.545	2.545
February	.237	.689	.651	.003	.002	.230	.493	2.304	4.848
March	.238	.692	.716	.003	-.001	.238	.562	2.448	7.296
April	.253	.650	.660	.003	0	.236	.525	2.326	9.623
May	.245	.611	.673	.003	-.001	.241	.592	2.365	11.988
June	.225	.575	.613	.003	-.002	.249	.617	2.280	14.267
July	.227	.550	.640	.003	-.001	.245	.595	2.260	16.527
August	.230	.561	.638	.002	-.002	.254	.631	2.315	18.842
September	.223	.542	.625	.002	0	.243	.513	2.148	20.990
October	.222	.575	.683	.002	-.003	.242	.561	2.282	23.273
November	.232	.608	.611	.002	-.003	.234	.553	2.238	25.510
December	.255	.625	.615	.002	-.001	.227	.540	2.263	27.774
Total	**2.842**	**7.449**	**7.889**	**.032**	**-.011**	**2.868**	**6.701**	**27.769**	
1985 January	.245	.728	R .708	.003	0	.229	R .580	R 2.494	R 2.494
February	.226	.671	R .627	.003	.001	.227	.473	R 2.229	R 4.723
March	.227	.633	R .639	.003	0	.230	R .531	R 2.264	R 6.987
April	.241	.589	R .620	.003	.001	.234	R .523	R 2.209	R 9.196
May	.233	.549	R .656	.003	-.003	.239	R .589	R 2.267	R 11.463
June	.213	.516	R .624	.003	-.002	.239	R .582	R 2.176	R 13.639
July	.223	.534	R .615	.003	-.002	.238	.599	R 2.211	R 15.850
August	.226	.529	R .646	.002	-.001	.244	.590	R 2.236	R 18.086
September	.219	.518	R .600	.002	-.003	.241	R .511	R 2.090	R 20.175
October	.221	.562	.680	.002	-.001	.236	.551	R 2.251	R 22.426
November	.231	.576	R .608	.002	-.003	.229	R .547	R 2.190	R 24.616
December	.252	.683	R .678	.002	-.001	.226	R .565	R 2.406	R 27.022
Total	**2.757**	**R 7.087**	**R 7.702**	**R .033**	**-.013**	**2.813**	**R 6.641**	**R 27.019**	
1986 January	R .256	.699	R .710	.003	0	.224	R .508	R 2.400	R 2.400
February	.236	.630	R .618	.003	0	.222	R .477	R 2.186	R 4.586
March	R .237	.623	R .680	.003	-.001	.231	R .524	R 2.296	R 6.882
April	R .237	.540	R .605	.003	0	.253	R .499	R 2.137	R 9.018
May	R .229	.520	R .655	.003	-.003	.232	R .570	R 2.207	R 11.226
June	.210	.483	R .631	.003	0	.229	R .562	R 2.118	R 13.344
July	.195	.478	R .553	.003	-.002	.235	R .592	R 2.055	R 15.399
August	.198	.470	R .636	.002	-.006	.235	R .540	R 2.077	R 17.476
September	.192	.438	R .632	.002	0	.237	R .529	R 2.031	R 19.507
October	R .214	.458	R .690	.002	-.001	.238	R .535	R 2.136	R 21.642
November	R .224	.477	R .631	.002	-.003	.229	R .544	R 2.104	R 23.746
December	.247	.549	.663	.002	-.001	E .226	.539	2.226	25.972
Total	**2.675**	**6.364**	**7.705**	**.033**	**-.017**	**2.791**	**6.428**	**25.979**	

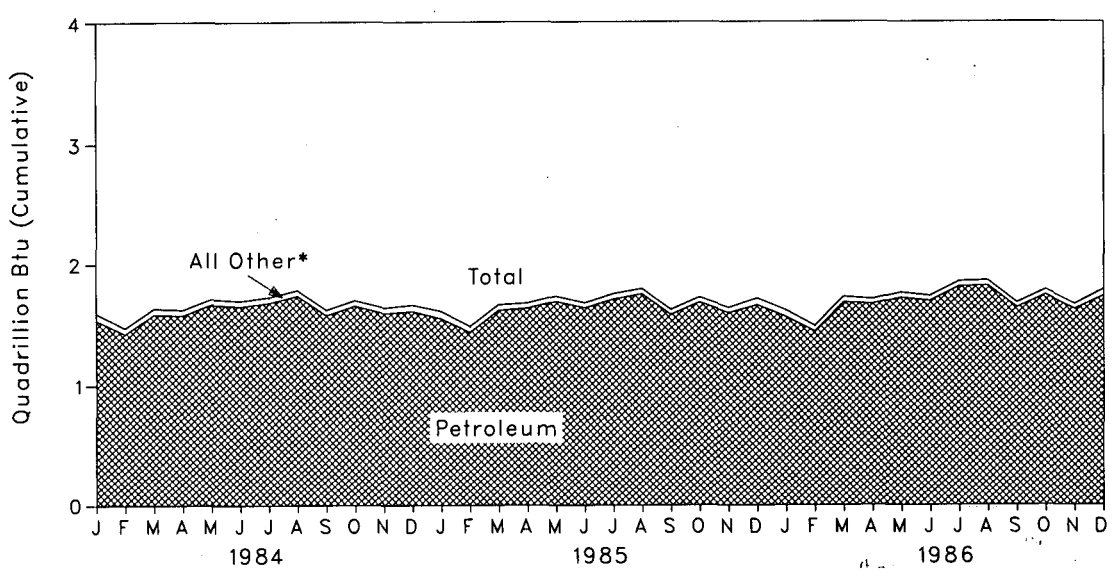
[a]Includes supplemental gaseous fuels.
[b]Includes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[c]Excludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.
R=Revised data. E=Estimated 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.

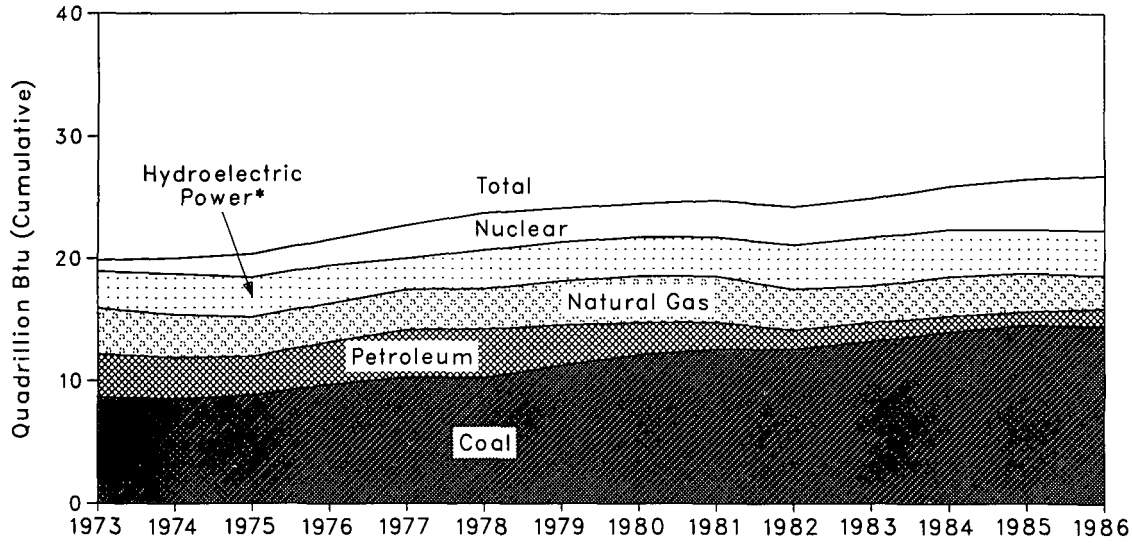
Table 2.5 Consumption of Energy by the Transportation Sector
(Quadrillion (10^{15}) Btu)

	Coal	Natural Gas[a]	Petroleum	Electricity[b]	Electrical System Energy Losses	Total[c]	Year to Date
1973 Total	**0.003**	**0.743**	**17.821**	R 0.008	**0.020**	**18.595**	
1974 Total	**.002**	**.685**	**17.396**	**.009**	**.022**	**18.113**	
1975 Total	**.001**	**.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 January	[e]	.057	1.538	.001	.002	1.598	1.598
February	[e]	.045	1.427	.001	.002	1.475	3.073
March	[e]	.047	1.584	.001	.002	1.635	4.708
April	[e]	.042	1.578	.001	.002	1.623	6.330
May	[e]	.043	1.667	.001	.002	1.714	8.044
June	[e]	.043	1.650	.001	.002	1.697	9.741
July	[e]	.045	1.679	.001	.002	1.728	11.469
August	[e]	.044	1.738	.001	.002	1.786	13.255
September	[e]	.041	1.577	.001	.002	1.621	14.875
October	[e]	.043	1.654	.001	.002	1.700	16.575
November	[e]	.043	1.593	.001	.002	1.640	18.215
December	[e]	.049	1.610	.001	.002	1.663	19.878
Total	[e]	**.545**	**19.295**	R .012	**.027**	**19.878**	
1985 January	[e]	.056	R 1.551	.001	.003	R 1.611	R 1.611
February	[e]	.047	R 1.437	.001	.002	R 1.487	R 3.098
March	[e]	.043	R 1.618	.001	.002	R 1.665	R 4.763
April	[e]	.040	R 1.636	.001	.002	R 1.680	R 6.443
May	[e]	.041	R 1.692	.001	R .003	R 1.737	R 8.180
June	[e]	.039	R 1.638	.001	.002	R 1.681	R 9.861
July	[e]	.041	R 1.711	.001	.003	R 1.756	R 11.617
August	[e]	.040	R 1.753	.001	R .003	R 1.797	R 13.414
September	[e]	.038	R 1.581	.001	.002	R 1.622	R 15.036
October	[e]	.040	R 1.684	.001	.002	R 1.727	R 16.764
November	[e]	.040	R 1.596	.001	R .003	R 1.640	R 18.403
December	[e]	.053	R 1.661	.001	.003	R 1.717	R 20.120
Total	[e]	**.520**	R **19.558**	R **.013**	R **.030**	R **20.120**	
1986 January	[e]	.051	R 1.564	.001	.002	R 1.618	R 1.618
February	[e]	.044	R 1.443	.001	.002	R 1.491	R 3.109
March	[e]	.043	R 1.683	.001	.002	R 1.730	R 4.839
April	[e]	.037	R 1.671	.001	.002	R 1.712	R 6.551
May	[e]	.039	R 1.721	.001	R .003	R 1.764	R 8.316
June	[e]	.038	R 1.696	.001	R .003	R 1.737	R 10.053
July	[e]	.039	R 1.813	.001	.003	R 1.856	R 11.909
August	[e]	.039	R 1.820	.001	.002	R 1.863	R 13.772
September	[e]	.037	R 1.639	.001	.002	R 1.680	R 15.452
October	[e]	.039	R 1.745	.001	.002	R 1.788	R 17.240
November	[e]	.039	R 1.626	.001	.002	R 1.669	R 18.908
December	[e]	.049	1.735	E .001	.003	1.787	20.695
Total	[e]	**.495**	**20.158**	**.013**	**.030**	**20.695**	

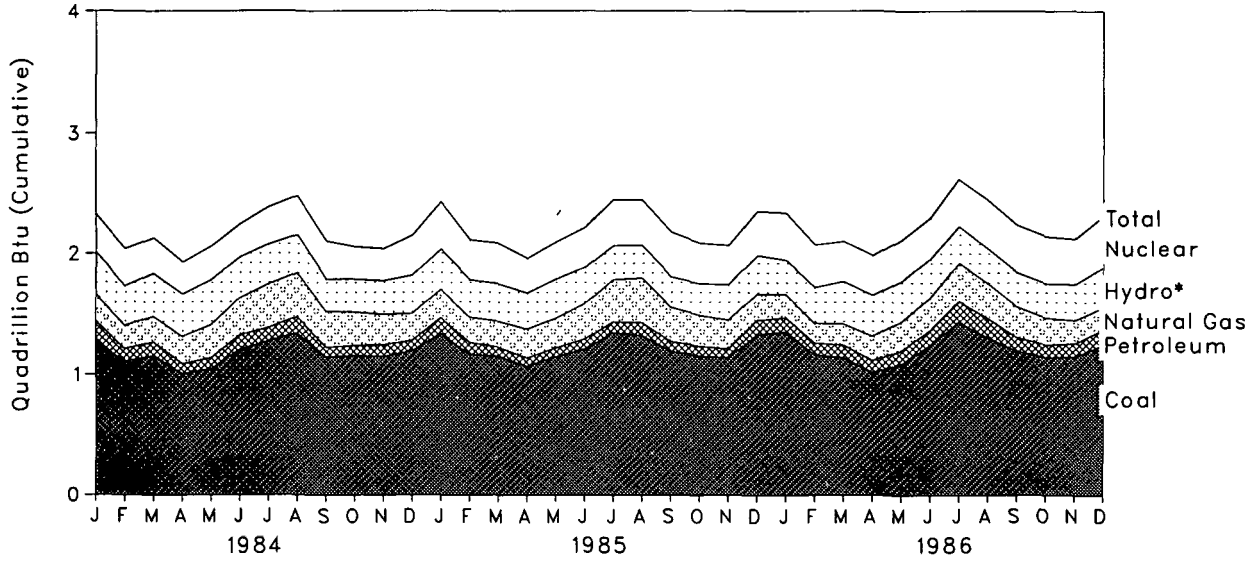
[a]Pipeline fuel only, including supplemental gaseous fuels.
[b]Includes electricity generated for distribution from wood, waste, geothermal, wind photovoltaic, and solar thermal energy.
[c]Excludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy for small amounts used by electric utilities to generate electricity for distribution.
[d]Less than 0.5 trillion Btu.
[e]Negligible quantities are included in the industrial sector.
R=Revised data. E=Estimated 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 (10^{15}) Btu)

	Coal	Natural Gas[a]	Petroleum[b]	Hydroelectric 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 January	1.271	.223	.169	.335	.318	.011	2.327	2.327
February	1.103	.194	.108	.313	.308	.013	2.039	4.365
March	1.151	.213	.115	.340	.296	.015	2.130	6.495
April	1.004	.228	.081	.336	.263	.014	1.925	8.420
May	1.045	.274	.090	.357	.280	.014	2.060	10.480
June	1.202	.308	.121	.325	.274	.013	2.243	12.723
July	1.274	.361	.111	.318	.307	.013	2.383	15.107
August	1.338	.362	.137	.302	.320	.016	2.475	17.582
September	1.140	.301	.083	.250	.316	.015	2.106	19.687
October	1.155	.279	.084	.254	.269	.016	2.057	21.745
November	1.144	.253	.100	.260	.266	.016	2.040	23.784
December	1.193	.225	.086	.296	.335	.018	2.153	25.937
Total	**14.020**	**3.220**	**1.286**	**3.684**	**3.553**	**.174**	**25.937**	
1985 January	1.334	.235	.132	R .314	R .391	.018	R 2.424	R 2.424
February	1.163	.210	.101	R .292	R .333	.016	R 2.115	R 4.539
March	1.148	.215	.077	R .292	R .336	.018	R 2.087	R 6.626
April	1.067	.243	.066	R .282	R .286	.016	R 1.959	R 8.585
May	1.144	.245	.075	R .307	R .310	.016	R 2.098	R 10.684
June	1.208	.293	.083	R .283	R .333	.016	R 2.216	R 12.899
July	1.347	.349	.090	R .264	R .380	.018	R 2.448	R 15.348
August	1.322	.368	.107	R .253	R .376	.018	R 2.445	R 17.793
September	1.190	.285	.082	R .232	R .373	.018	R 2.180	R 19.973
October	1.152	.259	.082	R .242	R .337	.017	R 2.090	R 22.063
November	1.138	.239	.075	R .271	R .326	.021	R 2.070	R 24.132
December	1.329	.218	.120	R .296	R .365	.022	R 2.350	R 26.483
Total	**14.542**	**3.160**	**1.090**	**R 3.330**	**R 4.147**	**.213**	**R 26.483**	
1986 January	R 1.352	.191	.119	R .260	R .391	.023	R 2.335	R 2.335
February	R 1.162	.163	.101	R .276	R .354	.019	R 2.075	R 4.410
March	R 1.138	.176	.107	R .329	R .333	.020	R 2.103	R 6.513
April	R 1.016	.205	.097	R .319	R .329	.018	R 1.984	R 8.497
May	R 1.085	.240	.111	R .315	R .345	.018	R 2.115	R 10.612
June	R 1.243	.270	.123	R .301	R .339	.020	R 2.296	R 12.908
July	R 1.436	.312	.173	R .286	R .388	.021	R 2.617	R 15.525
August	R 1.305	.287	.163	R .265	R .405	.021	R 2.445	R 17.970
September	R 1.194	.256	.115	R .261	R .396	.018	R 2.239	R 20.209
October	R 1.142	.224	.105	R .265	R .391	.018	R 2.145	R 22.354
November	R 1.143	.194	.112	R .281	R .378	.015	R 2.123	R 24.477
December	1.248	.182	.126	.308	.427	.020	2.311	26.788
Total	**14.463**	**2.699**	**1.452**	**3.466**	**4.475**	**.232**	**26.788**	

[a]Includes supplemental gaseous fuels.
[b]Includes petroleum products reported as "oil consumed in steam plants" through 1979 and "heavy oil" from 1980 forward, which are assumed to be residual fuel oil; petroleum products reported as "oil consumed in gas turbine and internal combustion engine plants" through 1979 and "light oil" from 1980 forward, which are assumed to be distillate fuel oil and kerosene; and petroleum coke.
[c]Includes net imports of electricity.
[d]Other 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.

Table 2.7 Energy Consumption Summary for December 1986
(Quadrillion (10^{15}) Btu)

Energy Source	Sector				Total
	Residential and Commercial	Industrial	Transportation	Electric Utilities	
Coal	0.023	0.247	[a]	1.248	1.517
Natural Gas[b]	.941	.549	0.049	.182	1.721
Petroleum Products	.311	.807	1.591	.126	2.835
Hydroelectric Power	.000	.002	.000	.308	.311
Nuclear Electric Power	.000	.000	.000	.427	.427
Net Imports of Coal Coke	.000	-.001	.000	.000	-.001
Other[c]	.000	.000	.000	.020	.020
Primary Consumption	**1.274**	**1.604**	**1.640**	**2.311**	**6.830**
Electricity	[E] .455	[E] .226	[E] .001	[E] -.682	
Net Energy Consumption	**1.730**	**1.830**	**1.641**		**5.201**
Electrical System Energy Losses	1.087	.539	.003	-1.629	1.629
Total Energy Consumption[d]	**2.817**	**2.226**	**1.787**		**6.830**

[a]Negligible quantity is included in the industrial sector.
[b]Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.
[c]Other is electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[d]Excludes wood, waste, geothermal, wind, photovotaic, and solar thermal energy except for small amounts used by electric utilities to generate electricity for distribution.
E=Estimated data.
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.

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

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

Note for imports and exports of electricity:

- Monthly electricity imports and exports estimates for 1982 forward were revised in the May 1984 *Monthly Energy Review.* The revisions do not cause discontinuity in the annual data series: the data continue to come from the same source. The monthly data series, however, are discontinuous because monthly data from January 1982 forward are now available from the same source as the annual data. Estimates for monthly values prior to 1982, published in previous issues, were developed by converting the annual value to a daily rate and multiplying by the number of days in the month. Accordingly, month-to-month analyses are not comparable when taken across the transition date of January 1982. Monthly analyses on either side of that date will be comparable. There

is no known bias in either the annual data or the monthly data since January 1982.

Sources for imports and exports of electricity:

- 1973 through 1980: DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico."
- 1981: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1982 through 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 electricity sales categories are available: residential, commercial, industrial, and other. For the end-use estimates in this section, the "other" category (which is primarily sales for use in government buildings) is added to the commercial sector except for approximately 4 percent 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 February 1987 was estimated to be 8.4 million barrels per day, 1.1 percent lower than in the previous month and 8.7 percent lower than the February 1986 rate.

Total petroleum imports averaged 6.0 million barrels per day in February 1987, 3.4 percent less than the January 1987 rate, but 29.3 percent more than the February 1986 rate.

In February 1987, 16.4 million barrels per day of petroleum products were supplied for domestic use, slightly above the level in January 1987 and 2.1 percent above the level in the previous February. Motor gasoline accounted for 40.5 percent of the total; distillate fuel oil, 20.5 percent; and residual fuel oil, 8.8 percent.

Motor gasoline supplied during February 1987 averaged 6.6 million barrels per day, 2.6 percent above the rate in January 1987 and 3.1 percent above the rate of the previous February. Stocks of motor gasoline totaled 251 million barrels at the end of February 1987, 1 million barrels above the level at the end of January 1987 and 6 million barrels above the stocks level 1 year earlier.

In February 1987, 3.4 million barrels of distillate fuel oil were supplied per day, 3.0 percent higher than the January 1987 rate, but 2.9 percent lower than the February 1986 rate. Distillate fuel oil ending stocks for February 1987 were 126 million barrels, 15 million barrels lower than the ending stocks level in the previous month, but 13 million barrels higher than the February 1986 ending stocks level.

Residual fuel oil supplied in February 1987 averaged 1.4 million barrels per day, 1.0 percent lower than the January 1987 rate, but slightly higher than the February 1986 rate. Residual fuel oil stocks measured 37 million barrels at the end of February 1987, 8 million barrels lower than the ending stocks level in the previous month and 6 million barrels lower than the ending 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 November 1986. 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]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Production	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	*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**	**[I] 1,074**
1975 Average	**10,045**	**8,375**	**1,633**	**[I] -17**	**[I] -145**	**16,322**	**1,133**
1976 Average	**9,774**	**8,132**	**[h] 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**	**[I] 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**	**[I] 1,430**
1983 Average	**10,299**	**8,688**	**1,559**	**[I] -214**	**[I] 234**	**15,231**	**1,454**
1984 January	10,477	8,868	1,572	-328	1,115	16,801	1,429
February	10,565	8,874	1,635	197	-1,374	15,437	1,463
March	10,319	8,672	1,599	-25	641	16,050	1,444
April	10,531	8,862	1,619	-476	-106	15,568	1,462
May	10,623	8,955	1,614	-677	-434	15,620	1,496
June	10,507	8,852	1,613	-104	-109	15,709	1,503
July	10,587	8,885	1,634	-169	-169	15,498	1,513
August	10,478	8,809	1,637	250	252	16,116	1,498
September	10,692	8,993	1,660	260	-769	15,247	1,513
October	10,608	8,906	1,649	-759	-246	15,616	1,544
November	10,689	8,979	1,678	-236	-177	15,627	1,556
December	10,578	8,897	1,649	-290	293	15,375	1,556
Average	**10,554**	**8,879**	**1,630**	**-199**	**-81**	**15,726**	
1985 January	10,412	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	10,895	9,121	1,721	-461	-228	15,923	1,538
February	10,926	9,181	1,710	-35	847	16,056	1,515
March	10,660	9,002	1,617	-338	1,178	16,188	1,489
April	10,448	8,850	1,561	27	265	15,743	1,480
May	10,499	8,842	1,594	264	-1,089	15,852	1,506
June	10,206	8,591	1,555	50	-1,226	15,998	1,541
July	10,253	8,636	1,558	-580	-615	16,075	1,578
August	9,958	8,391	1,505	243	-417	16,686	1,584
September	9,865	8,333	1,482	-216	-998	15,755	1,620
October	9,962	8,434	1,484	-203	468	16,441	1,612
November	9,929	8,321	1,543	59	-133	16,051	1,614
December	9,925	8,348	1,529	190	469	16,897	1,594
Average	**10,291**	**8,668**	**1,571**	**-84**	**-127**	**16,142**	
1987 January	10,145	[R] 8,477	1,592	[R] -189	[R] 377	[R] 16,382	[R] 1,588
February	NA	[E] 8,383	NA	[E] -146	[E] 766	[E] 16,388	[E] 1,572
2-Mo. Average	**NA**	**8,575**	**NA**	**-169**	**562**	**16,385**	
1986 2-Mo. Average	**10,910**	**9,149**	**1,716**	**-259**	**283**	**15,986**	
1985 2-Mo. Average	**10,545**	**8,875**	**1,625**	**241**	**1,349**	**16,115**	

[a] Includes lease condensate.
[b] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net imports equals imports minus exports.
[h] Due to a rounding difference, this value is 1,603 in the *Petroleum Supply Annual* and *Petroleum Supply Monthly.*
[I] In 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 January	5,430	3,055	2,375	575	153	422	4,855
February	5,693	2,950	2,743	582	185	397	5,111
March	5,301	3,470	1,832	840	236	605	4,461
April	5,372	3,417	1,955	655	172	483	4,717
May	5,979	3,942	2,036	766	219	548	5,212
June	5,482	3,546	1,936	864	222	642	4,618
July	5,407	3,646	1,761	536	108	429	4,871
August	5,044	3,248	1,796	732	190	542	4,312
September	5,252	3,342	1,909	664	162	502	4,588
October	5,779	3,751	2,028	599	141	458	5,179
November	5,587	3,583	2,004	854	202	652	4,733
December	4,933	3,136	1,796	986	185	801	3,947
Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 January	4,415	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	5,386	3,329	2,057	853	159	694	4,533
February	4,622	3,005	1,617	866	162	704	3,756
March	4,638	3,000	1,637	710	212	498	3,927
April	5,310	3,709	1,601	827	94	733	4,483
May	6,016	4,029	1,987	715	98	616	5,301
June	6,802	4,675	2,128	623	240	383	6,179
July	6,784	4,648	2,136	638	65	573	6,145
August	7,075	4,826	2,249	865	233	632	6,210
September	6,977	4,984	1,993	714	161	553	6,263
October	6,217	4,317	1,899	823	151	672	5,394
November	6,335	4,453	1,881	810	115	696	5,524
December	6,468	4,297	2,171	820	159	661	5,648
Average	**6,061**	**4,111**	**1,950**	**772**	**154**	**618**	**5,289**
1987 January	R 6,186	R 4,385	R 1,801	829	96	732	5,358
February	E 5,975	E 4,041	E 1,934	NA	NA	NA	NA
2-Mo. Average	**6,086**	**4,222**	**1,864**	**NA**	**NA**	**NA**	**NA**
1986 2-Mo. Average	**5,023**	**3,175**	**1,848**	**859**	**160**	**699**	**4,164**
1985 2-Mo. Average	**4,177**	**2,428**	**1,749**	**823**	**181**	**642**	**3,354**

Footnotes continued.

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

Figure 3.1 Crude Oil and Natural Gas Liquids Production

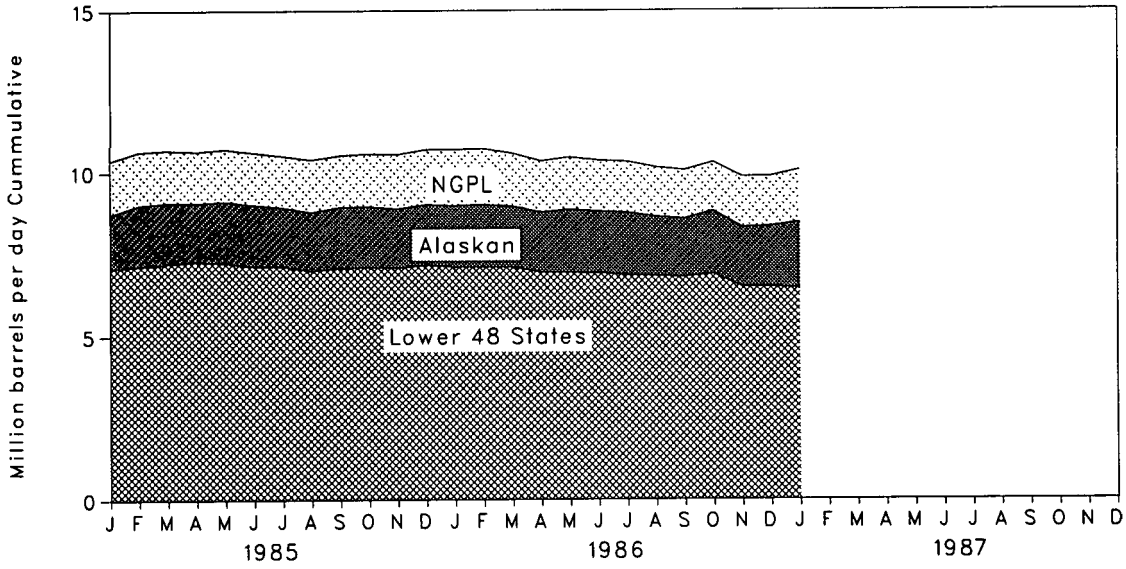


Figure 3.2 Crude Oil Ending Stocks

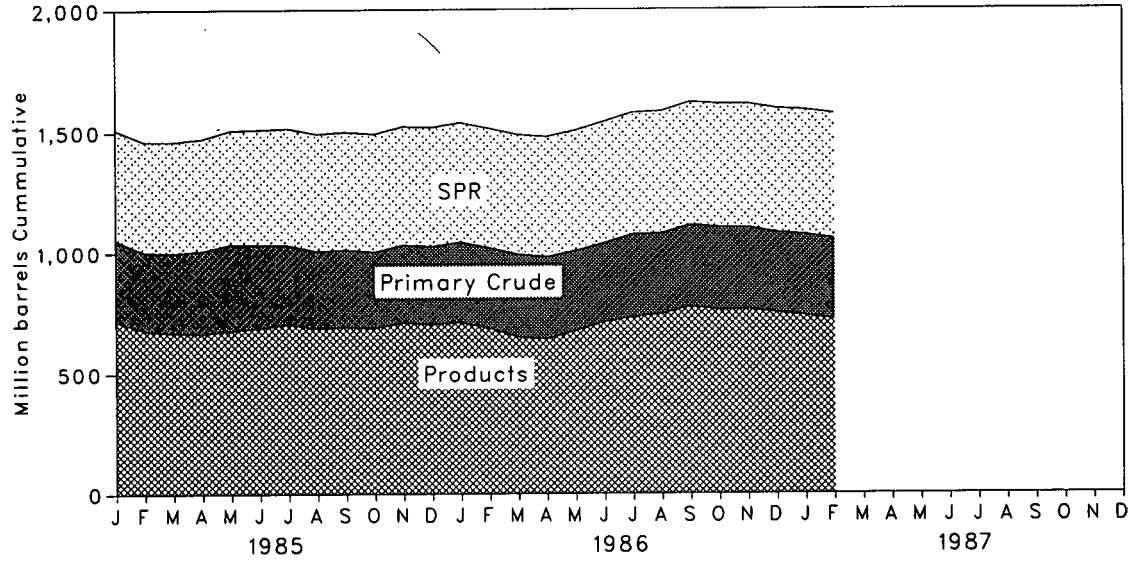


Figure 3.3 Petroleum Products Supplied and Imports

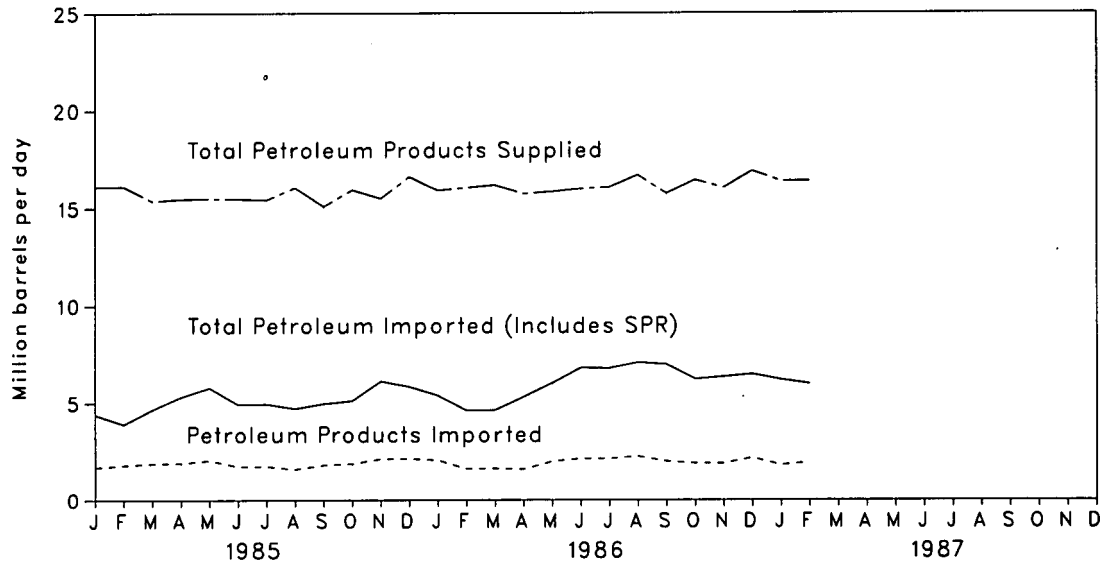


Figure 3.4 Petroleum Imports by Source

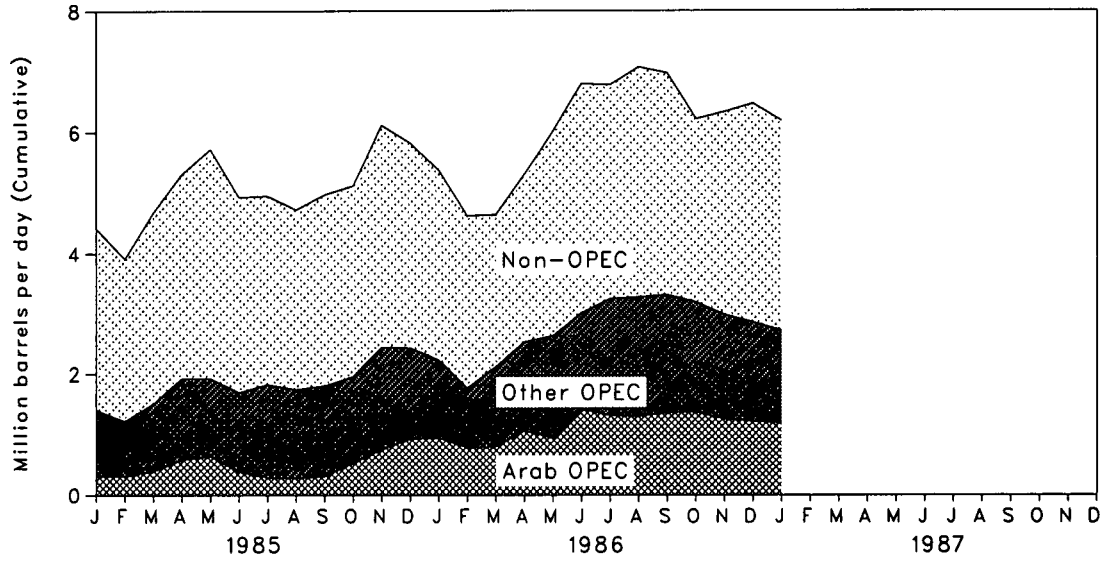


Table 3.2a Crude Oil[a] Supply and Disposition
(Thousand Barrels per Day)

	Supply							
	Field Production		Imports			Stock Withdrawal[c]		Unaccounted for Crude Oil
	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**	**[f] 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**	**[f] 20**	**114**
1984 January	8,868	1,752	3,055	200	2,855	-173	-155	211
February	8,874	1,749	2,950	85	2,866	-96	293	386
March	8,672	1,570	3,470	148	3,322	-147	122	110
April	8,862	1,770	3,417	170	3,248	-170	-307	325
May	8,955	1,764	3,942	246	3,696	-245	-432	309
June	8,852	1,659	3,546	309	3,237	-309	205	246
July	8,885	1,695	3,646	329	3,317	-328	159	-164
August	8,809	1,722	3,248	180	3,068	-179	429	293
September	8,993	1,761	3,342	53	3,289	-53	314	-94
October	8,906	1,732	3,751	187	3,565	-186	-573	291
November	8,979	1,781	3,583	219	3,364	-207	-29	47
December	8,897	1,720	3,136	229	2,907	-241	-50	262
Average	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**-195**	**-4**	**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	9,121	1,870	3,329	51	3,277	-35	-426	609
February	9,181	1,907	3,005	24	2,981	-35	[e]	[e]
March	9,002	1,860	3,000	59	2,941	-49	-289	252
April	8,850	1,836	3,709	63	3,646	-63	90	43
May	8,842	1,927	4,029	36	3,993	-35	300	271
June	8,591	1,887	4,675	64	4,611	-64	114	236
July	8,636	1,903	4,648	52	4,595	-52	-528	315
August	8,391	1,811	4,826	51	4,775	-51	293	96
September	8,333	1,782	4,984	47	4,937	-47	-169	205
October	8,434	1,927	4,317	37	4,281	-36	-166	279
November	8,321	1,820	4,453	45	4,408	-65	125	155
December	8,348	1,850	4,297	48	4,250	-68	258	143
Average	**8,668**	**1,865**	**4,111**	**48**	**4,063**	**-50**	**-34**	**220**
1987 January	[R] 8,477	[R] 2,017	[R] 4,385	[R] 92	[R] 4,293	[R] -108	[R] -81	34
February	[E] 8,383	[E] 1,966	[E] 4,041	[E] 61	[E] 3,980	[E] -81	[E] -66	NA
2-Mo. Average	**8,575**	**2,026**	**4,222**	**78**	**4,145**	**-95**	**-74**	**NA**
1986 2-Mo. Average	**9,149**	**1,888**	**3,175**	**38**	**3,137**	**-35**	**-224**	**320**
1985 2-Mo. Average	**8,875**	**1,756**	**2,428**	**163**	**2,264**	**-163**	**405**	**108**

[a]Includes lease condensate.
[b]Stocks are totals as of end of period.
[c]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[d]Strategic Petroleum Reserve.
[e]Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[f]Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels.
See Notes 5 and 6 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[c]	Crude Losses	Refinery Inputs	Exports	Product Supplied[c]	Total	SPR[d]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 Average	**-19**	**13**	**12,431**	**2**		**242**		**242**
1974 Average	**-15**	**13**	**12,133**	**3**		**265**		**265**
1975 Average	**-17**	**13**	**12,442**	**6**		**271**		**271**
1976 Average	**-18**	**15**	**13,416**	**8**		**285**		**285**
1977 Average	**-14**	**16**	**14,602**	**50**		**348**	**7**	**340**
1978 Average	**-14**	**16**	**14,739**	**158**		**376**	**67**	**309**
1979 Average	**-13**	**16**	**14,648**	**235**		**430**	**91**	**339**
1980 Average	**-13**	**15**	**13,481**	**287**		**[f] 466**	**108**	**[f] 358**
1981 Average	**-58**	**5**	**12,470**	**228**		**594**	**230**	**363**
1982 Average	**-59**	**3**	**11,774**	**236**		**[f] 644**	**294**	**350**
1983 Average	**NA**	**2**	**11,685**	**164**	**66**	**723**	**379**	**344**
1984 January	NA	1	11,587	153	64	733	384	349
February	NA	1	12,157	185	65	727	387	340
March	NA	2	11,926	236	62	728	392	336
April	NA	1	11,891	172	64	742	397	346
May	NA	2	12,247	219	62	763	404	359
June	NA	2	12,255	222	61	767	414	353
July	NA	2	12,028	108	60	772	424	348
August	NA	1	12,346	190	63	764	429	335
September	NA	3	12,271	162	66	756	431	325
October	NA	1	11,978	141	69	780	437	343
November	NA	(s)	12,108	202	62	787	443	344
December	NA	(s)	11,755	185	64	796	451	345
Average	**NA**	**2**	**12,044**	**181**	**64**			
1985 January	NA	1	11,445	144	63	794	457	336
February	NA	1	11,367	221	63	782	460	322
March	NA	1	11,372	189	69	791	462	330
April	NA	1	11,805	236	67	807	465	342
May	NA	1	12,094	250	65	829	472	357
June	NA	1	12,292	226	56	821	477	344
July	NA	1	12,445	154	55	811	484	327
August	NA	(s)	12,045	241	55	806	487	318
September	NA	(s)	11,925	188	55	807	489	317
October	NA	(s)	12,209	123	55	804	490	314
November	NA	(s)	12,410	286	59	812	491	321
December	NA	1	12,570	197	63	814	493	321
Average	**NA**	**1**	**12,002**	**204**	**60**			
1986 January	NA	3	12,375	159	62	826	494	332
February	NA	(s)	11,921	162	68	827	495	332
March	NA	1	11,648	212	56	838	497	341
April	NA	1	12,483	94	51	837	499	338
May	NA	(s)	13,259	98	49	829	500	329
June	NA	(s)	13,260	240	52	827	502	325
July	NA	(s)	12,902	65	51	845	503	342
August	NA	(s)	13,274	233	48	838	505	333
September	NA	(s)	13,098	161	45	844	506	338
October	NA	(s)	12,636	151	41	850	508	343
November	NA	(s)	12,833	115	41	849	509	339
December	NA	(s)	12,778	159	42	843	512	331
Average	**NA**	**1**	**12,710**	**154**	**50**			
1987 January	NA	1	[R] 12,570	96	41	[R] 849	[R] 515	[R] 334
February	NA	NA	[E] 12,166	NA	NA	[E] 849	[E] 517	[E] 333
2-Mo. Average	**NA**	**NA**	**12,378**	**NA**	**NA**			
1986 2-Mo. Average	**NA**	**2**	**12,159**	**160**	**65**			
1985 2-Mo. Average	**NA**	**1**	**11,408**	**181**	**63**			

Footnotes continued.

R=Revised data. NA=Not available. E=Estimated data. (s)=Less than 500 barrels per day.

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

Sources: See end of section.

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

	Imports from OPEC Sources[a]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[b]	Total OPEC	Total Arab OPEC[c]
1973 Average	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 Average	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 Average	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 Average	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 Average	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 Average	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 Average	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 Average	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 Average	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 Average	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 Average	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984 January	242	0	477	114	289	0	243	549	51	1,965	842
February	369	7	324	33	267	0	244	478	174	1,896	751
March	285	0	310	112	283	67	269	358	127	1,811	723
April	280	0	320	95	226	0	288	593	158	1,962	735
May	471	0	329	240	479	0	289	627	242	2,677	1,146
June	302	0	411	46	415	0	243	640	171	2,227	838
July	332	0	429	112	384	0	204	539	242	2,241	946
August	404	0	438	82	281	0	114	475	216	2,009	993
September	359	0	159	113	333	17	160	715	147	2,002	688
October	333	0	287	114	421	0	208	585	115	2,062	754
November	298	0	183	124	424	24	163	564	173	1,954	668
December	204	0	224	211	314	12	166	459	174	1,765	723
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	183	0	664	11	285	0	241	629	216	2,229	944
February	161	0	600	0	277	(s)	199	464	64	1,766	788
March	260	0	482	0	163	0	328	762	117	2,112	798
April	275	0	722	0	282	0	311	802	139	2,532	1,061
May	190	0	564	32	326	0	383	874	266	2,635	944
June	319	0	704	83	353	0	362	755	439	3,014	1,418
July	296	0	713	59	519	66	542	720	330	3,244	1,318
August	363	0	653	37	274	93	593	892	366	3,271	1,300
September	231	0	796	62	341	31	646	848	356	3,310	1,360
October	305	0	685	147	344	0	530	834	344	3,190	1,372
November	311	0	828	34	307	0	444	846	214	2,984	1,255
December	290	0	763	30	232	0	439	819	290	2,862	1,215
Average	**266**	**0**	**681**	**42**	**309**	**16**	**420**	**772**	**263**	**2,768**	**1,149**
1987 January	158	0	873	15	285	0	313	866	215	2,726	1,187

[a]Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.
[b]Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.
[c]Includes 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]										
	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
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**	**5,344**	**5,996**
1982 Average	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**5,936**	**5,113**
1983 Average	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**6,378**	**5,051**
1984 January	159	635	710	279	54	382	53	390	804	3,465	5,430
February	156	620	748	289	77	344	58	418	1,087	3,797	5,693
March	90	694	716	169	93	434	34	248	1,013	3,490	5,301
April	95	705	869	207	91	282	37	257	869	3,410	5,372
May	31	722	676	192	57	429	38	336	819	3,302	5,979
June	52	506	754	234	104	345	53	268	939	3,255	5,482
July	14	577	740	99	120	362	27	292	934	3,166	5,407
August	57	547	640	206	98	388	34	236	829	3,035	5,044
September	98	550	780	133	103	490	38	250	808	3,249	5,252
October	151	682	827	112	122	486	37	321	979	3,717	5,779
November	88	640	841	181	115	544	44	283	897	3,633	5,587
December	75	675	686	161	98	337	46	235	855	3,168	4,933
Average	**88**	**630**	**748**	**188**	**94**	**402**	**42**	**294**	**902**	**6,776**	**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**	**6,458**	**5,067**
1986 January	66	826	680	58	108	348	21	326	724	3,157	5,386
February	15	688	571	11	85	218	20	309	939	2,855	4,622
March	13	741	616	27	79	178	25	186	661	2,526	4,638
April	5	775	693	13	111	188	23	209	762	2,779	5,310
May	30	775	727	38	130	365	27	237	1,052	3,381	6,016
June	24	735	879	17	167	568	30	233	1,135	3,788	6,802
July	36	754	819	25	131	352	29	237	1,156	3,540	6,784
August	35	793	738	12	133	583	7	214	1,289	3,804	7,075
September	12	786	615	17	162	437	23	291	1,324	3,667	6,977
October	35	846	670	26	112	170	21	215	930	3,027	6,217
November	33	951	567	51	129	428	21	179	992	3,350	6,335
December	52	803	741	7	142	366	12	290	1,193	3,607	6,468
Average	**30**	**790**	**694**	**25**	**124**	**351**	**22**	**243**	**1,013**	**3,293**	**6,061**
1987 January	54	777	669	29	99	419	33	327	1,053	3,461	[R] 6,186

Footnotes continued.

[d]Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products that were refined from crude oil produced in OPEC countries.

(s)=Less than 500 barrels per day.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. • Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Sources: See end of section.

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

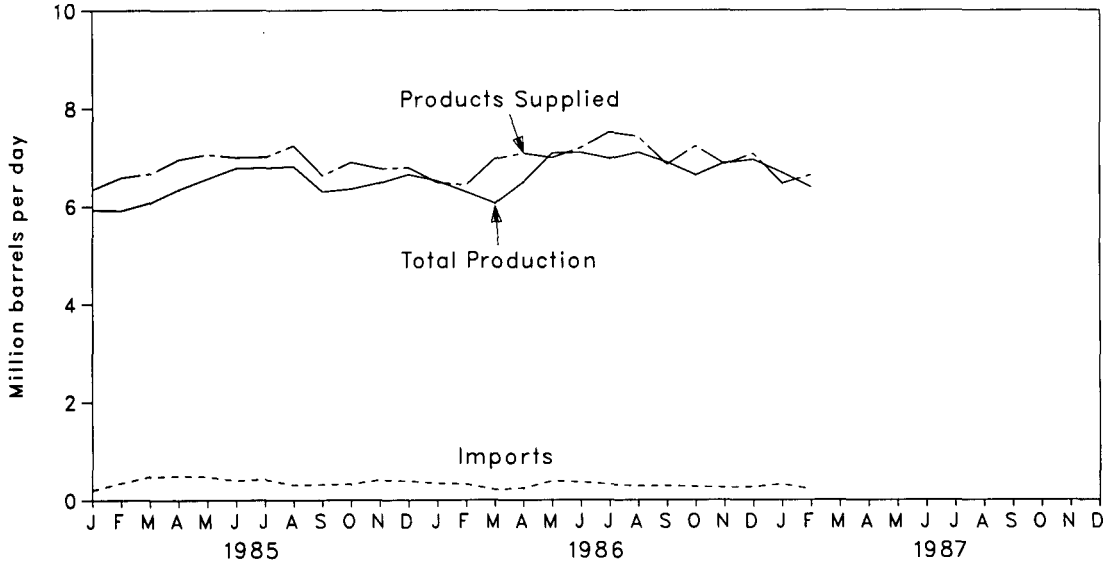


Figure 3.6 Motor Gasoline Ending Stocks

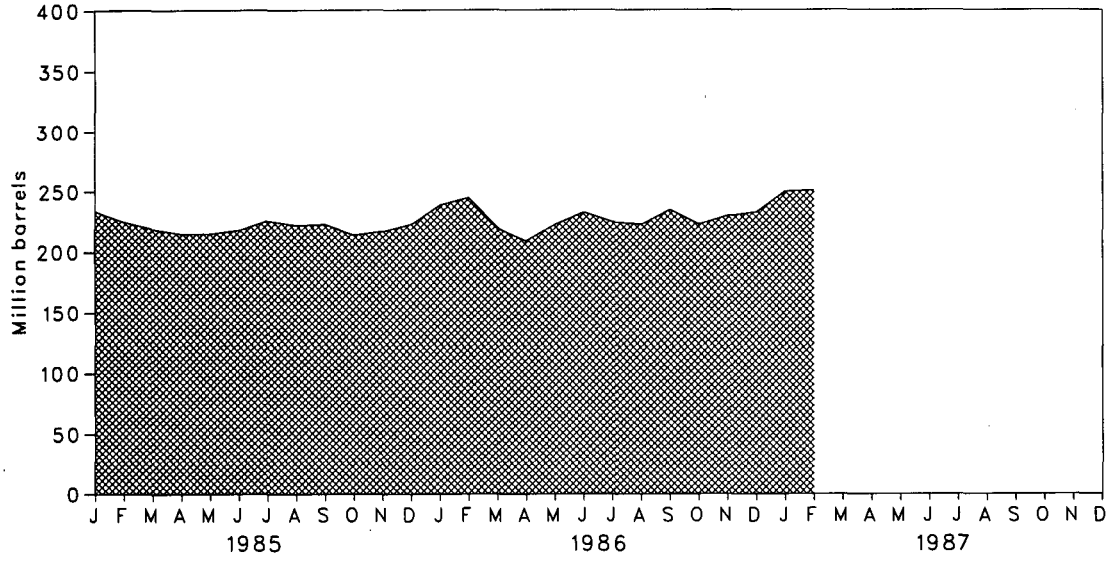


Table 3.4 Finished Motor Gasoline Supply and Disposition

	Supply			Disposition				Ending Stocks[a]	
					Product Supplied				
	Total Production	Imports[b]	Stock Withdrawal[b] [c]	Exports	Total	Unleaded[d]	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
	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**			**[f] 218**	
1975 Average	**6,520**	**184**	**[f] -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**	**[f] 261**	
1981 Average[g]	**6,405**	**157**	**[f] 28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
1982 Average	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**	**[f] 235**	
1983 Average	**6,340**	**247**	**[f] 45**	**10**	**6,622**	**3,647**	**55.1**	**222**	**186**
1984 January	6,036	231	-1	1	6,265	3,605	[h] 57.6	226	186
February	6,317	299	-383	2	6,231	3,585	57.5	237	197
March	6,359	355	-176	9	6,528	3,750	57.4	243	202
April	6,525	319	-167	(s)	6,676	3,857	57.8	248	207
May	6,650	346	-105	(s)	6,890	4,004	58.1	253	210
June	6,619	296	209	17	7,107	4,214	59.3	246	204
July	6,450	247	142	9	6,830	4,057	59.4	238	200
August	6,405	242	447	1	7,093	4,283	60.4	224	186
September	6,516	349	-275	2	6,588	3,973	60.3	234	194
October	6,388	308	34	1	6,729	4,093	60.8	232	193
November	6,709	286	-183	11	6,800	4,245	62.4	240	199
December	6,478	308	-215	16	6,555	4,168	63.6	243	205
Average	**6,453**	**299**	**-54**	**6**	**6,693**	**3,987**	**59.6**		
1985 January	5,926	204	220	2	6,348	4,016	63.3	234	198
February	5,914	348	327	2	6,587	4,126	62.6	225	189
March	6,072	481	115	3	6,664	4,202	63.1	219	186
April	6,344	494	128	11	6,956	4,396	63.2	215	182
May	6,564	480	23	8	7,060	4,445	63.0	215	181
June	6,780	396	-172	7	6,997	4,482	64.1	218	186
July	6,788	426	-188	18	7,008	4,545	64.8	226	192
August	6,814	305	127	4	7,242	4,755	65.7	222	188
September	6,299	314	22	6	6,629	4,357	65.7	223	187
October	6,356	324	235	19	6,897	4,485	65.0	214	180
November	6,480	410	-104	17	6,770	4,477	66.1	217	183
December	6,651	386	-227	18	6,792	4,561	67.2	223	190
Average	**6,419**	**381**	**41**	**10**	**6,831**	**4,406**	**64.5**		
1986 January	6,522	341	-376	0	6,487	4,404	67.9	239	201
February	6,297	325	-185	0	6,438	4,341	67.4	245	207
March	6,060	211	699	0	6,970	4,706	67.5	220	185
April	6,497	241	346	0	7,083	4,813	68.0	209	175
May	7,088	388	-481	0	6,995	4,714	67.4	223	190
June	7,102	368	-269	0	7,200	4,934	68.5	233	198
July	6,974	317	228	0	7,519	5,232	69.6	225	191
August	7,105	287	82	40	7,434	5,131	69.0	223	188
September	6,900	289	-292	40	6,857	4,800	70.0	235	197
October	6,639	268	379	54	7,232	5,068	70.1	223	185
November	6,884	253	-189	85	6,863	4,882	71.1	230	191
December	6,955	263	-117	24	7,077	5,129	72.5	233	194
Average	**6,755**	**296**	**-12**	**20**	**7,018**	**4,850**	**69.1**		
1987 January	[R] 6,688	[R] 320	[R] -484	55	[R] 6,469	4,775	73.8	[R] 250	[R] 209
February	[E] 6,388	[E] 214	[E] 86	NA	[E] 6,638	NA	NA	[E] 251	[E] 209
2-Mo. Average	**6,546**	**270**	**-213**	**NA**	**6,550**	**NA**	**NA**		
1986 2-Mo. Average	**6,415**	**334**	**-285**	**0**	**6,464**	**4,374**			
1985 2-Mo. Average	**5,920**	**272**	**271**	**2**	**6,462**	**4,068**			

[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In 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.
[g] Beginning in January 1981, survey forms were modified. See Note 2 at end of section.
[h] Due to rounding difference, this value is 57.5 in the *Petroleum Supply Annual* and the *Petroleum Supply Monthly*.
R=Revised data. NA=Not available. E=Estimated data. (s)=Less than 500 barrels per day.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Sources: See end of section.

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

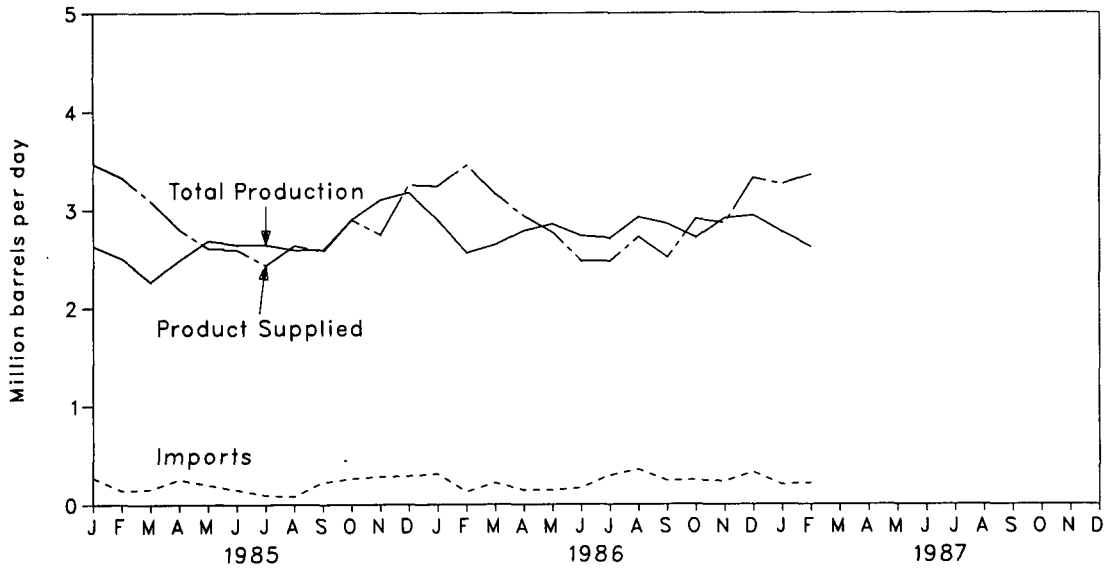


Figure 3.8 Distillate Fuel Oil Ending Stocks

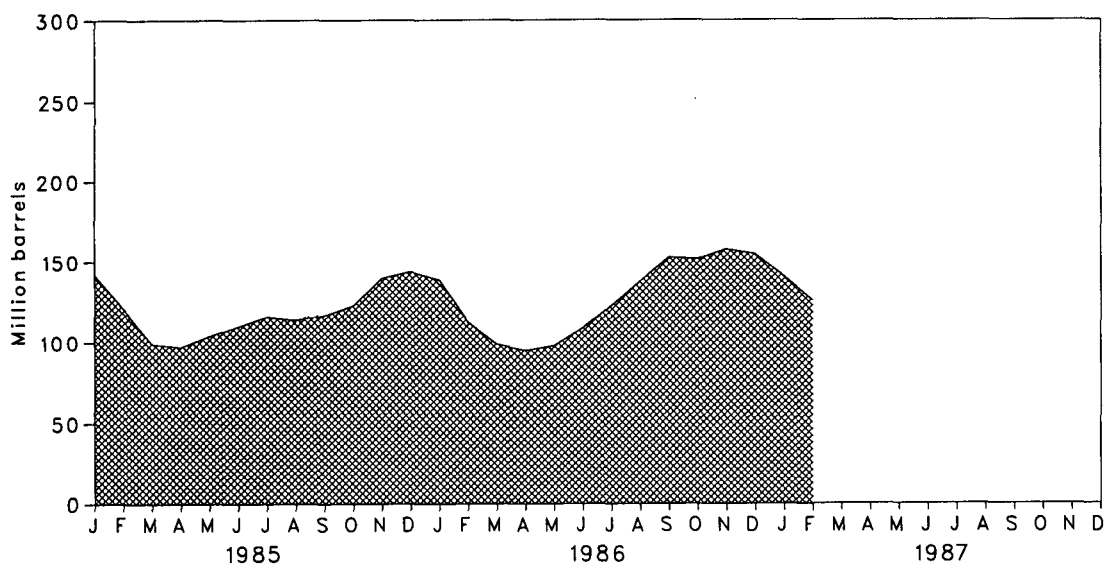


Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		
	Total Production	Imports	Stock Withdrawal[a]	Crude Used Directly[b]	Exports	Product Supplied[b]	Ending Stocks[c]
	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 January	2,591	299	676	NA	40	3,525	119
February	2,867	454	-446	NA	41	2,834	132
March	2,479	115	731	NA	66	3,259	110
April	2,342	220	396	NA	32	2,926	98
May	2,624	253	-15	NA	48	2,814	98
June	2,880	256	-490	NA	53	2,593	113
July	2,719	199	-373	NA	40	2,504	124
August	2,661	259	-287	NA	74	2,559	133
September	2,707	291	-321	NA	22	2,654	143
October	2,691	421	-300	NA	47	2,765	152
November	2,826	316	-291	NA	24	2,827	161
December	2,798	190	-3	NA	120	2,865	161
Average	**2,681**	**272**	**-57**	**NA**	**51**	**2,845**	
1985 January	2,631	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	312	157	NA	126	3,243	139
February	2,563	129	938	NA	176	3,455	113
March	2,647	217	436	NA	131	3,168	99
April	2,788	146	132	NA	128	2,939	95
May	2,857	145	-81	NA	149	2,771	98
June	2,735	165	-367	NA	53	2,480	109
July	2,712	293	-452	NA	75	2,478	123
August	2,926	355	-491	NA	64	2,726	138
September	2,859	240	-486	NA	98	2,515	153
October	2,717	246	17	NA	74	2,907	152
November	2,915	233	-209	NA	72	2,867	158
December	2,943	326	110	NA	55	3,323	155
Average	**2,798**	**235**	**-30**	**NA**	**100**	**2,904**	
1987 January	R 2,774	R 197	R 440	NA	152	R 3,259	R 141
February	E 2,621	E 214	E 584	NA	NA	E 3,356	E 126
2-Mo. Average	**2,702**	**205**	**508**	**NA**	**NA**	**3,305**	
1985 2-Mo. Average	**2,740**	**225**	**528**	**NA**	**149**	**3,343**	
1984 2-Mo. Average	**2,571**	**211**	**672**	**NA**	**52**	**3,401**	

[a]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[b]Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Note 4 at end of section.
[c]Stocks are totals as of end of period.
[d]In 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.
[e]Beginning in January 1981, survey forms were modified. See Note 2 at end of section.
R=Revised data. NA=Not available. E=Estimated 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.

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

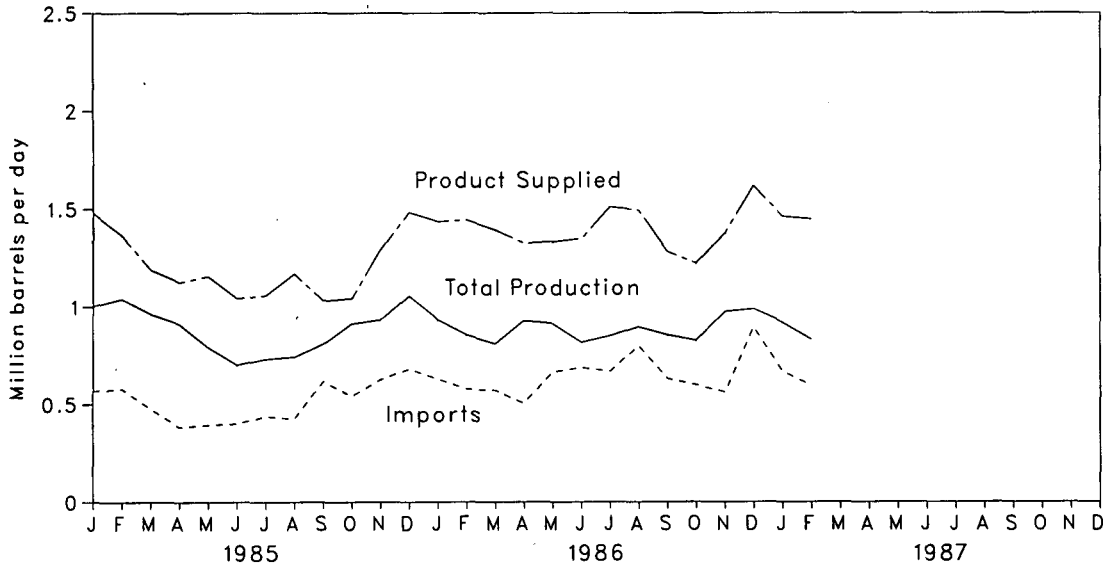


Figure 3.10 Residual Fuel Oil Ending Stocks

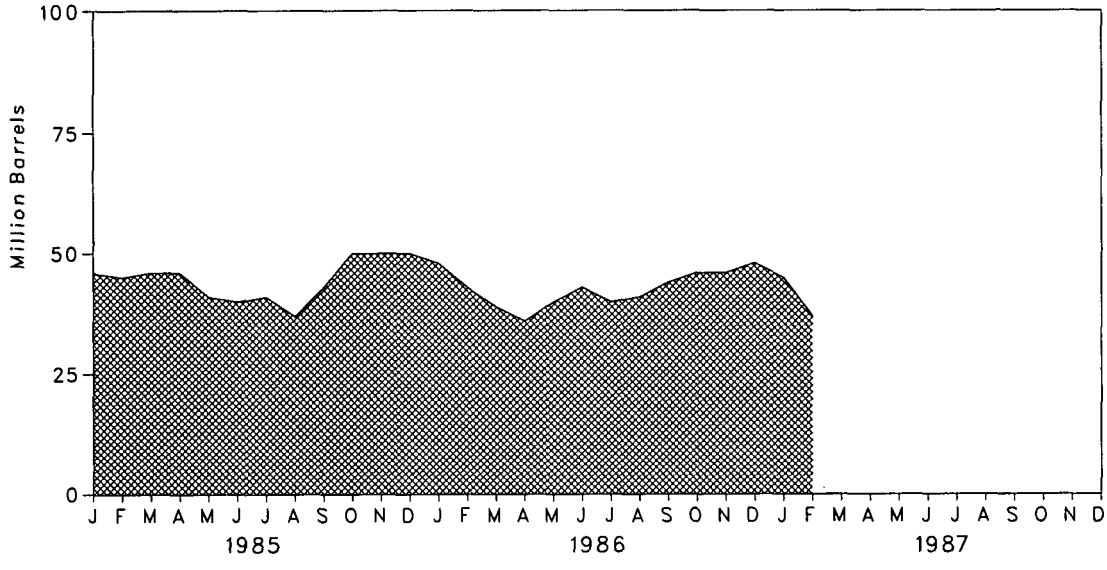


Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply				Disposition		
	Total Production	Imports	Stock Withdrawal[a]	Crude Used Directly[b]	Exports	Product Supplied[b]	Ending Stocks[c]
	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 January	961	1,059	110	NA	151	1,979	45
February	1,003	1,151	-416	NA	87	1,651	57
March	889	636	298	NA	204	1,619	48
April	847	651	15	NA	130	1,384	47
May	840	565	32	NA	200	1,237	46
June	849	685	-15	NA	176	1,344	47
July	770	597	-76	NA	99	1,192	49
August	800	572	149	NA	260	1,261	45
September	850	606	-74	NA	214	1,168	47
October	907	461	-127	NA	174	1,066	51
November	928	585	125	NA	286	1,352	47
December	1,053	627	-193	NA	299	1,189	53
Average	**891**	**681**	**-12**	**NA**	**190**	**1,369**	
1985 January	1,004	568	219	NA	312	1,480	46
February	1,040	580	41	NA	295	1,366	45
March	963	477	-35	NA	216	1,190	46
April	912	383	-2	NA	167	1,126	46
May	793	394	155	NA	185	1,156	41
June	702	400	59	NA	118	1,043	40
July	732	437	-29	NA	83	1,058	41
August	742	424	108	NA	106	1,168	37
September	808	617	-207	NA	188	1,031	43
October	912	541	-228	NA	184	1,042	50
November	932	627	5	NA	275	1,290	50
December	1,055	681	-4	NA	250	1,483	50
Average	**882**	**510**	**7**	**NA**	**197**	**1,202**	
1986 January	933	629	83	NA	211	1,435	48
February	856	577	193	NA	183	1,443	43
March	810	571	125	NA	113	1,393	39
April	927	504	96	NA	202	1,325	36
May	913	665	-117	NA	129	1,333	40
June	818	687	-114	NA	43	1,349	43
July	850	668	82	NA	90	1,510	40
August	896	799	-26	NA	174	1,493	41
September	855	631	-92	NA	110	1,283	44
October	826	598	-59	NA	144	1,220	46
November	974	562	-15	NA	143	1,378	46
December	987	894	-39	NA	224	1,618	48
Average	**887**	**650**	**9**	**NA**	**147**	**1,399**	
1987 January	[R] 919	[R] 667	[R] 80	NA	204	[R] 1,462	[R] 45
February	[E] 832	[E] 596	[E] 210	NA	NA	[E] 1,448	[E] 37
2-Mo. Average	**877**	**633**	**142**	**NA**	**NA**	**1,455**	
1986 2-Mo. Average	**897**	**605**	**135**	**NA**	**198**	**1,439**	
1985 2-Mo. Average	**1,021**	**573**	**135**	**NA**	**304**	**1,426**	

[a]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[b]Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Note 4 at end of section.
[c]Stocks are totals as of end of period.
[d]In 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.
[e]Beginning in January 1981, survey forms were modified. See Note 2 at end of section.
R=Revised data. NA=Not available. E=Estimated 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.

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

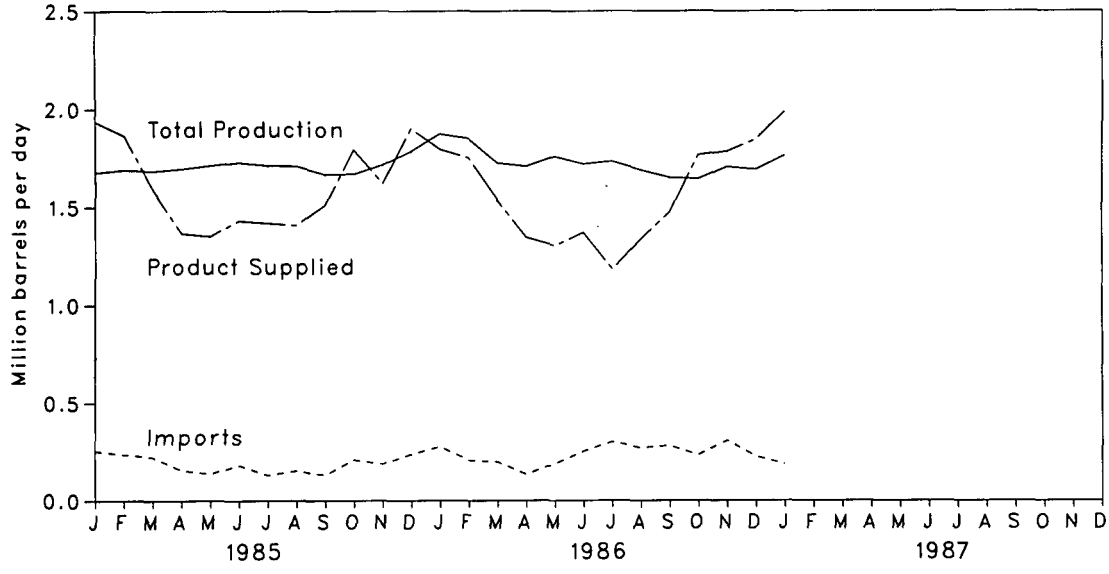


Figure 3.12 Liquefied Petroleum Gases Ending Stocks

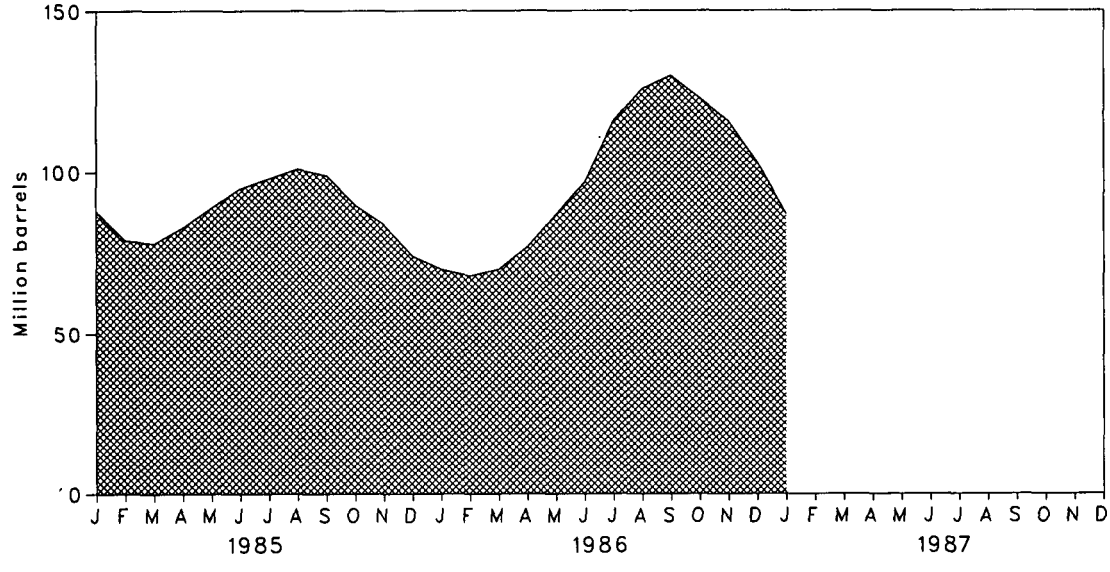


Table 3.7 Liquefied Petroleum Gases[a] Supply and Disposition

	Supply			Disposition			
	Total Production	Imports	Stock Withdrawal[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
	Thousand Barrels per Day						Million Barrels
1973 Average	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 Average	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	**[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	**• 1,527**	**226**	**111**	**300**	**65**	**1,499**	**[d] 94**
1983 Average	**1,642**	**190**	**4**	**253**	**73**	**1,509**	**[d] 101**
1984 January	1,615	269	[d] 494	340	23	2,015	93
February	1,696	237	122	324	41	1,690	89
March	1,696	241	12	288	68	1,593	89
April	1,716	155	-139	253	54	1,426	93
May	1,714	211	-240	244	42	1,399	100
June	1,714	158	-201	237	53	1,380	106
July	1,725	132	-139	232	43	1,444	111
August	1,711	154	-100	241	34	1,490	114
September	1,693	128	-50	283	26	1,462	115
October	1,684	207	138	322	56	1,650	111
November	1,716	212	89	376	52	1,588	108
December	1,679	237	239	349	82	1,724	101
Average	**1,697**	**195**	**19**	**291**	**48**	**1,572**	
1985 January	1,676	255	399	322	70	1,937	88
February	1,689	237	330	320	72	1,865	79
March	1,684	223	29	297	52	1,588	78
April	1,696	156	-143	262	78	1,368	83
May	1,713	138	-219	239	40	1,353	89
June	1,728	181	-175	250	51	1,432	95
July	1,713	131	-107	249	68	1,420	98
August	1,710	153	-98	277	80	1,409	101
September	1,667	132	61	321	29	1,510	99
October	1,669	209	304	340	47	1,794	90
November	1,716	188	192	387	88	1,620	84
December	1,786	239	337	386	75	1,901	74
Average	**1,704**	**187**	**75**	**304**	**62**	**1,599**	
1986 January	1,874	277	75	382	47	1,797	70
February	1,850	208	98	330	75	1,752	68
March	1,726	199	-90	252	47	1,536	70
April	1,708	134	-203	259	33	1,347	77
May	1,759	189	-339	265	40	1,305	87
June	1,721	253	-348	230	25	1,371	97
July	1,734	303	-600	203	50	1,184	116
August	1,689	271	-326	243	53	1,338	126
September	1,651	282	-141	291	27	1,474	130
October	1,644	234	247	332	26	1,767	123
November	1,706	310	241	418	53	1,785	116
December	1,692	227	415	456	33	1,845	103
Average	**1,729**	**241**	**-82**	**305**	**42**	**1,540**	
1987 January	1,764	188	493	419	38	1,988	87

[a]Includes ethane, propane, normal butane, and isobutane.
[b]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[c]Stocks are totals as of end of period.
[d]In 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.
[e]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 moy 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			
	Total Production	Imports	Stock Withdrawal[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
	Thousand Barrels per Day						Million Barrels
1973 Average	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974 Average	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	**[d] 218**
1975 Average	**3,424**	**277**	**[d] -2**	**537**	**160**	**3,002**	**219**
1976 Average	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977 Average	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978 Average	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979 Average	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980 Average	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	**[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 January	3,376	517	[d] -163	570	207	2,953	253
February	3,595	602	-250	754	225	2,966	261
March	3,512	485	-227	527	258	2,988	268
April	3,584	610	-211	623	268	3,092	274
May	3,683	662	-105	764	257	3,218	277
June	3,869	541	391	1,232	343	3,223	265
July	3,864	587	277	1,022	238	3,467	257
August	3,848	569	41	637	172	3,650	256
September	3,759	536	-50	699	238	3,308	257
October	3,585	632	10	709	180	3,336	257
November	3,532	606	81	945	279	2,997	254
December	3,379	434	464	1,016	284	2,977	240
Average	**3,632**	**565**	**23**	**791**	**245**	**3,183**	
1985 January	3,285	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	3,805	498	-165	925	311	2,899	252
February	3,759	377	-197	768	270	2,901	258
March	3,646	440	7	822	208	3,066	257
April	3,658	576	-108	759	369	2,998	261
May	3,970	600	-68	803	298	3,400	263
June	4,138	655	-130	855	263	3,548	267
July	4,093	555	128	1,084	357	3,334	263
August	4,177	537	345	1,112	301	3,647	252
September	4,160	552	14	865	278	3,581	252
October	3,923	553	-120	712	375	3,273	255
November	3,872	524	40	976	342	3,118	254
December	3,879	461	101	1,124	325	2,992	251
Average	**3,924**	**528**	**-11**	**902**	**308**	**3,231**	
1987 January	3,835	428	-152	665	283	3,164	256

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

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

[c]Stocks are totals as of end of period.

[d]In 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.

[e]Due to a rounding difference, this value is 2,869 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.

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 imbalance 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*.

- January 1981 through December 1985: EIA, *Petroleum Supply Annual*.

- January 1986 through January 1987: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).

- January 1987: Estimates based on EIA weekly data (except domestic crude oil production).

- January 1986 through January 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 January 1987 was an estimated 1.5 trillion cubic feet, slightly more than in January 1986.

Consumption of natural and supplemental gas in January 1987 was an estimated 1.8 trillion cubic feet. That level was 15.9 percent lower than in January 1986.

Deliveries to residential consumers during December 1986 (latest data available) were 610 billion cubic feet, 5.7 percent lower than in December 1985. Consumption by residential users during 1986 totaled 4.4 trillion cubic feet, 0.7 percent lower than in the previous year. Total deliveries to industrial consumers during December 1986 were an estimated 443 billion cubic feet. This was 22.4 percent lower than in December 1985. Estimated consumption by industrial users during 1986 totaled 5.2 trillion cubic feet, 11.4 percent below the 1985 level.

Imports of natural gas in January 1987 were an estimated 110 billion cubic feet, 12.2 percent higher than in the previous January.

Stocks of working gas[2] in underground natural gas storage reservoirs at the end of January 1987 totaled 2,279 billion cubic feet. That total was 2.9 percent above stocks available 1 year earlier. Net withdrawals from storage during January 1987 were 471 billion cubic feet, 20.2 percent more than during the previous January.

[2]Gas available for withdrawal.

Table 4.1 Natural Gas Production
(Billion Cubic Feet)

	Gross Wet Gas Withdrawals[a]	Used for Repressuring[b]	Nonhydrocarbon Gas Removed[c]	Vented and Flared	Marketed Production (Wet)[d]	Extraction Loss[e]	Total Dry Gas Production[e]
1973 Total	**24,067**	**1,171**	**NA**	**248**	**[f] 22,648**	**917**	**[f] 21,731**
1974 Total	**22,850**	**1,080**	**NA**	**169**	**[f] 21,601**	**887**	**[f] 20,713**
1975 Total	**21,104**	**861**	**NA**	**134**	**[f] 20,109**	**872**	**[f] 19,236**
1976 Total	**20,944**	**859**	**NA**	**132**	**[f] 19,952**	**854**	**[f] 19,098**
1977 Total	**21,097**	**935**	**NA**	**137**	**[f] 20,025**	**863**	**[f] 19,163**
1978 Total	**21,309**	**1,181**	**NA**	**153**	**[f] 19,974**	**852**	**[f] 19,122**
1979 Total	**21,883**	**1,245**	**NA**	**167**	**[f] 20,471**	**808**	**[f] 19,663**
1980 Total	**21,870**	**1,365**	**199**	**125**	**20,180**	**777**	**19,403**
1981 Total	**21,587**	**1,312**	**222**	**98**	**19,956**	**775**	**19,181**
1982 Total	**20,210**	**1,388**	**208**	**93**	**18,520**	**762**	**17,758**
1983 Total	**18,597**	**1,458**	**222**	**95**	**16,822**	**790**	**16,033**
1984 January	1,887	135	21	9	1,723	79	1,644
February	1,650	127	17	8	1,497	69	1,428
March	1,693	125	19	9	1,540	71	1,469
April	1,666	132	18	9	1,507	69	1,438
May	1,668	138	19	9	1,503	69	1,434
June	1,619	135	18	9	1,456	67	1,389
July	1,676	137	20	10	1,509	69	1,440
August	1,653	137	19	9	1,487	68	1,419
September	1,574	132	16	9	1,417	65	1,352
October	1,661	143	19	9	1,490	69	1,421
November	1,656	142	17	10	1,487	68	1,419
December	1,789	146	21	8	1,613	74	1,539
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	1,771	147	20	7	1,596	73	1,523
February	1,539	135	18	7	1,379	63	1,316
March	1,655	152	20	7	1,475	68	1,407
April	1,495	138	19	6	1,331	61	1,270
May	1,517	140	18	6	1,353	62	1,291
June	1,457	129	16	6	1,305	60	1,245
July	1,504	132	19	6	1,346	62	1,284
August	1,495	134	18	6	1,337	62	1,275
September	1,460	131	17	6	1,306	60	1,246
October	1,521	135	18	6	1,362	63	1,299
November	1,529	137	18	6	1,368	63	1,305
December	[E] 1,765	[E] 158	[E] 21	[E] 7	[E] 1,579	[E] 73	[E] 1,506
Total	**18,708**	**1,668**	**222**	**76**	**16,737**	**770**	**15,967**
1987 January	[E] 1,789	[E] 160	[E] 21	[E] 7	[E] 1,601	[E] 74	[E] 1,527

[a]Gas withdrawn from gas and oil wells.
[b]Gas returned to formations for repressuring, pressure maintenance, and cycling.
[c]For definitions and further explanations, see Notes at end of section.
[d]Equal 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.
[e]Equal to marketed production (wet) minus extraction loss.
[f]May include unknown quantities of nonhydrocarbon gases.
NA=Not available. E=Estimated 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 4.2 Natural Gas Supply and Disposition
(Billion Cubic Feet)

	Supply					Disposition			
	Total Dry Gas Production	Withdrawals from Storage[a]	Supplemental Gaseous Fuels[b]	Imports[b]	Total Supply/ Disposition[c]	Additions to Storage[a]	Exports[b]	Consumption[b]	Unaccounted 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**	[R] **1,921**	**NA**	**964**	[R] **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**	[R] **2,158**	**NA**	**966**	[R] **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 January	1,644	580	13	97	2,334	55	5	2,340	-66
February	1,428	310	10	69	1,817	61	5	1,954	-203
March	1,469	371	10	69	1,919	49	6	1,840	24
April	1,438	102	8	71	1,619	147	5	1,598	-131
May	1,434	31	7	66	1,538	259	5	1,347	-73
June	1,389	28	7	59	1,483	329	3	1,176	-25
July	1,440	29	7	55	1,531	353	5	1,152	21
August	1,419	31	8	54	1,512	324	5	1,154	29
September	1,352	31	8	57	1,448	295	5	1,085	63
October	1,421	48	8	67	1,544	247	5	1,180	112
November	1,419	231	11	84	1,745	85	5	1,393	262
December	1,539	309	13	94	1,955	94	5	1,732	124
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	1,523	441	16	98	2,078	49	5	2,110	-86
February	1,316	400	14	73	1,803	59	5	1,857	-118
March	1,407	233	15	54	1,709	121	5	1,701	-118
April	1,270	81	12	43	1,406	152	4	1,319	-69
May	1,291	50	13	48	1,402	278	4	1,149	-29
June	1,245	27	13	46	1,331	270	5	1,022	34
July	1,284	31	10	47	1,372	286	4	1,020	62
August	1,275	27	10	50	1,362	287	5	981	89
September	1,246	27	10	55	1,336	246	4	933	153
October	1,299	53	11	66	1,429	205	5	1,005	214
November	1,305	199	12	75	1,591	72	5	1,234	280
December	[E] 1,506	377	15	99	1,997	39	4	[R] 1,666	[R] 288
Total	**15,967**	**1,943**	**151**	**754**	**18,816**	**2,064**	**55**	[R] **15,999**	[R] **698**
1987 January	[E] 1,527	518	17	110	2,172	47	5	1,774	346

[a]Data 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.
[b]For definitions and further explanations, see Notes at end of section.
[c]Data for 1978 through 1982 do not include intransit receipts and deliveries.
[d]*May include unknown quantities of nonhydrocarbon gases.*
[e]See Note 7 at end of section.
R=Revised data. NA=Not available. E=Estimated 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 4.3 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 January	102	55	886	437	645	215	2,183	2,340
February	88	44	700	354	581	187	1,822	1,954
March	91	46	605	311	581	206	1,703	1,840
April	89	41	463	243	542	220	1,468	1,598
May	89	42	287	160	504	265	1,216	1,347
June	86	42	170	108	472	298	1,048	1,176
July	89	44	128	97	445	349	1,019	1,152
August	88	43	118	98	457	350	1,023	1,154
September	84	40	127	101	442	291	961	1,085
October	88	42	182	128	470	270	1,050	1,180
November	88	42	323	193	502	245	1,263	1,393
December	95	48	566	294	512	217	1,589	1,732
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	90	49	805	395	587	184	1,971	2,110
February	77	43	698	348	534	157	1,737	1,857
March	83	42	592	294	520	170	1,576	1,701
April	75	36	371	191	449	197	1,208	1,319
May	76	38	242	134	428	231	1,035	1,149
June	73	37	158	99	395	260	912	1,022
July	76	38	129	89	387	301	906	1,020
August	75	38	120	91	381	276	868	981
September	73	36	133	93	351	246	824	933
October	77	38	189	119	367	215	890	1,005
November	77	38	355	192	385	186	1,119	1,234
December	89	47	610	302	443	175	1,530	[R] 1,666
Total	**941**	**480**	**4,404**	**2,348**	**5,226**	**2,600**	**14,578**	**15,999**

[a]Includes supplemental gaseous fuels.
[b]Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. • Data 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 January	3,847	2,091	5,937	-553	-20.9	54	571	-517
February	3,828	1,876	5,704	-480	-20.4	60	305	-244
March	3,824	1,572	5,396	-575	-26.8	48	365	-317
April	3,822	1,620	5,442	-454	-21.9	144	100	44
May	3,827	1,843	5,670	-379	-17.1	254	30	224
June	3,828	2,141	5,969	-313	-12.7	323	27	296
July	3,829	2,456	6,285	-239	-8.9	346	28	317
August	3,829	2,740	6,569	-168	-5.8	318	30	288
September	3,829	2,996	6,825	-144	-4.6	289	30	259
October	3,837	3,175	7,011	-95	-2.9	242	47	195
November	3,900	3,015	6,915	-160	-5.0	83	227	-145
December	3,830	2,876	6,706	281	10.8	92	304	-213
Total						**2,252**	**2,064**	**188**
1985 January	3,841	2,242	6,083	151	7.2	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

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

[b]Positive numbers indicate injections are greater than withdrawals. Negative numbers indicate withdrawals are greated than injections. Net injections or withdrawals may not equal the differance 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

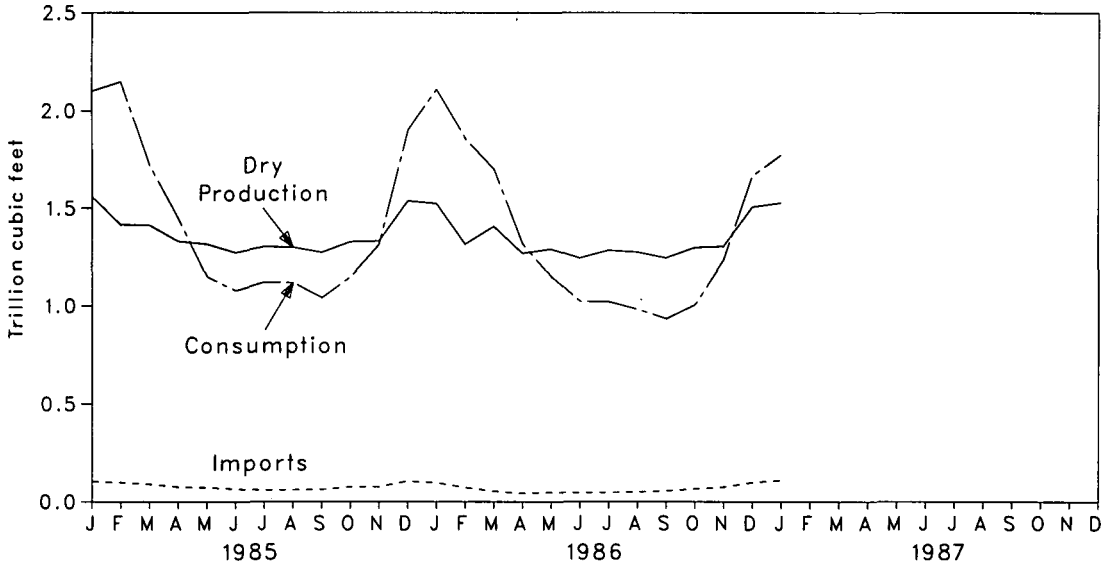
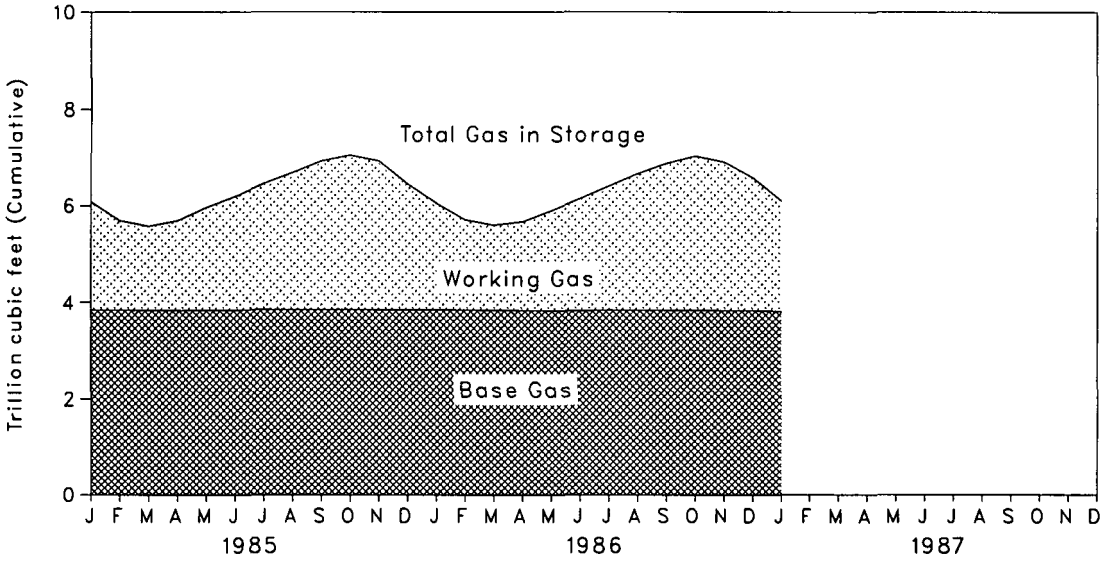


Figure 4.2 Natural Gas in Storage at End of Period



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 monthy supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Mexico and Canada, and liquefied natural gas (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 January 1987, 160 crews were engaged in seismic exploration, 48.4 percent fewer than the 310 in January 1986. The 18 marine vessels were 53.8 percent fewer and the 142 land crews were 47.6 percent fewer than the 271 crews working in January 1986. The total number of crews increased 2.0 percent from the previous month.

The February 1987 rotary rig count of 818 was 43.4 percent less than the 1,444 rigs active in February 1986 and 9.1 percent less than the rigs in January 1987. The 75 rigs operating offshore in February 1987 were 54.3 percent fewer than the 164 rigs operating offshore 1 year earlier. The 743 rigs operating onshore were 42.0 percent fewer than the 1,280 rigs operating onshore in February 1986.

Exploratory and development well completions during January 1987 were an estimated 2,800, 54.5 percent less than the 6,160 completions estimated in January 1986 but 14.8 percent more than completions in December 1986. Oil well completions were an estimated 1,330, 60.2 percent lower than the 3,340 oil well completions in the previous January. The 560 gas well completions in January 1987 were 46.2 percent lower than the January 1986 number of 1,040. Total footage drilled in January 1987 was 12.5 million feet, a decrease of 51.9 percent compared with the 25.9 million feet drilled in January 1986, but an increase of 14.2 percent from the footage drilled in December 1986.

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

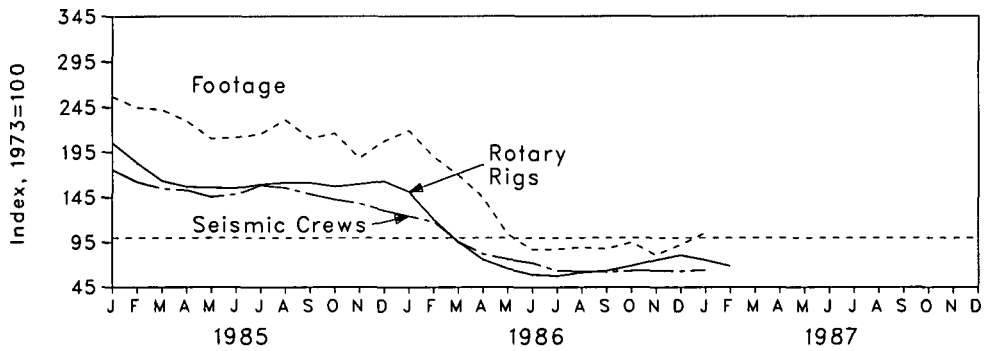


Figure 5.2 Exploratory and Development Well Completions

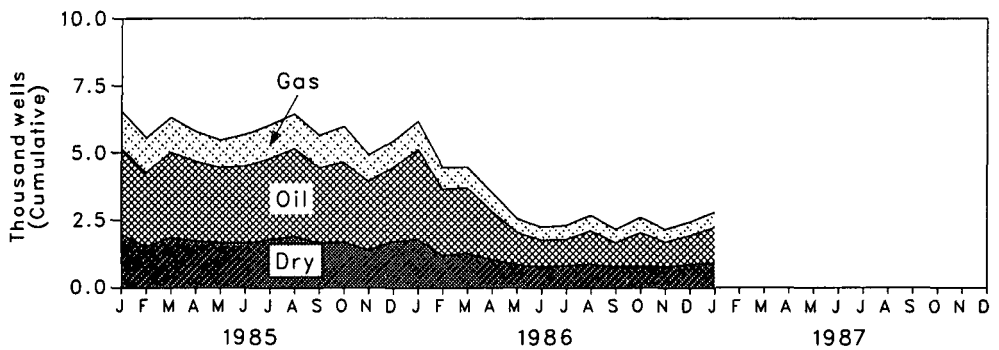


Table 5.1 Seismic Crew and Rotary Rig Count

	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 January	50	427	477	216	2,450	2,666
February	53	433	486	202	2,221	2,423
March	47	424	471	198	2,047	2,245
April	50	423	473	203	1,917	2,120
May	46	444	490	202	2,075	2,277
June	45	455	500	205	2,158	2,363
July	47	482	529	206	2,180	2,386
August	53	470	523	216	2,201	2,417
September	52	472	524	214	2,206	2,420
October	48	449	497	223	2,269	2,492
November	49	444	493	232	2,397	2,629
December	52	414	466	242	2,471	2,713
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	NA	NA	NA	75	743	818

[a]Monthly 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**	**33.03**	**153.79**
1975 Total	**16.98**	**8.17**	**13.74**	**38.89**	**181.05**
1976 Total	**17.70**	**9.44**	**13.80**	**40.94**	**187.29**
1977 Total	**18.70**	**12.12**	**15.04**	**45.86**	**215.70**
1978 Total	**19.06**	**14.40**	**16.59**	**50.05**	**238.39**
1979 Total	**20.70**	**15.17**	**16.04**	**51.91**	**243.69**
1980 Total	**32.28**	**17.22**	**20.34**	**69.84**	**312.30**
1981 Total	**42.84**	**19.91**	**27.28**	**90.03**	**408.83**
1982 Total	**38.73**	**18.73**	**25.89**	**83.34**	**374.43**
1983 Total	**36.88**	**14.36**	**23.79**	**75.03**	**314.96**
1984 January	3.44	1.39	2.29	7.12	31.97
February	3.28	1.31	1.81	6.40	28.58
March	3.34	1.14	1.80	6.28	28.91
April	3.17	.99	1.72	5.88	25.98
May	3.62	1.32	1.97	6.92	30.36
June	3.77	1.46	2.36	7.59	31.67
July	3.83	1.41	2.29	7.54	32.00
August	3.77	1.58	2.53	7.87	32.90
September	3.56	1.42	2.09	7.07	29.58
October	3.63	1.58	2.08	7.28	31.93
November	3.58	1.66	2.03	7.28	30.95
December	3.47	1.55	2.12	7.14	30.87
Total	**42.46**	**16.81**	**25.09**	**84.36**	**365.72**
1985 January	3.17	R 1.40	1.98	R 6.55	R 30.41
February	2.73	1.30	1.52	5.56	26.17
March	3.16	1.30	1.84	6.30	28.70
April	2.95	1.11	1.72	5.77	26.34
May	2.79	1.02	1.65	5.46	24.85
June	2.85	1.18	1.64	5.67	24.18
July	3.01	1.25	1.77	6.03	25.50
August	3.26	1.28	1.89	6.44	27.35
September	2.79	1.21	1.64	5.64	24.09
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	**34.96**	**R 14.36**	**20.42**	**R 69.74**	**R 309.30**
1986 January	R 3.34	R 1.04	R 1.78	R 6.16	R 25.94
February	2.46	.80	1.19	4.44	R 20.32
March	2.43	.77	1.26	4.46	20.11
April	1.79	.70	1.03	3.52	16.63
May	1.19	.52	.86	2.57	12.32
June	.98	.50	.78	2.26	9.97
July	R .96	R .53	R .82	R 2.31	R 10.31
August	1.23	.58	.87	2.45	10.60
September	.87	.51	R .78	R 2.15	R 9.93
October	1.23	R .57	R .80	R 2.60	R 11.22
November	.91	R .48	.78	R 2.17	R 9.28
December	1.05	.52	.87	2.44	10.94
Total	**R 18.20**	**R 7.52**	**R 11.81**	**R 37.53**	**R 167.57**
1987 January	1.33	.56	.91	2.80	12.49

[a]Data 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.

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 January 1987 totaled 72.5 million short tons, 7.6 percent below the January record high of 78.5 million short tons produced in January 1986.

Electric utility coal consumption in December 1986 totaled 59.1 million short tons, 6.8 percent below the 63.4 million short tons consumed in December 1985. Based on preliminary data, total coal consumption at power plants was 685.1 million short tons in 1986, 1.3 percent below the record 693.8 million short tons consumed in 1985.

Electric utility coal stocks at the end of December 1986 were 161.9 million short tons, 3.5 percent more than the 156.4 million short tons of stocks at the end of December 1985.

Exports of coal in December 1986 totaled 6.5 million short tons, 9.5 percent less than the 7.2 million short tons exported during December 1985. Coal exports in 1986 totaled 85.5 million short tons, 7.7 percent less than the 92.7 million short tons exported in 1985. Of the 60 countries that received coal in 1986, most exports were to Canada (14.5 million short tons), Japan (11.4 million short tons), and Italy (10.4 million short tons). Based on an average value of $45.95 per short ton, U.S. coal exports in 1986 were valued at approximately $3.9 billion.

Coal imports totaled 185,000 short tons in December 1986, compared with 260,000 short tons imported in December 1985. Total 1986 coal imports were 2.2 million short tons (the highest level of imported coal since 1978), 13.3 percent higher than the 2.0 million short tons imported in 1985. Coal was imported chiefly from South Africa (1.0 million short tons), Colombia (0.7 million short tons), and Canada (0.4 million short tons). Total coal imports in 1986 were valued at approximately $80 million, based on an average value of $36.02 per short ton.

Figure 6.1 Coal Production, Consumption, Imports, and Exports

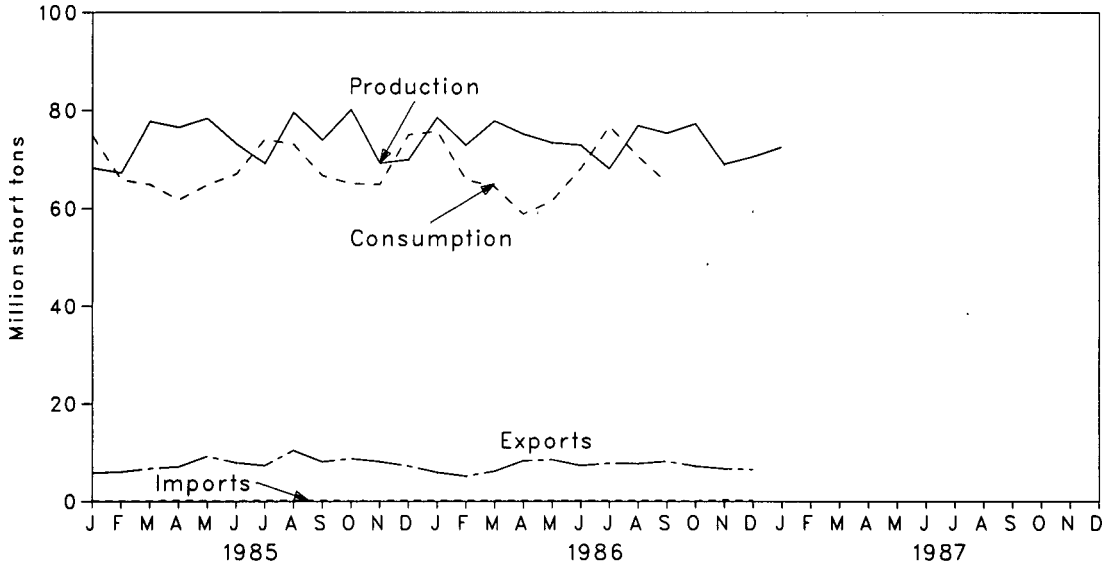


Figure 6.2 Coal Stocks at End of Period

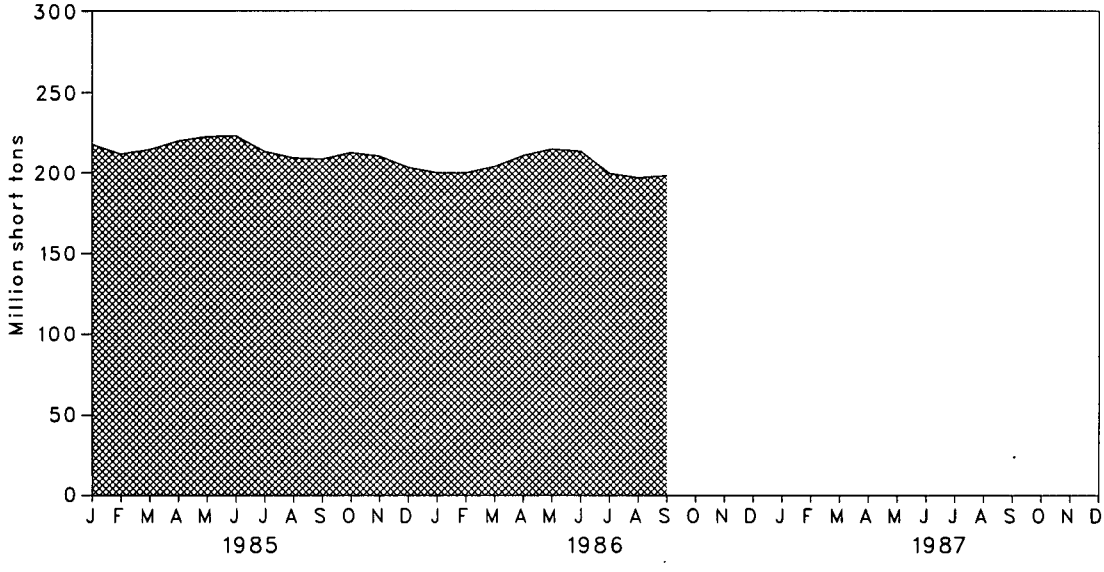


Table 6.1 Coal Overview
(Thousand Short Tons)

	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 January	67,921	71,919	81	5,062	196,985
February	73,670	62,994	140	4,251	203,771
March	81,524	65,028	55	5,813	208,548
April	72,751	58,945	148	7,688	215,023
May	81,073	60,164	72	8,221	223,262
June	76,402	66,707	49	7,828	224,906
July	74,785	70,421	193	8,318	223,118
August	90,823	73,558	147	8,235	230,224
September	78,984	64,133	95	8,710	237,720
October	69,785	64,664	104	6,641	238,350
November	64,388	64,613	68	4,190	234,702
December	63,815	68,147	134	6,526	231,300
Total	**895,921**	**791,291**	**1,286**	**81,483**	
1985 January	68,261	74,846	126	5,817	218,131
February	67,233	65,776	101	6,030	212,035
March	77,744	64,862	103	6,696	214,825
April	76,541	61,753	203	7,065	220,230
May	78,382	64,796	159	9,231	222,798
June	73,237	66,978	138	7,913	223,210
July	69,228	74,163	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	65,032	128	8,744	212,920
November	69,268	64,865	111	8,134	210,656
December	69,989	75,080	260	7,220	203,367
Total	**883,638**	**817,925**	**1,952**	**92,680**	
1986 January	78,543	75,764	154	5,935	199,930
February	72,929	65,814	209	5,158	199,871
March	77,829	64,422	122	6,152	203,984
April	75,195	58,872	214	8,302	211,111
May	73,432	61,513	172	8,545	215,162
June	72,967	68,149	190	7,323	213,854
July	68,116	76,781	178	7,780	199,572
August	76,879	70,669	171	7,718	196,909
September	75,355	65,287	188	8,189	198,274
October	77,262	NA	110	7,205	NA
November	69,044	NA	319	6,676	NA
December	70,604	NA	185	6,536	NA
Total	**888,155**	**NA**	**2,212**	**85,518**	
1987 January	72,547	NA	NA	NA	NA

[a]Inculudes Puerto Rico.

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

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

NA=Not available.

Notes: • Geographic coverage is the 5υ 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 January	60,225	3,791	6,858	1,045	71,919
February	52,257	3,592	6,230	915	62,994
March	54,534	3,843	5,999	652	65,028
April	47,565	4,180	6,273	928	58,945
May	49,507	4,100	5,997	560	60,164
June	56,971	3,564	5,729	443	66,707
July	60,359	3,639	5,730	694	70,421
August	63,396	3,620	5,886	656	73,558
September	54,045	3,557	5,659	872	64,133
October	54,753	3,317	5,902	692	64,664
November	54,229	3,346	6,305	733	64,613
December	56,560	3,473	7,176	938	68,147
Total	**664,399**	**44,022**	**73,744**	**9,128**	**791,291**
1985 January	63,645	3,463	6,911	830	74,846
February	55,491	3,282	6,278	726	65,776
March	54,784	3,511	6,046	518	64,862
April	50,903	3,851	6,236	764	61,753
May	54,595	3,778	5,962	461	64,796
June	57,634	3,284	5,696	365	66,978
July	64,252	3,437	5,950	523	74,163
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	65,032
November	54,311	3,192	6,605	758	64,865
December	63,402	3,313	7,517	969	75,080
Total	**693,841**	**41,057**	**75,372**	**7,779**	**817,925**
1986 January	64,032	3,508	7,323	902	75,764
February	55,049	3,324	6,652	789	65,814
March	53,898	3,555	6,406	563	64,422
April	48,114	3,602	6,354	803	58,872
May	51,420	3,533	6,075	485	61,513
June	58,892	3,071	5,804	383	68,149
July	68,021	2,591	5,698	470	76,781
August	61,794	2,578	5,853	444	70,669
September	56,536	2,534	5,628	589	65,287
October	54,112	NA	NA	NA	NA
November	54,158	NA	NA	NA	NA
December	59,108	NA	NA	NA	NA
Total	**685,133**	**NA**	**NA**	**NA**	**NA**

[a]See Note 2 at end of section.
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 January	149,403	4,947	8,593	162,943	34,042	196,985
February	155,593	5,548	8,476	169,617	34,154	203,771
March	159,775	6,149	8,359	174,283	34,265	208,548
April	165,592	7,171	9,137	181,900	33,123	215,023
May	173,171	8,194	9,915	191,280	31,982	223,262
June	174,155	9,217	10,693	194,065	30,841	224,906
July	171,095	9,658	11,904	192,657	30,461	223,118
August	176,928	10,099	13,116	200,143	30,081	230,224
September	183,151	10,541	14,327	208,019	29,701	237,720
October	184,779	9,083	13,324	207,186	31,164	238,350
November	182,130	7,625	12,320	202,075	32,627	234,702
December	179,727	6,166	11,317	197,210	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	9,879	165,260	34,670	199,930
February	151,157	3,185	9,321	163,663	36,208	199,871
March	154,409	3,067	8,763	166,239	37,745	203,984
April	161,076	3,224	8,965	173,264	37,847	211,111
May	164,667	3,380	9,166	177,213	37,949	215,162
June	162,899	3,537	9,367	175,803	38,051	213,854
July	150,089	3,313	9,555	162,958	36,614	199,572
August	148,899	3,090	9,743	161,731	35,178	196,909
September	151,737	2,866	9,930	164,533	33,741	198,274
October	156,898	NA	NA	NA	NA	NA
November	160,911	NA	NA	NA	NA	NA
December	161,890	NA	NA	NA	NA	NA

[a]Total excludes stocks held at retail dealers for consumption by the residential and commercial sector.
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 December 1986, electric utilities generated 213.6 billion kilowatthours of electricity, 2.6 percent below the December 1985 generation level. Coal-fired generation totaled 118.4 billion kilowatthours, 7.4 percent below the December 1985 level. Nuclear generation totaled 39.5 billion kilowatthours, 16.8 percent above the December 1985 level. Hydroelectric generation was 26.0 billion kilowatthours in December 1986, 2.4 percent above the December 1985 level. Natural gas-fired generation was 16.8 billion kilowatthours, 15.9 percent below the level 1 year earlier. Petroleum-fired generation totaled 11.9 billion kilowatthours, 6.4 percent above the December 1985 level.

During 1986, electric utilities generated 2,489.3 billion kilowatthours of electricity, 0.8 percent above the 1985 generation level. Coal-fired generation totaled 1,387.8 billion kilowatthours, 1.0 percent below the level 1 year earlier. Nuclear generation totaled 414.0 billion kilowatthours, 7.9 percent above the 1985 level. Hydroelectric generation was 291.2 billion kilowatthours in 1986, 3.6 percent above the 1985 level. Natural gas-fired generation was 248.2 billion kilowatthours, 15.0 percent below the level 1 year earlier. Petroleum-fired generation totaled 136.6 billion kilowatthours, 36.3 percent above the 1985 level.

Sales of electricity to all ultimate consumers in the United States in December 1986 were 199.9 billion kilowatthours, 8.3 percent above November 1986 sales. Sales to residential consumers during December 1986 were 73.1 billion kilowatthours, 23.0 percent above the level of sales during the previous month. Commercial sales were 53.3 billion kilowatthours, 4.3 percent above the amount sold to commercial consumers 1 month earlier. Sales to industrial consumers totaled 66.1 billion kilowatthours in December 1986, 1.6 percent less than the previous month's figure. In December 1986 other sales totaled 7.3 billion kilowatthours, 6.7 percent above the November 1986 level.

Electric utility petroleum consumption (excluding petroleum coke) during December 1986 was 20.0 million barrels, 5.0 percent above the December 1985 level. Coal consumption during December 1986 was 59.1 million short tons, 6.8 percent below the December 1985 rate. During December 1986, electric utilities consumed 175.2 billion cubic feet of natural gas, 16.7 percent below the December 1985 consumption level.

On December 31, 1986, utility stocks of all types of coal totaled 161.9 million short tons. Those stockpiles were 3.5 percent above the level of December 31, 1985. Petroleum stocks (excluding petroleum coke) on December 31, 1986, totaled 73.1 million barrels, 0.8 percent below the level on the same date in 1985.

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 January	120,850	15,939	20,245	29,313	29,737	547	216,632
February	104,706	10,053	17,827	28,436	27,900	643	189,564
March	111,158	10,806	19,645	27,345	30,435	719	200,107
April	97,542	7,450	21,197	24,231	29,970	695	181,084
May	100,139	8,422	25,304	25,867	31,814	673	192,217
June	115,426	11,152	28,345	25,299	28,773	654	209,648
July	121,094	10,397	33,327	28,284	27,495	648	221,245
August	127,744	12,836	33,292	29,493	25,137	794	229,296
September	108,862	7,713	27,839	29,146	20,911	728	195,198
October	110,801	7,874	25,783	24,774	20,887	819	190,936
November	109,759	9,232	23,728	24,575	22,259	827	190,380
December	113,601	7,935	20,863	30,872	25,834	892	199,996
Total	**1,341,681**	**119,808**	**297,394**	**327,634**	**321,150**	**8,638**	**2,416,304**
1985 January	129,092	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	130,017	11,088	17,473	36,219	21,815	1,123	217,735
February	110,999	9,513	14,925	32,721	23,319	956	192,433
March	110,390	10,070	16,149	30,773	28,346	984	196,711
April	100,141	9,228	18,880	30,477	27,562	891	187,180
May	105,889	10,438	21,947	31,924	27,244	904	198,346
June	120,154	11,563	24,766	31,334	26,230	974	215,022
July	136,654	16,296	28,711	35,894	24,073	1,045	242,673
August	123,618	15,466	26,350	37,483	21,183	1,059	225,159
September	113,957	10,676	23,381	36,593	21,119	896	206,622
October	108,575	9,868	20,750	36,214	21,218	873	197,497
November	109,045	10,466	18,011	34,947	23,153	782	196,404
December	118,359	11,894	16,845	39,470	25,964	1,022	213,554
Total	**1,387,798**	**136,568**	**248,188**	**414,047**	**291,228**	**11,509**	**2,489,337**

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

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

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

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

	Residential	Commercial	Industrial	Other[b]	Total
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 January	83,295	49,243	66,709	7,289	206,537
February	69,818	46,293	67,445	6,690	190,246
March	63,656	45,232	69,684	6,902	185,475
April	56,373	43,052	69,048	6,339	174,813
May	53,519	44,150	70,774	6,559	175,003
June	59,955	49,454	73,037	6,714	189,160
July	71,020	53,922	71,843	7,006	203,791
August	73,138	53,603	74,534	7,089	208,364
September	67,456	52,854	71,275	6,780	198,365
October	55,965	48,061	70,945	6,732	181,702
November	56,543	45,937	68,688	6,840	178,008
December	66,916	46,481	66,606	6,908	186,910
Total	**777,654**	**578,281**	**840,588**	**81,849**	**2,278,372**
1985 January	77,242	49,634	67,219	7,270	201,364
February	78,011	49,406	66,582	7,046	201,045
March	63,981	46,629	67,437	6,875	184,922
April	56,025	45,826	68,445	7,049	177,345
May	52,842	47,711	70,140	6,903	177,596
June	60,652	51,521	70,091	6,848	189,112
July	70,966	56,128	69,760	7,135	203,989
August	73,693	57,041	71,402	7,277	209,414
September	71,064	55,960	70,744	7,263	205,030
October	57,515	49,978	69,158	6,903	183,554
November	56,794	47,843	67,164	7,264	179,065
December	72,192	51,289	66,383	7,243	197,107
Total	**790,977**	**608,968**	**824,523**	**85,075**	**2,309,543**
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	E 73,131	E 53,301	E 66,149	E 7,296	E 199,876
Total	**825,730**	**646,615**	**818,005**	**86,549**	**2,376,898**

[a]Electricity sales to all ultimate consumers.
[b]Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.
[c]Beginning with January 1986, monthly electricity sales estimates are based on a new sample and new expansion factors from data reported on Form EIA-861, "Annual Electric Utility Report."
E=Estimated data.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA), • 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; • March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; • January 1983 forward: Form EIA-826, "Electric Utility Company Monthly Statement."

Figure 7.1 Coal Consumed to Produce Electricity

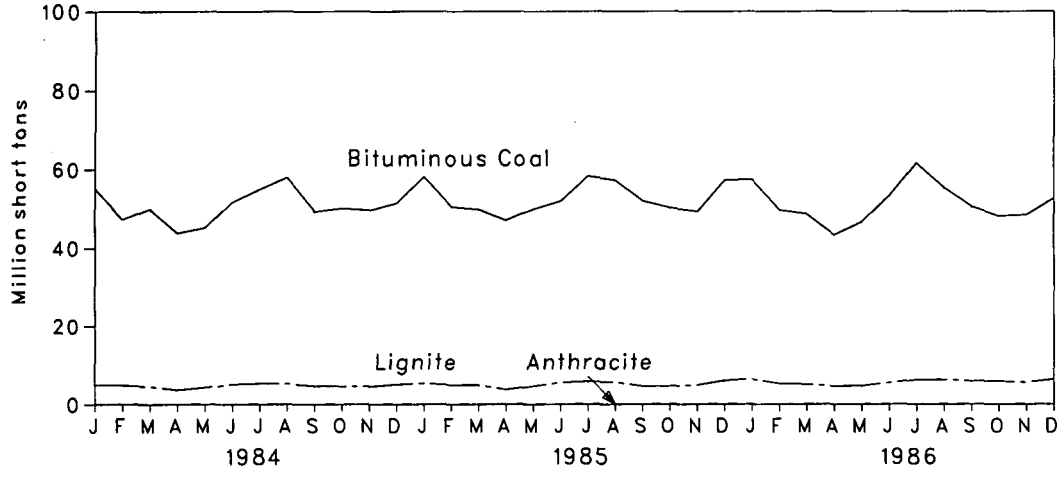


Figure 7.2 Petroleum Consumed to Produce Electricity

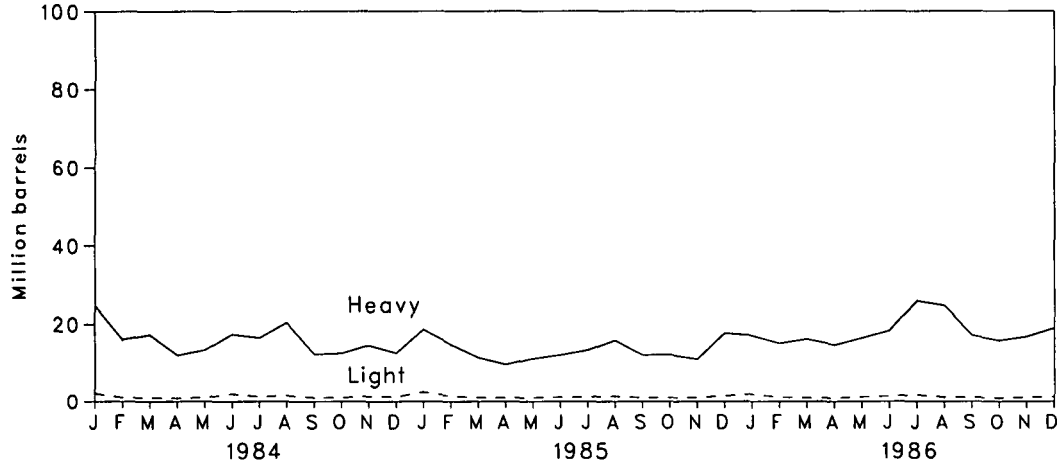


Figure 7.3 Natural Gas Consumed to Produce Electricity

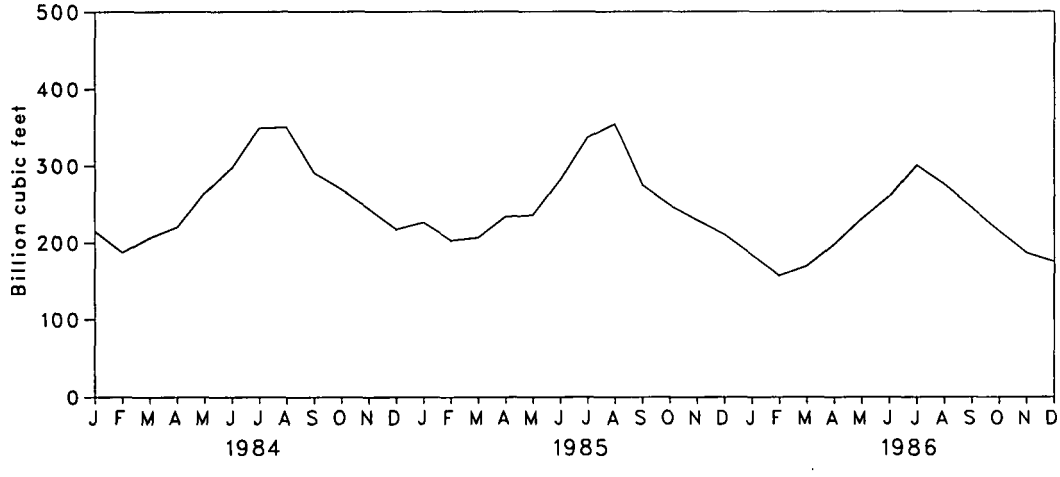


Table 7.3 Fossil Fuels Consumed at Electric Utilities to Generate Electricity

	Coal				Petroleum				Natural Gas[c]
	Anthracite	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**	**3,157,669**
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 January	98	55,142	4,985	60,225	24,745	2,176	26,921	24	215,027
February	75	47,279	4,904	52,257	16,091	1,018	17,108	21	187,259
March	69	49,921	4,543	54,534	17,274	1,016	18,290	18	206,171
April	83	43,779	3,703	47,565	11,971	831	12,802	22	220,005
May	99	45,115	4,294	49,507	13,327	1,010	14,337	23	264,522
June	102	51,757	5,112	56,971	17,363	1,927	19,289	23	297,560
July	100	54,928	5,331	60,359	16,453	1,259	17,712	22	348,848
August	97	58,026	5,273	63,396	20,337	1,522	21,859	20	349,878
September	81	49,288	4,675	54,045	12,235	996	13,231	21	290,595
October	83	50,091	4,578	54,753	12,450	965	13,415	19	269,629
November	91	49,595	4,543	54,229	14,543	1,326	15,870	17	244,637
December	93	51,418	5,050	56,560	12,499	1,146	13,645	20	217,210
Total	**1,070**	**606,339**	**56,990**	**664,399**	**189,289**	**15,190**	**204,479**	**252**	**3,111,342**
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	57,483	6,482	64,032	17,037	1,905	18,942	15	184,025
February	50	49,673	5,325	55,049	14,978	1,100	16,077	15	157,070
March	88	48,691	5,119	53,898	16,090	954	17,044	23	169,698
April	84	43,345	4,684	48,114	14,538	893	15,431	23	197,459
May	68	46,629	4,723	51,420	16,386	1,207	17,593	25	231,265
June	64	53,332	5,496	58,892	18,173	1,390	19,564	24	260,174
July	67	61,669	6,285	68,021	25,839	1,727	27,567	26	300,877
August	64	55,415	6,314	61,794	24,633	1,155	25,788	31	276,178
September	47	50,574	5,916	56,536	17,102	1,108	18,210	31	246,323
October	57	48,147	5,907	54,112	15,714	869	16,584	26	215,448
November	84	48,451	5,623	54,158	16,656	1,076	17,732	34	186,477
December	88	52,634	6,386	59,108	18,794	1,191	19,984	38	175,181
Total	**829**	**616,044**	**68,260**	**685,133**	**215,940**	**14,576**	**230,515**	**313**	**2,600,175**

[a]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[b]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[c]Includes supplemental gaseous fuels.
[d]Prior 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

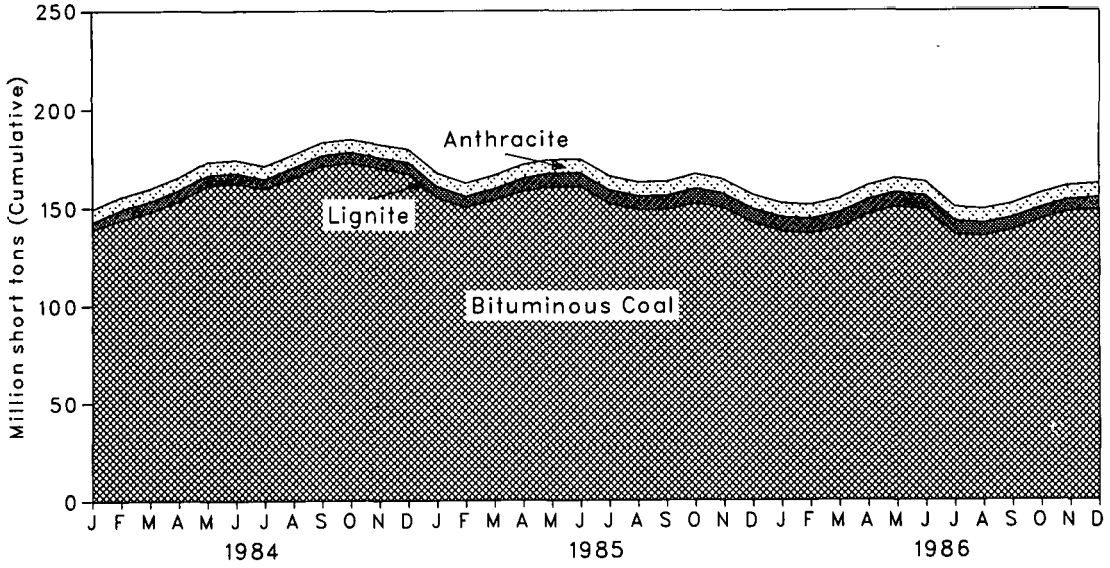


Figure 7.5 Petroleum Stocks at Electric Utilities at End of Period

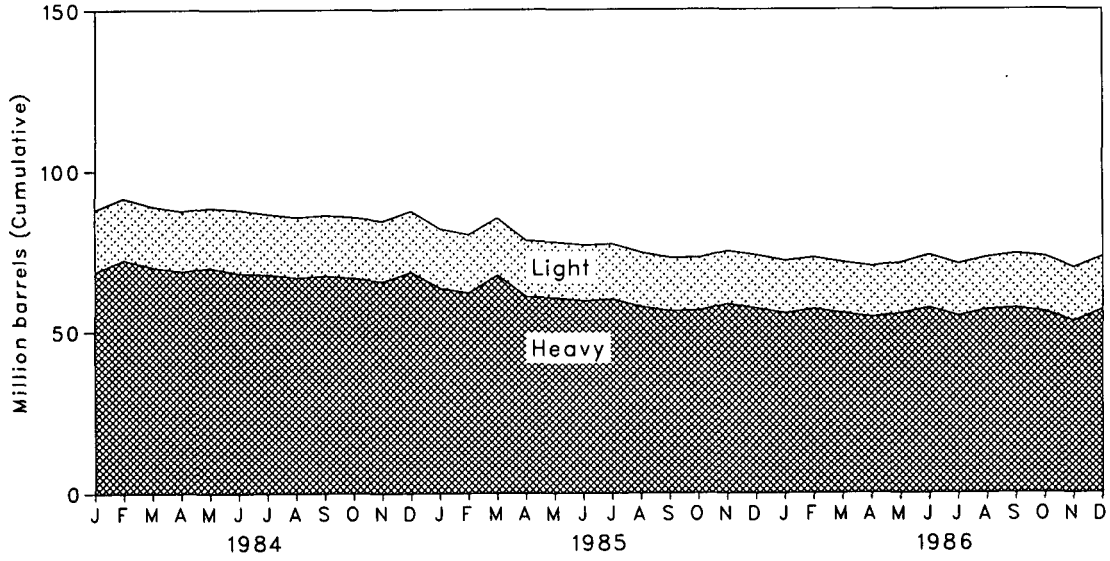


Table 7.4 Coal and Petroleum Stocks at Electric Utilities at End of Period

	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 January	6,500	139,026	3,877	149,403	68,679	19,369	88,048	43
February	6,510	143,731	5,352	155,593	72,339	19,227	91,566	41
March	6,519	147,756	5,500	159,775	69,984	19,058	89,042	45
April	6,515	153,300	5,777	165,592	68,771	18,849	87,620	47
May	6,532	161,067	5,573	173,171	69,890	18,695	88,584	51
June	6,541	162,426	5,188	174,155	68,098	19,807	87,906	51
July	6,530	159,683	4,883	171,095	67,856	18,840	86,696	50
August	6,583	164,987	5,358	176,928	66,836	18,795	85,632	47
September	6,628	170,987	5,536	183,151	67,370	18,921	86,291	49
October	6,674	172,553	5,552	184,779	66,717	18,965	85,682	49
November	6,715	169,788	5,627	182,130	65,548	18,875	84,423	43
December	6,710	167,118	5,899	179,727	68,503	19,116	87,619	50
1985 January	6,719	155,067	5,806	167,592	63,546	18,518	82,064	57
February	6,736	150,077	5,717	162,531	62,094	18,088	80,182	50
March	6,782	153,739	5,834	166,355	62,558	17,837	80,395	43
April	6,836	158,218	6,641	171,695	60,889	17,398	78,286	31
May	6,905	160,326	6,967	174,198	60,530	17,236	77,765	33
June	6,991	160,595	6,959	174,545	59,629	17,218	76,846	33
July	7,045	151,809	7,049	165,903	60,116	17,034	77,151	43
August	7,109	148,698	7,018	162,825	57,820	16,699	74,519	42
September	7,185	148,637	7,243	163,065	56,487	16,442	72,930	40
October	7,258	151,999	7,492	166,749	56,676	16,292	72,968	43
November	7,223	149,579	7,272	164,075	58,720	16,250	74,970	47
December	7,189	142,144	7,043	156,376	57,304	16,386	73,689	49
1986 January	7,182	137,699	7,196	152,078	55,757	16,254	72,011	52
February	7,172	136,487	7,498	151,157	57,143	15,834	72,976	50
March	7,146	139,529	7,734	154,409	55,811	15,731	71,542	36
April	7,127	146,152	7,797	161,076	54,556	15,768	70,324	28
May	7,133	150,164	7,370	164,667	55,658	15,632	71,290	34
June	7,148	148,675	7,075	162,899	57,542	16,224	73,766	36
July	7,158	135,916	7,016	150,089	54,956	16,058	71,014	43
August	7,117	135,278	6,504	148,899	56,897	16,079	72,977	42
September	7,146	138,188	6,403	151,737	57,408	16,674	74,082	45
October	7,158	143,551	6,189	156,898	56,148	17,076	73,224	41
November	7,119	147,600	6,191	160,911	53,147	16,564	69,712	42
December	7,099	148,749	6,042	161,890	56,841	16,263	73,104	40

[a]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[b]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[c]Prior 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 January	25,838	1,082	26,921	76,756	11,292	88,048
February	16,662	447	17,108	80,404	11,163	91,566
March	17,881	410	18,290	78,014	11,028	89,042
April	12,495	306	12,802	76,721	10,899	87,620
May	13,896	441	14,337	77,699	10,886	88,584
June	17,997	1,293	19,289	76,126	11,780	87,906
July	17,085	627	17,712	75,788	10,908	86,696
August	20,957	902	21,859	74,832	10,799	85,632
September	12,795	436	13,231	75,588	10,703	86,291
October	13,019	396	13,415	74,906	10,775	85,682
November	15,177	692	15,870	73,833	10,590	84,423
December	13,247	398	13,645	76,836	10,784	87,619
Total	**197,050**	**7,429**	**204,479**			
1985 January	19,846	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	63,224	8,787	72,011
February	15,536	541	16,077	64,313	8,663	72,976
March	16,611	433	17,044	62,825	8,717	71,542
April	14,982	449	15,431	61,758	8,566	70,324
May	16,933	660	17,593	63,135	8,155	71,290
June	18,796	768	19,564	65,046	8,720	73,766
July	26,373	1,193	27,567	62,256	8,759	71,014
August	25,104	683	25,788	64,085	8,891	72,977
September	17,500	710	18,210	65,115	8,967	74,082
October	16,194	390	16,584	63,935	9,288	73,224
November	17,170	561	17,732	60,675	9,037	69,712
December	19,410	574	19,984	64,258	8,846	73,104
Total	**222,526**	**7,990**	**230,515**			

[a]GT/IC=Gas turbine and internal combustion plants.

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

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

Section 8. Nuclear

In December 1986, U.S. nuclear generating units produced a total of 39.5 billion net kilowatthours of electricity while operating at an average capacity factor of 62.2 percent. That generation represents an increase of 16.8 percent compared with December 1985 generation. Nuclear power supplied 18.5 percent of the electricity generated in December 1986, up 3.1 percentage points compared with 15.4 percent in December 1985.

The nuclear share of total electricity generated in December 1986 is the highest ever. The nuclear share continues to follow an increasing annual trend beginning in 1981. In 1986, the nuclear share of electricity was 16.6 percent, up from the 1985 value of 15.5 percent. From 1981 through 1986, the average annual increase in the nuclear share was 0.8 percent per year.

Five nuclear generating units became operable in 1986: Northeast Nuclear Energy Company's Millstone 3; Arizona Public Service Company's Palo Verde 2; Duke Power Company's Catawba 2; Public Service Electric and Gas Company's Hope Creek 1; and Cleveland Electric Illuminating Company's Perry 1. The addition of these units increased operable nuclear net summer capability by 5.84 million net kilowatts. Nineteen units remained under construction at the end of 1986, and two units previously under construction were cancelled during the year (Consumer Power's Midland 1 and 2). Four of the 19 units under construction were on the Nuclear Regulatory Commission's 1987 operating license hearing schedule, as of December 31, 1986 (Georgia Power's Vogtle 1, Arizona Public Service Company's Palog Verde3, Ohio Edison's Beaver Valley 2, and Houston Lighting and Power's South Texas Project 1).

In 1986, the monthly capacity factors of operable nuclear units averaged 56.9 percent, down from the value of 58.0 percent in 1985. From 1983 through 1985, the annual capacity factor increased at an average of 1.75 percent per year. Compared with 1985, the lower 1986 capacity factor reflects the seven operable units that were shut down during 1986. The five Tennessee Valley Authority units (Browns Ferry 1, 2, and 3, and Sequoyah 1 and 2) were shut down to confirm qualifications of Nuclear Regulatory Commission safety systems. Cleveland Electric Illuminating Company's Davis-Besse unit and Sacramento Municipal Utility District's Rancho Seco unit were shut down for extended repairs and modifications. In addition to those seven units, Public Service Company of Colorado's Fort Saint Vrain unit operated at less than 5 percent of capacity and was shut down during December 1986 for modifications of safety equipment. Detroit Edison's Fermi 2, which received a full-power amendment to it's operating license in 1985, under went modifications and produced no electricity during 1986.

On December 31, 1986, there were 100 operable nuclear generating units in the United States, with a collective net summer capability of 85.2 million net kilowatts. Seven additional units had operating licenses from the Nuclear Regulatory Commission authorizing fuel loading and low power testing (Braidwood 1, Byron 2, Clinton 1, Harris 1, Nine Mile Point 2, Seabrook 1, and Shoreham). The license for Seabrook 1 authorizes fuel loading only. Of the 100 operable units, three were in full power ascension (Fermi 2, Hope Creek 1, and Perry 1), and 24 units generated no electricity or operated below 25 percent of capability (Arkansas Nuclear 1, Browns Ferry 1, 2, and 3, Calvert Cliffs 1, Cooper, Crystal River 3, Davis-Besse, Diablo Canyon 1, Dresden 2, Fort Saint Vrain, Grand Gulf 1, Millstone 2, Oyster Creek, Palisades, Pilgrim, Quad Cities 2, Rancho Seco, Salem 2, Sequoyah 1 and 2, Surry 2, Three Mile Island 1, and Zion 1). Ten of these 24 units were out of service at least part of the month for maintenance and refueling.

As of December 31, 1986, 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

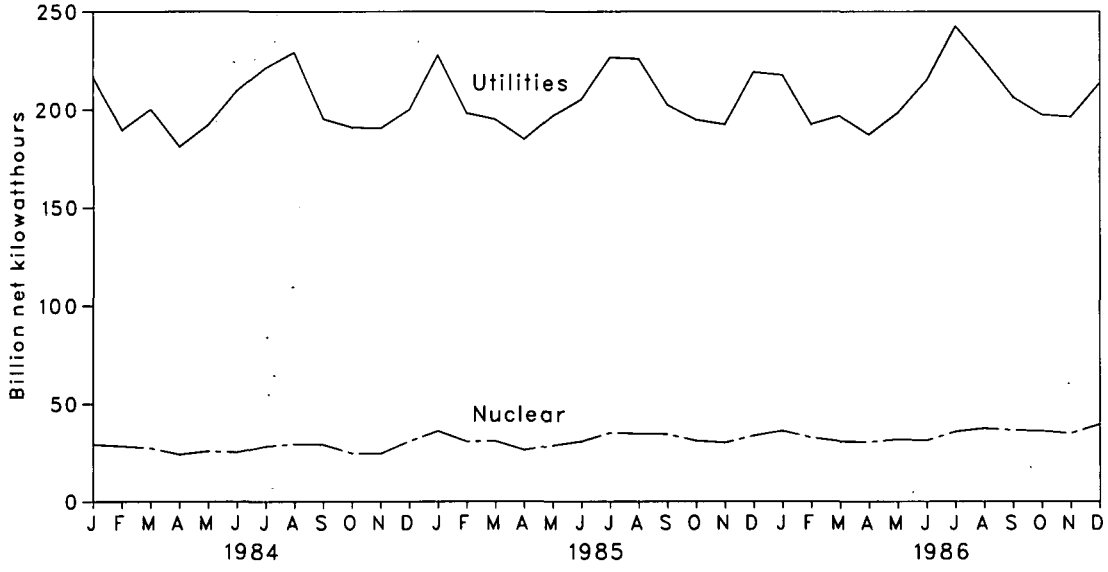


Figure 8.2 Nuclear Portion of Electricity Generation and Capacity Factor

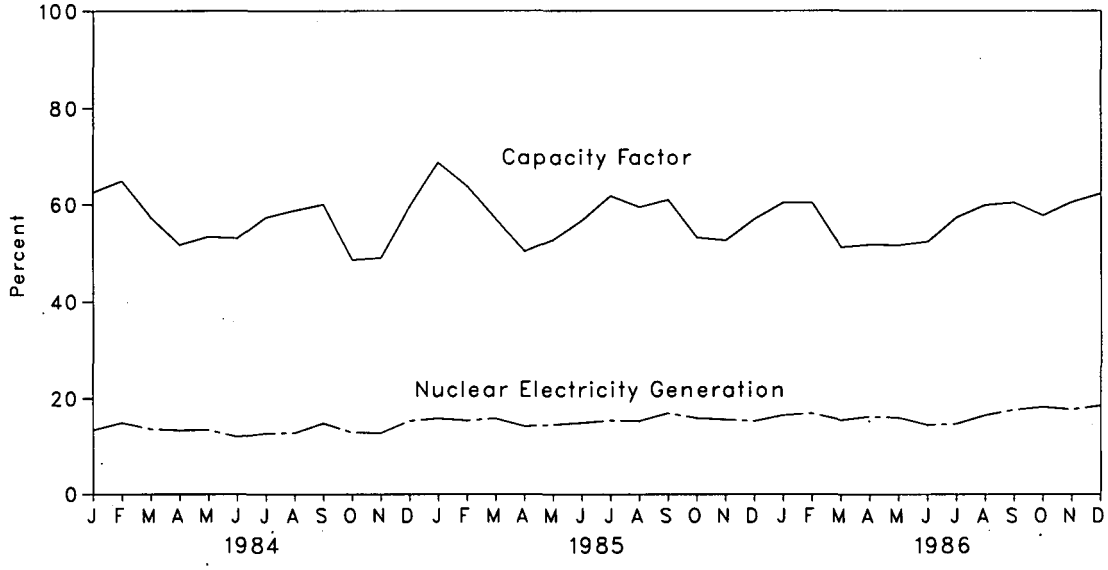


Table 8.1 Nuclear Power Plant Operations

	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	Million Net Kilowatts	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 January	80	29,313	13.5	63.009	62.5
February	80	28,436	15.0	63.009	64.8
March	81	27,345	13.7	64.057	57.4
April	82	24,231	13.4	65.157	51.7
May	82	25,867	13.5	65.157	53.4
June	83	25,299	12.1	66.207	53.1
July	83	28,284	12.8	66.207	57.4
August	84	29,493	12.9	67.446	58.8
September	84	29,146	14.9	67.446	60.0
October	85	24,774	13.0	68.566	48.6
November	86	24,575	12.9	69.652	49.0
December	86	30,872	15.4	69.652	59.6
Year		**327,634**	**13.6**		**56.3**
1985 January	87	36,186	15.9	R 70.675	R 68.8
February	88	30,812	15.5	R 71.795	R 63.9
March	89	31,041	15.9	R 72.899	57.2
April	89	26,458	14.3	R 72.899	R 50.5
May	89	28,697	14.6	R 72.899	R 52.9
June	91	30,837	15.0	R 75.275	R 56.9
July	92	35,184	15.5	R 76.354	R 61.9
August	94	34,812	15.4	R 78.478	R 59.6
September	94	34,508	17.0	R 78.478	R 61.1
October	94	31,205	16.0	R 78.478	53.4
November	95	30,166	15.7	R 79.397	R 52.8
December	95	33,782	15.4	R 79.397	R 57.2
Year		**383,691**	**15.5**		R **58.0**
1986 January	96	36,219	16.6	R 80.604	60.4
February	96	32,721	17.0	R 80.604	60.4
March	96	30,773	15.6	R 80.604	51.3
April	97	30,477	16.3	R 81.863	R 51.8
May	98	31,924	16.1	R 82.995	51.7
June	98	31,334	14.6	R 82.995	52.4
July	99	35,894	14.8	R 84.048	57.4
August	99	37,483	16.6	R 84.048	59.9
September	99	36,593	17.7	R 84.048	R 60.5
October	99	36,214	18.3	R 84.048	57.8
November	100	34,947	17.8	R 85.241	56.9
December	100	39,470	18.5	85.241	62.2
Year		**414,047**	**16.6**		**56.9**

[a]Monthly data are the status as of the last day of the month. Yearly data are the status as of December 31 of each year.
[b]See Note 1 at end of section.
[c]When possible, net summer capability is used. When a reactor has not operated long enough to permit determination of a net summer capability, an estimation is made based on the net design electrical rating. For the definitions of net summer capability and net design electrical rating, see Note 3 at end of section.
[d]For an explanation of the method of calculating the capacity factor, see Note 4 at end of section.
R=Revised data.
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 January	80	3	51	0	2	0	136	128
February	80	3	51	0	2	0	136	128
March	81	3	50	0	2	0	136	128
April	82	3	49	0	2	0	136	128
May	82	3	49	0	2	0	136	128
June	83	3	48	0	2	0	136	128
July	83	3	48	0	2	0	136	128
August	84	2	44	0	2	0	132	123
September	84	2	44	0	2	0	132	123
October	85	3	42	0	2	0	132	123
November	86	2	42	0	2	0	132	123
December	86	6	38	0	2	0	132	123
1985 January	87	5	38	0	2	0	132	123
February	88	4	38	0	2	0	132	123
March	89	5	36	0	2	0	132	123
April	89	6	33	0	2	0	130	121
May	89	6	33	0	2	0	130	121
June	91	4	33	0	2	0	130	121
July	92	3	33	0	2	0	130	121
August	94	2	32	0	2	0	130	121
September	94	2	32	0	2	0	130	121
October	94	2	32	0	2	0	130	121
November	95	2	31	0	2	0	130	121
December	95	3	30	0	2	0	130	121
1986 January	96	2	30	0	2	0	130	121
February	96	3	29	0	2	0	130	121
March	96	4	28	0	2	0	130	121
April	97	4	27	0	2	0	130	121
May	98	3	27	0	2	0	130	121
June	98	3	27	0	2	0	130	121
July	99	2	25	0	2	0	128	119
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

[a]Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.
[b]See Note 1 at end of section.
[c]See Note 2 at end of section.
[d]Net design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability. See Note 3 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: Units that have received Operating Licenses, completed low-power testing, and are authorized to operate at full power (i.e., in receipt of a Full Power Amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N reactor operated by the Department of Energy (DOE). The Hanford-N reactor, with a net capacity of 860 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net capacity of 60 MWe) operated by DOE, was included prior to retirement from service on October 1, 1982, except for the interval from March 1974 through August 1977 when it was excluded because of a major core modification outage. The DOE-operated Experimental Breeder Reactor-2 (EBR-2) is not included because the electricity it generates is not distributed commercially. Five units, each of which has been inoperative for at least 4 years prior to January 1, 1984, are deleted from entries subsequent to their removal from service: Peach Bottom-1 (net capacity of 40 MWe) and Indian Point-1 (net capacity of 265 MWe), both out of service since November 1974; Humboldt Bay (net capacity of 65 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden-1 (net capacity of 200 MWe), out of service since January 1979 for major modifications and officially retired in August 1984; and Three Mile Island-2 (net capacity of 906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. A sister unit, Three Mile Island-1 (net capacity of 819 MWe), continues to be listed as "Operable" because it could, in theory, return to service once the restraining order imposed by the NRC is lifted.

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

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

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

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

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

Sources

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

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

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

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

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

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

Section 9. Price

Crude Oil. The average price of domestic crude oil purchased at the wellhead was $11.82 per barrel in December 1986, 51.8 percent below the average in December 1985.

The refiner acquisition cost of imported crude oil in December 1986 was $14.16 per barrel, 46.0 percent below the December 1985 level. The cost of domestic crude oil in December 1986 was $13.68 per barrel, down 49.2 percent from the December 1985 average.

Motor Gasoline. The national city average retail price of leaded regular gasoline at all types of stations was 81 cents per gallon in January 1987, 5.5 percent higher than the price in December 1986. The price of unleaded regular gasoline at all types of stations was 86 cents per gallon in January 1987, 4.7 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged $1.01 cents per gallon in January 1987, 2.3 percent higher than during December 1986.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in December 1986 was 35 cents per gallon, 40.4 percent below the December 1985 average. The average price, excluding taxes, of residual fuel oil sold to other-than-ultimate consumers for resale in December 1986 was 30 cents per gallon, 45.0 percent below the December 1985 average.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in December 1986 was 89 cents per gallon, 24.1 percent below the price in December 1985. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in December 1986 was 43 cents per gallon, down 47.0 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil. The national average price of heating oil sold to residential customers in December 1986 was 72 cents per gallon, 34.4 percent below the December 1985 price. The average price for resale was 44 cents per gallon in December 1986, 46.9 percent below the price in December 1985.

Natural Gas. In December 1986, the average wellhead price of marketed natural gas production was $1.64 per thousand cubic feet, 28.1 percent below the December 1985 price. The average price of natural gas delivered to electric utility plants was $2.18 per thousand cubic feet in November 1986, 35.5 percent below the November 1985 price. The average price of natural gas used by residential consumers in December 1986 was $5.29 per thousand cubic feet, 7.2 percent less than the December 1985 price. The average price of natural gas used by industrial consumers in December 1986 was $2.93 per thousand cubic feet, 20.8 percent less than the December 1985 price.

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

The national retail price of electricity to residential consumers in December 1986 was 7.01 cents per kilowatthour, 5.1 percent[3] below the November 1986 price. The price of electricity to commercial consumers averaged 6.86 cents per kilowatthour in December 1986, 1.4 percent below the previous month's price. The average electricity price to industrial users during December 1986 was 4.68 cents per kilowatthour, 5.4 percent above the price 1 month earlier. The December national retail price of electricity to other consumers was 6.26 cents per kilowatthour, 4.1 percent below the November 1986 price.

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

Figure 9.1 Crude Oil Prices

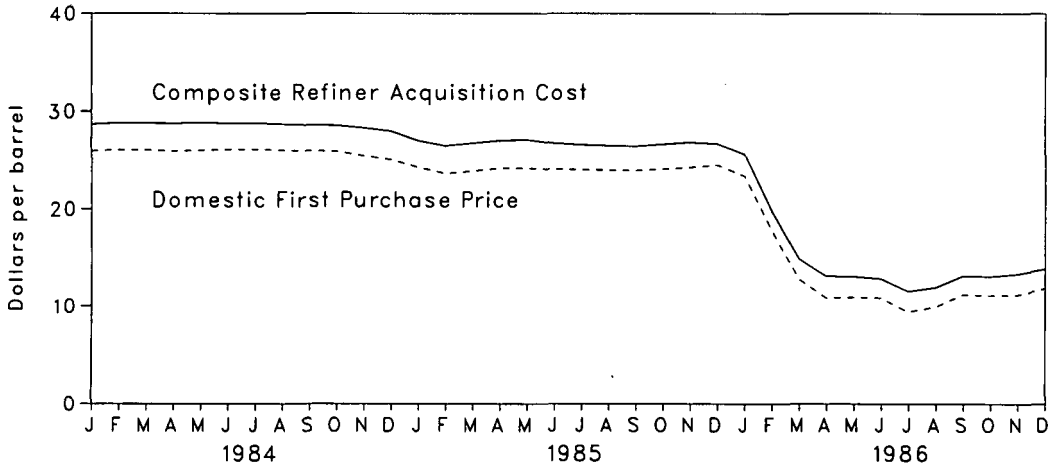


Figure 9.2 Refiner and Gas Plant Operator Sales Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel

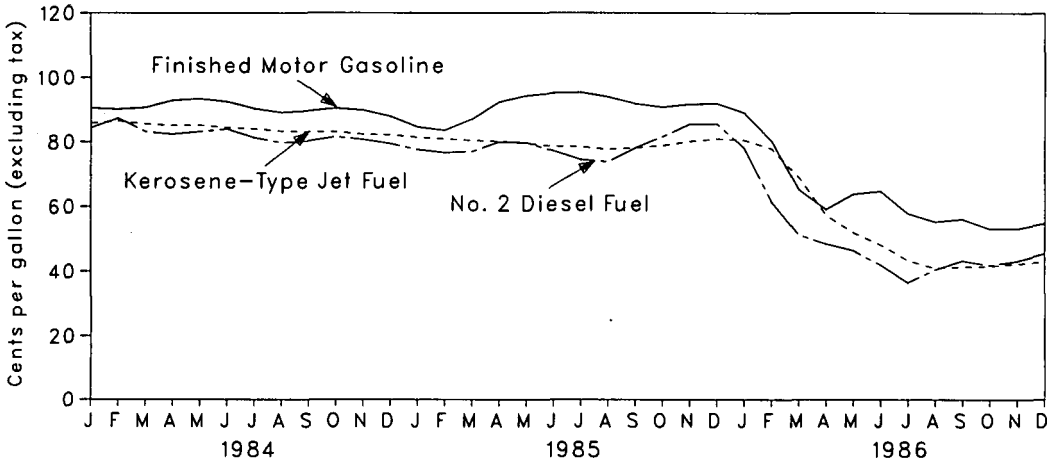


Figure 9.3 Refiner and Gas Plant Operator Sales Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel Oil

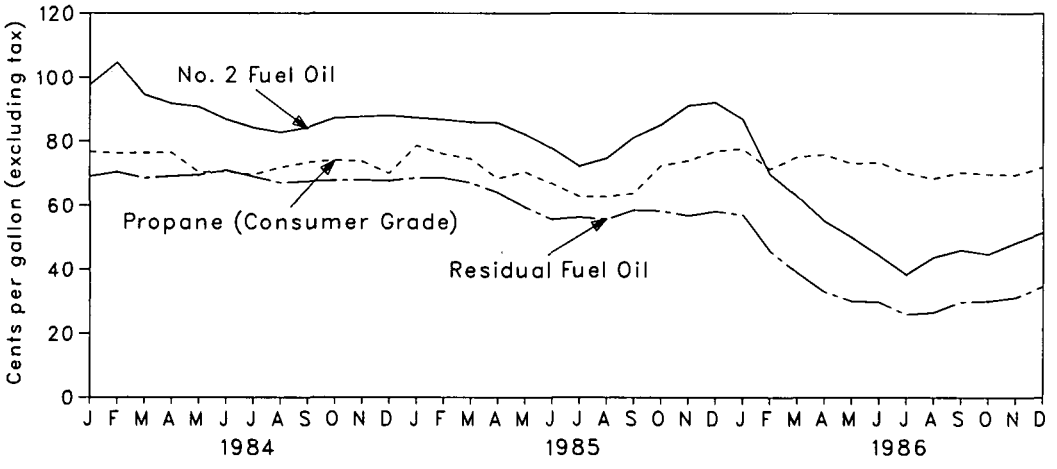


Table 9.1 Crude Oil Price Summary
(Dollars per Barrel)

	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 January	25.93	27.56	28.49	28.62	28.80	28.67
February	26.06	27.78	28.89	28.76	28.91	28.81
March	26.05	27.70	28.69	28.75	28.95	28.81
April	25.93	27.84	28.91	28.63	29.11	28.77
May	26.00	27.87	28.94	28.65	29.26	28.83
June	26.09	27.78	28.89	28.58	29.19	28.77
July	26.11	27.19	28.32	28.70	29.00	28.79
August	26.02	27.29	28.20	28.59	28.92	28.69
September	25.97	27.14	28.14	28.56	28.70	28.60
October	25.92	27.15	28.18	28.46	28.79	28.56
November	25.44	26.91	27.88	28.10	28.74	28.30
December	25.05	26.69	27.69	27.95	28.02	27.97
Average	**25.88**	**27.44**	**28.46**	**28.53**	**28.88**	**28.63**
1985 January	24.26	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	R 11.97	R 13.10	13.20	12.78	13.05
November	11.15	R 12.53	R 13.45	13.21	13.46	13.30
December	11.82	13.21	13.99	13.68	14.16	13.84
Average	**12.66**	**12.37**	**13.35**	**14.83**	**13.98**	**14.55**

[a]See Note 1 at end of section.
[b]See Note 2 at end of section.
[c]See Note 3 at end of section.
[d]See 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 January	27.60	29.89	W	26.22	29.80	27.76	29.29	24.21
February	28.56	29.09	W	26.04	29.98	26.72	29.70	23.55
March	28.69	W	NA	26.30	29.89	28.39	29.95	23.86
April	28.90	29.50	W	26.07	29.93	28.17	29.85	23.93
May	28.98	29.44	W	26.36	29.67	27.43	29.93	24.07
June	28.52	29.35	NA	26.58	29.34	W	29.67	24.23
July	27.43	29.21	W	26.62	29.22	W	28.91	24.37
August	26.97	W	W	26.71	29.02	W	28.13	23.91
September	26.90	28.83	NA	26.34	29.24	27.99	27.99	24.57
October	27.42	28.93	NA	26.44	28.40	W	28.50	24.43
November	26.50	28.68	NA	26.53	28.32	NA	27.61	24.24
December	25.13	28.03	NA	26.43	28.11	NA	27.85	24.32
Average	**28.04**	**29.10**	**26.93**	**26.37**	**29.39**	**27.60**	**28.90**	**24.16**
1985 January	25.47	27.43	NA	26.43	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	[R] 10.26
November	W	12.05	NA	[R] 11.78	[R] 13.97	13.27	14.05	[R] 10.58
December	W	W	NA	12.65	14.44	W	W	11.80
Average	**13.19**	**13.17**	**W**	**11.74**	**14.35**	**10.78**	**13.74**	**10.79**

[a]The 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.
[b]No 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 January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
March	30.31	26.01	30.81	NA	26.92	30.93	30.20	30.98	24.75
April	29.81	26.10	31.02	W	26.68	31.08	29.95	30.73	24.86
May	29.96	27.12	30.80	W	26.92	30.96	28.95	30.75	24.93
June	29.62	26.00	31.21	NA	27.24	31.05	29.90	30.43	25.29
July	28.63	27.16	30.26	W	26.98	30.07	W	29.54	25.24
August	28.16	26.95	30.59	W	26.99	29.99	W	28.93	24.95
September	27.94	27.03	30.05	W	26.66	30.60	29.75	28.81	25.29
October	28.42	26.82	30.11	W	26.80	29.47	28.57	29.27	25.49
November	28.12	26.33	30.03	W	26.78	29.45	NA	28.39	25.35
December	27.07	26.50	30.12	NA	26.86	29.32	NA	28.55	25.24
Average	**29.08**	**26.59**	**30.64**	**28.67**	**26.87**	**30.50**	**29.50**	**29.60**	**25.15**
1985 January	26.28	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	R 12.84	14.76	R 10.87
November	R 13.19	R 12.44	R 13.96	NA	R 12.13	R 14.70	R 14.21	R 14.63	R 11.10
December	W	12.85	W	NA	12.97	15.19	14.73	15.36	12.43
Average	**14.33**	**13.37**	**14.59**	**12.07**	**12.06**	**15.25**	**12.46**	**14.49**	**11.42**

[a]See Note 3 at end of section.
[b]No 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 January	113.1	121.6	136.9	120.0
February	112.5	120.9	136.1	119.3
March	112.5	121.0	136.2	119.4
April	114.5	122.7	137.5	121.1
May	115.4	123.6	138.0	122.1
June	114.7	122.9	137.7	121.4
July	112.9	121.2	137.0	119.7
August	111.6	119.6	135.5	118.4
September	112.0	120.3	136.0	118.9
October	112.7	120.9	136.5	119.5
November	112.4	120.7	136.4	119.3
December	110.9	119.3	135.4	117.9
Average	**112.9**	**121.2**	**136.6**	**119.8**
1985 January	106.0	114.8	130.4	114.5
February	104.1	113.1	129.0	112.8
March	107.1	115.9	131.0	115.5
April	111.9	120.5	134.0	119.9
May	114.4	123.1	136.0	122.3
June	115.3	124.1	137.1	123.3
July	115.4	124.2	136.7	123.3
August	114.3	122.9	135.9	122.2
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

[a]See Note 5 at end of section.
[b]Also includes types of gasoline not shown separately.
[c]In 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 January	71.0	73.6	62.3	64.6	64.8	69.0
February	71.4	75.1	65.7	65.8	67.5	70.4
March	70.5	73.1	61.9	64.7	64.5	68.5
April	69.2	73.1	64.7	66.5	66.2	69.1
May	68.3	72.7	65.0	67.4	66.0	69.5
June	69.8	73.2	66.1	68.9	67.2	71.0
July	66.8	71.5	64.0	66.7	65.0	69.0
August	65.6	69.5	62.7	65.0	63.6	67.1
September	65.9	70.0	63.8	64.9	64.5	67.5
October	66.8	70.8	64.3	65.8	65.1	67.8
November	66.8	70.4	63.6	65.8	64.6	67.9
December	67.5	70.5	63.3	65.6	64.6	67.7
Average	**68.5**	**72.0**	**63.9**	**65.9**	**65.4**	**68.7**
1985 January	67.6	71.2	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	[R] 29.5	33.7	25.1	29.0	[R] 27.4	31.2
December	34.1	37.7	27.6	31.6	30.3	34.7
Average	**33.0**	**37.2**	**28.8**	**31.7**	**30.5**	**34.3**

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

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 January	83.2	116.7	86.4	95.9	87.5	82.6	47.7
February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
April	86.9	116.8	84.2	90.7	82.8	80.8	44.6
May	86.6	117.1	84.3	90.9	83.2	81.9	44.4
June	84.5	116.8	84.2	88.1	82.4	81.9	44.1
July	81.7	117.2	82.8	87.6	79.4	79.3	42.3
August	81.1	116.7	81.0	86.0	77.8	77.7	43.2
September	82.8	116.8	81.7	88.8	80.0	78.4	44.8
October	83.6	116.4	82.9	88.9	80.8	80.0	46.1
November	81.9	114.8	81.4	88.0	79.4	79.0	45.6
December	78.0	114.0	80.1	86.4	77.1	77.0	43.0
Average	**83.2**	**116.5**	**83.0**	**91.6**	**82.1**	**80.3**	**45.0**
1985 January	75.2	114.5	79.6	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	R 81.8	43.5	51.2	42.4	41.8	24.3
December	47.3	81.3	45.3	53.3	44.2	43.5	23.6
Average	**53.1**	**91.1**	**49.7**	**60.6**	**48.7**	**45.2**	**29.0**

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

[b]See 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 January	90.6	123.9	85.8	106.8	97.7	84.4	76.8
February	90.2	123.7	86.5	117.9	104.6	87.4	76.3
March	90.7	123.8	85.6	111.3	94.7	83.2	76.4
April	92.9	124.4	85.1	105.8	91.9	82.4	76.5
May	93.4	123.9	85.2	102.4	90.9	83.2	70.4
June	92.5	124.6	84.5	94.3	86.9	84.0	70.6
July	90.4	124.3	84.1	90.6	84.3	81.3	69.6
August	89.2	123.2	83.4	92.8	82.8	79.7	71.9
September	89.7	123.7	83.1	99.2	84.3	80.2	73.4
October	90.5	123.3	83.2	102.7	87.3	81.6	74.1
November	89.9	119.3	82.4	106.1	87.7	80.7	73.8
December	88.0	121.9	82.2	101.4	88.1	79.4	70.0
Average	**90.7**	**123.4**	**84.2**	**103.6**	**91.6**	**82.3**	**73.7**
1985 January	84.6	121.7	81.4	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	38.4	36.5	70.2
August	55.3	94.9	41.0	62.5	43.8	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	R 69.6
December	54.8	88.8	42.9	76.8	51.5	45.5	72.0
Average	**62.3**	**100.1**	**52.8**	**79.3**	**56.0**	**47.9**	**72.5**

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

[b]See 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 January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0
February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6
March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6
April	113.4	103.3	112.4	107.7	110.7	113.3	109.9	119.9
May	112.5	102.7	112.5	108.8	111.4	112.2	109.0	119.5
June	110.6	103.7	110.5	104.5	110.8	112.8	107.2	116.3
July	107.4	102.5	107.3	101.9	109.3	108.6	103.7	116.5
August	104.7	98.0	105.5	98.6	106.0	108.0	103.7	109.8
September	105.4	99.1	106.0	101.0	105.9	106.9	102.1	109.9
October	106.2	101.9	106.9	102.2	107.4	108.0	103.5	111.8
November	107.2	100.6	107.2	102.7	106.5	107.5	103.3	111.9
December	106.4	97.9	107.0	103.1	107.1	106.4	102.8	112.9
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	[R] 69.5	[R] 59.7	70.0	65.0	72.1	71.3	67.9	76.9
December	72.5	67.2	73.2	69.9	74.3	73.3	71.4	79.9
Average	**89.0**	**74.4**	**82.3**	**75.6**	**82.3**	**86.7**	**85.0**	**92.9**

[a]The States are listed by geographic region of the country. State names are abbreviated as follows: CT - Connecticut, ME - Maine, MA - Massachusetts, NH - New Hampshire, RI - Rhode Island, VT - Vermont, DE - Delaware, DC - District of Columbia, MD - Maryland, NJ - New Jersey, NY - New York, PA - Pennsylvania, VA - Virginia, WV - West Virginia, IL - Illinois, IN - Indiana, MI - 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 January	115.6	114.1	118.3	112.9	111.4	108.5	104.7	106.0
February	121.9	119.5	124.3	117.4	117.5	109.9	105.9	107.3
March	116.2	113.5	117.0	110.9	112.6	104.9	102.3	100.6
April	115.6	110.6	116.0	107.8	110.8	101.6	100.3	103.4
May	113.0	109.1	114.5	105.8	111.1	98.9	102.3	102.4
June	109.9	107.1	115.0	103.3	108.7	99.5	101.6	105.9
July	109.0	104.9	112.8	99.7	107.2	96.2	99.4	101.4
August	105.2	103.6	110.2	99.6	105.2	96.6	98.9	100.3
September	106.7	104.3	109.3	100.9	105.9	96.9	98.6	100.7
October	107.5	105.7	111.9	101.5	106.7	98.3	97.1	100.9
November	108.2	105.2	111.7	102.9	107.1	99.6	95.8	102.3
December	107.1	104.9	111.3	103.2	107.7	99.2	94.4	100.9
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	[R] 73.4	74.6	[R] 76.1	66.4	[R] 68.3	68.3	[R] 72.8	[R] 65.4
December	77.2	76.0	78.7	68.5	70.4	72.6	72.8	69.3
Average	**91.4**	**90.1**	**91.1**	**81.5**	**86.2**	**74.9**	**74.3**	**74.9**

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 January	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
February	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
March	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
April	104.8	103.9	101.9	101.4	96.2	107.3	100.6	105.0	109.8
May	105.2	105.3	103.1	101.0	98.1	107.2	99.5	104.2	108.4
June	103.3	104.2	101.7	100.5	93.8	107.8	98.2	103.3	107.2
July	102.6	105.1	101.8	100.5	93.1	107.2	97.1	100.4	104.8
August	101.8	104.5	99.5	100.0	97.4	107.3	94.9	99.7	103.3
September	103.2	103.5	100.1	98.8	98.4	105.0	95.9	100.4	103.6
October	103.0	103.0	101.2	100.7	99.4	107.8	96.5	100.9	104.9
November	103.5	103.1	100.8	101.0	97.9	107.8	97.6	101.3	105.3
December	103.2	102.8	99.3	99.0	98.8	107.5	97.4	100.5	104.8
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	R 70.4	R 68.0	R 61.0	65.6	R 63.5	80.0	62.7	R 68.8	R 69.8
December	73.3	68.7	65.3	68.5	63.5	85.3	63.9	63.8	72.5
Average	**81.2**	**79.3**	**77.9**	**75.4**	**73.8**	**94.4**	**70.4**	**76.6**	**84.4**

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 January	6.76		6.79		4.86		6.34		6.13	
February	6.96		6.99		4.85		6.53		6.19	
March	7.16		7.12		4.88		6.69		6.26	
April	7.32		7.23		4.87		6.74		6.30	
May	7.58		7.28		4.92		6.86		6.39	
June	7.89		7.48		5.10		6.79		6.66	
July	7.99		7.51		5.22		6.99		6.83	
August	8.05		7.51		5.16		6.77		6.83	
September	8.05		7.64		5.26		7.07		6.89	
October	7.95		7.63		5.14		6.88		6.71	
November	7.61		7.42		5.06		7.00		6.53	
December	7.33		7.28		5.07		6.72		6.47	
Average	**7.54**		**7.33**		**5.04**		**6.78**		**6.52**	
1985 January	7.28		7.25		5.12		6.80		6.52	
February	7.19		7.21		5.12		6.77		6.47	
March	7.48		7.36		5.13		7.01		6.55	
April	7.73		7.44		5.09		6.95		6.58	
May	7.98		7.55		5.08		7.09		6.66	
June	8.15		7.60		5.24		7.07		6.86	
July	8.24		7.64		5.36		7.13		7.02	
August	8.18		7.55		5.20		7.01		6.92	
September	8.18		7.62		5.24		7.08		6.95	
October	8.05		7.65		5.19		6.98		6.80	
November	7.73		7.49		5.10		6.91		6.63	
December	7.44		7.29		5.10		6.73		6.56	
Average	**7.79**		**7.47**		**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	[E] 7.29	[E] 7.01	[E] 7.05	[E] 6.86	[E] 4.83	[E] 4.68	[E] 6.65	[E] 6.26	[E] 6.36	[E] 6.15
Average	**7.79**	**7.41**	**7.40**	**7.13**	**5.09**	**4.87**	**7.09**	**6.64**	**6.70**	**6.40**

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

[b]Average price for total sales to ultimate consumers.

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

[d]See Note 7 at end of section.

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

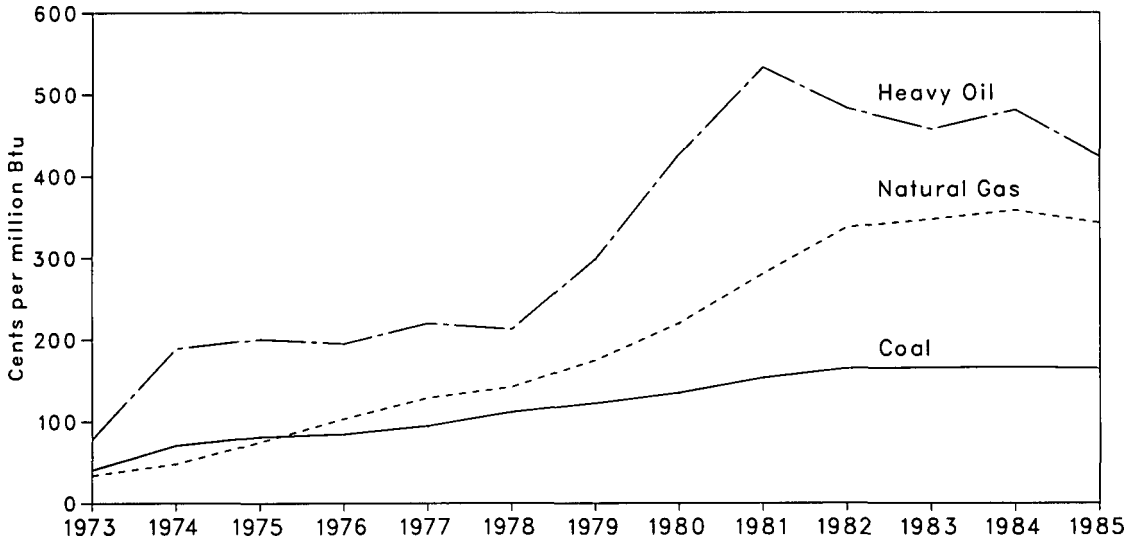
E=Estimated data.

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

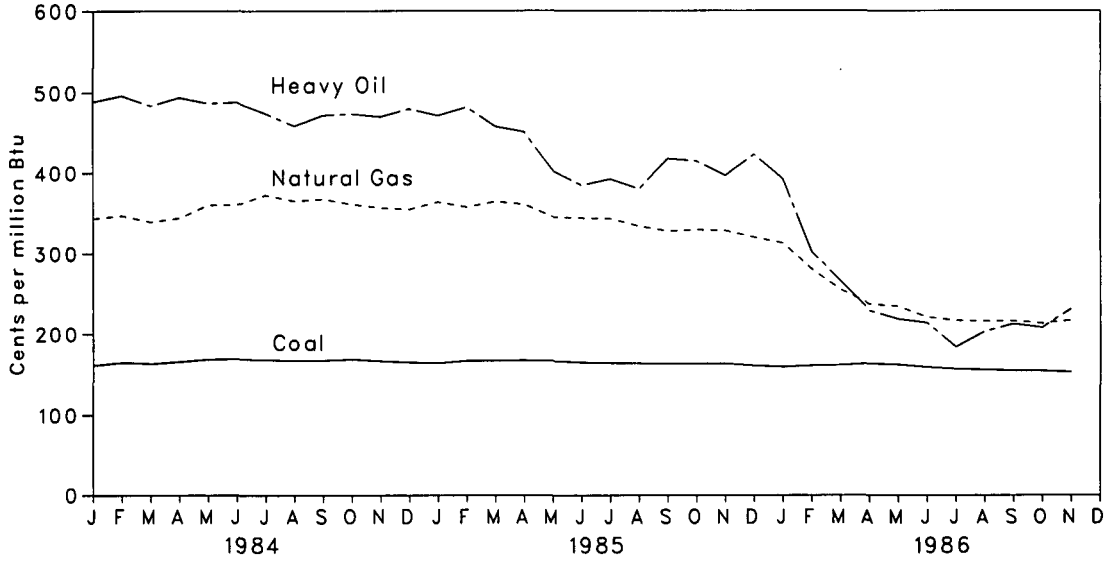


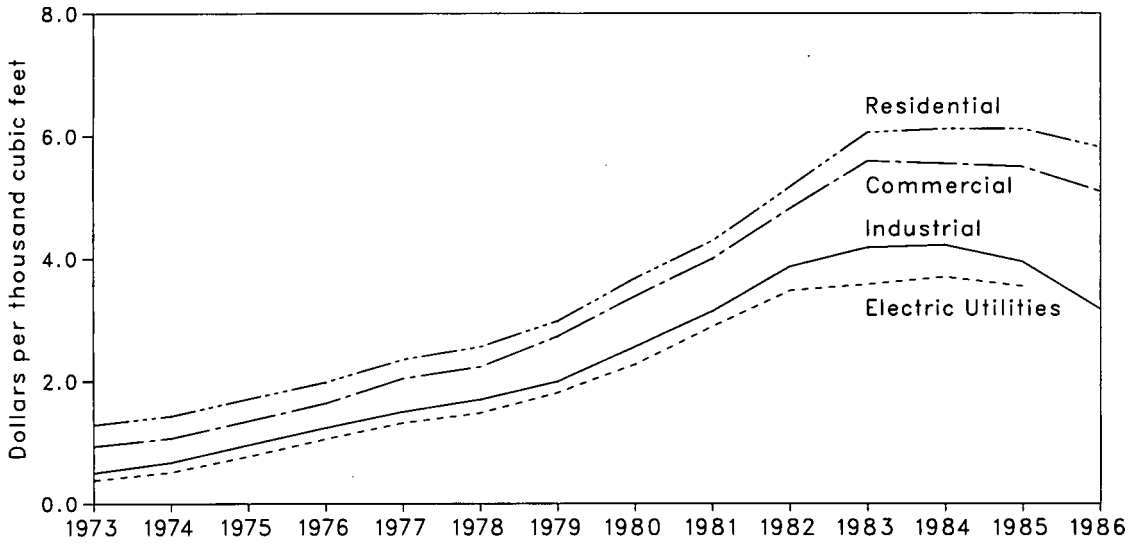
Table 9.10 Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants[a]
(Cents per million Btu)

	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 January	161.6	488.9	343.7	221.0
February	164.9	496.3	347.5	217.4
March	163.4	484.0	339.8	208.4
April	165.7	494.1	344.4	210.6
May	168.6	486.9	360.4	220.3
June	169.1	488.3	360.9	223.2
July	168.2	474.6	373.1	231.3
August	167.2	459.6	365.6	223.5
September	167.4	472.5	368.0	217.5
October	168.7	474.1	361.4	218.8
November	166.6	470.6	357.2	216.8
December	165.0	480.4	355.4	218.7
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	159.5	392.6	313.5	194.7
February	161.1	302.3	281.0	185.4
March	161.7	266.5	255.8	179.8
April	163.6	229.7	237.8	177.7
May	162.3	218.9	235.1	177.7
June	159.2	214.4	221.4	174.1
July	157.0	184.3	217.2	171.1
August	156.1	203.8	216.4	170.4
September	154.9	213.0	216.7	168.6
October	154.7	208.6	214.0	165.9
November	153.3	231.8	217.3	166.1

[a]Data 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.
[b]See Note 8 at end of section.
[c]Includes 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

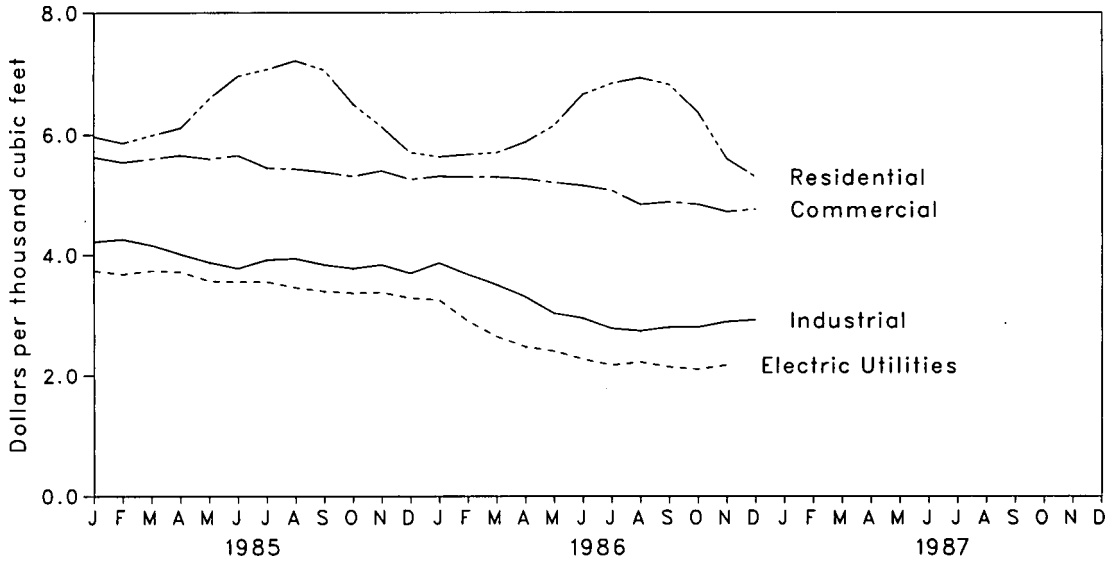


Table 9.11 Natural Gas Prices[a]
(Dollars per Thousand Cubic Feet)

	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 Average	**.30**	**NA**	**NA**	**NA**	**1.43**	**1.07**	**.67**	**.51**	**.89**
1975 Average	**.45**	**NA**	**NA**	**NA**	**1.71**	**1.35**	**.96**	**.77**	**1.19**
1976 Average	**.58**	**NA**	**NA**	**NA**	**1.98**	**1.64**	**1.24**	**1.06**	**1.47**
1977 Average	**.79**	**NA**	**NA**	**NA**	**2.35**	**2.04**	**1.50**	**1.32**	**1.78**
1978 Average	**.91**	**2.21**	**0.83**	**NA**	**2.56**	**2.23**	**1.70**	**1.48**	**1.98**
1979 Average	**1.18**	**2.60**	**1.22**	**NA**	**2.98**	**2.73**	**1.99**	**1.81**	**2.34**
1980 Average	**1.59**	**4.42**	**1.63**	**NA**	**3.68**	**3.39**	**2.56**	**2.27**	**2.91**
1981 Average	**1.98**	**4.84**	**2.15**	**NA**	**4.29**	**4.00**	**3.14**	**2.89**	**3.51**
1982 Average	**2.46**	**4.94**	**2.72**	**NA**	**5.17**	**4.82**	**3.87**	**3.48**	**4.32**
1983 Average	**2.59**	**4.51**	**2.93**	**NA**	**6.06**	**5.59**	**4.18**	**3.58**	**4.82**
1984 January	2.67	4.40	2.80	3.94	5.78	5.49	4.31	3.49	5.07
February	2.71	4.37	2.82	4.02	5.84	5.54	4.29	3.55	5.05
March	2.67	4.40	2.80	3.91	5.92	5.57	4.29	3.47	5.00
April	2.64	4.23	2.95	3.96	5.96	5.52	4.19	3.53	4.87
May	2.67	4.15	2.86	3.98	6.27	5.60	4.21	3.72	4.76
June	2.70	4.25	2.89	4.02	6.76	5.67	4.11	3.73	4.58
July	2.68	4.15	2.95	4.06	7.11	5.60	4.14	3.86	4.55
August	2.69	4.12	2.95	[d] 3.69	7.23	5.47	4.15	3.76	4.49
September	2.62	4.34	2.84	4.02	7.17	5.53	4.24	3.80	4.61
October	2.63	4.19	2.96	3.99	6.80	5.54	4.17	3.72	4.68
November	2.61	3.43	3.13	3.92	6.31	5.56	4.21	3.72	4.84
December	2.57	3.34	2.95	3.97	6.05	5.60	4.25	3.69	5.06
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	[R] 2.28	2.81	2.64	3.52	5.63	5.30	3.87	3.26	4.90
February	[R] 2.26	2.79	2.60	3.52	5.67	5.29	3.68	2.91	4.82
March	[R] 2.16	3.05	2.48	3.50	5.70	5.29	3.51	2.65	4.68
April	[R] 2.00	3.14	2.37	3.33	5.88	5.26	3.31	2.48	4.38
May	[R] 1.87	2.75	2.47	3.15	6.15	5.20	3.04	2.41	4.02
June	[R] 1.76	2.56	2.48	3.11	6.66	5.15	2.96	2.28	3.74
July	[R] 1.70	2.78	2.40	3.08	6.84	5.07	2.79	2.18	3.47
August	[R] 1.67	2.22	2.59	3.04	6.93	4.84	2.75	2.23	3.47
September	[R] 1.67	2.26	2.06	3.02	6.82	4.88	2.81	2.15	3.59
October	[R] 1.66	2.22	2.27	2.94	6.36	4.84	2.81	2.11	3.77
November	1.65	1.84	2.10	2.90	5.60	4.72	2.90	2.18	4.06
December	1.64	1.99	2.16	2.99	5.29	4.76	2.93	NA	NA
Average	**1.87**	**2.51**	**2.38**	**3.22**	**5.82**	**5.10**	**3.18**	**NA**	**NA**

[a]Prices shown on this page are intended to include all taxes. See Note 9 at end of section.
[b]Includes supplemental gaseous fuels.
[c]Data through December 1982 cover all steam-electric utility plants with a capacity of 25 megawatts or greater. From 1974 through 1982, data include peaking units. Beginning with January 1983, data cover steam-electric utility plants with a capacity of 50 megawatts or greater.
[d]The decline from the previous month was primarily the result of refunds in the form of reduced charges.
R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Data 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."

Electricity:

- Cost of fossil fuels--EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
- Retail prices--EIA, January 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement."

Section 10. International

Crude Oil Production. World crude oil production during December 1986 was 55.3 million barrels per day, up 0.1 million from the level in the previous month. Production during 1986 averaged 55.5 million barrels per day, 2.5 million above the level in 1985.

Organization of Petroleum Exporting Countries (OPEC) production during 1986 averaged 18.4 million barrels per day, up 2.3 million from the level during the previous year. During 1986 production by the Arab members of OPEC averaged 11.5 million barrels per day, 2.5 million above the level in 1985. During December 1986, production decreased in Iraq by 100,000 barrels per day, while production in the United Arab Emirates increased by 20,000 barrels per day. Production in Algeria, Kuwait, Libya, Qatar, and Saudia Arabia remained the same as during the previous month. Among non-Arab OPEC countries, production increased in Iran by 250,000 barrels per day and in Venezuela by 76,000 barrels per day. Production decreased in Indonesia by 40,000 barrels per day, but remained the same in Nigeria as during the previous month.

Among the non-OPEC nations in December 1986, production in the United Kingdom and Mexico decreased by 130,000 and 2,000 barrels per day, respectively. Production increased in the United States by 27,000 barrels per day and in Canada by 25,000 barrels per day.

Petroleum Consumption. In November 1986, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 35.2 million barrels per day, 2.5 percent higher than the level in November 1985. Consumption was higher in Japan by 7.4 percent and in the United States by 3.5 percent, but lower in Canada by 3.2 percent, compared with levels 1 year earlier. Consumption in all European OECD countries combined in November 1986 was 11.9 million barrels per day, 1.5 percent above the level in the previous November. Consumption was higher in Italy by 18.2 percent and in the United Kingdom by 2.0 percent, but down in West Germany by 4.3 percent and in France by 2.6 percent, compared with levels 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum ending stocks in November 1986 totaled 3.5 billion barrels, 5.9 percent higher than at the end of November 1985. Stocks were higher in the United States by 6.0 percent and in Japan by 2.8 percent but, lower in Canada by 0.9 percent, compared with levels 1 year earlier. Ending stock levels in all European OECD countries in November 1986 were 1.2 billion barrels, 7.7 percent higher than in November 1985. Stocks were up in France by 6.2 percent, in West Germany by 5.5 percent, in the United Kingdom by 5.0 percent, and in Italy by 3.2 percent, compared with levels 1 year earlier.

Nuclear Electricity Generation. In December 1986, the 20 non-Communist countries with nuclear power capacity generated 133.1 gross terawatthours (billion kilowatthours) of nuclear generated electricity, 6.8 percent more than the December 1985 generation. The United States produced 30.7 percent of the total generation. Total nuclear generation in 1986 was 1,376 gross terawatthours, 8.8 percent above nuclear generation in 1985. The annual growth rate in nuclear generation from 1981 through 1986, averaged 13.6 percent per year.

West Germany's Brokdorf unit, a 1,383-gross-megawatt-electric pressurized-water reactor began commercial operation on December 22, 1986. It was that country's 17th operable nuclear generating unit and the largest unit operating in the non-communist countries.

Based on *Nucleonics Week* information, as of December 31, 1986, there were 319 operable nuclear power generating units in the 20 non-Communist countries. Seventeen of those units began operation during 1986 (two in Canada, six in France, two in South Korea, one in the United Kingdom, and five in the United States), increasing operable nuclear capacity by 17.1 gigawatts (million kilowatts). The 319 units had a collective gross generating capacity of 247.6 gigawatts. In December 1986, the 100 operable U.S. units accounted for 90.8 gross gigawatts, 36.7 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 January	650	1,100	1,080	1,100	445	5,130	1,200	10,705	1,415	2,200	1,335
February	600	1,000	1,240	1,100	315	5,040	1,200	10,495	1,515	2,300	1,530
March	600	1,200	1,293	1,100	440	4,843	1,205	10,681	1,505	2,400	1,525
April	600	1,200	1,250	1,200	400	5,150	1,205	11,005	1,512	2,200	1,270
May	650	1,200	1,200	1,200	400	5,000	1,200	10,850	1,415	1,700	1,270
June	700	1,200	1,200	1,250	500	5,450	1,225	11,525	1,465	2,200	1,370
July	650	1,200	1,110	1,100	430	5,010	1,090	10,590	1,340	2,400	1,175
August	650	1,300	1,220	1,000	400	4,520	990	10,080	1,360	1,800	1,125
September	650	1,300	1,183	1,000	480	4,133	1,110	9,856	1,350	1,900	1,370
October	650	1,200	1,129	1,000	380	4,129	1,060	9,548	1,375	2,100	1,565
November	650	1,300	990	1,000	280	3,990	1,060	9,270	1,300	2,400	1,565
December	600	1,300	990	1,000	260	3,590	1,210	8,950	1,395	2,500	1,565
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	1,215	10,555	1,420	2,100	1,200
February	550	1,650	1,315	900	325	4,715	1,415	10,870	1,300	2,000	1,400
March	600	1,650	1,515	900	350	4,115	1,365	10,495	1,300	1,800	1,600
April	600	1,500	1,520	900	R 180	4,720	1,315	R 10,735	1,340	2,000	1,700
May	600	1,700	1,510	1,100	360	4,360	1,465	11,095	1,425	2,100	1,600
June	600	1,800	1,650	1,200	R 430	5,250	1,565	R 12,495	1,350	2,200	1,540
July	600	R 1,800	R 1,805	1,150	400	R 5,905	1,565	R 13,225	1,345	2,200	R 1,555
August	600	1,800	R 1,733	1,150	400	R 6,433	1,595	R 13,711	R 1,423	1,700	1,765
September	600	1,800	R 1,118	990	280	R 4,818	1,315	R 10,921	1,310	1,500	1,300
October	600	1,800	1,130	1,000	300	5,030	1,325	11,185	1,325	1,500	R 1,325
November	600	1,600	1,350	1,000	300	5,350	1,165	11,365	R 1,370	1,600	R 1,325
December	600	1,500	1,350	1,000	300	5,350	1,185	11,285	1,330	1,850	1,325
Average	**600**	**1,688**	**1,427**	**1,034**	**333**	**5,045**	**1,374**	**11,501**	**1,354**	**1,879**	**1,470**

[a]Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In December 1986, total production in that region amounted to approximately 500,000 barrels per day.

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

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

[d]Other is a calculated total derived from the difference between world production and the nations represented above.

R=Revised data.

Footnotes continued on following page.

Annual values for crude oil production in Qatar for the years 1981 through 1985 were incorrect as published in the November 1986 *Monthly Energy Review*. Those values have been corrected in this issue.

Table 10.1b Crude Oil Production by Major Petroleum Producing Countries (continued)

(Thousand Barrels per Day)

	Venezuela	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 January	1,825	17,885	1,370	2,700	2,510	8,868	2,225	11,650	6,695	53,903
February	1,800	18,035	1,445	2,785	2,585	8,874	2,225	11,650	6,684	54,283
March	1,800	18,316	1,475	2,740	2,465	8,672	2,225	11,500	6,616	54,009
April	1,800	18,202	1,430	2,800	2,460	8,862	2,250	11,500	6,702	54,206
May	1,825	17,475	1,415	2,830	2,425	8,955	2,250	11,645	6,797	53,792
June	1,790	18,770	1,470	2,850	2,335	8,852	2,250	11,645	6,867	55,039
July	1,845	17,775	1,515	2,875	2,455	8,885	2,330	11,620	6,896	54,351
August	1,805	16,585	1,435	2,710	2,285	8,809	2,330	11,620	6,904	52,678
September	1,835	16,736	1,330	2,735	2,420	8,993	2,365	11,540	7,015	53,134
October	1,785	16,793	1,460	2,705	2,600	8,906	2,365	11,540	7,176	53,545
November	1,710	16,665	1,460	2,775	2,590	8,979	2,365	11,500	7,228	53,562
December	1,755	16,585	1,445	2,860	2,630	8,897	2,365	11,500	7,269	53,551
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	17,395	1,540	2,510	2,666	9,121	2,500	R 11,360	7,656	R 54,748
February	1,670	17,690	1,475	R 2,123	2,725	9,181	2,500	R 11,420	R 7,798	R 54,912
March	1,670	17,325	1,480	R 2,219	2,710	9,002	2,500	R 11,520	7,695	R 54,451
April	1,670	R 17,905	1,475	R 2,358	2,580	8,850	2,500	R 11,570	7,271	R 54,509
May	1,670	18,350	1,425	R 2,527	2,545	8,842	2,500	R 11,650	7,726	R 55,565
June	1,690	R 19,745	1,400	R 2,547	2,198	8,591	2,500	R 11,660	7,673	R 56,314
July	R 1,700	R 20,495	1,460	R 2,536	2,608	8,636	2,500	R 11,690	7,672	R 57,597
August	R 2,040	R 21,074	1,545	R 2,567	2,598	8,391	2,500	R 11,740	R 7,873	R 58,288
September	1,695	R 17,101	1,500	R 2,371	2,558	8,333	2,560	R 11,760	R 7,997	R 54,180
October	R 1,684	R 17,409	1,530	R 2,324	2,573	8,434	2,560	11,785	R 7,937	R 54,552
November	1,714	R 17,804	1,450	R 2,452	2,476	8,321	2,560	11,835	R 8,227	R 55,125
December	1,790	18,010	1,475	2,450	2,346	8,348	2,560	11,810	8,257	55,256
Average	**1,723**	**18,366**	**1,480**	**2,418**	**2,548**	**8,668**	**2,520**	**11,651**	**7,816**	**55,467**

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 1985.* • 1973-1986 U.S. annual and monthly data: EIA, *Petroleum Supply Monthly.* • 1984-1986 monthly data (except United States and world): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources. • 1984-1986 monthly data for world: Sum of data for all countries using above sources.

Figure 10.1 Petroleum Consumption for OECD Countries

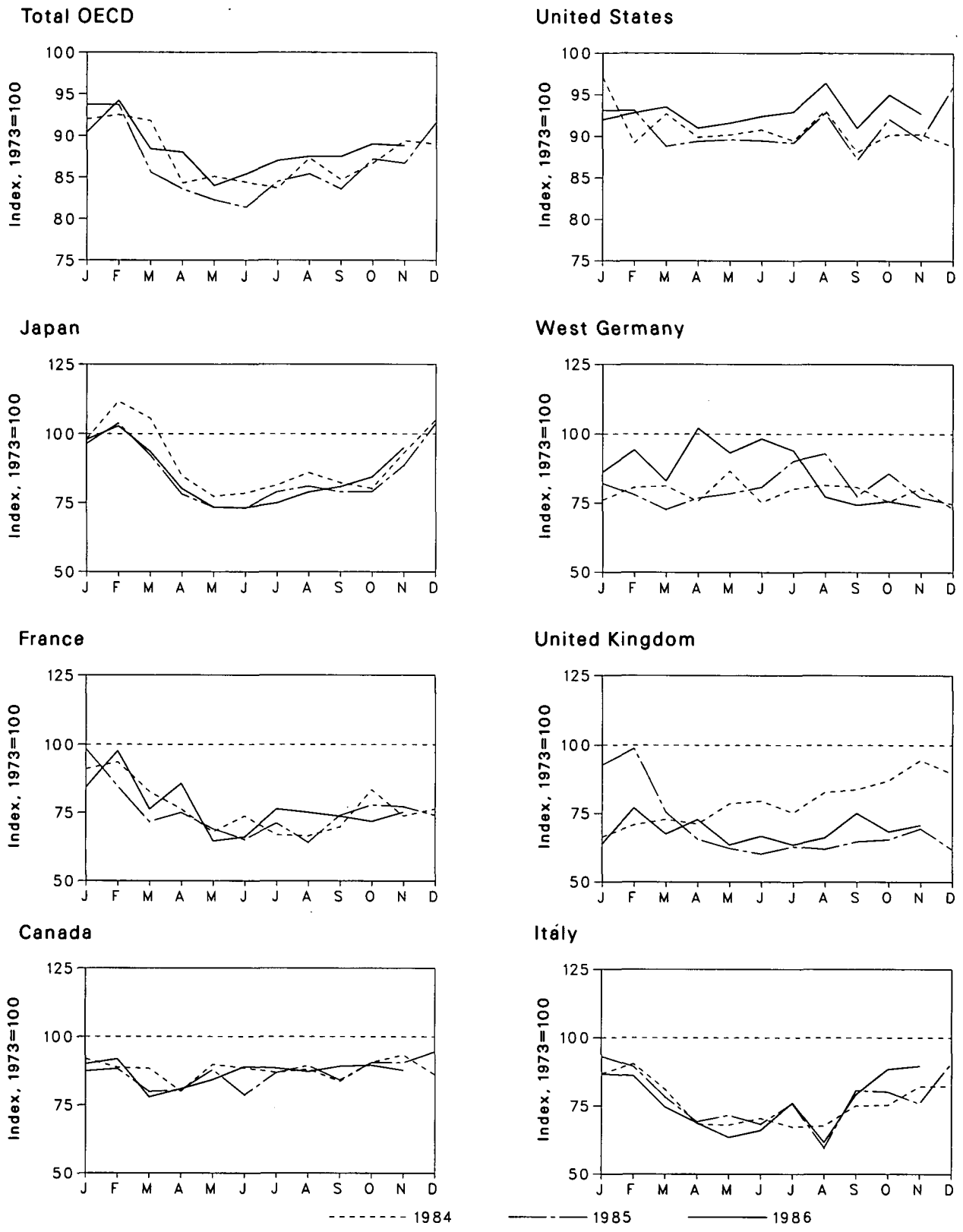


Table 10.2 Petroleum Consumption for OECD Countries[a]
(Thousand Barrels per Day)

	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**	**999**	**33,896**
1984 January	1,571	2,199	1,865	4,976	1,522	16,801	2,215	12,130	934	36,411
February	1,517	2,262	1,945	5,662	1,630	15,437	2,352	12,935	1,063	36,613
March	1,510	1,999	1,742	5,356	1,674	16,050	2,367	12,409	1,028	36,352
April	1,366	1,848	1,468	4,300	1,635	15,568	2,203	11,295	834	33,363
May	1,535	1,642	1,462	3,918	1,807	15,620	2,525	11,605	994	33,672
June	1,511	1,785	1,514	3,975	1,828	15,709	2,191	11,293	910	33,398
July	1,483	1,615	1,448	4,130	1,731	15,498	2,337	11,014	986	33,112
August	1,505	1,607	1,454	4,355	1,900	16,116	2,377	11,423	1,162	34,561
September	1,427	1,688	1,612	4,171	1,924	15,247	2,354	11,660	1,010	33,516
October	1,549	2,018	1,617	4,069	1,996	15,616	2,198	12,001	1,079	34,315
November	1,594	1,788	1,763	4,722	2,173	15,627	2,344	12,327	1,132	35,402
December	1,470	1,851	1,766	5,324	2,057	15,375	2,133	11,960	1,115	35,244
Average	**1,503**	**1,857**	**1,637**	**4,577**	**1,824**	**15,726**	**2,300**	**11,834**	**1,021**	**34,661**
1985 January	1,491	2,383	2,001	4,887	2,130	16,109	2,393	13,564	1,031	37,082
February	1,508	2,043	1,923	5,262	2,274	16,121	2,274	13,137	1,078	37,106
March	1,364	1,734	1,682	4,680	1,738	15,373	2,120	11,405	1,069	33,892
April	1,372	1,817	1,487	3,962	1,507	15,472	2,238	11,136	1,146	33,088
May	1,501	1,671	1,537	3,721	1,432	15,504	2,284	10,739	1,094	32,559
June	1,344	1,575	1,469	3,701	1,385	15,483	2,356	10,617	1,058	32,203
July	1,483	1,723	1,627	4,003	1,445	15,434	2,630	11,451	1,091	33,462
August	1,527	1,551	1,281	4,109	1,425	16,060	2,708	11,099	1,015	33,810
September	1,435	1,792	1,733	4,002	1,487	15,099	2,259	11,485	1,075	33,096
October	1,546	1,884	1,723	4,008	1,503	15,944	2,499	12,044	971	34,513
November	1,546	1,869	1,629	4,487	1,596	15,503	2,245	11,695	1,088	34,319
December	1,614	1,794	1,951	5,259	1,423	16,611	2,176	11,701	1,071	36,256
Average	**1,478**	**1,818**	**1,669**	**4,336**	**1,608**	**15,726**	**2,350**	**11,666**	**1,065**	**34,271**
1986 January	1,537	2,036	1,861	4,963	1,468	15,923	2,509	12,390	R 961	R 35,774
February	1,569	2,365	1,848	5,215	1,772	16,056	2,746	13,408	R 1,027	R 37,274
March	1,330	1,846	1,603	4,747	1,551	16,188	2,419	11,718	R 1,021	R 35,003
April	1,382	2,070	1,480	4,061	1,676	15,743	2,976	R 12,627	R 1,028	R 34,840
May	1,438	1,563	1,364	3,721	1,462	15,852	2,715	R 11,157	R 1,089	R 33,258
June	1,519	1,596	1,419	3,713	1,532	15,998	2,865	R 11,569	R 1,000	R 33,799
July	1,511	1,848	1,634	3,796	1,461	16,075	2,739	12,074	R 991	R 34,447
August	1,489	1,820	1,322	3,996	1,519	16,686	2,250	11,426	R 1,045	R 34,642
September	1,522	1,784	1,701	4,096	1,729	15,755	2,165	12,177	R 1,067	R 34,617
October	R 1,530	1,737	1,901	R 4,275	1,572	16,441	2,203	R 11,893	R 1,093	R 35,232
November	1,496	1,821	1,926	4,818	1,628	16,051	2,148	11,876	920	35,161
11-Mo. Average	**1,483**	**1,858**	**1,640**	**4,303**	**1,577**	**16,072**	**2,519**	**12,016**	**1,022**	**34,896**

[a]Organization 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.

R=Revised data.

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.*

Figure 10.2 Petroleum Stocks for OECD Countries at End of Period

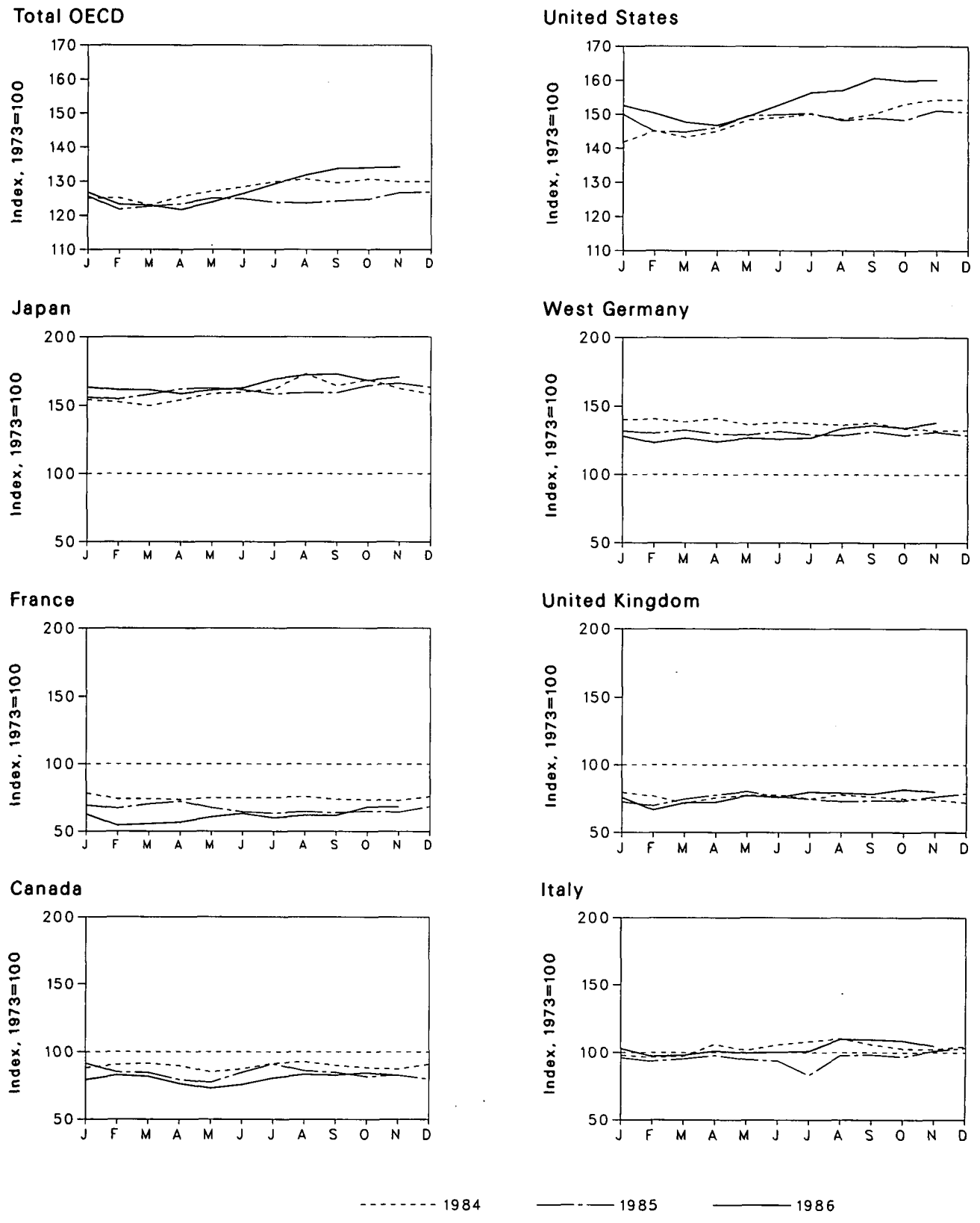


Table 10.3 Petroleum Stocks[a] for OECD Countries [b] at End of Period
(Million Barrels)

	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**	**468**	**125**	**1,430**	**272**	**1,258**	**68**	**3,376**
1983 Year	**120**	**153**	**149**	**471**	**119**	**1,454**	**250**	**1,145**	**68**	**3,258**
1984 January	123	158	149	467	124	1,429	254	1,150	68	3,237
February	127	149	147	462	120	1,463	255	1,119	69	3,240
March	128	149	148	454	112	1,444	251	1,092	68	3,185
April	125	148	161	467	118	1,462	256	1,130	67	3,251
May	119	151	155	480	121	1,496	247	1,129	65	3,289
June	122	151	161	484	122	1,503	250	1,149	66	3,324
July	128	151	164	491	117	1,513	249	1,161	69	3,362
August	130	153	168	524	122	1,498	247	1,163	68	3,383
September	126	149	161	498	119	1,513	250	1,150	68	3,355
October	124	148	156	511	117	1,544	242	1,137	67	3,382
November	122	147	155	492	116	1,556	239	1,126	65	3,362
December	127	153	159	480	113	1,556	240	1,132	69	3,364
1985 January	128	140	146	472	114	1,512	239	1,071	70	3,253
February	119	135	142	468	109	1,462	236	1,032	71	3,153
March	118	142	145	479	117	1,460	240	1,053	65	3,175
April	111	146	148	491	121	1,473	235	1,053	67	3,194
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	1,068	67	3,274
July	112	121	154	513	125	1,578	230	1,076	68	3,347
August	116	125	167	522	124	1,584	242	1,124	68	3,415
September	116	125	167	524	123	1,620	247	1,132	71	3,463
October	R 118	137	165	R 510	128	1,612	243	R 1,156	72	R 3,468
November	115	138	159	517	125	1,614	250	1,155	72	3,474

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

[b]Organization 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.

R=Revised data.

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

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

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 January	.7	2.7	(s)	5.0	1.7	18.0	.3	.4	10.1	.3	(s)
February	.4	2.3	.2	4.6	1.6	17.1	.4	.6	9.2	.4	0
March	.6	1.9	.1	5.1	1.7	17.8	.3	.7	8.8	.2	0
April	.5	2.4	(s)	4.3	1.6	15.4	.3	.3	8.8	.2	(s)
May	.5	2.0	.1	3.6	1.2	14.2	.5	.3	10.5	.4	(s)
June	.4	2.6	0	3.7	1.3	13.1	.4	.3	9.9	.4	(s)
July	.4	2.4	0	4.4	1.4	13.1	.5	.3	10.6	.2	(s)
August	.3	1.9	(s)	4.7	1.4	13.2	.4	.8	11.0	.3	(s)
September	.4	1.9	.3	3.9	1.5	14.7	.2	.8	11.4	.4	(s)
October	.1	2.5	.5	4.5	1.8	16.0	.4	.8	11.6	.4	(s)
November	(s)	2.6	.4	4.7	1.7	17.8	.3	.8	11.9	.4	(s)
December	.1	2.6	.4	5.1	1.7	20.9	.2	.8	13.2	.4	(s)
Total	4.5	27.7	2.1	53.8	18.5	191.2	4.1	6.9	127.2	3.8	.3
1985 January	.2	2.5	.4	5.7	1.7	21.9	.2	.8	12.2	.4	(s)
February	.4	1.7	.3	5.0	1.6	19.2	.2	.7	10.7	.3	(s)
March	.5	2.0	.3	5.9	1.8	20.6	.4	.8	12.0	.2	0
April	.4	2.2	.1	5.2	1.6	17.7	.6	.7	11.8	(s)	0
May	.4	2.8	.2	2.4	1.2	15.9	.5	.7	13.0	.2	0
June	.4	2.8	.4	4.2	1.2	13.6	.4	.6	12.6	.4	(s)
July	.5	2.5	.3	5.7	1.4	16.1	.4	.6	12.5	.4	.1
August	.5	3.2	.1	6.0	1.5	15.4	.2	.5	12.9	.4	(s)
September	.5	3.3	.3	5.4	1.6	17.2	.3	.3	12.8	.4	0
October	.6	3.9	.4	5.1	1.7	20.0	.4	.3	13.9	.4	(s)
November	.7	3.9	.3	5.8	1.7	22.1	.4	.3	13.1	.4	.1
December	.7	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 January	.6	3.8	(s)	6.5	1.8	25.6	.5	.9	15.0	.4	(s)
February	.6	2.8	0	6.2	1.6	22.8	.4	.5	13.5	.1	(s)
March	.5	3.6	0	7.0	1.8	23.6	.5	.9	14.5	.3	(s)
April	.5	3.7	0	6.0	1.7	21.0	.3	.9	12.4	.4	(s)
May	.7	3.2	0	5.7	1.4	R 16.3	.4	.7	12.8	.4	(s)
June	.4	2.9	0	5.4	1.1	16.7	.4	.9	15.0	.4	(s)
July	.4	3.0	0	5.3	1.3	18.8	.5	.9	15.2	.4	(s)
August	.6	3.1	0	6.6	1.4	16.5	.5	.9	14.8	.4	.1
September	.6	3.1	0	6.2	1.5	19.0	.4	.9	13.4	.4	.1
October	.2	3.2	0	6.6	1.8	22.4	.3	.8	12.7	.4	(s)
November	.2	3.0	(s)	6.4	1.7	24.1	.5	.3	11.7	.3	(s)
December	.3	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

[a]Figures are for gross electricity generation, as opposed to net electricity generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

[b]The United Kingdom assesses generation at 4-, 5-, or 6-week intervals, rather than by calendar month.

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

Footnotes continued on following page.

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

	South Africa	South Korea	Spain	Sweden	Switzerland	Taiwan	United Kingdom[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 January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	61.8	30.8	92.6
February	0	1.2	1.5	5.0	1.4	1.8	4.6	6.8	59.1	29.4	88.5
March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	60.6	28.6	89.2
April	0.1	.9	1.3	4.5	1.5	1.8	4.2	7.7	55.8	24.7	80.5
May	.1	.8	1.9	3.3	1.3	1.4	4.3	7.2	53.6	27.3	80.9
June	.3	.7	2.2	2.8	.6	1.8	4.7	7.1	52.3	26.4	78.8
July	.5	.7	2.5	2.4	1.3	2.7	3.7	6.2	53.2	29.4	82.6
August	.7	.9	2.3	3.5	1.0	2.4	3.6	6.3	54.7	31.8	86.5
September	.7	.9	2.6	4.2	1.4	2.6	4.9	8.1	60.8	30.3	91.1
October	.7	1.3	1.8	5.0	1.5	2.0	4.1	8.5	63.5	26.8	90.3
November	.5	1.3	1.9	4.5	1.5	1.8	4.4	9.9	66.3	26.2	92.5
December	.6	.9	2.2	5.4	1.9	2.3	6.3	10.8	75.9	32.0	107.9
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 January	.3	1.1	2.2	5.4	2.2	2.4	5.7	10.8	76.1	38.0	114.1
February	0	[R] 1.3	1.9	5.0	2.0	2.1	5.6	10.1	[R] 68.3	32.4	[R] 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
June	.1	1.2	3.1	2.6	1.2	2.6	5.1	9.6	62.0	31.0	93.0
July	.8	1.1	2.2	3.1	1.3	2.2	4.1	8.4	63.7	36.4	100.2
August	.8	1.2	2.1	4.3	1.0	2.2	3.8	9.5	65.5	36.8	102.3
September	1.0	1.3	2.1	4.7	1.7	2.6	4.9	10.3	70.7	35.9	106.6
October	1.1	1.4	2.2	5.4	2.2	2.6	4.3	11.3	77.2	32.1	109.3
November	.8	1.7	2.2	7.0	2.2	1.7	3.7	11.7	79.6	31.7	111.3
December	.9	1.9	2.6	6.9	2.2	2.5	6.0	12.3	89.0	35.7	124.6
Total	**5.7**	**16.4**	**28.0**	**58.6**	**22.4**	**28.7**	**59.6**	**125.7**	**862.2**	**402.6**	**1,264.8**
1986 January	1.0	2.0	3.1	6.8	2.3	2.9	4.8	12.0	90.0	38.1	128.1
February	.6	1.7	2.5	6.4	2.1	2.1	5.3	10.4	79.7	34.1	113.8
March	.7	1.5	2.4	7.2	2.3	2.2	6.4	10.7	86.0	31.2	117.2
April	.7	1.6	3.0	6.7	2.2	2.0	4.2	9.6	76.8	32.2	109.0
May	.7	2.4	3.6	4.8	2.1	2.0	4.4	9.5	[R] 71.2	33.7	[R] 104.9
June	.2	2.2	3.9	4.1	1.2	1.6	5.1	9.0	70.4	33.2	103.6
July	.6	2.0	3.1	3.8	.9	1.8	4.1	7.9	70.0	38.0	108.1
August	.7	2.4	2.9	4.3	1.0	1.9	4.2	8.0	70.3	39.2	[R] 109.6
September	.9	2.1	2.7	5.1	1.9	2.0	4.9	[R] 9.1	[R] 74.2	37.9	[R] 112.0
October	1.0	3.0	3.4	6.5	2.3	2.4	4.1	[R] 8.8	[R] 80.0	37.9	[R] 117.9
November	1.3	2.2	3.4	6.9	2.1	2.8	4.8	[R] 10.5	[R] 82.4	36.2	[R] 118.6
December	.9	3.1	3.2	7.3	2.2	3.1	6.1	11.9	92.3	40.9	133.1
Total	**9.3**	**26.1**	**37.5**	**69.9**	**22.5**	**26.9**	**58.2**	**117.3**	**943.3**	**432.5**	**1,375.8**

Footnotes continued.

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

Sources: *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

[a]60 percent butane and 40 percent propane.
[b]70 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

[a]Includes lease condensate.
[b]Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.
[c]This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.
R=Revised data.
Sources: See "Thermal Conversion Factor Source Documentation" on the following pages.

Approximate Heat Content of Fuels, 1980-1986

	Units	1980	1981	1982	1983	1984	1985	1986[d]
Coal								
Production	Million Btu/short ton	22.415	22.309	22.240	22.056	22.014	21.874	R 21.934
Consumption	Million Btu/short ton	21.947	21.714	21.675	21.581	21.577	21.370	R 21.485
Non-electric utility users	Million Btu/short ton	24.731	24.477	R 24.195	24.093	24.069	23.664	R 23.609
Electric utilities	Million Btu/short ton	21.295	21.085	21.194	21.133	21.101	20.959	R 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	R 26.292
Anthracite								
Production	Million Btu/short ton	22.869	23.291	23.289	22.734	23.107	22.428	R 22.429
Consumption	Million Btu/short ton	21.405	22.080	R 22.518	21.583	22.322	20.817	R 20.690
Non-electric utility users	Million Btu/short ton	22.719	23.749	R 24.578	24.536	25.128	23.031	R 23.061
Electric utilities	Million Btu/short ton	17.652	18.168	18.160	16.516	17.018	16.784	R 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	R 21.932
Consumption	Million Btu/short ton	21.950	21.712	21.671	21.581	21.574	21.372	R 21.488
Residential and commercial	Million Btu/short ton	22.488	22.191	22.373	22.934	22.880	23.072	R 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	R 22.078
Electric utilities	Million Btu/short ton	21.301	21.091	21.200	21.141	21.108	20.965	R 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	R 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	5.832
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 5.768
Exports	Million Btu/barrel	5.820	5.821	5.820	5.800	5.850	5.814	R 5.844
Petroleum products[b]								
Consumption	Million Btu/barrel	5.479	5.448	5.415	5.406	5.395	5.387	R 5.412
Residential and commercial	Million Btu/barrel	5.468	5.409	5.392	5.286	5.261	R 5.203	R 5.233
Industrial	Million Btu/barrel	5.376	5.310	5.262	5.273	5.256	R 5.265	R 5.311
Transportation	Million Btu/barrel	5.440	5.434	5.423	5.416	5.423	R 5.421	R 5.422
Electric utilities	Million Btu/barrel	6.254	6.258	6.258	6.255	6.251	R 6.247	R 6.256
Imports	Million Btu/barrel	5.748	5.659	5.664	5.677	5.613	5.572	R 5.630
Exports	Million Btu/barrel	5.841	5.837	5.829	5.800	5.867	5.819	R 5.855
LPG consumption	Million Btu/barrel	3.674	3.643	3.615	3.614	3.599	3.603	R 3.633
Natural gas plant liquids								
Production	Million Btu/barrel	3.914	3.930	3.872	3.839	3.812	R 3.815	R 3.792
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	R 10,339	R 10,339
Nuclear power plant generation	Btu/kilowatthour	10,908	11,030	11,073	10,905	10,843	R 10,809	R 10,809
Geothermal energy power plant generation	Btu/kilowatthour	21,639	21,639	21,629	21,290	21,303	21,303	21,303
Electricity Consumption	Btu/kilowatthour	3,412	3,412	3,412	3,412	3,412	3,412	3,412

[a]Includes lease condensate.
[b]Weighted averages of the products included in each category are calculated using heat content values shown on the first page of this section.
[c]This is used as the thermal conversion factor for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.
[d]Preliminary data.
R=Revised data.
Sources: See "Thermal Conversion Factor Source Documentation" on the following pages.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum Products

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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-

ities. 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.

Approximate Heat Rates for Electricity

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

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 (^{o}F) at or near 39.2 ^{o}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 ^{o}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 ^{o}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 gaoline 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 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 ^{o}F end-point, other oils over 400 ^{o}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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