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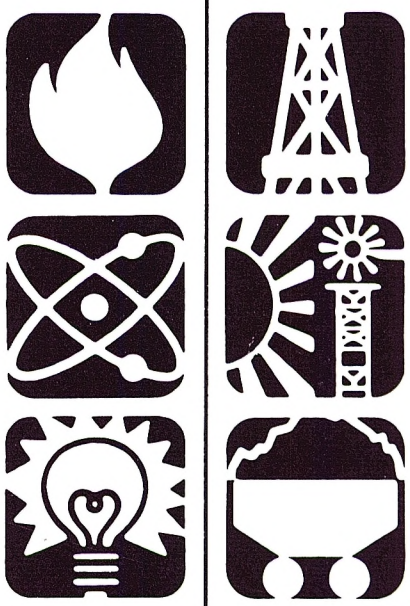
DOE/EIA-0035(84/04)

Monthly Energy Review

Energy Information Administration
Washington, D.C.

April 1984

New Petroleum Price Tables
See Part 9



Published:
July 1984

See Notice
Inside Cover

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

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

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

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Released for printing: July 25, 1984

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Monthly Energy Review

April 1984

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

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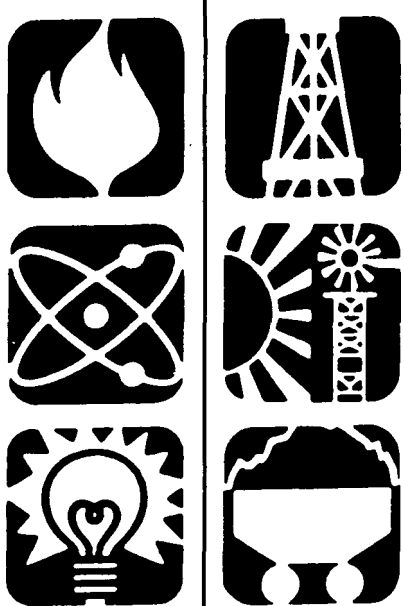

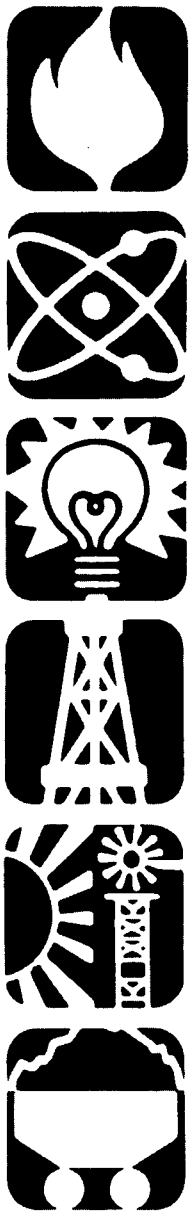

Contacts

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Questions concerning the contents of the *Monthly Energy Review* may be referred to the following subject specialists:

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Part 3.	**Petroleum**	Christine D. Gray (202) 252-8995
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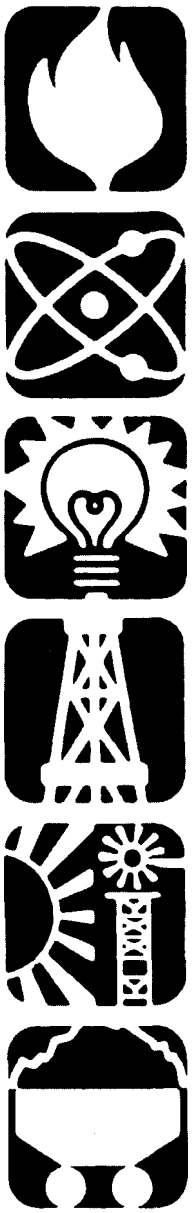


Articles

Feature articles on energy-related subjects and highlights from recently published Energy Information Administration reports are often included in this publication. The following articles and highlights have appeared in issues since the beginning of 1981. A list of articles included in this report prior to 1981 may be found in any issue published from 1981 through 1983.

Part 1 Executive Summary

Overview

January through April Summary

The United States produced 7.7 percent* more energy during the first 4 months of 1984 than during the same period in 1983, and U.S. energy consumption was up 8.1 percent. Net imports of all energy were 41.0 percent higher, with net imports of petroleum up 43.5 percent compared to the first 4 months of 1983.

Production

Energy production during April 1984 totaled 5.3 quadrillion Btu, an 8.5-percent increase compared to the level of production during April 1983. Coal production increased 16.2 percent and natural gas production was up 13.7 percent, while petroleum production decreased 0.1 percent. Production of all other forms of energy combined increased 4.3 percent compared to production 1 year earlier.

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

Consumption

Energy consumption during April 1984 totaled 5.8 quadrillion Btu, 5.5 percent above the level of consumption during April 1983. Coal consumption increased 9.5 percent, petroleum consumption was up 5.4, and natural gas consumption increased 2.7 percent. Consumption of all other forms of energy combined increased 4.5 percent compared to consumption during April 1983.

Net Imports

Net imports of energy during April 1984 totaled 0.7 quadrillion Btu, 14.2 percent above the level of imports during April 1983. Net imports of petroleum increased 19.0 percent, while net imports of natural gas decreased 2.9 percent. Net exports of coal were up 26.3 percent compared to the level in April 1983.

Energy Summary

(Quadrillion (10^{15}) Btu)

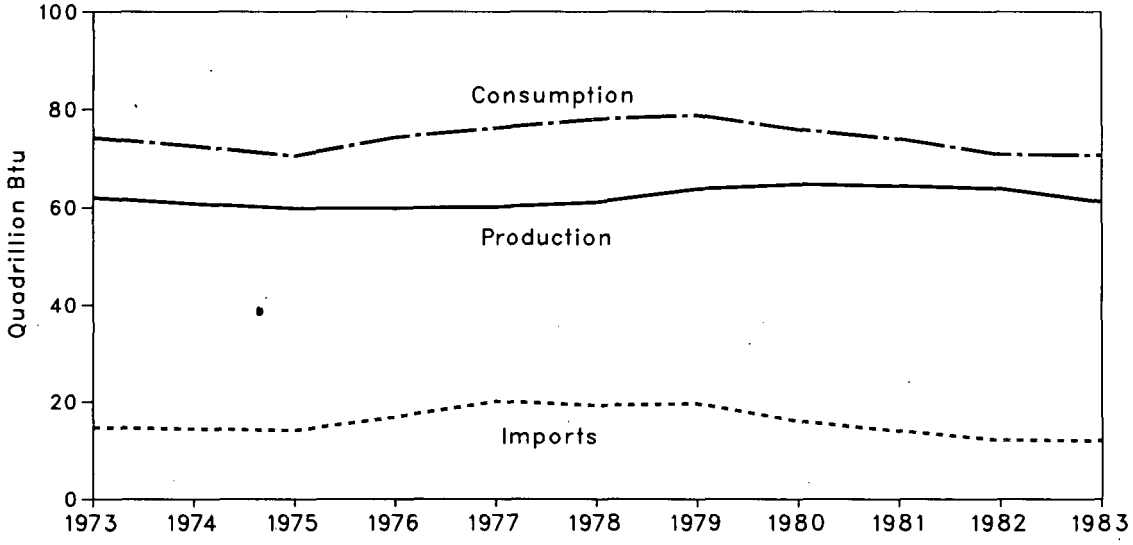
	April			Cumulative January through April				
	1984	1983	Percent Change	1984	1984 Daily Rate	1983	1983 Daily Rate	Percent Change[1]
Total Production	**5.338**	**4.920**	**+8.5**	**21.931**	**0.181**	**20.187**	**0.168**	**+7.7**
Petroleum[2]	1.699	1.701	-0.1	6.853	0.057	6.795	0.057	0.0
Natural Gas	1.468	1.291	+13.7	6.080	0.050	5.477	0.046	+10.1
Coal	1.575	1.356	+16.2	6.507	0.054	5.605	0.047	+15.1
Other[3]	0.597	0.572	+4.3	2.492	0.021	2.310	0.019	+7.0
Total Consumption	**5.845**	**5.543**	**+5.5**	**25.898**	**0.214**	**23.763**	**0.198**	**+8.1**
Petroleum[4]	2.513	2.385	+5.4	10.419	0.086	9.701	0.081	+6.5
Natural Gas	1.461	1.422	+2.7	7.309	0.060	6.775	0.056	+7.0
Coal	1.247	1.138	+9.5	5.562	0.046	4.870	0.041	+13.3
Other[5]	0.625	0.598	+4.5	2.607	0.022	2.418	0.020	+7.0
Net Imports	**0.704**	**0.616**	**+14.2**	**3.106**	**0.026**	**2.184**	**0.018**	**+41.0**
Petroleum[6]	0.806	0.677	+19.0	3.287	0.027	2.271	0.019	+43.5
Natural Gas	0.068	0.070	-2.9	0.293	0.002	0.353	0.003	-17.7
Coal[7]	(0.198)	(0.157)	(+26.3)	(0.589)	(0.005)	(0.549)	(0.005)	(+6.5)
Other[8]	0.028	0.026	+7.8	0.115	0.001	0.108	0.001	+5.8

[1] Based on daily rates prior to rounding.
[2] Includes crude oil, lease condensate, and natural gas plant liquids.
[3] Other is hydroelectric, nuclear, and geothermal power and electricity produced from wood, waste, and wind energy.
[4] Includes refined petroleum products and natural gas plant liquids.
[5] Other is hydroelectric, nuclear, and geothermal power; electricity produced from wood, waste, and wind energy; and net imports of electricity and coal coke.
[6] Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[7] Parentheses indicate exports are greater than imports.
[8] Other is net imports of electricity and coal coke.
Note: • Totals may not equal sum of components due to independent rounding.

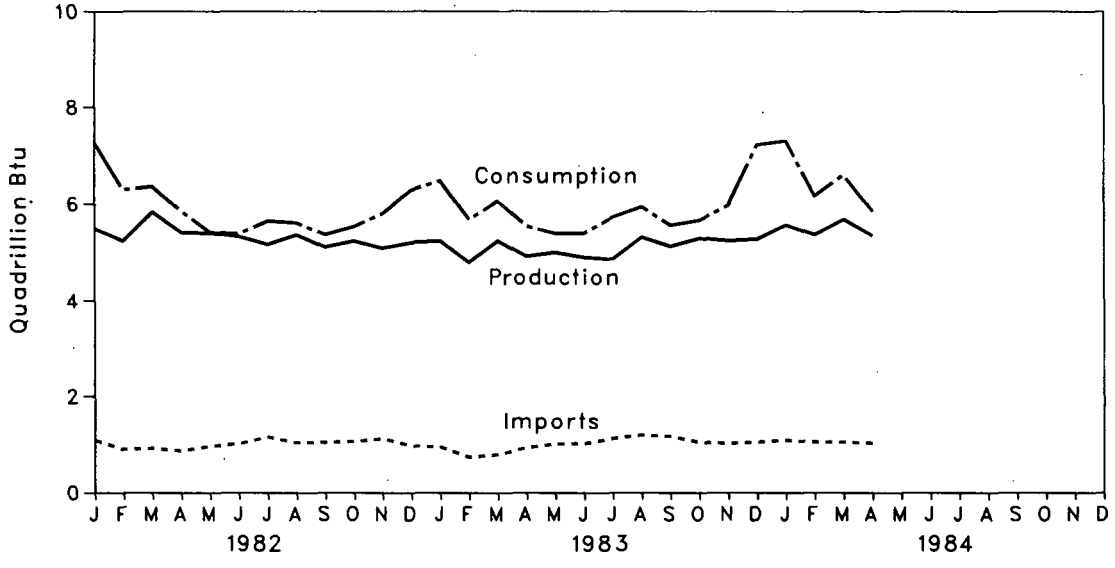
Executive Summary

Energy Summary

Yearly



Monthly



Executive Summary

Energy Summary[1]

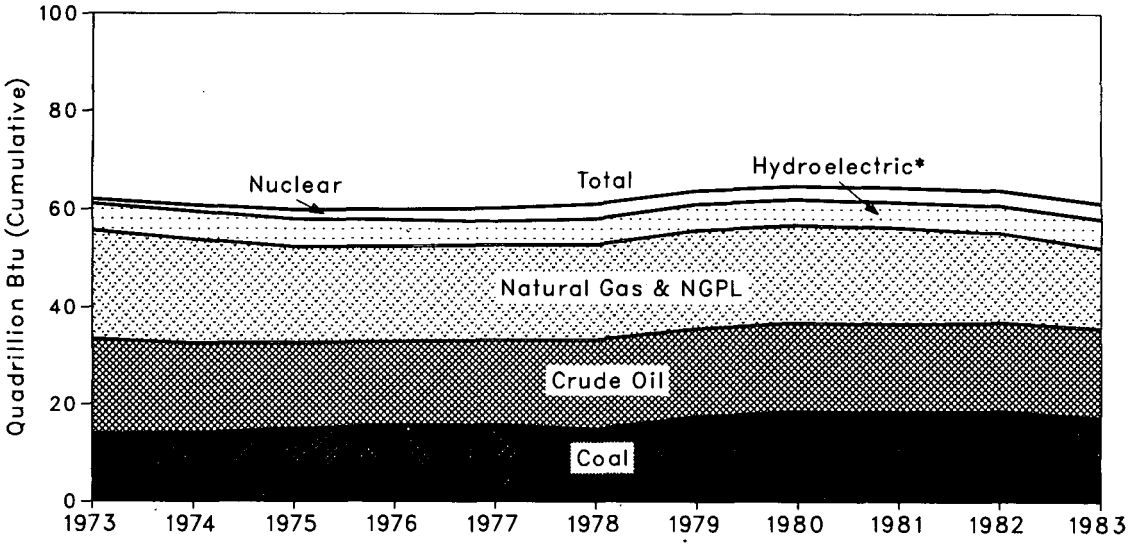
		Production[2]	Consumption[2]	Imports[2]	Exports	Net Imports
			Quadrillion (10^{15}) Btu			
1973	**TOTAL**	**61.993**	**74.212**	**14.732**	**2.053**	**12.679**
1974	**TOTAL**	**60.770**	**72.479**	**14.417**	**2.224**	**12.192**
1975	**TOTAL**	**59.801**	**70.485**	**14.113**	**2.361**	**11.753**
1976	**TOTAL**	**59.886**	**74.297**	**16.838**	**2.190**	**14.648**
1977	**TOTAL**	**60.142**	**76.215**	**20.092**	**2.073**	**18.019**
1978	**TOTAL**	**61.049**	**78.039**	**19.261**	**1.932**	**17.329**
1979	**TOTAL**	**63.744**	**78.845**	**19.620**	**2.872**	**16.748**
1980	**TOTAL**	**64.708**	**75.900**	**15.972**	**3.726**	**12.246**
1981	**TOTAL**	**64.376**	**73.940**	**13.974**	**4.331**	**9.643**
1982	January	5.489	7.263	1.088	0.319	0.769
	February	5.236	6.293	0.892	0.377	0.515
	March	5.835	6.360	0.916	0.443	0.473
	April	5.408	5.854	0.861	0.427	0.434
	May	5.395	5.414	0.962	0.420	0.542
	June	5.325	5.386	1.016	0.416	0.600
	July	5.165	5.649	1.156	0.386	0.770
	August	5.362	5.612	1.036	0.359	0.677
	September	5.109	5.363	1.036	0.377	0.659
	October	5.236	5.534	1.061	0.439	0.621
	November	5.090	5.808	1.119	0.352	0.768
	December	5.202	6.287	0.968	0.323	0.645
	TOTAL	**63.851**	**70.822**	**12.110**	**4.637**	**7.473**
1983	January	5.232	R6.475	R0.943	0.303	R0.640
	February	R4.798	R5.682	R0.729	0.265	R0.464
	March	R5.236	R6.063	R0.783	0.319	R0.464
	April	R4.920	R5.543	R0.929	R0.313	R0.616
	May	R5.001	R5.388	R1.008	R0.346	R0.662
	June	4.901	R5.396	R1.017	R0.333	R0.684
	July	R4.863	R5.731	R1.121	0.275	R0.847
	August	R5.310	R5.946	R1.195	R0.350	R0.845
	September	R5.125	R5.560	R1.164	R0.325	R0.839
	October	R5.286	R5.664	R1.043	0.326	R0.717
	November	R5.235	R5.973	R1.015	0.281	R0.734
	December	R5.267	R7.218	R1.044	0.291	R0.753
	TOTAL	**R61.174**	**R70.638**	**R11.990**	**R3.727**	**R8.264**
1984	January	R5.563	R7.300	1.087	0.245	0.842
	February	R5.354	R6.160	1.047	0.217	0.830
	March	R5.677	R6.593	1.044	0.314	0.730
	April	5.338	5.845	1.030	0.326	0.704

[1]For definitions, see Notes on the last page of this section.
[2]The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation, and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.
R = Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; and geothermal, biomass, waste, and wind energy (other than that consumed at electric utilities).
Source: • Energy Information Administration calculations based on data appearing elsewhere in this publication.

Executive Summary

Production of Energy by Source

Yearly



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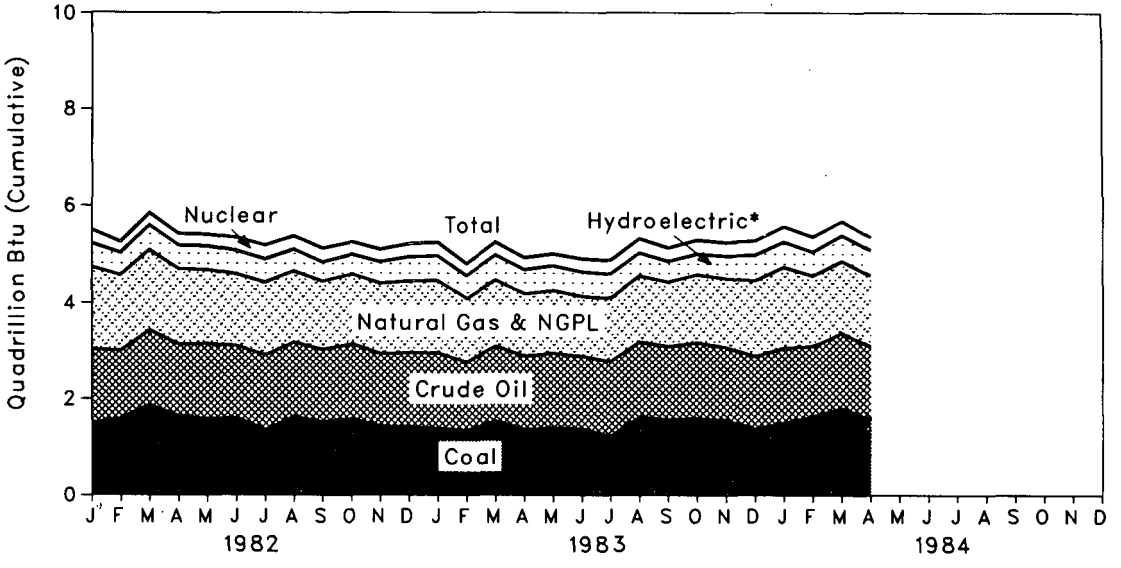


*Includes industrial and utility production of hydropower. Also includes geothermal power and electricity produced from wood, waste, and wind energy.

Executive Summary

Production of Energy by Source

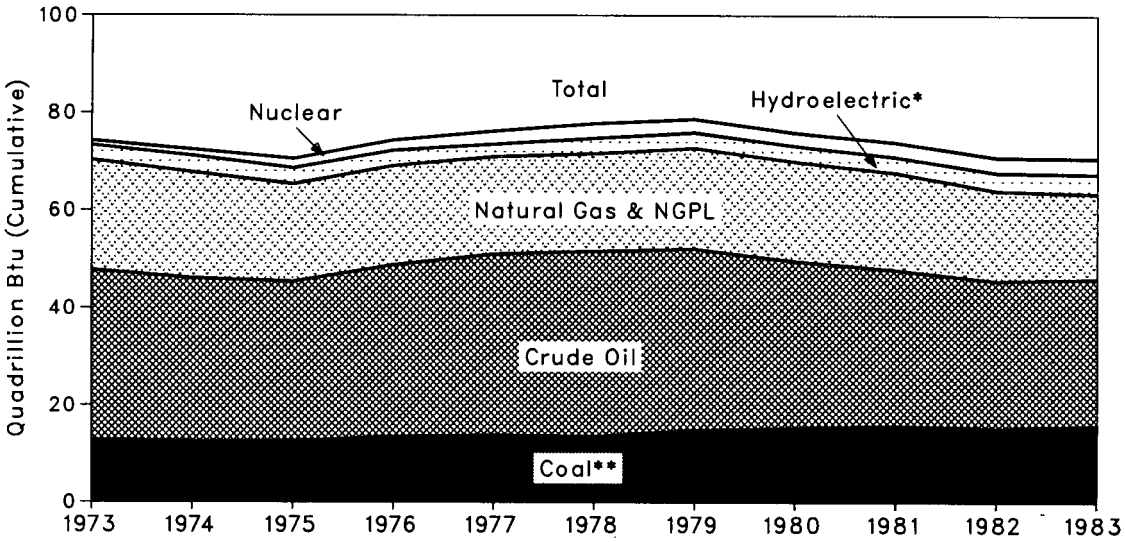
		Coal	Crude Oil[1]	NGPL[2]	Natural Gas (Dry)	Hydro-electric Power[3]	Nuclear Electric Power	Other[4]	Total Energy Produced	Yearly Cumulative Energy Produced
					Quadrillion (10^{15}) Btu					
1973	**TOTAL**	**13.926**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**61.993**	
1974	**TOTAL**	**14.010**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**60.770**	
1975	**TOTAL**	**14.931**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**59.801**	
1976	**TOTAL**	**15.649**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**59.886**	
1977	**TOTAL**	**15.679**	**17.454**	**2.327**	**19.565**	**2.333**	**2.702**	**0.082**	**60.142**	
1978	**TOTAL**	**14.856**	**18.434**	**2.245**	**19.485**	**2.937**	**3.024**	**0.068**	**61.049**	
1979	**TOTAL**	**17.483**	**18.104**	**2.286**	**20.076**	**2.931**	**2.776**	**0.089**	**63.744**	
1980	**TOTAL**	**18.544**	**18.249**	**2.254**	**19.907**	**2.900**	**2.739**	**0.114**	**64.708**	
1981	**TOTAL**	**18.331**	**18.146**	**2.307**	**19.699**	**2.758**	**3.008**	**0.127**	**64.376**	
1982	January	1.490	1.530	0.189	1.703	0.285	0.283	0.009	5.489	5.489
	February	1.580	1.413	0.169	1.562	0.282	0.222	0.008	5.236	10.725
	March	1.863	1.558	0.189	1.651	0.316	0.251	0.007	5.835	16.560
	April	1.633	1.495	0.179	1.558	0.296	0.240	0.007	5.408	21.968
	May	1.579	1.561	0.182	1.530	0.296	0.238	0.008	5.395	27.362
	June	1.592	1.504	0.175	1.483	0.296	0.265	0.010	5.325	32.688
	July	1.344	1.557	0.182	1.504	0.289	0.281	0.010	5.165	37.853
	August	1.618	1.552	0.183	1.471	0.253	0.275	0.010	5.362	43.216
	September	1.508	1.514	0.176	1.410	0.211	0.280	0.010	5.109	48.324
	October	1.573	1.565	0.184	1.439	0.209	0.256	0.011	5.236	53.560
	November	1.422	1.513	0.187	1.455	0.246	0.256	0.011	5.090	58.650
	December	1.401	1.546	0.195	1.489	0.293	0.269	0.009	5.202	63.851
	TOTAL	**18.603**	**18.309**	**2.191**	**18.255**	**3.271**	**3.115**	**0.108**	**63.851**	
1983	January	1.384	R1.564	R0.189	1.499	0.310	0.276	0.011	5.232	5.232
	February	1.336	R1.422	R0.170	1.321	0.295	0.245	0.008	R4.798	R10.030
	March	1.529	R1.564	R0.184	1.366	0.320	0.263	0.010	R5.236	R15.267
	April	1.356	R1.527	0.174	1.291	0.317	0.246	0.009	R4.920	R20.187
	May	1.393	R1.552	R0.179	1.297	0.330	0.243	0.007	R5.001	R25.188
	June	1.378	R1.508	R0.176	1.238	0.325	0.266	0.010	4.901	R30.088
	July	1.219	R1.553	0.184	1.316	0.297	0.282	0.012	R4.863	R34.951
	August	1.619	R1.561	0.187	1.366	0.273	0.289	0.016	R5.310	R40.261
	September	1.560	R1.528	0.185	1.332	0.230	0.275	0.014	R5.125	R45.386
	October	1.594	R1.577	0.192	1.404	0.219	0.284	0.015	R5.286	R50.672
	November	1.547	R1.526	R0.190	1.423	0.261	0.275	0.013	R5.235	R55.907
	December	1.371	R1.510	R0.185	1.566	0.334	0.290	0.011	R5.267	R61.174
	TOTAL	**17.286**	**R18.392**	**R2.195**	**16.419**	**3.511**	**3.235**	**0.135**	**R61.174**	
1984	January	R1.497	1.557	0.190	R1.673	0.314	0.321	0.011	R5.563	R5.563
	February	R1.631	1.468	0.182	R1.453	0.295	0.312	0.013	R5.354	R10.916
	March	R1.803	1.567	0.190	R1.486	0.321	0.293	0.015	R5.677	R16.593
	April	1.575	1.512	0.187	1.468	0.317	0.266	0.014	5.338	21.931

[1]Includes lease condensate.
[2]Natural gas plant liquids.
[3]Includes industrial and utility production of hydropower.
[4]Includes only geothermal power and electricity produced from wood, waste, and wind 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.
• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; and geothermal, biomass, waste, and wind energy (other than that consumed at electric utilities).
Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

Executive Summary

Consumption of Energy by Source

Yearly



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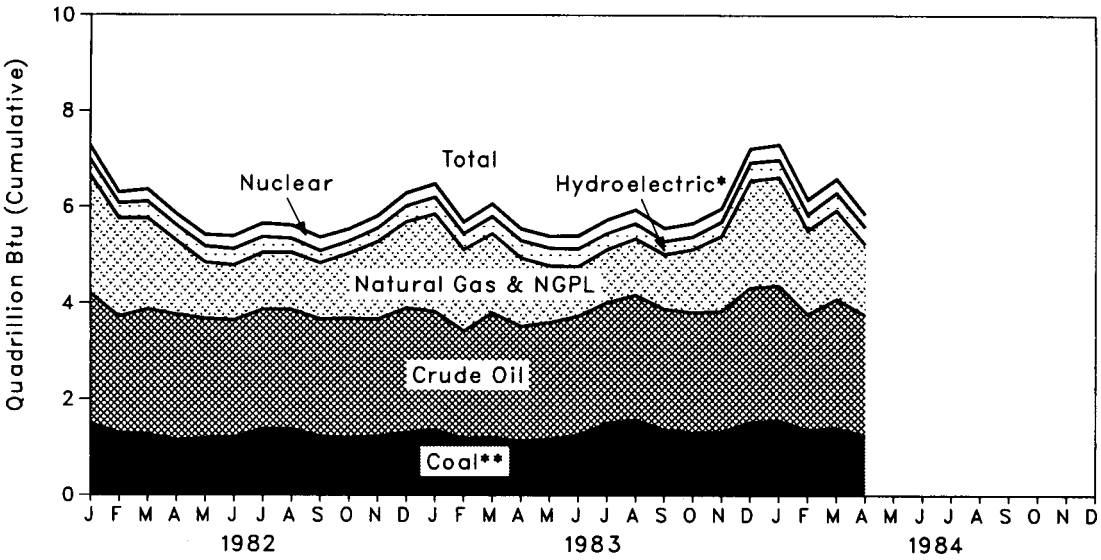


*Includes geothermal power and electricity produced from wood, waste, and wind energy.
**Includes net imports of coal coke.

Executive Summary

Consumption of Energy by Source

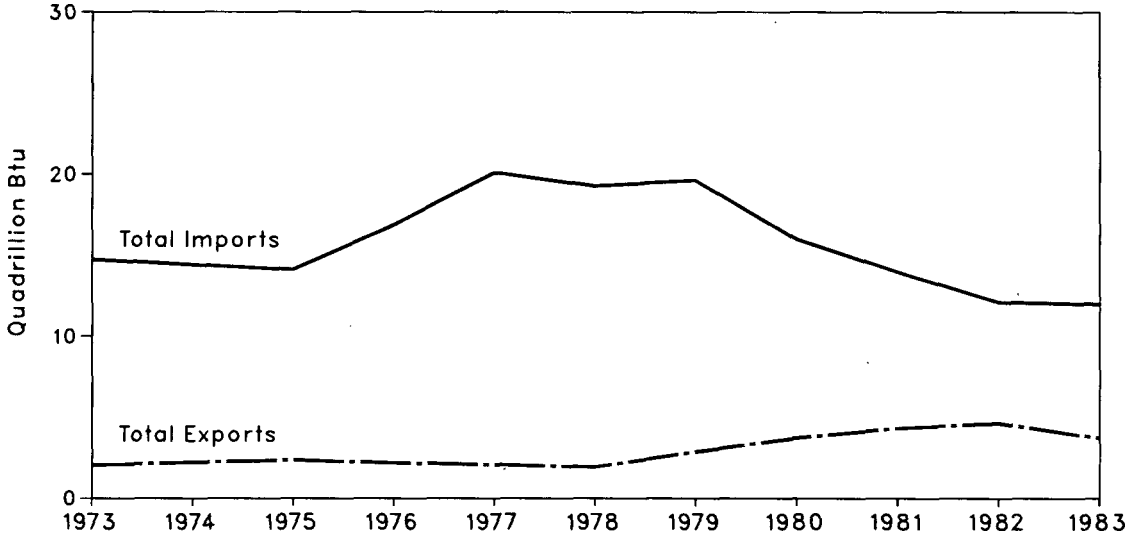
		Coal	Natural Gas (Dry)	Petroleum	Hydroelectric Power[1]	Nuclear Electric Power	Net Imports of Coal Coke[2]	Other[3]	Total Energy Consumed	Yearly Cumulative Energy Consumed
					Quadrillion (10^{15}) Btu					
1973	**TOTAL**	**12.903**	**22.512**	**34.840**	**3.010**	**0.910**	**(0.008)**	**0.046**	**74.212**	
1974	**TOTAL**	**12.596**	**21.732**	**33.455**	**3.309**	**1.272**	**0.059**	**0.056**	**72.479**	
1975	**TOTAL**	**12.601**	**19.948**	**32.731**	**3.219**	**1.900**	**0.014**	**0.072**	**70.485**	
1976	**TOTAL**	**13.519**	**20.345**	**35.175**	**3.066**	**2.111**	**0.000**	**0.081**	**74.297**	
1977	***TOTAL***	***13.848***	***19.931***	***37.122***	***2.515***	***2.702***	***0.015***	***0.082***	***76.215***	
1978	**TOTAL**	**13.710**	**20.000**	**37.965**	**3.141**	**3.024**	**0.131**	**0.068**	**78.039**	
1979	**TOTAL**	**14.983**	**20.666**	**37.123**	**3.141**	**2.776**	**0.066**	**0.089**	**78.845**	
1980	**TOTAL**	**15.373**	**20.391**	**34.202**	**3.118**	**2.739**	**(0.037)**	**0.114**	**75.900**	
1981	**TOTAL**	**15.860**	**19.926**	**31.931**	**3.105**	**3.008**	**(0.017)**	**0.127**	**73.940**	
1982	January	1.486	2.467	2.707	0.312	0.283	0.000	0.009	7.263	7.263
	February	1.292	2.040	2.426	0.307	0.222	(0.001)	0.008	6.293	13.556
	March	1.260	1.889	2.612	0.343	0.251	(0.002)	0.007	6.360	19.916
	April	1.152	1.527	2.607	0.322	0.240	(0.001)	0.007	5.854	25.770
	May	1.186	1.168	2.492	0.324	0.238	(0.003)	0.008	5.414	31.183
	June	1.210	1.146	2.436	0.322	0.265	(0.004)	0.010	5.386	36.569
	July	1.381	1.177	2.488	0.316	0.281	(0.003)	0.010	5.649	42.218
	August	1.374	1.183	2.491	0.280	0.275	(0.001)	0.010	5.612	47.831
	September	1.227	1.172	2.440	0.237	0.280	(0.003)	0.010	5.363	53.193
	October	1.190	1.348	2.494	0.236	0.256	(0.001)	0.011	5.534	58.727
	November	1.229	1.603	2.438	0.273	0.256	(0.002)	0.011	5.808	64.535
	December	1.303	1.788	2.600	0.320	0.269	(0.001)	0.009	6.287	70.822
	TOTAL	**15.291**	**18.507**	**30.232**	**3.592**	**3.115**	**(0.023)**	**0.108**	**70.822**	
1983	January	1.358	R2.023	R2.469	0.339	0.276	(0.001)	0.011	R6.475	R6.475
	February	1.179	R1.689	R2.241	0.322	0.245	(0.001)	0.008	R5.682	R12.157
	March	1.195	R1.641	R2.606	0.350	0.263	(0.001)	0.010	R6.063	R18.220
	April	1.138	R1.422	R2.385	0.345	0.246	(0.002)	0.009	R5.543	R23.763
	May	1.171	R1.177	R2.433	0.359	0.243	(0.002)	0.007	R5.388	R29.151
	June	1.255	1.032	R2.481	0.353	0.266	(0.001)	0.010	R5.396	R34.547
	July	1.497	R1.096	R2.519	0.327	0.282	(0.002)	0.012	R5.731	R40.278
	August	1.572	R1.172	R2.596	0.302	0.289	(0.001)	0.016	R5.946	R46.224
	September	1.365	R1.132	R2.517	0.258	0.275	(0.001)	0.014	R5.560	R51.784
	October	1.303	R1.305	R2.509	0.249	0.284	(0.001)	0.015	R5.664	R57.448
	November	1.324	1.556	R2.516	0.289	0.275	(0.001)	0.013	R5.973	R63.420
	December	1.520	R2.231	R2.805	0.364	0.290	(0.003)	0.011	R7.218	R70.638
	TOTAL	**15.877**	**R17.475**	**R30.076**	**3.857**	**3.235**	**(0.016)**	**0.135**	**R70.638**	
1984	January	R1.553	R2.266	2.805	0.344	0.321	0.001	0.011	R7.300	R7.300
	February	R1.360	R1.737	2.414	0.321	0.312	0.002	0.013	R6.160	R13.460
	March	R1.403	R1.845	2.686	0.351	0.293	(0.001)	0.015	R6.593	R20.053
	April	1.247	1.461	2.513	0.345	0.266	0.000	0.014	5.845	25.898

[1]Includes industrial and utility production and net imports of electricity.
[2]Parentheses indicate exports are greater than imports.
[3]Includes only geothermal power and electricity produced from wood, waste, and wind 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.
• Data do not include wood-derived fuel (other than that consumed by the electric utilities). Data also exclude small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; and geothermal, biomass, waste, and wind energy (other than that consumed at electric utilities).
Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

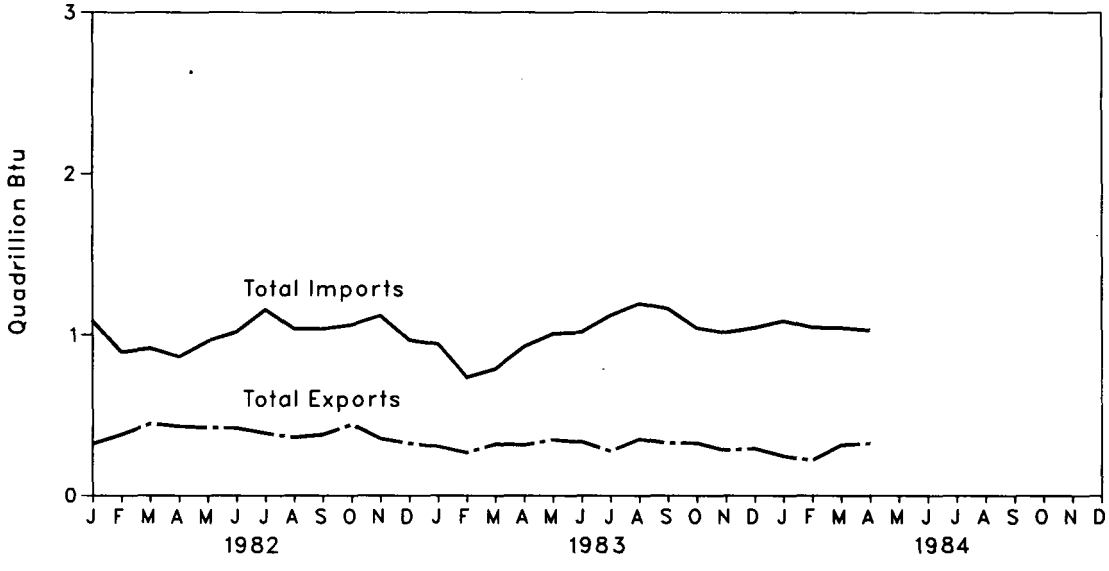
Executive Summary

Energy Imports and Exports

Yearly



Monthly



Executive Summary

Net Imports[1] of Energy by Source

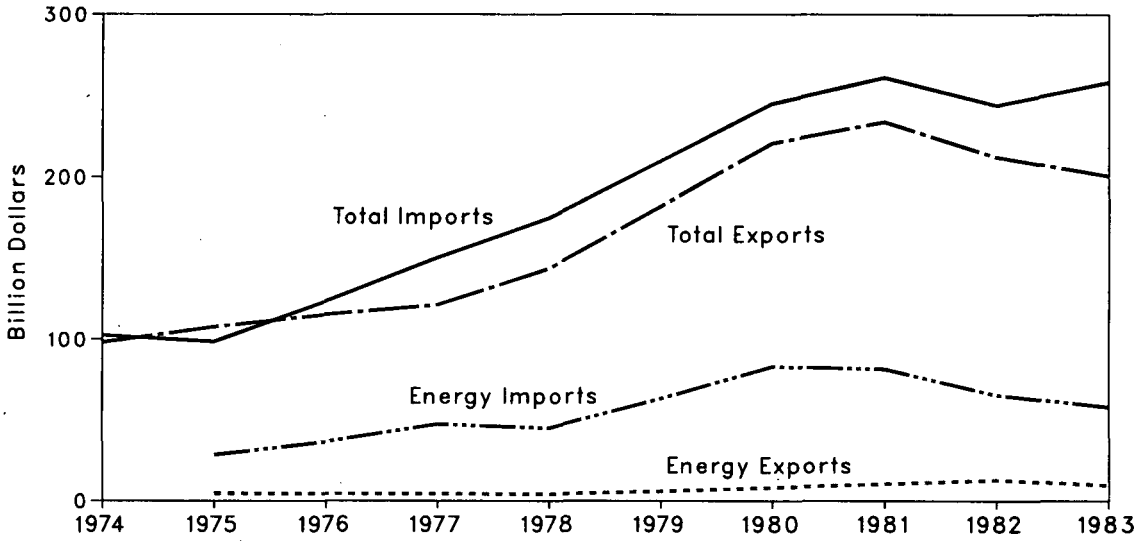
		Coal	Crude Oil[2]	Refined Petroleum Products[3]	Natural Gas (Dry)	Electricity	Coal Coke	Total Net Imports	Yearly Cumulative Net Imports of Energy
		Quadrillion (10^{15}) Btu							
1973	**TOTAL**	**(1.422)**	**6.883**	**6.097**	**0.981**	**0.148**	**(0.008)**	**12.679**	
1974	**TOTAL**	**(1.568)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.059**	**12.192**	
1975	**TOTAL**	**(1.738)**	**8.708**	**3.800**	**0.904**	**0.064**	**0.014**	**11.753**	
1976	**TOTAL**	**(1.567)**	**11.221**	**3.982**	**0.922**	**0.089**	**0.000**	**14.648**	
1977	**TOTAL**	**(1.401)**	**13.921**	**4.321**	**0.981**	**0.182**	**0.015**	**18.019**	
1978	**TOTAL**	**(1.004)**	**13.125**	**3.932**	**0.941**	**0.204**	**0.131**	**17.329**	
1979	**TOTAL**	**(1.702)**	**13.328**	**3.603**	**1.243**	**0.211**	**0.066**	**16.748**	
1980	**TOTAL**	**(2.391)**	**10.586**	**2.912**	**0.957**	**0.217**	**(0.037)**	**12.246**	
1981	**TOTAL**	**(2.918)**	**8.854**	**2.522**	**0.855**	**0.347**	**(0.017)**	**9.643**	
1982	January	(0.160)	0.624	0.181	0.097	0.027	0.000	0.769	0.769
	February	(0.234)	0.438	0.207	0.081	0.025	(0.001)	0.515	1.284
	March	(0.273)	0.461	0.181	0.078	0.027	(0.002)	0.473	1.757
	April	(0.284)	0.468	0.153	0.071	0.026	(0.001)	0.434	2.191
	May	(0.262)	0.551	0.166	0.063	0.027	(0.003)	0.542	2.733
	June	(0.280)	0.654	0.147	0.056	0.026	(0.004)	0.600	3.333
	July	(0.239)	0.726	0.196	0.063	0.027	(0.003)	0.770	4.103
	August	(0.190)	0.641	0.144	0.056	0.027	(0.001)	0.677	4.780
	September	(0.226)	0.603	0.196	0.062	0.026	(0.003)	0.659	5.439
	October	(0.260)	0.614	0.168	0.073	0.027	(0.001)	0.621	6.060
	November	(0.203)	0.629	0.228	0.088	0.026	(0.002)	0.768	6.828
	December	(0.157)	0.507	0.161	0.107	0.027	(0.001)	0.645	7.473
	TOTAL	**(2.768)**	**6.917**	**2.128**	**0.896**	**0.322**	**(0.023)**	**7.473**	
1983	January	(0.116)	R0.514	R0.105	R0.109	0.029	(0.001)	R0.640	R0.640
	February	(0.113)	0.327	R0.133	R0.092	0.027	(0.001)	R0.464	R1.104
	March	(0.162)	R0.382	R0.133	R0.082	0.029	(0.001)	R0.464	R1.568
	April	(0.157)	R0.530	R0.148	R0.070	0.028	(0.002)	R0.616	R2.184
	May	(0.180)	R0.556	R0.201	R0.057	0.029	(0.002)	R0.662	R2.846
	June	(0.188)	R0.600	R0.187	0.057	0.028	(0.001)	R0.684	R3.529
	July	(0.159)	R0.673	R0.251	R0.054	0.029	(0.002)	R0.847	R4.376
	August	(0.217)	R0.732	R0.251	R0.051	0.029	(0.001)	R0.845	R5.221
	September	(0.195)	R0.705	R0.238	R0.064	0.028	(0.001)	R0.839	R6.060
	October	(0.209)	0.597	R0.240	R0.061	0.029	(0.001)	R0.717	R6.777
	November	(0.153)	R0.551	R0.232	0.076	0.028	(0.001)	R0.734	R7.511
	December	(0.162)	0.563	R0.222	R0.104	0.029	(0.003)	R0.753	R8.264
	TOTAL	**(2.013)**	**R6.730**	**R2.340**	**R0.878**	**0.346**	**(0.016)**	**R8.264**	
1984	January	(0.131)	0.519	0.331	0.093	0.029	0.001	0.842	0.842
	February	(0.108)	0.468	0.375	0.067	0.027	0.002	0.830	1.672
	March	(0.152)	0.581	0.207	0.065	0.029	(0.001)	0.730	2.402
	April	(0.198)	0.567	0.239	0.068	0.028	0.000	0.704	3.106

[1]Net imports equals imports minus exports. Parentheses indicate exports are greater than imports.
[2]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[3]Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Source: • Energy Information Administration calculations based on data reported elsewhere in this publication.

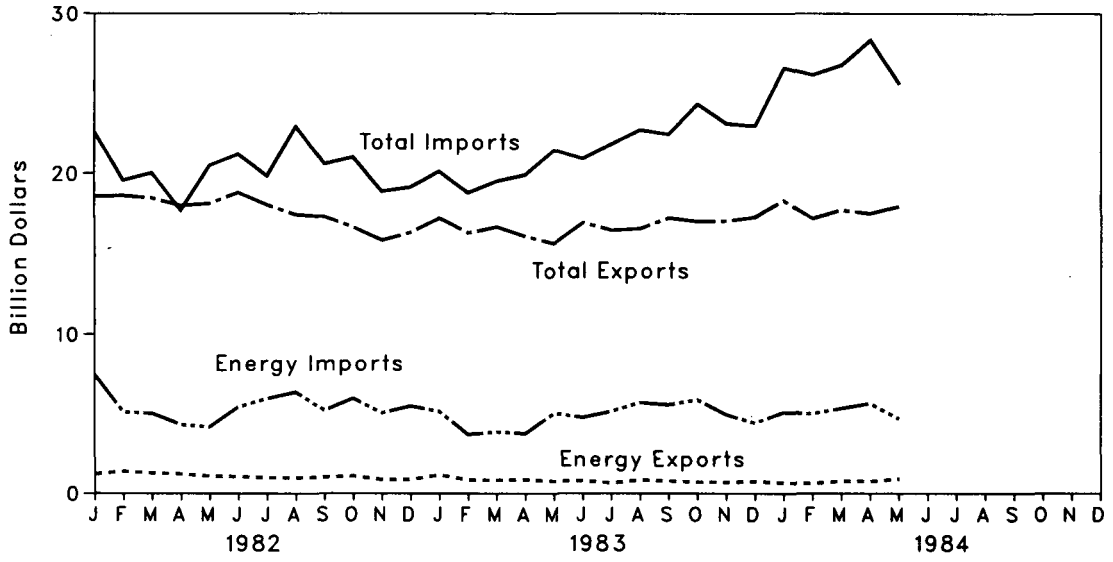
Executive Summary

Merchandise Trade Value

Yearly



Monthly



Executive Summary

Merchandise Trade Value

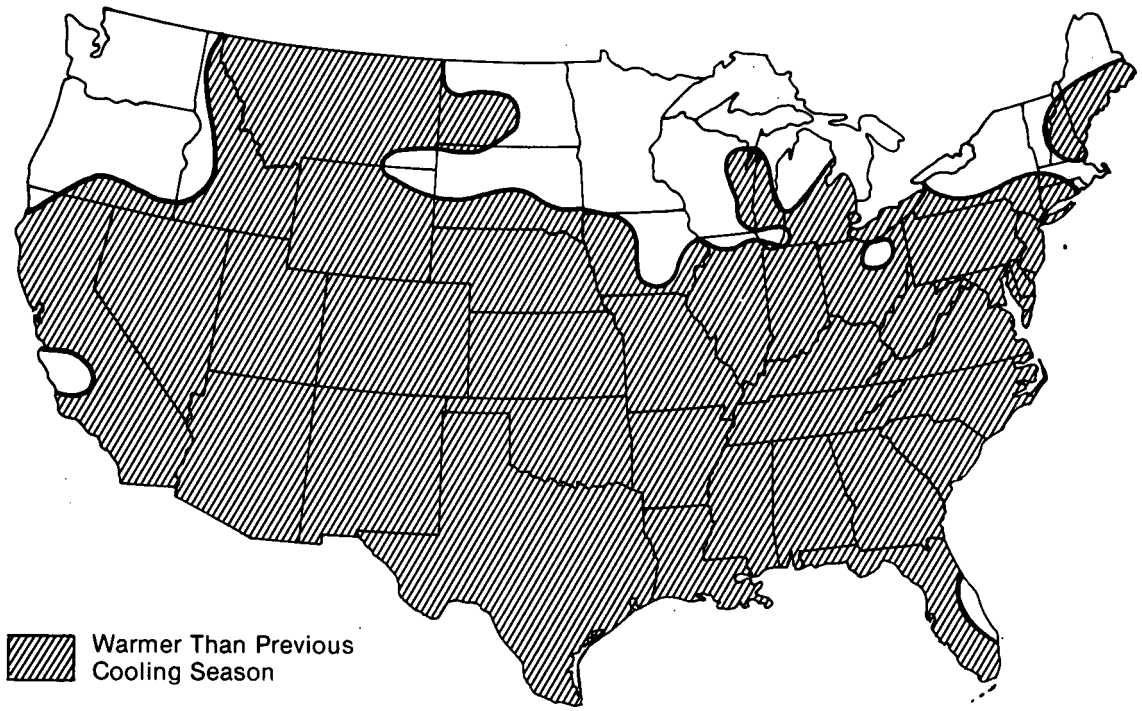
		Exports			Imports			Trade Balance		
		Energy	All Other	Total	Energy	All Other	Total	Energy	All Other	Total
					Million dollars					
1974	**TOTAL**	**NA**	**NA**	**98,092**	**NA**	**NA**	**102,559**	**NA**	**NA**	**-4,467**
1975	**TOTAL**	**4,470**	**103,182**	**107,652**	**28,325**	**70,178**	**98,503**	**-23,855**	**+33,004**	**+9,149**
1976	**TOTAL**	**4,226**	**110,997**	**115,223**	**36,384**	**87,093**	**123,477**	**-32,158**	**+23,904**	**-8,254**
1977	**TOTAL**	**4,184**	**117,048**	**121,232**	**47,153**	**103,237**	**150,390**	**-42,969**	**+13,811**	**-29,158**
1978	**TOTAL**	**3,882**	**139,799**	**143,681**	**44,763**	**129,994**	**174,757**	**-40,881**	**+9,805**	**-31,076**
1979	**TOTAL**	**5,675**	**176,185**	**181,860**	**63,077**	**146,381**	**209,458**	**-57,402**	**+29,803**	**-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	January	1,205	17,379	18,584	7,439	15,134	22,573	-6,234	+2,245	-3,989
	February	1,361	17,253	18,614	5,107	14,463	19,570	-3,746	+2,790	-956
	March	1,256	17,206	18,462	5,009	15,010	20,019	-3,753	+2,196	-1,557
	April	1,201	16,804	18,005	4,312	13,402	17,714	-3,111	+3,402	+291
	May	1,065	17,059	18,124	4,167	16,310	20,477	-3,102	+749	-2,353
	June	1,035	17,788	18,823	5,427	15,760	21,187	-4,392	+2,028	-2,364
	July	974	17,086	18,060	5,943	13,906	19,849	-4,969	+3,179	-1,790
	August	961	16,502	17,463	6,353	16,577	22,930	-5,392	-75	-5,467
	September	998	16,322	17,320	5,201	15,380	20,581	-4,203	+942	-3,261
	October	1,072	15,599	16,671	5,947	15,059	21,006	-4,875	+540	-4,335
	November	847	15,005	15,852	5,037	13,855	18,892	-4,190	+1,149	-3,041
	December	855	15,492	16,347	5,468	13,686	19,154	-4,613	+1,805	-2,808
	TOTAL	**12,729**	**199,464**	**212,193**	**65,409**	**178,543**	**243,952**	**-52,680**	**+20,921**	**-31,759**
1983	January	1,142	16,090	17,232	5,142	14,985	20,127	-4,000	+1,105	-2,895
	February	833	15,479	16,312	3,704	15,100	18,804	-2,871	+378	-2,493
	March	822	15,868	16,690	3,865	15,663	19,528	-3,043	+206	-2,837
	April	850	15,245	16,095	3,763	16,151	19,914	-2,913	-906	-3,819
	May	750	14,905	15,655	5,033	16,413	21,446	-4,283	-1,508	-5,791
	June	791	16,168	16,959	4,767	16,149	20,916	-3,976	+19	-3,957
	July	644	15,842	16,486	5,164	16,664	21,828	-4,520	-821	-5,341
	August	824	15,758	16,582	5,703	17,011	22,714	-4,879	-1,253	-6,132
	September	778	16,479	17,257	5,571	16,880	22,451	-4,793	-402	-5,195
	October	699	16,334	17,033	5,872	18,461	24,333	-5,173	-2,127	-7,300
	November	689	16,374	17,063	4,951	18,164	23,115	-4,262	-1,790	-6,052
	December	739	16,559	17,298	4,417	18,559	22,976	-3,678	-2,000	-5,678
	TOTAL	**9,500**	**190,986**	**200,486**	**57,952**	**200,096**	**258,048**	**-48,452**	**-9,110**	**-57,562**
1984	January	660	R17,667	R18,327	5,089	21,497	26,586	-4,429	-3,831	-8,260
	February	610	R16,602	R17,212	5,006	21,141	26,147	-4,396	-4,539	-8,935
	March	767	16,960	17,727	5,323	21,448	26,771	-4,556	-4,488	-9,044
	April	739	16,783	17,522	5,629	22,739	28,368	-4,890	-5,957	-10,847
	May	893	17,057	17,950	4,696	20,873	25,569	-3,803	-3,816	-7,619

R=Revised data. NA=Not available.
Notes: • Annual totals are unadjusted and may not equal the sum of monthly totals, which are adjusted for seasonal and working-day variation, if present and identifiable.
• The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory (which is comprised of the 50 States, the District of Columbia, and Puerto Rico) and the Virgin Islands.
Additional Notes and Sources: • See the last page of this section.

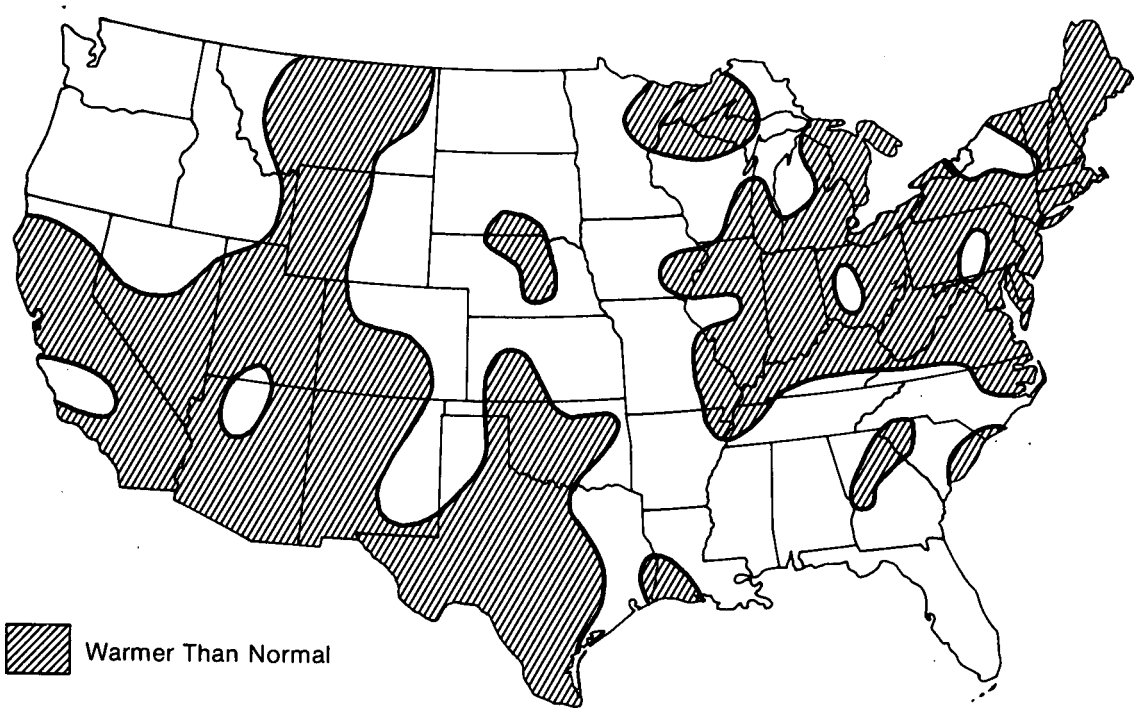
Executive Summary

Cooling Degree-Days Accumulated from January 1, 1984, through June 30, 1984

Departure from Previous Cooling Season



Departure from Normal



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

Executive Summary

Population-Weighted Cooling Degree-Days[1]

Census Divisions	June 1 through June 30					Cumulative January 1 through June 30				
				Percent Change					Percent Change	
	Normal[2]	1983	1984	Normal to 1984	1983 to 1984	Normal[2]	1983	1984	Normal to 1984	1983 to 1984
New England Conn., Maine, Mass., N.H., R.I., Vt.	75	127	136	81.3	7.1	76	137	151	98.7	10.2
Middle Atlantic N.J., N.Y., Pa.	121	168	190	57.0	13.1	146	191	219	50.0	14.7
Eastern North Central Ill., Ind., Mich., Ohio, Wisc.	154	195	208	35.1	6.7	225	207	234	4.0	13.0
Western North Central Iowa, Kans., Minn., Mo., Nebr., N.Dak., S.Dak.	182	198	213	17.0	7.6	279	228	262	-6.1	14.9
South Atlantic Del., Fla., Ga., Md. and D.C., N.C., S.C., Va., W.Va.	295	302	336	13.9	11.3	640	581	637	-0.5	9.6
Eastern South Central Ala., Ky., Miss., Tenn.	298	283	340	14.1	20.1	508	396	485	-4.5	22.5
Western South Central Ark., La., Okla., Tex.	449	386	445	-0.9	15.3	899	669	848	-5.7	26.8
Mountain Ariz., Colo., Idaho, Mont., Nev., N.Mex., Utah, Wyo.	196	188	200	2.0	6.4	280	292	371	32.5	27.1
Pacific Coast Calif., Oreg., Wash.	76	96	101	32.9	5.2	81	155	185	128.4	19.4
U.S. AVERAGE[3]	**202**	**217**	**241**	**19.3**	**11.1**	**349**	**322**	**377**	**8.0**	**17.1**

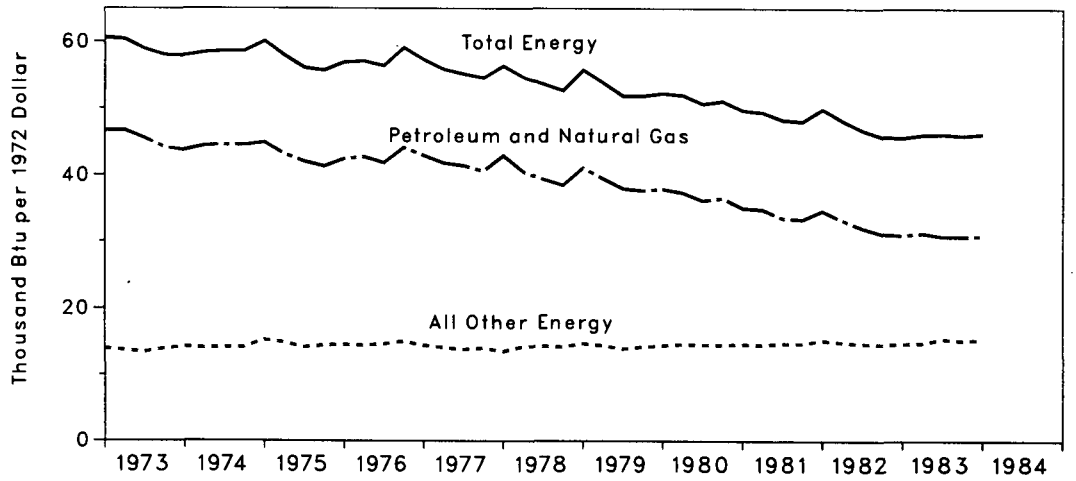
[1] See Note on the last page of this section for explanation of degree-days.
[2] Normal is based on calculations of data from 1951 through 1980.
[3] Excludes Alaska and Hawaii.

Executive Summary

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

		Annual Rate of Energy Consumption	Gross National Product (GNP)	Energy Consumption per Dollar of GNP (Seasonally Adjusted)		
				Total Energy	Petroleum and Natural Gas	All Other Energy
		Quadrillion Btu	Trillion 1972 dollars	Thousand Btu per 1972 dollar		
1973		**74.212**	**1.254**	**59.2**	**45.7**	**13.5**
1974		**72.479**	**1.246**	**58.2**	**44.3**	**13.9**
1975		**70.485**	**1.232**	**57.2**	**42.8**	**14.4**
1976		**74.297**	**1.298**	**57.2**	**42.8**	**14.4**
1977		**76.215**	**1.370**	**55.6**	**41.6**	**14.0**
1978		**78.039**	**1.439**	**54.2**	**40.3**	**13.9**
1979		**78.845**	**1.479**	**53.3**	**39.1**	**14.2**
1980		**75.900**	**1.475**	**51.5**	**37.0**	**14.5**
1981		**73.940**	**1.514**	**48.8**	**34.3**	**14.5**
1982	1st Qtr[1]	74.192	1.486	49.9	34.7	15.2
	2nd Qtr[1]	71.781	1.489	48.2	33.3	14.9
	3rd Qtr[1]	69.525	1.486	46.8	32.1	14.7
	4th Qtr[1]	67.870	1.481	45.8	31.2	14.6
	YEAR	**70.822**	**1.485**	**47.7**	**32.8**	**14.9**
1983	1st Qtr[1]	R68.154	1.490	45.7	R31.0	R14.7
	2nd Qtr[1]	R70.325	1.525	R46.1	R31.3	14.8
	3rd Qtr[1]	R71.723	1.553	46.2	R30.8	R15.4
	4th Qtr[1]	R72.298	1.573	46.0	30.8	15.2
	YEAR	**R70.638**	**1.535**	**46.0**	**R31.0**	**R15.0**
1984	1st Qtr[1]	R74.370	R1.609	R46.2	R30.9	R15.3

Quarterly Energy Consumption per Dollar of Gross National Product[1] (Seasonally Adjusted)



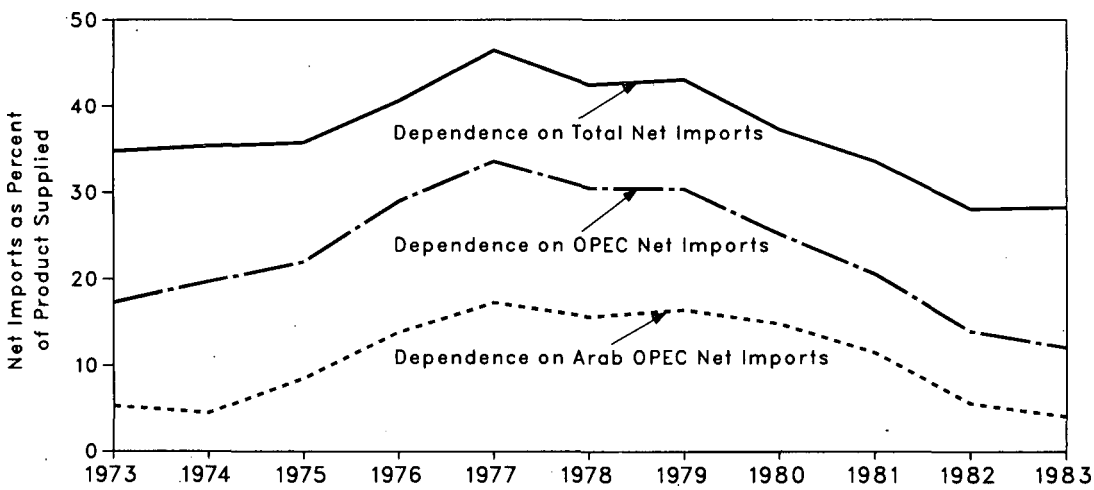
[1]Quarterly data are seasonally adjusted and shown at annual rates.
R=Revised data.
Notes • Geographic coverage is the 50 States and the District of Columbia.
• Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding.
Sources: • See the last page of this section.

Executive Summary

Energy Indicator—U.S. Dependence on Petroleum Net Imports[1]

		Net Imports[2]				Net Imports as Percent of U.S. Petroleum Products Supplied		
		from Arab OPEC[3] Countries	from All OPEC[4] Countries	from All Countries	Petroleum Products Supplied	from Arab OPEC[3] Countries	from All OPEC[4] Countries	from All Countries
ANNUAL RATE			Thousand Barrels per Day				Percent	
1973	**AVERAGE**	**914**	**2,991**	**6,025**	**17,308**	**5.3**	**17.3**	**34.8**
1974	**AVERAGE**	**752**	**3,277**	**5,892**	**16,653**	**4.5**	**19.7**	**35.4**
1975	**AVERAGE**	**1,382**	**3,599**	**5,846**	**16,322**	**8.5**	**22.0**	**35.8**
1976	**AVERAGE**	**2,423**	**5,063**	**7,090**	**17,461**	**13.9**	**29.0**	**40.6**
1977	**AVERAGE**	**3,184**	**6,190**	**8,565**	**18,431**	**17.3**	**33.6**	**46.5**
1978	**AVERAGE**	**2,962**	**5,747**	**8,002**	**18,847**	**15.7**	**30.5**	**42.5**
1979	**AVERAGE**	**3,054**	**5,633**	**7,985**	**18,513**	**16.5**	**30.4**	**43.1**
1980	**AVERAGE**	**2,549**	**4,293**	**6,365**	**17,056**	**14.9**	**25.2**	**37.3**
1981	**AVERAGE**	**1,844**	**3,315**	**5,401**	**16,058**	**11.5**	**20.6**	**33.6**
1982	1st Qtr	1,105	2,391	4,038	15,892	7.0	15.1	25.4
	2nd Qtr	817	1,925	4,075	15,292	5.3	12.6	26.6
	3rd Qtr	819	2,239	4,721	14,893	5.5	15.0	31.7
	4th Qtr	672	1,992	4,353	15,119	4.4	13.2	28.8
	AVERAGE	**852**	**2,136**	**4,298**	**15,296**	**5.6**	**14.0**	**28.1**
1983	1st Qtr	R351	R1,174	R3,079	R15,026	2.3	R7.8	R20.5
	2nd Qtr	R444	R1,708	R4,237	R14,825	3.0	R11.5	R28.6
	3rd Qtr	R860	R2,501	R5,370	R15,333	R5.6	16.3	R35.0
	4th Qtr	R857	R1,972	R4,536	R15,732	5.4	12.5	R28.8
	AVERAGE	**R630**	**R1,843**	**R4,312**	**R15,231**	**4.1**	**R12.1**	**R28.3**
1984	1st Qtr	754	1,855	4,741	16,058	4.7	11.6	29.5

U.S. Dependence on Petroleum Net Imports



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

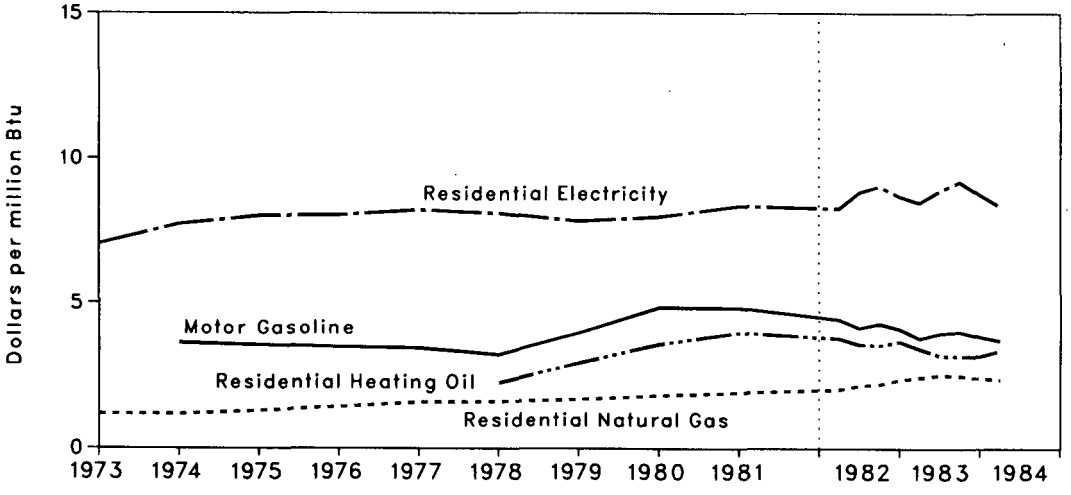
Executive Summary

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

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	$/MMBtu	cent/gal	$/MMBtu	cent/Mcf	$/MMBtu	cent/kWh	$/MMBtu
1973	**AVERAGE**	**NA**	**NA**	**NA**	**NA**	**121.4**	**1.19**	**2.39**	**7.00**
1974	**AVERAGE**	**45.1**	**3.61**	**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	1st Qtr	55.3	4.42	52.2	3.76	208.5	2.03	2.82	8.26
	2nd Qtr	51.7	4.13	49.4	3.56	221.6	2.16	3.01	8.82
	3rd Qtr	53.5	4.28	48.9	3.53	226.4	2.21	3.08	9.03
	4th Qtr	51.3	4.10	50.7	3.66	243.0	2.37	2.97	8.70
	AVERAGE	**53.0**	**4.24**	**50.3**	**3.63**	**224.1**	**2.19**	**2.97**	**8.70**
1983	1st Qtr	47.1	3.77	47.3	3.41	251.3	2.45	2.89	8.47
	2nd Qtr	49.3	3.94	44.2	3.19	259.1	2.53	3.03	8.88
	3rd Qtr	50.0	4.00	43.9	3.17	257.7	2.51	3.14	9.20
	4th Qtr	47.9	3.83	43.9	3.17	249.7	2.43	2.99	8.76
	AVERAGE	**48.6**	**3.89**	**45.3**	**3.27**	**251.5**	**2.45**	**3.01**	**8.82**
1984	1st Qtr	46.1	3.69	46.4	3.35	244.1	2.38	2.85	8.35

The Residential Heating Oil price series are new. Prices prior to 1983 are backcasted estimates. See Note 8 in the Notes and Sources for the Price Section for additional information.

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



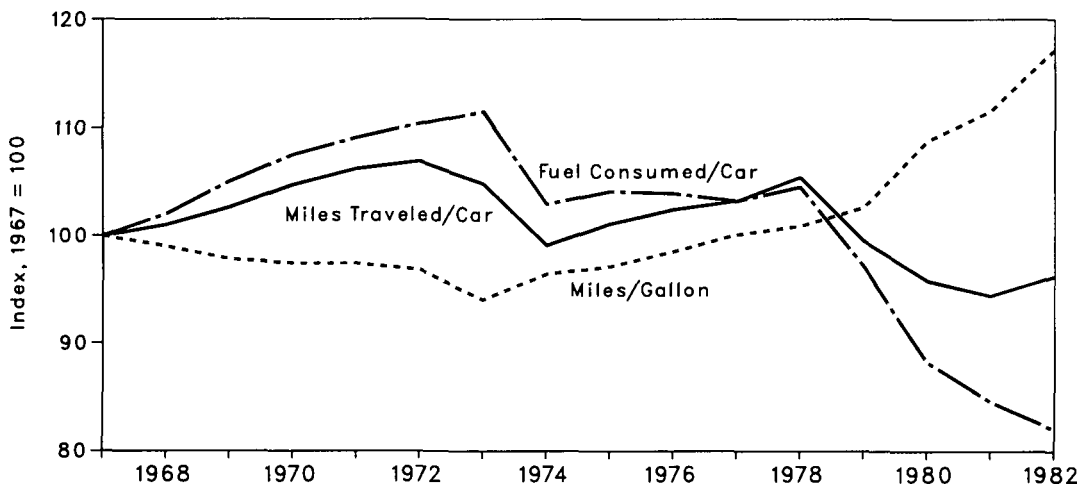
NA=Not available.
Note: • Geographic coverage is the 50 States and the District of Columbia.
• Annual averages may not equal average of quarters due to independent rounding.
Sources: • See the last page of this section.

Executive Summary

Energy Indicator—U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	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	561	82.0	9,167	96.2	16.33	117.2

U.S. Passenger Car Efficiency Index



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

Notes and Sources for the Executive Summary Section

Notes

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

There are several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the *Monthly Energy Review* (MER) is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently in use represent resident State population data estimated for 1980 by the U.S. Department of Commerce, Bureau of the Census. The data shown in the MER are available sooner than the Historical Climatology Series 5-1 and 5-2 developed by the National Climatic Center, Asheville, North Carolina, which compiles data from some 8,000 weather stations.

Sources

Merchandise Trade Value: • 1974 through 1980: U.S. Department of Commerce, Bureau of the Census, "Highlights of U.S. Export and Import Trade," FT990 (January 1982), Appendix for total imports and exports. Energy imports and exports from U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," December issues, plus Bureau of the Census reports EA691 "Exports from the Virgin Islands to Foreign Countries," and IA245V "U.S. Imports for Consumption and General Imports into the Virgin Islands."
• 1981 forward: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," most recent monthly issue.
Gross National Product: • U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business.*
U.S. Dependence on Petroleum Net Imports: • Imports and products supplied—Part 3 of this publication.
• Exports—1973 through 1976: Bureau of Mines, *Mineral Industry Surveys*; 1977 through 1982: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual"; 1983 forward: EIA, *Petroleum Statement, Monthly.*
Cost of Fuels to End Users in Constant (1972) Dollars: • Leaded Regular Motor Gasoline—Bureau of Labor Statistics.
• Residential Heating Oil—Energy Information Administration (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 backcasted estimates using data from FEA Form P112-M1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9-A, "No. 2 Distillate Price Monitoring Report." See Note 8 in the Notes and Sources for the Price Section for additional information.
• Residential Natural Gas—Annual data 1973 through 1982 from EIA, *Natural Gas Annual*, based on Form EIA-176, 'Supply and Distribution of Natural Gas,' and predecessors. Annual 1983 and quarterly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index for natural gas and are adjusted to conform with final reported annual data. See Note 6 in the Notes and Sources for the Price Section for estimation procedures.
• 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)—Bureau of Labor Statistics.
U.S. Passenger Car Efficiency: • Indexes prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics," Table VM-1.

Energy Consumption

Total U.S. energy consumption in April 1984 was 5.8 quadrillion Btu, 5.5 percent above the April 1983 level.

Residential and commercial sector consumption was 2.1 quadrillion Btu in April 1984, down 0.2 percent from the April 1983 level. The residential and commercial sector accounted for 35.6 percent of the April 1984 total, down from the sector's 37.6-percent share in April 1983.

Industrial sector consumption was 2.2 quadrillion Btu in April 1984, up 11.3 percent from the April 1983 level. This sector consumed 37.4 percent of the April 1984 total, up from the sector's 35.4-percent share in April 1983.

Transportation sector consumption was 1.6 quadrillion Btu in April 1984, up 5.7 percent from the April 1983 level. This sector consumed 27.1 percent of the April 1984 total, the same as during the previous year.

The electric utilities consumption was an estimated 1.9 quadrillion Btu of energy in April 1984, 5.3 percent higher than in April 1983. Coal contributed 52.0 percent of the energy consumed by electric utilities in April 1984, while hydroelectric contributed 17.7 percent; nuclear, 13.7 percent; natural gas, 11.8 percent; petroleum, 4.2 percent; and geothermal, wood, waste, and wind, 0.7 percent.

Energy Consumption Summary for April 1984

(Quadrillion (10^{15}) Btu)

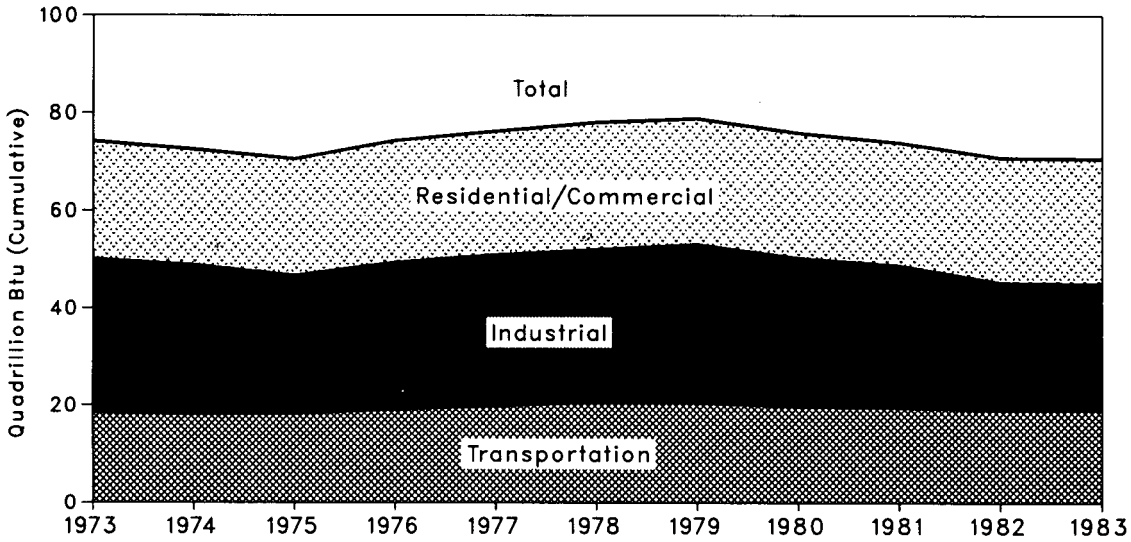
	Sector				
Energy Source	**Residential and Commercial**	**Industrial**	**Transportation**	**Electric Utilities**	**Total**
Coal	0.012	0.234	0.000	1.006	1.247
Natural Gas (dry)	0.669	0.515	0.048	0.228	1.461
Petroleum Products	0.228	0.669	1.535	0.081	2.513
Hydroelectric	0.000	0.003	0.000	0.342	0.345
Nuclear	0.000	0.000	0.000	0.266	0.266
Net Imports of Coal Coke	0.000	(0.000)	0.000	0.000	(0.000)
Other[1]	0.000	0.000	0.000	0.014	0.014
Primary Consumption	**0.909**	**1.420**	**1.584**	**1.936**	**5.845**
Electricity Sales	0.360	0.236	0.001	(0.597)	
Net Energy Consumption	1.269	1.656	1.584		4.505
Electrical Energy Losses	0.809	0.529	0.002	(1.340)	1.340
Total Energy Consumed	**2.078**	**2.185**	**1.586**		**5.845**

[1] Includes only geothermal power and electricity produced from wood, waste, and wind energy.
Notes: • Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors.
• Additional notes and sources for this table and all other tables in this section are provided on the last four pages of this section.

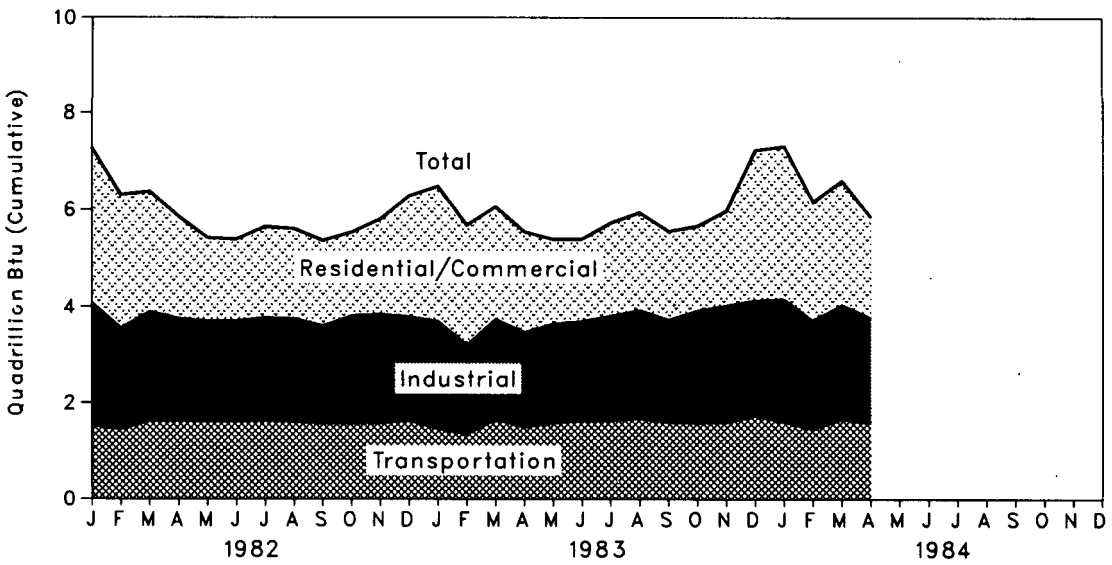
Consumption

Consumption of Energy by End-Use Sector

Yearly



Monthly



Consumption

Consumption of Energy by End-Use Sector

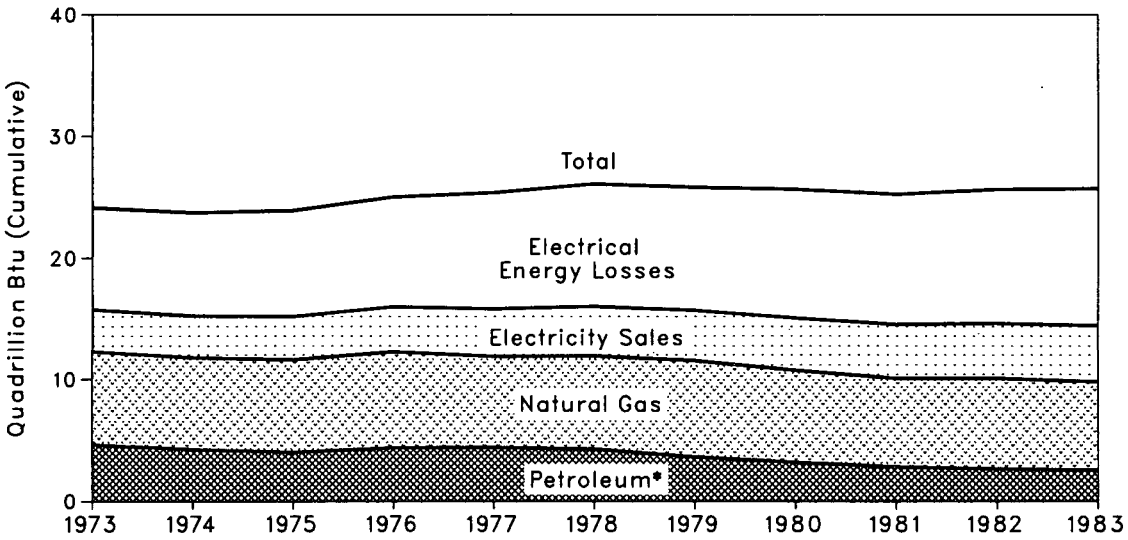
		Residential and Commercial	Industrial	Transportation	Total Energy Consumed
		Quadrillion (10^{15}) Btu			
1973	**TOTAL**	**24.147**	**31.463**	**18.596**	**74.212**
1974	**TOTAL**	**23.729**	**30.630**	**18.113**	**72.479**
1975	**TOTAL**	**23.902**	**28.343**	**18.240**	**70.485**
1976	**TOTAL**	**25.020**	**30.177**	**19.093**	**74.297**
1977	**TOTAL**	**25.375**	**31.021**	**19.808**	**76.215**
1978	**TOTAL**	**26.084**	**31.363**	**20.589**	**78.039**
1979	**TOTAL**	**25.810**	**32.567**	**20.464**	**78.845**
1980	**TOTAL**	**25.654**	**30.549**	**19.693**	**75.900**
1981	**TOTAL**	**25.246**	**29.208**	**19.495**	**73.940**
1982	January	3.194	2.533	1.536	7.263
	February	2.750	2.098	1.449	6.293
	March	2.475	2.268	1.620	6.360
	April	2.114	2.122	1.621	5.854
	May	1.726	2.077	1.613	5.414
	June	1.683	2.092	1.611	5.386
	July	1.883	2.124	1.640	5.649
	August	1.862	2.139	1.607	5.612
	September	1.759	2.026	1.576	5.363
	October	1.731	2.225	1.577	5.534
	November	1.966	2.257	1.582	5.808
	December	2.496	2.151	1.634	6.287
	TOTAL	**25.638**	**26.111**	**19.066**	**70.822**
1983	January	R2.780	R2.227	R1.466	R6.475
	February	R2.486	R1.840	R1.355	R5.682
	March	R2.327	R2.077	R1.657	R6.063
	April	R2.082	R1.964	R1.500	R5.543
	May	R1.751	R2.053	R1.586	R5.388
	June	R1.705	R2.056	1.634	R5.396
	July	R1.927	R2.163	R1.639	R5.731
	August	R2.019	R2.248	R1.676	R5.946
	September	R1.833	R2.123	R1.603	R5.560
	October	1.752	R2.326	R1.587	R5.664
	November	1.956	R2.421	R1.597	R5.973
	December	R3.093	R2.385	R1.739	R7.218
	TOTAL	**R25.710**	**25.882**	**R19.040**	**R70.638**
1984	January	R3.154	R2.534	1.611	R7.300
	February	R2.451	R2.245	R1.466	R6.160
	March	R2.559	R2.369	R1.665	R6.593
	April	2.078	2.185	1.586	5.845

R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding and the use of preliminary conversion factors after 1981.
Additional Notes and Sources: • See the last four pages of this section.

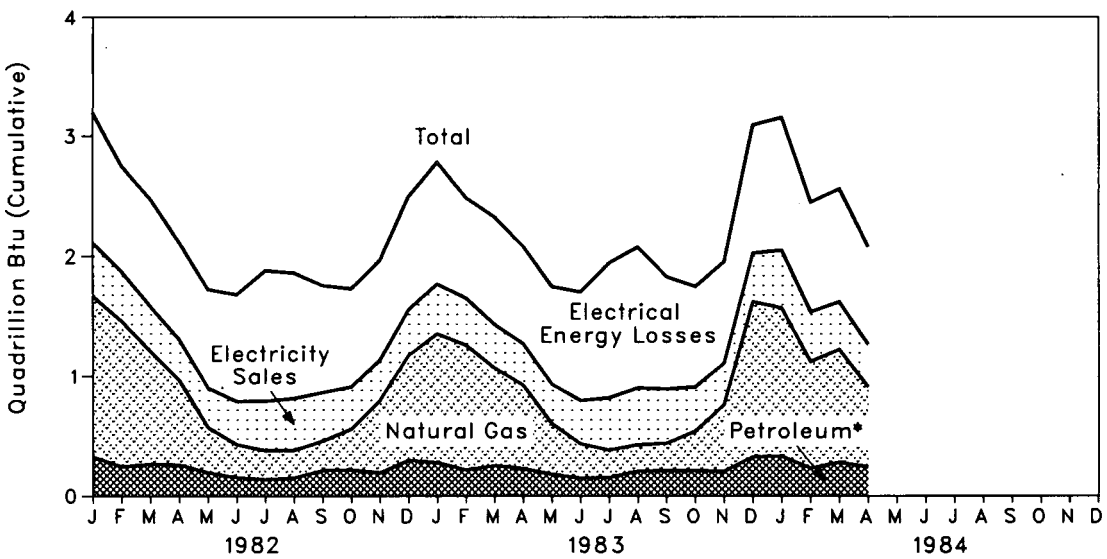
Consumption

Consumption of Energy by the Residential and Commercial Sector

Yearly



Monthly



*Includes very small quantities of coal.

Consumption

Consumption of Energy by the Residential and Commercial Sector

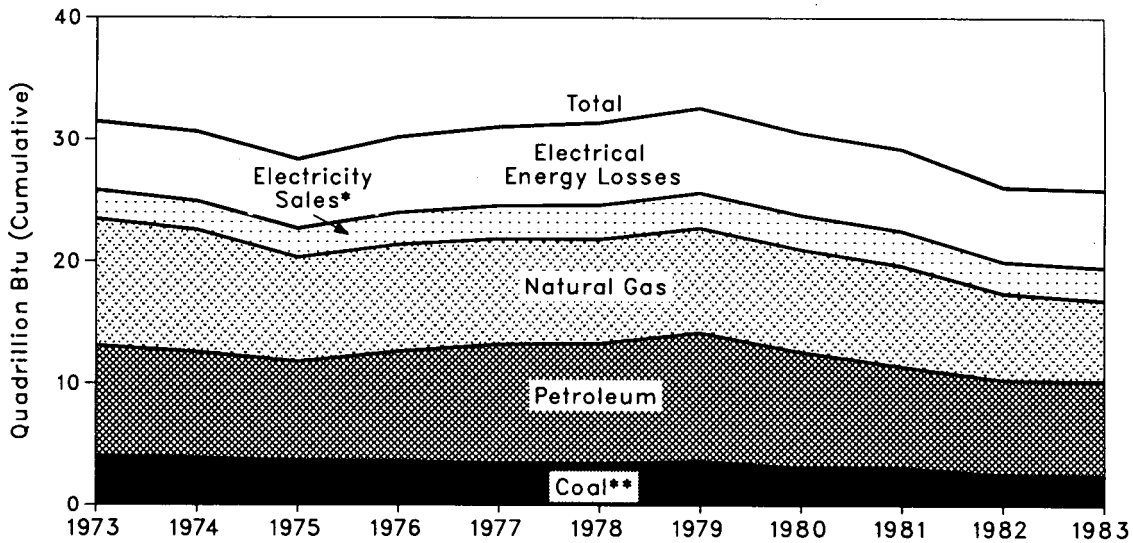
		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
					Quadrillion (10^{15}) Btu			
1973	**TOTAL**	**0.259**	**7.626**	**4.391**	**3.495**	**8.377**	**24.147**	
1974	**TOTAL**	**0.260**	**7.518**	**3.996**	**3.475**	**8.480**	**23.729**	
1975	**TOTAL**	**0.212**	**7.581**	**3.805**	**3.604**	**8.700**	**23.902**	
1976	**TOTAL**	**0.206**	**7.866**	**4.181**	**3.747**	**9.020**	**25.020**	
1977	**TOTAL**	**0.207**	**7.461**	**4.206**	**3.955**	**9.545**	**25.375**	
1978	**TOTAL**	**0.215**	**7.624**	**4.070**	**4.116**	**10.060**	**26.084**	
1979	**TOTAL**	**0.188**	**7.891**	**3.448**	**4.184**	**10.100**	**25.810**	
1980	**TOTAL**	**0.147**	**7.539**	**3.035**	**4.355**	**10.578**	**25.654**	
1981	**TOTAL**	**0.171**	**7.249**	**2.634**	**4.497**	**10.696**	**25.246**	
1982	January	0.023	1.344	0.303	0.440	1.085	3.194	3.194
	February	0.016	1.222	0.228	0.409	0.875	2.750	5.943
	March	0.013	0.948	0.252	0.373	0.890	2.475	8.419
	April	0.016	0.706	0.243	0.346	0.803	2.114	10.533
	May	0.011	0.382	0.181	0.327	0.825	1.726	12.258
	June	0.008	0.279	0.144	0.358	0.894	1.683	13.941
	July	0.014	0.245	0.121	0.412	1.090	1.883	15.824
	August	0.015	0.234	0.134	0.431	1.049	1.862	17.686
	September	0.015	0.247	0.197	0.403	0.897	1.759	19.445
	October	0.015	0.343	0.201	0.349	0.823	1.731	21.176
	November	0.019	0.605	0.172	0.340	0.830	1.966	23.142
	December	0.023	0.878	0.274	0.381	0.940	2.496	25.638
	TOTAL	**0.189**	**7.433**	**2.449**	**4.566**	**11.000**	**25.638**	
1983	January	0.020	1.081	0.257	0.413	1.008	R2.780	R2.780
	February	0.018	1.049	R0.198	0.390	0.833	R2.486	R5.266
	March	0.013	0.821	R0.239	0.365	0.889	R2.327	R7.593
	April	0.017	0.698	0.210	0.352	0.805	R2.082	R9.675
	May	0.011	0.427	R0.169	0.327	0.817	R1.751	R11.426
	June	0.008	0.290	R0.140	0.359	0.908	R1.705	R13.130
	July	0.014	0.233	R0.120	0.435	1.125	R1.927	R15.057
	August	0.013	0.224	R0.138	0.472	1.173	R2.019	R17.076
	September	0.017	0.233	R0.194	0.451	0.938	R1.833	R18.909
	October	0.018	0.333	R0.193	0.367	0.841	1.752	R20.661
	November	0.019	0.559	0.185	0.350	0.842	1.956	R22.617
	December	0.025	1.296	R0.302	0.402	1.067	R3.093	R25.710
	TOTAL	**0.192**	**7.244**	**R2.345**	**4.683**	**11.246**	**R25.710**	
1984	January	R0.024	1.240	0.309	0.476	1.104	R3.154	R3.154
	February	R0.021	0.894	0.210	0.416	0.909	R2.451	R5.604
	March	R0.015	0.947	0.265	0.395	0.938	R2.559	R8.164
	April	0.012	0.669	0.228	0.360	0.809	2.078	10.242

R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

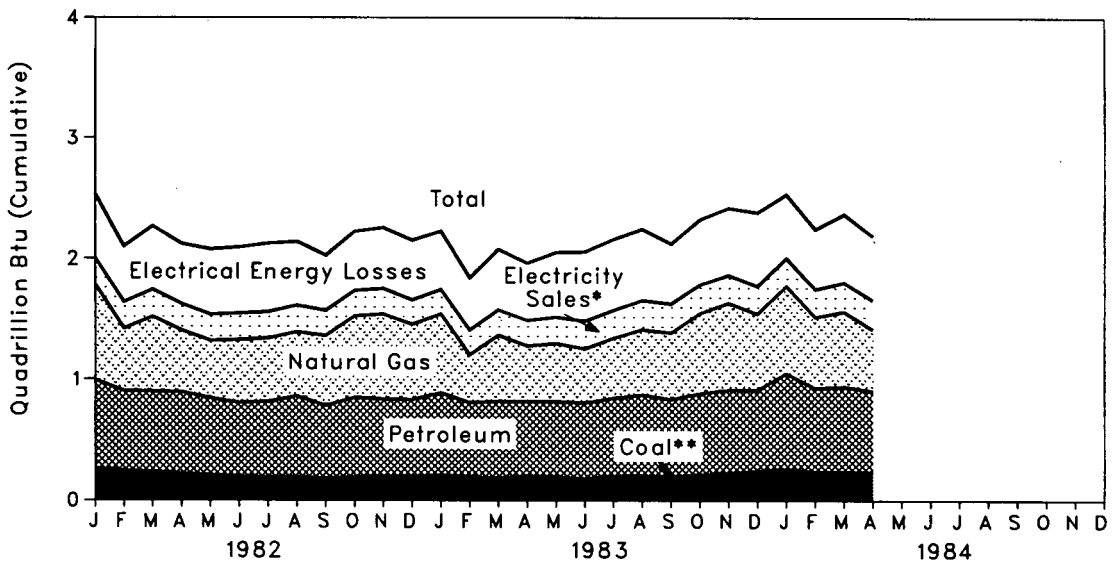
Consumption

Consumption of Energy by the Industrial Sector

Yearly



Monthly



*Includes hydroelectric.
**Includes net coke imports.

Consumption

Consumption of Energy by the Industrial Sector

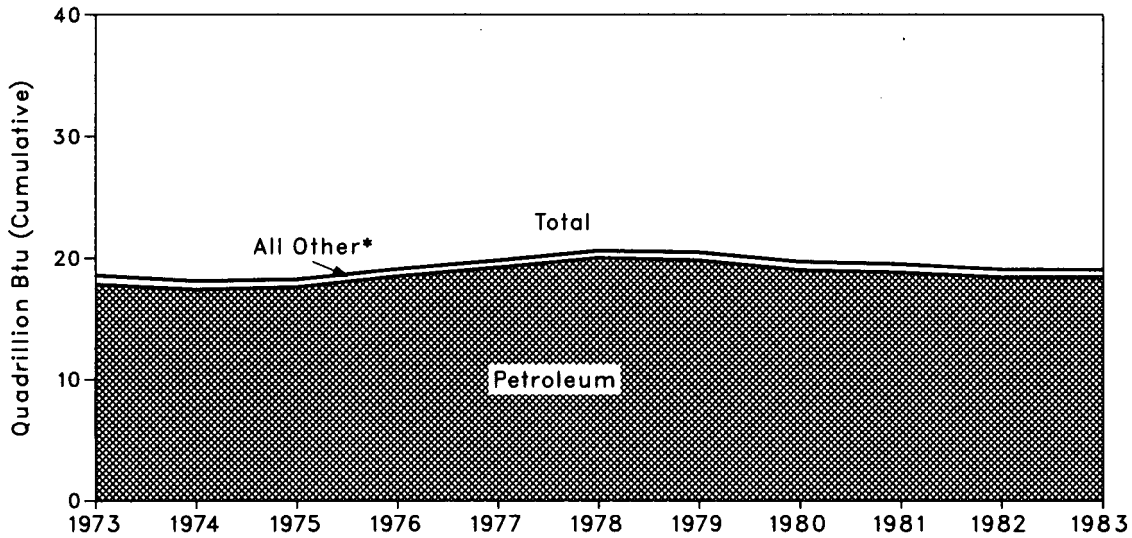
		Coal	Natural Gas (Dry)	Petro-leum	Hydro-electric	Net Coke Imports	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
						Quadrillion (10^{15}) Btu				
1973	**TOTAL**	**3.984**	**10.388**	**9.113**	**0.035**	**(0.008)**	**2.341**	**5.610**	**31.463**	
1974	**TOTAL**	**3.800**	**10.003**	**8.698**	**0.033**	**0.059**	**2.337**	**5.700**	**30.630**	
1975	**TOTAL**	**3.602**	**8.532**	**8.151**	**0.032**	**0.014**	**2.346**	**5.665**	**28.343**	
1976	**TOTAL**	**3.595**	**8.761**	**9.018**	**0.033**	**0.000**	**2.573**	**6.197**	**30.177**	
1977	**TOTAL**	**3.394**	**8.636**	**9.786**	**0.033**	**0.015**	**2.682**	**6.476**	**31.021**	
1978	**TOTAL**	**3.258**	**8.539**	**9.890**	**0.032**	**0.131**	**2.761**	**6.755**	**31.363**	
1979	**TOTAL**	**3.532**	**8.549**	**10.576**	**0.034**	**0.066**	**2.873**	**6.937**	**32.567**	
1980	**TOTAL**	**3.103**	**8.394**	**9.524**	**0.033**	**(0.037)**	**2.781**	**6.751**	**30.549**	
1981	**TOTAL**	**3.109**	**8.265**	**8.295**	**0.033**	**(0.017)**	**2.817**	**6.704**	**29.208**	
1982	January	0.262	0.793	0.731	0.003	0.000	0.215	0.530	2.533	2.533
	February	0.245	0.520	0.658	0.003	(0.001)	0.214	0.459	2.098	4.631
	March	0.236	0.622	0.663	0.003	(0.002)	0.220	0.526	2.268	6.898
	April	0.218	0.515	0.676	0.003	(0.001)	0.214	0.496	2.122	9.020
	May	0.211	0.480	0.634	0.003	(0.003)	0.213	0.538	2.077	11.097
	June	0.197	0.524	0.612	0.003	(0.004)	0.217	0.543	2.092	13.189
	July	0.191	0.529	0.625	0.003	(0.003)	0.214	0.565	2.124	15.313
	August	0.192	0.537	0.667	0.002	(0.001)	0.216	0.526	2.139	17.452
	September	0.184	0.583	0.600	0.002	(0.003)	0.205	0.456	2.026	19.478
	October	0.192	0.678	0.657	0.002	(0.001)	0.208	0.489	2.225	21.703
	November	0.195	0.708	0.641	0.002	(0.002)	0.207	0.505	2.257	23.960
	December	0.197	0.626	0.635	0.002	(0.001)	0.199	0.493	2.151	26.111
	TOTAL	**2.520**	**7.116**	**7.798**	**0.033**	**(0.023)**	**2.542**	**6.126**	**26.111**	
1983	January	0.208	R0.658	R0.678	0.003	(0.001)	0.198	0.483	R2.227	R2.227
	February	0.194	R0.400	R0.613	0.003	(0.001)	0.201	0.431	R1.840	R4.067
	March	0.185	R0.549	R0.635	0.003	(0.001)	0.206	0.501	R2.077	R6.144
	April	0.202	R0.466	R0.615	0.003	(0.002)	0.207	0.473	R1.964	R8.108
	May	0.196	R0.485	R0.622	0.003	(0.002)	0.214	0.534	R2.053	R10.161
	June	0.180	0.452	R0.626	0.003	(0.001)	0.226	0.571	R2.056	R12.217
	July	0.203	R0.502	R0.643	0.003	(0.002)	0.227	0.586	R2.163	R14.379
	August	0.206	R0.546	R0.666	0.002	(0.001)	0.238	0.590	R2.248	R16.627
	September	0.200	R0.554	R0.636	0.002	(0.001)	0.238	0.495	R2.123	R18.750
	October	0.214	R0.668	0.669	0.002	(0.001)	0.235	0.539	R2.326	R21.076
	November	0.224	0.723	R0.689	0.002	(0.001)	0.230	0.554	R2.421	R23.497
	December	0.246	R0.633	R0.669	0.002	(0.003)	0.229	0.608	R2.385	25.882
	TOTAL	**2.458**	**R6.636**	**R7.759**	**0.033**	**(0.016)**	**2.648**	**6.364**	**25.882**	
1984	January	R0.256	R0.725	0.794	0.003	0.001	0.228	0.528	R2.534	R2.534
	February	R0.236	R0.591	0.690	0.003	0.002	0.227	0.496	R2.245	R4.779
	March	R0.238	R0.623	0.704	0.003	(0.001)	0.238	0.565	R2.369	R7.148
	April	0.234	0.515	0.669	0.003	0.000	0.236	0.529	2.185	9.333

R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

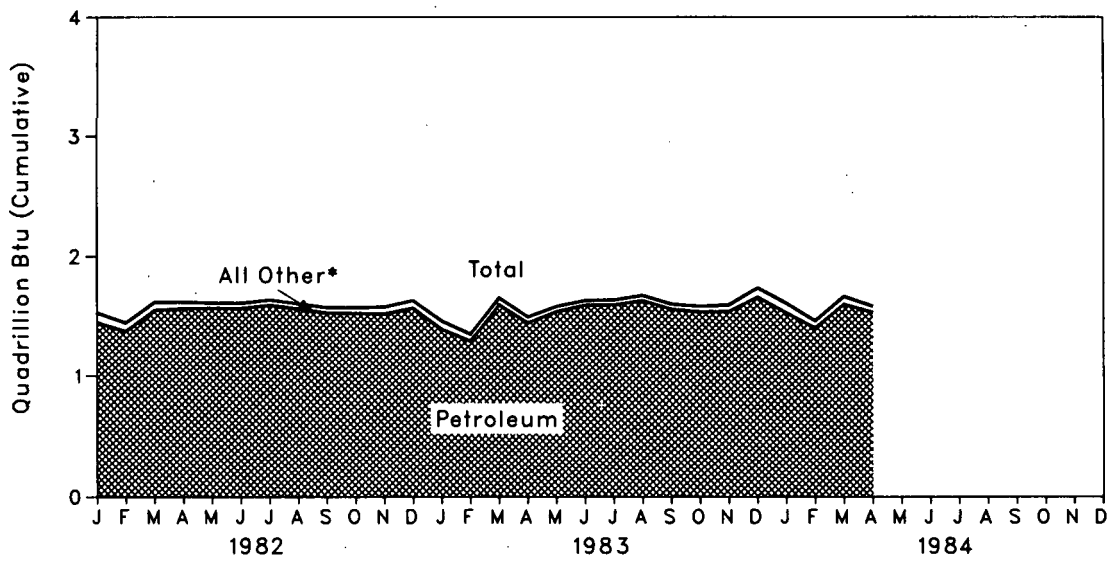
Consumption

Consumption of Energy by the Transportation Sector

Yearly



Monthly



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

Consumption

Consumption of Energy by the Transportation Sector

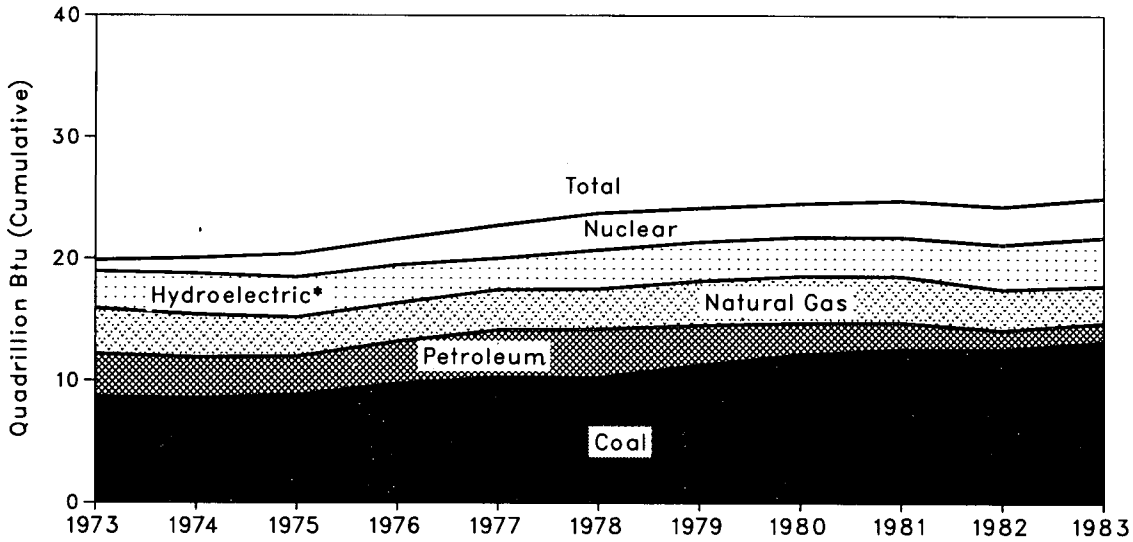
		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses	Total Energy Consumed	Yearly Cumulative Energy Consumed
				Quadrillion (10^{15}) Btu				
1973	**TOTAL**	**0.003**	**0.743**	**17.821**	**0.009**	**0.020**	**18.596**	
1974	**TOTAL**	**0.002**	**0.685**	**17.396**	**0.009**	**0.022**	**18.113**	
1975	**TOTAL**	**0.001**	**0.595**	**17.610**	**0.010**	**0.025**	**18.240**	
1976	**TOTAL**	**(1)**	**0.559**	**18.499**	**0.010**	**0.025**	**19.093**	
1977	**TOTAL**	**(1)**	**0.543**	**19.230**	**0.010**	**0.025**	**19.808**	
1978	**TOTAL**	**(1)**	**0.539**	**20.019**	**0.009**	**0.022**	**20.589**	
1979	**TOTAL**	**(1)**	**0.612**	**19.817**	**0.010**	**0.025**	**20.464**	
1980	**TOTAL**	**(1)**	**0.648**	**19.009**	**0.011**	**0.026**	**19.693**	
1981	**TOTAL**	**(1)**	**0.658**	**18.800**	**0.011**	**0.026**	**19.495**	
1982	January	(1)	0.081	1.452	0.001	0.002	1.536	1.536
	February	(1)	0.068	1.378	0.001	0.002	1.449	2.985
	March	(1)	0.063	1.554	0.001	0.002	1.620	4.605
	April	(1)	0.050	1.568	0.001	0.002	1.621	6.226
	May	(1)	0.039	1.571	0.001	0.002	1.613	7.840
	June	(1)	0.038	1.570	0.001	0.002	1.611	9.451
	July	(1)	0.039	1.597	0.001	0.002	1.640	11.090
	August	(1)	0.039	1.565	0.001	0.002	1.607	12.698
	September	(1)	0.039	1.534	0.001	0.002	1.576	14.274
	October	(1)	0.044	1.529	0.001	0.002	1.577	15.850
	November	(1)	0.053	1.525	0.001	0.002	1.582	17.432
	December	(1)	0.060	1.571	0.001	0.002	1.634	19.066
	TOTAL	**(1)**	**0.613**	**18.417**	**0.011**	**0.026**	**19.066**	
1983	January	(1)	0.067	R1.396	0.001	0.002	R1.466	R1.466
	February	(1)	R0.055	R1.296	0.001	0.002	R1.355	R2.820
	March	(1)	0.054	R1.600	0.001	0.002	R1.657	R4.478
	April	(1)	0.047	R1.450	0.001	0.002	R1.500	R5.977
	May	(1)	0.039	R1.544	0.001	0.002	R1.586	R7.563
	June	(1)	0.034	1.597	0.001	0.002	1.634	R9.197
	July	(1)	0.036	R1.600	0.001	0.002	R1.639	R10.837
	August	(1)	0.039	R1.634	0.001	0.002	R1.676	R12.513
	September	(1)	0.037	R1.564	0.001	0.002	R1.603	R14.116
	October	(1)	0.043	R1.541	0.001	0.002	R1.587	R15.703
	November	(1)	0.051	R1.543	0.001	0.002	R1.597	R17.300
	December	(1)	0.074	R1.662	0.001	0.002	R1.739	R19.040
	TOTAL	**(1)**	**R0.577**	**R18.428**	**0.010**	**0.024**	**R19.040**	
1984	January	(1)	0.075	1.533	0.001	0.002	1.611	1.611
	February	(1)	R0.057	1.406	0.001	0.002	R1.466	R3.078
	March	(1)	R0.061	1.602	0.001	0.002	R1.665	R4.743
	April	(1)	0.048	1.535	0.001	0.002	1.586	6.330

[1]Since 1976, the amount of coal consumed by the transportation sector has been negligible.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

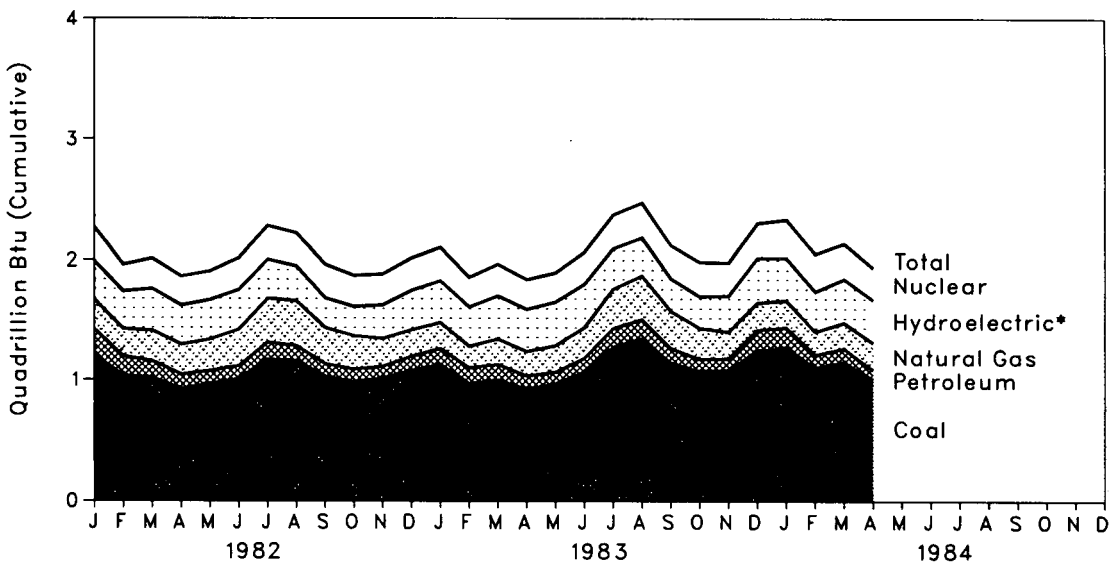
Consumption

Energy Input at Electric Utilities

Yearly



Monthly



*Includes geothermal power and electricity produced from wood, waste, and wind energy.

Consumption

Energy Input at Electric Utilities

		Coal	Natural Gas (Dry)	Petroleum[1]	Hydroelectric power[2]	Nuclear Electric Power	Other[3]	Total Energy Input	Yearly Cumulative Energy Input
					Quadrillion (10^{15}) Btu				
1973	**TOTAL**	**8.658**	**3.748**	**3.515**	**2.975**	**0.910**	**0.046**	**19.852**	
1974	**TOTAL**	**8.535**	**3.519**	**3.365**	**3.276**	**1.272**	**0.056**	**20.023**	
1975	**TOTAL**	**8.786**	**3.240**	**3.166**	**3.187**	**1.900**	**0.072**	**20.350**	
1976	**TOTAL**	**9.720**	**3.152**	**3.477**	**3.032**	**2.111**	**0.081**	**21.573**	
1977	**TOTAL**	**10.243**	**3.284**	**3.901**	**2.482**	**2.702**	**0.082**	**22.694**	
1978	**TOTAL**	**10.236**	**3.297**	**3.987**	**3.110**	**3.024**	**0.068**	**23.722**	
1979	**TOTAL**	**11.264**	**3.609**	**3.283**	**3.107**	**2.776**	**0.089**	**24.129**	
1980	**TOTAL**	**12.122**	**3.807**	**2.634**	**3.085**	**2.739**	**0.114**	**24.501**	
1981	**TOTAL**	**12.583**	**3.760**	**2.202**	**3.072**	**3.008**	**0.127**	**24.752**	
1982	January	1.204	0.246	0.221	0.309	0.283	0.009	2.272	2.272
	February	1.036	0.228	0.162	0.304	0.222	0.008	1.960	4.232
	March	1.015	0.255	0.144	0.340	0.251	0.007	2.011	6.243
	April	0.922	0.255	0.120	0.319	0.240	0.007	1.862	8.105
	May	0.967	0.267	0.106	0.320	0.238	0.008	1.907	10.012
	June	1.005	0.306	0.111	0.319	0.265	0.010	2.015	12.027
	July	1.171	0.365	0.144	0.313	0.281	0.010	2.284	14.310
	August	1.162	0.374	0.125	0.278	0.275	0.010	2.224	16.535
	September	1.026	0.303	0.110	0.235	0.280	0.010	1.964	18.498
	October	0.982	0.283	0.106	0.234	0.256	0.011	1.871	20.370
	November	1.013	0.234	0.100	0.270	0.256	0.011	1.885	22.254
	December	1.079	0.222	0.120	0.318	0.269	0.009	2.016	24.271
	TOTAL	**12.582**	**3.338**	**1.568**	**3.559**	**3.115**	**0.108**	**24.271**	
1983	January	1.129	0.215	0.137	0.336	0.276	0.011	2.105	2.105
	February	0.968	0.183	0.134	0.319	0.245	0.008	1.857	3.962
	March	0.997	0.215	0.133	0.347	0.263	0.010	1.964	5.925
	April	0.922	0.210	0.110	0.342	0.246	0.009	1.839	7.764
	May	0.967	0.226	0.097	0.356	0.243	0.007	1.895	9.659
	June	1.065	0.256	0.119	0.350	0.266	0.010	2.066	11.725
	July	1.278	0.325	0.156	0.324	0.282	0.012	2.376	14.102
	August	1.349	0.364	0.158	0.300	0.289	0.016	2.475	16.577
	September	1.147	0.309	0.123	0.256	0.275	0.014	2.124	18.701
	October	1.072	0.260	0.106	0.247	0.284	0.015	1.984	20.685
	November	1.083	0.222	0.099	0.287	0.275	0.013	1.979	22.664
	December	1.251	0.226	0.171	0.361	0.290	0.011	2.310	24.975
	TOTAL	**13.226**	**3.011**	**1.544**	**3.824**	**3.235**	**0.135**	**24.975**	
1984	January	1.274	0.223	0.169	0.341	0.321	0.011	2.338	2.338
	February	1.106	0.194	0.108	0.319	0.312	0.013	2.052	4.390
	March	1.154	0.213	0.115	0.348	0.293	0.015	2.138	6.528
	April	1.006	0.228	0.081	0.342	0.266	0.014	1.936	8.464

[1]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.
[2]Includes net imports of electricity.
[3]Includes only geothermal power and electricity produced from wood, waste, and wind energy.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Additional Notes and Sources: • See the last four pages of this section.

Notes and Sources for the Consumption Section

1. **Total Energy Consumed:** Total energy consumed includes coal (anthracite, bituminous coal, and lignite), natural gas (dry), refined petroleum products supplied, electric utility and industrial generation of electricity from hydropower, net imports of electricity generated from hydropower, and electricity generated from nuclear power, geothermal power, and wood, waste, and wind energy. Data do not include the consumption of wood-derived fuel other than that consumed by the electric utility industry. Also excluded are small quantities of energy forms for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; and geothermal, biomass, waste, and wind energy other than that consumed at electric utilities.

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

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

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

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

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

5. **Natural Gas:** Natural gas consumption by end-use sector is based on data presented in the table titled "Natural and Supplemental Gas Consumption" in Part 4. For the Part 2 consumption summary, lease and plant fuel consumption are added to the industrial sector deliveries and pipeline fuel represents the transportation sector's use of natural gas. Values in Btu are derived using the conversion factors provided in the Conversion Factors section of this publication.

Sources:
- 1973 through 1975: DOI, BOM, *Minerals Yearbook,* "Natural Gas" chapter.
- 1976 through 1978: EIA, *Energy Data Reports,* "Natural Gas, Annual."
- 1979: EIA, *Natural Gas Production and Consumption 1979.*
- 1980 and 1982: EIA, *Natural Gas Annual.*
- 1983 forward: EIA, *Natural Gas Monthly.*
- Electric utilities consumption—1973 through 1976: FPC Form 4, "Monthly Power Plant Report."
  1977 through 1981: Federal Energy Regulatory Commission (FERC), FPC Form 4, "Monthly Power Plant Report."
  1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report."

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

Sources for petroleum products supplied by individual products are:
- 1973 through 1975: DOI, BOM, *Mineral Industry Surveys,* "Petroleum Statement, Annual."
- 1976 through 1980: EIA, *Energy Data Reports,* "Petroleum Statement, Annual."
- 1981 through 1983: EIA, *Petroleum Supply Annual.*
- 1984 forward: EIA, *Petroleum Supply Monthly.*

Specific petroleum products' end-use allocation procedures follow:

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

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

Notes and Sources for the Consumption Section (continued)

6. **Petroleum (continued):**
   - **Distillate Fuel**
     - — ***Electric Utility Sector, All Periods.***
       Monthly and annual consumption in 1973 through 1979 is assumed to be the amount of oil (minus small amounts of kerosene and kerosene-type jet fuel deliveries) reported as consumed in internal combustion and gas turbine engine plants. From January 1980, electric utility consumption of distillate fuel is assumed to be the petroleum products reported as "light oil" (minus kerosene deliveries) consumed at utilities. Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."
     - — ***Nonutility Sectors, Annual Estimates.***
       The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of distillate fuel delivered to end-users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
       - Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
       - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares;
       - Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, farm, oil company, off-highway, diesel, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses; and
       - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, on-highway diesel, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.
     - — ***Nonutility Sectors, Monthly Estimates Through 1982.***
       - Residential and commercial sector monthly consumption is estimated by allocating the annual sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation from 1973 through 1980 and the American Petroleum Institute since January 1981.
       - The transportation sector highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.
       - Industrial sector monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.
     - — ***Nonutility Sectors, 1983 Forward.***
       Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.

   - **Jet Fuel**—Small amounts of kerosene-type jet fuel in all periods are consumed by the electric utility sector. Kerosene-type jet fuel deliveries to electric utilities as reported on the FERC-423 (formerly FPC-423) are used as an estimate of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.

   - **Kerosene**—Total product supplied monthly is allocated to the major end-use sectors in proportion to annual deliveries grouped into end-use sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
     - — Residential sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares;
     - — Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares; and
     - — Industrial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983 forward. Prior to 1979, each year's category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to 'all other uses.'

   - **Liquefied Petroleum Gases (LPG)**
     - — 1973 through 1982: the annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:
       - Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to equal the annual consumption of LPG by the sector;
       - The quantity of LPG sold each year that is consumed in internal combustion engines is allocated between the transportation and industrial sectors according to a 5-year moving average of the percentage of carburetors sold to each end-use category. The proportions range from 31 percent transportation and 69 percent industrial in 1973 to 52 percent transportation and 48 percent industrial in 1982.

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

Notes and Sources for the Consumption Section (continued)

6. **Petroleum (continued):**
   - LPG consumed annually by the industrial sector is estimated as the difference between LPG's total supplied and the estimated consumption by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and for use in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

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

   — 1983 forward: The 1982 annual end-use shares are applied for succeeding periods to estimate the amount of the total LPG supplied that is consumed by each major end-use sector.

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

- **Motor Gasoline**—Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories formed from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics,* Tables MF-21, MF-24, and MF-25, as follows:
  — Commercial sales are the sum of sales for public non-highway use, miscellaneous use, and unclassified use;
  — Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics;* and
  — Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.

- **Petroleum Coke**—The portion consumed by the electric utility sector is from EIA Form 759, "Monthly Power Plant Report" (formerly FPC Form 4). The remaining portion is assigned to the industrial sector.

- **Residual Fuel**
  — ***Electric Utility Sector, All Periods.***
  Monthly and annual consumption 1973 through 1979 is assumed to be the amount of oil reported as consumed in steam electric plants. From January 1980, electric utility consumption of residual fuel is assumed to be the petroleum products reported as "heavy oil" consumed at utilities. Sources: 1973 through September 1977—FPC Form 4, "Monthly Power Plant Report;" October 1977 through 1981—FERC, FPC Form 4, "Monthly Power Plant Report;" 1982 forward—EIA, Form EIA-759, "Monthly Power Plant Report."
  — ***Nonutility Sectors, Annual Estimates.***
  The aggregate nonutility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel delivered to end-users, grouped into sectors from EIA's "Deliveries of Fuel Oil and Kerosene" reports (based primarily on data collected by Form EIA-172) as follows:
    - Commercial sector deliveries are taken directly from the "Deliveries" report for 1979 through 1982. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares;
    - Industrial sector deliveries for 1979 through 1982 are the sum of deliveries for industrial, oil company, and all other uses. Deliveries for 1982 are used as estimates for 1983. Prior to 1979, each year's subtotal of the heating plus industrial category deliveries is split into commercial and industrial in proportion to the 1979 shares; and this estimated industrial portion is added to oil company and all other uses; and
    - Transportation sector deliveries are the sum of deliveries for railroad, vessel bunkering, and military uses for all years. Deliveries for 1982 are used as estimates for 1983.
  — ***Nonutility Sectors, Monthly Estimates Through 1982.***
    - Commercial sector monthly consumption is estimated by allocating the annual commercial sector estimates to months in proportion to each month's share of the year's sales of No. 2 heating oil as reported in the "Monthly Report of Heating Oil Sales" by the Ethyl Corporation for 1973 through 1980 and the American Petroleum Institute since January 1981.
    - Transportation sector monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusted for the number of days per month.
    - Industrial sector monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.
  — ***Nonutility Sectors, 1983 Forward.***
  Each month's nonutility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1982.

- **Road Oil**—All product supplied is assigned to the industrial sector.

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

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

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

Notes and Sources for the Consumption Section (continued)

7. **Hydroelectric (continued):**
Sources for electric utilities sector:
- 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
- 1977 through 1981: FERC, FPC Form 4, "Monthly Power Plant Report."
- 1982 forward: EIA, EIA Form 759, "Monthly Power Plant Report."

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

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

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

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

9. **Net Coke Imports:** This is coke made from coal. Net imports means imports minus exports, and the parentheses indicate that exports are greater than imports.
Sources:
- 1973 through 1975: DOI, BOM, *Minerals Yearbook,* "Coke and Coal Chemicals," chapter.
- 1976 through 1980: EIA, *Energy Data Report,* "Coke and Coal Chemicals," annual.
- 1981 forward: EIA, *Energy Data Report,* "Coke Plant Report," quarterly/annual.

10. **Other Energy:** "Other" is electricity produced from geothermal power and wood, waste, and wind energy.
Sources: same as Note 8 above, for Nuclear.

11. **Electricity Sales:** From the sources cited below the following sales categories are available: residential, commercial, industrial, and other. For the end-use estimates in this section, the "other" category (which is primarily sales for use in government buildings) is added to the commercial sector except for approximately 4 percent, which represents the transportation sector use of electricity, primarily by railroads and railways. Sales of electricity are converted into Btu at the rate of 3,412 Btu per kilowatt-hour.
Sources of sales data:
- 1973 through 1976: FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- 1977 through February 1980: EIA, FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income."
- March 1980 through December 1982: EIA, FERC Form 5, "Electric Utility Company Monthly Statement."
- January 1983 forward: EIA, EIA Form 826, "Electric Utility Company Monthly Statement."

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

Crude Oil and Refined Petroleum Products*

Domestic crude oil production during June 1984 was estimated to be 8.7 million barrels per day, slightly below the rate in May 1984 but 0.9 percent higher than the rate in June 1983.

Total petroleum imports averaged 5.5 million barrels per day in June 1984, 6.8 percent less than the May 1984 rate but 3.5 percent more than the June 1983 rate.

In June 1984, 15.5 million barrels per day of petroleum products were supplied for domestic use, 0.4 percent below the level in May 1984 but 1.4 percent above the level of the previous June. Motor gasoline accounted for 44.9 percent of the June 1984 total; distillate fuel oil, 17.3 percent; and residual fuel oil, 8.2 percent.

Motor gasoline supplied during June 1984 averaged 7.0 million barrels per day, 1.4 percent above the rate in May 1984 but 0.4 percent below the rate of the previous June. Stocks of motor gasoline totaled 249 million barrels at the end of June 1984, 4 million barrels below the level at the end of May 1984 but 26 million barrels above the June 1983 level.

In June 1984, 2.7 million barrels of distillate fuel oil were supplied per day, 5.2 percent less than the May 1984 rate but 6.2 percent more than the June 1983 level. Distillate fuel oil stocks were 114 million barrels at the end of June 1984, 16 million barrels above the level at the end of the previous month but the same level as 1 year earlier.

Residual fuel oil supplied in June 1984 averaged 1.3 million barrels per day, 4.8 percent more than in May 1984 but 3.5 percent less than the June 1983 rate. Residual fuel oil stocks measured 44 million barrels at the end of June 1984, 2 million barrels below the level at the end of May 1984, and 6 million barrels below the ending stocks for June 1983.

*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 March 1984. The total import data above include imports into the Strategic Petroleum Reserve.

Petroleum

Crude Oil[1] and Petroleum Products Overview

		Field Production			Stock Withdrawal[2]			Ending Stocks[3]
		Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] 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**	**[8]1,074**
1975	**AVERAGE**	**10,045**	**8,375**	**1,633**	**[8]-17**	**[8]-145**	**16,322**	**1,133**
1976	**AVERAGE**	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977	**AVERAGE**	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978	**AVERAGE**	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979	**AVERAGE**	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980	**AVERAGE**	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	**[8]1,392**
1981	**AVERAGE**	**10,230**	**8,572**	**1,609**	**[8]-290**	**[8]130**	**16,058**	**1,484**
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,359	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	[8]1,430
	AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983	January	R10,331	R8,697	R1,580	R[8]-499	R[8]772	R14,722	R1,452
	February	R10,388	R8,758	R1,575	R-320	R1,113	R14,792	R1,430
	March	R10,279	R8,700	R1,541	R83	R1,810	R15,541	R1,372
	April	R10,322	R8,776	R1,506	R-402	R308	R14,692	R1,374
	May	R10,190	R8,631	R1,493	R-15	R-602	R14,505	R1,394
	June	R10,261	R8,667	R1,523	R-122	R-276	R15,289	R1,405
	July	R10,228	R8,636	R1,539	R233	R-909	R15,019	R1,426
	August	R10,284	R8,679	R1,562	R-796	R-271	R15,480	R1,460
	September	R10,447	R8,784	R1,602	R-239	R-621	R15,506	R1,485
	October	R10,434	R8,771	1,604	R-274	R-442	R14,962	R1,508
	November	R10,461	R8,770	R1,641	R114	R-182	R15,500	1,510
	December	R9,983	R8,397	R1,544	R-329	R2,133	R16,726	R1,454
	AVERAGE	**R10,299**	**R8,688**	**R1,559**	**R-214**	**R234**	**R15,231**	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April	10,347	8,688	1,616	-565	-128	15,484	1,465
	May	10,415	R8,752	1,610	R-616	R-422	R15,566	R1,497
	June†	NA	*8,743*	NA	*-159*	*-390*	*15,504*	*1,502*
	AVERAGE	**NA**	**8,714**	**NA**	**-253**	**-79**	**15,788**	

[1]Includes lease condensate.
[2]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3]Stocks are totals as of end of period.
[4]Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.
[5]Includes stocks located in the Strategic Petroleum Reserve.
[6]Includes crude oil for storage in the Strategic Petroleum Reserve.
[7]Net imports equals imports minus exports.
[8]In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stocks withdrawal calculations. See Note 5 on the last page of this section.
Footnotes continued on following page.

Petroleum

Crude Oil[1] and Petroleum Products Overview (continued)

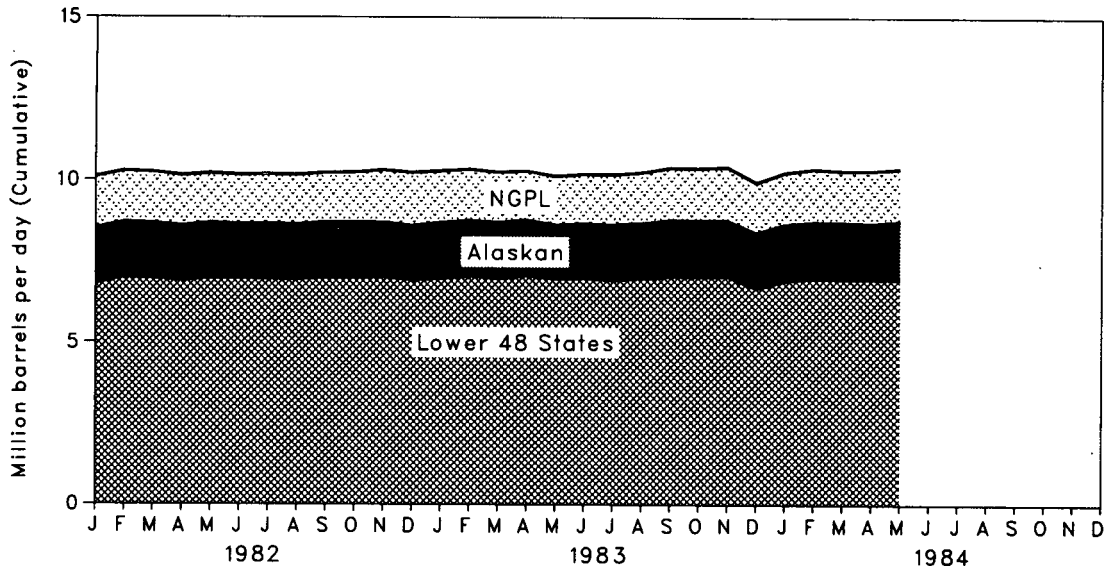
		Imports			Exports			
		Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[7]
		Thousand barrels per day						
1973	**AVERAGE**	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974	**AVERAGE**	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975	**AVERAGE**	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976	**AVERAGE**	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977	**AVERAGE**	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978	**AVERAGE**	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979	**AVERAGE**	**8,456**	**6,519**	**1,937**	**471**	**235**	**236**	**7,985**
1980	**AVERAGE**	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981	**AVERAGE**	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982	January	5,332	3,693	1,639	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,874	1,610	882	321	561	3,602
	April	4,378	2,849	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	262	542	4,008
	June	5,327	3,836	1,491	703	94	609	4,624
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,636	1,778	791	184	606	4,624
	October	5,306	3,670	1,636	932	270	662	4,374
	November	5,744	3,862	1,882	786	262	524	4,958
	December	4,606	3,000	1,605	860	193	667	3,746
	AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983	January	R4,438	R2,964	R1,474	973	117	856	R3,464
	February	R3,726	R2,267	R1,459	865	262	603	R2,861
	March	R3,690	R2,290	R1,400	801	174	627	R2,889
	April	R4,727	R3,118	R1,609	809	88	721	R3,918
	May	R5,089	R3,360	R1,729	848	280	568	R4,241
	June	R5,326	R3,577	R1,749	774	144	630	R4,552
	July	R5,741	R3,871	R1,870	571	145	426	R5,170
	August	R6,159	R4,227	R1,933	663	172	491	R5,496
	September	R6,129	R4,210	R1,919	684	177	507	R5,445
	October	R5,258	3,446	R1,812	576	140	436	R4,682
	November	R5,210	R3,337	R1,873	679	186	494	R4,531
	December	R5,033	R3,213	R1,820	639	95	544	R4,394
	AVERAGE	**R5,051**	**R3,329**	**R1,722**	**739**	**164**	**575**	**R4,312**
1984	January	5,347	3,029	2,318	575	153	422	4,772
	February	5,643	2,952	2,691	582	185	397	5,061
	March	5,253	3,455	1,798	840	236	605	4,413
	April	5,319	3,417	1,902	655	172	483	4,664
	May	R5,916	R3,927	R1,989	766	219	548	5,150
	June†	*5,513*	*3,766*	*1,747*	NA	NA	NA	NA
	AVERAGE	**5,498**	**3,428**	**2,070**	**NA**	**NA**	**NA**	**NA**

Footnotes continued.
†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• *Totals may not equal sum of components due to independent rounding.*
Sources: • See the last page of this section.

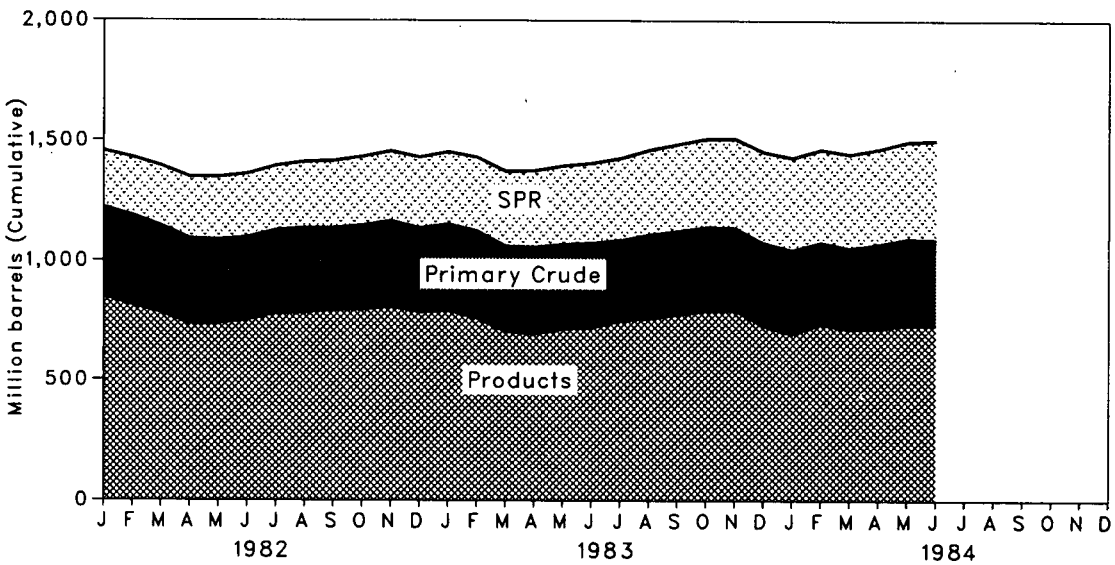
Petroleum

Overview

Production of Crude Oil and Natural Gas Plant Liquids



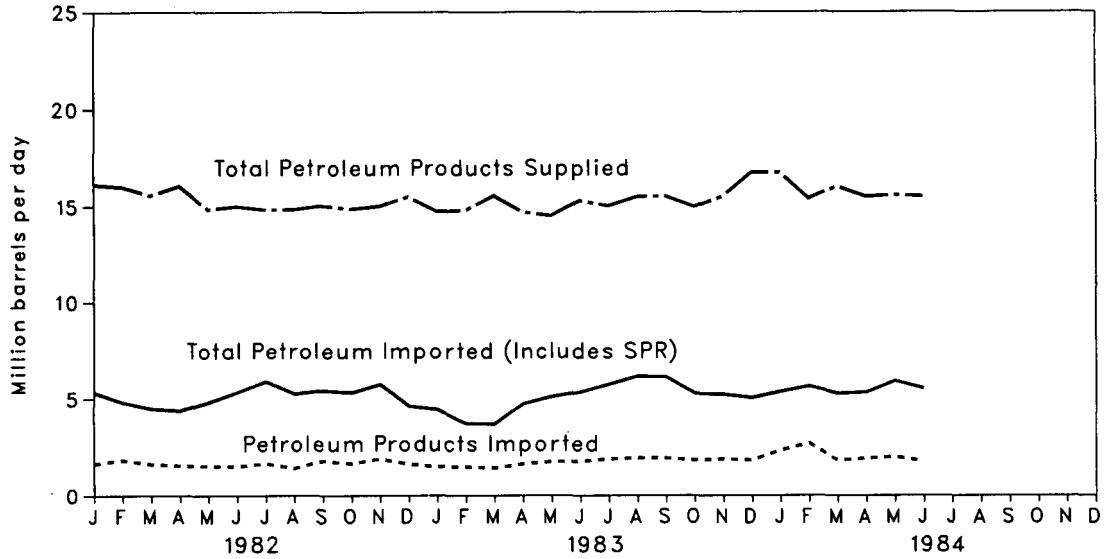
Stocks



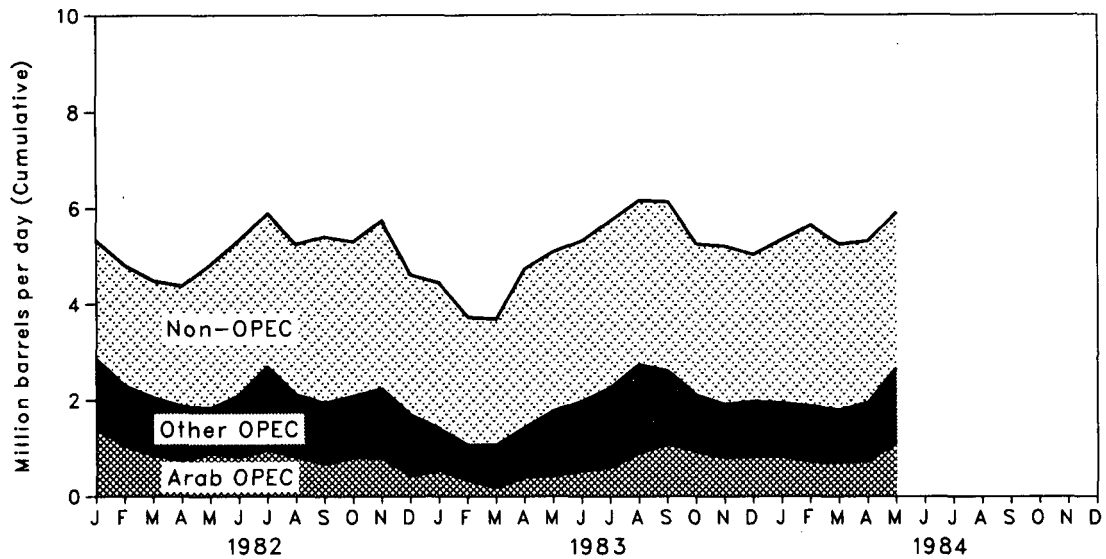
Petroleum

Overview

Products Supplied and Imports



Petroleum Imports by Source



Petroleum

Crude Oil[1] Supply and Disposition

		Supply							
		Field Production		Imports			Stock Withdrawal[3]		Unaccounted for Crude Oil
		Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	
		Thousand barrels per day							
1973	**AVERAGE**	**9,208**	**198**	**3,244**		**3,244**		**11**	**3**
1974	**AVERAGE**	**8,774**	**193**	**3,477**		**3,477**		**-62**	**-25**
1975	**AVERAGE**	**8,375**	**191**	**4,105**		**4,105**		**-17**	**17**
1976	**AVERAGE**	**8,132**	**173**	**5,287**		**5,287**		**-39**	**77**
1977	**AVERAGE**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-20**	**-150**	**-6**
1978	**AVERAGE**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-163**	**84**	**-57**
1979	**AVERAGE**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-67**	**-81**	**-11**
1980	**AVERAGE**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**-45**	**-52**	**34**
1981	**AVERAGE**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**-336**	**[6]46**	**83**
1982	January	8,509	1,705	3,693	170	3,523	-159	-242	101
	February	8,702	1,707	2,990	159	2,830	-213	-29	156
	March	8,667	1,696	2,874	185	2,689	-235	357	2
	April	8,591	1,691	2,849	190	2,659	-233	196	231
	May	8,683	1,707	3,309	204	3,105	-176	205	111
	June	8,646	1,665	3,836	105	3,732	-105	144	133
	July	8,658	1,710	4,248	97	4,150	-97	-50	-20
	August	8,634	1,697	3,851	208	3,643	-208	-232	189
	September	8,701	1,705	3,636	139	3,497	-143	406	-210
	October	8,701	1,706	3,670	216	3,454	-216	-332	249
	November	8,697	1,676	3,862	180	3,683	-179	-219	-124
	December	8,598	1,682	3,000	124	2,877	-125	252	35
	AVERAGE	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**-174**	**38**	**71**
1983	January	R8,697	R1,732	R2,964	219	R2,746	-219	R[6]-280	R170
	February	R8,758	R1,717	R2,267	197	R2,070	-197	R-123	R262
	March	R8,700	R1,732	R2,290	201	R2,089	-184	R267	R31
	April	R8,776	R1,721	R3,118	205	R2,913	-197	R-205	R98
	May	R8,631	R1,662	R3,360	289	R3,071	-293	R278	R169
	June	R8,667	R1,687	R3,577	190	R3,387	-188	R66	R370
	July	R8,636	R1,715	R3,871	274	R3,597	-264	R497	R-167
	August	R8,679	R1,697	R4,227	350	R3,876	-358	R-438	R281
	September	R8,784	R1,738	R4,210	309	R3,901	-307	R68	R-30
	October	R8,771	R1,733	3,446	202	3,244	-201	R-73	R44
	November	R8,770	R1,720	R3,337	171	R3,166	-135	R250	R34
	December	R8,397	R1,711	R3,213	193	R3,020	-252	R-78	R117
	AVERAGE	**R8,688**	**R1,714**	**R3,329**	**234**	**R3,096**	**-234**	**R20**	**R114**
1984	January	8,659	1,741	3,029	200	2,829	-173	-169	451
	February	8,726	1,740	2,952	85	2,868	-96	282	487
	March	8,718	1,740	3,455	148	3,307	-147	145	66
	April	8,688	1,725	3,417	170	3,247	-170	-396	590
	May	R8,752	1,793	R3,927	R246	R3,681	R-245	R-371	463
	June†	*8,743*	*1,792*	*3,766*	*337*	*3,430*	*-337*	*177*	NA
	AVERAGE	**8,714**	**1,755**	**3,428**	**198**	**3,230**	**-195**	**-58**	**NA**

[1]Includes lease condensate.
[2]Stocks are totals as of end of period.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]Strategic Petroleum Reserve.
[5]Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[6]Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Notes 5 and 6 on the last page of this section.
Footnotes continued on following page.

Petroleum

Crude Oil[1] Supply and Disposition (continued)

		Supply		Disposition			Ending Stocks[2]		
		Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Product Supplied[5]	Total	SPR[4]	Other Primary
		Thousand barrels per day					Million barrels		
1973	**AVERAGE**	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974	**AVERAGE**	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975	**AVERAGE**	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976	**AVERAGE**	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977	**AVERAGE**	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978	**AVERAGE**	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979	**AVERAGE**	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980	**AVERAGE**	**-13**	**15**	**13,481**	**287**	**NA**	**[6]466**	**108**	**[6]358**
1981	**AVERAGE**	**-58**	**5**	**12,470**	**228**	**NA**	**594**	**230**	**363**
1982	January	-63	3	11,599	238	NA	606	235	371
	February	-64	2	11,236	304	NA	613	241	372
	March	-63	5	11,276	321	NA	609	249	361
	April	-65	3	11,392	174	NA	610	256	355
	May	-62	3	11,806	262	NA	609	261	348
	June	-60	7	12,494	94	NA	608	264	344
	July	-60	3	12,446	229	NA	613	267	346
	August	-57	2	11,871	304	NA	626	274	353
	September	-56	4	12,146	184	NA	619	278	341
	October	-51	2	11,749	270	NA	636	285	351
	November	-51	1	11,724	262	NA	648	290	358
	December	-53	1	11,514	193	NA	[6]644	294	[6]350
	AVERAGE	**-59**	**3**	**11,774**	**236**	**NA**			
1983	January	NA	2	R11,143	117	R71	R660	301	R360
	February	*NA*	*3*	*R10,633*	*262*	*R71*	*R669*	*306*	*R363*
	March	NA	2	R10,859	174	70	R667	312	R355
	April	NA	2	R11,433	88	68	R679	318	R361
	May	NA	1	R11,800	280	63	R679	327	R353
	June	NA	R(s)	R12,284	144	64	R683	332	R351
	July	NA	2	R12,360	145	65	R676	341	R335
	August	NA	1	R12,152	172	64	R700	352	R349
	September	NA	1	R12,482	177	66	R708	361	R347
	October	NA	1	R11,782	140	63	R716	367	R349
	November	NA	2	R12,004	186	64	713	371	341
	December	NA	1	R11,234	95	67	R723	379	R344
	AVERAGE	**NA**	**R2**	**R11,685**	**164**	**R66**			
1984	January	NA	1	11,579	153	64	733	384	348
	February	NA	1	12,100	185	65	727	387	340
	March	NA	2	11,936	236	62	728	392	336
	April	NA	(s)	11,893	172	64	744	397	348
	May	NA	2	R12,243	219	62	764	R404	R359
	June†	NA	NA	*12,388*	NA	NA	*769*	*413*	*356*
	AVERAGE	**NA**	**NA**	**12,021**	**NA**	**NA**			

Footnotes continued.
†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available. (s)=Less than 500 barrels per day.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Petroleum

Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[1]										
		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
		Thousand barrels per day										
1973	**AVERAGE**	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974	**AVERAGE**	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975	**AVERAGE**	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976	**AVERAGE**	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977	**AVERAGE**	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978	**AVERAGE**	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979	**AVERAGE**	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980	**AVERAGE**	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981	**AVERAGE**	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982	January	254	161	877	111	289	0	663	376	128	2,859	1,403
	February	139	92	693	89	244	0	584	355	102	2,297	1,054
	March	91	37	555	155	200	0	522	399	91	2,051	860
	April	85	0	511	122	215	0	427	426	85	1,871	740
	May	179	0	601	116	236	0	222	422	54	1,830	897
	June	115	0	593	94	215	72	537	361	110	2,096	820
	July	159	0	660	108	327	69	910	356	95	2,685	965
	August	181	0	489	133	271	27	574	299	133	2,107	818
	September	179	0	432	57	191	21	477	518	69	1,943	677
	October	249	7	494	61	242	108	313	504	106	2,084	810
	November	247	14	489	47	283	34	479	528	115	2,235	797
	December	155	0	237	12	265	88	462	399	73	1,690	421
	AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983	January	R207	0	282	47	255	43	186	R337	R54	R1,412	R537
	February	R115	0	214	9	217	0	92	R393	28	R1,068	R338
	March	63	0	103	0	138	0	121	R440	R201	R1,066	183
	April	R227	0	R162	(s)	210	0	186	R523	125	R1,432	R389
	May	R286	0	122	12	R405	37	R385	R455	69	R1,771	R420
	June	300	0	R188	40	R466	38	R467	335	R138	R1,973	R528
	July	R283	0	182	R64	464	112	525	R434	187	R2,251	R606
	August	R378	0	R448	R52	R433	213	464	R511	230	R2,728	R903
	September	R423	0	587	21	R501	86	324	R432	R221	R2,595	R1,084
	October	261	0	638	16	368	12	307	337	169	2,108	938
	November	R184	0	545	56	R302	21	R215	R452	135	R1,910	R807
	December	R144	0	569	45	R294	9	329	R415	163	R1,969	R826
	AVERAGE	**R240**	**0**	**R337**	**R30**	**R338**	**48**	**R302**	**R422**	**R144**	**R1,862**	**R632**
1984	January	242	0	463	114	278	0	243	547	51	1,939	828
	February	348	0	324	33	267	0	244	481	174	1,871	723
	March	283	0	307	112	284	67	260	354	127	1,792	717
	April	280	0	320	95	221	0	288	581	158	1,944	734
	May	456	0	329	240	480	0	289	621	242	2,657	1,131
	AVERAGE	**322**	**0**	**349**	**120**	**307**	**14**	**265**	**517**	**150**	**2,044**	**829**

[1]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.
[2]Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.
[3]Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.
Footnotes continued on following page.

Petroleum

Crude Oil and Petroleum Product Imports (continued)

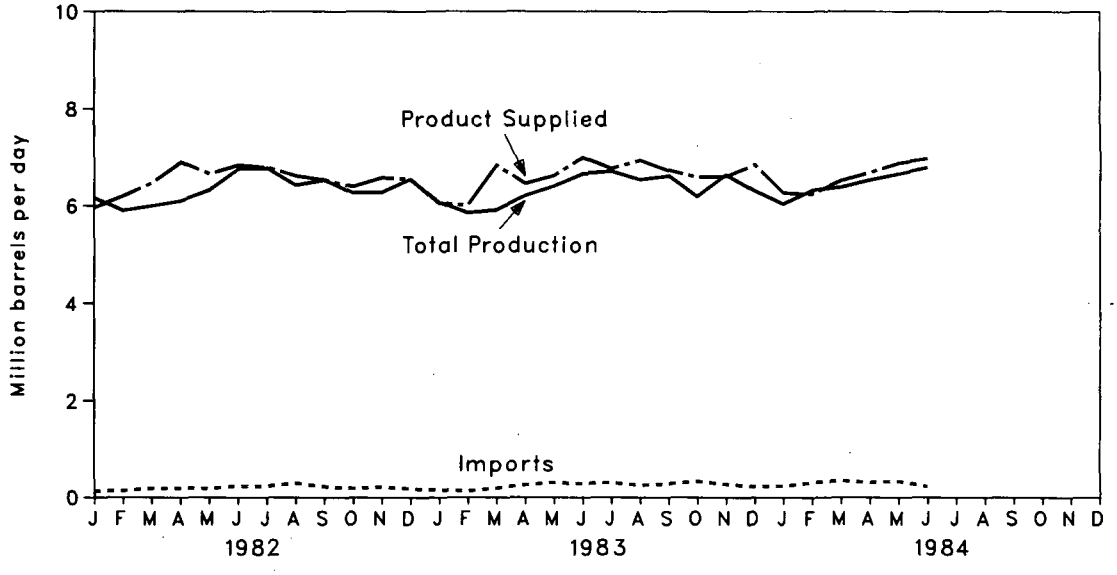
		Imports from Non-OPEC Sources[1]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand barrels per day										
1973	**AVERAGE**	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974	**AVERAGE**	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975	**AVERAGE**	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976	**AVERAGE**	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977	**AVERAGE**	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978	**AVERAGE**	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979	**AVERAGE**	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980	**AVERAGE**	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981	**AVERAGE**	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982	January	58	513	425	179	106	346	62	334	452	2,474	5,332
	February	67	537	476	221	120	181	38	362	508	2,510	4,807
	March	43	437	503	189	118	294	62	307	480	2,433	4,484
	April	82	360	476	184	166	247	36	266	690	2,507	4,378
	May	77	419	766	152	95	516	47	302	607	2,981	4,811
	June	32	481	797	148	129	557	58	322	708	3,231	5,327
	July	64	536	783	158	118	433	38	376	698	3,204	5,890
	August	80	443	853	145	106	520	24	317	650	3,137	5,244
	September	92	493	897	195	89	631	51	278	746	3,472	5,414
	October	45	459	682	148	109	666	52	262	801	3,222	5,306
	November	51	553	860	212	90	623	81	334	706	3,508	5,744
	December	88	561	689	174	102	438	48	336	480	2,916	4,606
	AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983	January	68	R534	849	R228	73	R314	40	299	R621	R3,026	R4,438
	February	92	R586	722	R183	81	193	50	192	R558	R2,658	R3,726
	March	86	488	R775	187	78	240	43	162	R565	R2,624	R3,690
	April	R174	R454	981	216	85	421	20	183	R759	R3,295	R4,727
	May	135	R518	944	153	108	R484	42	235	R699	R3,318	R5,089
	June	137	R586	R830	R173	120	R440	48	R262	R757	R3,353	R5,326
	July	69	R634	849	R198	R107	369	37	364	R864	R3,490	R5,741
	August	R144	R542	R906	R197	90	461	40	313	R738	R3,431	R6,159
	September	R148	R533	R849	R261	82	R475	33	R307	R845	R3,534	R6,129
	October	R171	R532	771	172	106	414	48	R357	R580	R3,151	R5,258
	November	R148	R556	R726	144	110	334	55	R427	R801	R3,300	R5,210
	December	R127	R604	R710	153	113	429	22	R278	R628	R3,063	R5,033
	AVERAGE	**R125**	**R547**	**R826**	**R189**	**96**	**R382**	**40**	**R282**	**R701**	**R3,189**	**R5,051**
1984	January	152	624	705	277	54	382	53	390	772	3,408	5,347
	February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
	March	88	726	707	169	93	400	34	247	996	3,460	5,253
	April	88	691	859	207	91	282	37	257	863	3,375	5,319
	May	31	715	675	192	57	418	38	336	796	3,259	5,916
	AVERAGE	**100**	**676**	**738**	**226**	**74**	**365**	**44**	**329**	**900**	**3,451**	**5,495**

Footnotes continued.
[1]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.
R=Revised data. (s)=Less than 500 barrels per day.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Beginning in October 1977, Strategic Petroleum Reserve imports are included.
Sources: • See the last page of this section.

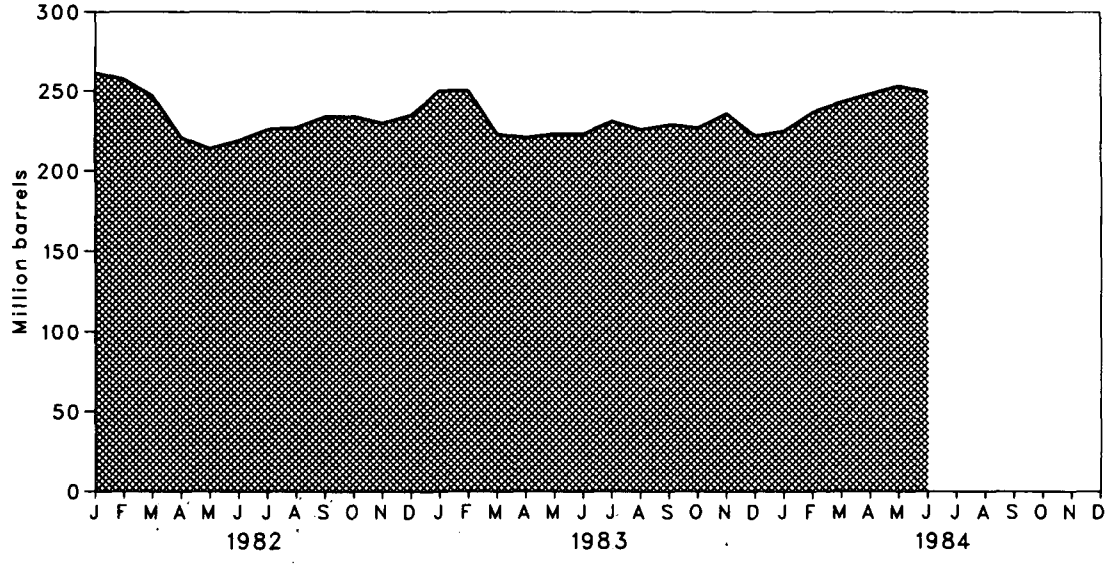
Petroleum

Motor Gasoline

Products Supplied, Total Production, and Imports



Stocks



Petroleum

Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks[1]	
						Product Supplied				
		Total Production	Imports[2]	Stock Withdrawal[2,3]	Exports	Total	Unleaded[4]	Unleaded Percent of Total	Total Motor Gasoline[5]	Finished Motor Gasoline
		Thousand barrels per day							Million barrels	
1973	**AVERAGE**	**6,535**	**134**	**9**	**4**	**6,674**			**209**	
1974	**AVERAGE**	**6,360**	**204**	**-24**	**2**	**6,537**			**[6]218**	
1975	**AVERAGE**	**6,520**	**184**	**[6]-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**	**[6]261**	
1981	**AVERAGE[7]**	**6,405**	**157**	**[6]28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
1982	January	6,167	128	-316	18	5,961	3,067	51.5	261	213
	February	5,899	133	172	8	6,196	3,210	51.8	257	208
	March	5,994	183	334	44	6,466	3,358	51.9	247	198
	April	6,095	185	650	33	6,897	3,495	50.7	221	179
	May	6,319	182	177	23	6,655	3,415	51.3	214	173
	June	6,754	230	-134	14	6,835	3,565	52.2	219	177
	July	6,768	225	-178	24	6,790	3,577	52.7	226	183
	August	6,419	291	-81	16	6,614	3,526	53.3	227	185
	September	6,527	223	-198	22	6,531	3,404	52.1	*234*	*191*
	October	6,262	185	-42	15	6,391	3,351	52.4	234	192
	November	6,273	211	101	11	6,574	3,451	52.5	230	189
	December	6,542	178	-165	7	6,549	3,485	53.2	[6]235	[6]194
	AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
1983	January	R6,065	R153	R[6]-167	(s)	R6,051	R3,364	R55.6	R250	R207
	February	5,848	R128	R24	(s)	R6,000	R3,264	R54.4	R250	207
	March	R5,906	R186	R768	23	R6,836	R3,622	R53.0	R223	R183
	April	R6,201	R255	R-3	1	R6,452	R3,492	R54.1	221	183
	May	R6,397	R305	R-83	1	R6,617	R3,558	R53.8	R223	R185
	June	R6,655	R277	R84	22	R6,994	R3,792	54.2	223	183
	July	R6,707	R302	R-225	18	R6,765	R3,746	55.4	231	190
	August	R6,537	R250	R161	13	R6,936	3,836	R55.3	226	185
	September	R6,611	R279	R-149	14	R6,727	R3,691	R54.9	R229	R189
	October	6,188	R330	R72	2	R6,588	R3,711	R56.3	R227	R187
	November	R6,634	269	R-298	2	R6,603	R3,692	R55.9	236	196
	December	R6,308	R224	R339	25	6,846	R3,966	57.9	222	R186
	AVERAGE	**R6,340**	**R247**	**R45**	**10**	**R6,622**	**R3,647**	**55.1**		
1984	January	6,037	233	-1	1	6,268	3,606	57.5	225	186
	February	6,320	303	-384	2	6,237	3,585	57.5	237	197
	March	6,375	343	-197	9	6,512	3,747	57.5	243	203
	April	6,528	308	-153	(s)	6,682	3,854	57.7	248	207
	May	R6,650	R329	R-106	(s)	R6,873	3,990	58.1	R253	R211
	June†	*6,783*	*220*	*-31*	NA	*6,967*	NA	NA	*249*	*208*
	AVERAGE	**6,448**	**289**	**-144**	**NA**	**6,591**	**NA**	**NA**		

[1]Stocks are totals as of end of period.
[2]Beginning in 1981, excludes blending components.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]Includes gasohol.
[5]Includes motor gasoline blending components.
[6]In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.
[7]Beginning in January 1981, survey forms were modified. See Note 2 on the last page of this section.
†Italics denote estimates based upon preliminary data. R=Revised data. NA=Not available. (s)= Less than 500 barrels per day.
Notes: • *Geographic coverage is the 50 States and the District of Columbia.*
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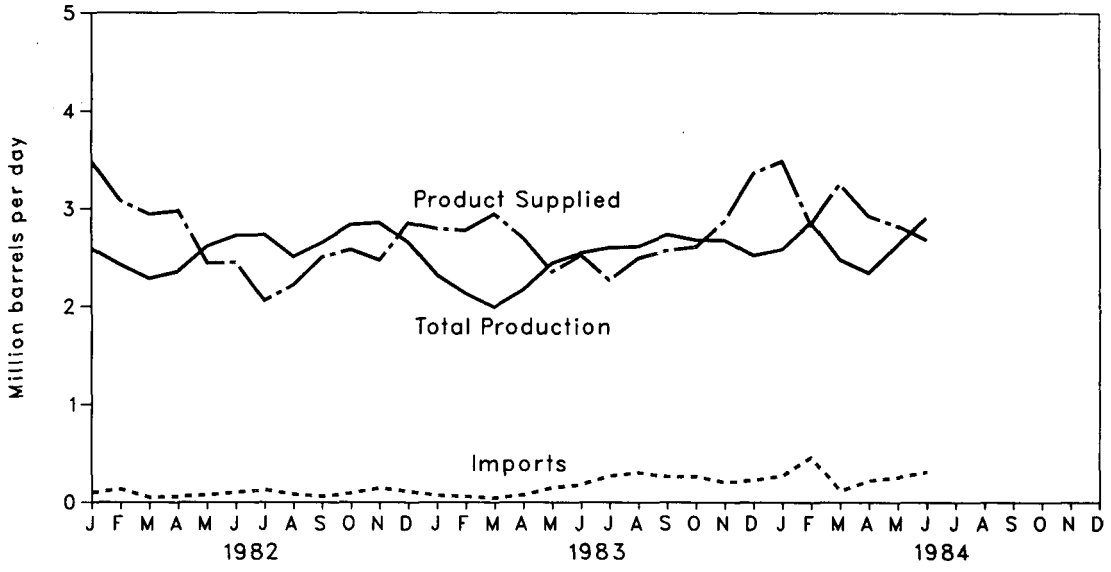
Sources: • See the last page of this section.

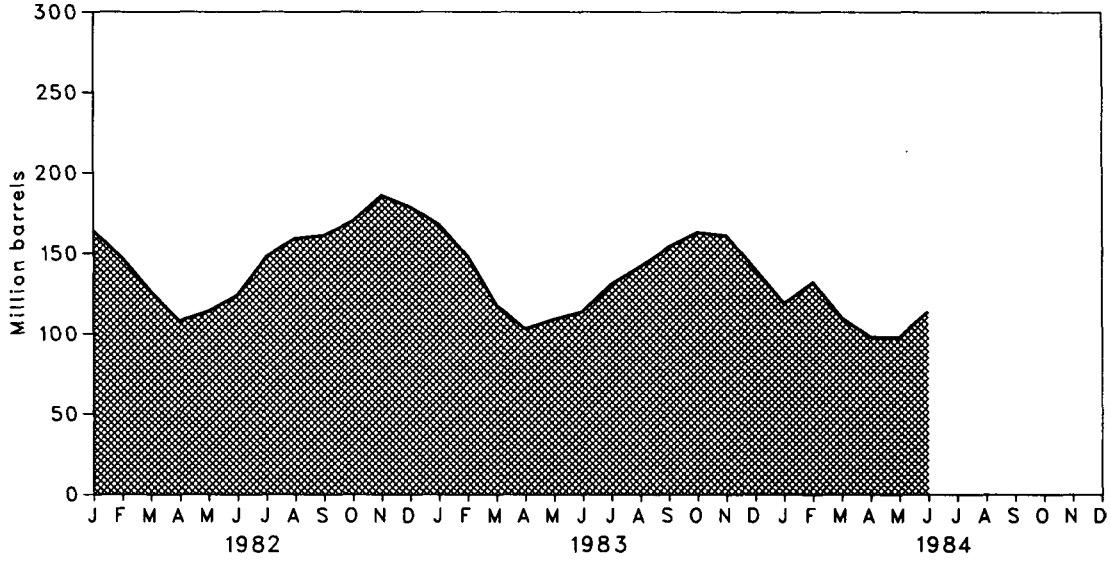
Petroleum

Distillate Fuel Oil

Product Supplied, Total Production, and Imports



Stocks



Petroleum

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Product Supplied[3]	
		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**	**[4]200**
1975	**AVERAGE**	**2,654**	**155**	**[4]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**	**[4]205**
1981	**AVERAGE[5]**	**2,613**	**173**	**[4]38**	**10**	**5**	**2,829**	**192**
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-339	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	[4]179
	AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983	January	R2,321	R68	R[4]580	NA	173	R2,797	168
	February	R2,135	R59	*R691*	NA	*105*	*R2,780*	*R148*
	March	R1,993	42	R971	NA	59	R2,947	R118
	April	R2,171	73	R500	NA	47	R2,697	103
	May	2,444	R147	R-186	NA	50	R2,354	109
	June	R2,546	R179	R-161	NA	40	R2,524	114
	July	R2,604	R267	R-546	NA	55	R2,270	131
	August	R2,615	R301	R-379	NA	43	R2,495	R142
	September	R2,739	R259	R-386	NA	37	R2,575	R154
	October	R2,681	R260	R-276	NA	55	R2,611	163
	November	R2,680	R203	R45	NA	54	R2,874	161
	December	R2,522	R221	R676	NA	54	R3,365	140
	AVERAGE	**R2,456**	**R174**	**124**	**NA**	**64**	**R2,690**	
1984	January	2,585	270	676	NA	40	3,490	119
	February	2,864	458	-439	NA	41	2,842	132
	March	2,480	115	727	NA	66	3,256	110
	April	2,347	220	393	NA	32	2,929	98
	May	R2,633	R252	R-10	NA	48	R2,827	R98
	June†	*2,909*	*309*	*-488*	NA	NA	*2,681*	*114*
	AVERAGE	**2,634**	**269**	**152**	**NA**	**NA**	**3,008**	

[1]Stocks are totals as of end of period.
[2]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3]Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.
[4]In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.
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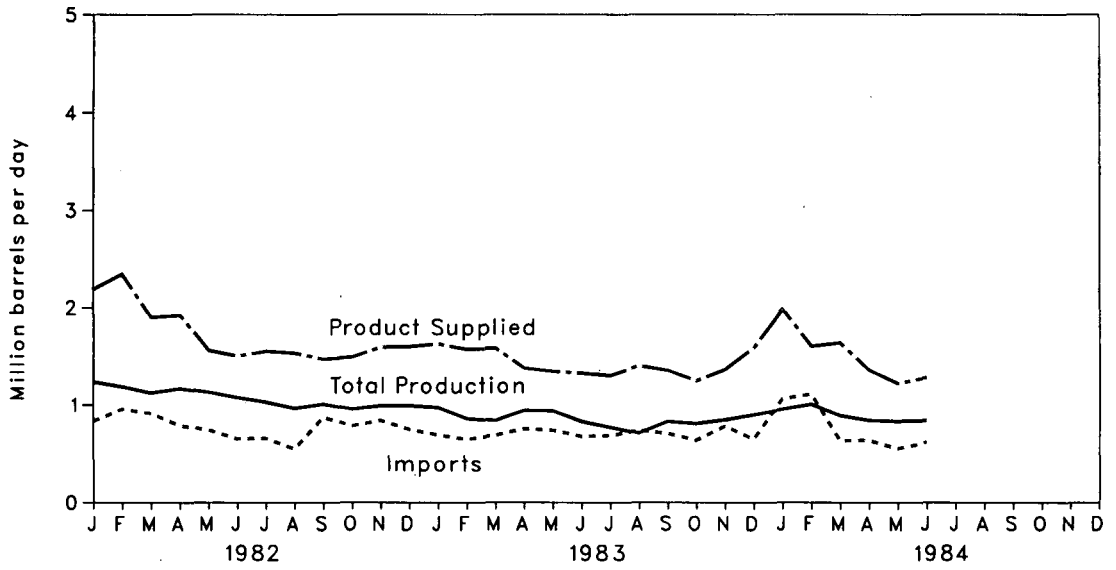
Sources: • See the last page of this section.

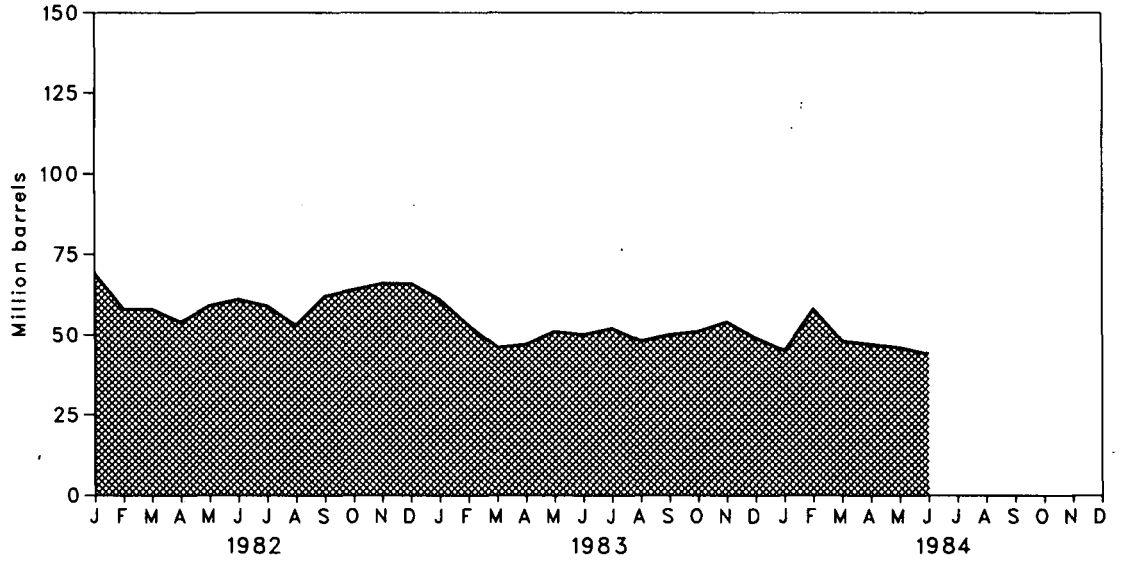
Petroleum

Residual Fuel Oil

Product Supplied, Total Production, and Imports



Stocks



Petroleum

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks[1]
		Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Product Supplied[3]	
		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**	**[4]60**
1975	**AVERAGE**	**1,235**	**1,223**	**[4]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**	**[4]92**
1981	**AVERAGE[5]**	**1,321**	**800**	**[4]37**	**48**	**118**	**2,088**	**78**
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-306	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	[4]66
	AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983	January	R972	691	R[4]258	NA	294	R1,626	61
	February	857	R647	R257	NA	191	R1,570	53
	March	R835	686	R227	NA	169	R1,579	46
	April	R941	R753	-10	NA	310	R1,374	47
	May	R936	R738	R-141	NA	190	R1,342	51
	June	R828	R677	R36	NA	R218	R1,323	50
	July	R769	R684	R-64	NA	90	R1,299	52
	August	R710	R739	115	NA	165	R1,400	48
	September	R826	R706	-47	NA	134	R1,351	50
	October	R807	R638	R-50	NA	153	R1,243	51
	November	R845	R780	R-97	NA	167	R1,362	54
	December	R897	R649	R182	NA	141	R1,587	49
	AVERAGE	**R852**	**R699**	**R55**	**NA**	**185**	**R1,421**	
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March	887	633	321	NA	204	1,637	48
	April	840	637	9	NA	130	1,357	47
	May	R829	R554	R35	NA	200	R1,218	R46
	June†	*838*	*617*	*-14*	NA	NA	*1,277*	*44*
	AVERAGE	**891**	**766**	**13**	**NA**	**NA**	**1,513**	

[1]Stocks are totals as of end of period.
[2]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3]Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Note 4 on the last page of this section.
[4]In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.
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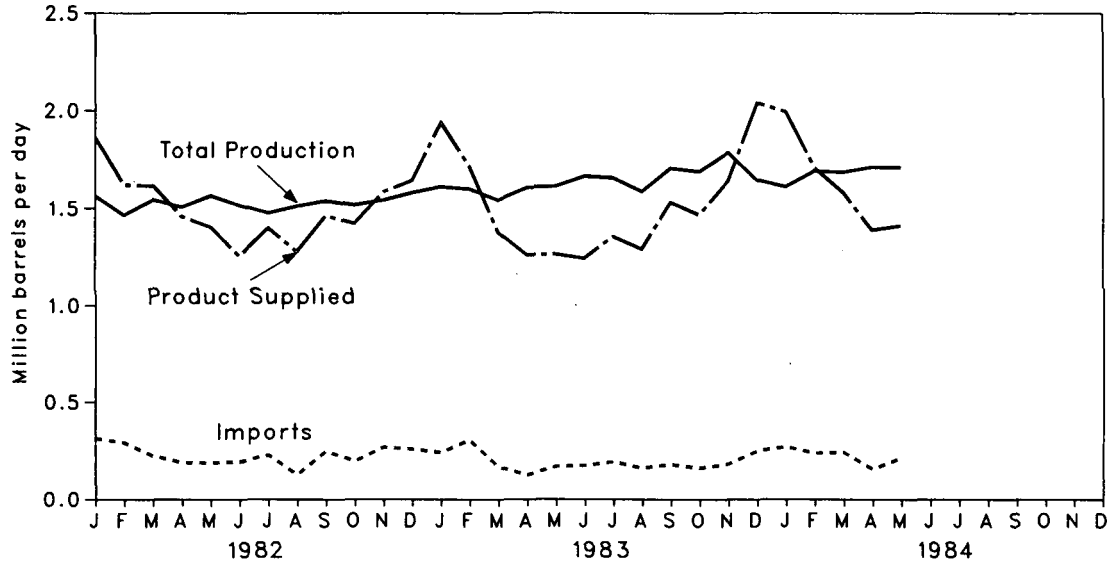
Sources: • See the last page of this section.

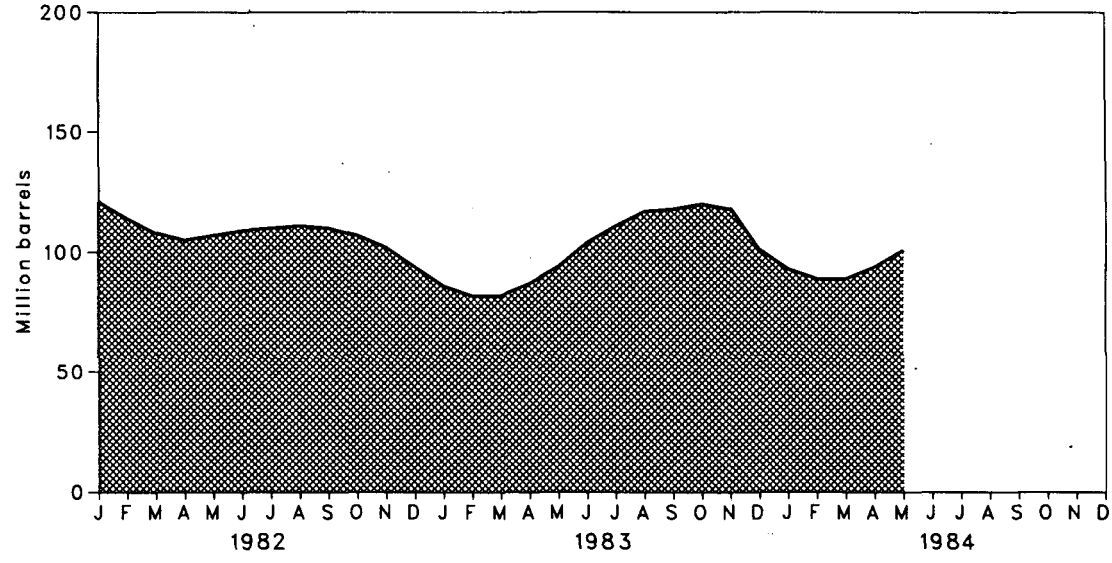
Petroleum

Liquefied Petroleum Gases

Product Supplied, Total Production, and Imports



Stocks



Petroleum

Liquefied Petroleum Gases[1] Supply and Disposition

		Supply			Disposition			Ending Stocks[2]
		Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels per day						Million barrels
1973	**AVERAGE**	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974	**AVERAGE**	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	**[4]113**
1975	**AVERAGE**	**1,527**	**112**	**[4]-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**	**[4]120**
1981	**AVERAGE**	**1,571**	**244**	**[4]-18**	**289**	**42**	**1,466**	**135**
1982	January	1,565	314	443	391	67	1,863	121
	February	1,466	291	243	327	51	1,621	114
	March	1,544	223	211	289	74	1,615	108
	April	1,506	188	98	257	77	1,458	105
	May	1,565	186	-71	234	43	1,403	107
	June	1,515	192	-86	262	106	1,254	109
	July	1,476	227	-13	253	37	1,399	110
	August	1,511	125	-45	254	61	1,276	111
	September	1,538	247	37	274	85	1,463	110
	October	1,517	194	97	306	81	1,421	107
	November	1,542	267	175	363	37	1,583	102
	December	1,580	258	256	395	56	1,642	[4]94
	AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983	January	R1,611	240	R[4]520	313	118	R1,939	R86
	February	R1,600	305	R128	R244	76	R1,713	R82
	March	R1,543	166	R-9	R197	127	R1,377	R82
	April	R1,607	124	R-156	198	116	R1,260	R87
	May	R1,613	167	R-225	207	84	R1,263	R94
	June	R1,664	172	R-334	R203	59	R1,241	R104
	July	R1,656	191	R-221	217	55	R1,354	R111
	August	R1,586	160	R-199	229	29	R1,289	R117
	September	R1,705	178	R-30	236	86	R1,531	R118
	October	1,688	160	R-81	268	32	R1,467	R120
	November	R1,785	180	R70	R362	33	R1,640	118
	December	R1,645	247	575	R363	66	R2,038	[4]101
	AVERAGE	**R1,642**	**190**	**R4**	**R253**	**73**	**R1,509**	
1984	January	1,610	269	[4]470	333	23	1,993	93
	February	1,690	237	146	323	41	1,708	89
	March	1,685	241	12	289	68	1,581	89
	April	1,711	155	-170	253	54	1,389	94
	May	1,709	211	-221	244	42	1,412	101
	AVERAGE	**1,681**	**223**	**47**	**288**	**46**	**1,617**	

[1]Includes ethane, propane, normal butane, and isobutane.
[2]Stocks are totals as of end of period.
[3]A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4]In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Note 5 on the last page of this section.
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Petroleum

Other Petroleum Products[1] Supply and Disposition

		Supply			Disposition			Ending Stocks[2]
		Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Product Supplied	
		Thousand barrels per day						Million barrels
1973	**AVERAGE**	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974	**AVERAGE**	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	**[4]218**
1975	**AVERAGE**	**3,424**	**277**	**[4]-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**	**[4]247**
1981	**AVERAGE**	**3,739**	**226**	**[4]46**	**723**	**199**	**3,088**	**282**
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	[4]253
	AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983	January	R3,194	R322	R[4]-419	R588	271	R2,239	271
	February	R3,229	R321	R12	R673	232	R2,658	R270
	March	R3,381	R319	R-147	R572	249	R2,732	R275
	April	R3,299	R404	R-24	R592	247	R2,840	R276
	May	R3,405	R374	R35	R705	242	R2,866	R275
	June	R3,610	R444	R96	R717	292	R3,144	R272
	July	R3,636	R425	R148	R735	209	R3,265	R267
	August	R3,695	R482	R30	R668	242	R3,297	266
	September	R3,792	R497	R-6	R788	236	R3,255	R266
	October	R3,578	R424	R-107	R711	195	R2,990	270
	November	R3,568	R441	R95	912	238	R2,957	267
	December	R3,123	R479	R361	R883	257	R2,823	R[4]256
	AVERAGE	**R3,460**	**R411**	**R6**	**R712**	**242**	**R2,923**	
1984	January	3,391	486	[4]-177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April	3,584	582	-207	627	268	3,063	274
	May	3,683	642	-118	775	257	3,175	277
	AVERAGE	**3,549**	**552**	**-195**	**648**	**243**	**3,015**	

[1]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.
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• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Notes and Sources for the Petroleum Section

Notes

1. During 1981 the listing (frame) of operators of all facilities required to complete each monthly survey was updated. The refinery frame was found to be complete and accurate, although the frames for bulk terminals, pipelines, and crude oil stocks facilities were found to be outdated. A variety of sources (published directories, listings, and exploratory surveys) were researched for potential new respondents. As a result of this research, a significant number of respondents were added to the frames. The increase in the respondents for the frames affects the stocks of crude oil and petroleum products. For further details, see the Energy Information Administration (EIA), *Petroleum Supply Monthly.*
2. Research conducted by the EIA in the latter half of 1980 indicated changes had taken place in the petroleum industry that were not being adequately reflected in the EIA survey forms. First, the flows of unfinished oils and the redesignation of finished products were not being accurately described on the EIA survey forms. Second, a substantial amount of motor gasoline was being produced at non-refinery "downstream blending stations" but was not being reported. Although empirical information is not available to precisely measure the historical effects, estimates of the magnitude of the differences in the major series affected are shown in the EIA, *Petroleum Supply Monthly.* Beginning in January 1981, the EIA modified its survey forms, changed definitions of gasoline (motor and aviation), and added the non-refinery blenders previously not reported.
3. **Motor Gasoline:** Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately. For further details, see the EIA, *Petroleum Supply Monthly.*
4. **Distillate and Residual Fuel Oils:** The requirement to report crude oil burned on leases and pipelines as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils number typically exceeded the number for available supply of unfinished oils. This was assumed to be due to the redesignation of distillate and residual fuel oils received as such, but used as an unfinished oil input by the receiving refinery. This imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of this difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment. For further details, see the EIA, *Petroleum Supply Monthly.*
5. **New Stock Basis:** In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:
- Crude Oil: 1982—645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974—1,121; 1980—1,420; and 1982—1,462.
- Motor Gasoline: 1974—225; 1980—263; 1982—244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.
- Residual Fuel Oil: 1974—75; 1980—91; and 1982—68.
- Liquefied Petroleum Gases: 1974—113;1980—128; and 1982—103.
- Other Petroleum Products: 1974—220; 1980—249; and 1982—259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983, were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table. This change will affect stocks reported and stock withdrawals in each table. Under new basis, end-of-year 1983 stocks, in million barrels would have been:
- Liquefied Petroleum Gases: 1983—108.
- Other Petroleum Products: 1983—248.

6. Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Sources

- 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
- 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual" and unleaded gasoline data from *Monthly Petroleum Statistics Report.*
- January 1981 through December 1983: EIA, *Petroleum Supply Annual.*
- January 1984 through May 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly* (except domestic crude oil production).
- June 1984: Estimates based on EIA weekly data (except domestic crude oil production).
- January 1984 through June 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey.

Part 4 Natural Gas

Natural Gas

Total dry natural gas production in the United States during May 1984 was an estimated 1.4 trillion cubic feet (Tcf). This was 10.5 percent higher than in May 1983. Output during the first 5 months of 1984 totaled 7.3 Tcf, 10.9 percent more than during the first 5 months of 1983.

Consumption of natural and supplemental gas in May 1984 was an estimated 1.2 Tcf, 5.2 percent higher than in May 1983. Estimated consumption during the first 5 months of 1984 totaled 8.3 Tcf, 7.5 percent higher than during the comparable 1983 period.

Deliveries to residential consumers during April 1984 (latest data available) were an estimated 428 billion cubic feet (Bcf). This was 4.7 percent lower than in April 1983. Residential consumption totaled 2,424 Bcf during the first 4 months of 1984, 3.4 percent higher than during the same period of 1983. Total deliveries to industrial consumers during April 1984 were an estimated 413 Bcf. This was 9.8 percent higher than in April 1983. Industrial consumption totaled 2,023 Bcf during the first 4 months of 1984, 19.8 percent higher than during the comparable 1983 period.

Imports of natural gas in May 1984 were an estimated 70 Bcf, 14.8 percent higher than in the previous May. During the first 5 months of 1984, imports of natural gas totaled an estimated 376 Bcf, 12.1 percent lower than during the comparable 1983 period. Receipts of foreign gas during May 1984 included Algerian liquefied natural gas (LNG) equivalent to approximately 3 Bcf.

Stocks of working gas* in underground natural gas storage reservoirs at the end of May 1984 totaled 1.8 Tcf. This was 17.1 percent below stocks available a year earlier. Net injections into storage during May 1984 were 227 Bcf, 53.4 percent higher than during the previous May.

*Gas available for withdrawal.

Natural Gas

Production Summary

		Gross Wet Gas Withdrawals[1]	Used for Repressuring[2]	Nonhydrocarbon Gas Removed[3]	Vented and Flared	Marketed Production (Wet)[4]	Extraction Loss[3]	Total Dry Gas Production[5]
		Billion cubic feet						
1973	**TOTAL**	**24,067**	**1,171**	**NA**	**248**	**[6]22,648**	**917**	**[6]21,731**
1974	**TOTAL**	**22,850**	**1,080**	**NA**	**169**	**[6]21,601**	**887**	**[6]20,713**
1975	**TOTAL**	**21,104**	**861**	**NA**	**134**	**[6]20,109**	**872**	**[6]19,236**
1976	**TOTAL**	**20,944**	**859**	**NA**	**132**	**[6]19,952**	**854**	**[6]19,098**
1977	**TOTAL**	**21,097**	**935**	**NA**	**137**	**[6]20,025**	**863**	**[6]19,163**
1978	**TOTAL**	**21,309**	**1,181**	**NA**	**153**	**[6]19,974**	**852**	**[6]19,122**
1979	**TOTAL**	**21,883**	**1,245**	**NA**	**167**	**[6]20,471**	**808**	**[6]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	January	1,865	108	19	9	1,728	71	1,657
	February	1,712	101	18	8	1,584	65	1,519
	March	1,816	115	19	7	1,675	69	1,606
	April	1,714	108	18	7	1,581	65	1,516
	May	1,692	117	17	7	1,552	64	1,488
	June	1,643	114	16	7	1,505	62	1,443
	July	1,667	119	15	7	1,526	63	1,463
	August	1,638	120	18	8	1,492	61	1,431
	September	1,570	116	16	6	1,431	59	1,372
	October	1,610	126	16	8	1,460	60	1,400
	November	1,621	119	18	9	1,476	61	1,415
	December	1,663	125	19	10	1,510	62	1,448
	TOTAL	**20,210**	**1,388**	**208**	**93**	**18,520**	**762**	**17,758**
1983	January	1,668	122	19	7	1,520	62	1,458
	February	1,471	108	16	6	1,340	55	1,285
	March	1,534	124	17	7	1,386	57	1,329
	April	1,453	120	16	7	1,310	54	1,256
	May	1,450	111	16	8	1,316	54	1,262
	June	1,399	118	19	7	1,256	52	1,204
	July	1,485	125	18	7	1,335	55	1,280
	August	1,537	124	20	7	1,386	57	1,329
	September	1,496	118	19	7	1,352	56	1,296
	October	1,572	122	18	7	1,425	59	1,366
	November	1,583	114	19	7	1,443	59	1,384
	December	1,733	116	21	8	1,588	65	1,523
	TOTAL	**18,381**	**1,421**	**218**	**85**	**16,657**	**685**	**15,972**
1984	January	R1,845	119	22	7	R1,697	70	R1,627
	February	R1,614	115	19	6	R1,474	R61	R1,413
	March	R1,647	R112	21	7	R1,508	R62	R1,446
	April	*1,624*	*R110*	*19*	*R6*	*1,489*	*61*	*1,428*
	May	*1,588*	*107*	*21*	*6*	*1,454*	*60*	*1,394*

[1]Gas withdrawn from gas and oil wells.
[2]Gas returned to formations for repressuring, pressure maintenance, and cycling.
[3]For definitions and further explanations, see Notes on the last two pages of this section.
[4]Equal to gross withdrawals minus volumes used for repressuring, volumes of nonhydrocarbon gases removed, and volumes vented and flared. See Note 2 on the last two pages of this section for further explanation.
[5]Equal to marketed production (wet) minus extraction loss.
[6]May include unknown quantities of nonhydrocarbon gases.
R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

Natural Gas

Supply and Disposition of Dry Natural Gas and Supplemental Gaseous Fuels

		Supply					Disposition			
		Total Dry Gas Production	Withdrawals from Storage[1]	Supplemental Gaseous Fuels[2]	Imports[2]	Total Supply/ Disposition[3]	Additions to Storage[1]	Exports[2]	Consumption[2]	Unaccounted for[2]
		Billion cubic feet								
1973	**TOTAL**	**[4]21,731**	**1,533**	**NA**	**1,033**	**24,297**	**1,974**	**77**	**22,049**	**196**
1974	**TOTAL**	**[4]20,713**	**1,701**	**NA**	**959**	**23,373**	**1,784**	**77**	**21,223**	**289**
1975	**TOTAL**	**[4]19,236**	**1,760**	**NA**	**953**	**21,949**	**2,104**	**73**	**19,538**	**235**
1976	**TOTAL**	**[4]19,098**	**1,921**	**NA**	**963**	**21,983**	**1,756**	**65**	**19,946**	**216**
1977	**TOTAL**	**[4]19,163**	**1,750**	**NA**	**1,011**	**21,924**	**2,307**	**56**	**19,521**	**41**
1978	**TOTAL**	**[4]19,122**	**2,158**	**NA**	**966**	**22,245**	**2,278**	**53**	**19,627**	**287**
1979	**TOTAL**	**[4]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	January	1,657	697	19	98	2,471	24	3	2,400	44
	February	1,519	461	16	85	2,081	51	5	1,984	41
	March	1,606	274	15	82	1,977	91	5	1,838	43
	April	1,516	112	12	72	1,712	185	2	1,485	40
	May	1,488	11	9	65	1,573	394	3	1,136	40
	June	1,443	11	9	61	1,524	364	6	1,115	39
	July	1,463	12	9	67	1,551	362	5	1,145	39
	August	1,431	36	9	61	1,537	342	6	1,151	38
	September	1,372	20	9	66	1,467	285	5	1,140	37
	October	1,400	62	11	77	1,550	197	5	1,311	37
	November	1,415	168	13	91	1,687	85	5	1,559	38
	December	1,448	299	14	110	1,871	88	5	1,739	39
	TOTAL	**17,758**	**2,165**	**145**	**933**	**21,001**	**2,472**	**52**	**18,001**	**475**
1983	January	1,458	450	16	R112	R2,036	24	5	R1,968	39
	February	1,285	324	13	R95	R1,717	35	5	R1,643	34
	March	1,329	266	13	R86	R1,694	58	5	R1,596	35
	April	1,256	162	11	R74	R1,503	81	R5	R1,383	34
	May	1,262	41	9	R61	R1,373	189	R5	R1,145	34
	June	1,204	22	8	R59	R1,293	254	R3	1,004	32
	July	1,280	25	9	R58	R1,372	267	5	R1,066	34
	August	1,329	35	9	R56	R1,429	248	R6	R1,140	35
	September	1,296	27	9	R67	R1,399	259	R4	R1,101	35
	October	1,366	35	10	R64	R1,475	166	4	R1,269	36
	November	1,384	152	12	80	1,628	72	5	1,514	37
	December	1,523	601	17	R107	R2,248	32	5	R2,170	44
	TOTAL	**15,972**	**2,140**	**136**	**R918**	**R19,167**	**1,685**	**55**	**R16,999**	**426**
1984	January	R1,627	562	17	95	R2,301	50	4	R2,204	43
	February	R1,413	304	R13	70	R1,800	68	4	R1,690	R38
	March	R1,446	359	R14	69	R1,888	49	5	R1,795	R39
	April	*1,428*	101	11	R72	R1,612	148	5	R1,421	38
	May	*1,394*	30	10	70	1,504	257	6	1,204	37

[1]Monthly and annual data for 1980 through 1982 include underground storage and liquefied natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 on the last two pages of this section.
[2]For definitions and further explanations, see Notes on the last two pages of this section.
[3]Data for 1978 through 1982 do not include intransit receipts and deliveries.
[4]May include unknown quantities of nonhydrocarbon gases.
R = Revised data. NA = Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Italics denote estimated data. Data for 1973 through 1982 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

Natural Gas

Natural and Supplemental Gas Consumption

		Lease and Plant Fuel	Pipeline Fuel	Delivered to Consumers					Total Consumption
				Residential	Commercial[1]	Industrial	Electric Utilities	Total	
		Billion cubic feet							
1973	**TOTAL**	**1,496**	**728**	**4,879**	**2,597**	**8,689**	**3,660**	**19,825**	**22,049**
1974	**TOTAL**	**1,477**	**669**	**4,786**	**2,556**	**8,292**	**3,443**	**19,077**	**21,223**
1975	**TOTAL**	**1,396**	**583**	**4,924**	**2,508**	**6,968**	**3,158**	**17,558**	**19,538**
1976	**TOTAL**	**1,634**	**548**	**5,051**	**2,668**	**6,964**	**3,081**	**17,764**	**19,946**
1977	**TOTAL**	**1,659**	**533**	**4,821**	**2,501**	**6,815**	**3,191**	**17,329**	**19,521**
1978	**TOTAL**	**1,648**	**530**	**4,903**	**2,601**	**6,757**	**3,188**	**17,449**	**19,627**
1979	**TOTAL**	**1,499**	**601**	**4,965**	**2,786**	**6,899**	**3,491**	**18,141**	**20,241**
1980	**TOTAL**	**1,026**	**635**	**4,752**	**2,611**	**7,172**	**3,682**	**18,216**	**19,877**
1981	**TOTAL**	**928**	**642**	**4,546**	**2,520**	**7,128**	**3,640**	**17,834**	**19,404**
1982	January	104	79	866	444	669	238	2,217	2,400
	February	95	66	786	405	412	220	1,823	1,984
	March	100	61	602	322	506	247	1,677	1,838
	April	95	49	451	237	407	246	1,341	1,485
	May	93	38	233	139	375	258	1,005	1,136
	June	90	37	165	107	420	296	988	1,115
	July	91	38	138	101	424	353	1,016	1,145
	August	89	38	123	105	435	361	1,024	1,151
	September	86	38	136	105	482	293	1,016	1,140
	October	87	43	204	130	573	273	1,181	1,311
	November	88	52	372	218	603	226	1,419	1,559
	December	90	58	557	299	520	215	1,591	1,739
	TOTAL	**1,109**	**596**	**4,633**	**2,606**	**5,831**	**3,226**	**16,295**	**18,001**
1983	January	91	65	697	357	R550	208	R1,812	R1,968
	February	80	R54	673	349	R310	177	R1,509	R1,643
	March	83	53	525	275	R452	208	R1,460	R1,596
	April	78	46	449	231	R376	203	R1,259	R1,383
	May	79	38	269	147	R394	218	R1,028	R1,145
	June	75	33	176	107	365	248	896	1,004
	July	80	35	130	97	R410	314	R951	R1,066
	August	83	38	119	99	R449	352	R1,019	R1,140
	September	81	36	124	103	R458	299	R984	R1,101
	October	85	42	195	130	R566	251	R1,142	R1,269
	November	R86	50	347	198	619	214	1,378	1,514
	December	95	72	[2]825	[2]438	R521	219	R2,003	R2,170
	TOTAL	**996**	**R562**	**4,530**	**2,530**	**R5,470**	**2,912**	**R15,441**	**R16,999**
1984	January	R102	73	[2]805	[2]404	R605	215	R2,029	R2,204
	February	R88	R56	[2]580	[2]291	R488	187	R1,546	R1,690
	March	R90	R59	611	312	R517	206	R1,646	R1,795
	April	89	47	428	224	413	220	1,285	1,421

[1]Includes deliveries to local, State, and Federal agencies engaged in nonmanufacturing activities.
[2]Estimated on the basis of heating degree-day data obtained from the National Oceanic and Atmospheric Administration.
R=Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Data for 1973 through December 1982 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the last page of this section.

Natural Gas

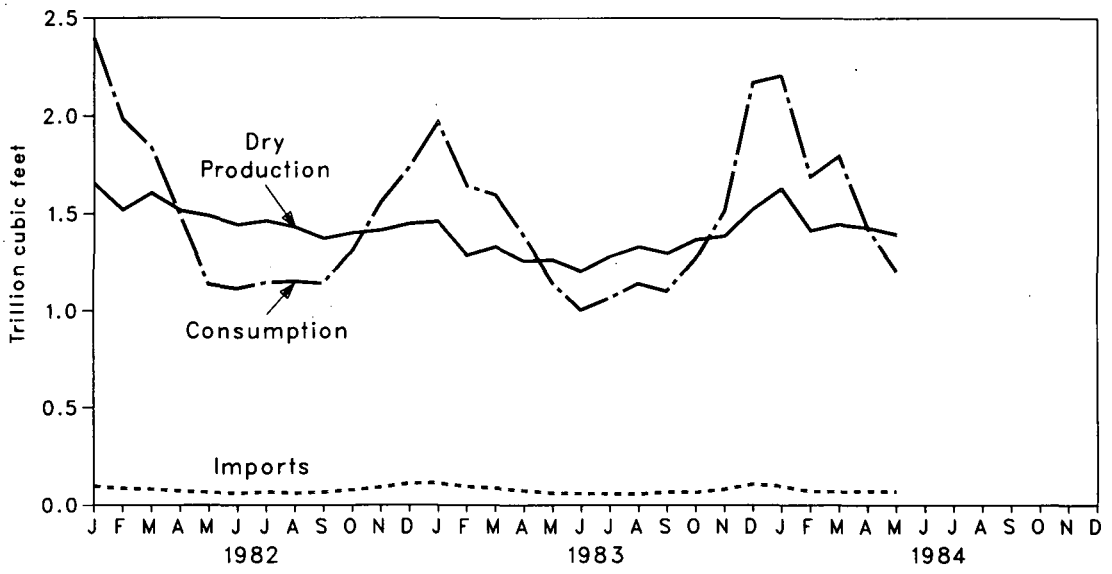
Underground Natural Gas Storage—All Operators

		Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
		Base Gas	Working Gas	Total[1]	Volume	Percent	Injections	Withdrawals	Net[2]
		Volumes in Billion cubic feet							
1973	**TOTAL**	**2,864**	**2,034**	**4,898**	**305**	**17.6**	**1,974**	**1,533**	**441**
1974	**TOTAL**	**2,912**	**2,050**	**4,962**	**16**	**0.8**	**1,784**	**1,701**	**83**
1975	**TOTAL**	**3,162**	**2,212**	**5,374**	**162**	**7.9**	**2,104**	**1,760**	**344**
1976	**TOTAL**	**3,323**	**1,926**	**5,250**	**-286**	**-12.9**	**1,756**	**1,921**	**-165**
1977	**TOTAL**	**3,391**	**2,475**	**5,866**	**549**	**28.5**	**2,307**	**1,750**	**557**
1978	**TOTAL**	**3,473**	**2,547**	**6,020**	**72**	**2.9**	**2,278**	**2,158**	**120**
1979	**TOTAL**	**3,553**	**2,753**	**6,306**	**207**	**8.1**	**2,295**	**2,047**	**248**
1980	**TOTAL**	**3,642**	**2,655**	**6,297**	**-99**	**-3.6**	**1,896**	**1,910**	**-14**
1981	**TOTAL**	**3,752**	**2,817**	**6,569**	**162**	**6.1**	**2,180**	**1,887**	**293**
1982	January	3,751	2,182	5,932	29	1.4	24	673	-649
	February	3,750	1,787	5,536	-37	-2.0	50	446	-396
	March	3,766	1,604	5,370	-26	-1.6	88	265	-176
	April	3,778	1,676	5,454	-88	-5.0	180	108	73
	May	3,780	2,034	5,814	57	2.9	382	11	371
	June	3,778	2,369	6,147	117	5.2	353	11	342
	July	3,780	2,704	6,484	146	5.7	351	12	339
	August	3,781	2,998	6,778	116	4.0	332	35	298
	September	3,782	3,251	7,033	99	3.1	277	20	257
	October	3,785	3,364	7,149	116	3.6	191	60	131
	November	3,772	3,309	7,081	108	3.4	83	163	-80
	December	3,808	3,071	6,879	255	9.0	86	289	-204
	TOTAL						**2,399**	**2,094**	**306**
1983	January	3,813	2,644	6,457	462	21.2	24	450	-425
	February	3,811	2,356	6,167	569	31.9	35	324	-288
	March	3,812	2,148	5,959	544	33.9	58	266	-208
	April	3,818	2,074	5,893	398	23.8	81	162	-81
	May	3,818	2,222	6,041	188	9.3	189	41	148
	June	3,819	2,454	6,272	85	3.6	254	22	232
	July	3,826	2,696	6,522	-8	-0.3	267	25	242
	August	3,823	2,908	6,732	-89	-3.0	248	35	214
	September	3,823	3,140	6,964	-110	-3.4	259	27	232
	October	3,825	3,269	7,094	-95	-2.8	166	35	130
	November	3,838	3,174	7,013	-135	-4.1	72	152	-80
	December	3,845	2,596	6,441	-475	-15.5	32	601	-569
	TOTAL						**1,685**	**2,140**	**-455**
1984	January	3,843	2,089	5,932	-555	-21.0	50	562	-512
	February	3,825	1,877	5,701	-479	-20.3	68	304	-236
	March	3,824	1,572	5,395	-576	-26.8	49	359	-309
	April	3,822	1,620	5,442	-454	-21.9	148	101	47
	May	3,827	1,842	5,669	-380	-17.1	257	30	227

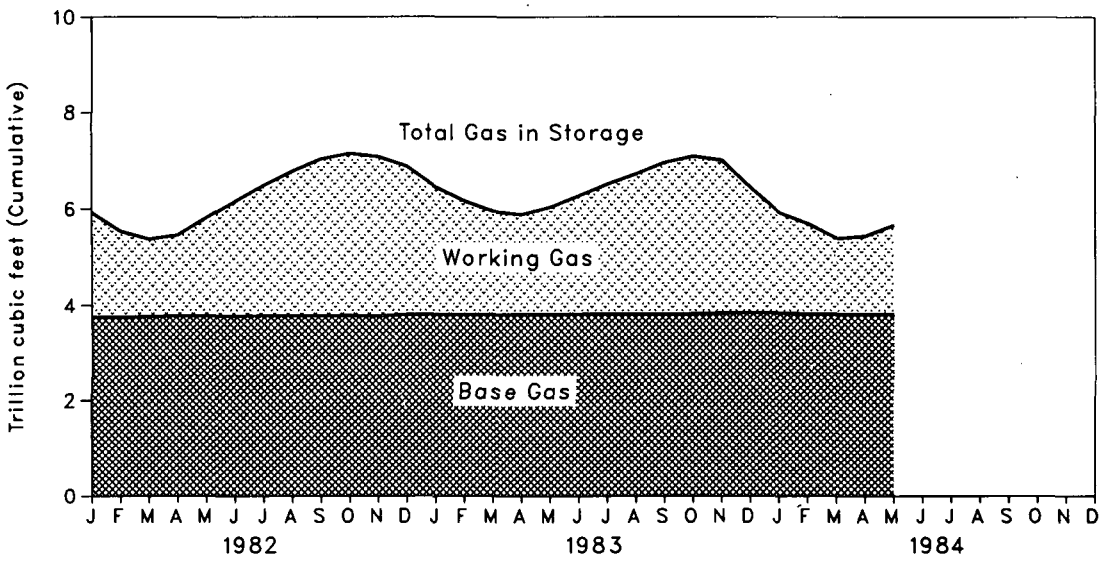
[1]Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1978—6,890; 1979—6,929; 1980—7,434; 1981—7,805; 1982—7,915; and 1983—7,985. Current total capacity is 8,043.
[2]Positive numbers indicate injections are greater than withdrawals. Negative numbers indicate withdrawals are greater than injections. Net injections or withdrawals may not equal the difference between applicable ending stocks. See Note 8 on the last two pages of this section.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• Data for 1978 through 1982 are final. All other data are preliminary unless otherwise noted.
Sources: • See the last page of this section.

Natural Gas

Consumption, Dry Production, and Imports



Gas in Storage



Notes and Sources for the Natural Gas Section

Notes

1. **Nonhydrocarbon Gases Removed:** Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the EIA *Natural Gas Annual, 1982.* These data are not available for periods prior to 1980. For 1982, of the 31 producing States, 18 reported data on nonhydrocarbon gases removed. These 18 States accounted for 53 percent of total 1982 gross withdrawals. In addition, gross withdrawals data from two States, which together accounted for 40 percent of the 1982 total production, did not include all or most of the nonhydrocarbon gases removed on leases. No estimates are made for the two States not reporting nonhydrocarbon gases removed. For further information, see the Energy Information Administration (EIA) *Natural Gas Monthly.*

Monthly data are reported by two States and computed for four States. All monthly data are considered preliminary until after publication of the EIA *Natural Gas Annual* for the year in which the report month falls. Three States report monthly data on nonhydrocarbon gases removed; the rest of the data is estimated. For further informaton on methods of estimating preliminary monthly data, see the EIA *Natural Gas Monthly.*

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

2. **Production:** Annual data. Final annual data are from the Energy Information Administration (EIA) *Natural Gas Annual, 1982.*

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

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

Final monthly data. The difference between annual production data published in the EIA *Natural Gas Annual, 1982* and the sum of preliminary monthly data (January-December) is allocated proportionally to the preliminary monthly data.

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

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

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

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

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

Annual data beginning with 1980 are from the EIA *Natural Gas Annual, 1982.* Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

All monthly data are considered preliminary until after the publication of the EIA *Natural Gas Annual* for the year in which the report month falls. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a 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 via tanker from Algeria. The United States exports natural gas via pipeline to Mexico and Canada and liquefied natural gas via tanker to Japan.

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

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

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

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

7. **Unaccounted For:** The "unaccounted for" category represents quantities lost, the net result of flow data metered at varying temperature and pressure conditions and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; and imbalances from EIA's merger of data reporting systems which vary in scope, format, definitions, and type of respondents. For additional explanatory information, see the EIA *Natural Gas Monthly.*

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

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

The final monthly and annual storage and withdrawal data for 1980 through 1982 include both underground and liquefied natural gas (LNG) storage. Underground storage data are taken from the FPC-8/EIA-191 survey in the following manner. Annual data on LNG additions and withdrawals are taken from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying it to annual LNG data.

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

Notes and Sources for the Natural Gas Section (continued)

Sources

Production: 1973 through 1982: Energy Information Administration (EIA), *Natural Gas Annual, 1982,* Appendix B; January 1983 forward: State reports to the Interstate Oil Compact Commission, data from the U.S. Minerals Management Service, and EIA estimates for States that do not report monthly data on a regular or timely basis.
Extraction Loss, Consumption, and Unaccounted For: 1973 through 1982: EIA, *Natural Gas Annual, 1982,* Appendix B; January 1983 forward: EIA computations.
Withdrawals from and Additions to Storage: 1973 through 1982: EIA, *Natural Gas Annual, 1982,* Appendix B; January 1983 forward: Form FPC-8 and Form EIA-191, "Underground Gas Storage Report."
Supplemental Gaseous Fuels: 1980 through 1982: EIA, *Natural Gas Annual, 1982,* Appendix B; January 1983 forward: EIA computations.
Imports and Exports: 1973 through 1982: Form FPC-14, "Imports and Exports of Natural Gas"; January 1983 forward: EIA computations.
End-Use Consumption: •All data except electric utility—1973 through 1982: EIA, *Natural Gas Annual, 1982,* Appendix B; January 1983 forward: EIA computations. •Electric utility data—EIA, Form 759, "Monthly Power Plant Report" (formerly Form FPC-4).
Underground Storage: 1973 and 1974: American Gas Association, *Gas Facts;* 1975 through 1979: EIA, Form FPC-8 and Form EIA-191, and the *Natural Gas Annual;* 1980 forward: EIA, From FPC-8, Form EIA-191, and Form 176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Part 5 Oil and Gas Resource Development

Oil and Gas Resource Development

The May 1984 rotary rig count of 2,277 was 18.2 percent higher than the May 1983 count of 1,926. The 202 rigs operating offshore were 3.3 percent fewer than those working in May 1983.

In May 1984, the reported total number of wells drilled was 5,929, a decrease of 12.3 percent from the 6,764 reported in May 1983. Oil well completions reported during May 1984 were 3,137, a 1.6-percent decrease from the comparable 1983 figure of 3,187. The 1,155 gas well completions reported in May 1984 were 33.9 percent fewer than the May 1983 figure of 1,747. The May 1984 reported footage drilled of 26.4 million feet was 7.5 percent less than the May 1983 figure of 28.6 million feet.

The 490 crews engaged in seismic exploration in May 1984 were 9.1 percent more than those in May 1983. The 444 land crews working in May 1984 were 8.3 percent more, and the 46 marine vessels working were 17.9 percent more, than those working during May 1983.

Oil and Gas Resource Development

		Rotary Rigs in Operation[1]		Exploratory and Development Wells Drilled[2]				Total Footage of Wells Drilled[2]
		Monthly average		Oil	Gas	Dry	Total	Thousand feet
1973	**AVERAGE**	**1,194**	**TOTAL**	**9,902**	**6,385**	**10,305**	**26,592**	**136,391**
1974	**AVERAGE**	**1,472**	**TOTAL**	**12,784**	**7,240**	**11,674**	**31,698**	**150,551**
1975	**AVERAGE**	**1,660**	**TOTAL**	**16,408**	**7,580**	**13,247**	**37,235**	**174,434**
1976	**AVERAGE**	**1,658**	**TOTAL**	**17,059**	**9,085**	**13,621**	**39,765**	**181,780**
1977	**AVERAGE**	**2,001**	**TOTAL**	**18,912**	**11,378**	**14,692**	**44,982**	**210,848**
1978	**AVERAGE**	**2,259**	**TOTAL**	**17,775**	**13,064**	**16,218**	**47,057**	**227,110**
1979	**AVERAGE**	**2,177**	**TOTAL**	**19,383**	**14,681**	**15,752**	**49,816**	**238,659**
1980	**AVERAGE**	**2,909**	**TOTAL**	**27,026**	**15,730**	**18,089**	**60,845**	**284,461**
1981	**AVERAGE**	**3,970**	**TOTAL**	**37,671**	**17,894**	**22,973**	**78,538**	**361,407**
1982	January	4,436		2,798	954	2,132	5,884	28,167
	February	4,160		3,036	1,430	2,234	6,700	31,985
	March	3,816		3,736	1,480	2,479	7,695	37,896
	April	3,460		3,674	1,530	2,287	7,491	36,439
	May	3,178		3,451	1,940	2,205	7,596	36,987
	June	2,908		3,888	1,891	2,521	8,300	38,962
	July	2,746		3,290	1,703	1,931	6,924	31,111
	August	2,620		2,865	1,588	1,917	6,370	28,836
	September	2,482		3,363	1,599	2,330	7,292	32,611
	October	2,402		2,833	1,210	2,125	6,168	27,274
	November	2,500		3,279	1,658	2,025	6,962	31,130
	December	2,696		4,087	1,970	2,363	8,420	34,648
	AVERAGE	**3,105**	**TOTAL**	**40,301**	**18,952**	**26,542**	**85,795**	**395,993**
1983	January	2,622		2,376	891	1,640	4,907	20,922
	February	2,192		2,885	1,184	2,211	6,280	27,659
	March	2,003		3,433	1,607	2,630	7,670	34,210
	April	1,846		3,031	1,403	1,979	6,413	27,423
	May	1,926		R3,187	R1,747	R1,830	R6,764	R28,564
	June	1,979		3,514	1,237	2,105	6,856	28,050
	July	2,039		2,683	1,132	1,640	5,455	22,953
	August	2,156		2,641	1,075	1,533	5,249	22,582
	September	2,252		3,733	1,271	2,019	7,023	30,325
	October	2,382		2,970	1,211	1,699	5,880	24,887
	November	2,572		3,237	1,140	1,991	6,368	26,811
	December	2,780		3,470	1,699	2,201	7,370	30,942
	AVERAGE	**2,232**	**TOTAL**	**37,207**	**15,628**	**23,494**	**76,329**	**325,760**
1984	January	2,666		[3]3,253	[3]1,058	[3]2,004	[3]6,315	[3]27,915
	February	2,423		3,212	1,425	2,123	6,760	27,623
	March	2,245		4,092	1,373	2,941	8,406	34,156
	April	2,120		2,821	1,162	1,690	5,673	26,234
	May	2,277		3,137	1,155	1,637	5,929	26,417

[1]Monthly data are averages of 4- or 5-week reporting periods and are not calendar months.
[2]Data exclude service wells and stratigraphic and core tests. Prior to 1984, weekly data are aggregated into months within quarters using the following number of weeks in the 12 months—(4,4,5), (4,4,5), (4,4,5), and (4,4,5). In 1984, weekly data are aggregated into months differently to more closely represent the actual number of weeks in the calendar months—(5,4,5), (4,4,5), (4,5,4), and (4,5,4).
R = Revised data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.
Sources: • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—By State."
• Wells and Footage Drilled: American Petroleum Institute, "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

Oil and Gas Resource Development

		Crews Engaged in Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore[1]	Onshore[1]	Total[1]
		Monthly average			Annual total		
1973	**AVERAGE**	**23**	**227**	**250**	**258,944**	**127,160**	**386,104**
1974	**AVERAGE**	**31**	**274**	**305**	**341,784**	**158,629**	**500,413**
1975	**AVERAGE**	**30**	**254**	**284**	**309,283**	**150,694**	**459,977**
1976	**AVERAGE**	**25**	**237**	**262**	**226,303**	**142,926**	**369,229**
1977	**AVERAGE**	**27**	**281**	**308**	**124,676**	**120,072**	**244,748**
1978	**AVERAGE**	**25**	**327**	**352**	**174,607**	**135,899**	**310,506**
1979	**AVERAGE**	**30**	**370**	**400**	**193,212**	**163,929**	**357,141**
1980	**AVERAGE**	**37**	**493**	**530**	**202,694**	**184,088**	**386,782**
1981	**AVERAGE**	**44**	**637**	**681**	**338,201**	**256,201**	**594,402**
1982	January	53	642	695			
	February	53	625	678			
	March	52	597	649			
	April	55	571	626			
	May	61	551	612			
	June	69	546	615			
	July	66	527	593			
	August	62	500	562			
	September	59	476	535			
	October	51	465	516			
	November	50	452	502			
	December	49	428	477			
	AVERAGE	**57**	**531**	**588**	**558,464**	**248,483**	**806,947**
1983	January	49	407	456			
	February	47	404	451			
	March	45	402	447			
	April	39	410	449			
	May	39	410	449			
	June	43	428	471			
	July	46	437	483			
	August	49	435	484			
	September	57	444	501			
	October	50	448	498			
	November	49	446	495			
	December	48	445	493			
	AVERAGE	**47**	**426**	**473**			
1984	January	50	427	477			
	February	53	433	486			
	March	47	424	471			
	April	50	423	473			
	May	46	444	490			

[1]Monthly data not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals and averages may not equal sum of components due to independent rounding.
Sources: • Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletins, *Geophysics* and *Leading Edge*.

Part 6 Coal

Coal

Coal production in May 1984 was 79.8 million short tons, 26.2 percent more than the 63.2 million short tons produced in May 1983.

Electric utility coal consumption in April 1984 totaled 47.6 million short tons, 9.1 percent less than consumption in April 1983.

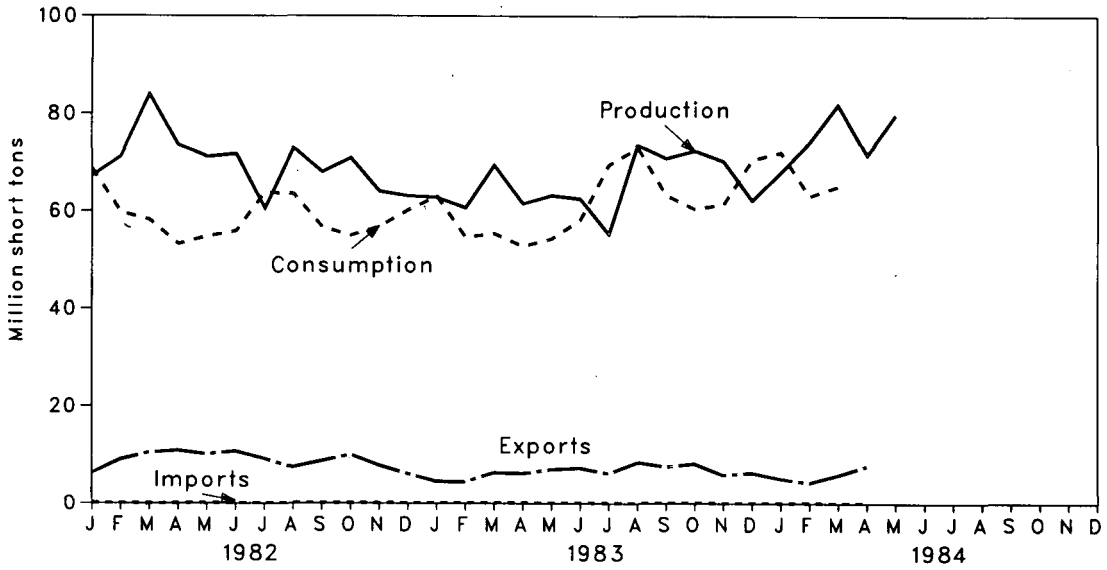
Electric utility coal stocks of 164.6 million short tons at the end of April 1984 were 16.8 million short tons (9.2 percent) below the level 1 year earlier.

Imports of coal in April 1984 totaled 148 thousand short tons, 4 thousand short tons more than the amount imported in April 1983. Exports of coal in April 1984 totaled 7.7 million short tons, 25.7 percent more than the amount exported during April 1983. Coal exports in April 1984 were principally to Europe (36.4 percent), Canada (33.0 percent),and Japan (18.6 percent).

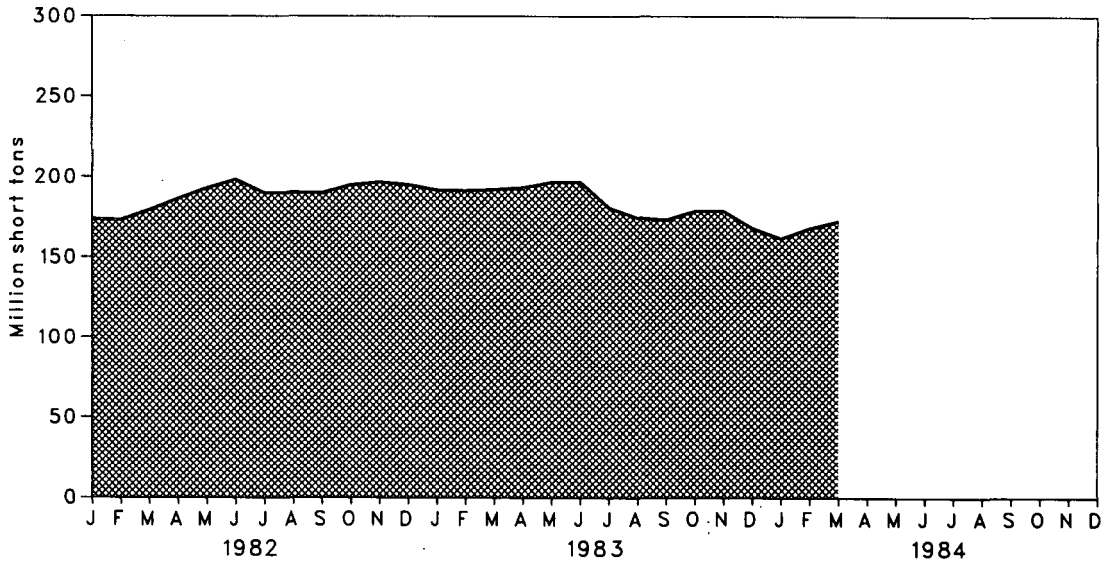
Coal

Overview

Production, Consumption, Imports, and Exports



Stocks



Coal

Overview

		Production	Consumption	Imports	Exports[1]	Stocks[2]
				Thousand short tons		
1973	**TOTAL**	**598,568**	**562,584**	**127**	**53,587**	**104,335**
1974	**TOTAL**	**610,023**	**558,402**	**2,080**	**60,661**	**96,323**
1975	**TOTAL**	**654,641**	**562,641**	**940**	**66,309**	**128,050**
1976	**TOTAL**	**684,913**	**603,790**	**1,203**	**60,021**	**134,438**
1977	**TOTAL**	**697,205**	**625,291**	**1,647**	**54,312**	**157,098**
1978	**TOTAL**	**670,164**	**625,225**	**2,953**	**40,714**	**145,551**
1979	**TOTAL**	**781,134**	**680,524**	**2,059**	**66,042**	**181,646**
1980	**TOTAL**	**829,700**	**702,729**	**1,194**	**91,742**	**204,028**
1981	**TOTAL**	**823,775**	**732,627**	**1,043**	**112,541**	
1982	January	67,138	68,692	71	6,177	173,931
	February	71,169	59,746	30	8,964	173,193
	March	83,943	58,236	12	10,423	179,484
	April	73,587	53,274	10	10,831	186,458
	May	71,127	54,844	109	10,110	192,926
	June	71,720	55,950	9	10,680	198,377
	July	60,535	63,828	69	9,182	189,997
	August	72,898	63,528	131	7,385	190,310
	September	67,951	56,734	71	8,683	189,967
	October	70,852	55,034	66	9,972	195,107
	November	64,055	56,831	87	7,807	196,700
	December	63,136	60,214	76	6,064	195,254
	TOTAL	**838,112**	**706,911**	**742**	**106,277**	
1983	January†	62,839	63,019	78	4,471	191,902
	February†	60,682	54,692	71	4,382	191,574
	March†	69,414	55,434	120	6,291	192,315
	April†	61,554	52,816	144	6,115	193,402
	May†	63,239	54,327	102	6,952	196,982
	June†	62,585	58,237	133	7,279	197,033
	July†	55,340	69,478	87	6,140	181,222
	August†	73,512	72,947	115	8,380	175,067
	September†	70,824	63,317	97	7,525	173,743
	October†	72,372	60,454	190	8,131	179,166
	November†	70,247	61,411	32	5,838	179,281
	December†	62,257	70,541	102	6,269	168,654
	TOTAL†	**784,865**	**736,672**	**1,271**	**77,772**	
1984	January†	R67,997	72,033	81	5,062	162,082
	February†	R74,062	63,096	140	4,251	168,473
	March†	R81,892	65,121	55	5,813	172,862
	April†	71,510	NA	148	7,688	NA
	May†	79,808	NA	NA	NA	NA

[1]Excludes shipments of anthracite to U.S. Armed Forces overseas (335,000 short tons in 1982 and 363,000 short tons in 1983).
[2]Stocks held by electric utilities, coke plants, and general industry at the end of period. Excludes stocks at retail dealers that are consumed by the residential and commercial sector.
†Preliminary data. R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• See Note on the last page of this section for methodology used to calculate production, consumption, and stocks.
Sources: • See the last page of this section.

Coal

Consumption by End-Use Sector

		Electric Utilities	Industrial: Coke Plants	Industrial: Other Industrial[1] Including Transportation	Residential and Commercial	Total
			Thousand short tons			
1973	**TOTAL**	**389,212**	**94,101**	**68,154**	**11,117**	**562,584**
1974	**TOTAL**	**391,811**	**90,191**	**64,983**	**11,417**	**558,402**
1975	**TOTAL**	**405,962**	**83,598**	**63,670**	**9,410**	**562,641**
1976	**TOTAL**	**448,371**	**84,704**	**61,799**	**8,916**	**603,790**
1977	**TOTAL**	**477,126**	**77,739**	**61,472**	**8,954**	**625,291**
1978	**TOTAL**	**481,235**	**71,394**	**63,085**	**9,511**	**625,225**
1979	**TOTAL**	**527,051**	**77,368**	**67,717**	**8,388**	**680,524**
1980	**TOTAL**	**569,274**	**66,657**	**60,347**	**6,451**	**702,729**
1981	**TOTAL**	**596,797**	**61,014**	**67,395**	**7,421**	**732,627**
1982	January	56,825	4,444	6,430	993	68,692
	February	48,878	4,340	5,835	693	59,746
	March	47,884	4,173	5,616	563	58,236
	April	43,490	3,708	5,373	703	53,274
	May	45,622	3,622	5,133	467	54,844
	June	47,424	3,481	4,681	364	55,950
	July	55,248	3,121	4,831	628	63,828
	August	54,838	3,058	4,962	670	63,528
	September	48,414	2,924	4,759	637	56,734
	October	46,330	2,757	5,287	660	55,034
	November	47,799	2,693	5,494	845	56,831
	December	50,914	2,587	5,695	1,018	60,214
	TOTAL	**593,666**	**40,908**	**64,097**	**8,240**	**706,911**
1983	January†	53,351	2,813	5,970	884	63,019
	February†	45,772	2,742	5,405	773	54,692
	March†	47,110	2,567	5,206	551	55,434
	April†	43,589	3,206	5,254	767	52,816
	May†	45,691	3,151	5,023	463	54,327
	June†	50,338	2,734	4,798	367	58,237
	July†	60,390	3,269	5,220	599	69,478
	August†	63,767	3,252	5,362	566	72,947
	September†	54,212	3,196	5,156	752	63,317
	October†	50,689	3,307	5,659	799	60,454
	November†	51,185	3,335	6,046	845	61,411
	December†	59,117	3,461	6,880	1,082	70,541
	TOTAL†	**625,211**	**37,033**	**65,980**	**8,448**	**736,672**
1984	January†	60,224	3,791	6,942	1,076	72,033
	February†	52,257	3,592	6,305	942	63,096
	March†	54,534	3,843	6,072	672	65,121
	April†	47,553	NA	NA	NA	NA

[1]See Note on the last page of this section.
†Preliminary data. NA = Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Coal

Stocks by End-Use Sector at End of Period

		Electric Utilities	Industrial		Total[1]
			Coke Plants	Other Industrial	
		Thousand short tons			
1973		**86,967**	**6,998**	**10,370**	**104,335**
1974		**83,509**	**6,209**	**6,605**	**96,323**
1975		**110,724**	**8,797**	**8,529**	**128,050**
1976		**117,436**	**9,902**	**7,100**	**134,438**
1977		**133,219**	**12,816**	**11,063**	**157,098**
1978		**128,225**	**8,278**	**9,048**	**145,551**
1979		**159,714**	**10,155**	**11,777**	**181,646**
1980		**183,010**	**9,067**	**11,951**	**204,028**
1981		**168,893**	**6,475**	**9,906**	**185,274**
1982	January	158,469	6,207	9,255	173,931
	February	158,136	5,909	9,148	173,193
	March	164,518	5,612	9,354	179,484
	April	171,390	5,931	9,137	186,458
	May	177,461	6,231	9,234	192,926
	June	182,513	6,532	9,331	198,377
	July	174,503	6,166	9,328	189,997
	August	175,194	5,800	9,316	190,310
	September	175,225	5,434	9,308	189,967
	October	180,571	5,171	9,365	195,107
	November	182,368	4,908	9,424	196,700
	December	181,132	4,642	9,479	195,254
1983	January†	178,604	4,338	8,960	191,902
	February†	179,101	4,034	8,439	191,574
	March†	180,671	3,728	7,916	192,315
	April†	181,371	4,089	7,942	193,402
	May†	*184,567*	*4,450*	*7,965*	*196,982*
	June†	184,236	4,812	7,985	197,033
	July†	168,566	4,489	8,167	181,222
	August†	162,557	4,165	8,345	175,067
	September†	161,384	3,842	8,518	173,743
	October†	166,574	4,010	8,582	179,166
	November†	166,457	4,178	8,645	179,281
	December†	155,598	4,346	8,710	168,654
1984	January†	148,723	4,947	8,412	162,082
	February†	154,811	5,548	8,114	168,473
	March†	158,897	6,149	7,816	172,862
	April†	164,597	NA	NA	NA

[1]Total excludes stocks at retail dealers that are consumed by the residential and commercial sector.
†Preliminary data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Notes and Sources for the Coal Section

Note

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

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

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

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

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

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

where S_b = beginning stocks
R = receipts
S_e = ending stocks.

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

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

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

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

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

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

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

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

Sources

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

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

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

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

Electric Utilities

During April 1984, electric utilities generated 180.9 billion kilowatt-hours of electricity, 6.2 percent above the April 1983 generation level. Coal-fired generation totaled 97.5 billion kilowatt-hours, 10.7 percent above the April 1983 level. Hydroelectric generation totaled 29.9 billion kilowatt-hours, 0.1 percent below the April 1983 level. Nuclear generation was 24.1 billion kilowatt-hours in April 1984, 7.9 percent above the April 1983 level. Gas-fired generation was 21.2 billion kilowatt-hours, 10.6 percent above the level 1 year earlier. Petroleum-fired generation totaled 7.5 billion kilowatt-hours, 27.9 percent below the April 1983 level.

Sales of electricity to all ultimate consumers in the United States in April 1984 were 174.9 billion kilowatt-hours, 6.8 percent above April 1983 sales. Sales to residential consumers during April 1984 were 56.4 billion kilowatt-hours, 0.2 percent above the level of sales during the same month in 1983. Commercial sales were 43.1 billion kilowatt-hours, 5.8 percent more than the amount sold to commercial consumers in April 1983. Sales to industrial consumers totaled 69.0 billion kilowatt-hours in April 1984, 14.0 percent more than the 1983 figure. In April 1984, other sales totaled 6.5 billion kilowatt-hours, 2.5 percent above the April 1983 level.

Electric utility petroleum consumption (excluding petroleum coke) during April 1984 was 12.8 million barrels, 26.5 percent below the April 1983 level. Coal consumption during April 1984 was 47.6 million short tons, 9.1 percent above the April 1983 rate. During April 1984, electric utilities consumed 220.0 billion cubic feet of natural gas, 8.4 percent above the April 1983 consumption level.

On April 30, 1984, utility stocks of anthracite, bituminous coal, and lignite totaled 164.6 million short tons. Stockpiles were 9.2 percent below the level of April 30, 1983. Petroleum stocks (excluding petroleum coke) on April 30, 1984, totaled 87.5 million barrels, 15.2 percent below the level on the same date in 1983.

Electric Utilities

Net Electricity Generation by Primary Energy Source

		Coal	Petroleum[1]	Natural Gas	Nuclear	Hydro	Other[2]	Total
				Million kilowatt-hours				
1973	**TOTAL**	**847,651**	**314,343**	**340,858**	**83,479**	**272,083**	**2,294**	**1,860,710**
1974	**TOTAL**	**828,433**	**300,931**	**320,065**	**113,976**	**301,032**	**2,703**	**1,867,140**
1975	**TOTAL**	**852,786**	**289,095**	**299,778**	**172,505**	**300,047**	**3,437**	**1,917,649**
1976	**TOTAL**	**944,391**	**319,988**	**294,624**	**191,104**	**283,707**	**3,883**	**2,037,696**
1977	**TOTAL**	**985,219**	**358,179**	**305,505**	**250,883**	**220,475**	**4,063**	**2,124,323**
1978	**TOTAL**	**975,742**	**365,060**	**305,391**	**276,403**	**280,419**	**3,315**	**2,206,331**
1979	**TOTAL**	**1,075,037**	**303,525**	**329,485**	**255,155**	**279,783**	**4,387**	**2,247,372**
1980	**TOTAL**	**1,161,562**	**245,994**	**346,240**	**251,116**	**276,021**	**5,506**	**2,286,439**
1981	**TOTAL**	**1,203,203**	**206,421**	**345,777**	**272,674**	**260,684**	**6,054**	**2,294,812**
1982	January	113,124	20,674	22,621	25,678	26,896	411	209,403
	February	96,906	15,217	20,920	20,188	26,690	380	180,299
	March	97,625	13,495	23,598	22,755	29,885	330	187,687
	April	88,116	11,192	23,231	21,785	27,928	328	172,580
	May	92,997	9,868	24,291	21,639	27,971	381	177,147
	June	95,314	10,419	27,959	24,026	27,953	458	186,128
	July	110,617	13,380	33,340	25,467	27,294	485	210,584
	August	110,124	11,753	34,418	24,986	23,894	480	205,656
	September	96,896	10,363	27,649	25,391	19,896	468	180,662
	October	93,769	9,885	25,804	23,248	19,750	509	172,966
	November	95,547	9,313	21,466	23,235	23,297	520	173,377
	December	100,970	11,238	19,963	24,376	27,760	415	184,722
	TOTAL	**1,192,004**	**146,797**	**305,260**	**282,773**	**309,213**	**5,164**	**2,241,211**
1983	January	108,164	12,880	19,721	25,073	29,235	506	195,579
	February	92,692	12,586	16,659	22,198	27,950	395	172,479
	March	95,598	12,556	19,686	23,890	30,302	455	182,488
	April	88,114	10,337	19,174	22,335	29,989	424	170,372
	May	91,296	9,050	20,445	22,051	31,194	356	174,392
	June	101,512	11,139	23,091	24,152	30,692	462	191,048
	July	121,560	14,710	29,615	25,602	28,113	565	220,165
	August	129,313	14,731	33,147	26,201	25,828	738	229,957
	September	108,868	11,299	28,040	25,007	21,712	678	195,604
	October	101,951	9,941	23,783	25,797	20,747	712	182,931
	November	103,225	9,229	20,169	25,010	24,678	637	182,949
	December	117,131	16,041	20,567	26,361	31,691	528	212,319
	TOTAL	**1,259,424**	**144,499**	**274,098**	**293,677**	**332,130**	**6,456**	**2,310,285**
1984	January	120,850	15,939	20,245	29,135	29,738	541	216,450
	February	104,706	10,079	17,835	28,340	27,901	637	189,498
	March	111,158	10,806	19,645	26,613	30,425	713	199,359
	April	97,538	7,452	21,197	24,109	29,948	688	180,934

[1]Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.
[2]Includes only geothermal and wood and waste through 1982. Beginning in January 1983, also includes wind.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Electric Utilities

Electricity Sales[1]

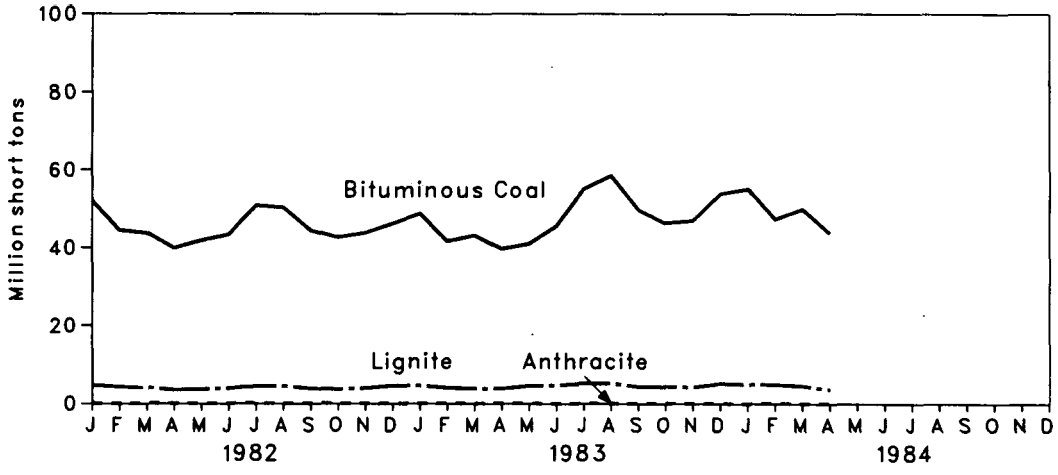
		Residential	Commercial	Industrial	Other[2]	Total
				Million kilowatt-hours		
1973	**TOTAL**	**579,231**	**388,266**	**686,085**	**59,328**	**1,712,910**
1974	**TOTAL**	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**
1975	**TOTAL**	**588,140**	**403,049**	**687,680**	**68,222**	**1,747,091**
1976	**TOTAL**	**606,452**	**425,094**	**754,069**	**69,631**	**1,855,246**
1977	**TOTAL**	**645,239**	**446,514**	**786,037**	**70,571**	**1,948,361**
1978	**TOTAL**	**674,466**	**461,163**	**809,078**	**73,215**	**2,017,922**
1979	**TOTAL**	**682,819**	**473,307**	**841,903**	**73,070**	**2,071,099**
1980	**TOTAL**	**717,495**	**488,156**	**815,067**	**73,732**	**2,094,449**
1981	**TOTAL**	**722,265**	**514,338**	**825,742**	**84,756**	**2,147,101**
1982	January	76,264	44,947	62,939	7,929	192,079
	February	69,128	43,459	62,778	7,441	182,805
	March	60,498	41,710	64,496	7,255	173,959
	April	54,918	40,036	62,723	6,836	164,512
	May	49,092	40,021	62,480	6,976	158,569
	June	54,083	44,206	63,684	6,766	168,739
	July	65,704	48,211	62,617	7,035	183,567
	August	69,906	49,720	63,306	6,808	189,740
	September	63,053	48,068	59,980	7,194	178,296
	October	52,638	42,864	60,830	7,084	163,416
	November	52,136	40,572	60,651	7,122	160,479
	December	62,102	42,584	58,464	7,128	170,278
	TOTAL	**729,519**	**526,397**	**744,949**	**85,575**	**2,086,440**
1983	January	69,967	44,019	57,938	7,252	179,176
	February	65,039	42,475	59,032	6,919	173,465
	March	58,912	41,518	60,261	6,893	167,584
	April	56,284	40,679	60,548	6,296	163,807
	May	49,669	40,305	62,729	6,216	158,919
	June	54,138	45,086	66,152	6,228	171,604
	July	69,965	51,013	66,424	6,752	194,153
	August	78,374	53,245	69,611	6,885	208,115
	September	73,197	52,147	69,618	6,960	201,922
	October	55,374	45,517	68,924	6,942	176,307
	November	53,704	42,666	67,544	6,560	170,474
	December	66,326	45,119	67,217	6,765	185,428
	TOTAL	**750,948**	**543,788**	**775,999**	**80,219**	**2,150,955**
1984	January	83,300	49,216	66,743	7,289	206,548
	February	69,776	45,840	66,604	6,638	188,857
	March	63,741	45,251	69,687	6,906	185,563
	April†	56,373	43,052	69,049	6,452	174,927

[1]Electricity sales to all ultimate consumers.
[2]*Includes sales of electricity to Government, railways, street lighting authorities, and sales not included elsewhere.*
†Initial estimates.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • Energy Information Administration (EIA), 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: *EIA Form 826, "Electric Utility Company Monthly Statement."*

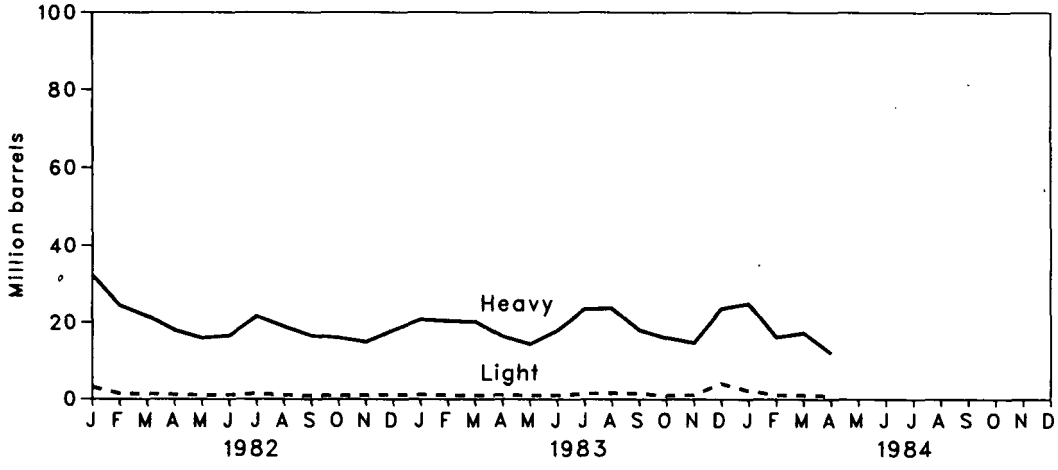
Electric Utilities

Primary Energy Consumed to Produce Electricity

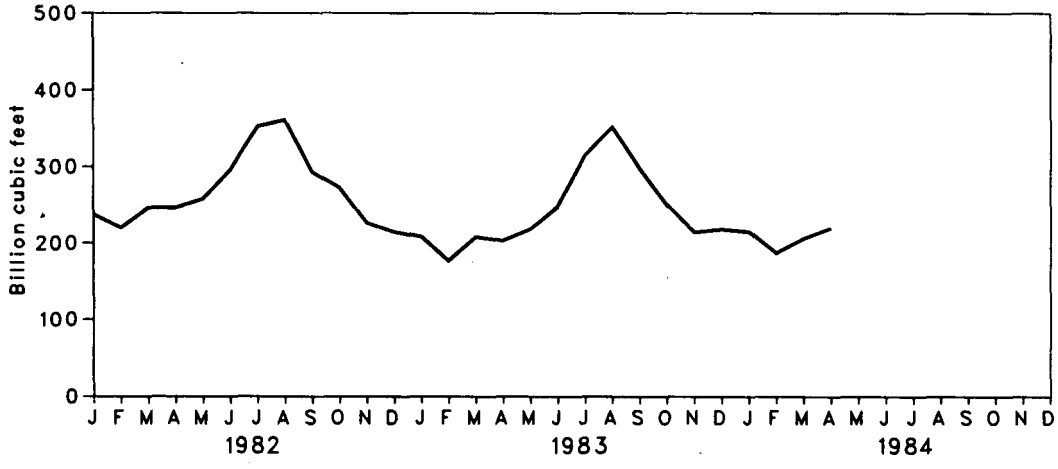
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

Primary Energy Consumed to Produce Electricity

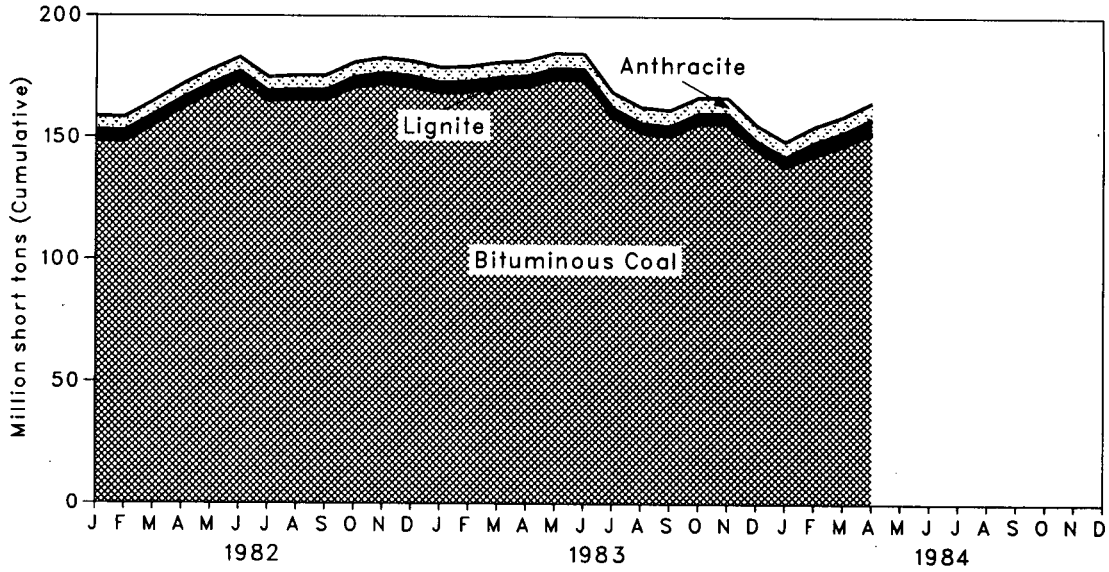
		Coal				Petroleum				Natural Gas
		Anthracite	Bituminous Coal	Lignite	Total	Heavy[1]	Light[2]	Total Liquids	Petroleum Coke	
		Thousand short tons				Thousand barrels			Thousand short tons	Million cubic feet
1973	**TOTAL**	**1,443**	**376,975**	**10,794**	**389,212**	**([3])**	**([3])**	**560,248**	**507**	**3,660,172**
1974	**TOTAL**	**1,498**	**378,643**	**11,670**	**391,811**	**([3])**	**([3])**	**536,274**	**625**	**3,443,428**
1975	**TOTAL**	**1,480**	**388,523**	**15,960**	**405,962**	**([3])**	**([3])**	**506,128**	**70**	**3,157,669**
1976	**TOTAL**	**1,350**	**425,205**	**21,817**	**448,371**	**([3])**	**([3])**	**555,920**	**68**	**3,080,868**
1977	**TOTAL**	**1,425**	**451,051**	**24,650**	**477,126**	**([3])**	**([3])**	**623,705**	**98**	**3,191,200**
1978	**TOTAL**	**1,064**	**448,763**	**31,407**	**481,235**	**([3])**	**([3])**	**635,839**	**398**	**3,188,363**
1979	**TOTAL**	**1,046**	**488,129**	**37,876**	**527,051**	**([3])**	**([3])**	**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	January	89	52,014	4,723	56,825	32,269	3,131	35,399	10	237,675
	February	83	44,478	4,317	48,878	24,351	1,421	25,772	9	220,032
	March	73	43,751	4,060	47,884	21,617	1,304	22,921	4	246,550
	April	88	39,888	3,515	43,490	17,913	1,132	19,045	11	246,344
	May	98	41,845	3,678	45,622	15,939	991	16,930	12	257,848
	June	94	43,340	3,990	47,424	16,539	1,053	17,592	13	295,557
	July	108	50,769	4,371	55,248	21,550	1,360	22,910	11	352,818
	August	95	50,283	4,460	54,838	18,873	1,053	19,926	13	361,351
	September	67	44,431	3,916	48,414	16,544	921	17,464	9	293,232
	October	81	42,598	3,650	46,330	15,990	870	16,860	17	273,003
	November	100	43,756	3,943	47,799	14,908	1,007	15,916	18	226,477
	December	99	46,192	4,622	50,914	17,940	1,094	19,035	22	214,630
	TOTAL	**1,075**	**543,346**	**49,245**	**593,666**	**234,434**	**15,337**	**249,771**	**149**	**3,225,518**
1983	January	73	48,695	4,583	53,351	20,728	1,110	21,838	17	208,341
	February	73	41,668	4,032	45,772	20,305	984	21,289	19	176,965
	March	75	43,165	3,870	47,110	20,174	945	21,119	16	208,013
	April	92	39,716	3,781	43,589	16,374	1,054	17,429	24	202,917
	May	104	41,002	4,585	45,691	14,360	937	15,297	30	218,184
	June	88	45,560	4,690	50,338	17,892	1,020	18,912	23	247,825
	July	89	55,082	5,219	60,390	23,383	1,433	24,815	25	314,357
	August	92	58,475	5,200	63,767	23,622	1,543	25,165	24	352,031
	September	86	49,745	4,381	54,212	18,021	1,507	19,529	25	298,517
	October	91	46,263	4,335	50,689	15,993	870	16,863	22	251,151
	November	86	46,883	4,216	51,185	14,690	1,075	15,766	17	214,275
	December	88	53,854	5,176	59,117	23,440	4,034	27,474	21	218,191
	TOTAL	**1,036**	**570,108**	**54,067**	**625,211**	**228,984**	**16,512**	**245,497**	**261**	**2,910,767**
1984	January	98	55,141	4,985	60,224	24,745	2,176	26,921	24	215,215
	February	75	47,279	4,904	52,257	16,099	1,065	17,165	21	187,322
	March	69	49,921	4,543	54,534	17,274	1,016	18,291	18	206,177
	April	83	43,767	3,703	47,553	11,971	835	12,806	22	220,009

[1]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[2]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[3]Prior to 1980, petroleum consumption data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

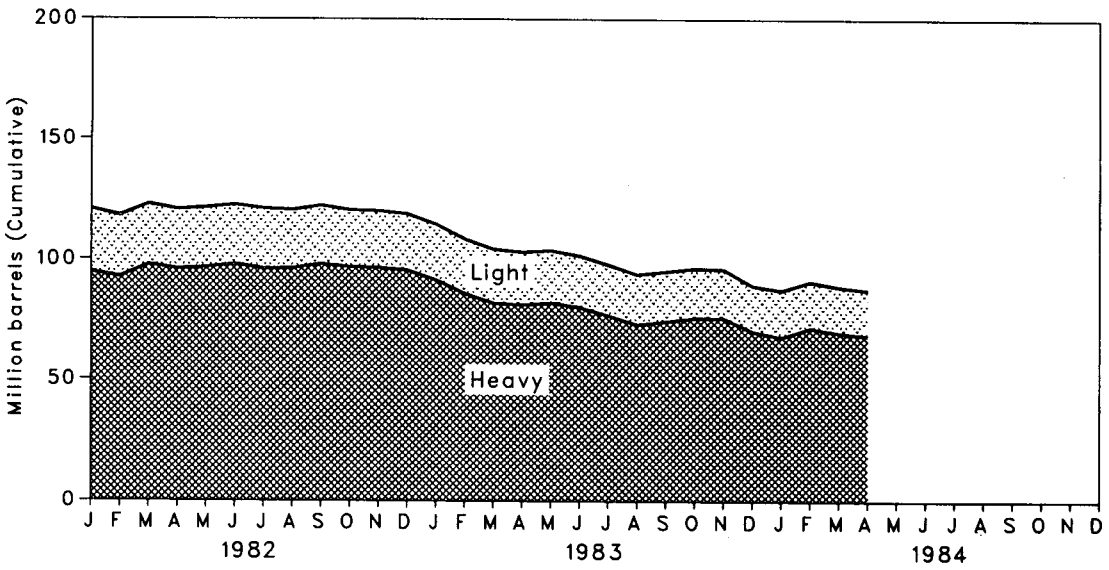
Electric Utilities

Coal and Petroleum Stocks at End of Period

Coal Stocks



Petroleum Stocks



Electric Utilities

Coal and Petroleum Stocks at End of Period

		Coal				Petroleum			
		Anthracite	Bituminous Coal	Lignite	Total	Heavy[1]	Light[2]	Total Liquids	Petroleum Coke
		Thousand short tons				Thousand barrels			Thousand short tons
1973		**1,066**	**84,941**	**961**	**86,967**	**([3])**	**([3])**	**89,216**	**312**
1974		**930**	**81,712**	**867**	**83,509**	**([3])**	**([3])**	**112,917**	**35**
1975		**982**	**107,927**	**1,815**	**110,724**	**([3])**	**([3])**	**125,257**	**31**
1976		**1,000**	**114,130**	**2,306**	**117,436**	**([3])**	**([3])**	**121,696**	**32**
1977		**2,321**	**128,210**	**2,688**	**133,219**	**([3])**	**([3])**	**144,031**	**44**
1978		**2,178**	**123,020**	**3,027**	**128,225**	**([3])**	**([3])**	**118,788**	**198**
1979		**3,274**	**152,981**	**3,459**	**159,714**	**([3])**	**([3])**	**131,422**	**183**
1980		**4,741**	**174,154**	**4,115**	**183,010**	**105,351**	**30,023**	**135,374**	**52**
1981		**5,537**	**158,258**	**5,098**	**168,893**	**102,042**	**26,094**	**128,136**	**42**
1982	January	5,437	148,404	4,628	158,469	94,609	26,162	120,771	39
	February	5,401	148,118	4,617	158,136	92,622	25,418	118,040	40
	March	5,488	154,724	4,305	164,518	97,706	25,136	122,842	43
	April	5,542	161,720	4,128	171,390	95,984	24,636	120,620	42
	May	5,569	167,805	4,088	177,461	96,607	24,796	121,403	41
	June	5,603	172,819	4,092	182,513	97,959	24,647	122,606	43
	July	5,658	164,688	4,157	174,503	96,085	25,008	121,093	43
	August	5,791	165,182	4,221	175,194	96,345	24,193	120,538	42
	September	5,896	165,065	4,264	175,225	98,160	24,225	122,385	47
	October	5,992	170,281	4,298	180,571	96,920	23,595	120,515	36
	November	6,060	171,832	4,476	182,368	96,618	23,553	120,171	42
	December	6,080	170,480	4,573	181,132	95,515	23,369	118,884	41
1983	January	6,107	168,287	4,210	178,604	91,523	23,183	114,706	54
	February	6,104	168,635	4,362	179,101	85,847	22,665	108,512	53
	March	6,143	170,327	4,201	180,671	81,957	22,387	104,344	54
	April	6,120	170,815	4,436	181,371	81,243	21,967	103,211	47
	May	6,145	173,969	4,453	184,567	82,091	21,758	103,849	44
	June	6,230	173,483	4,524	184,236	80,197	21,471	101,667	52
	July	6,299	158,701	3,566	168,566	76,881	21,101	97,982	50
	August	6,380	152,140	4,038	162,557	73,266	20,763	94,029	45
	September	6,435	150,778	4,171	161,384	74,560	20,696	95,256	47
	October	6,506	156,012	4,056	166,574	75,949	20,568	96,517	53
	November	6,531	155,931	3,995	166,457	75,930	20,271	96,201	63
	December	6,507	145,250	3,841	155,598	70,573	18,801	89,375	55
1984	January	6,500	138,346	3,877	148,723	68,049	19,390	87,439	43
	February	6,510	142,949	5,352	154,811	71,827	19,238	91,065	41
	March	6,519	146,879	5,500	158,897	69,882	19,056	88,937	45
	April	6,515	152,306	5,777	164,597	68,669	18,875	87,544	47

[1]Heavy oil includes Grade Nos. 4, 5, and 6, and residual fuel oils.
[2]Light oil includes Grade No. 2 heating oil, kerosene, and jet fuel.
[3]Prior to 1980, petroleum stock data were not disaggregated by type of fuel. Disaggregation by prime mover type is provided in the last table of this section.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Electric Utilities

Petroleum Consumption and Stocks by Prime Mover Type

		Petroleum Consumption			Petroleum Stocks at End of Period		
		Steam Plants	GT/IC[1]	Total Liquids	Steam Plants	GT/IC[1]	Total Liquids
		Thousand barrels					
1973	**TOTAL**	**513,190**	**47,058**	**560,248**	**79,121**	**10,095**	**89,216**
1974	**TOTAL**	**483,146**	**53,128**	**536,274**	**97,718**	**15,199**	**112,917**
1975	**TOTAL**	**467,221**	**38,907**	**506,128**	**108,825**	**16,432**	**125,257**
1976	**TOTAL**	**514,077**	**41,843**	**555,920**	**106,993**	**14,703**	**121,696**
1977	**TOTAL**	**574,869**	**48,837**	**623,705**	**124,750**	**19,281**	**144,031**
1978	**TOTAL**	**588,319**	**47,520**	**635,839**	**102,402**	**16,386**	**118,788**
1979	**TOTAL**	**492,606**	**30,691**	**523,297**	**111,121**	**20,301**	**131,422**
1980	**TOTAL**	**401,863**	**18,351**	**420,214**	**117,227**	**18,147**	**135,374**
1981	**TOTAL**	**339,680**	**11,431**	**351,111**	**112,380**	**15,756**	**128,136**
1982	January	33,832	1,567	35,399	105,475	15,296	120,771
	February	25,249	524	25,772	102,883	15,157	118,040
	March	22,371	550	22,921	108,142	14,699	122,842
	April	18,553	492	19,045	106,143	14,477	120,620
	May	16,614	316	16,930	106,701	14,702	121,403
	June	17,241	351	17,592	108,189	14,417	122,606
	July	22,192	718	22,910	106,170	14,923	121,093
	August	19,508	418	19,926	106,438	14,100	120,538
	September	17,146	318	17,464	108,177	14,208	122,385
	October	16,547	313	16,860	106,701	13,813	120,515
	November	15,591	325	15,916	106,361	13,809	120,171
	December	18,694	341	19,035	105,287	13,597	118,884
	TOTAL	**243,537**	**6,234**	**249,771**			
1983	January	21,373	465	21,838	101,394	13,312	114,706
	February	20,885	404	21,289	95,459	13,053	108,512
	March	20,728	392	21,119	91,394	12,750	104,344
	April	16,997	432	17,429	90,667	12,544	103,211
	May	14,968	330	15,297	91,360	12,489	103,849
	June	18,437	475	18,912	89,283	12,384	101,667
	July	23,927	888	24,815	85,891	12,091	97,982
	August	24,166	999	25,165	82,307	11,722	94,029
	September	18,532	996	19,529	83,511	11,745	95,256
	October	16,518	345	16,863	84,873	11,644	96,517
	November	15,336	430	15,766	84,804	11,397	96,201
	December	25,978	1,496	27,474	78,285	11,090	89,375
	TOTAL	**237,845**	**7,652**	**245,497**			
1984	January	25,838	1,082	26,921	76,188	11,251	87,439
	February	16,718	447	17,165	79,885	11,180	91,065
	March	17,881	410	18,291	77,905	11,032	88,937
	April	12,500	306	12,806	76,636	10,908	87,544

[1]GT/IC=Gas turbine and internal combustion plants.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • 1973 through September 1977: Federal Power Commission, Form 4, "Monthly Power Plant Report"; October 1977 through 1981: Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report"; 1982 forward: Energy Information Administration Form 759, "Monthly Power Plant Report."

Nuclear

During April 1984, U.S. nuclear powerplants generated a total of 24.1 billion net kilowatthours of electricity (kWhe), equivalent to an average hourly output of 33.5 million net kWhe. This was 6.3 percent below the average hourly generation for March 1984, but 7.9 percent above the comparable output for April 1983. Nuclear power supplied 13.3 percent of the electricity distributed in April 1984.

On April 9, 1984, Point Beach-1, a 485-net-megawatts-electric (MWe) pressurized water reactor (PWR), operated by Wisconsin Electric Power Company, went on line for the first time since October 1983. It had been out of service for replacement of both steam generators, as well as for routine refueling and maintenance. On April 13, 1984, Washington Public Power Supply System's WNP-2 unit, a 1,103-net-MWe boiling water reactor (BWR), was granted a Full Power License by the NRC. On April 20, LaSalle-2, a 1,078-net-MWe BWR operated by Commonwealth Edison in Illinois, generated its first commercial electricity.

On April 19, 1984, Diablo Canyon, a 1,084-net-MWe PWR, operated by Pacific Gas and Electric, was reissued a Low Power License by the Nuclear Regulatory Commission (NRC) permitting it to begin low power testing. Diablo Canyon had originally received a Low Power License in September 1982. However, in November 1982, after its core had been loaded, the license was withdrawn due to alleged design flaws.

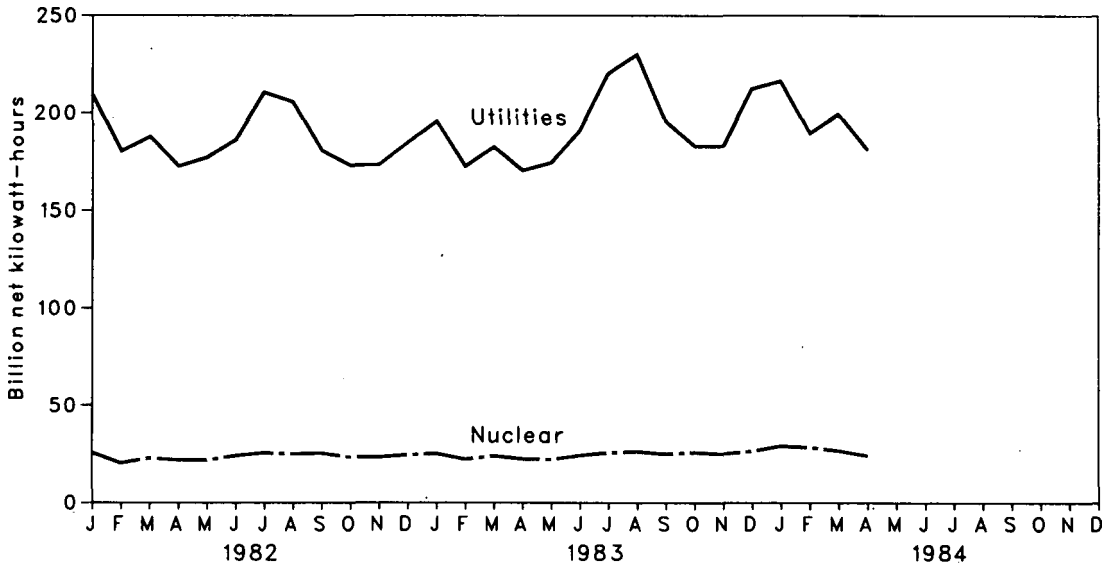
As of April 30, 1984, there were 82 operable U.S. nuclear power reactors, with a collective net generating capacity of 65.0 thousand MWe. Of these 82 operable reactors, 2 units were in power ascension (LaSalle-2 and WNP-2), and 32 units generated no electricity or operated substantially below capacity in April (Browns Ferry-3, Brunswick-2, Cook-2, Dresden-3, Farley-1, Fort Calhoun, Fort St. Vrain, Ginna, Hatch-2, Kewaunee, Maine Yankee, McGuire-1, Monticello, Nine Mile Point-1, Oconee-3, Oyster Creek, Palisades, Pilgrim, Quad Cities-1, Rancho Seco, Robinson-2, Salem-1, Salem-2, San Onofre-1, St. Lucie-1, Sequoyah-1, Summer, Three Mile Island-1, Trojan, Turkey Point-4, Yankee Rowe, and Zion-2). Three additional units were licensed by the NRC for fuel-loading and low-power testing (Diablo Canyon, Grand Gulf-1, and Susquehanna-2).

As of April 30, 1984, there were 134 domestic nuclear powerplants in all stages of planning, construction, and operation, with an aggregate design capacity of 125.2 thousand net MWe.

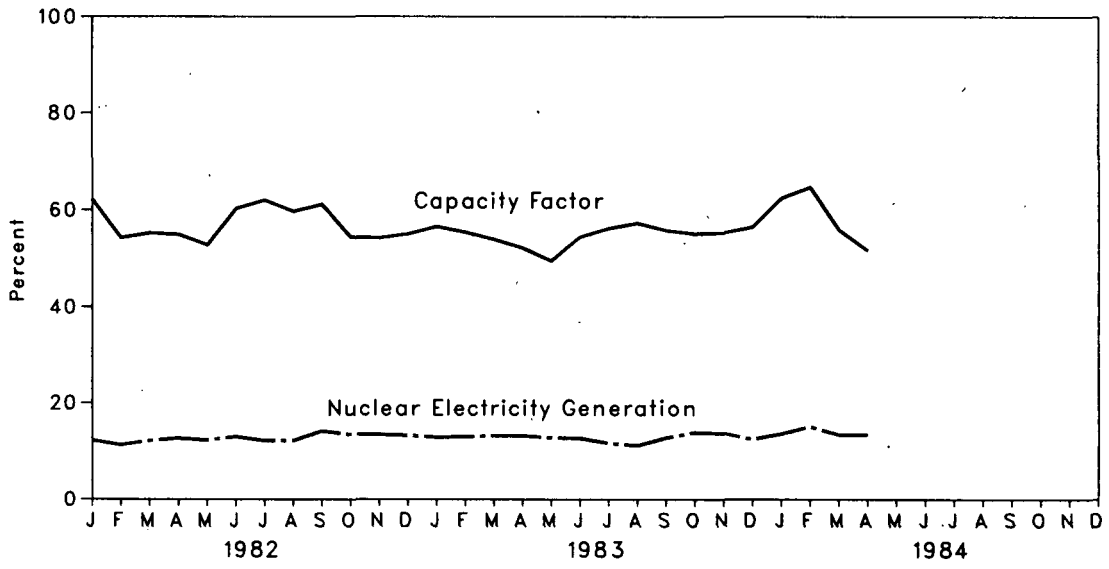
Nuclear

Nuclear Powerplant Operations

Electricity Generated by Utilities and by Nuclear Powerplants



Nuclear Portion of Electricity Generation and Capacity Factor*



*Percentage of Maximum Dependable Capacity utilized.

Nuclear

Nuclear Powerplant Operations

		Operable Reactors[1] [2]	Nuclear-Based Electricity Generation	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity of Operable Reactors[1] [3]	Capacity Factor[4]
			Million net kilowatt-hours	Percent	Million net kilowatts	Percent
1973		**39**	**83,479**	**4.5**	**22.900**	**52.9**
1974		**48**	**113,976**	**6.1**	**31.710**	**48.3**
1975		**54**	**172,505**	**9.0**	**33.312**	**59.7**
1976		**60**	**191,104**	**9.4**	**43.277**	**57.8**
1977		**65**	**250,883**	**11.8**	**46.046**	**64.1**
1978		**70**	**276,403**	**12.5**	**49.629**	**65.7**
1979		**68**	**255,155**	**11.4**	**49.326**	**58.7**
1980		**70**	**251,116**	**11.0**	**51.059**	**57.1**
1981		**74**	**272,674**	**11.9**	**55.534**	**58.4**
1982	January	74	25,678	12.2	55.481	62.2
	February	74	20,188	11.2	55.476	54.2
	March	74	22,755	12.1	55.421	55.2
	April	74	21,785	12.6	55.230	54.9
	May	74	21,639	12.2	55.230	52.7
	June	74	24,026	12.9	55.320	60.3
	July	74	25,467	12.1	55.195	62.0
	August	75	24,986	12.1	56.293	59.7
	September	76	25,391	14.1	57.600	61.2
	October	75	23,248	13.4	57.345	54.4
	November	77	23,235	13.4	59.531	54.2
	December	77	24,376	13.2	59.552	55.0
	YEAR	**77**	**282,773**	**12.6**	**59.552**	**57.2**
1983	January	77	25,073	12.8	59.532	56.6
	February	77	22,198	12.9	59.632	55.4
	March	77	23,890	13.1	59.632	53.9
	April	77	22,335	13.1	59.658	52.1
	May	78	22,051	12.7	59.883	49.5
	June	79	24,152	12.6	61.686	54.4
	July	79	25,602	11.6	61.230	56.2
	August	79	26,201	11.1	61.440	57.3
	September	80	25,007	12.7	62.227	55.8
	October	80	25,797	13.8	62.876	55.1
	November	80	25,010	13.6	62.809	55.3
	December	80	26,361	12.4	62.809	56.5
	YEAR	**80**	**293,677**	**12.6**	**62.809**	**54.8**
1984	January	80	29,135	13.5	62.772	62.4
	February	80	28,340	15.0	62.942	64.7
	March	81	26,613	13.3	R64.036	55.9
	April	82	24,109	13.3	†65.031	†51.6

[1]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.
[2]See Note 1 on the last page of this section for the definition.
[3]When possible, net maximum dependable capacity (MDC) is used. When a reactor has not operated long enough to permit determination of a net MDC, the net design electrical rating (DER) is used. The capacities for some units have been reduced to reflect the imposition of a "power limit" by the Nuclear Regulatory Commission or by the operating utility. For the definitions of net MDC and net DER, see Note 3 on the last page of this section.
[4]For an explanation of the method of calculating the capacity factor, see Note 4 on the last page of this section.
†Preliminary data. R = Revised data.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Nuclear

Status of Nuclear Reactor Units[1]

		Reactors Licensed for Operation		Construction Permits Granted	Construction Permits Pending	Reactor Units on Order	Reactor Units Announced	Total Reactor Units	Total Design Capacity[4]
		Operable[2]	In Startup[3]						Million Net Kilowatts
1973		**39**	**3**	**51**	**58**	**48**	**20**	**219**	**212**
1974		**48**	**5**	**58**	**80**	**28**	**16**	**235**	**234**
1975		**54**	**2**	**69**	**73**	**19**	**19**	**236**	**236**
1976		**60**	**1**	**72**	**66**	**16**	**19**	**234**	**236**
1977		**65**	**1**	**80**	**52**	**13**	**9**	**220**	**220**
1978		**70**	**0**	**90**	**32**	**9**	**4**	**205**	**204**
1979		**68**	**0**	**91**	**21**	**3**	**0**	**183**	**179**
1980		**70**	**2**	**82**	**12**	**3**	**0**	**169**	**163**
1981		**74**	**0**	**75**	**11**	**3**	**0**	**163**	**157**
1982	January	74	0	73	11	3	0	161	154
	February	74	1	72	6	2	0	155	147
	March	74	1	72	6	2	0	155	147
	April	74	2	71	6	2	0	155	147
	May	74	2	71	6	2	0	155	147
	June	74	2	70	6	2	0	154	147
	July	74	4	67	6	2	0	153	145
	August	75	4	64	5	2	0	150	141
	September	76	3	64	3	2	0	148	138
	October	75	3	64	3	2	0	147	138
	November	77	2	60	3	2	0	144	135
	December	77	2	60	3	2	0	144	135
1983	January	77	2	60	3	2	0	144	135
	February	77	2	60	3	2	0	144	135
	March	77	3	59	3	2	0	144	135
	April	77	4	57	3	2	0	143	134
	May	78	3	57	3	2	0	143	134
	June	79	2	57	3	2	0	143	134
	July	79	2	57	3	2	0	143	134
	August	79	2	57	3	2	0	143	134
	September	80	1	57	3	2	0	143	134
	October	80	1	56	2	2	0	141	133
	November	80	1	56	0	2	0	139	131
	December	80	3	53	0	2	0	138	129
1984	January	80	3	49	0	2	0	134	125
	February	80	3	49	0	2	0	134	125
	March	81	3	48	0	2	0	134	125
	April	82	3	47	0	2	0	134	125

[1]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.
[2]See Note 1 on the last page of this section for the definition.
[3]See Note 2 on the last page of this section for the definition.
[4]Net design electrical rating (DER) is used because many of the units have not had the operational experience needed to determine a net maximum dependable capacity (MDC). See Note 3 on the last page of this section.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • See the last page of this section.

Notes and Sources for the Nuclear Section

Notes

1. **Operable Reactors:** Units that have received Operating Licenses, completed low-power testing, and are authorized to operate at full power (i.e., in receipt of a Full Power Amendment) by the Nuclear Regulatory Commission (NRC), plus the Hanford-N reactor operated by the Department of Energy (DOE). The Hanford-N reactor, with a net capacity of 860 megawatts electric (MWe), is included, although it is not licensed by the NRC, because electricity produced from its output steam is distributed commercially. Similarly, the Shippingport reactor (net capacity of 60 Mwe) operated by DOE, was included prior to retirement from service on October 1, 1982, except for the interval from March 1974 through August 1977 when it was excluded because of a major core modification outage. The DOE-operated Experimental Breeder Reactor-2 (EBR-2) is not included because the electricity it generates is not distributed commercially. Five units, each of which has been inoperative for at least 4 years prior to January 1, 1984, are deleted from entries subsequent to their removal from service: Peach Bottom-1 (net capacity of 40 MWe) and Indian Point-1 (net capacity of 265 MWe), both out of service since November 1974; Humboldt Bay (net capacity of 65 MWe), down since August 1976 for major seismic modifications and subsequently officially retired; Dresden-1 (net capacity of 200 MWe), out of service since January 1979 for major modifications; and Three Mile Island-2 (net capacity of 906 MWe), whose core was severely damaged by a loss-of-coolant accident in March 1979. A sister unit, Three Mile Island-1 (net capacity of 819 MWe), continues to be listed as "Operable" because it could, in theory, return to service once the restraining order imposed by the NRC is lifted.
2. **In Startup:** Units that have received Operating Licenses authorizing fuel loading and low-power testing but have not received a Full Power Amendment from the NRC. Without the amendment, these units cannot distribute electricity commercially.
3. **Capacity:** Nuclear powerplants may have more than one type of net capacity rating including:
(a) Net Maximum Dependable Capacity (MDC)-The gross electrical output measured at the output terminals of the turbine generator(s) during the most restrictive seasonal conditions (usually summer) less the station service load. The typical station service load for a nuclear plant is about 5 percent of its gross generation.
(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of the unit, specified by the utility and used for plant design.
4. **Monthly Capacity Factors:** The monthly capacity factors are computed as the actual monthly generation divided by the maximum possible generation for that month. The maximum possible generation is the number of hours in the month multiplied by the net monthly maximum dependable capacity. This fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

Sources

Reactors Licensed for Operation: •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors."
Electricity Generation: •1973 through September 1977—Federal Power Commission, Form 4, "Monthly Power Plant Report." •October 1977 through 1981—Federal Energy Regulatory Commission, FPC Form 4, "Monthly Power Plant Report." •1982 forward—Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."
Maximum Dependable Capacity: •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors."
Capacity Factor: •Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.
Reactor Construction and Planning Data: •1973 through June 1982—Compiled from various sources, primarily the Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and from the Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels. •July 1982 forward—Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report," Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors," and various trade journals.
Total Design Capacity: •Nuclear Regulatory Commission Report NUREG-0020, "Licensed Operating Reactors" and Nuclear Regulatory Commission Report NUREG-0871, "Summary Information Report."

Price

Crude Oil

The average price of domestic crude oil purchased at the wellhead was $26.03 per barrel in April 1984. This was 0.1 percent below the previous month's level but 0.7 percent above the level in April 1983.

During April 1984, the composite refiner acquisition cost of crude oil was $28.77 per barrel, 0.1 percent below the previous month's price of $28.81. The price of imported crude oil increased $0.16 per barrel from the March 1984 price to $29.11 per barrel in April. This was 4.2 percent above the April 1983 price. The price of domestic crude oil in April 1984 was $28.63, a decrease of $0.12 from the March 1984 average.

Motor Gasoline

The national city average retail price of all grades and all types of motor gasoline was $1.22 per gallon in May 1984, 0.8 percent more than in the previous month, but 1.8 percent less than during May 1983. Leaded regular gasoline at all types of stations sold for an average of $1.15 per gallon in May, 0.8 percent higher than the price in April 1984. The price of unleaded regular gasoline at all types of stations was $1.24 per gallon in May, 0.7 percent higher than the price in the previous month. The price of unleaded premium gasoline averaged $1.38 per gallon in May, 0.4 percent higher than during April 1984.

Residual Fuel Oil

The average price, excluding taxes, of residual fuel oil sold to end-users (utilities, industry, and other ultimate consumers) in April 1984 was $0.69 per gallon, 1.0 percent above the previous month's price and 13.4 percent above the April 1983 average. The average price, excluding taxes, of residual fuel oil sold for resale (to other-than-ultimate consumers) in April 1984 was $0.66 per gallon, 2.6 percent above the March 1984 average and 14.7 percent above the April 1983 average.

Aviation Fuel

The average price, excluding taxes, of aviation gasoline sold to end-users in April 1984 was $1.24 per gallon, 0.5 percent above the price in the previous month, but 0.6 percent below the price in April 1983. The average price, excluding taxes, of kerosene-type jet fuel sold to end-users in April 1984 was $0.85 per gallon, down 0.6 percent from the previous month's price and down 4.2 percent from the price 1 year earlier.

No. 2 Distillate Fuel Oil

The national average price of heating oil sold to residential customers in April 1984 was $1.10 per gallon. This was 1.3 percent below the price in March 1984 but 6.1 percent above the April 1983 price. The average price for resale was $0.83 per gallon in April 1984, 4.9 percent above the price in April 1983.

Natural Gas

In March 1984, the average wellhead price of marketed natural gas production was $2.66 per thousand cubic feet (Mcf), $0.02 per Mcf more than the February 1984 price and $0.05 per Mcf more than the March 1983 price. The average price of natural gas delivered to electric utility plants was $3.50 per Mcf in March 1984, up $0.05 per Mcf (1.4 percent) from the March 1983 price, but down $0.09 from the February 1984 price. The average price of natural gas used by residential consumers in May 1984 was $6.17 per Mcf, $0.19 more than in April 1984, but $0.03 per Mcf less than the May 1983 price.

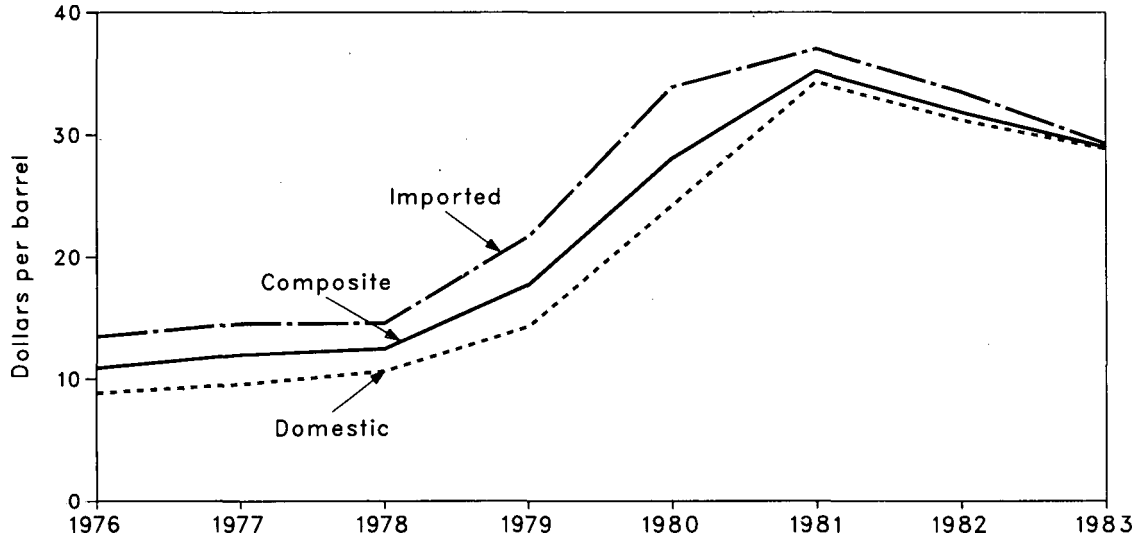
Electricity

The average retail price of electricity sold by selected privately owned utilities to residential consumers in April 1984 was 7.32 cents per kilowatt-hour (kWh), 2.2 percent above the previous month's average and 5.9 percent above the April 1983 price. The average price of electricity sold to commercial consumers was 7.23 cents per kWh in April 1984, 1.5 percent more than the March 1984 price and up 5.4 percent from the April 1983 price. The average electricity price to industrial users during April 1984 was 4.87 cents per kWh, 0.2 percent less than in the previous month and 1.0 percent less than during April 1983.

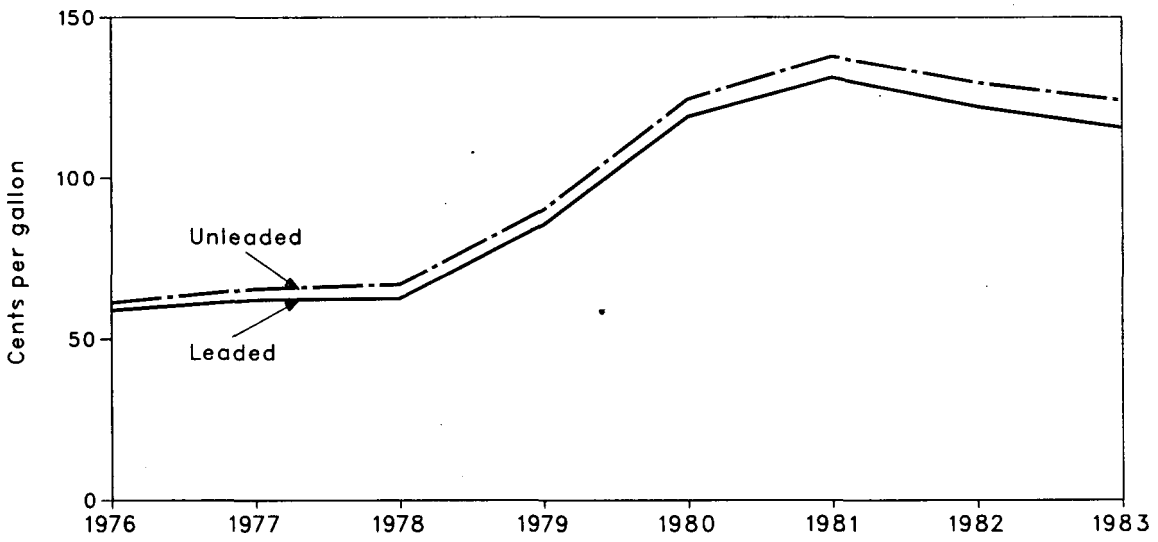
Price

Selected Petroleum Series

Refiner Aquisition Cost of Crude Oil



Regular Motor Gasoline Prices
(Including Tax)



Price

Crude Oil Price Summary

		Actual Domestic Average Wellhead Price[1]	Average FOB Cost of Crude Oil Imports[2]	Average Landed Cost of Crude Oil Imports[3]	Refiner Acquisition Cost of Crude Oil[4]		
					Domestic	Imported	Composite
		Dollars per barrel					
1976	**AVERAGE**	**8.19**	**12.17**	**13.34**	**8.84**	**13.48**	**10.89**
1977	**AVERAGE**	**8.57**	**13.24**	**14.31**	**9.55**	**14.53**	**11.96**
1978	**AVERAGE**	**9.00**	**13.30**	**14.38**	**10.61**	**14.57**	**12.46**
1979	**AVERAGE**	**12.64**	**20.19**	**21.65**	**14.27**	**21.67**	**17.72**
1980	**AVERAGE**	**21.59**	**32.27**	**33.95**	**24.23**	**33.89**	**28.07**
1981	**AVERAGE**	**31.77**	**35.10**	**36.52**	**34.33**	**37.05**	**35.24**
1982	January	30.87	34.12	35.23	33.39	35.54	33.95
	February	29.76	33.60	34.63	32.71	35.48	33.40
	March	28.31	32.15	33.31	31.08	34.07	31.81
	April	27.65	31.65	32.77	30.27	32.82	30.83
	May	27.67	31.65	32.70	30.37	32.78	31.02
	June	28.11	32.31	33.47	30.79	33.79	31.74
	July	28.33	32.22	33.31	30.92	33.44	31.74
	August	28.18	31.33	32.34	30.85	32.95	31.45
	September	27.99	31.57	32.49	30.76	33.03	31.40
	October	28.74	32.02	33.01	31.38	33.28	31.98
	November	28.70	31.76	32.86	31.57	33.09	32.07
	December	28.12	31.19	32.32	30.80	32.85	31.29
	AVERAGE	**28.52**	**32.11**	**33.18**	**31.22**	**33.55**	**31.87**
1983	January	27.22	29.47	30.62	30.55	31.40	30.73
	February	26.41	27.79	29.08	29.16	30.76	29.49
	March	26.08	26.88	27.84	28.69	28.43	28.64
	April	25.85	27.18	28.24	28.45	27.95	28.33
	May	26.08	27.36	28.55	28.68	28.53	28.64
	June	25.98	27.71	29.00	28.67	29.23	28.85
	July	25.86	27.84	28.99	28.74	28.76	28.75
	August	26.03	27.89	29.22	28.58	29.50	28.88
	September	26.08	27.88	29.24	28.69	29.54	28.97
	October	26.04	27.84	29.08	28.88	29.67	29.14
	November	26.09	27.75	28.93	28.76	29.09	28.85
	December	25.88	27.50	28.58	28.62	29.30	28.83
	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	R26.05	27.70	28.69	28.75	28.95	28.81
	April	†26.03	†27.63	†28.66	28.63	29.11	28.77

The crude oil import price series have been added to this page. See the explanation beginning on page 102.

[1]See Note 1 in the Notes and Sources for this section.
[2]See Note 2 in the Notes and Sources for this section.
[3]See Note 3 in the Notes and Sources for this section.
[4]See Note 4 in the Notes and Sources for this section.
†Preliminary data. R=Revised data.
Note: • Geographic coverage is the 50 States and the District of Columbia, except for the refiner acquisition cost of crude oil, which is the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.
Sources: • See the Notes and Sources for this section.

Price

FOB Cost of Crude Oil Imports from Selected Countries[1]

		Algeria	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
					Dollars per barrel				
1976	**AVERAGE**	**13.05**	**12.76**	**11.61**	**NA**	**13.08**	**11.69**	**NA**	**11.32**
1977	**AVERAGE**	**14.36**	**13.57**	**12.67**	**13.42**	**14.44**	**12.37**	**NA**	**12.68**
1978	**AVERAGE**	**14.10**	**13.64**	**12.65**	**13.24**	**14.04**	**12.70**	**13.82**	**12.45**
1979	**AVERAGE**	**20.65**	**19.35**	**23.71**	**20.29**	**21.80**	**17.63**	**21.20**	**17.37**
1980	**AVERAGE**	**36.57**	**32.37**	**(2)**	**31.11**	**35.82**	**28.53**	**34.58**	**24.78**
1981	**AVERAGE**	**39.09**	**35.93**	**(2)**	**33.13**	**38.53**	**32.48**	**36.08**	**28.86**
1982	January	36.96	35.53	(2)	29.67	36.23	33.40	36.20	29.07
	February	35.56	35.59	(2)	30.92	35.92	33.50	34.00	28.94
	March	31.50	35.74	(2)	27.86	34.94	33.77	30.78	22.89
	April	30.54	35.69	(2)	26.96	33.80	33.49	32.49	21.89
	May	33.32	34.82	31.11	28.53	35.22	32.97	32.43	22.31
	June	34.72	35.95	W	28.18	35.18	33.80	33.67	22.25
	July	34.35	35.22	31.44	28.32	35.15	33.26	33.66	23.50
	August	33.03	35.63	31.17	27.67	35.13	32.63	33.17	20.71
	September	34.20	35.24	W	27.95	34.70	32.98	33.30	23.58
	October	34.26	35.25	W	27.82	35.05	33.54	33.93	22.93
	November	34.44	34.99	29.80	27.63	35.02	33.59	34.08	23.74
	December	34.86	34.73	29.09	27.63	33.18	34.04	33.21	26.21
	AVERAGE	**34.23**	**35.27**	**30.93**	**28.07**	**35.13**	**33.50**	**33.46**	**23.77**
1983	January	W	34.71	W	26.90	W	W	32.77	21.58
	February	W	33.74	W	25.69	W	W	30.95	21.82
	March	31.07	29.69	W	24.53	29.52	30.03	29.16	20.04
	April	29.37	29.57	W	24.18	29.63	W	30.07	20.05
	May	29.54	29.31	W	24.60	29.72	W	29.61	19.88
	June	29.80	29.59	W	24.13	29.57	W	28.92	20.80
	July	30.15	29.73	28.41	24.92	29.81	27.91	30.00	19.89
	August	30.32	29.60	28.19	25.15	29.92	27.83	29.88	21.56
	September	30.33	29.77	28.03	25.10	29.59	27.73	30.33	21.81
	October	29.98	29.81	28.29	25.72	30.23	28.24	29.73	23.58
	November	29.75	30.34	W	25.76	29.99	28.22	29.42	23.17
	December	W	29.77	28.30	26.20	29.60	27.18	29.05	24.17
	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	R28.69	W	NA	R26.30	R29.89	28.39	R29.95	R23.86
	April†	29.16	29.45	NA	26.07	30.02	W	29.86	23.72

The price series for Libya and the United Arab Emirates have been deleted from this page. See explanation beginning on page 102.

[1]The Free on Board (FOB) cost excludes all costs related to insurance and transportation. See Note 2 in the Notes and Sources for this section.
[2]No crude oil was imported.
†Preliminary data. R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of company data.
Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.
Sources: • See the Notes and Sources for this section.

Price

Landed Cost of Crude Oil Imports from Selected Countries[1]

		Algeria	Canada	Indonesia	Iran	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela
						Dollars per barrel				
1975	**AVERAGE**	**12.72**	**12.72**	**13.79**	**12.21**	**NA**	**12.62**	**12.30**	**NA**	**11.65**
1976	**AVERAGE**	**13.81**	**13.57**	**13.82**	**12.82**	**NA**	**13.80**	**13.04**	**NA**	**11.80**
1977	**AVERAGE**	**15.20**	**14.21**	**14.63**	**13.80**	**13.75**	**15.25**	**13.61**	**NA**	**13.13**
1978	**AVERAGE**	**14.91**	**14.50**	**14.64**	**13.88**	**13.54**	**14.86**	**13.92**	**NA**	**12.83**
1979	**AVERAGE**	**21.90**	**20.43**	**20.69**	**25.02**	**20.86**	**22.96**	**19.15**	**22.16**	**18.18**
1980	**AVERAGE**	**37.90**	**30.47**	**33.92**	**(2)**	**31.80**	**37.05**	**30.02**	**35.88**	**25.86**
1981	**AVERAGE**	**40.49**	**32.16**	**37.57**	**(2)**	**33.78**	**39.70**	**34.19**	**37.24**	**29.87**
1982	January	38.19	31.05	36.88	(2)	30.21	37.37	34.44	36.78	29.82
	February	37.09	28.80	36.81	(2)	31.47	37.06	34.51	35.04	30.09
	March	32.25	26.71	37.17	(2)	28.69	35.81	34.92	31.35	23.92
	April	31.66	24.86	36.87	(2)	27.58	34.82	34.80	33.19	23.09
	May	34.24	24.90	36.50	32.01	29.18	36.06	34.28	33.22	23.44
	June	35.41	24.63	37.35	W	28.76	36.15	35.20	34.41	23.43
	July	35.26	26.62	37.04	32.08	28.95	36.19	35.04	34.67	24.61
	August	33.87	26.40	36.81	31.84	28.19	36.16	34.28	33.88	21.90
	September	34.88	26.52	36.65	W	28.50	35.56	34.45	34.01	24.53
	October	35.41	26.91	36.83	33.28	28.22	35.98	35.21	34.56	23.90
	November	35.82	26.78	36.49	32.66	28.17	36.04	35.41	34.74	24.91
	December	35.70	27.35	36.19	32.73	28.19	34.54	36.43	34.05	27.09
	AVERAGE	**35.28**	**26.92**	**36.75**	**32.40**	**28.64**	**36.17**	**35.00**	**34.28**	**24.82**
1983	January	33.20	27.62	36.12	W	27.50	W	W	33.48	23.20
	February	32.17	26.19	35.07	W	26.15	32.24	W	33.33	23.36
	March	31.24	24.78	31.17	W	25.06	30.49	31.63	29.92	21.48
	April	30.55	24.35	31.14	W	24.65	30.63	W	30.84	21.45
	May	30.48	24.32	30.82	W	25.17	30.75	W	30.60	21.24
	June	30.88	24.88	31.40	29.10	24.81	30.56	W	30.02	22.07
	July	31.36	25.45	31.46	30.06	25.34	30.91	29.53	30.86	21.30
	August	31.85	25.45	31.65	29.57	25.80	31.21	29.39	30.83	22.82
	September	31.78	25.71	31.27	29.31	25.66	30.70	29.53	31.39	23.12
	October	30.97	26.01	31.14	29.73	26.44	31.16	29.98	30.79	24.75
	November	30.96	25.83	31.30	W	26.29	31.02	29.88	30.33	24.68
	December	30.23	26.69	31.12	28.57	26.88	30.57	28.83	30.00	24.91
	AVERAGE	**31.26**	**25.63**	**31.57**	**29.81**	**25.78**	**30.84**	**29.76**	**30.87**	**22.94**
1984	January	29.19	26.44	31.22	W	26.85	30.62	29.67	30.09	25.28
	February	29.73	26.40	30.91	W	26.73	31.29	28.38	30.77	25.21
	March	R30.31	26.01	R30.81	NA	R26.92	R30.93	30.20	R30.98	R24.75
	April†	29.81	26.10	30.95	NA	26.68	31.26	W	30.79	24.69

The price series for Libya and the United Arab Emirates have been deleted from this page. See explanation beginning on page 102.

[1]See Note 3 in the Notes and Sources for this section.
[2]No crude oil was imported.
†Preliminary data. R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of company data.
Note: • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.
Sources: • See the Notes and Sources for this section.

Price

U.S. City Average Retail Prices for Motor Gasoline[1]

		Leaded Regular	Unleaded Regular	Unleaded Premium	Average for All Types[2]
		Cents per gallon, including tax			
1974	**AVERAGE**	**53.2**	**NA**	**NA**	**NA**
1975	**AVERAGE**	**56.7**	**NA**	**NA**	**NA**
1976	**AVERAGE**	**59.0**	**61.4**	**NA**	**NA**
1977	**AVERAGE**	**62.2**	**65.6**	**NA**	**NA**
1978	**AVERAGE**	**62.6**	**67.0**	**NA**	**65.2**
1979	**AVERAGE**	**85.7**	**90.3**	**NA**	**88.2**
1980	**AVERAGE**	**119.1**	**124.5**	**NA**	**122.1**
1981	**AVERAGE[3]**	**131.1**	**137.8**	**147.0**	**135.3**
1982	January	128.5	135.8	146.6	134.1
	February	126.0	133.4	144.8	131.8
	March	120.6	128.4	140.8	126.8
	April	114.8	122.5	135.1	121.0
	May	116.6	123.7	135.5	122.4
	June	124.2	130.9	141.8	129.6
	July	126.3	133.1	144.3	131.8
	August	125.4	132.3	143.9	131.0
	September	123.6	130.8	142.9	129.5
	October	121.9	129.5	142.1	128.0
	November	120.7	128.3	141.2	126.8
	December	118.1	126.0	139.4	124.4
	AVERAGE	**122.2**	**129.6**	**141.5**	**128.1**
1983	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October	117.2	125.5	139.5	123.9
	November	115.6	124.1	138.4	122.4
	December	114.6	123.1	137.6	121.5
	AVERAGE	**115.7**	**124.1**	**138.3**	**122.5**
1984	January	113.1	121.6	136.9	120.0
	February	112.5	120.9	136.1	119.3
	March	112.5	121.0	136.2	119.4
	April	114.5	122.7	137.5	121.1
	May	115.4	123.6	138.0	122.1

[1]See Note 5 in the Notes and Sources for this section.
[2]Also includes types of gasoline not shown separately.
[3]Beginning with September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the average for all types category, gasohol is now included and unleaded premium is weighted more heavily.
NA=Not available.
Note: • Geographic coverage for 1974 through 1977 is 56 urban areas. For 1978 forward it is 85 urban areas.
Sources: • See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Residual Fuel Oil[1]

		Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 percent		Average	
		Sales for Resale	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale	Sales to End-Users
		Cents per gallon, excluding tax					
1978	**AVERAGE**	**29.3**	**31.4**	**24.5**	**27.5**	**26.3**	**29.8**
1979	**AVERAGE**	**45.0**	**46.8**	**36.6**	**38.9**	**39.9**	**43.6**
1980	**AVERAGE**	**60.8**	**67.5**	**47.9**	**52.3**	**52.8**	**60.7**
1981	**AVERAGE**	**74.8**	**82.9**	**62.2**	**67.3**	**66.3**	**75.6**
1982	January	71.8	77.7	57.0	60.7	62.0	68.8
	February	71.5	77.4	54.6	58.4	60.2	69.1
	March	68.4	75.6	54.1	57.1	59.1	67.4
	April	66.8	73.5	54.6	57.8	58.5	65.1
	May	68.4	74.0	58.0	61.5	61.0	66.7
	June	68.1	75.1	58.6	63.2	61.5	68.8
	July	67.9	72.7	56.3	62.9	60.1	68.1
	August	67.1	71.8	58.7	61.5	60.7	66.2
	September	68.1	72.1	58.3	61.6	61.2	66.3
	October	72.6	75.9	59.5	62.9	63.5	68.1
	November	72.6	76.3	60.7	64.1	65.3	70.0
	December	69.2	72.0	58.2	61.9	61.7	66.4
	AVERAGE	**69.5**	**74.7**	**57.2**	**61.1**	**61.2**	**67.6**
1983	January	65.0	70.5	57.0	60.1	60.3	64.2
	February	63.0	66.0	55.7	58.5	58.5	62.0
	March	60.0	66.2	55.9	57.0	57.7	60.9
	April	60.1	64.3	56.5	58.7	57.7	61.0
	May	62.6	66.9	57.8	59.7	59.2	63.2
	June	63.2	69.2	58.5	60.1	60.2	64.7
	July	65.2	70.4	60.5	61.4	62.2	65.9
	August	66.7	71.6	62.0	63.2	63.8	67.7
	September	67.0	72.6	63.3	65.3	64.6	69.0
	October	68.8	72.1	62.6	64.9	64.7	68.7
	November	66.5	70.7	62.2	64.4	63.6	67.4
	December	67.3	72.0	60.2	63.1	62.3	67.2
	AVERAGE	**64.3**	**69.5**	**59.1**	**61.1**	**60.9**	**65.1**
1984	January	71.0	73.6	62.3	64.6	64.8	69.0
	February	71.4	75.1	65.7	65.8	67.5	70.4
	March	70.5	73.1	61.9	64.7	64.5	68.5
	April†	69.1	73.1	64.7	66.5	66.2	69.2

The price series on this page are new. Prices prior to January 1983 are backcasted estimates. See the explanation beginning on page 102.

[1]Sales for Resale are those made to purchasers who are other-than-ultimate consumers, that is, wholesale sales. Sales to End-Users are those made directly to the ultimate consumer including bulk customers such as agriculture, industry, and utilities, as well as residential and commercial customers.
†Preliminary data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
•Prices prior to January 1983 are Energy Information Administration backcasted estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: •See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products for Resale[1]

		Finished Motor Gasoline[2]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
		Cents per gallon, excluding tax						
1978	**AVERAGE**	**43.4**	**53.7**	**38.6**	**40.4**	**36.9**	**36.5**	**23.7**
1979	**AVERAGE**	**63.7**	**72.1**	**66.0**	**62.4**	**56.9**	**57.4**	**29.1**
1980	**AVERAGE**	**94.1**	**112.8**	**86.8**	**86.4**	**80.3**	**80.1**	**41.5**
1981	**AVERAGE**	**106.4**	**125.0**	**101.2**	**106.6**	**97.6**	**97.2**	**46.6**
1982	**January**	**102.3**	**128.8**	**100.5**	**108.5**	**98.0**	**96.7**	**42.4**
	February	98.9	128.4	99.2	106.3	93.9	93.5	37.8
	March	92.6	123.1	96.8	99.9	86.6	89.0	35.3
	April	89.6	119.3	92.2	95.1	83.3	85.4	34.4
	May	94.1	115.3	91.0	95.5	86.5	87.9	34.9
	June	100.5	120.7	93.3	97.4	89.8	92.2	36.4
	July	101.7	126.7	93.5	97.0	91.0	92.1	39.2
	August	101.0	123.9	94.2	96.9	90.3	91.0	43.2
	September	99.6	121.8	94.7	100.6	92.0	91.1	48.8
	October	98.4	122.7	97.6	105.7	96.5	94.4	50.4
	November	96.4	124.6	97.3	105.3	97.3	96.1	52.5
	December	92.4	125.9	92.9	98.2	89.5	90.0	48.9
	AVERAGE	**97.3**	**122.8**	**95.3**	**101.8**	**91.4**	**91.4**	**42.7**
1983	**January**	**88.5**	**124.8**	**91.8**	**94.2**	**85.7**	**85.5**	**47.0**
	February	85.4	123.7	89.9	90.0	80.1	80.7	46.7
	March	82.9	121.2	84.5	83.1	76.0	75.2	47.4
	April	86.5	120.0	82.9	84.2	78.9	76.8	50.0
	May	90.4	120.2	84.3	87.7	80.9	80.2	50.5
	June	91.5	115.0	84.1	84.6	80.9	80.3	50.9
	July	92.3	115.2	84.8	85.2	81.7	80.8	50.7
	August	91.5	114.7	85.4	86.7	83.4	81.7	49.8
	September	90.2	113.7	86.3	91.9	85.1	83.5	50.1
	October	88.1	118.9	86.4	90.8	83.5	83.0	49.9
	November	86.6	118.7	84.4	90.4	82.6	82.0	47.3
	December	83.8	118.8	83.6	88.6	80.7	80.1	45.4
	AVERAGE	**88.2**	**117.8**	**85.4**	**89.2**	**81.5**	**80.8**	**48.4**
1984	**January**	**83.2**	**116.7**	**86.4**	**95.9**	**87.5**	**82.6**	**47.7**
	February	83.8	116.5	86.5	100.4	89.2	84.5	47.4
	March	84.7	117.1	84.6	91.5	81.3	81.0	45.3
	April†	86.9	116.8	84.2	90.6	82.8	80.8	44.6

The price series on this page are new. Prices prior to January 1983 are backcasted estimates. See the explanation beginning on page 102.

[1]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.
[2]See Note 5 in the Notes and Sources for this section.
†Preliminary data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
•Prices prior to January 1983 are Energy Information Administration backcasted estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

Refiner and Gas Plant Operator Sales Prices of Petroleum Products to End-Users[1]

		Finished Motor Gasoline[2]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
		Cents per gallon, excluding tax						
1978	**AVERAGE**	**48.4**	**51.6**	**38.7**	**42.1**	**40.0**	**37.7**	**33.5**
1979	**AVERAGE**	**71.3**	**68.9**	**54.7**	**58.5**	**51.6**	**58.5**	**35.7**
1980	**AVERAGE**	**103.5**	**108.4**	**86.8**	**90.2**	**78.8**	**81.8**	**48.2**
1981	**AVERAGE**	**114.7**	**130.3**	**102.4**	**112.3**	**91.4**	**99.5**	**56.5**
1982	January	110.8	132.0	101.0	111.2	94.4	98.7	57.8
	February	108.6	132.8	100.4	110.7	95.0	96.7	57.7
	March	102.2	133.6	99.0	112.2	90.6	91.9	57.3
	April	98.3	131.5	96.2	103.1	85.0	90.1	57.3
	May	102.1	131.5	94.9	105.1	84.4	91.5	57.8
	June	109.3	131.3	94.7	109.4	85.1	95.8	57.7
	July	110.4	133.2	94.7	109.0	83.6	94.8	55.1
	August	108.9	131.4	94.8	101.9	86.3	93.1	56.7
	September	107.7	128.8	94.5	102.7	86.2	93.5	59.9
	October	106.4	130.3	95.2	107.7	89.8	95.7	60.7
	November	105.1	129.5	95.8	113.7	94.2	97.7	63.2
	December	102.2	129.1	95.0	108.3	93.9	94.0	64.2
	AVERAGE	**106.0**	**131.2**	**96.3**	**108.9**	**90.5**	**94.2**	**59.2**
1983	January	97.1	129.2	94.5	104.5	100.9	89.2	72.7
	February	92.5	127.2	92.6	101.4	97.0	84.0	71.7
	March	89.8	126.6	90.6	97.1	93.0	78.0	68.1
	April	94.7	125.2	88.8	93.4	89.1	78.8	68.6
	May	96.6	125.4	87.8	93.8	89.5	81.8	72.2
	June	97.8	125.6	86.3	90.0	87.3	81.5	67.3
	July	98.8	125.1	85.6	89.0	85.1	82.0	66.4
	August	98.4	125.9	85.5	90.8	86.1	83.0	68.9
	September	96.9	124.2	86.1	92.7	88.0	84.8	74.9
	October	95.4	124.7	86.0	98.9	89.0	84.2	69.6
	November	93.9	124.5	85.8	100.0	90.1	83.5	72.8
	December	92.4	124.4	85.5	96.6	92.1	82.2	76.4
	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	92.4	82.4	76.5

The price series on this page are new. Prices prior to January 1983 are backcasted estimates. See the explanation beginning on page 102.

[1]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.
[2]See Note 5 in the Notes and Sources for this section.
†Preliminary data.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
•Prices prior to January 1983 are Energy Information Administration backcasted estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

Sales Prices of No. 2 Distillate to Residences for Selected States[1]

		CT	ME	MA	NH	RI	VT	DE	DC	MD	NJ	NY	PA	VA
		Cents per gallon, excluding tax												
1978	**AVERAGE**	**50.1**	**48.6**	**48.8**	**50.3**	**50.7**	**50.8**	**47.8**	**50.7**	**49.2**	**49.6**	**50.1**	**48.8**	**49.1**
1979	**AVERAGE**	**72.0**	**68.8**	**70.9**	**72.5**	**72.8**	**72.5**	**68.2**	**74.2**	**70.1**	**71.0**	**71.2**	**69.8**	**70.4**
1980	**AVERAGE**	**98.0**	**96.3**	**97.8**	**100.4**	**101.1**	**101.5**	**95.4**	**102.6**	**97.9**	**97.9**	**98.2**	**96.4**	**98.5**
1981	**AVERAGE**	**121.7**	**120.4**	**121.3**	**123.7**	**123.8**	**125.4**	**117.3**	**127.4**	**121.4**	**121.5**	**123.2**	**118.1**	**120.5**
1982	January	122.6	120.0	123.8	123.3	125.8	126.2	114.4	128.5	120.3	122.0	125.4	119.5	121.7
	February	120.3	118.8	121.9	121.2	123.0	125.0	114.3	127.9	120.3	120.0	124.0	118.3	119.5
	March	114.8	111.3	116.7	116.8	116.5	120.5	110.3	125.4	115.5	115.7	119.5	109.5	117.2
	April	110.6	108.6	113.7	112.3	114.7	115.3	108.6	120.5	112.8	113.4	114.4	111.0	114.1
	May	112.4	113.2	115.1	114.3	115.9	116.0	107.4	122.7	114.3	113.8	117.6	110.8	115.7
	June	115.9	114.9	114.7	117.2	117.9	118.5	109.9	120.4	115.8	116.3	118.4	112.8	116.6
	July	116.4	115.8	114.4	116.7	119.2	118.2	108.4	122.5	116.6	116.4	118.2	110.5	116.2
	August	118.3	116.7	115.4	115.4	118.7	113.3	109.3	121.5	115.9	116.6	118.6	111.5	115.8
	September	119.5	116.7	115.4	115.8	120.0	118.8	109.9	122.6	117.9	115.7	119.1	106.4	118.3
	October	122.6	117.6	118.8	116.7	123.9	121.1	114.2	126.2	117.2	120.0	122.4	117.3	119.1
	November	123.6	117.9	121.5	121.2	124.5	124.5	116.1	128.9	119.7	121.3	124.4	119.5	120.2
	December	122.4	114.7	119.5	118.3	121.0	124.1	113.2	126.6	118.1	117.7	123.8	117.1	117.6
	AVERAGE	**118.3**	**115.5**	**117.6**	**117.4**	**120.1**	**120.1**	**111.3**	**124.5**	**117.1**	**117.4**	**120.5**	**113.7**	**117.7**
1983	January	119.5	109.0	116.3	111.6	116.2	121.5	110.5	122.8	115.4	115.7	120.6	113.7	116.0
	February	115.8	103.7	113.2	105.5	112.2	116.9	108.2	119.7	112.6	110.4	117.6	109.6	112.0
	March	108.3	97.4	105.4	100.8	106.8	109.6	103.9	115.3	108.2	104.6	110.2	104.0	106.9
	April	104.5	99.5	104.4	100.9	108.8	110.6	103.0	113.1	107.9	104.4	106.9	101.8	106.7
	May	105.9	101.6	107.0	102.6	109.6	111.2	104.6	112.9	108.6	105.5	108.2	103.3	107.2
	June	104.3	102.6	105.9	101.2	112.0	112.8	107.3	114.7	108.3	104.6	110.5	102.2	106.8
	July	104.2	102.6	105.3	104.3	109.1	112.3	107.8	112.8	107.2	104.5	109.9	101.3	107.4
	August	103.8	105.6	105.4	103.5	107.9	111.7	102.5	113.3	107.0	105.5	110.0	101.6	107.7
	September	103.8	103.8	106.2	104.0	108.1	111.0	103.5	113.9	108.1	106.1	110.5	102.8	108.1
	October	104.3	102.9	105.6	103.1	108.0	109.4	103.5	113.4	108.7	105.4	110.3	103.3	104.8
	November	104.1	101.8	106.1	101.5	108.7	109.8	103.7	113.5	108.8	104.6	110.2	103.7	104.9
	December	105.6	102.2	108.1	103.7	109.4	110.0	105.5	114.7	109.2	106.7	110.9	104.6	105.2
	AVERAGE	**109.1**	**102.8**	**109.1**	**104.1**	**110.5**	**112.9**	**106.0**	**117.0**	**110.3**	**107.9**	**112.1**	**105.8**	**108.7**
1984	January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0	115.6	114.1	118.3	112.9	111.4
	February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6	121.9	119.5	124.3	117.4	117.5
	March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6	116.2	113.5	117.0	110.9	112.6
	April†	111.7	103.3	112.4	107.2	110.8	113.3	110.8	120.0	115.9	111.6	116.0	107.7	110.5

The price series on this page are new. Prices prior to January 1983 are backcasted estimates. See the explanation beginning on page 102.

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

Price

Sales Prices of No. 2 Distillate to Residences for Selected States[1] (continued)

		WV	IL	IN	MI	MN	OH	WI	ID	AK	OR	WA	U.S. Average
		Cents per gallon, excluding tax											
1978	**AVERAGE**	**46.2**	**46.5**	**48.5**	**47.9**	**47.8**	**47.4**	**44.7**	**43.6**	**53.2**	**45.8**	**48.6**	**49.0**
1979	**AVERAGE**	**65.1**	**68.8**	**72.7**	**70.9**	**72.4**	**68.6**	**67.3**	**62.1**	**68.2**	**68.0**	**69.7**	**70.4**
1980	**AVERAGE**	**92.2**	**95.8**	**99.6**	**97.8**	**99.9**	**91.9**	**91.5**	**91.6**	**97.8**	**97.3**	**100.8**	**97.4**
1981	**AVERAGE**	**115.0**	**114.9**	**118.5**	**118.3**	**118.4**	**113.2**	**109.1**	**110.4**	**118.0**	**111.4**	**116.5**	**119.4**
1982	January	114.3	114.2	119.6	118.3	118.5	113.7	111.0	113.1	121.7	113.5	120.1	120.6
	February	111.1	113.1	118.0	116.8	118.3	110.5	110.2	113.1	121.8	113.5	119.4	119.2
	March	105.1	107.3	112.9	110.9	111.4	105.2	106.9	111.2	119.9	111.3	118.1	113.9
	April	102.1	104.2	108.9	108.4	115.4	105.4	105.8	109.3	117.2	110.3	115.9	111.7
	May	105.8	107.0	114.6	112.8	110.2	108.4	105.4	109.7	118.6	110.9	115.6	113.0
	June	111.6	113.9	117.7	114.6	115.8	112.2	107.4	109.8	116.4	110.4	115.8	114.8
	July	110.3	114.0	115.1	113.1	114.5	112.1	108.1	107.9	115.1	110.4	115.3	114.4
	August	107.6	110.6	110.7	112.6	114.0	110.7	106.2	110.0	116.2	110.5	116.2	114.4
	September	110.0	110.9	110.9	112.8	114.1	110.0	106.9	109.7	115.2	110.3	117.1	113.7
	October	111.7	113.3	114.7	115.5	117.4	111.8	107.2	109.7	115.7	111.5	118.4	118.2
	November	111.6	113.9	116.5	116.0	117.7	112.9	109.7	110.9	116.3	112.8	120.8	120.1
	December	110.7	109.0	112.1	114.2	114.3	110.2	108.6	110.7	115.0	113.6	119.3	118.2
	AVERAGE	**109.3**	**110.9**	**114.3**	**113.9**	**115.1**	**110.2**	**107.8**	**110.4**	**117.4**	**111.6**	**117.6**	**116.0**
1983	January	105.6	103.8	105.7	110.6	107.8	107.9	108.5	109.1	114.6	113.6	117.7	115.0
	February	104.7	99.5	102.8	108.5	101.6	104.4	104.5	104.8	NA	107.8	114.3	111.6
	March	99.2	96.6	95.7	103.7	96.5	98.2	96.8	99.6	110.7	101.4	109.0	105.1
	April	97.5	97.7	96.8	102.5	100.5	95.8	97.1	99.0	106.6	99.1	106.0	103.5
	May	96.1	100.3	98.2	102.7	101.9	96.5	98.7	99.2	106.0	99.0	105.5	104.8
	June	97.3	100.2	98.2	110.7	102.4	96.1	98.7	98.7	105.0	99.4	105.4	106.0
	July	94.9	99.6	99.4	105.3	102.6	97.3	99.0	99.3	105.8	97.8	105.2	105.0
	August	96.1	100.7	98.9	102.2	104.4	95.2	99.2	98.1	105.1	98.7	104.0	104.9
	September	100.7	102.5	101.4	103.9	103.7	101.2	100.7	98.9	106.2	100.5	105.6	105.7
	October	100.6	101.0	101.5	105.8	104.8	100.2	101.8	99.5	106.1	101.4	106.3	106.0
	November	100.5	100.8	100.7	105.4	104.4	101.0	100.4	99.5	105.5	102.1	106.4	106.0
	December	101.5	99.6	101.1	106.8	104.2	102.1	100.5	100.3	105.5	101.8	106.1	106.7
	AVERAGE	**101.0**	**100.4**	**100.7**	**106.4**	**103.1**	**101.3**	**101.2**	**101.8**	**108.8**	**103.6**	**109.0**	**107.8**
1984	January	108.5	104.7	106.0	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
	February	109.9	105.9	107.3	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
	March	104.9	102.3	100.6	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
	April†	101.6	100.4	103.3	104.8	103.9	101.9	101.6	95.6	NA	100.4	104.7	109.8

The price series on this page are new. Prices prior to January 1983 are backcasted estimates. See the explanation beginning on page 102.

Footnotes continued.
†Preliminary data. NA=Not available.
Note: • Prices prior to January 1983 are Energy Information Administration backcasted estimates. See Note 8 in the Notes and Sources for this section for additional information.
Sources: • See the Notes and Sources for this section.

Price

National Average Natural Gas Prices

		Wellhead Price	Imports by Major Interstate Pipeline Companies	Purchased from Producers by Major Interstate Pipeline Companies	Industrial Sales by Major Interstate Pipeline Companies	Purchased by Electric Plants[1]	Residential Price[2]
		Dollars per thousand cubic feet					
1973	**AVERAGE**	**0.22**	**NA**	**NA**	**NA**	**0.35**	**1.29**
1974	**AVERAGE**	**0.30**	**NA**	**NA**	**NA**	**0.49**	**1.43**
1975	**AVERAGE**	**0.45**	**NA**	**NA**	**NA**	**0.77**	**1.71**
1976	**AVERAGE**	**0.58**	**NA**	**NA**	**NA**	**1.06**	**1.98**
1977	**AVERAGE**	**0.79**	**NA**	**NA**	**NA**	**1.33**	**2.35**
1978	**AVERAGE**	**0.91**	**2.21**	**0.83**	**1.54**	**1.48**	**2.56**
1979	**AVERAGE**	**1.18**	**2.60**	**1.22**	**2.01**	**1.80**	**2.98**
1980	**AVERAGE**	**1.59**	**4.42**	**1.63**	**2.53**	**2.28**	**3.68**
1981	**AVERAGE**	**1.98**	**4.84**	**2.15**	**3.11**	**2.91**	**4.29**
1982	January	2.23	4.94	2.47	3.59	3.07	4.65
	February	2.30	4.96	2.50	3.58	3.18	4.69
	March	2.35	4.94	2.52	3.61	3.25	4.78
	April	2.40	4.94	2.54	3.61	3.32	4.86
	May	2.45	4.93	2.68	3.60	3.42	5.17
	June	2.45	4.86	2.83	3.66	3.57	5.20
	July	2.47	5.00	2.79	3.71	3.69	5.23
	August	2.53	5.07	2.86	3.75	3.67	5.23
	September	2.56	5.05	2.78	3.88	3.67	5.41
	October	2.60	5.02	2.93	3.91	3.68	5.66
	November	2.62	5.01	2.89	3.98	3.61	5.68
	December	2.62	4.94	2.96	4.06	3.64	5.74
	AVERAGE	**2.46**	**4.94**	**2.72**	**3.73**	**3.49**	**5.17**
1983	January	2.63	5.03	3.06	4.38	[1]3.57	5.84
	February	2.64	5.09	3.15	4.41	3.41	5.85
	March	2.61	5.01	3.01	4.24	3.45	5.94
	April	2.57	4.58	2.90	4.37	3.35	6.04
	May	2.56	4.40	2.98	4.24	3.55	6.20
	June	2.62	4.41	2.95	4.22	3.58	6.18
	July	2.56	4.31	2.96	4.28	3.72	6.19
	August	2.61	3.93	2.90	4.23	3.75	6.16
	September	2.70	4.02	2.87	4.08	3.70	6.16
	October	2.62	4.03	2.86	4.22	3.60	6.08
	November	2.63	4.26	2.84	4.26	3.53	6.02
	December	2.65	4.33	2.73	4.12	3.49	6.03
	AVERAGE	**2.62**	**4.51**	**2.93**	**4.25**	**3.58**	**†5.99**
1984	January	R2.72	4.40	2.80	4.25	3.56	5.96
	February	R2.64	4.37	2.82	3.97	3.59	5.99
	March	2.66	4.40	2.80	4.18	3.50	5.97
	April	NA	NA	NA	NA	NA	5.98
	May	NA	NA	NA	NA	NA	6.17

[1]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. Small quantities of coke oven gas, refinery gas, and blast furnace gas are included.
[2]Monthly residential prices are Energy Information Administration calculations. See Note 6 in the Notes and Sources for this section for estimation procedures.
†Preliminary estimate. R=Revised data. NA=Not available.
Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Data for 1973 through December 1982 are final. All other data are preliminary unless otherwise indicated.
Sources: • See the Notes and Sources for this section.

Price

Electricity

		Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants[1]				Average Retail Electricity Prices for Privately Owned Utilities[2]				
		Coal	Heavy Oil[3]	Gas[4]	All Fossil Fuels[3]	Residential	Commercial	Industrial	Other	Total[5]
		Cents per million Btu				Cents per kilowatt-hour				
1973	**AVERAGE**	**40.5**	**78.5**	**33.8**	**47.6**	**2.54**	**2.41**	**1.25**	**2.10**	**1.96**
1974	**AVERAGE**	**70.9**	**189.0**	**48.2**	**91.4**	**3.10**	**3.04**	**1.69**	**2.75**	**2.49**
1975	**AVERAGE**	**81.4**	**200.5**	**75.2**	**104.4**	**3.51**	**3.45**	**2.07**	**3.08**	**2.92**
1976	**AVERAGE**	**84.8**	**195.2**	**103.4**	**111.9**	**3.73**	**3.69**	**2.21**	**3.27**	**3.09**
1977	**AVERAGE**	**94.7**	**219.8**	**129.1**	**129.7**	**4.05**	**4.09**	**2.50**	**3.51**	**3.42**
1978	**AVERAGE**	**111.6**	**212.5**	**142.2**	**141.1**	**4.31**	**4.36**	**2.79**	**3.62**	**3.69**
1979	**AVERAGE**	**122.4**	**298.8**	**174.9**	**163.9**	**4.64**	**4.68**	**3.05**	**3.96**	**3.99**
1980	**AVERAGE**	**135.1**	**426.7**	**219.9**	**192.8**	**5.36**	**5.48**	**3.69**	**4.76**	**4.73**
1981	**AVERAGE**	**153.2**	**533.4**	**280.5**	**225.6**	**6.20**	**6.29**	**4.29**	**5.28**	**5.46**
1982	January	160.9	489.2	297.4	229.4	6.22	6.49	4.66	5.44	5.74
	February	164.1	493.6	307.8	223.1	6.35	6.68	4.70	5.83	5.84
	March	165.7	477.1	314.2	221.9	6.58	6.79	4.83	6.38	5.97
	April	164.6	487.0	320.7	216.9	6.72	6.81	4.84	5.77	5.99
	May	165.1	494.2	327.6	217.7	6.94	6.86	4.95	5.91	6.09
	June	167.0	488.3	341.8	226.8	7.08	6.94	4.92	6.01	6.18
	July	164.5	477.8	353.3	241.0	7.18	6.98	5.12	6.13	6.38
	August	164.7	467.1	353.4	230.2	7.22	6.91	5.15	6.09	6.40
	September	165.9	475.3	354.7	229.4	7.18	6.97	5.25	6.07	6.41
	October	164.9	490.2	355.9	222.2	7.21	7.09	5.09	5.81	6.33
	November	165.3	501.0	349.8	220.8	6.94	7.04	4.88	5.69	6.14
	December	162.9	461.9	352.5	218.8	6.71	6.78	5.01	5.85	6.11
	AVERAGE	**164.7**	**483.2**	**337.6**	**224.9**	**6.86**	**6.86**	**4.95**	**5.92**	**6.13**
1983	January	166.8	448.9	347.1	216.7	6.65	6.78	5.03	5.91	6.13
	February	167.8	441.4	331.9	213.9	6.73	6.86	4.96	5.97	6.12
	March	168.1	426.0	336.1	215.5	6.93	6.93	5.07	6.16	6.23
	April	168.5	431.6	326.1	215.8	6.91	6.86	4.92	6.15	6.12
	May	165.0	446.6	344.3	216.6	7.20	7.04	4.89	6.60	6.21
	June	167.3	453.6	347.2	220.9	7.41	7.13	4.96	6.62	6.35
	July	165.3	467.0	361.1	237.4	7.50	7.13	5.11	6.24	6.53
	August	164.3	470.4	363.2	230.1	7.52	7.06	5.01	6.37	6.51
	September	163.9	482.8	358.1	226.4	7.55	7.15	5.00	6.58	6.52
	October	164.6	479.6	350.1	219.8	7.50	7.19	5.01	6.66	6.41
	November	163.6	472.2	340.5	212.2	7.25	7.13	4.83	6.63	6.23
	December	162.2	468.7	338.7	219.2	6.97	6.91	4.81	6.40	6.14
	AVERAGE	**165.6**	**457.8**	**347.4**	**220.6**	**7.18**	**7.01**	**4.97**	**6.36**	**6.29**
1984	January	161.4	488.2	344.0	221.1	6.76	6.79	4.86	6.34	6.13
	February	165.0	495.8	347.5	217.8	6.98	7.00	4.86	6.53	6.20
	March	164.1	484.0	339.8	209.2	7.16	7.12	4.88	6.69	6.26
	April†	NA	NA	NA	NA	7.32	7.23	4.87	6.59	6.29

[1]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.
[2]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.
[3]See Note 7 in the Notes and Sources for this section.
[4]Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.
[5]Average price for total sales to ultimate consumers.
†Initial estimates. NA=Not available.
Note: • Geographic coverage is the 50 States and the the District of Columbia.
Sources: • See the Notes and Sources for this section.

Notes and Sources for the Price Section

Notes

1. The actual domestic average price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices.
2. FOB literally means 'Free on Board.' It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.
3. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to March 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.
4. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on EIA Form 14, the "Refiners' Monthly Cost Report." These prices were previously published from data collected on ERA Form 49, the "Domestic Crude Oil Entitlements Program Refiners Monthly Report." The ERA Form 49 was discontinued with the decontrol of curde oil on January 28, 1981. Crude oil purchases and costs are defined for EIA Form 14 in accordance with conventions used for ERA Form 49. Also, the respondents for the two forms are essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken in comparing the data collected on the two forms.

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

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

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

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. Backcast estimates of prices prior to January 1983 are based on FEA Form P302-M-1/EAI-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, that is wholesale sales. Sales to End-Users are sales made directly to the consumer of the product, including bulk consumers such as agriculture, industry, and utilities, as well as residential and commercial consumers.

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

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

Notes and Sources for the Price Section (continued)

Sources

Petroleum and Petroleum Products: • Actual domestic average wellhead prices—Economic Regulatory Administration (ERA), January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report"; February 1976 through September 1979: FEA Form P124, "Domestic Crude Oil Purchaser's (Monthly) Report"; October 1979 through December 1982: ERA Form 182, "Domestic Crude Oil First Purchase Report."; January 1983 forward: EIA Form 182, "Domestic Crude Oil First Purchase Report."
• Crude oil imports costs—Environmental Protection Safety and Emergency Preparedness, 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 forward: EP Form 51, "Monthly Foreign Crude Oil Transaction Report."
• Refiner acquisition costs—Energy Information Administration (EIA), January 1976: FEO Form 96, "Monthly Cost Allocation Report"; February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report"; July 1978 through December 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report"; January 1981 forward: EIA Form 14, "Refiners' Monthly Cost Report."
• 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 backcasted 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 backcasted 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 backcasted 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 backcasted data.
Natural Gas: • Average wellhead price—annual data from EIA, *Natural Gas Annual,* 1973 through 1982. Monthly data are estimated primarily on the basis of values reported by State agencies in New Mexico, Oklahoma, and Texas. These States together account for almost 50 percent of total U.S. marketed production. Monthly data are adjusted to conform with final reported annual data.
• Imports, Purchased from Producers, and Industrial Sales by Major Interstate Pipeline Companies—FERC Form 11, "Interstate Pipeline Company Purchases, and Industrial Sales".
• Electric plant data—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
• Residential Price—Annual data from EIA, *Natural Gas Annual,* 1973 through 1982. Monthly data are EIA estimates based on the Bureau of Labor Statistics Urban Consumer Price Index (CPI-U) for natural gas and are adjusted to conform with final reported annual data. See Note 6 on the previous page for estimation procedures.
Electricity: • Cost of fossil fuels—EIA, FPC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
• Retail prices—EIA, January 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 through December 1982: FERC Form 5, "Electric Utility Company Monthly Statement"; January 1983 forward: EIA Form 826, "Electric Utility Company Monthly Statement."

Explanation of Changes in the Petroleum Price Series

Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. In consolidating these surveys, every attempt was made to continue the most important data series as determined by a study of user-community needs. The initial survey implementation preserved prices of major petroleum products reported by refiners and gas plant operators, in addition to residential sales prices reported by a sample of all sellers. 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, referred to as backcasting, was performed only for product prices with suitable product comparability.

A first approximation to the backcast price was provided by the previously published price. This approximation was not necessarily good, however, because of the changes implemented in the new survey. Poor quality first approximations do not imply that previously published prices were inaccurate; rather, they imply that such prices were not representative of the classifications, definitions, and populations utilized in the new survey. A better approximation, therefore, was formed by overlaying the changes on the first approximations. This overlay was accomplished in two steps: adjustment for product- and sales-type matching, and adjustment for discontinuity due to other factors.

The adjustment for product- and sales-type matching involved combining and disaggregating previous survey data to form product and seller/sales categories comparable to those now in use. Comparable product categories were formed by aggregating the earlier data according to a detailed crosswalk, and comparable seller/sales types were obtained by applying the average respective EIA-782 price ratio to the comparable product.

After adjusting for comparable product and seller/sales categories, a discontinuity adjustment was computed using data obtained during the overlap reporting period of the surveys, September through December 1982. During these 4 months, data were collected for both the new (EIA-782) and old (EIA-460 or EIA-9A) surveys. The transition structure for the new survey did not provide full respondent sample overlap. Therefore, the EIA-782 data required preadjustment of the December 1982 average price by a ratio to account for all EIA-782 respondents. The EIA-460 and EIA-9A prices were then multiplied by the appropriate discontinuity factors to generate the backcast estimates.

An important difference between the previous and present surveys 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. Accordingly, resale prices can be lower than comparable wholesale prices because the relatively higher priced bulk sales are no longer averaged in with the wholesale sales. End-user prices can also be lower because the relatively lower priced bulk sales are now averaged in with smaller ultimate consumers.

The following paragraphs describe the material and changes in this section, including new backcast series and discontinued previous series, in their order of presentation.

Page 89. Two new data series have been added to this page: the Average FOB Cost of Crude Oil Imports and the Average Landed Cost of Crude Oil Imports. The series are based on the data shown on pages 90 and 91 and include countries not shown separately. The other data series shown on the page were previously shown in the section and no backcast estimates are included.

Pages 90 and 91. Data for two countries have been deleted from these pages and are shown on page 104 as discontinued series. Libya was deleted because no crude oil had been imported for more than 2 years and the United Arab Emirates were deleted because the value had been withheld for more than 2 years to avoid disclosure of company data.

Page 92. All of the data series shown on this page were previously shown in the section and no backcast estimates are included.

Page 93. All of the series shown on this page are new and replace the discontinued series shown on page 105. Estimates prior to January 1983 were backcast as previously described and data since then are from Form EIA-782. In general, the new backcast series are lower than the previous series: 2.1 cents per gallon lower in the resale category and 1.4 cents per gallon lower in the end-user category during December 1982, the reference month. These differences are to be expected because bulk sales to utility, industrial, and commercial accounts are now considered sales to end-users, rather than resale transactions as previously acccounted.

Page 94. All of the series shown on this page are new and replace the discontinued wholesale series shown on pages 106 and 107. Data since January 1983 are from Form EIA-782 and estimates before then were backcast as previously described. Finished motor gasoline, kerosene-type jet fuel, kerosene, No. 2 fuel oil, No. 2 diesel fuel, and propane differed by 0.5, 0.8, 2.5, 0.6, 1.2, and 0.6 cent per gallon, respectively, for the December 1982 reference month. Finished aviation gasoline differed by 6.3 cents. The backcast series were higher for aviation gasoline and kerosene, and the previous series were higher for the remainder of the products. It would appear that the inclusion of utility, commercial, and industrial sales in the wholesale category of the previous surveys had little price effect. The larger difference in the aviation gasoline series may be due to differences in reporting practices of the companies in the two surveys.

Page 95. All of the data series shown on this page are new and replace the discontinued retail series shown on pages 106 and 107. Estimates prior to January 1983 were backcast as previously described and data since then are from Form EIA-782. Finished motor gasoline differed by 0.3 cent per gallon for the December 1982 reference month, and kerosene showed a difference of 0.2 cent per gallon. Kerosene-type jet fuel and finished aviation gasoline showed differences of 0.6 and 1.2 cents per gallon, respectively. However, No. 2 fuel oil, No. 2 diesel fuel, and propane showed differences, respectively, of 17.8, 6.3, and 19.3 cents per gallon. The backcast series are lower for all products except kerosene. It would appear that the larger differences in the distillate and propane series result from the inclusion of large resellers in the previous survey and the exclusion of bulk end-user sales to utility, commercial, and industrial consumers in the previous retail average. For propane, the product definition change to consumer grade, which excludes sales of petrochemical feedstocks, may also have been a factor.

Explanation of Changes in the Petroleum Price Series (continued)

Pages 96 and 97. All of the data series shown on these pages are new and replace the discontinued series shown on pages 108 and 109. Data since January 1983 are from Form EIA-782 and estimates before then were backcast as previously described. The national average backcast residential price is 1.4 cents per gallon lower than the previous series. However, State differences vary from -6.8 cents to +4.3 cents per gallon (for West Virginia and Minnesota, respectively) for the December 1982 reference month. The previous series was generally higher (18 of 23 States). The differences are accounted for by the varying tax rates among States, as well as the differences in respondents from the previous survey.

Pages 98 and 99. All of the data series shown on these pages were previously shown in the section and are not affected by changes in the petroleum price series.

The preceding discussion and the discontinued data series shown on pages 104 through 109 will be published in the *Monthly Energy Review* through the June 1984 issue. 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.

Price - Discontinued Series

FOB Cost of Crude Oil Imports[1]

		Libya	United Arab Emirates
		Dollars per barrel	
1976	**AVERAGE**	**12.55**	**11.94**
1977	**AVERAGE**	**13.90**	**12.83**
1978	**AVERAGE**	**13.75**	**13.24**
1979	**AVERAGE**	**22.43**	**19.58**
1980	**AVERAGE**	**36.41**	**NA**
1981	**AVERAGE**	**39.44**	**NA**
1982	January	35.69	NA
	February	34.64	NA
	March	34.21	NA
	April	[3]	NA
	May	[3]	NA
	June	[3]	NA
	July	[3]	NA
	August	[3]	NA
	September	[3]	NA
	October	[3]	NA
	November	[3]	NA
	December	[3]	NA
	AVERAGE	**35.12**	**NA**
1983	January	[3]	NA
	February	[3]	NA
	March	[3]	NA
	April	[3]	NA
	May	[3]	NA
	June	[3]	NA
	July	[3]	NA
	August	[3]	NA
	September	[3]	NA
	October	[3]	NA
	November	[3]	NA
	December	[3]	NA
	AVERAGE	**[3]**	**NA**

Landed Cost of Crude Oil Imports[2]

		Libya	United Arab Emirates
		Dollars per barrel	
1975	**AVERAGE**	**12.35**	**12.87**
1976	**AVERAGE**	**13.58**	**13.30**
1977	**AVERAGE**	**14.87**	**14.04**
1978	**AVERAGE**	**14.72**	**14.39**
1979	**AVERAGE**	**23.68**	**21.90**
1980	**AVERAGE**	**37.72**	**NA**
1981	**AVERAGE**	**40.92**	**NA**
1982	January	36.91	NA
	February	35.28	NA
	March	34.80	NA
	April	[3]	NA
	May	[3]	NA
	June	[3]	NA
	July	[3]	NA
	August	[3]	NA
	September	[3]	NA
	October	[3]	NA
	November	[3]	NA
	December	[3]	NA
	AVERAGE	**36.05**	**NA**
1983	January	[3]	NA
	February	[3]	NA
	March	[3]	NA
	April	[3]	NA
	May	[3]	NA
	June	[3]	NA
	July	[3]	NA
	August	[3]	NA
	September	[3]	NA
	October	[3]	NA
	November	[3]	NA
	December	[3]	NA
	AVERAGE	**[3]**	**NA**

The price series on this page have been discontinued. See the explanation beginning on page 102.

[1]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.
[2]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.
[3] No crude oil was imported.
NA = Not available.
Note: • Prices shown through December 1980 are for the month of reporting; prices since then are for the month of loading. Annual averages are the weighted average of the 12 monthly prices including those prices that were not published.
Sources: • Environmental Protection, Safety and Emergency Preparedness, 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report"; February 1979 through September 1982: ERA Form 51, "Transfer Pricing Report"; October 1982 forward: EP Form 51, "Monthly Foreign Crude Oil Transaction Report."

Price - Discontinued Series

Average No. 6 Residual Fuel Oil Prices

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

The price series on this page have been discontinued. See the explanation beginning on page 102.

Notes: • Geographic coverage is the 50 States and the District of Columbia.
• Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial, and residential accounts.
Sources: • EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

Price - Discontinued Series

Aviation Fuel

		Aviation Gasoline		Naphtha-Type[1]	Kerosene-Type	
		Wholesale[2]	Retail[2]	Retail[2]	Wholesale[2]	Retail[2]
		Cents per gallon, excluding tax				
1976	**AVERAGE**	**42.4**	**43.1**	**31.5**	**32.5**	**31.2**
1977	**AVERAGE**	**46.7**	**47.7**	**35.0**	**36.7**	**35.8**
1978	**AVERAGE**	**51.0**	[illegible]	[illegible]	**38.9**	**38.9**
1979	**AVERAGE**	**68.5**				
1980	**AVERAGE**	**107.2**				
1981	January	118.9				
	February	121.3				
	March	127.2				
	April	117.5				
	May	120.7				
	June	116.5				
	July	120.1				
	August	120.0				
	September	121.0				
	October	117.2				
	November	114.4				
	December	116.8				
	AVERAGE	**118.8**				
1982	January	122.4				
	February	122.0				
	March	117.0				
	April	113.4				
	May	109.6				
	June	114.7				
	July	120.4				
	August	117.7	132.6	[illegible]	[illegible]	[illegible]
	September	115.7	130.0	98.2	95.5	95.1
	October	116.6	131.5	98.5	98.4	95.8
	November	118.4	131.7	96.4	98.2	96.4
	December	119.6	130.3	94.0	93.7	95.6
	AVERAGE	**116.7**	**132.4**	**97.7**	**96.1**	**96.9**

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The price series on this page have been discontinued. See the explanation beginning on page 102.

[1]Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.
[2]Wholesale refers to the price of aviation fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

Price - Discontinued Series

		No. 2 Diesel Price Average[1]		No. 2 Heating Oil Price Average		Propane Price Average[2]	Butane Price Average[2]
		Wholesale[3]	Retail[3]	Wholesale	Retail	Wholesale[3]	Wholesale[3]
		Cents per gallon					
1976	**AVERAGE**	**31.9**	**34.7**	**32.6**	**40.6**	**20.6**	**21.9**
1977	**AVERAGE**	**36.1**	**39.3**	**36.9**	**46.0**	**25.0**	**25.4**
1978	**AVERAGE**	**37.1**	**40.2**	**38.7**	**49.4**	**24.0**	**23.0**
1979	**AVERAGE**	**58.2**	**62.4**	**53.0**	**65.6**	**29.5**	**45.8**
1980	**AVERAGE**	**81.2**	**87.3**	**82.2**	**97.8**	**42.4**	**62.9**
1981	**AVERAGE**	**98.5**	**106.2**	**102.6**	**120.5**	**47.2**	**60.4**
1982	January	98.0	105.3	101.5	122.0	43.1	51.8
	February	94.8	103.2	98.3	120.7	38.3	48.9
	March	90.2	98.0	91.3	115.3	35.7	49.6
	April	86.6	96.1	90.0	113.2	34.9	56.1
	May	89.1	97.6	95.1	114.3	35.4	65.6
	June	93.5	102.2	98.5	116.2	36.9	67.9
	July	93.4	101.1	98.6	115.8	39.7	69.7
	August	92.3	99.3	96.7	115.9	43.8	72.2
	September	92.4	99.8	97.7	115.2	49.5	77.4
	October	95.7	102.1	102.0	119.6	51.0	75.7
	November	97.3	104.5	101.5	121.6	53.2	76.1
	December	91.2	100.3	95.9	119.6	49.5	72.6
	AVERAGE	**92.7**	**100.5**	**97.4**	**118.6**	**43.3**	**64.8**
1983	January	NA	NA	NA	NA	NA	NA
	February	NA	NA	NA	NA	NA	NA
	March	NA	NA	NA	NA	NA	NA
	April	NA	NA	NA	NA	NA	NA
	May	NA	NA	NA	NA	NA	NA
	June	NA	NA	NA	NA	NA	NA
	July	NA	NA	NA	NA	NA	NA
	August	NA	NA	NA	NA	NA	NA
	September	NA	NA	NA	NA	NA	NA
	October	NA	NA	NA	NA	NA	NA
	November	NA	NA	NA	NA	NA	NA
	December	NA	NA	NA	NA	NA	NA
	AVERAGE	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

The price series on this page have been discontinued. See the explanation beginning on page 102.

[1]Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded and unbranded jobbers and commercial accounts. Retail refers to the price at which company-owned and operated retail dealers sell to customers.
[2]Wholesale refers to the price at which refiners, resellers, retailers, and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.
[3]Excludes tax.
NA=Not available.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • No. 2 diesel prices—EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."
•No. 2 heating oil (residential heating oil) prices—EIA, 1976 through October 1980: FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report"; November 1980 forward: EIA Form 9A, "No. 2. Distillate Price Monitoring Report."
•Propane and butane prices—EIA, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

Price - Discontinued Series

National Average Heating Oil Prices[1]

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

The price series on this page have been discontinued. See the explanation beginning on page 102.

[1]The survey and method used to derive data for March 1976 forward differ from those used for prior months. Data for January 1974 through February 1976 are derived from a survey of distributors, and prices and margins are computed as unweighted averages. The average distributor purchase price and average dealer margin for March 1976 forward are for distributors only, whereas the average selling price includes both refiners and distributors. Data for March 1976 forward are computed as sales weighted averages.
[2]Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.
NA=Not available.
Note: • Geographic coverage is the 50 States and the District of Columbia.
Sources: • EIA, 1976 through October 1980: FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report"; November 1980 forward: EIA Form 9A, "No. 2 Distillate Price Monitoring Report."

Price - Discontinued Series

Residential Heating Oil Prices by Region

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

The price series on this page have been discontinued. See the explanation beginning on page 102.

[1]Standard Federal Regions are defined as follows:
Region 1 —Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;
Region 2 —New York, New Jersey, Puerto Rico, Virgin Islands;
Region 3 —Pennsylvania, Maryland, West Virginia, Virginia, the District of Columbia, Delaware;
Region 4 —Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;
Region 5 —Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;
Region 6 —Texas, New Mexico, Oklahoma, Arkansas, Louisiana;
Region 7 —Kansas, Missouri, Iowa, Nebraska;
Region 8 —Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;
Region 9 —California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;
Region 10 —Washington, Oregon, Idaho, Alaska.
W = Value withheld to avoid disclosure of company data.
Sources: • EIA, January through October 1980: FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report" and EIA Form 9A, "No. 2 Distillate Price Monitoring Report"; November 1980 forward: EIA Form 9A, "No. 2 Distillate Price Monitoring Report."

International

Crude Oil Production

World crude oil production during April 1984 was 54.1 million barrels per day, down 20,000 barrels per day (0.04 percent) from the March 1984 level.

Organization of Petroleum Exporting Countries (OPEC) output during April 1984 averaged 18.1 million barrels per day, down 160,000 barrels per day from the level during the previous month. Average production by Arab members of OPEC was 10.7 million barrels per day, up 50,000 barrels per day from the March 1984 level. Saudi Arabia reported an increase in production of 280,000 barrels per day. Production in Kuwait and Qatar decreased by 175,000 and 55,000 barrels per day, respectively, while production levels in Algeria, Iraq, Libya, and the United Arab Emirates remained the same as in the previous month. Among non-Arab OPEC countries, production during April 1984 in Indonesia increased by 40,000 barrels per day. Production levels decreased in Nigeria and Iran during the month by 160,000 and 100,000 barrels per day, respectively. Venezuelan production remained the same as in the previous month.

Of the non-OPEC nations, Mexico and the United Kingdom reported increases in production of 60,000 and 15,000 barrels per day, respectively, during April 1984. The United States and Canada experienced decreases in production during the month of 30,000 and 5,000 barrels per day, respectively.

Petroleum Consumption

Preliminary petroleum consumption data for April 1984 were available for France, Italy, and the United States. In comparison to April 1983 levels, consumption in the United States and Italy increased by 792,000 and 195,000 barrels per day, respectively. Consumption in France decreased by 205,000 barrels per day compared to the level 1 year earlier.

Petroleum Stocks

Preliminary data for April 1984 indicate that petroleum stock levels were up compared to April 1983 levels in three of the five countries reporting. Petroleum stocks were up in the United States by 6.6 percent, in Japan by 0.5 percent, and in West Germany by 0.4 percent. In the United Kingdom, stocks decreased by 6.7 percent from the April 1983 level, while in Italy, the stock level remained the same.

Petroleum stocks for all Organization for Economic Cooperation and Development members stood at 3,150 million barrels on March 31, 1984 (latest data available), a decrease of 34 million barrels (1.1 percent) compared to stocks held on March 31, 1983.

Nuclear Electricity Production

In April 1984, the 20 non-Communist nations with significant nuclear power capacity generated 78.1 gross terawatt-hours (billion kilowatt-hours) of nuclear-based electricity. On a per-hour basis, this output was down 8.3 percent from March 1984 generation, but up 17.5 percent compared to the April 1983 output.

Koeberg-1, South Africa's first commercial nuclear powerplant, a 920-gross-megawatts-electric (MWe) pressurized water reactor (PWR), began commercial operation on April 16, 1984. In Italy, Trino Vercellese, a 270-gross-MWe PWR, which was taken off line in June 1979 for modifications, was returned to operation in April 1984. In the United States, Washington Public Power Supply System's WNP-2, a 1,154-gross-MWe PWR, received a Full Power License on April 13, 1984. With the addition of Koeberg-1, Trino Vercellese, and WNP-2, there were 255 operable power reactors in the non-Communist countries as of April 30, 1984, with a collective gross generating capacity of 178.2 gigawatts (million kilowatts). The 82 operable U.S. units accounted for 69.6 gross gigawatts (39.1 percent) of this capacity.

International

Crude Oil Production for Major Petroleum Producing Countries

		Algeria	Iraq	Kuwait[1]	Libya	Qatar	Saudi Arabia[1]	United Arab Emirates	Arab Members of OPEC[2]	Indonesia	Iran
		Thousand barrels per day									
1973	**AVERAGE**	**1,097**	**2,018**	**3,020**	**2,175**	**570**	**7,596**	**1,533**	**18,009**	**1,339**	**5,861**
1974	**AVERAGE**	**1,009**	**1,971**	**2,546**	**1,521**	**518**	**8,480**	**1,679**	**17,724**	**1,375**	**6,022**
1975	**AVERAGE**	**983**	**2,262**	**2,084**	**1,480**	**438**	**7,075**	**1,664**	**15,986**	**1,307**	**5,350**
1976	**AVERAGE**	**1,075**	**2,415**	**2,145**	**1,933**	**497**	**8,577**	**1,936**	**18,578**	**1,504**	**5,883**
1977	**AVERAGE**	**1,152**	**2,348**	**1,969**	**2,063**	**445**	**9,245**	**1,999**	**19,221**	**1,686**	**5,663**
1978	**AVERAGE**	**1,161**	**2,563**	**2,131**	**1,983**	**487**	**8,301**	**1,831**	**18,457**	**1,635**	**5,242**
1979	**AVERAGE**	**1,154**	**3,477**	**2,500**	**2,092**	**508**	**9,532**	**1,831**	**21,094**	**1,591**	**3,168**
1980	**AVERAGE**	**1,012**	**2,514**	**1,656**	**1,787**	**472**	**9,900**	**1,709**	**19,050**	**1,577**	**1,662**
1981	**AVERAGE**	**805**	**1,000**	**1,125**	**1,140**	**405**	**9,815**	**1,474**	**15,764**	**1,605**	**1,380**
1982	January	800	1,500	805	1,000	405	8,655	1,450	14,615	1,490	1,100
	February	700	1,500	840	600	375	8,440	1,375	13,830	1,450	1,200
	March	600	1,500	745	600	300	7,145	1,365	12,255	1,400	1,800
	April	600	900	680	700	230	6,630	1,215	10,955	1,245	1,800
	May	620	750	720	800	320	5,870	1,125	10,205	1,240	2,500
	June	650	750	840	1,000	410	6,670	1,210	11,530	1,305	2,500
	July	650	800	870	1,300	275	6,170	1,160	11,225	1,305	2,500
	August	700	800	920	1,300	340	5,920	1,155	11,135	1,240	2,200
	September	800	800	885	1,400	285	5,685	1,155	11,010	1,300	2,700
	October	800	800	860	1,700	380	5,660	1,155	11,355	1,370	2,700
	November	800	800	915	1,700	310	5,615	1,155	11,295	1,400	2,700
	December	800	800	850	1,750	305	5,250	1,155	10,910	1,360	2,800
	AVERAGE	**710**	**972**	**827**	**1,158**	**329**	**6,470**	**1,214**	**11,680**	**1,339**	**2,214**
1983	January	700	850	780	1,100	255	4,950	1,060	9,695	1,225	2,700
	February	600	850	895	900	200	3,510	1,060	8,015	1,015	2,400
	March	600	900	965	900	170	3,910	1,035	8,480	1,180	2,200
	April	700	950	880	1,000	260	3,930	1,145	8,865	1,400	2,000
	May	600	1,000	1,030	1,100	275	4,725	1,175	9,905	1,400	2,300
	June	700	1,000	920	1,100	300	4,620	1,180	9,820	1,400	2,500
	July	700	1,050	1,085	1,100	300	5,535	1,175	10,945	1,490	2,800
	August	700	1,100	1,180	1,100	265	5,930	1,185	11,460	1,490	2,500
	September	700	1,050	1,375	1,150	310	6,025	1,185	11,795	1,470	2,700
	October	700	1,100	1,305	1,150	320	6,005	1,165	11,745	1,520	2,400
	November	700	1,150	1,265	1,150	460	5,915	1,195	11,835	1,560	2,300
	December	700	1,050	1,075	1,150	420	5,825	1,195	11,415	1,440	2,300
	AVERAGE	**675**	**1,005**	**1,065**	**1,075**	**295**	**5,085**	**1,145**	**10,345**	**1,385**	**2,425**
1984	January	650	1,150	1,080	1,100	440	5,130	1,200	10,750	1,470	2,000
	February	600	1,000	1,235	1,100	340	5,035	1,200	10,510	1,575	2,350
	March	600	1,200	1,290	1,100	380	4,840	1,205	10,615	1,560	2,400
	April	600	1,200	1,115	1,100	325	5,120	1,205	10,665	1,600	2,300

[1]Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In April 1984, total production in this region amounted to approximately 435,000 barrels per day.
[2]Arab members of the Organization of Petroleum Exporting Countries (OPEC) include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[3]OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.
Footnotes continued on following page.

International

Crude Oil Production for Major Petroleum Producing Countries (continued)

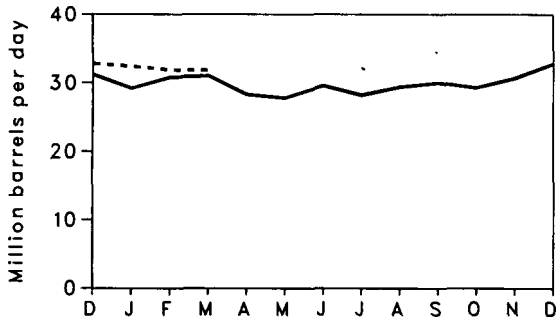
		Nigeria	Vene-zuela	Total OPEC[3]	Canada	Mexico	United Kingdom	United States	China	USSR	Other[4]	World
						Thousand barrels per day						
1973	**AVERAGE**	**2,054**	**3,366**	**30,989**	**1,800**	**465**	**2**	**9,208**	**1,090**	**8,465**	**3,655**	**55,674**
1974	**AVERAGE**	**2,255**	**2,976**	**30,729**	**1,684**	**571**	**2**	**8,774**	**1,315**	**9,000**	**3,777**	**55,852**
1975	**AVERAGE**	**1,783**	**2,346**	**27,155**	**1,439**	**705**	**12**	**8,375**	**1,490**	**9,625**	**4,079**	**52,880**
1976	**AVERAGE**	**2,067**	**2,294**	**30,738**	**1,295**	**831**	**245**	**8,132**	**1,670**	**10,143**	**4,258**	**57,312**
1977	**AVERAGE**	**2,085**	**2,238**	**31,298**	**1,320**	**981**	**768**	**8,245**	**1,874**	**10,682**	**4,517**	**59,685**
1978	**AVERAGE**	**1,897**	**2,166**	**29,805**	**1,313**	**1,209**	**1,082**	**8,707**	**2,082**	**11,185**	**4,674**	**60,057**
1979	**AVERAGE**	**2,302**	**2,356**	**30,928**	**1,496**	**1,461**	**1,568**	**8,552**	**2,122**	**11,460**	**4,948**	**62,535**
1980	**AVERAGE**	**2,055**	**2,168**	**26,891**	**1,435**	**1,936**	**1,622**	**8,597**	**2,114**	**11,773**	**5,170**	**59,538**
1981	**AVERAGE**	**1,433**	**2,102**	**22,646**	**1,285**	**2,313**	**1,811**	**8,572**	**2,012**	**11,909**	**5,352**	**55,900**
1982	January	1,765	1,985	21,285	1,218	2,315	1,905	8,509	2,020	11,900	5,488	54,640
	February	1,395	1,730	19,950	1,275	2,550	1,955	8,702	2,020	11,900	5,558	53,910
	March	945	1,870	18,615	1,182	2,545	2,000	8,667	2,020	11,900	5,341	52,270
	April	890	1,490	16,725	928	2,780	2,110	8,591	2,025	11,900	5,481	50,540
	May	1,310	1,480	17,075	1,114	2,715	2,085	8,683	2,025	11,900	5,528	51,125
	June	1,645	1,500	18,845	1,330	2,790	2,140	8,646	2,025	11,900	5,489	53,165
	July	1,280	1,800	18,450	1,235	2,790	2,120	8,658	2,025	12,000	5,507	52,785
	August	1,105	2,000	18,045	1,300	2,795	2,125	8,634	2,025	12,000	5,551	52,475
	September	1,170	1,990	18,515	1,300	2,830	2,175	8,701	2,025	12,000	5,499	53,045
	October	1,480	2,160	19,430	1,310	2,900	2,165	8,701	2,040	12,410	5,489	54,445
	November	1,355	2,300	19,415	1,420	2,940	2,220	8,697	2,040	12,410	5,683	54,825
	December	1,215	2,325	18,985	1,300	3,025	2,315	8,598	2,040	12,410	5,732	54,405
	AVERAGE	**1,295**	**1,891**	**18,784**	**1,241**	**2,749**	**2,117**	**8,649**	**2,029**	**12,000**	**5,593**	**53,162**
1983	January	880	2,085	16,975	1,230	2,980	2,135	R8,697	2,085	12,410	R5,888	R52,400
	February	675	1,780	14,270	1,360	2,295	2,315	R8,758	2,085	12,410	R6,002	R49,495
	March	905	2,080	15,215	1,395	2,415	2,265	R8,700	2,085	12,410	R5,940	R50,425
	April	1,150	1,715	15,525	1,260	2,670	2,170	R8,776	2,085	12,000	6,094	R50,580
	May	1,625	1,685	17,285	1,320	2,795	2,235	R8,631	2,085	11,900	R6,084	R52,335
	June	1,535	1,690	17,345	1,505	2,775	2,045	R8,667	2,085	11,900	R6,178	R52,500
	July	1,710	1,695	19,050	1,480	2,685	2,280	R8,636	2,105	11,900	R6,174	R54,310
	August	1,300	1,730	18,895	1,420	2,775	2,290	R8,679	2,105	11,900	R6,076	R54,140
	September	1,220	1,725	19,295	1,435	2,735	2,385	R8,784	2,105	11,900	R6,146	R54,785
	October	1,290	1,740	19,095	1,390	2,660	2,355	R8,771	2,105	11,900	R6,269	R54,545
	November	1,245	1,770	19,095	1,415	2,730	2,490	R8,770	2,085	11,900	R6,380	R54,865
	December	1,310	1,775	18,640	1,400	2,690	2,530	R8,397	2,085	11,900	6,423	R54,065
	AVERAGE	**1,240**	**1,790**	**17,575**	**1,385**	**2,685**	**2,290**	**R8,688**	**2,090**	**12,035**	**R6,137**	**R52,885**
1984	January	1,360	1,810	17,780	1,310	2,670	2,515	8,659	R2,190	11,900	6,586	R53,610
	February	1,565	1,815	18,205	1,440	2,755	2,585	8,726	R2,190	11,900	6,654	R54,455
	March	1,460	R1,815	R18,245	1,455	2,710	2,455	8,718	R2,190	11,750	R6,567	R54,090
	April	1,300	1,815	18,085	1,450	2,770	2,470	8,688	2,190	11,750	6,667	54,070

Footnotes continued.
[4]Other is a calculated total derived from the difference between world production and the nations represented above.
R = Revised data.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.
Sources: • See the last page of this section.

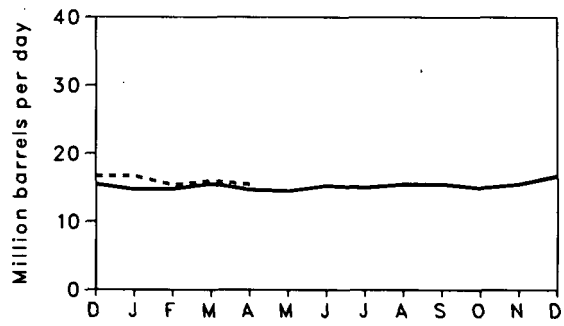
International

Petroleum Consumption

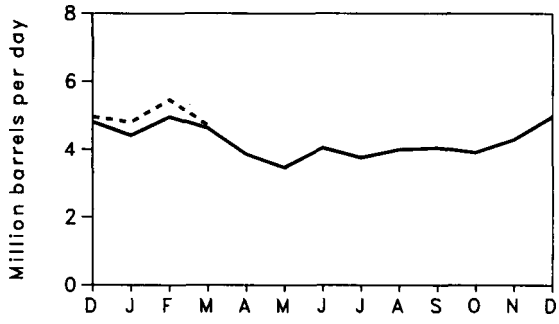
Total IEA



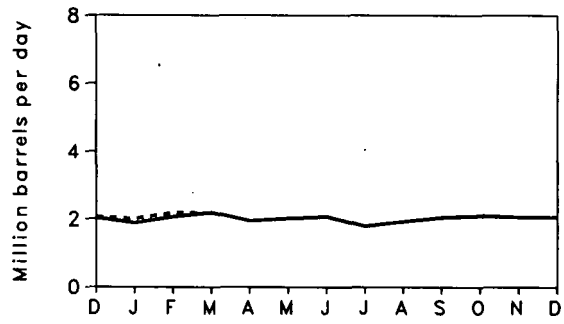
United States



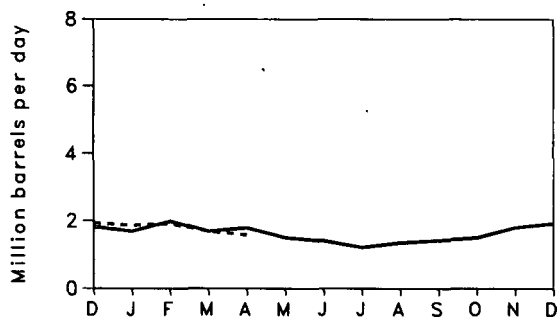
Japan*



West Germany



France**



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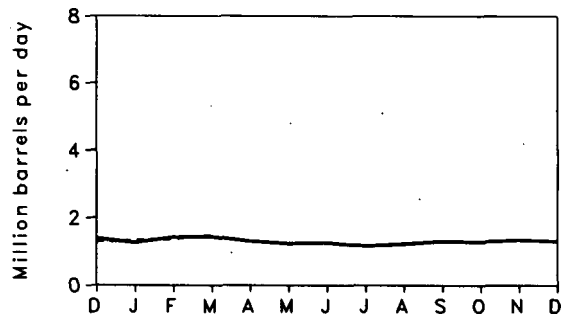

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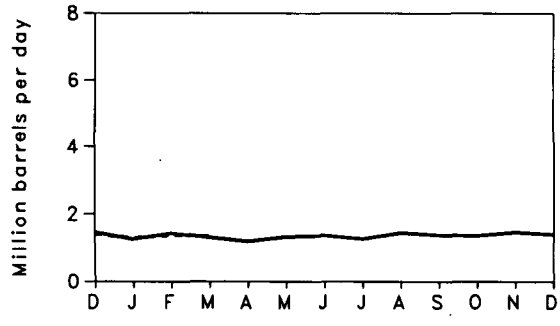
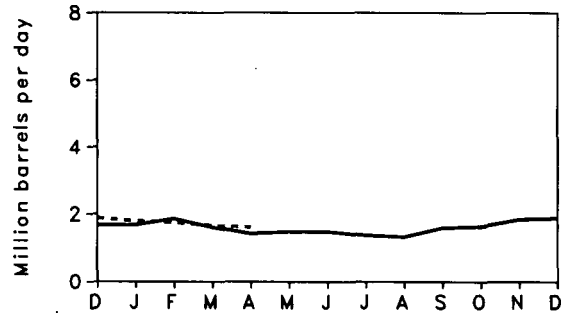


Italy***



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

1983 ----- 1984

International

Petroleum Consumption for Major Non-Communist Industrialized Countries[1]

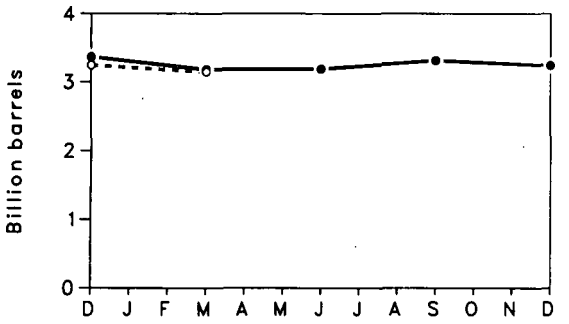
		Canada	France[2]	Italy	Japan	United Kingdom	United States	West Germany	Other IEA[3]	Total IEA[4]
					Thousand barrels per day					
1973	**AVERAGE**	**1,597**	**2,219**	**1,525**	**5,000**	**1,958**	**17,308**	**2,693**	**4,069**	**34,150**
1974	**AVERAGE**	**1,630**	**2,094**	**1,521**	**4,872**	**1,829**	**16,653**	**2,408**	**4,047**	**32,960**
1975	**AVERAGE**	**1,595**	**1,925**	**1,468**	**4,568**	**1,633**	**16,322**	**2,319**	**3,905**	**31,810**
1976	**AVERAGE**	**1,647**	**2,075**	**1,503**	**4,786**	**1,601**	**17,461**	**2,507**	**4,265**	**33,770**
1977	**AVERAGE**	**1,661**	**1,973**	**1,476**	**5,015**	**1,655**	**18,431**	**2,478**	**4,214**	**34,930**
1978	**AVERAGE**	**1,701**	**2,077**	**1,551**	**5,115**	**1,683**	**18,847**	**2,596**	**4,387**	**35,880**
1979	**AVERAGE**	**1,766**	**2,107**	**1,607**	**5,173**	**1,690**	**18,513**	**2,664**	**4,487**	**35,900**
1980	**AVERAGE**	**1,730**	**1,965**	**1,602**	**4,680**	**1,420**	**17,056**	**2,360**	**4,152**	**33,000**
1981	**AVERAGE**	**1,615**	**1,745**	**1,705**	**4,445**	**1,325**	**16,058**	**2,120**	**4,032**	**31,300**
1982	January	1,530	1,770	1,800	4,645	1,400	16,124	1,935	3,766	31,200
	February	1,715	1,815	1,795	5,275	1,465	16,001	2,230	4,219	32,700
	March	1,510	1,940	1,805	4,640	1,560	15,560	2,340	4,185	31,600
	April	1,350	1,730	1,560	4,015	1,340	16,046	2,125	3,964	30,400
	May	1,325	1,580	1,510	3,515	1,210	14,847	1,770	3,623	27,800
	June	1,430	1,505	1,520	3,780	1,280	14,998	2,115	3,877	29,000
	July	1,390	1,455	1,475	3,995	1,235	14,821	1,955	3,729	28,600
	August	1,500	1,295	1,410	3,705	1,170	14,839	2,105	3,671	28,400
	September	1,410	1,510	1,630	3,865	1,295	15,022	2,035	4,043	29,300
	October	1,335	1,605	1,555	3,830	1,305	14,859	1,922	3,894	28,700
	November	1,470	1,735	1,650	4,355	1,415	15,009	2,005	4,196	30,100
	December	1,460	1,815	1,670	4,810	1,380	15,487	2,025	4,368	31,200
	AVERAGE	**1,450**	**1,645**	**1,614**	**4,196**	**1,337**	**15,296**	**2,045**	**3,962**	**29,900**
1983	January	1,260	1,685	1,675	4,410	1,260	R14,722	1,875	R3,998	R29,200
	February	1,430	1,985	1,865	4,950	1,415	R14,792	2,060	R4,288	30,800
	March	1,305	1,685	1,605	4,625	1,430	R15,541	2,180	R4,314	R31,000
	April	1,190	1,785	1,415	3,850	1,300	R14,692	1,940	R3,913	R28,300
	May	1,320	1,500	1,470	3,460	1,230	R14,505	2,010	R3,805	R27,800
	June	1,360	1,405	1,475	4,040	1,255	R15,289	2,060	R4,121	R29,600
	July	1,265	1,210	1,365	3,745	1,160	R15,019	1,785	R3,861	R28,200
	August	1,440	1,350	1,315	3,990	1,220	R15,480	1,920	R4,035	R29,400
	September	1,380	1,415	1,590	4,040	1,300	R15,506	2,040	R4,144	R30,000
	October	1,360	1,495	1,625	3,900	1,280	R14,962	2,090	R4,083	29,300
	November	1,460	1,800	1,840	4,290	1,340	R15,500	2,055	R4,215	R30,700
	December	1,400	1,930	1,880	4,960	1,300	R16,726	2,050	R4,484	32,800
	AVERAGE	**1,345**	**1,600**	**1,590**	**4,185**	**1,290**	**R15,231**	**2,005**	**R4,054**	**29,700**
1984	January	1,300	1,860	1,800	4,800	1,310	16,726	2,000	4,464	32,400
	February	1,370	1,915	1,750	R5,450	1,380	15,389	2,180	R4,381	R31,900
	March	1,350	R1,680	1,660	4,710	1,470	16,017	2,170	4,423	31,800
	April	NA	1,580	1,610	NA	NA	15,484	NA	NA	NA

[1]These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.
[2]Not a member of the International Energy Agency (IEA).
[3]Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.
[4]The 21 signatory nations of the IEA are listed in Note 1 on the last page of this section.
R = Revised data. NA = Not available.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Data for 1982 through 1984 are preliminary.
Sources: • See the last page of this section.

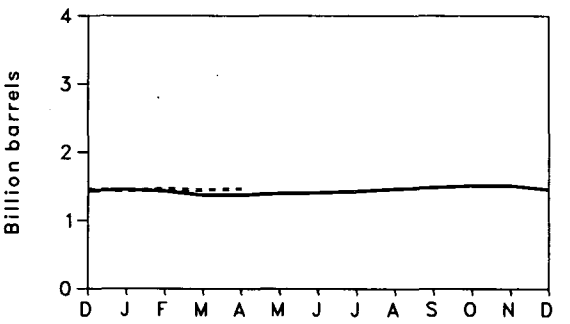
International

Petroleum Stocks

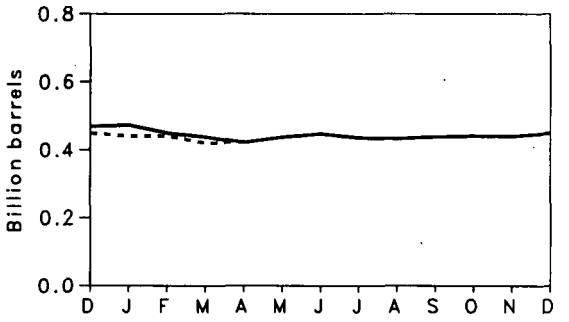
Total OECD



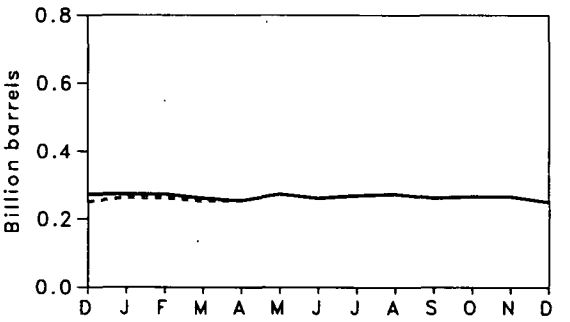
United States



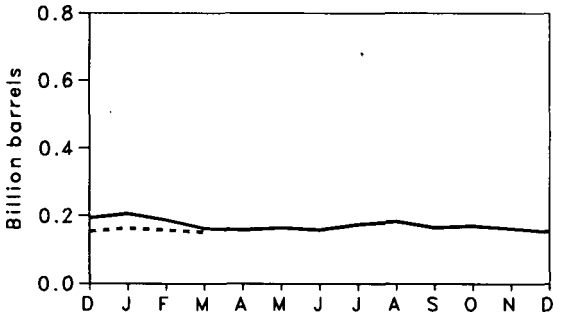
Japan



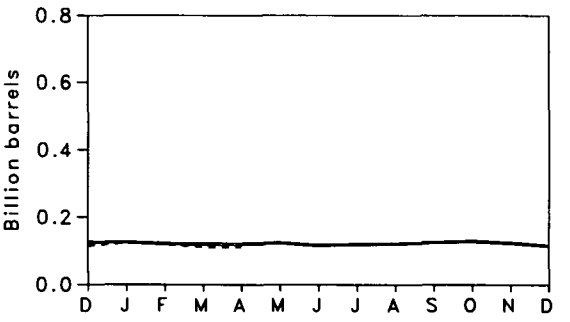
West Germany



France



United Kingdom



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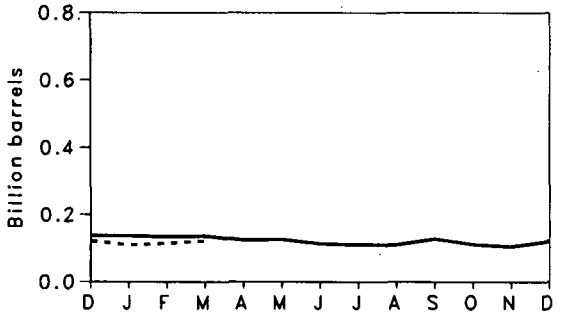
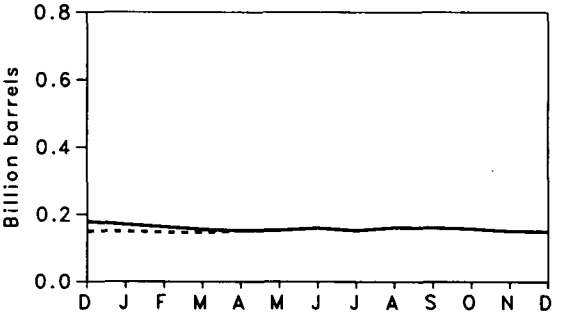


Italy



●——● 1983 ○- - -○ 1984

International

Petroleum Stocks for Major Non-Communist Industrialized Countries at End of Period[1]

		Canada	France	Italy	Japan	United Kingdom	United States	West Germany	Other OECD[2]	Total OECD[3]
						Million barrels				
1973		**149**	**203**	**NA**	**303**	**156**	**1,008**	**NA**	**NA**	**NA**
1974		**164**	**240**	**169**	**370**	**161**	**1,074**	**215**	**NA**	**NA**
1975		**167**	**239**	**143**	**375**	**164**	**1,133**	**190**	**NA**	**NA**
1976		**156**	**231**	**142**	**394**	**165**	**1,112**	**214**	**NA**	**NA**
1977		**167**	**239**	**161**	**409**	**148**	**1,312**	**225**	**524**	**3,185**
1978		**144**	**201**	**154**	**413**	**157**	**1,278**	**238**	**512**	**3,097**
1979		**150**	**226**	**163**	**460**	**169**	**1,341**	**272**	**594**	**3,375**
1980		**164**	**243**	**170**	**495**	**168**	**1,392**	**319**	**636**	**3,587**
1981		**161**	**214**	**167**	**482**	**143**	**1,484**	**297**	**583**	**3,531**
1982	January	163	222	165	464	NA	1,456	280	NA	NA
	February	156	215	162	460	NA	1,428	280	NA	NA
	March	149	198	158	480	133	1,392	279	549	3,338
	April	148	201	154	483	NA	1,346	312	NA	NA
	May	147	193	154	484	NA	1,347	310	NA	NA
	June	144	192	156	478	141	1,360	287	566	3,324
	July	130	205	160	460	134	1,393	286	NA	NA
	August	137	207	179	470	139	1,408	311	NA	NA
	September	145	208	179	472	134	1,414	280	570	3,402
	October	135	212	177	471	135	1,432	279	NA	NA
	November	138	213	174	472	130	1,455	280	NA	NA
	December	136	193	179	469	125	1,430	273	558	3,363
1983	January	136	206	170	473	125	R1,452	274	NA	NA
	February	133	187	163	450	121	R1,430	274	NA	NA
	March	135	162	155	438	120	R1,372	262	R540	R3,184
	April	123	158	151	422	120	R1,374	255	NA	NA
	May	125	164	152	437	123	R1,394	274	NA	NA
	June	113	158	159	447	116	R1,405	262	531	R3,191
	July	110	174	151	436	119	R1,426	270	NA	NA
	August	110	183	161	433	121	R1,460	274	NA	NA
	September	127	165	160	438	125	R1,485	263	R550	R3,313
	October	111	170	157	441	129	R1,508	267	NA	NA
	November	105	162	150	440	124	1,510	267	NA	NA
	December	121	153	149	449	116	R1,454	251	550	R3,243
1984	January	109	163	149	441	125	1,430	264	NA	NA
	February	114	157	146	441	121	1,464	263	NA	NA
	March	121	151	145	420	113	1,444	253	503	3,150
	April	NA	NA	151	424	112	1,465	256	NA	NA

[1]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.
[2]"Other OECD" includes Organization for Economic Cooperation and Development (OECD) members not shown.
[3]The members of OECD are listed in Note 2 on the last page of this section.
R=Revised data. NA=Not available.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
• In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported. Using the new basis, the end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,420 in 1980, and 1,462 in 1982.
Sources: • See the last page of this section.

International

Nuclear Electricity Generation by Non-Communist Countries[1]

		Argentina	Belgium	Brazil	Canada	Finland	France	India	Italy	Japan	Netherlands	Pakistan
						Billion gross kilowatt-hours						
1973	**TOTAL**	**0**	**0**	**0**	**18.3**	**0**	**11.6**	**1.9**	**3.1**	**9.4**	**1.1**	**0.5**
1974	**TOTAL**	**1.0**	**0.1**	**0**	**15.4**	**0**	**14.7**	**2.5**	**3.4**	**18.1**	**3.3**	**0.6**
1975	**TOTAL**	**2.5**	**6.8**	**0**	**13.2**	**0**	**18.3**	**2.5**	**3.8**	**22.2**	**3.3**	**0.5**
1976	**TOTAL**	**2.6**	**10.0**	**0**	**18.0**	**0**	**15.8**	**3.2**	**3.8**	**36.7**	**3.9**	**0.5**
1977	**TOTAL**	**1.6**	**11.9**	**0**	**26.8**	**2.7**	**17.9**	**2.8**	**3.4**	**28.1**	**3.7**	**0.3**
1978	**TOTAL**	**2.9**	**12.5**	**0**	**32.9**	**3.3**	**30.5**	**2.3**	**4.4**	**53.2**	**4.1**	**0.2**
1979	**TOTAL**	**2.7**	**11.4**	**0**	**38.4**	**6.7**	**39.9**	**3.2**	**2.6**	**62.0**	**3.5**	**(s)**
1980	**TOTAL**	**2.3**	**12.5**	**0**	**40.4**	**7.0**	**61.2**	**2.9**	**2.2**	**82.8**	**4.2**	**0.1**
1981	**TOTAL**	**2.8**	**12.8**	**0**	**43.3**	**14.5**	**105.2**	**3.1**	**2.7**	**86.0**	**3.7**	**0.2**
1982	January	0.3	1.3	0	4.1	1.5	11.0	0.2	0.6	8.1	0.4	(s)
	February	0.2	0.8	0	3.2	1.5	10.0	0.2	0.7	7.7	0.1	(s)
	March	0.3	0.5	0	3.5	1.7	10.6	0.2	0.7	9.2	(s)	0
	April	0.3	1.0	(s)	3.7	1.6	10.1	0.2	0.5	9.7	0.3	0
	May	0.3	1.3	(s)	3.1	1.3	9.0	0.2	0.7	9.5	0.4	0
	June	0.3	1.2	(s)	3.3	0.9	7.8	0.1	0.6	9.5	0.4	0
	July	0.2	1.3	0	3.6	1.2	8.3	0.1	0.6	9.8	0.4	0
	August	0	1.2	0	3.9	1.5	7.0	0.2	0.4	9.7	0.4	(s)
	September	(s)	0.7	0	3.2	1.5	7.2	0.1	0.6	8.0	0.4	(s)
	October	0	1.7	0	4.0	1.4	6.6	0.2	0.6	7.5	0.4	(s)
	November	(s)	1.8	0	3.3	1.3	8.3	0.3	0.3	7.8	0.4	0
	December	0.2	1.8	0	3.8	1.3	13.0	0.2	0.5	8.1	0.4	(s)
	TOTAL	**1.9**	**15.6**	**0.1**	**42.6**	**16.5**	**108.9**	**2.2**	**6.8**	**104.5**	**3.9**	**0.1**
1983	January	0.2	1.9	0	4.3	1.7	13.8	0.2	0.2	8.0	0.4	(s)
	February	0.2	1.4	0	4.5	1.5	10.9	0.1	0.1	6.8	(s)	(s)
	March	0.2	0.7	(s)	4.6	1.6	11.3	0.2	0.1	7.9	(s)	(s)
	April	0.2	1.6	(s)	4.3	1.5	10.5	0.2	0.1	8.4	0.2	(s)
	May	0.2	2.5	0	3.9	1.2	9.6	0.3	0.7	9.2	0.3	(s)
	June	0.2	2.5	0	4.4	1.0	9.3	0.3	0.7	9.1	0.4	(s)
	July	0.3	2.5	0	4.8	1.3	11.0	0.2	0.7	9.6	0.4	0
	August	0.1	2.4	0	3.8	1.6	12.1	0.3	0.5	10.5	0.4	(s)
	September	0.2	2.2	0	4.4	1.5	12.4	0.3	0.6	10.0	0.4	(s)
	October	0.2	2.2	0	4.7	1.4	13.0	0.3	0.6	10.1	0.4	(s)
	November	0.2	2.0	(s)	4.2	1.5	13.4	0.2	0.7	8.9	0.4	(s)
	December	0.2	2.1	0.1	5.0	1.7	16.8	0.3	0.7	9.6	0.4	(s)
	TOTAL	**2.5**	**24.1**	**0.2**	**53.0**	**17.4**	**144.2**	**2.9**	**5.8**	**108.3**	**3.6**	**0.2**
1984	January	0.2	2.7	(s)	5.0	1.7	18.0	0.2	0.4	9.7	0.3	(s)
	February	0.2	2.3	0.2	4.6	1.6	17.1	0.2	0.6	8.8	0.4	0
	March	0.2	1.9	0.1	5.1	1.7	17.8	0.2	0.7	8.2	0.2	0
	April	0.2	2.4	(s)	4.3	1.6	15.4	0.2	0.3	8.2	0.2	(s)

[1]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.
[2]The United Kingdom assesses generation at 4-, 5- or 6-week intervals, rather than by calendar month.
(s)=Less than 0.05 billion gross kilowatt-hours.
Footnotes continued on following page.

International

Nuclear Electricity Generation by Non-Communist Countries[1] (continued)

		South Africa	South Korea	Spain	Sweden	Switzerland	Taiwan	United Kingdom[2]	West Germany	Non-Communist World Excluding U.S.	United States	Total Non-Communist World
		Billion gross kilowatt-hours										
1973	**TOTAL**	**0**	**0**	**6.5**	**2.1**	**6.2**	**0**	**28.0**	**11.9**	**100.7**	**88.0**	**188.7**
1974	**TOTAL**	**0**	**0**	**7.2**	**1.6**	**7.0**	**0**	**34.0**	**12.0**	**121.1**	**104.5**	**225.6**
1975	**TOTAL**	**0**	**0**	**7.5**	**12.0**	**7.7**	**0**	**30.5**	**21.7**	**152.7**	**181.7**	**334.4**
1976	**TOTAL**	**0**	**0**	**7.6**	**16.0**	**7.9**	**0**	**36.8**	**24.5**	**187.3**	**201.8**	**389.1**
1977	**TOTAL**	**0**	**0.1**	**6.5**	**19.9**	**8.1**	**0.1**	**38.1**	**35.8**	**207.8**	**263.3**	**471.0**
1978	**TOTAL**	**0**	**2.3**	**7.6**	**23.8**	**8.3**	**2.7**	**36.7**	**35.9**	**263.6**	**292.7**	**556.3**
1979	**TOTAL**	**0**	**3.2**	**6.7**	**21.0**	**11.8**	**6.3**	**38.5**	**42.2**	**300.1**	**270.6**	**570.7**
1980	**TOTAL**	**0**	**3.5**	**5.2**	**26.7**	**14.3**	**8.2**	**37.2**	**43.7**	**354.4**	**265.4**	**619.8**
1981	**TOTAL**	**0**	**2.9**	**9.4**	**37.7**	**15.2**	**10.7**	**38.9**	**53.4**	**442.4**	**288.5**	**730.9**
1982	January	0	0.4	1.0	4.0	1.5	0.8	3.4	5.9	44.5	27.1	71.6
	February	0	0.4	0.9	3.3	1.3	1.0	3.5	5.4	40.0	21.3	61.3
	March	0	0.4	0.5	3.8	1.5	1.0	4.1	5.3	43.2	24.0	67.1
	April	0	0.2	0.4	3.8	1.4	0.8	3.3	5.3	42.5	22.8	65.3
	May	0	0	0.5	2.5	1.2	0.8	2.6	5.6	39.0	22.8	61.8
	June	0	(s)	0.7	1.9	0.6	1.0	3.3	4.2	35.6	25.3	60.9
	July	0	0.3	0.6	1.2	0.9	1.2	3.3	4.5	37.6	26.8	64.4
	August	0	0.4	0.7	2.0	1.0	1.2	3.7	4.5	37.7	26.4	64.1
	September	0	0.4	0.7	3.7	1.2	1.3	4.2	5.4	38.6	26.7	65.3
	October	0	0.4	1.0	4.2	1.5	1.4	3.7	5.2	39.8	25.4	65.3
	November	0	0.4	0.9	4.0	1.4	1.1	3.8	5.8	41.0	24.2	65.3
	December	0	0.4	0.9	4.2	1.5	1.4	5.1	6.5	49.2	25.8	75.0
	TOTAL	**0**	**3.8**	**8.8**	**38.8**	**15.0**	**13.1**	**44.1**	**63.4**	**489.9**	**298.6**	**788.5**
1983	January	0	0.5	1.0	4.2	1.5	1.5	4.3	6.5	50.0	27.4	77.4
	February	0	0.4	0.9	3.7	1.4	0.8	4.3	5.6	42.7	23.8	66.5
	March	0	0.6	0.9	4.1	1.5	1.8	4.9	6.0	46.7	25.0	71.7
	April	0	0.4	0.8	3.3	1.5	1.7	4.3	4.0	43.1	23.4	66.5
	May	0	0.2	0.4	2.4	1.2	2.0	3.4	2.9	40.5	23.9	64.5
	June	0	0.7	0.6	2.4	0.5	2.0	3.9	4.2	42.4	25.7	68.1
	July	0	0.7	0.6	1.6	1.2	1.6	3.3	5.1	44.9	27.3	72.2
	August	0	1.1	1.0	2.7	1.0	1.4	3.7	4.6	47.3	27.9	75.1
	September	0	1.1	1.0	3.0	1.4	1.2	4.4	6.0	50.1	26.4	76.5
	October	0	0.8	1.1	3.6	1.5	1.6	3.7	7.6	52.9	27.6	80.5
	November	0	1.2	1.1	4.5	1.4	1.6	3.9	7.1	52.5	26.6	79.1
	December	0	1.3	1.4	5.0	1.5	1.7	5.5	6.2	59.4	28.6	87.9
	TOTAL	**0**	**9.0**	**10.7**	**40.5**	**15.5**	**18.9**	**50.0**	**65.8**	**572.5**	**313.6**	**886.1**
1984	January	0	1.3	1.5	5.3	1.5	1.7	4.4	6.9	60.9	30.8	91.7
	February	0	1.2	1.5	5.0	1.4	1.8	4.6	7.4	58.8	29.4	88.2
	March	0	1.0	1.4	5.4	1.5	2.0	4.8	7.1	59.5	28.6	88.1
	April	0.1	0.9	1.3	4.5	1.4	1.8	4.2	6.4	53.4	24.7	78.1

South Africa has been added to this table since commercial operation of its first nuclear-based electricity generator began in April.

Footnotes continued.
Notes: • U.S. geographic coverage is the 50 States and the District of Columbia.
• Totals may not equal sum of components due to independent rounding.
Sources: • See the last page of this section.

Notes and Sources for the International Section

Notes

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

Sources

Crude Oil Production: • 1973-1982 annual data: Energy Information Administration, *1982 International Energy Annual.*
• U.S. annual and monthly data: Energy Information Administration, *Petroleum Supply Monthly.*
• 1982-1984 monthly data (except U.S. and World): Central Intelligence Agency, "International Energy Statistical Review," and other industry sources.
• 1982-1984 monthly data for World: Sum of data for all countries using above sources.
Petroleum Consumption: • Central Intelligence Agency, "International Energy Statistical Review" (except the United States).
• United States data: Energy Information Administration, *Petroleum Supply Monthly.*
• IEA totals for latest months are Energy Information Administration estimates.
Petroleum Stocks: • United States data: Energy Information Administration, *Petroleum Supply Monthly.* • Other OECD data: OECD, *Quarterly Oil Statistics;* Comite Professionnel du Petrole, *Bulletin Mensuel.* • *Total OECD: Sum of data for all OECD member countries using above sources.*
Nuclear Electricity Generation: • *Nucleonics Week.*

Conversion Factors

Approximate Heat Content

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

[1] 60 percent butane and 40 percent propane.
[2] 70 percent ethane and 20 percent propane.

Units of Measure

Weight

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

Conversion Factors for Crude Oil (Average Gravity)

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

Conversion Factors for Uranium

1 short ton (U_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

Price Indexes, 1972 = 100.0

	Gross National Product Implicit Price Deflator	Consumer Price Index, All Urban Consumers, All Items
1972	100.00	100.0
1973	105.75	106.2
1974	115.08	117.9
1975	125.79	128.7
1976	132.34	136.1
1977	140.05	144.9
1978	150.42	155.9
1979	163.42	173.5
1980	178.42	197.0
1981	195.14	217.4
1982	206.88	230.7
1983	215.67	238.1

Sources: Gross National Product Implicit Price Deflator—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business.*
Consumer Price Index, All Urban Consumers, All Items—1967 = 100.0 from U.S. Department of Labor, Bureau of Labor Statistics. Rebased to 1972 = 100.0 by Energy Information Administration.

Approximate Heat Content of Fuels

	Units	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983‡
Coal												
Production	Million Btu/short ton	23.27	22.96	22.81	22.85	22.49	22.17	22.38	22.35	22.25	22.20	22.02
Consumption	Million Btu/short ton	22.94	22.56	22.39	22.39	22.14	21.93	22.01	21.87	21.65	21.63	21.55
Non-utility	Million Btu/short ton	24.48	24.38	24.35	24.45	24.33	24.12	24.23	24.35	24.15	23.92	23.80
Electric utility	Million Btu/short ton	22.24	21.78	21.64	21.68	21.47	21.27	21.37	21.29	21.08	21.20	21.16
Imports	Million Btu/short ton	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Exports	Million Btu/short ton	26.59	26.70	26.56	26.60	26.55	26.48	26.55	26.28	26.08	26.22	26.29
Anthracite												
Production	Million Btu/short ton	23.17	22.56	23.39	22.77	23.18	23.52	23.59	23.35	23.69	23.69	23.75
Consumption	Million Btu/short ton	22.71	21.95	21.74	22.15	22.69	22.97	22.70	22.16	22.10	23.00	22.80
Non-utility	Million Btu/short ton	24.34	23.75	23.65	23.84	24.99	25.17	25.20	23.74	25.12	25.37	25.20
Electric utility*	Million Btu/short ton	17.92	17.20	17.06	17.53	17.24	17.10	17.45	17.65	18.17	18.16	18.15
Imports and exports	Million Btu/short ton	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40
Bituminous coal and lignite												
Production	Million Btu/short ton	23.267	22.970	22.802	22.849	22.482	22.157	22.374	22.343	22.243	22.188	22.015
Consumption	Million Btu/short ton	22.937	22.564	22.402	22.393	22.142	21.921	22.014	21.874	21.645	21.624	21.547
Residential and commercial	Million Btu/short ton	22.887	22.523	22.258	22.819	22.594	22.078	21.884	22.488	22.191	22.373	22.300
Coke plants	Million Btu/short ton	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000
Other industrial & transp.	Million Btu/short ton	22.585	22.420	22.439	22.528	22.290	22.175	22.436	22.690	22.572	22.694	22.650
Electric utility	Million Btu/short ton	22.260	21.800	21.660	21.690	21.480	21.280	21.380	21.300	21.090	21.200	21.160
Imports	Million Btu/short ton	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports	Million Btu/short ton	26.612	26.716	26.573	26.613	26.561	26.501	26.570	26.404	26.176	26.231	26.300
Coal coke	Million Btu/short ton	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
Crude petroleum[1]												
Production	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Imports	Million Btu/barrel	5.817	5.827	5.821	5.808	5.810	5.802	5.810	5.812	5.818	5.826	5.824
Exports	Million Btu/barrel	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800	5.800
Crude petroleum and products												
Imports	Million Btu/barrel	5.897	5.884	5.858	5.856	5.834	5.839	5.810	5.796	5.775	5.775	5.768
Exports	Million Btu/barrel	5.752	5.774	5.748	5.745	5.797	5.808	5.832	5.820	5.821	5.820	5.800
Petroleum products												
Consumption	Million Btu/barrel	5.515	5.504	5.494	5.504	5.518	5.519	5.494	5.479	5.448	5.415	5.410
Residential and commercial	Million Btu/barrel	5.387	5.377	5.358	5.383	5.389	5.382	5.471	5.468	5.409	5.392	5.361
Industrial	Million Btu/barrel	5.565	5.537	5.527	5.536	5.552	5.546	5.416	5.376	5.310	5.262	5.277
Transportation	Million Btu/barrel	5.397	5.394	5.392	5.396	5.402	5.407	5.430	5.440	5.434	5.423	5.412
Electric utility	Million Btu/barrel	6.245	6.238	6.250	6.251	6.249	6.251	6.258	6.254	6.258	6.258	6.254
Imports	Million Btu/barrel	5.983	5.959	5.935	5.980	5.908	5.955	5.811	5.748	5.659	5.664	5.660
Exports	Million Btu/barrel	5.752	5.773	5.747	5.743	5.796	5.814	5.864	5.841	5.837	5.829	5.800
LPG consumption average[2]	Million Btu/barrel	3.746	3.730	3.715	3.711	3.677	3.669	3.680	3.674	3.643	3.615	3.612
Natural gas plant liquid												
Production	Million Btu/barrel	4.049	4.011	3.984	3.964	3.941	3.925	3.955	3.914	3.930	3.872	3.859
Natural gas, dry												
Production	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021	1,026	1,027	1,028	1,028
Consumption*	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021	1,026	1,027	1,028	1,028
Non-utility consumption	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018	1,024	1,026	1,026	1,026
Electric utility consumption*	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,034	1,034	1,033	1,035	1,035
Imports*	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037	1,022	1,014	1,018	1,018
Exports*	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013	1,013	1,011	1,011	1,011
Wet natural gas production	Btu/cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092	1,098	1,103	1,107	1,107

Approximate Heat Rates for Electricity

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

[1] Includes lease condensate.

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

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

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

‡ Preliminary data.

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

Glossary

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

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

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

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

Butane. A normally gaseous, colorless, paraffinic hydrocarbon (C_4H_{10}) extracted from natural gas and refinery gas streams. Included are isobutane, a branch-chain configuration of $(CH_3)_3CH$ with a boiling point of 10.9° F. and normal butane, a straight-chain configuration of C_4H_{10} with a boiling point of 31.1° F. Butane is used primarily for blending into motor gasoline, for residential and commercial heating, and for industrial uses, especially the manufacture of chemicals and synthetic rubber.

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.

Cooling Degree-Days. The number of degrees per day that the daily average temperature is above 65° F. .The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

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

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

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

Degree-Days. See **Cooling Degree-Days, Heating Degree-Days, Population-Weighted Degree-Days,** and **Degree-Day Normals.**

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

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

Ethane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C_2H_6) with a boiling point of -127.48° F. extracted from natural gas and refinery gas streams. Ethane

is used primarily as petrochemical feedstock for production of chemicals and plastic materials.

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

Heating Degree-Days. The number of degrees per day that the daily average temperature is below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

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

Isobutane. See **Butane.**

Landed Cost of Imported Crude Oil. Includes the purchase price at the foreign port (or U.S. land border), transportation and insurance costs, wharfage and demurrage, brokerage fees, import fees and duties, and license (ticket) fees. Averages are based on major importers, which account for an estimated 90 to 95 percent total crude oil imports. Coverage includes the United States and its territories.

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

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

Line Miles of Seismic Exploration. The distance along the earth's surface that is covered by seismic surveying.

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.

Maximum Dependable Capacity, Net. The deper able main-unit net capacity of nuclear powerpla reactors and generally varies throughout the ye because the unit efficiency varies with seasonal co ing water temperature variations. The maximum c pendable capacity is the highest net dependab output of the turbine generator during the most strictive seasonal conditions (usually summer).

Motor Gasoline. See **Motor Gasoline, Finishe** and **Motor Gasoline, Total.**

Motor Gasoline, Average Retail Selling Price. T average price (including taxes) of sales of mo gasoline to retail customers at service stations.

Motor Gasoline, Finished. A complex mixture relatively volatile hydrocarbons, with or without sm quantities of additives, that have been blended form a fuel suitable for use in spark-ignition engin and conforming to ASTM Specification D439. cluded are finished leaded gasoline, finished unlea ed gasoline, and gasohol. Excludes blendstock u blending has been completed and excludes alcol that is to be used in the blending of gasohol.

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

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

Motor Gasoline, Total. This includes finished lead motor gasoline, finished unleaded motor gasoli motor gasoline blending components, and gasohol.

Natural Gas. A mixture of hydrocarbons and sm quantities of various nonhydrocarbons existing in t gaseous phase or in solution with crude oil in natu reservoirs.

Natural Gas Plant Liquids. Natural gas liquids covered from natural gas processing plants, and some situations, from natural gas field facilities. Na ral gas liquids extracted by fractionators are a included. These liquids are defined according to t published specifications of the ASTM and the G Processors Association and are classified as follo ethane, propane, normal butane, isobutane, pentar plus, and other products from natural gas process plants (i.e., products meeting the standards for ished petroleum products such as finished mo gasoline, finished aviation gasoline, special naphth kerosene, distillate fuel oil, and miscellaneous pr ucts).

Normal Butane. See **Butane.**

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

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

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

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

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

Population-Weighted Degree-Days. 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.

Propane. A normally gaseous, colorless, paraffinic, straight-chain hydrocarbon (C_3H_8) with a boiling point of -43.67° F. It is extracted from natural gas and refinery gas streams. Propane is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks.

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

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

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

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

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

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

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

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

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

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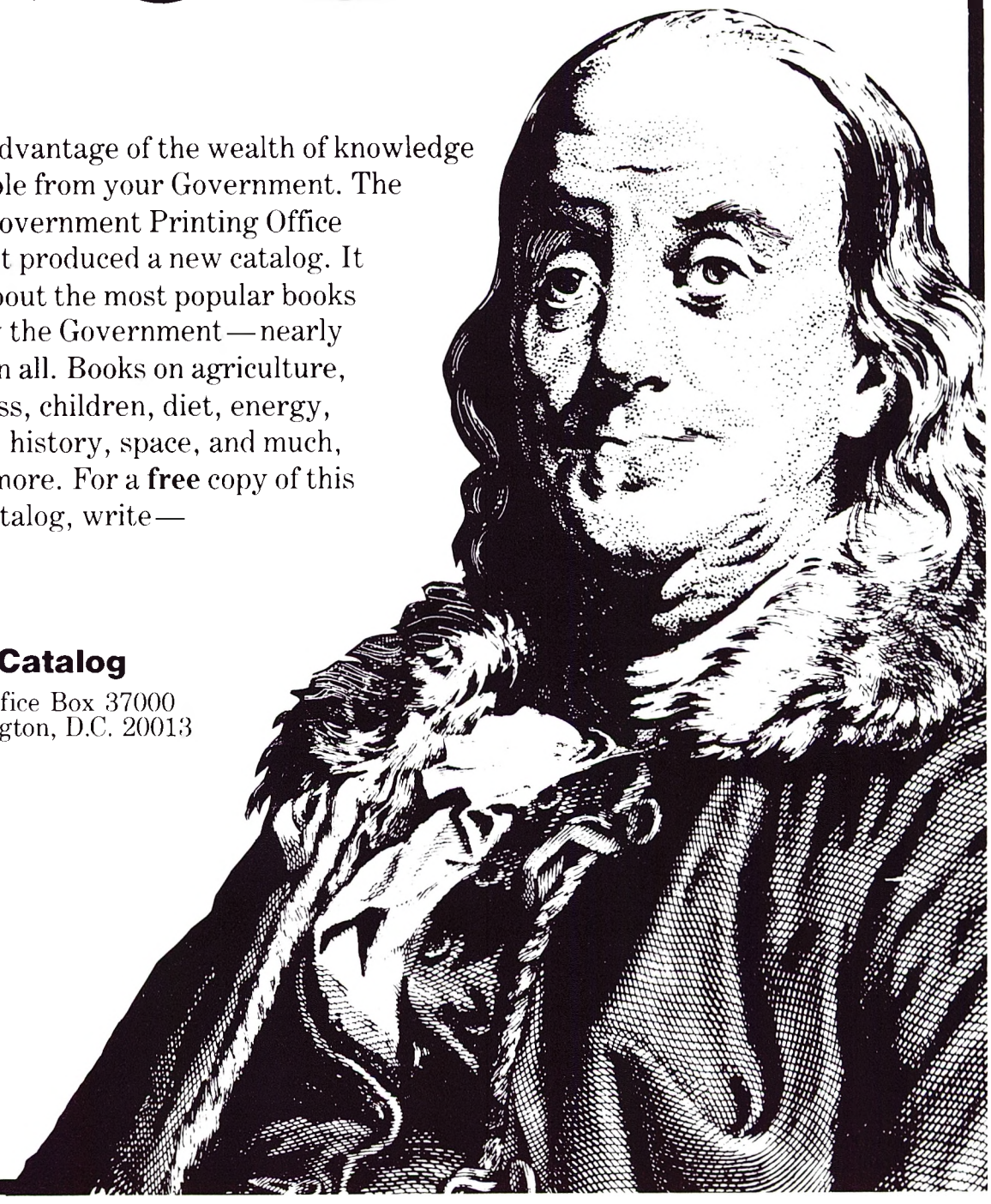

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